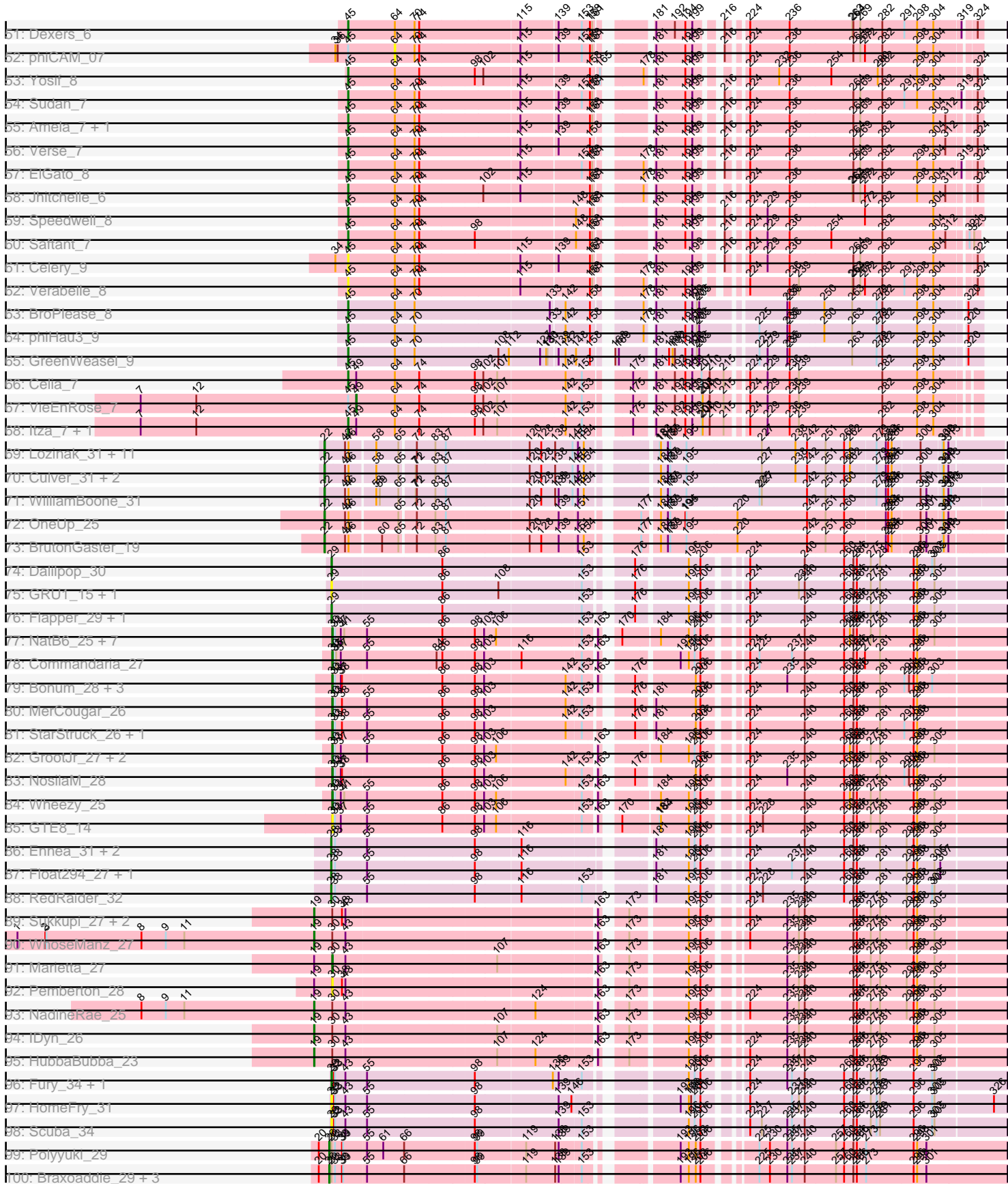




Pham 294343





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r51: SuperGrey_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r52: Minnie_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r53: Juniper1_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r54: Empress_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r55: GigiOutOut_3 + 1	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r56: Grimmer_4	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r57: Maravista_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r58: Pippy_3 + 2	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r59: SeaLumen_3 + 1	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r60: Mantra_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r61: DaddyRickover_3 + 2	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r62: STSI_3 + 1	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r63: Kersh_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r64: Chevrolet_3 + 1	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r65: Maites_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r66: Violac_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r67: Medindi_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r68: Krakatau_4	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r69: MillenniumForce_4	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r70: Jennisea_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r71: Bubbles123_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r72: DoRead_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r73: Cheeseputt_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r74: Jant_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r75: KingJulian_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r76: Nichirin_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r77: Fancypants_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r78: Kamdo_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r79: LastJedi_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r80: ShroomBoi_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r81: Vivum_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r82: ToOuu_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r83: Filuzino_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r84: Cornie_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r85: MulchSalad_3	15	25	35	45	55	65	75	85	90	980	110	121	135	144	166	171	178	189	200	210	214	228	234	240	258	264	278	306			
r86: Okabe_5	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331
r87: ChewyVill_39	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331
r88: PT201_28	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331
r89: Attoomi_4	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331
r90: GAL1_5	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331
r91: Gamma_21	31	41	51	61	71	81	91	101	111	121	131	141	151	161	171	181	191	201	211	221	231	241	251	261	271	281	291	301	311	321	331

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 294343 Report

This analysis was run 04/18/26 on database version 643.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 294343 has 400 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Sujidade\_8, Toma\_7, Dattran\_8, Goby\_7
- Track 2 : TagePhighter\_8, Chucky\_7
- Track 3 : Jash\_8, Eddasa\_8, Rusticus\_8, Izzy\_8, BryanRecycles\_8
- Track 4 : RedBear\_9, South40\_8, Katalie\_8
- Track 5 : Phettuccine\_7, Ozzie\_7, Bovely\_7, Aaronocolus\_7, BeardedLady\_8, Legacy\_7, Unstoppable\_7, Indigo\_7, Hydra\_9, Leviticus\_7, Esperer\_7, Nerdos\_7, SunsetPointe\_7
- Track 6 : Nabi\_7, Rana\_7
- Track 7 : Lika\_7, Godpower\_8
- Track 8 : TuanPN\_7, Yasdnii\_7, Ejemplo\_7
- Track 9 : Triste\_7, Asten\_7, OzzyJ\_8
- Track 10 : Lorelei\_7
- Track 11 : SarahRose\_7, Werner\_7, Whatever\_7, Snorlax\_7, Hippo\_7, Emaanora\_9, BarryBee\_9, Dwayne\_7
- Track 12 : Nanodon\_9
- Track 13 : Maneekul\_7
- Track 14 : Brataylor\_8
- Track 15 : Caliburn\_7
- Track 16 : Lannister\_8
- Track 17 : Oliynyk\_8
- Track 18 : Zemlya\_8, Celeste\_7, Danzina\_8
- Track 19 : EnochSoames\_8
- Track 20 : Tefunt\_7, Nishikigoi\_7
- Track 21 : Alvy\_9
- Track 22 : R4\_7, ELB20\_06
- Track 23 : Pablito\_7
- Track 24 : Zainub\_9
- Track 25 : Axiom\_8
- Track 26 : Marav\_10, Jevington\_9
- Track 27 : Omar\_8
- Track 28 : TinaBelcher\_7, Bowden\_8
- Track 29 : Caelum\_8
- Track 30 : Amethyst\_7

- Track 31 : Paedore\_7, Loofah\_8
- Track 32 : Hank144\_8
- Track 33 : Triumph\_9
- Track 34 : Haizum\_7
- Track 35 : BartholomewSD\_9
- Track 36 : Daudau\_7
- Track 37 : Issmi\_8
- Track 38 : Andris\_7
- Track 39 : Paolo\_9
- Track 40 : Superstar\_9
- Track 41 : TrvxScott\_6
- Track 42 : Puginator\_9
- Track 43 : SqueakyClean\_8, Animus\_8
- Track 44 : Thestral\_8
- Track 45 : Diane\_7
- Track 46 : Janus\_8
- Track 47 : GirlDinner\_7
- Track 48 : Vanseggelen\_10
- Track 49 : Provolone\_8, Kaine\_7, Pavo\_8, Alsaber\_8, Conan\_8
- Track 50 : ZamZam\_7
- Track 51 : Dexers\_6
- Track 52 : phiCAM\_07
- Track 53 : Yosif\_8
- Track 54 : Sudan\_7
- Track 55 : Amela\_7, SunkenRoot\_9
- Track 56 : Verse\_7
- Track 57 : ElGato\_8
- Track 58 : Jhitchelle\_6
- Track 59 : Speedwell\_8
- Track 60 : Saftant\_7
- Track 61 : Celery\_9
- Track 62 : Verabelle\_8
- Track 63 : BroPlease\_8
- Track 64 : phiHau3\_9
- Track 65 : GreenWeasel\_9
- Track 66 : Celia\_7
- Track 67 : VieEnRose\_7
- Track 68 : Itza\_7, Urza\_7
- Track 69 : Lozinak\_31, Bachita\_33, Engineer\_32, Toniann\_31, Smoothie\_32, Norvs\_32, PhinkBoden\_31, Miskis\_29, Geeche\_30, Cucurbita\_33, ClubL\_31, Aphelion\_31
- Track 70 : Culver\_31, Dusty\_30, Abscondus\_30
- Track 71 : WilliamBoone\_31
- Track 72 : OneUp\_25
- Track 73 : BrutonGaster\_19
- Track 74 : Dalilpop\_30
- Track 75 : GRU1\_15, GTE5\_16
- Track 76 : Flapper\_29, Turuncu\_29
- Track 77 : NatB6\_25, Foxboro\_26, Phomeo\_24, Kurt\_25, Tracker\_25, KidneyBean\_25, Jifall16\_24, Emianna\_25
- Track 78 : Commandaria\_27
- Track 79 : Bonum\_28, Buggaboo\_26, SuperSulley\_26, Kabluna\_28
- Track 80 : MerCougar\_26

- Track 81 : StarStruck\_26, Outis\_26
- Track 82 : GrootJr\_27, NovumRegina\_25, Arti\_25
- Track 83 : NosilaM\_28
- Track 84 : Wheezy\_25
- Track 85 : GTE8\_14
- Track 86 : Ennea\_31, Patio\_28, Lollipop1437\_30
- Track 87 : Float294\_27, Skysand\_27
- Track 88 : RedRaider\_32
- Track 89 : Sukkupi\_27, Yndexa\_27, BiPauneto\_28
- Track 90 : WhoseManz\_27
- Track 91 : Marietta\_27
- Track 92 : Pemberton\_28
- Track 93 : NadineRae\_25
- Track 94 : IDyn\_26
- Track 95 : HubbaBubba\_23
- Track 96 : Fury\_34, Pleakley\_34
- Track 97 : HomeFry\_31
- Track 98 : Scuba\_34
- Track 99 : Polyzuki\_29
- Track 100 : Braxoaddie\_29, Maselop\_29, CoffeeBean\_29, Apiary\_29
- Track 101 : Gagieri\_29
- Track 102 : MacGully\_33
- Track 103 : Cardigan\_31
- Track 104 : Yvonnestic\_29
- Track 105 : JonJames\_31
- Track 106 : Daredevil\_13, Towmatter\_12
- Track 107 : DatBoi\_14
- Track 108 : Bantam\_13
- Track 109 : SpeedDemon\_140
- Track 110 : Mollymur\_14
- Track 111 : Kimchi1738\_13
- Track 112 : C3PO\_13
- Track 113 : PotatoChip\_13, PeteyPab\_13, Zion\_13, Cruella\_13
- Track 114 : Stickynote\_15
- Track 115 : Darwin\_16
- Track 116 : Clank\_3
- Track 117 : Rita\_3, Taj\_3, PopTart\_3, Bipolar\_3, MilanaBonita\_4, Mutaforma13\_3, DeadP\_3, Akhila\_4, SassyB\_3
- Track 118 : EmiMonkey\_3, MadMen\_3, PhlipPhlop\_3
- Track 119 : Nimbo\_3, Scottish\_3, KingMidas\_3, ByChance\_3, Zerg\_3, Dorothy\_3, Burwell21\_3, OldBen\_3, Girr\_3, Pacc40\_3, ShowerHandel\_3, Nivrat\_3, PMC\_3, Crumble\_3, Inventum\_3, Sassafras\_3, Topiatin\_5, Deb65\_3, LilMoolah\_3, SwagPiggett\_3, Eradicator\_3, RedBird\_3, FreddyB\_3, Radiance\_3, Blexus\_3, RitaG\_3, OlympiaSaint\_3, ShiLan\_3, Jarcob\_3, Martik\_3, MisterCuddles\_3, Yorick\_3, PHappiness\_3, JoeyJr\_3, Llij\_3, Lizziana\_3, Spoonbill\_3, Geralt\_3, Doomphist\_3, BlueCrab\_3, Daenerys\_3, Rockne\_3, Ruby\_3, Poenanya\_3, Priscilla\_3
- Track 120 : LunaBlu\_3, Latretium\_3, Hlubikazi\_3, NewHope4\_3, Galactic\_3, Mahavrat\_3, Strokeseat\_3, Mandlovu\_3
- Track 121 : Estave1\_3, Che8\_3
- Track 122 : DotProduct\_3, Ovechkin\_3, Guppsters\_3, StAnnes\_3, Batiatus\_3, EleanorGeorge\_3, Aubs\_3, SG4\_3, CaptainTrips\_4, Phasih\_3, KristaRAM\_4, TDanisky\_3, MinionDave\_4, DRBy19\_3, Chuckly\_3, DLane\_3, Whatsapiecost\_3, Hamulus\_3, Emma\_3, Sparkdehlily\_3

- Track 123 : Eish\_3
- Track 124 : BobaPhett\_3, James\_3
- Track 125 : Gandalph\_3
- Track 126 : Seabastian\_3, Modragons\_3, Ochi17\_3, Llama\_3, AlpineSix\_3, OfUltron\_3, Jinglebell\_3
- Track 127 : Wachhund\_3
- Track 128 : Byougenkin\_3
- Track 129 : IrishSherpFalk\_3, Spartacus\_3, Koella\_3, WillSterrel\_3
- Track 130 : Veteran\_3, GUmbie\_3
- Track 131 : Ibhubesi\_3, Harley\_3
- Track 132 : Saal\_3, Gorge\_3, Brocalys\_3
- Track 133 : VRedHorse\_3
- Track 134 : IMpilo\_3
- Track 135 : Mwanjiwa\_3
- Track 136 : Florinda\_3
- Track 137 : Doug\_3
- Track 138 : Sabbb\_3
- Track 139 : Fastidio\_3
- Track 140 : Polka14\_3
- Track 141 : Phanphagia\_3, Shauna1\_3, XFactor\_3, Melissauen88\_3, Ms6\_3, Fruitloop\_3, Royals2015\_3, QuickMath\_3, Firehouse51\_3, PhesterPhotato\_3, Wee\_3, Ardmore\_3
- Track 142 : Hades\_3, Nitzel\_4
- Track 143 : Cabrinians\_3
- Track 144 : Phalconet\_3
- Track 145 : Leperchaun\_3
- Track 146 : Kenuha5\_3
- Track 147 : Corium\_3, PatoPoderoso\_3
- Track 148 : Dante\_3, Donkeykong\_3, DillTech15\_3, Tweety\_3
- Track 149 : Sandalphon\_3
- Track 150 : Zizzle\_3
- Track 151 : SuperGrey\_3
- Track 152 : Minnie\_3
- Track 153 : Juniper1\_3
- Track 154 : Empress\_3
- Track 155 : GigiOuiOui\_3, Moonbeam\_3
- Track 156 : Grimmer\_4
- Track 157 : Maravista\_3
- Track 158 : Pippy\_3, NormanBulbieJr\_3, Clifton\_3
- Track 159 : SeaLumen\_3, Whouxphf\_3
- Track 160 : Mantra\_3
- Track 161 : DaddyRickover\_3, Philus\_3, BodEinwohner17\_3
- Track 162 : SiSi\_3, Phatniss\_3
- Track 163 : Kersh\_3
- Track 164 : Chevrolet\_3, ArcusAngelus\_3
- Track 165 : Mattes\_3
- Track 166 : Violac\_3
- Track 167 : Medindi\_3
- Track 168 : Krakatau\_4
- Track 169 : MilleniumForce\_4
- Track 170 : Jennelsea\_3
- Track 171 : Bubbles123\_3
- Track 172 : DoRead\_3

- Track 173 : CheesePuff\_3
- Track 174 : Jant\_3
- Track 175 : KingJulian\_3
- Track 176 : Nichirin\_3
- Track 177 : Fancypants\_3
- Track 178 : Karhdo\_3
- Track 179 : LastJedi\_3
- Track 180 : ShroomBoi\_3
- Track 181 : Vivum\_3
- Track 182 : IbOuu\_3
- Track 183 : Filuzino\_3
- Track 184 : Cornie\_3
- Track 185 : MulchSalad\_3
- Track 186 : Okabe\_5
- Track 187 : ChewyVIII\_39
- Track 188 : P1201\_28
- Track 189 : Attoomi\_4
- Track 190 : GAL1\_5
- Track 191 : Gallia\_21

***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 45, it was called in 264 of the 364 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aaronocolus\_7, Akhila\_4, AlpineSix\_3, Alsaber\_8, Alvy\_9, Amela\_7, Amethyst\_7, Andris\_7, Animus\_8, ArcusAngelus\_3, Ardmore\_3, Asten\_7, Aubs\_3, Axiom\_8, BarryBee\_9, BartholomewSD\_9, Batiatus\_3, BeardedLady\_8, Bipolar\_3, Blexus\_3, BlueCrab\_3, BobaPhett\_3, Bovely\_7, Bowden\_8, Brataylor\_8, BroPlease\_8, Brocalys\_3, BryanRecycles\_8, Bubbles123\_3, Burwell21\_3, ByChance\_3, Caelum\_8, CaptainTrips\_4, Celery\_9, Celeste\_7, Celia\_7, Che8\_3, CheesePuff\_3, Chevrolet\_3, Chuckly\_3, Chucky\_7, Clifton\_3, Conan\_8, Crumble\_3, DLane\_3, DRBy19\_3, Daenerys\_3, Dante\_3, Danzina\_8, Dattran\_8, Daudau\_7, DeadP\_3, Deb65\_3, Dexers\_6, Diane\_7, DillTech15\_3, DoRead\_3, Donkeykong\_3, Doomphist\_3, Dorothy\_3, DotProduct\_3, Doug\_3, Dwayne\_7, ELB20\_06, Eddasa\_8, Eish\_3, Ejemplo\_7, ElGato\_8, EleanorGeorge\_3, Emaanora\_9, EmiMonkey\_3, Emma\_3, Empress\_3, EnochSoames\_8, Eradicator\_3, Esperer\_7, Estave1\_3, Fancypants\_3, Fastidio\_3, Firehouse51\_3, Florinda\_3, FreddyB\_3, Fruitloop\_3, GUmble\_3, Galactic\_3, Geralt\_3, GigiOuiOui\_3, GirlDinner\_7, Girr\_3, Goby\_7, Godpower\_8, Gorge\_3, GreenWeasel\_9, Guppsters\_3, Hades\_3, Haizum\_7, Hamulus\_3, Hank144\_8, Harley\_3, Hippo\_7, Hlubikazi\_3, Hydra\_9, IbOuu\_3, Ibhubesl\_3, Indigo\_7, Invention\_3, IrishSherpFalk\_3, Issmi\_8, Itza\_7, Izzy\_8, James\_3, Janus\_8, Jarcob\_3, Jash\_8, Jevington\_9, Jhitchelle\_6, Jinglebell\_3, JoeyJr\_3, Kaine\_7, Karhdo\_3, Katalie\_8, Kenuha5\_3, Kersh\_3, KingJulian\_3, KingMidas\_3, Koella\_3, KristaRAM\_4, Lannister\_8, LastJedi\_3, Latretium\_3, Legacy\_7, Leperchaun\_3, Leviticus\_7, Lika\_7, LilMoolah\_3, Lizziana\_3, Llama\_3, Llij\_3, Loofah\_8, LunaBlu\_3, MadMen\_3, Mahavrat\_3, Mandlovu\_3, Marav\_10, Maravista\_3, Martik\_3, Melissauren88\_3, MilanaBonita\_4, MilleniumForce\_4, MinionDave\_4, MisterCuddles\_3, Modragons\_3, Moonbeam\_3, Ms6\_3, Mutaforma13\_3, Nabi\_7,

Nanodon\_9, Nerdos\_7, NewHope4\_3, Nimbo\_3, Nishikigoi\_7, Nitzel\_4, Nivrat\_3, NormanBulbieJr\_3, Ochi17\_3, OfUltron\_3, OldBen\_3, OlympiaSaint\_3, Omar\_8, Ovechkin\_3, Ozzie\_7, OzzyJ\_8, PHappiness\_3, PMC\_3, Pablito\_7, Pacc40\_3, Paedore\_7, Paolo\_9, Pavo\_8, Phalconet\_3, Phanphagia\_3, Phasih\_3, Phatniss\_3, PhesterPhotato\_3, Phettuccine\_7, PhlipPhlop\_3, Pippy\_3, Poenanya\_3, Polka14\_3, PopTart\_3, Priscilla\_3, Provolone\_8, Puginator\_9, QuickMath\_3, R4\_7, Radiance\_3, Rana\_7, RedBear\_9, RedBird\_3, RitaG\_3, Rita\_3, Rockne\_3, Royals2015\_3, Ruby\_3, Rusticus\_8, SG4\_3, Saal\_3, Sabbb\_3, Saftant\_7, Sandalphon\_3, SarahRose\_7, Sassafras\_3, SassyB\_3, Scottish\_3, Seabastian\_3, Shauna1\_3, ShiLan\_3, ShowerHandel\_3, ShroomBoi\_3, SiSi\_3, Snorlax\_7, South40\_8, Sparkdehlily\_3, Spartacus\_3, Speedwell\_8, Spoonbill\_3, SqueakyClean\_8, StAnnes\_3, Strokeseat\_3, Sudan\_7, Sujidade\_8, SunkenRoot\_9, SunsetPointe\_7, SuperGrey\_3, Superstar\_9, SwagPiggett\_3, TDanisky\_3, TagePhighter\_8, Taj\_3, Tefunt\_7, Thestral\_8, TinaBelcher\_7, Toma\_7, Topiatin\_5, Triste\_7, Triumph\_9, TrvxScott\_6, TuanPN\_7, Tweety\_3, Unstoppable\_7, Urza\_7, VRedHorse\_3, Vanseggelen\_10, Verabelle\_8, Verse\_7, Veteran\_3, Violac\_3, Vivum\_3, Wachhund\_3, Wee\_3, Werner\_7, Whatever\_7, Whatsapiecost\_3, WillSterrel\_3, XFactor\_3, Yasdnil\_7, Yorick\_3, Yosif\_8, Zainub\_9, ZamZam\_7, Zemlya\_8, Zerg\_3, Zizzle\_3, phiHau3\_9,

Genes that have the "Most Annotated" start but do not call it:

- BodEinwohner17\_3, Byougenkin\_3, Cabrinians\_3, Caliburn\_7, Clank\_3, Corium\_3, DaddyRickover\_3, Filuzino\_3, Gandalph\_3, Grimmer\_4, IMpilo\_3, Jant\_3, Jennelsea\_3, Juniper1\_3, Krakatau\_4, Lorelei\_7, Maneekul\_7, Mantra\_3, Mattes\_3, Medindi\_3, Minnie\_3, MulchSalad\_3, Mwanjiwa\_3, Nichirin\_3, Okabe\_5, Oliynyk\_8, PatoPoderoso\_3, Philus\_3, SeaLumen\_3, VieEnRose\_7, Whouxphf\_3, phiCAM\_07,

Genes that do not have the "Most Annotated" start:

- Abscondus\_30, Aphelion\_31, Apiary\_29, Arti\_25, Attoomi\_4, Bachita\_33, Bantam\_13, BiPauneto\_28, Bonum\_28, Braxoaddie\_29, BrutonGaster\_19, Buggaboo\_26, C3PO\_13, Cardigan\_31, ChewyVIII\_39, ClubL\_31, CoffeeBean\_29, Commandaria\_27, Cornie\_3, Cruella\_13, Cucurbita\_33, Culver\_31, Dalilpop\_30, Daredevil\_13, Darwin\_16, DatBoi\_14, Dusty\_30, Emianna\_25, Engineer\_32, Ennea\_31, Flapper\_29, Float294\_27, Foxboro\_26, Fury\_34, GAL1\_5, GRU1\_15, GTE5\_16, GTE8\_14, Gagieri\_29, Gallia\_21, Geeche\_30, GrootJr\_27, HomeFry\_31, HubbaBubba\_23, IDyn\_26, Jifall16\_24, JonJames\_31, Kabluna\_28, KidneyBean\_25, Kimchi1738\_13, Kurt\_25, Lollipop1437\_30, Lozinak\_31, MacGully\_33, Marietta\_27, Maselop\_29, MerCougar\_26, Miskis\_29, Mollymur\_14, NadineRae\_25, NatB6\_25, Norvs\_32, NosilaM\_28, NovumRegina\_25, OneUp\_25, Outis\_26, P1201\_28, Patio\_28, Pemberton\_28, PeteyPab\_13, PhinkBoden\_31, Phomeo\_24, Pleakley\_34, Polyyuki\_29, PotatoChip\_13, RedRaider\_32, Scuba\_34, Skysand\_27, Smoothie\_32, SpeedDemon\_140, StarStruck\_26, Stickynote\_15, Sukkupi\_27, SuperSulley\_26, Toniann\_31, Towmatter\_12, Tracker\_25, Turuncu\_29, Wheezy\_25, WhoseManz\_27, WilliamBoone\_31, Yndexa\_27, Yvonnestic\_29, Zion\_13,

### Summary by start number:

Start 19:

- Found in 9 of 400 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 7 of 364
- Called 77.8% of time when present
- Phage (with cluster) where this start called: BiPauneto\_28 (CR4), HubbaBubba\_23 (CR4), IDyn\_26 (CR4), NadineRae\_25 (CR4), Sukkupi\_27 (CR4), WhoseManz\_27

(CR4), Yndexa\_27 (CR4),

Start 22:

- Found in 27 of 400 ( 6.8% ) of genes in pham
- Manual Annotations of this start: 25 of 364
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus\_30 (CQ1), Aphelion\_31 (CQ1), Bachita\_33 (CQ1), Bantam\_13 (DL), BrutonGaster\_19 (CQ2), Cardigan\_31 (DD), ClubL\_31 (CQ1), Cucurbita\_33 (CQ1), Culver\_31 (CQ1), Daredevil\_13 (DL), DatBoi\_14 (DL), Dusty\_30 (CQ1), Engineer\_32 (CQ1), Geeche\_30 (CQ1), JonJames\_31 (DD), Lozinak\_31 (CQ1), Miskis\_29 (CQ1), Mollymur\_14 (DL), Norvs\_32 (CQ1), OneUp\_25 (CQ2), PhinkBoden\_31 (CQ1), Smoothie\_32 (CQ1), SpeedDemon\_140 (DL), Toniann\_31 (CQ1), Towmatter\_12 (DL), WilliamBoone\_31 (CQ1), Yvonnetastic\_29 (DD),

Start 23:

- Found in 1 of 400 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 364
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie\_3 (F5),

Start 24:

- Found in 1 of 400 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GAL1\_5 (singleton),

Start 26:

- Found in 6 of 400 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 6 of 364
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apiary\_29 (CR6), Braxoaddie\_29 (CR6), CoffeeBean\_29 (CR6), Gagieri\_29 (CR6), Maselop\_29 (CR6), Polyuyuki\_29 (CR6),

Start 27:

- Found in 8 of 400 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 2 of 364
- Called 25.0% of time when present
- Phage (with cluster) where this start called: C3PO\_13 (EN), Darwin\_16 (EN),

Start 28:

- Found in 6 of 400 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 6 of 364
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ennea\_31 (CR3), Float294\_27 (CR3), Lollipop1437\_30 (CR3), Patio\_28 (CR3), RedRaider\_32 (CR3), Skysand\_27 (CR3),

Start 29:

- Found in 16 of 400 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 6 of 364
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Dalilpop\_30 (CR1), Flapper\_29 (CR1), Fury\_34 (CR5), GRU1\_15 (CR1), GTE5\_16 (CR1), HomeFry\_31 (CR5), MacGully\_33

(CR7), Pleakley\_34 (CR5), Scuba\_34 (CR5), Turuncu\_29 (CR1),

Start 30:

- Found in 32 of 400 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 23 of 364
- Called 78.1% of time when present
- Phage (with cluster) where this start called: Arti\_25 (CR2), Bonum\_28 (CR2), Buggaboo\_26 (CR2), ChewyVIII\_39 (singleton), Commandaria\_27 (CR2), Emianna\_25 (CR2), Foxboro\_26 (CR2), GTE8\_14 (CR2), GrootJr\_27 (CR2), Jifall16\_24 (CR2), Kabluna\_28 (CR2), KidneyBean\_25 (CR2), Kurt\_25 (CR2), Marietta\_27 (CR4), MerCougar\_26 (CR2), NatB6\_25 (CR2), NosilaM\_28 (CR2), NovumRegina\_25 (CR2), Outis\_26 (CR2), Pemberton\_28 (CR4), Phomeo\_24 (CR2), StarStruck\_26 (CR2), SuperSulley\_26 (CR2), Tracker\_25 (CR2), Wheezy\_25 (CR2),

Start 31:

- Found in 2 of 400 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gallia\_21 (singleton), P1201\_28 (singleton),

Start 35:

- Found in 9 of 400 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 6 of 364
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Cruella\_13 (EN), Kimchi1738\_13 (EN), PeteyPab\_13 (EN), PotatoChip\_13 (EN), StickyNote\_15 (EN), Zion\_13 (EN),

Start 42:

- Found in 80 of 400 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 4 of 364
- Called 5.0% of time when present
- Phage (with cluster) where this start called: Caliburn\_7 (BD1), Lorelei\_7 (BD1), Maneekul\_7 (BD1), Oliynyk\_8 (BD1),

Start 44:

- Found in 1 of 400 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 364
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Attoomi\_4 (singleton),

Start 45:

- Found in 306 of 400 ( 76.5% ) of genes in pham
- Manual Annotations of this start: 264 of 364
- Called 89.5% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_7 (BD1), Akhila\_4 (F1), AlpineSix\_3 (F1), Alsaber\_8 (BD3), Alvy\_9 (BD2), Amela\_7 (BD3), Amethyst\_7 (BD2), Andris\_7 (BD2), Animus\_8 (BD2), ArcusAngelus\_3 (F1), Ardmore\_3 (F1), Asten\_7 (BD1), Aubs\_3 (F1), Axiom\_8 (BD2), BarryBee\_9 (BD1), BartholomewSD\_9 (BD2), Batiatus\_3 (F1), BeardedLady\_8 (BD1), Bipolar\_3 (F1), Blexus\_3 (F1), BlueCrab\_3 (F1), BobaPhett\_3 (F1), Bovely\_7 (BD1), Bowden\_8 (BD2), Brataylor\_8 (BD1), BroPlease\_8 (BD4), Brocalys\_3 (F1), BryanRecycles\_8 (BD1), Bubbles123\_3 (F1), Burwell21\_3 (F1), ByChance\_3 (F1), Caelum\_8 (BD2), CaptainTrips\_4 (F1),

Celery\_9 (BD3), Celeste\_7 (BD1), Celia\_7 (BD6), Che8\_3 (F1), Cheesepuff\_3 (F1), Chevrolet\_3 (F1), Chuckly\_3 (F1), Chucky\_7 (BD1), Clifton\_3 (F1), Conan\_8 (BD3), Crumble\_3 (F1), DLane\_3 (F1), DRBy19\_3 (F1), Daenerys\_3 (F1), Dante\_3 (F1), Danzina\_8 (BD1), Dattran\_8 (BD1), Daudau\_7 (BD2), DeadP\_3 (F1), Deb65\_3 (F1), Dexers\_6 (BD3), Diane\_7 (BD2), DillTech15\_3 (F1), DoRead\_3 (F1), Donkeykong\_3 (F1), Doomphist\_3 (F1), Dorothy\_3 (F1), DotProduct\_3 (F1), Doug\_3 (F1), Dwayne\_7 (BD1), ELB20\_06 (BD2), Eddasa\_8 (BD1), Eish\_3 (F1), Ejemplo\_7 (BD1), ElGato\_8 (BD3), EleanorGeorge\_3 (F1), Emaanora\_9 (BD1), EmiMonkey\_3 (F1), Emma\_3 (F1), Empress\_3 (F1), EnochSoames\_8 (BD1), Eradicator\_3 (F1), Esperer\_7 (BD1), Estave1\_3 (F1), Fancypants\_3 (F1), Fastidio\_3 (F1), Firehouse51\_3 (F1), Florinda\_3 (F1), FreddyB\_3 (F1), Fruitloop\_3 (F1), GUmble\_3 (F1), Galactic\_3 (F1), Geralt\_3 (F1), GigiOuiOui\_3 (F1), GirlDinner\_7 (BD2), Girr\_3 (F1), Goby\_7 (BD1), Godpower\_8 (BD1), Gorge\_3 (F1), GreenWeasel\_9 (BD4), Guppsters\_3 (F1), Hades\_3 (F1), Haizum\_7 (BD2), Hamulus\_3 (F1), Hank144\_8 (BD2), Harley\_3 (F1), Hippo\_7 (BD1), Hlubikazi\_3 (F1), Hydra\_9 (BD1), IbOuu\_3 (F1), Ibhubesi\_3 (F1), Indigo\_7 (BD1), Inventum\_3 (F1), IrishSherpFalk\_3 (F1), Issmi\_8 (BD2), Itza\_7 (BD6), Izzy\_8 (BD1), James\_3 (F1), Janus\_8 (BD2), Jarcob\_3 (F1), Jash\_8 (BD1), Jevington\_9 (BD2), Jhitchelle\_6 (BD3), Jinglebell\_3 (F1), JoeyJr\_3 (F1), Kaine\_7 (BD3), Karhdo\_3 (F1), Katalie\_8 (BD1), Kenuha5\_3 (F1), Kersh\_3 (F1), KingJulian\_3 (F1), KingMidas\_3 (F1), Koella\_3 (F1), KristaRAM\_4 (F1), Lannister\_8 (BD1), LastJedi\_3 (F1), Latretium\_3 (F1), Legacy\_7 (BD1), Leperchaun\_3 (F1), Leviticus\_7 (BD1), Lika\_7 (BD1), LilMoolah\_3 (F1), Lizziana\_3 (F1), Llama\_3 (F1), Llij\_3 (F1), Loofah\_8 (BD2), LunaBlu\_3 (F1), MadMen\_3 (F1), Mahavrat\_3 (F1), Mandlovu\_3 (F1), Marav\_10 (BD2), Maravista\_3 (F1), Martik\_3 (F1), Melissauren88\_3 (F1), MilanaBonita\_4 (F1), MilleniumForce\_4 (F1), MinionDave\_4 (F1), MisterCuddles\_3 (F1), Modragons\_3 (F1), Moonbeam\_3 (F1), Ms6\_3 (F1), Mutaforma13\_3 (F1), Nabi\_7 (BD1), Nanodon\_9 (BD1), Nerdos\_7 (BD1), NewHope4\_3 (F1), Nimbo\_3 (F1), Nishikigoi\_7 (BD2), Nitzel\_4 (F1), Nivrat\_3 (F1), NormanBulbieJr\_3 (F1), Ochi17\_3 (F1), OfUltron\_3 (F1), OldBen\_3 (F1), OlympiaSaint\_3 (F1), Omar\_8 (BD2), Ovechkin\_3 (F1), Ozzie\_7 (BD1), OzzyJ\_8 (BD1), PHappiness\_3 (F1), PMC\_3 (F1), Pablito\_7 (BD2), Pacc40\_3 (F1), Paedore\_7 (BD2), Paolo\_9 (BD2), Pavo\_8 (BD3), Phalconet\_3 (F1), Phanphagia\_3 (F1), Phasih\_3 (F1), Phatniss\_3 (F1), PhesterPhotato\_3 (F1), Phettuccine\_7 (BD1), PhilipPhlop\_3 (F1), Pippy\_3 (F1), Poenanya\_3 (F1), Polka14\_3 (F1), PopTart\_3 (F1), Priscilla\_3 (F1), Provolone\_8 (BD3), Puginator\_9 (BD2), QuickMath\_3 (F1), R4\_7 (BD2), Radiance\_3 (F1), Rana\_7 (BD1), RedBear\_9 (BD1), RedBird\_3 (F1), RitaG\_3 (F1), Rita\_3 (F1), Rockne\_3 (F1), Royals2015\_3 (F1), Ruby\_3 (F1), Rusticus\_8 (BD1), SG4\_3 (F1), Saal\_3 (F1), Sabb\_3 (F1), Saftant\_7 (BD3), Sandalphon\_3 (F1), SarahRose\_7 (BD1), Sassafras\_3 (F1), SassyB\_3 (F1), Scottish\_3 (F1), Seabastian\_3 (F1), Shauna1\_3 (F1), ShiLan\_3 (F1), ShowerHandel\_3 (F1), ShroomBoi\_3 (F1), SiSi\_3 (F1), Snorlax\_7 (BD1), South40\_8 (BD1), Sparkdehlily\_3 (F1), Spartacus\_3 (F1), Speedwell\_8 (BD3), Spoonbill\_3 (F1), SqueakyClean\_8 (BD2), StAnnes\_3 (F1), Strokeseat\_3 (F1), Sudan\_7 (BD3), Sujidade\_8 (BD1), SunkenRoot\_9 (BD3), SunsetPointe\_7 (BD1), SuperGrey\_3 (F1), Superstar\_9 (BD2), SwagPiggett\_3 (F1), TDanisky\_3 (F1), TagePhighter\_8 (BD1), Taj\_3 (F1), Tefunt\_7 (BD2), Thestral\_8 (BD2), TinaBelcher\_7 (BD2), Toma\_7 (BD1), Topiatin\_5 (F1), Triste\_7 (BD1), Triumph\_9 (BD2), TrvxScott\_6 (BD2), TuanPN\_7 (BD1), Tweety\_3 (F1), Unstoppable\_7 (BD1), Urza\_7 (BD6), VRedHorse\_3 (F1), Vanseggelen\_10 (BD3), Verabelle\_8 (BD3), Verse\_7 (BD3), Veteran\_3 (F1), Violac\_3 (F1), Vivum\_3 (F1), Wachhund\_3 (F1), Wee\_3 (F1), Werner\_7 (BD1), Whatever\_7 (BD1), Whatsapiecost\_3 (F1), WillSterrel\_3 (F1), XFactor\_3 (F1), Yasdnil\_7 (BD1), Yorick\_3 (F1), Yosif\_8 (BD3), Zainub\_9 (BD2), ZamZam\_7 (BD3), Zemlya\_8 (BD1), Zerg\_3 (F1), Zizzle\_3 (F1), phiHau3\_9 (BD4),

Start 49:

- Found in 4 of 400 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 364
- Called 25.0% of time when present
- Phage (with cluster) where this start called: VieEnRose\_7 (BD6),

Start 53:

- Found in 35 of 400 ( 8.8% ) of genes in pham
- Manual Annotations of this start: 2 of 364
- Called 17.1% of time when present
- Phage (with cluster) where this start called: Byougenkin\_3 (F1), Grimmer\_4 (F1), Mwanjiwa\_3 (F1), Nichirin\_3 (F1), SeaLumen\_3 (F1), Whouxphf\_3 (F1),

Start 54:

- Found in 154 of 400 ( 38.5% ) of genes in pham
- Manual Annotations of this start: 9 of 364
- Called 11.0% of time when present
- Phage (with cluster) where this start called: BodEinwohner17\_3 (F1), Cabrinians\_3 (F1), Corium\_3 (F1), DaddyRickover\_3 (F1), Filuzino\_3 (F1), Gandalph\_3 (F1), IMpilo\_3 (F1), Jant\_3 (F1), Juniper1\_3 (F1), Krakatau\_4 (F1), Mattes\_3 (F1), Medindi\_3 (F1), Minnie\_3 (F1), MulchSalad\_3 (F7), Okabe\_5 (F8), PatoPoderoso\_3 (F1), Philus\_3 (F1),

Start 58:

- Found in 205 of 400 ( 51.2% ) of genes in pham
- Manual Annotations of this start: 1 of 364
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Clank\_3 (F), Jennelsea\_3 (F1), Mantra\_3 (F1),

Start 64:

- Found in 123 of 400 ( 30.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.8% of time when present
- Phage (with cluster) where this start called: phiCAM\_07 (BD3),

**Summary by clusters:**

There are 23 clusters represented in this pham: DL, DD, singleton, BD4, BD6, BD1, BD3, BD2, CQ2, CQ1, EN, F, CR3, CR7, CR2, F1, CR1, CR6, F5, CR4, F7, F8, CR5,

Info for manual annotations of cluster BD1:

- Start number 42 was manually annotated 4 times for cluster BD1.
- Start number 45 was manually annotated 51 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 45 was manually annotated 33 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 45 was manually annotated 15 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 45 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 45 was manually annotated 3 times for cluster BD6.
- Start number 49 was manually annotated 1 time for cluster BD6.

Info for manual annotations of cluster CQ1:

- Start number 22 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 22 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CR1:

- Start number 29 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 30 was manually annotated 21 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 28 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 19 was manually annotated 7 times for cluster CR4.
- Start number 30 was manually annotated 1 time for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 29 was manually annotated 2 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 26 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 29 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster DD:

- Start number 22 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DL:

- Start number 22 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster EN:

- Start number 27 was manually annotated 2 times for cluster EN.
- Start number 35 was manually annotated 6 times for cluster EN.

Info for manual annotations of cluster F1:

- Start number 45 was manually annotated 159 times for cluster F1.
- Start number 53 was manually annotated 2 times for cluster F1.
- Start number 54 was manually annotated 9 times for cluster F1.
- Start number 58 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F5:

- Start number 23 was manually annotated 1 time for cluster F5.

**Gene Information:**

Gene: Aaronocolus\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Aaronocolus\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Abscondus\_30 Start: 10194, Stop: 11810, Start Num: 22

Candidate Starts for Abscondus\_30:

(Start: 22 @10194 has 25 MA's), (Start: 42 @10245 has 4 MA's), (46, 10254), (Start: 58 @10314 has 1 MA's), (65, 10371), (71, 10404), (72, 10407), (83, 10452), (87, 10479), (120, 10683), (128, 10713), (138, 10749), (147, 10794), (151, 10803), (154, 10818), (184, 10959), (187, 10977), (189, 10983), (195, 11025), (227, 11217), (238, 11304), (242, 11334), (251, 11379), (260, 11427), (262, 11442), (279, 11505), (283, 11529), (284, 11535), (286, 11544), (300, 11613), (309, 11664), (310, 11667), (313, 11679),

Gene: Akhila\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for Akhila\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (244, 3893), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: AlpineSix\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for AlpineSix\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Alsaber\_8 Start: 4192, Stop: 5625, Start Num: 45

Candidate Starts for Alsaber\_8:

(Start: 45 @4192 has 264 MA's), (64, 4309), (70, 4357), (74, 4369), (115, 4612), (139, 4699), (153, 4759), (158, 4777), (161, 4783), (181, 4882), (194, 4957), (199, 4975), (216, 5014), (224, 5050), (236, 5152), (264, 5314), (269, 5332), (282, 5389), (298, 5479), (304, 5521), (319, 5587), (324, 5611),

Gene: Alvy\_9 Start: 4026, Stop: 5492, Start Num: 45

Candidate Starts for Alvy\_9:

(Start: 45 @4026 has 264 MA's), (64, 4137), (70, 4185), (74, 4197), (82, 4236), (98, 4326), (130, 4497), (131, 4500), (139, 4521), (142, 4539), (148, 4566), (178, 4692), (181, 4704), (194, 4779), (199, 4797), (205, 4815), (208, 4824), (221, 4905), (229, 4962), (235, 5013), (236, 5019), (269, 5199), (282, 5256), (298, 5346), (300, 5355), (320, 5460), (324, 5478),

Gene: Amela\_7 Start: 4252, Stop: 5685, Start Num: 45

Candidate Starts for Amela\_7:

(Start: 45 @4252 has 264 MA's), (64, 4369), (70, 4417), (74, 4429), (115, 4672), (139, 4759), (158, 4837), (161, 4843), (181, 4942), (194, 5017), (199, 5035), (216, 5074), (224, 5110), (236, 5212), (264, 5374), (269, 5392), (282, 5449), (304, 5581), (312, 5611), (324, 5671),

Gene: Amethyst\_7 Start: 3826, Stop: 5301, Start Num: 45

Candidate Starts for Amethyst\_7:

(Start: 45 @3826 has 264 MA's), (51, 3856), (64, 3943), (82, 4042), (98, 4135), (158, 4408), (181, 4513), (199, 4606), (203, 4618), (205, 4624), (229, 4771), (235, 4822), (236, 4828), (269, 5008), (282, 5065), (298, 5155), (300, 5164), (324, 5287),

Gene: Andris\_7 Start: 3857, Stop: 5341, Start Num: 45

Candidate Starts for Andris\_7:

(Start: 45 @3857 has 264 MA's), (64, 3974), (74, 4034), (75, 4040), (82, 4073), (98, 4166), (102, 4187), (114, 4265), (131, 4340), (142, 4379), (158, 4439), (181, 4544), (194, 4619), (199, 4637), (203, 4649), (205, 4655), (207, 4661), (235, 4853), (236, 4859), (263, 5018), (282, 5096), (298, 5186), (300, 5195), (304, 5228), (324, 5327),

Gene: Animus\_8 Start: 4204, Stop: 5691, Start Num: 45

Candidate Starts for Animus\_8:

(Start: 45 @4204 has 264 MA's), (64, 4321), (82, 4420), (91, 4474), (98, 4513), (142, 4726), (181, 4894), (194, 4969), (196, 4978), (199, 4987), (205, 5005), (207, 5011), (229, 5152), (235, 5203), (236, 5209), (282, 5446), (300, 5545), (304, 5578), (324, 5677),

Gene: Aphelion\_31 Start: 10441, Stop: 12057, Start Num: 22

Candidate Starts for Aphelion\_31:

(Start: 22 @10441 has 25 MA's), (Start: 42 @10492 has 4 MA's), (46, 10501), (Start: 58 @10561 has 1 MA's), (65, 10618), (72, 10654), (83, 10699), (87, 10726), (120, 10930), (128, 10960), (138, 10996), (147, 11041), (151, 11050), (154, 11065), (183, 11203), (184, 11206), (187, 11224), (189, 11230), (195, 11272), (227, 11464), (238, 11551), (242, 11581), (251, 11626), (260, 11674), (262, 11689), (279, 11752), (283, 11776), (284, 11782), (286, 11791), (300, 11860), (309, 11911), (310, 11914), (313, 11926),

Gene: Apiary\_29 Start: 15865, Stop: 17454, Start Num: 26

Candidate Starts for Apiary\_29:

(20, 15838), (Start: 26 @15865 has 6 MA's), (Start: 29 @15871 has 6 MA's), (33, 15880), (38, 15898), (39, 15901), (55, 15958), (66, 16051), (98, 16225), (99, 16231), (119, 16351), (138, 16426), (139, 16435), (153, 16483), (193, 16663), (196, 16684), (202, 16702), (206, 16714), (225, 16819), (230, 16846), (235, 16891), (237, 16903), (240, 16936), (257, 17014), (260, 17035), (264, 17059), (266, 17068), (273, 17092), (296, 17212), (298, 17221), (301, 17245),

Gene: ArcusAngelus\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for ArcusAngelus\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (78, 2421), (79, 2424), (80, 2427), (90, 2496), (92, 2502), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (126, 2673), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (276, 3387), (278, 3393), (283, 3417), (309, 3561), (316, 3579),

Gene: Ardmore\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Ardmore\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Arti\_25 Start: 13883, Stop: 15472, Start Num: 30

Candidate Starts for Arti\_25:

(Start: 30 @13883 has 23 MA's), (33, 13889), (37, 13904), (55, 13967), (86, 14159), (98, 14237), (103, 14261), (106, 14291), (163, 14522), (184, 14639), (196, 14711), (201, 14726), (206, 14741), (224, 14822), (240, 14963), (260, 15062), (262, 15077), (264, 15086), (266, 15095), (275, 15131), (281, 15155), (296, 15239), (298, 15248), (305, 15293),

Gene: Asten\_7 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Asten\_7:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: Attoomi\_4 Start: 2521, Stop: 3972, Start Num: 44

Candidate Starts for Attoomi\_4:

(Start: 44 @2521 has 1 MA's), (48, 2545), (70, 2692), (73, 2701), (77, 2716), (81, 2737), (82, 2743), (98, 2848), (107, 2905), (114, 2956), (117, 2971), (126, 3013), (130, 3028), (133, 3037), (150, 3103), (152, 3106), (161, 3133), (178, 3220), (180, 3223), (181, 3232), (186, 3253), (188, 3265), (199, 3325), (217, 3370), (226, 3430), (232, 3478), (238, 3520), (241, 3547), (246, 3559), (247, 3568), (249, 3592), (253, 3607), (254, 3613), (257, 3625), (268, 3685), (271, 3697), (290, 3790), (295, 3814), (300, 3835), (301, 3850), (304, 3868), (312, 3898), (314, 3910), (318, 3922),

Gene: Aubs\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Aubs\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Axiom\_8 Start: 3866, Stop: 5350, Start Num: 45

Candidate Starts for Axiom\_8:

(Start: 45 @3866 has 264 MA's), (64, 3983), (70, 4031), (74, 4043), (98, 4175), (131, 4349), (142, 4388), (158, 4448), (177, 4535), (178, 4541), (181, 4553), (199, 4646), (203, 4658), (205, 4664), (229, 4811), (235, 4862), (236, 4868), (282, 5105), (300, 5204), (304, 5237), (314, 5279), (324, 5336),

Gene: Bachita\_33 Start: 10874, Stop: 12490, Start Num: 22

Candidate Starts for Bachita\_33:

(Start: 22 @10874 has 25 MA's), (Start: 42 @10925 has 4 MA's), (46, 10934), (Start: 58 @10994 has 1 MA's), (65, 11051), (72, 11087), (83, 11132), (87, 11159), (120, 11363), (128, 11393), (138, 11429), (147, 11474), (151, 11483), (154, 11498), (183, 11636), (184, 11639), (187, 11657), (189, 11663), (195, 11705), (227, 11897), (238, 11984), (242, 12014), (251, 12059), (260, 12107), (262, 12122),

(279, 12185), (283, 12209), (284, 12215), (286, 12224), (300, 12293), (309, 12344), (310, 12347), (313, 12359),

Gene: Bantam\_13 Start: 7834, Stop: 9393, Start Num: 22

Candidate Starts for Bantam\_13:

(Start: 22 @7834 has 25 MA's), (72, 8050), (83, 8095), (100, 8200), (120, 8299), (121, 8302), (128, 8329), (143, 8398), (177, 8533), (183, 8566), (184, 8569), (189, 8593), (220, 8764), (229, 8839), (237, 8902), (242, 8941), (252, 8989), (257, 9013), (269, 9076), (285, 9148), (287, 9163), (300, 9220), (306, 9259), (309, 9271), (310, 9274), (314, 9289), (317, 9298),

Gene: BarryBee\_9 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for BarryBee\_9:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: BartholomewSD\_9 Start: 4026, Stop: 5492, Start Num: 45

Candidate Starts for BartholomewSD\_9:

(Start: 45 @4026 has 264 MA's), (64, 4137), (70, 4185), (74, 4197), (82, 4236), (98, 4326), (130, 4497), (131, 4500), (139, 4521), (142, 4539), (148, 4566), (178, 4692), (181, 4704), (194, 4779), (199, 4797), (205, 4815), (208, 4824), (221, 4905), (229, 4962), (235, 5013), (236, 5019), (245, 5070), (269, 5199), (282, 5256), (298, 5346), (300, 5355), (320, 5460), (324, 5478),

Gene: Batiatus\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Batiatus\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: BeardedLady\_8 Start: 4328, Stop: 5770, Start Num: 45

Candidate Starts for BeardedLady\_8:

(40, 4319), (Start: 42 @4322 has 4 MA's), (Start: 45 @4328 has 264 MA's), (64, 4445), (70, 4493), (130, 4811), (142, 4853), (148, 4880), (156, 4913), (178, 5006), (181, 5018), (199, 5111), (224, 5189), (229, 5234), (236, 5291), (239, 5315), (282, 5528), (324, 5756),

Gene: BiPauneto\_28 Start: 13790, Stop: 15412, Start Num: 19

Candidate Starts for BiPauneto\_28:

(Start: 19 @13790 has 7 MA's), (Start: 30 @13835 has 23 MA's), (38, 13859), (43, 13868), (163, 14474), (173, 14519), (196, 14651), (206, 14681), (224, 14762), (235, 14858), (239, 14888), (240, 14903), (264, 15026), (266, 15035), (275, 15071), (281, 15095), (293, 15161), (296, 15179), (298, 15188), (305, 15233),

Gene: Bipolar\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Bipolar\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026),

(214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Blexus\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Blexus\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: BlueCrab\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for BlueCrab\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: BobaPhett\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for BobaPhett\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (64, 2348), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: BodEinwohner17\_3 Start: 2275, Stop: 3609, Start Num: 54

Candidate Starts for BodEinwohner17\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Bonum\_28 Start: 14299, Stop: 15876, Start Num: 30

Candidate Starts for Bonum\_28:

(Start: 30 @14299 has 23 MA's), (33, 14305), (37, 14320), (38, 14323), (86, 14575), (98, 14653), (103, 14677), (142, 14878), (153, 14911), (163, 14938), (176, 14998), (202, 15133), (206, 15145), (224, 15226), (235, 15322), (240, 15367), (260, 15466), (264, 15490), (266, 15499), (281, 15559), (291, 15619), (294, 15631), (296, 15643), (298, 15652), (303, 15691),

Gene: Bovely\_7 Start: 4087, Stop: 5529, Start Num: 45

Candidate Starts for Bovely\_7:

(40, 4078), (Start: 42 @4081 has 4 MA's), (Start: 45 @4087 has 264 MA's), (64, 4204), (70, 4252), (130, 4570), (142, 4612), (148, 4639), (156, 4672), (178, 4765), (181, 4777), (199, 4870), (224, 4948), (229, 4993), (236, 5050), (239, 5074), (282, 5287), (324, 5515),

Gene: Bowden\_8 Start: 3928, Stop: 5403, Start Num: 45

Candidate Starts for Bowden\_8:

(Start: 45 @3928 has 264 MA's), (64, 4045), (70, 4093), (74, 4105), (82, 4144), (98, 4237), (102, 4258), (142, 4450), (148, 4477), (181, 4615), (190, 4657), (194, 4690), (199, 4708), (205, 4726), (208, 4735), (229, 4873), (236, 4930), (243, 4978), (269, 5110), (282, 5167), (298, 5257), (300, 5266), (320, 5371), (324, 5389),

Gene: Brataylor\_8 Start: 4058, Stop: 5494, Start Num: 45

Candidate Starts for Brataylor\_8:

(Start: 42 @4052 has 4 MA's), (Start: 45 @4058 has 264 MA's), (50, 4082), (56, 4106), (64, 4175), (70, 4223), (77, 4247), (82, 4274), (113, 4457), (130, 4541), (142, 4583), (160, 4649), (178, 4739), (181, 4751), (199, 4844), (224, 4922), (229, 4967), (236, 5024), (277, 5237), (282, 5261), (324, 5480),

Gene: Braxoaddie\_29 Start: 15854, Stop: 17443, Start Num: 26

Candidate Starts for Braxoaddie\_29:

(20, 15827), (Start: 26 @15854 has 6 MA's), (Start: 29 @15860 has 6 MA's), (33, 15869), (38, 15887), (39, 15890), (55, 15947), (66, 16040), (98, 16214), (99, 16220), (119, 16340), (138, 16415), (139, 16424), (153, 16472), (193, 16652), (196, 16673), (202, 16691), (206, 16703), (225, 16808), (230, 16835), (235, 16880), (237, 16892), (240, 16925), (257, 17003), (260, 17024), (264, 17048), (266, 17057), (273, 17081), (296, 17201), (298, 17210), (301, 17234),

Gene: BroPlease\_8 Start: 4096, Stop: 5580, Start Num: 45

Candidate Starts for BroPlease\_8:

(Start: 45 @4096 has 264 MA's), (64, 4213), (70, 4261), (133, 4588), (142, 4621), (158, 4681), (178, 4774), (181, 4786), (194, 4861), (199, 4879), (203, 4891), (205, 4897), (235, 5095), (236, 5101), (250, 5188), (263, 5260), (279, 5323), (282, 5338), (298, 5428), (304, 5470), (320, 5542),

Gene: Brocalys\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Brocalys\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (213, 3029), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: BrutonGaster\_19 Start: 7166, Stop: 8773, Start Num: 22

Candidate Starts for BrutonGaster\_19:

(Start: 22 @7166 has 25 MA's), (Start: 42 @7217 has 4 MA's), (46, 7226), (60, 7301), (65, 7343), (72, 7379), (83, 7424), (87, 7451), (120, 7655), (128, 7685), (139, 7730), (151, 7775), (154, 7790), (177, 7895), (184, 7931), (187, 7949), (189, 7955), (195, 7997), (220, 8126), (242, 8306), (251, 8351), (260, 8399), (283, 8501), (284, 8507), (286, 8516), (300, 8585), (301, 8600), (309, 8636), (310, 8639), (313, 8651),

Gene: BryanRecycles\_8 Start: 4241, Stop: 5683, Start Num: 45

Candidate Starts for BryanRecycles\_8:

(40, 4232), (Start: 42 @4235 has 4 MA's), (Start: 45 @4241 has 264 MA's), (64, 4358), (70, 4406), (77, 4430), (130, 4724), (142, 4766), (148, 4793), (178, 4919), (181, 4931), (199, 5024), (224, 5102), (229, 5147), (236, 5204), (239, 5228), (282, 5441), (324, 5669),

Gene: Bubbles123\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Bubbles123\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558),

(110, 2606), (121, 2666), (126, 2687), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Buggaboo\_26 Start: 14757, Stop: 16334, Start Num: 30

Candidate Starts for Buggaboo\_26:

(Start: 30 @14757 has 23 MA's), (33, 14763), (37, 14778), (38, 14781), (86, 15033), (98, 15111), (103, 15135), (142, 15336), (153, 15369), (163, 15396), (176, 15456), (202, 15591), (206, 15603), (224, 15684), (235, 15780), (240, 15825), (260, 15924), (264, 15948), (266, 15957), (281, 16017), (291, 16077), (294, 16089), (296, 16101), (298, 16110), (303, 16149),

Gene: Burwell21\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Burwell21\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: ByChance\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for ByChance\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Byougenkin\_3 Start: 2273, Stop: 3598, Start Num: 53

Candidate Starts for Byougenkin\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: C3PO\_13 Start: 8765, Stop: 10342, Start Num: 27

Candidate Starts for C3PO\_13:

(Start: 27 @8765 has 2 MA's), (Start: 35 @8780 has 6 MA's), (52, 8843), (57, 8864), (62, 8906), (69, 8966), (71, 8975), (74, 8984), (83, 9023), (98, 9119), (118, 9239), (119, 9245), (134, 9308), (136, 9314), (167, 9428), (170, 9449), (179, 9503), (183, 9527), (196, 9602), (201, 9617), (206, 9632), (225, 9737), (228, 9746), (240, 9854), (267, 9986), (282, 10049), (288, 10094), (299, 10139), (300, 10145), (302, 10172), (305, 10181), (307, 10196), (325, 10280),

Gene: Cabrinians\_3 Start: 2276, Stop: 3598, Start Num: 54

Candidate Starts for Cabrinians\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011),

(214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560),

Gene: Caelum\_8 Start: 3776, Stop: 5269, Start Num: 45

Candidate Starts for Caelum\_8:

(Start: 45 @3776 has 264 MA's), (64, 3893), (70, 3941), (74, 3953), (82, 3992), (98, 4085), (107, 4142), (142, 4298), (148, 4325), (171, 4403), (178, 4451), (181, 4463), (183, 4472), (194, 4538), (199, 4556), (203, 4568), (205, 4574), (229, 4721), (236, 4778), (243, 4826), (269, 4958), (282, 5015), (298, 5105), (300, 5114), (304, 5147), (320, 5231), (324, 5255),

Gene: Caliburn\_7 Start: 4055, Stop: 5503, Start Num: 42

Candidate Starts for Caliburn\_7:

(40, 4052), (Start: 42 @4055 has 4 MA's), (Start: 45 @4061 has 264 MA's), (64, 4178), (70, 4226), (130, 4544), (142, 4586), (148, 4613), (156, 4646), (178, 4739), (181, 4751), (199, 4844), (224, 4922), (229, 4967), (236, 5024), (239, 5048), (282, 5261), (324, 5489),

Gene: CaptainTrips\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for CaptainTrips\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (243, 3890), (244, 3893), (255, 3950), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: Cardigan\_31 Start: 12425, Stop: 13987, Start Num: 22

Candidate Starts for Cardigan\_31:

(15, 12341), (Start: 22 @12425 has 25 MA's), (Start: 42 @12476 has 4 MA's), (46, 12485), (65, 12602), (71, 12635), (83, 12683), (84, 12686), (86, 12701), (87, 12710), (97, 12770), (101, 12791), (111, 12848), (120, 12914), (122, 12920), (128, 12944), (137, 12977), (149, 13031), (151, 13034), (177, 13154), (187, 13208), (189, 13214), (201, 13277), (215, 13349), (220, 13385), (229, 13463), (239, 13544), (242, 13565), (251, 13610), (255, 13628), (265, 13688), (269, 13700), (270, 13703), (306, 13883), (310, 13898), (314, 13913),

Gene: Celery\_9 Start: 4163, Stop: 5596, Start Num: 45

Candidate Starts for Celery\_9:

(34, 4130), (Start: 45 @4163 has 264 MA's), (64, 4280), (70, 4328), (74, 4340), (115, 4583), (139, 4670), (158, 4748), (161, 4754), (181, 4853), (199, 4946), (216, 4985), (224, 5021), (229, 5066), (236, 5123), (264, 5285), (269, 5303), (282, 5360), (304, 5492), (324, 5582),

Gene: Celeste\_7 Start: 4057, Stop: 5493, Start Num: 45

Candidate Starts for Celeste\_7:

(Start: 42 @4051 has 4 MA's), (Start: 45 @4057 has 264 MA's), (50, 4081), (56, 4105), (64, 4174), (70, 4222), (82, 4273), (108, 4426), (113, 4456), (130, 4540), (142, 4582), (160, 4648), (178, 4738), (181, 4750), (199, 4843), (224, 4921), (229, 4966), (236, 5023), (239, 5047), (277, 5236), (282, 5260), (324, 5479),

Gene: Celia\_7 Start: 4355, Stop: 5830, Start Num: 45

Candidate Starts for Celia\_7:

(Start: 45 @4355 has 264 MA's), (Start: 49 @4376 has 1 MA's), (64, 4472), (74, 4532), (98, 4664), (102, 4685), (107, 4721), (142, 4883), (153, 4925), (175, 5009), (181, 5048), (192, 5096), (194, 5123), (199, 5141), (207, 5165), (210, 5186), (215, 5222), (224, 5261), (229, 5306), (236, 5363), (239, 5387),

(282, 5600), (298, 5690), (304, 5732),

Gene: Che8\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Che8\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Cheese puff\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Cheese puff\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Chevrolet\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Chevrolet\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (78, 2421), (79, 2424), (80, 2427), (90, 2496), (92, 2502), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (126, 2673), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (276, 3387), (278, 3393), (283, 3417), (309, 3561), (316, 3579),

Gene: ChewyVIII\_39 Start: 21579, Stop: 23150, Start Num: 30

Candidate Starts for ChewyVIII\_39:

(Start: 30 @21579 has 23 MA's), (38, 21603), (Start: 53 @21657 has 2 MA's), (56, 21666), (66, 21756), (74, 21795), (80, 21822), (98, 21930), (103, 21954), (113, 22020), (119, 22056), (125, 22086), (138, 22131), (153, 22188), (159, 22209), (183, 22338), (196, 22413), (202, 22431), (206, 22443), (224, 22524), (227, 22554), (230, 22575), (237, 22632), (239, 22650), (240, 22665), (257, 22743), (259, 22758), (260, 22764), (264, 22788), (284, 22878), (287, 22899), (289, 22911), (293, 22923), (296, 22941), (298, 22950), (301, 22974), (322, 23061), (327, 23130),

Gene: Chuckly\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Chuckly\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Chucky\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Chucky\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (156, 4641), (160, 4647), (178,

4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: Clank\_3 Start: 2315, Stop: 3625, Start Num: 58

Candidate Starts for Clank\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Clifton\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Clifton\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: ClubL\_31 Start: 10375, Stop: 11991, Start Num: 22

Candidate Starts for ClubL\_31:

(Start: 22 @10375 has 25 MA's), (Start: 42 @10426 has 4 MA's), (46, 10435), (Start: 58 @10495 has 1 MA's), (65, 10552), (72, 10588), (83, 10633), (87, 10660), (120, 10864), (128, 10894), (138, 10930), (147, 10975), (151, 10984), (154, 10999), (183, 11137), (184, 11140), (187, 11158), (189, 11164), (195, 11206), (227, 11398), (238, 11485), (242, 11515), (251, 11560), (260, 11608), (262, 11623), (279, 11686), (283, 11710), (284, 11716), (286, 11725), (300, 11794), (309, 11845), (310, 11848), (313, 11860),

Gene: CoffeeBean\_29 Start: 15809, Stop: 17398, Start Num: 26

Candidate Starts for CoffeeBean\_29:

(20, 15782), (Start: 26 @15809 has 6 MA's), (Start: 29 @15815 has 6 MA's), (33, 15824), (38, 15842), (39, 15845), (55, 15902), (66, 15995), (98, 16169), (99, 16175), (119, 16295), (138, 16370), (139, 16379), (153, 16427), (193, 16607), (196, 16628), (202, 16646), (206, 16658), (225, 16763), (230, 16790), (235, 16835), (237, 16847), (240, 16880), (257, 16958), (260, 16979), (264, 17003), (266, 17012), (273, 17036), (296, 17156), (298, 17165), (301, 17189),

Gene: Commandaria\_27 Start: 15204, Stop: 16781, Start Num: 30

Candidate Starts for Commandaria\_27:

(Start: 30 @15204 has 23 MA's), (33, 15210), (Start: 35 @15213 has 6 MA's), (37, 15225), (55, 15288), (84, 15465), (86, 15480), (98, 15558), (103, 15582), (116, 15672), (153, 15816), (163, 15843), (193, 15999), (196, 16020), (201, 16035), (206, 16050), (224, 16131), (225, 16155), (237, 16239), (240, 16272), (260, 16371), (264, 16395), (266, 16404), (272, 16425), (281, 16464), (296, 16548), (298, 16557),

Gene: Conan\_8 Start: 3902, Stop: 5335, Start Num: 45

Candidate Starts for Conan\_8:

(Start: 45 @3902 has 264 MA's), (64, 4019), (70, 4067), (74, 4079), (115, 4322), (139, 4409), (153, 4469), (158, 4487), (161, 4493), (181, 4592), (194, 4667), (199, 4685), (216, 4724), (224, 4760), (236, 4862), (264, 5024), (269, 5042), (282, 5099), (298, 5189), (304, 5231), (319, 5297), (324, 5321),

Gene: Corium\_3 Start: 2291, Stop: 3625, Start Num: 54

Candidate Starts for Corium\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (316, 3593),

Gene: Cornie\_3 Start: 2288, Stop: 3727, Start Num: 23

Candidate Starts for Cornie\_3:

(16, 2216), (17, 2234), (18, 2258), (Start: 23 @2288 has 1 MA's), (25, 2297), (57, 2408), (61, 2438), (63, 2453), (64, 2468), (68, 2498), (71, 2510), (72, 2513), (79, 2543), (81, 2549), (83, 2558), (84, 2561), (85, 2570), (96, 2639), (100, 2663), (105, 2696), (108, 2714), (109, 2717), (128, 2771), (137, 2804), (157, 2888), (164, 2903), (172, 2936), (209, 3086), (219, 3152), (221, 3170), (227, 3218), (237, 3296), (242, 3335), (251, 3380), (252, 3383), (261, 3440), (263, 3449), (266, 3461), (269, 3470), (286, 3545), (294, 3584), (300, 3614), (305, 3650),

Gene: Cruella\_13 Start: 8780, Stop: 10342, Start Num: 35

Candidate Starts for Cruella\_13:

(Start: 27 @8765 has 2 MA's), (Start: 35 @8780 has 6 MA's), (52, 8843), (57, 8864), (62, 8906), (69, 8966), (71, 8975), (74, 8984), (83, 9023), (98, 9119), (118, 9239), (119, 9245), (134, 9308), (136, 9314), (167, 9428), (170, 9449), (179, 9503), (183, 9527), (196, 9602), (201, 9617), (206, 9632), (225, 9737), (228, 9746), (240, 9854), (267, 9986), (282, 10049), (288, 10094), (299, 10139), (300, 10145), (302, 10172), (305, 10181), (307, 10196), (325, 10280),

Gene: Crumble\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Crumble\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Cucurbita\_33 Start: 11733, Stop: 13349, Start Num: 22

Candidate Starts for Cucurbita\_33:

(Start: 22 @11733 has 25 MA's), (Start: 42 @11784 has 4 MA's), (46, 11793), (Start: 58 @11853 has 1 MA's), (65, 11910), (72, 11946), (83, 11991), (87, 12018), (120, 12222), (128, 12252), (138, 12288), (147, 12333), (151, 12342), (154, 12357), (183, 12495), (184, 12498), (187, 12516), (189, 12522), (195, 12564), (227, 12756), (238, 12843), (242, 12873), (251, 12918), (260, 12966), (262, 12981), (279, 13044), (283, 13068), (284, 13074), (286, 13083), (300, 13152), (309, 13203), (310, 13206), (313, 13218),

Gene: Culver\_31 Start: 10194, Stop: 11810, Start Num: 22

Candidate Starts for Culver\_31:

(Start: 22 @10194 has 25 MA's), (Start: 42 @10245 has 4 MA's), (46, 10254), (Start: 58 @10314 has 1 MA's), (65, 10371), (71, 10404), (72, 10407), (83, 10452), (87, 10479), (120, 10683), (128, 10713), (138, 10749), (147, 10794), (151, 10803), (154, 10818), (184, 10959), (187, 10977), (189, 10983), (195, 11025), (227, 11217), (238, 11304), (242, 11334), (251, 11379), (260, 11427), (262, 11442), (279, 11505), (283, 11529), (284, 11535), (286, 11544), (300, 11613), (309, 11664), (310, 11667), (313, 11679),

Gene: DLane\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for DLane\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: DRBy19\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for DRBy19\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: DaddyRickover\_3 Start: 2275, Stop: 3609, Start Num: 54

Candidate Starts for DaddyRickover\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Daenerys\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Daenerys\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Dalilpop\_30 Start: 16300, Stop: 17877, Start Num: 29

Candidate Starts for Dalilpop\_30:

(Start: 29 @16300 has 6 MA's), (86, 16576), (153, 16912), (176, 16999), (196, 17116), (206, 17146), (224, 17227), (240, 17368), (260, 17467), (264, 17491), (266, 17500), (275, 17536), (281, 17560), (296, 17644), (298, 17653), (303, 17692), (305, 17698),

Gene: Dante\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Dante\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Danzina\_8 Start: 4255, Stop: 5691, Start Num: 45

Candidate Starts for Danzina\_8:

(Start: 42 @4249 has 4 MA's), (Start: 45 @4255 has 264 MA's), (50, 4279), (56, 4303), (64, 4372), (70, 4420), (82, 4471), (108, 4624), (113, 4654), (130, 4738), (142, 4780), (160, 4846), (178, 4936), (181, 4948), (199, 5041), (224, 5119), (229, 5164), (236, 5221), (239, 5245), (277, 5434), (282, 5458), (324, 5677),

Gene: Daredevil\_13 Start: 6745, Stop: 8310, Start Num: 22

Candidate Starts for Daredevil\_13:

(Start: 22 @6745 has 25 MA's), (Start: 42 @6796 has 4 MA's), (72, 6961), (83, 7006), (94, 7081), (95, 7084), (100, 7111), (113, 7192), (120, 7210), (121, 7213), (141, 7291), (147, 7321), (177, 7444), (189, 7504), (201, 7567), (220, 7675), (237, 7813), (242, 7852), (252, 7900), (257, 7924), (269, 7987), (292, 8092), (300, 8131), (309, 8182), (310, 8185), (313, 8197),

Gene: Darwin\_16 Start: 9510, Stop: 11087, Start Num: 27

Candidate Starts for Darwin\_16:

(Start: 27 @9510 has 2 MA's), (Start: 35 @9525 has 6 MA's), (52, 9588), (57, 9609), (62, 9651), (69, 9711), (71, 9720), (74, 9729), (98, 9864), (118, 9984), (119, 9990), (134, 10053), (136, 10059), (167, 10173), (170, 10194), (179, 10248), (183, 10272), (196, 10347), (201, 10362), (206, 10377), (225, 10482), (228, 10491), (240, 10599), (247, 10620), (257, 10674), (267, 10731), (282, 10794), (288, 10839), (299, 10884), (300, 10890), (302, 10917), (305, 10926), (307, 10941), (325, 11025),

Gene: DatBoi\_14 Start: 8659, Stop: 10218, Start Num: 22

Candidate Starts for DatBoi\_14:

(Start: 22 @8659 has 25 MA's), (72, 8875), (81, 8911), (83, 8920), (93, 8992), (100, 9025), (120, 9124), (121, 9127), (139, 9199), (155, 9265), (177, 9358), (183, 9391), (184, 9394), (189, 9418), (201, 9481), (210, 9520), (212, 9532), (220, 9589), (229, 9664), (237, 9727), (242, 9766), (252, 9814), (257, 9838), (269, 9901), (285, 9973), (287, 9988), (300, 10045), (306, 10084), (309, 10096), (310, 10099), (314, 10114), (317, 10123),

Gene: Dattran\_8 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Dattran\_8:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (82, 4272), (113, 4455), (130, 4539), (142, 4581), (178, 4737), (181, 4749), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (324, 5478),

Gene: Daudau\_7 Start: 3834, Stop: 5315, Start Num: 45

Candidate Starts for Daudau\_7:

(Start: 45 @3834 has 264 MA's), (64, 3951), (70, 3999), (82, 4050), (94, 4122), (98, 4143), (142, 4356), (161, 4422), (178, 4512), (181, 4524), (190, 4566), (194, 4599), (196, 4608), (199, 4617), (205, 4635), (223, 4734), (229, 4782), (236, 4839), (282, 5076), (300, 5175), (304, 5208), (324, 5301),

Gene: DeadP\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for DeadP\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Deb65\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Deb65\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Dexers\_6 Start: 3895, Stop: 5328, Start Num: 45

Candidate Starts for Dexers\_6:

(Start: 45 @3895 has 264 MA's), (64, 4012), (70, 4060), (74, 4072), (115, 4315), (139, 4402), (153, 4462), (158, 4480), (161, 4486), (181, 4585), (192, 4633), (194, 4660), (199, 4678), (216, 4717), (224, 4753), (236, 4855), (263, 5014), (264, 5017), (269, 5035), (282, 5092), (291, 5149), (298, 5182), (304, 5224), (319, 5290), (324, 5314),

Gene: Diane\_7 Start: 3828, Stop: 5303, Start Num: 45

Candidate Starts for Diane\_7:

(Start: 45 @3828 has 264 MA's), (64, 3945), (76, 4014), (82, 4044), (98, 4137), (158, 4410), (181, 4515), (194, 4590), (199, 4608), (203, 4620), (205, 4626), (229, 4773), (235, 4824), (236, 4830), (243, 4878), (269, 5010), (282, 5067), (298, 5157), (324, 5289),

Gene: DillTech15\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for DillTech15\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: DoRead\_3 Start: 2255, Stop: 3613, Start Num: 45

Candidate Starts for DoRead\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (126, 2687), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

Gene: Donkeykong\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Donkeykong\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Doomphist\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Doomphist\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010),

(214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Dorothy\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Dorothy\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: DotProduct\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for DotProduct\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: Doug\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Doug\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (64, 2348), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560), (316, 3578),

Gene: Dusty\_30 Start: 10194, Stop: 11810, Start Num: 22

Candidate Starts for Dusty\_30:

(Start: 22 @10194 has 25 MA's), (Start: 42 @10245 has 4 MA's), (46, 10254), (Start: 58 @10314 has 1 MA's), (65, 10371), (71, 10404), (72, 10407), (83, 10452), (87, 10479), (120, 10683), (128, 10713), (138, 10749), (147, 10794), (151, 10803), (154, 10818), (184, 10959), (187, 10977), (189, 10983), (195, 11025), (227, 11217), (238, 11304), (242, 11334), (251, 11379), (260, 11427), (262, 11442), (279, 11505), (283, 11529), (284, 11535), (286, 11544), (300, 11613), (309, 11664), (310, 11667), (313, 11679),

Gene: Dwayne\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Dwayne\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (148, 4608), (156, 4641), (160, 4647), (178, 4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: ELB20\_06 Start: 3885, Stop: 5357, Start Num: 45

Candidate Starts for ELB20\_06:

(Start: 45 @3885 has 264 MA's), (64, 4002), (70, 4050), (74, 4062), (76, 4071), (82, 4101), (98, 4194), (129, 4359), (130, 4365), (181, 4572), (194, 4647), (199, 4665), (203, 4677), (205, 4683), (207, 4689), (229, 4830), (235, 4881), (236, 4887), (256, 5001), (269, 5067), (282, 5124), (290, 5178), (304, 5256), (324, 5343),

Gene: Eddasa\_8 Start: 4241, Stop: 5683, Start Num: 45

Candidate Starts for Eddasa\_8:

(40, 4232), (Start: 42 @4235 has 4 MA's), (Start: 45 @4241 has 264 MA's), (64, 4358), (70, 4406), (77, 4430), (130, 4724), (142, 4766), (148, 4793), (178, 4919), (181, 4931), (199, 5024), (224, 5102), (229, 5147), (236, 5204), (239, 5228), (282, 5441), (324, 5669),

Gene: Eish\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Eish\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Ejemplo\_7 Start: 4059, Stop: 5495, Start Num: 45

Candidate Starts for Ejemplo\_7:

(Start: 42 @4053 has 4 MA's), (Start: 45 @4059 has 264 MA's), (50, 4083), (56, 4107), (64, 4176), (70, 4224), (74, 4236), (82, 4275), (108, 4428), (113, 4458), (130, 4542), (142, 4584), (156, 4644), (160, 4650), (178, 4740), (181, 4752), (194, 4827), (199, 4845), (224, 4923), (229, 4968), (236, 5025), (277, 5238), (282, 5262), (304, 5394), (324, 5481),

Gene: ElGato\_8 Start: 3905, Stop: 5338, Start Num: 45

Candidate Starts for ElGato\_8:

(Start: 45 @3905 has 264 MA's), (64, 4022), (70, 4070), (74, 4082), (115, 4325), (153, 4472), (158, 4490), (161, 4496), (178, 4583), (181, 4595), (194, 4670), (199, 4688), (216, 4727), (224, 4763), (236, 4865), (264, 5027), (269, 5045), (282, 5102), (298, 5192), (304, 5234), (319, 5300), (324, 5324),

Gene: EleanorGeorge\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for EleanorGeorge\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Emaanora\_9 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Emaanora\_9:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: EmiMonkey\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for EmiMonkey\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245),

(258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Emianna\_25 Start: 14922, Stop: 16511, Start Num: 30

Candidate Starts for Emianna\_25:

(Start: 30 @14922 has 23 MA's), (33, 14928), (37, 14943), (41, 14952), (55, 15006), (86, 15198), (98, 15276), (103, 15300), (106, 15330), (153, 15534), (163, 15561), (170, 15588), (184, 15678), (196, 15750), (201, 15765), (206, 15780), (224, 15861), (240, 16002), (260, 16101), (262, 16116), (264, 16125), (266, 16134), (275, 16170), (281, 16194), (296, 16278), (298, 16287), (305, 16332),

Gene: Emma\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Emma\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Empress\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Empress\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (213, 3028), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Engineer\_32 Start: 10389, Stop: 12005, Start Num: 22

Candidate Starts for Engineer\_32:

(Start: 22 @10389 has 25 MA's), (Start: 42 @10440 has 4 MA's), (46, 10449), (Start: 58 @10509 has 1 MA's), (65, 10566), (72, 10602), (83, 10647), (87, 10674), (120, 10878), (128, 10908), (138, 10944), (147, 10989), (151, 10998), (154, 11013), (183, 11151), (184, 11154), (187, 11172), (189, 11178), (195, 11220), (227, 11412), (238, 11499), (242, 11529), (251, 11574), (260, 11622), (262, 11637), (279, 11700), (283, 11724), (284, 11730), (286, 11739), (300, 11808), (309, 11859), (310, 11862), (313, 11874),

Gene: Ennea\_31 Start: 15546, Stop: 17129, Start Num: 28

Candidate Starts for Ennea\_31:

(Start: 28 @15546 has 6 MA's), (33, 15555), (55, 15633), (98, 15900), (116, 16014), (181, 16284), (196, 16368), (201, 16383), (206, 16398), (224, 16479), (240, 16620), (260, 16719), (264, 16743), (266, 16752), (281, 16812), (293, 16878), (296, 16896), (298, 16905), (305, 16950),

Gene: EnochSoames\_8 Start: 4237, Stop: 5679, Start Num: 45

Candidate Starts for EnochSoames\_8:

(40, 4228), (Start: 42 @4231 has 4 MA's), (Start: 45 @4237 has 264 MA's), (64, 4354), (70, 4402), (130, 4720), (142, 4762), (148, 4789), (178, 4915), (181, 4927), (199, 5020), (224, 5098), (229, 5143), (236, 5200), (239, 5224), (282, 5437), (324, 5665),

Gene: Eradicator\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Eradicator\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543),

(110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Esperer\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Esperer\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Estave1\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Estave1\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Fancypants\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Fancypants\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (316, 3578),

Gene: Fastidio\_3 Start: 2255, Stop: 3613, Start Num: 45

Candidate Starts for Fastidio\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (274, 3386), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

Gene: Filuzino\_3 Start: 2292, Stop: 3626, Start Num: 54

Candidate Starts for Filuzino\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: Firehouse51\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Firehouse51\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897),

(184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Flapper\_29 Start: 15375, Stop: 16952, Start Num: 29

Candidate Starts for Flapper\_29:

(Start: 29 @15375 has 6 MA's), (86, 15651), (153, 15987), (176, 16074), (196, 16191), (206, 16221), (224, 16302), (240, 16443), (260, 16542), (264, 16566), (266, 16575), (275, 16611), (281, 16635), (296, 16719), (298, 16728), (305, 16773),

Gene: Float294\_27 Start: 14988, Stop: 16571, Start Num: 28

Candidate Starts for Float294\_27:

(Start: 28 @14988 has 6 MA's), (33, 14997), (55, 15075), (98, 15342), (116, 15456), (181, 15726), (196, 15810), (201, 15825), (206, 15840), (224, 15921), (237, 16029), (240, 16062), (260, 16161), (264, 16185), (266, 16194), (281, 16254), (293, 16320), (296, 16338), (298, 16347), (305, 16392), (307, 16407),

Gene: Florinda\_3 Start: 2258, Stop: 3628, Start Num: 45

Candidate Starts for Florinda\_3:

(Start: 45 @2258 has 264 MA's), (Start: 58 @2318 has 1 MA's), (59, 2327), (60, 2333), (61, 2336), (65, 2375), (79, 2441), (80, 2444), (90, 2513), (98, 2552), (100, 2561), (110, 2609), (121, 2669), (135, 2717), (144, 2762), (166, 2807), (171, 2834), (178, 2879), (183, 2900), (184, 2903), (185, 2906), (189, 2927), (191, 2936), (200, 2987), (201, 2990), (204, 2999), (210, 3029), (214, 3050), (225, 3119), (228, 3128), (233, 3179), (234, 3182), (240, 3236), (242, 3242), (244, 3248), (264, 3359), (278, 3410), (283, 3434), (316, 3596),

Gene: Foxboro\_26 Start: 15428, Stop: 17017, Start Num: 30

Candidate Starts for Foxboro\_26:

(Start: 30 @15428 has 23 MA's), (33, 15434), (37, 15449), (41, 15458), (55, 15512), (86, 15704), (98, 15782), (103, 15806), (106, 15836), (153, 16040), (163, 16067), (170, 16094), (184, 16184), (196, 16256), (201, 16271), (206, 16286), (224, 16367), (240, 16508), (260, 16607), (262, 16622), (264, 16631), (266, 16640), (275, 16676), (281, 16700), (296, 16784), (298, 16793), (305, 16838),

Gene: FreddyB\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for FreddyB\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Fruitloop\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Fruitloop\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Fury\_34 Start: 14654, Stop: 16231, Start Num: 29

Candidate Starts for Fury\_34:

(Start: 29 @14654 has 6 MA's), (32, 14660), (33, 14663), (43, 14690), (55, 14741), (98, 15008), (136, 15203), (139, 15218), (153, 15266), (196, 15470), (201, 15485), (206, 15500), (224, 15581), (235, 15677), (237, 15689), (240, 15722), (260, 15821), (264, 15845), (266, 15854), (275, 15890), (279, 15905), (281, 15914), (296, 15998), (303, 16046), (305, 16052),

Gene: GAL1\_5 Start: 3245, Stop: 4624, Start Num: 24

Candidate Starts for GAL1\_5:

(21, 3239), (24, 3245), (47, 3314), (59, 3368), (63, 3392), (65, 3416), (72, 3452), (79, 3482), (81, 3488), (83, 3497), (84, 3500), (85, 3509), (86, 3515), (96, 3578), (104, 3626), (105, 3635), (108, 3653), (128, 3710), (135, 3737), (137, 3743), (140, 3758), (184, 3914), (201, 4001), (202, 4004), (211, 4040), (222, 4091), (225, 4127), (237, 4208), (251, 4292), (252, 4295), (260, 4340), (261, 4352), (263, 4361), (277, 4409), (284, 4445), (293, 4487), (300, 4523), (306, 4562), (314, 4592),

Gene: GRU1\_15 Start: 7260, Stop: 8837, Start Num: 29

Candidate Starts for GRU1\_15:

(Start: 29 @7260 has 6 MA's), (86, 7536), (108, 7674), (153, 7872), (176, 7959), (196, 8076), (206, 8106), (224, 8187), (239, 8313), (240, 8328), (260, 8427), (264, 8451), (266, 8460), (275, 8496), (281, 8520), (296, 8604), (298, 8613), (305, 8658),

Gene: GTE5\_16 Start: 8269, Stop: 9846, Start Num: 29

Candidate Starts for GTE5\_16:

(Start: 29 @8269 has 6 MA's), (86, 8545), (108, 8683), (153, 8881), (176, 8968), (196, 9085), (206, 9115), (224, 9196), (239, 9322), (240, 9337), (260, 9436), (264, 9460), (266, 9469), (275, 9505), (281, 9529), (296, 9613), (298, 9622), (305, 9667),

Gene: GTE8\_14 Start: 8211, Stop: 9800, Start Num: 30

Candidate Starts for GTE8\_14:

(Start: 30 @8211 has 23 MA's), (33, 8217), (37, 8232), (55, 8295), (86, 8487), (98, 8565), (103, 8589), (106, 8619), (153, 8823), (163, 8850), (170, 8877), (183, 8964), (184, 8967), (196, 9039), (201, 9054), (206, 9069), (224, 9150), (228, 9183), (240, 9291), (260, 9390), (264, 9414), (266, 9423), (275, 9459), (281, 9483), (296, 9567), (298, 9576), (305, 9621),

Gene: GUmbie\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for GUmbie\_3:

(Start: 45 @2256 has 264 MA's), (Start: 53 @2289 has 2 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (78, 2436), (79, 2439), (80, 2442), (90, 2511), (92, 2517), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (242, 3240), (244, 3246), (258, 3324), (264, 3357), (267, 3369), (278, 3408), (283, 3432), (316, 3594),

Gene: Gagieri\_29 Start: 15637, Stop: 17226, Start Num: 26

Candidate Starts for Gagieri\_29:

(20, 15610), (Start: 26 @15637 has 6 MA's), (Start: 29 @15643 has 6 MA's), (33, 15652), (38, 15670), (39, 15673), (55, 15730), (66, 15823), (98, 15997), (99, 16003), (104, 16030), (119, 16123), (138, 16198), (139, 16207), (146, 16237), (170, 16306), (193, 16435), (196, 16456), (202, 16474), (206, 16486), (225, 16591), (230, 16618), (235, 16663), (237, 16675), (240, 16708), (257, 16786), (260, 16807), (264, 16831), (266, 16840), (273, 16864), (291, 16960), (296, 16984), (298, 16993), (301, 17017),

Gene: Galactic\_3 Start: 2239, Stop: 3597, Start Num: 45

Candidate Starts for Galactic\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Gallia\_21 Start: 12386, Stop: 14023, Start Num: 31

Candidate Starts for Gallia\_21:

(31, 12386), (67, 12566), (76, 12608), (93, 12710), (98, 12734), (103, 12758), (108, 12794), (119, 12860), (143, 12968), (153, 13004), (161, 13031), (177, 13157), (206, 13289), (218, 13355), (228, 13415), (231, 13451), (240, 13523), (243, 13532), (247, 13544), (264, 13643), (269, 13661), (275, 13688), (294, 13784), (296, 13796), (297, 13802), (300, 13814), (305, 13850), (311, 13877), (314, 13889),

Gene: Gandalph\_3 Start: 2291, Stop: 3625, Start Num: 54

Candidate Starts for Gandalph\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (238, 3209), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Geeche\_30 Start: 10263, Stop: 11879, Start Num: 22

Candidate Starts for Geeche\_30:

(Start: 22 @10263 has 25 MA's), (Start: 42 @10314 has 4 MA's), (46, 10323), (Start: 58 @10383 has 1 MA's), (65, 10440), (72, 10476), (83, 10521), (87, 10548), (120, 10752), (128, 10782), (138, 10818), (147, 10863), (151, 10872), (154, 10887), (183, 11025), (184, 11028), (187, 11046), (189, 11052), (195, 11094), (227, 11286), (238, 11373), (242, 11403), (251, 11448), (260, 11496), (262, 11511), (279, 11574), (283, 11598), (284, 11604), (286, 11613), (300, 11682), (309, 11733), (310, 11736), (313, 11748),

Gene: Geralt\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Geralt\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: GigiOuiOui\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for GigiOuiOui\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (238, 3209), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: GirlDinner\_7 Start: 3867, Stop: 5354, Start Num: 45

Candidate Starts for GirlDinner\_7:

(Start: 45 @3867 has 264 MA's), (64, 3984), (82, 4083), (91, 4137), (98, 4176), (142, 4389), (181, 4557), (194, 4632), (196, 4641), (199, 4650), (205, 4668), (207, 4674), (229, 4815), (235, 4866), (236, 4872), (282, 5109), (300, 5208), (304, 5241), (308, 5262), (324, 5340),

Gene: Girr\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Girr\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Goby\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Goby\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (82, 4272), (113, 4455), (130, 4539), (142, 4581), (178, 4737), (181, 4749), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (324, 5478),

Gene: Godpower\_8 Start: 4059, Stop: 5495, Start Num: 45

Candidate Starts for Godpower\_8:

(Start: 42 @4053 has 4 MA's), (Start: 45 @4059 has 264 MA's), (50, 4083), (56, 4107), (64, 4176), (70, 4224), (82, 4275), (113, 4458), (130, 4542), (142, 4584), (178, 4740), (181, 4752), (199, 4845), (224, 4923), (229, 4968), (236, 5025), (239, 5049), (277, 5238), (282, 5262), (324, 5481),

Gene: Gorge\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Gorge\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (213, 3029), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: GreenWeasel\_9 Start: 4105, Stop: 5589, Start Num: 45

Candidate Starts for GreenWeasel\_9:

(Start: 45 @4105 has 264 MA's), (64, 4222), (70, 4270), (108, 4477), (112, 4501), (127, 4576), (130, 4588), (131, 4591), (139, 4612), (142, 4630), (148, 4657), (158, 4690), (168, 4711), (169, 4720), (181, 4795), (188, 4828), (190, 4837), (192, 4843), (194, 4870), (199, 4888), (203, 4900), (205, 4906), (225, 5032), (229, 5053), (235, 5104), (236, 5110), (263, 5269), (279, 5332), (282, 5347), (298, 5437), (304, 5479), (320, 5551),

Gene: Grimmer\_4 Start: 2936, Stop: 4261, Start Num: 53

Candidate Starts for Grimmer\_4:

(Start: 45 @2903 has 264 MA's), (Start: 53 @2936 has 2 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (78, 3083), (79, 3086), (80, 3089), (90, 3158), (92, 3164), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (242, 3887), (244, 3893), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223),

Gene: GrootJr\_27 Start: 14278, Stop: 15867, Start Num: 30

Candidate Starts for GrootJr\_27:

(Start: 30 @14278 has 23 MA's), (33, 14284), (37, 14299), (55, 14362), (86, 14554), (98, 14632), (103, 14656), (106, 14686), (163, 14917), (184, 15034), (196, 15106), (201, 15121), (206, 15136), (224, 15217), (240, 15358), (260, 15457), (262, 15472), (264, 15481), (266, 15490), (275, 15526), (281, 15550), (296, 15634), (298, 15643), (305, 15688),

Gene: Guppsters\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Guppsters\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Hades\_3 Start: 2255, Stop: 3613, Start Num: 45

Candidate Starts for Hades\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

Gene: Haizum\_7 Start: 3857, Stop: 5332, Start Num: 45

Candidate Starts for Haizum\_7:

(Start: 45 @3857 has 264 MA's), (64, 3974), (82, 4073), (98, 4166), (119, 4289), (158, 4439), (181, 4544), (194, 4619), (199, 4637), (203, 4649), (205, 4655), (229, 4802), (235, 4853), (236, 4859), (243, 4907), (269, 5039), (282, 5096), (298, 5186), (324, 5318),

Gene: Hamulus\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for Hamulus\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: Hank144\_8 Start: 4150, Stop: 5634, Start Num: 45

Candidate Starts for Hank144\_8:

(Start: 45 @4150 has 264 MA's), (64, 4267), (70, 4315), (74, 4327), (82, 4366), (98, 4459), (131, 4633), (142, 4672), (158, 4732), (177, 4819), (178, 4825), (181, 4837), (194, 4912), (199, 4930), (203, 4942), (205, 4948), (207, 4954), (229, 5095), (235, 5146), (236, 5152), (282, 5389), (300, 5488), (304, 5521), (324, 5620),

Gene: Harley\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Harley\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171,

2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Hippo\_7 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Hippo\_7:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: Hlubikazi\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Hlubikazi\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: HomeFry\_31 Start: 13323, Stop: 14900, Start Num: 29

Candidate Starts for HomeFry\_31:

(Start: 29 @13323 has 6 MA's), (32, 13329), (33, 13332), (43, 13359), (55, 13410), (98, 13677), (139, 13887), (146, 13917), (193, 14118), (196, 14139), (198, 14145), (201, 14154), (206, 14169), (224, 14250), (237, 14358), (239, 14376), (240, 14391), (260, 14490), (264, 14514), (266, 14523), (275, 14559), (279, 14574), (281, 14583), (296, 14667), (303, 14715), (305, 14721), (326, 14865),

Gene: HubbaBubba\_23 Start: 10808, Stop: 12430, Start Num: 19

Candidate Starts for HubbaBubba\_23:

(Start: 19 @10808 has 7 MA's), (Start: 30 @10853 has 23 MA's), (43, 10886), (107, 11264), (124, 11357), (163, 11492), (173, 11537), (196, 11669), (206, 11699), (224, 11780), (235, 11876), (239, 11906), (240, 11921), (264, 12044), (266, 12053), (275, 12089), (281, 12113), (296, 12197), (298, 12206), (305, 12251),

Gene: Hydra\_9 Start: 4618, Stop: 6060, Start Num: 45

Candidate Starts for Hydra\_9:

(40, 4609), (Start: 42 @4612 has 4 MA's), (Start: 45 @4618 has 264 MA's), (64, 4735), (70, 4783), (130, 5101), (142, 5143), (148, 5170), (156, 5203), (178, 5296), (181, 5308), (199, 5401), (224, 5479), (229, 5524), (236, 5581), (239, 5605), (282, 5818), (324, 6046),

Gene: IDyn\_26 Start: 12204, Stop: 13826, Start Num: 19

Candidate Starts for IDyn\_26:

(Start: 19 @12204 has 7 MA's), (Start: 30 @12249 has 23 MA's), (43, 12282), (107, 12660), (163, 12888), (173, 12933), (196, 13065), (206, 13095), (235, 13272), (239, 13302), (240, 13317), (264, 13440), (266, 13449), (275, 13485), (281, 13509), (296, 13593), (298, 13602), (305, 13647),

Gene: IMpilo\_3 Start: 2292, Stop: 3614, Start Num: 54

Candidate Starts for IMpilo\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027),

(214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (278, 3408), (283, 3432), (309, 3576),

Gene: lbOuu\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for lbOuu\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (309, 3559), (316, 3577),

Gene: lbhubesi\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for lbhubesi\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Indigo\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Indigo\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Inventum\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Inventum\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: IrishSherpFalk\_3 Start: 2243, Stop: 3613, Start Num: 45

Candidate Starts for IrishSherpFalk\_3:

(Start: 45 @2243 has 264 MA's), (Start: 54 @2279 has 9 MA's), (Start: 58 @2303 has 1 MA's), (59, 2312), (60, 2318), (61, 2321), (65, 2360), (79, 2426), (80, 2429), (90, 2498), (98, 2537), (100, 2546), (110, 2594), (121, 2654), (135, 2702), (144, 2747), (166, 2792), (171, 2819), (178, 2864), (183, 2885), (184, 2888), (185, 2891), (189, 2912), (191, 2921), (200, 2972), (201, 2975), (204, 2984), (210, 3014), (214, 3035), (225, 3104), (228, 3113), (233, 3164), (234, 3167), (242, 3227), (244, 3233), (264, 3344), (267, 3356), (276, 3389), (278, 3395), (283, 3419), (316, 3581),

Gene: Issmi\_8 Start: 4133, Stop: 5614, Start Num: 45

Candidate Starts for Issmi\_8:

(Start: 45 @4133 has 264 MA's), (48, 4151), (64, 4250), (70, 4298), (74, 4310), (82, 4349), (98, 4442), (107, 4499), (112, 4526), (132, 4619), (142, 4655), (148, 4682), (178, 4808), (181, 4820), (194, 4895), (199, 4913), (205, 4931), (207, 4937), (210, 4958), (221, 5021), (224, 5033), (229, 5078), (236, 5135), (263, 5294), (269, 5315), (282, 5372), (298, 5462), (300, 5471), (304, 5504), (324, 5600),

Gene: Itza\_7 Start: 4278, Stop: 5753, Start Num: 45

Candidate Starts for Itza\_7:

(7, 3741), (12, 3885), (Start: 45 @4278 has 264 MA's), (Start: 49 @4299 has 1 MA's), (64, 4395), (74, 4455), (98, 4587), (102, 4608), (107, 4644), (142, 4806), (153, 4848), (175, 4932), (181, 4971), (192, 5019), (194, 5046), (199, 5064), (207, 5088), (208, 5091), (210, 5109), (215, 5145), (224, 5184), (229, 5229), (236, 5286), (239, 5310), (282, 5523), (298, 5613), (304, 5655),

Gene: Izzy\_8 Start: 4288, Stop: 5730, Start Num: 45

Candidate Starts for Izzy\_8:

(40, 4279), (Start: 42 @4282 has 4 MA's), (Start: 45 @4288 has 264 MA's), (64, 4405), (70, 4453), (77, 4477), (130, 4771), (142, 4813), (148, 4840), (178, 4966), (181, 4978), (199, 5071), (224, 5149), (229, 5194), (236, 5251), (239, 5275), (282, 5488), (324, 5716),

Gene: James\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for James\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (64, 2348), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Jant\_3 Start: 2291, Stop: 3625, Start Num: 54

Candidate Starts for Jant\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Janus\_8 Start: 4204, Stop: 5691, Start Num: 45

Candidate Starts for Janus\_8:

(Start: 45 @4204 has 264 MA's), (64, 4321), (82, 4420), (91, 4474), (98, 4513), (142, 4726), (181, 4894), (194, 4969), (196, 4978), (199, 4987), (203, 4999), (205, 5005), (229, 5152), (235, 5203), (236, 5209), (282, 5446), (300, 5545), (304, 5578), (324, 5677),

Gene: Jacob\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Jacob\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Jash\_8 Start: 4241, Stop: 5683, Start Num: 45

Candidate Starts for Jash\_8:

(40, 4232), (Start: 42 @4235 has 4 MA's), (Start: 45 @4241 has 264 MA's), (64, 4358), (70, 4406), (77, 4430), (130, 4724), (142, 4766), (148, 4793), (178, 4919), (181, 4931), (199, 5024), (224, 5102), (229, 5147), (236, 5204), (239, 5228), (282, 5441), (324, 5669),

Gene: Jennelsea\_3 Start: 2300, Stop: 3598, Start Num: 58

Candidate Starts for Jennelsea\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Jevington\_9 Start: 4426, Stop: 5907, Start Num: 45

Candidate Starts for Jevington\_9:

(Start: 45 @4426 has 264 MA's), (64, 4543), (70, 4591), (74, 4603), (82, 4642), (102, 4756), (130, 4906), (142, 4948), (148, 4975), (180, 5104), (181, 5113), (190, 5155), (194, 5188), (199, 5206), (205, 5224), (208, 5233), (221, 5314), (225, 5350), (229, 5371), (235, 5422), (236, 5428), (269, 5608), (282, 5665), (298, 5755), (300, 5764), (324, 5893),

Gene: Jhitchelle\_6 Start: 3821, Stop: 5254, Start Num: 45

Candidate Starts for Jhitchelle\_6:

(Start: 45 @3821 has 264 MA's), (64, 3938), (70, 3986), (74, 3998), (102, 4154), (115, 4241), (158, 4406), (161, 4412), (178, 4499), (181, 4511), (194, 4586), (199, 4604), (224, 4679), (236, 4781), (263, 4940), (264, 4943), (269, 4961), (272, 4973), (282, 5018), (298, 5108), (304, 5150), (312, 5180), (324, 5240),

Gene: Jifall16\_24 Start: 14552, Stop: 16141, Start Num: 30

Candidate Starts for Jifall16\_24:

(Start: 30 @14552 has 23 MA's), (33, 14558), (37, 14573), (41, 14582), (55, 14636), (86, 14828), (98, 14906), (103, 14930), (106, 14960), (153, 15164), (163, 15191), (170, 15218), (184, 15308), (196, 15380), (201, 15395), (206, 15410), (224, 15491), (240, 15632), (260, 15731), (262, 15746), (264, 15755), (266, 15764), (275, 15800), (281, 15824), (296, 15908), (298, 15917), (305, 15962),

Gene: Jinglebell\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for Jinglebell\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: JoeyJr\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for JoeyJr\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: JonJames\_31 Start: 14631, Stop: 16202, Start Num: 22

Candidate Starts for JonJames\_31:

(15, 14547), (Start: 22 @14631 has 25 MA's), (Start: 42 @14682 has 4 MA's), (46, 14691), (65, 14808), (71, 14841), (83, 14889), (84, 14892), (86, 14907), (87, 14916), (97, 14976), (101, 14997), (111, 15054), (120, 15120), (122, 15126), (128, 15150), (137, 15183), (149, 15237), (151, 15240), (177, 15360), (187, 15414), (189, 15420), (201, 15483), (215, 15555), (220, 15591), (239, 15750), (242, 15771), (251, 15816), (255, 15834), (265, 15894), (269, 15906), (270, 15909), (306, 16089), (310,

16104), (314, 16119),

Gene: Juniper1\_3 Start: 2275, Stop: 3597, Start Num: 54

Candidate Starts for Juniper1\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Kabluna\_28 Start: 13690, Stop: 15267, Start Num: 30

Candidate Starts for Kabluna\_28:

(Start: 30 @13690 has 23 MA's), (33, 13696), (37, 13711), (38, 13714), (86, 13966), (98, 14044), (103, 14068), (142, 14269), (153, 14302), (163, 14329), (176, 14389), (202, 14524), (206, 14536), (224, 14617), (235, 14713), (240, 14758), (260, 14857), (264, 14881), (266, 14890), (281, 14950), (291, 15010), (294, 15022), (296, 15034), (298, 15043), (303, 15082),

Gene: Kaine\_7 Start: 3895, Stop: 5328, Start Num: 45

Candidate Starts for Kaine\_7:

(Start: 45 @3895 has 264 MA's), (64, 4012), (70, 4060), (74, 4072), (115, 4315), (139, 4402), (153, 4462), (158, 4480), (161, 4486), (181, 4585), (194, 4660), (199, 4678), (216, 4717), (224, 4753), (236, 4855), (264, 5017), (269, 5035), (282, 5092), (298, 5182), (304, 5224), (319, 5290), (324, 5314),

Gene: Karhdo\_3 Start: 2256, Stop: 3614, Start Num: 45

Candidate Starts for Karhdo\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (258, 3324), (264, 3357), (267, 3369), (278, 3408), (283, 3432), (309, 3576),

Gene: Katalie\_8 Start: 4327, Stop: 5763, Start Num: 45

Candidate Starts for Katalie\_8:

(40, 4318), (Start: 42 @4321 has 4 MA's), (Start: 45 @4327 has 264 MA's), (50, 4351), (56, 4375), (64, 4444), (70, 4492), (77, 4516), (82, 4543), (108, 4696), (130, 4810), (142, 4852), (145, 4864), (148, 4879), (160, 4918), (178, 5008), (181, 5020), (199, 5113), (224, 5191), (229, 5236), (236, 5293), (282, 5530), (324, 5749),

Gene: Kenuha5\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Kenuha5\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (126, 2687), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Kersh\_3 Start: 2243, Stop: 3601, Start Num: 45

Candidate Starts for Kersh\_3:

(Start: 45 @2243 has 264 MA's), (Start: 54 @2279 has 9 MA's), (Start: 58 @2303 has 1 MA's), (59, 2312), (60, 2318), (61, 2321), (65, 2360), (79, 2426), (80, 2429), (90, 2498), (98, 2537), (100, 2546),

(110, 2594), (121, 2654), (135, 2702), (144, 2747), (166, 2792), (171, 2819), (178, 2864), (183, 2885), (184, 2888), (185, 2891), (189, 2912), (191, 2921), (200, 2972), (201, 2975), (204, 2984), (210, 3014), (214, 3035), (225, 3104), (228, 3113), (233, 3164), (234, 3167), (242, 3227), (244, 3233), (264, 3344), (267, 3356), (276, 3389), (278, 3395), (283, 3419), (309, 3563),

Gene: KidneyBean\_25 Start: 14685, Stop: 16274, Start Num: 30

Candidate Starts for KidneyBean\_25:

(Start: 30 @14685 has 23 MA's), (33, 14691), (37, 14706), (41, 14715), (55, 14769), (86, 14961), (98, 15039), (103, 15063), (106, 15093), (153, 15297), (163, 15324), (170, 15351), (184, 15441), (196, 15513), (201, 15528), (206, 15543), (224, 15624), (240, 15765), (260, 15864), (262, 15879), (264, 15888), (266, 15897), (275, 15933), (281, 15957), (296, 16041), (298, 16050), (305, 16095),

Gene: Kimchi1738\_13 Start: 8378, Stop: 9940, Start Num: 35

Candidate Starts for Kimchi1738\_13:

(Start: 27 @8363 has 2 MA's), (Start: 35 @8378 has 6 MA's), (52, 8441), (62, 8504), (69, 8564), (71, 8573), (74, 8582), (83, 8621), (95, 8699), (98, 8717), (118, 8837), (119, 8843), (134, 8906), (136, 8912), (167, 9026), (179, 9101), (183, 9125), (196, 9200), (201, 9215), (206, 9230), (225, 9335), (228, 9344), (240, 9452), (267, 9584), (282, 9647), (288, 9692), (299, 9737), (300, 9743), (302, 9770), (305, 9779), (307, 9794), (325, 9878),

Gene: KingJulian\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for KingJulian\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (316, 3593),

Gene: KingMidas\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for KingMidas\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Koella\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Koella\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (316, 3578),

Gene: Krakatau\_4 Start: 2939, Stop: 4273, Start Num: 54

Candidate Starts for Krakatau\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674),

(214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (242, 3887), (244, 3893), (258, 3971), (264, 4004), (267, 4016), (274, 4034), (278, 4055), (283, 4079), (316, 4241),

Gene: KristaRAM\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for KristaRAM\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (243, 3890), (244, 3893), (255, 3950), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: Kurt\_25 Start: 14922, Stop: 16511, Start Num: 30

Candidate Starts for Kurt\_25:

(Start: 30 @14922 has 23 MA's), (33, 14928), (37, 14943), (41, 14952), (55, 15006), (86, 15198), (98, 15276), (103, 15300), (106, 15330), (153, 15534), (163, 15561), (170, 15588), (184, 15678), (196, 15750), (201, 15765), (206, 15780), (224, 15861), (240, 16002), (260, 16101), (262, 16116), (264, 16125), (266, 16134), (275, 16170), (281, 16194), (296, 16278), (298, 16287), (305, 16332),

Gene: Lannister\_8 Start: 4063, Stop: 5496, Start Num: 45

Candidate Starts for Lannister\_8:

(40, 4054), (Start: 42 @4057 has 4 MA's), (Start: 45 @4063 has 264 MA's), (64, 4180), (70, 4228), (82, 4279), (108, 4432), (130, 4546), (142, 4588), (148, 4615), (178, 4741), (181, 4753), (199, 4846), (224, 4924), (229, 4969), (236, 5026), (282, 5263), (324, 5482),

Gene: LastJedi\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for LastJedi\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560),

Gene: Latretium\_3 Start: 2239, Stop: 3597, Start Num: 45

Candidate Starts for Latretium\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Legacy\_7 Start: 4061, Stop: 5503, Start Num: 45

Candidate Starts for Legacy\_7:

(40, 4052), (Start: 42 @4055 has 4 MA's), (Start: 45 @4061 has 264 MA's), (64, 4178), (70, 4226), (130, 4544), (142, 4586), (148, 4613), (156, 4646), (178, 4739), (181, 4751), (199, 4844), (224, 4922), (229, 4967), (236, 5024), (239, 5048), (282, 5261), (324, 5489),

Gene: Leperchaun\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Leperchaun\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Leviticus\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Leviticus\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Lika\_7 Start: 4060, Stop: 5496, Start Num: 45

Candidate Starts for Lika\_7:

(Start: 42 @4054 has 4 MA's), (Start: 45 @4060 has 264 MA's), (50, 4084), (56, 4108), (64, 4177), (70, 4225), (82, 4276), (113, 4459), (130, 4543), (142, 4585), (178, 4741), (181, 4753), (199, 4846), (224, 4924), (229, 4969), (236, 5026), (239, 5050), (277, 5239), (282, 5263), (324, 5482),

Gene: LilMoolah\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for LilMoolah\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Lizziana\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Lizziana\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Llama\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for Llama\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Llij\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Llij\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323),

(264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Lollipop1437\_30 Start: 15534, Stop: 17117, Start Num: 28

Candidate Starts for Lollipop1437\_30:

(Start: 28 @15534 has 6 MA's), (33, 15543), (55, 15621), (98, 15888), (116, 16002), (181, 16272), (196, 16356), (201, 16371), (206, 16386), (224, 16467), (240, 16608), (260, 16707), (264, 16731), (266, 16740), (281, 16800), (293, 16866), (296, 16884), (298, 16893), (305, 16938),

Gene: Loofah\_8 Start: 3938, Stop: 5407, Start Num: 45

Candidate Starts for Loofah\_8:

(Start: 45 @3938 has 264 MA's), (64, 4055), (70, 4103), (74, 4115), (82, 4154), (98, 4247), (129, 4412), (130, 4418), (181, 4625), (194, 4700), (199, 4718), (203, 4730), (205, 4736), (207, 4742), (229, 4883), (235, 4934), (236, 4940), (248, 5009), (256, 5054), (269, 5120), (282, 5177), (298, 5267), (304, 5309), (324, 5393),

Gene: Lorelei\_7 Start: 4047, Stop: 5489, Start Num: 42

Candidate Starts for Lorelei\_7:

(Start: 42 @4047 has 4 MA's), (Start: 45 @4053 has 264 MA's), (50, 4077), (56, 4101), (64, 4170), (70, 4218), (74, 4230), (82, 4269), (108, 4422), (113, 4452), (130, 4536), (142, 4578), (160, 4644), (178, 4734), (181, 4746), (194, 4821), (199, 4839), (224, 4917), (229, 4962), (236, 5019), (277, 5232), (282, 5256), (304, 5388), (324, 5475),

Gene: Lozinak\_31 Start: 10444, Stop: 12060, Start Num: 22

Candidate Starts for Lozinak\_31:

(Start: 22 @10444 has 25 MA's), (Start: 42 @10495 has 4 MA's), (46, 10504), (Start: 58 @10564 has 1 MA's), (65, 10621), (72, 10657), (83, 10702), (87, 10729), (120, 10933), (128, 10963), (138, 10999), (147, 11044), (151, 11053), (154, 11068), (183, 11206), (184, 11209), (187, 11227), (189, 11233), (195, 11275), (227, 11467), (238, 11554), (242, 11584), (251, 11629), (260, 11677), (262, 11692), (279, 11755), (283, 11779), (284, 11785), (286, 11794), (300, 11863), (309, 11914), (310, 11917), (313, 11929),

Gene: LunaBlu\_3 Start: 2239, Stop: 3597, Start Num: 45

Candidate Starts for LunaBlu\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: MacGully\_33 Start: 15830, Stop: 17416, Start Num: 29

Candidate Starts for MacGully\_33:

(Start: 29 @15830 has 6 MA's), (33, 15839), (Start: 53 @15911 has 2 MA's), (98, 16184), (99, 16190), (104, 16217), (117, 16301), (119, 16310), (120, 16319), (122, 16325), (123, 16328), (138, 16385), (153, 16442), (176, 16526), (183, 16568), (196, 16643), (206, 16673), (225, 16778), (230, 16805), (235, 16850), (240, 16895), (260, 16994), (264, 17018), (266, 17027), (273, 17051), (296, 17174), (301, 17207), (322, 17321),

Gene: MadMen\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for MadMen\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558),

(110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Mahavrat\_3 Start: 2239, Stop: 3597, Start Num: 45

Candidate Starts for Mahavrat\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Mandlovu\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Mandlovu\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Maneekul\_7 Start: 4052, Stop: 5494, Start Num: 42

Candidate Starts for Maneekul\_7:

(Start: 42 @4052 has 4 MA's), (Start: 45 @4058 has 264 MA's), (50, 4082), (56, 4106), (64, 4175), (70, 4223), (74, 4235), (82, 4274), (108, 4427), (113, 4457), (130, 4541), (142, 4583), (156, 4643), (160, 4649), (178, 4739), (181, 4751), (194, 4826), (199, 4844), (224, 4922), (229, 4967), (236, 5024), (277, 5237), (282, 5261), (304, 5393), (324, 5480),

Gene: Mantra\_3 Start: 2315, Stop: 3625, Start Num: 58

Candidate Starts for Mantra\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (238, 3209), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Marav\_10 Start: 4776, Stop: 6257, Start Num: 45

Candidate Starts for Marav\_10:

(Start: 45 @4776 has 264 MA's), (64, 4893), (70, 4941), (74, 4953), (82, 4992), (102, 5106), (130, 5256), (142, 5298), (148, 5325), (180, 5454), (181, 5463), (190, 5505), (194, 5538), (199, 5556), (205, 5574), (208, 5583), (221, 5664), (225, 5700), (229, 5721), (235, 5772), (236, 5778), (269, 5958), (282, 6015), (298, 6105), (300, 6114), (324, 6243),

Gene: Maravista\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Maravista\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882),

(184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560),

Gene: Marietta\_27 Start: 12175, Stop: 13752, Start Num: 30

Candidate Starts for Marietta\_27:

(Start: 19 @12130 has 7 MA's), (Start: 30 @12175 has 23 MA's), (43, 12208), (107, 12586), (163, 12814), (173, 12859), (196, 12991), (206, 13021), (235, 13198), (239, 13228), (240, 13243), (264, 13366), (266, 13375), (275, 13411), (281, 13435), (296, 13519), (298, 13528), (305, 13573),

Gene: Martik\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Martik\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Maselop\_29 Start: 15885, Stop: 17474, Start Num: 26

Candidate Starts for Maselop\_29:

(20, 15858), (Start: 26 @15885 has 6 MA's), (Start: 29 @15891 has 6 MA's), (33, 15900), (38, 15918), (39, 15921), (55, 15978), (66, 16071), (98, 16245), (99, 16251), (119, 16371), (138, 16446), (139, 16455), (153, 16503), (193, 16683), (196, 16704), (202, 16722), (206, 16734), (225, 16839), (230, 16866), (235, 16911), (237, 16923), (240, 16956), (257, 17034), (260, 17055), (264, 17079), (266, 17088), (273, 17112), (296, 17232), (298, 17241), (301, 17265),

Gene: Mattes\_3 Start: 2276, Stop: 3598, Start Num: 54

Candidate Starts for Mattes\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (64, 2348), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Medindi\_3 Start: 2292, Stop: 3614, Start Num: 54

Candidate Starts for Medindi\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576),

Gene: Melissauren88\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Melissauren88\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: MerCougar\_26 Start: 14884, Stop: 16461, Start Num: 30

Candidate Starts for MerCougar\_26:

(Start: 30 @14884 has 23 MA's), (33, 14890), (38, 14908), (55, 14968), (86, 15160), (98, 15238), (103, 15262), (142, 15463), (153, 15496), (176, 15583), (181, 15616), (202, 15718), (206, 15730), (224, 15811), (240, 15952), (260, 16051), (264, 16075), (266, 16084), (281, 16144), (296, 16228), (298, 16237),

Gene: MilanaBonita\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for MilanaBonita\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (244, 3893), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: MilleniumForce\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for MilleniumForce\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (238, 3857), (240, 3881), (242, 3887), (244, 3893), (255, 3950), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: MinionDave\_4 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for MinionDave\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (243, 3890), (244, 3893), (255, 3950), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: Minnie\_3 Start: 2291, Stop: 3625, Start Num: 54

Candidate Starts for Minnie\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Miskis\_29 Start: 10219, Stop: 11835, Start Num: 22

Candidate Starts for Miskis\_29:

(Start: 22 @10219 has 25 MA's), (Start: 42 @10270 has 4 MA's), (46, 10279), (Start: 58 @10339 has 1 MA's), (65, 10396), (72, 10432), (83, 10477), (87, 10504), (120, 10708), (128, 10738), (138, 10774), (147, 10819), (151, 10828), (154, 10843), (183, 10981), (184, 10984), (187, 11002), (189, 11008), (195, 11050), (227, 11242), (238, 11329), (242, 11359), (251, 11404), (260, 11452), (262, 11467), (279, 11530), (283, 11554), (284, 11560), (286, 11569), (300, 11638), (309, 11689), (310, 11692),

(313, 11704),

Gene: MisterCuddles\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for MisterCuddles\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Modragons\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for Modragons\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Mollymur\_14 Start: 8741, Stop: 10309, Start Num: 22

Candidate Starts for Mollymur\_14:

(Start: 22 @8741 has 25 MA's), (Start: 42 @8792 has 4 MA's), (62, 8894), (71, 8954), (72, 8957), (83, 9002), (100, 9107), (120, 9206), (121, 9209), (139, 9281), (141, 9287), (155, 9347), (177, 9440), (182, 9467), (183, 9473), (184, 9476), (189, 9500), (201, 9563), (210, 9602), (220, 9671), (237, 9809), (240, 9842), (242, 9848), (252, 9896), (257, 9920), (269, 9983), (285, 10055), (287, 10070), (300, 10127), (309, 10178), (310, 10181), (313, 10193),

Gene: Moonbeam\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Moonbeam\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (238, 3194), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Ms6\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Ms6\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: MulchSalad\_3 Start: 2290, Stop: 3612, Start Num: 54

Candidate Starts for MulchSalad\_3:

(Start: 45 @2254 has 264 MA's), (Start: 54 @2290 has 9 MA's), (Start: 58 @2314 has 1 MA's), (59, 2323), (60, 2329), (61, 2332), (65, 2371), (78, 2434), (79, 2437), (80, 2440), (90, 2509), (92, 2515), (98, 2548), (100, 2557), (110, 2605), (121, 2665), (126, 2686), (135, 2713), (144, 2758), (166, 2803), (171, 2830), (178, 2875), (183, 2896), (184, 2899), (185, 2902), (189, 2923), (191, 2932), (200, 2983), (201, 2986), (204, 2995), (210, 3025), (214, 3046), (225, 3115), (228, 3124), (233, 3175), (234, 3178), (242,

3238), (244, 3244), (264, 3355), (267, 3367), (276, 3400), (278, 3406), (283, 3430),

Gene: Mutaforma13\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Mutaforma13\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Mwanjiwa\_3 Start: 2272, Stop: 3597, Start Num: 53

Candidate Starts for Mwanjiwa\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Nabi\_7 Start: 4053, Stop: 5489, Start Num: 45

Candidate Starts for Nabi\_7:

(Start: 42 @4047 has 4 MA's), (Start: 45 @4053 has 264 MA's), (50, 4077), (56, 4101), (64, 4170), (70, 4218), (74, 4230), (82, 4269), (108, 4422), (113, 4452), (130, 4536), (142, 4578), (160, 4644), (178, 4734), (181, 4746), (194, 4821), (199, 4839), (224, 4917), (229, 4962), (236, 5019), (277, 5232), (282, 5256), (304, 5388), (324, 5475),

Gene: NadineRae\_25 Start: 11379, Stop: 13001, Start Num: 19

Candidate Starts for NadineRae\_25:

(8, 10932), (9, 10995), (11, 11043), (Start: 19 @11379 has 7 MA's), (Start: 30 @11424 has 23 MA's), (43, 11457), (124, 11928), (163, 12063), (173, 12108), (196, 12240), (206, 12270), (224, 12351), (235, 12447), (239, 12477), (240, 12492), (264, 12615), (266, 12624), (275, 12660), (281, 12684), (293, 12750), (296, 12768), (298, 12777), (305, 12822),

Gene: Nanodon\_9 Start: 4252, Stop: 5685, Start Num: 45

Candidate Starts for Nanodon\_9:

(Start: 42 @4246 has 4 MA's), (Start: 45 @4252 has 264 MA's), (50, 4276), (56, 4300), (64, 4369), (70, 4417), (82, 4468), (108, 4621), (113, 4651), (130, 4735), (142, 4777), (148, 4804), (162, 4846), (178, 4930), (181, 4942), (199, 5035), (224, 5113), (229, 5158), (236, 5215), (282, 5452), (319, 5650), (324, 5671),

Gene: NatB6\_25 Start: 13946, Stop: 15535, Start Num: 30

Candidate Starts for NatB6\_25:

(Start: 30 @13946 has 23 MA's), (33, 13952), (37, 13967), (41, 13976), (55, 14030), (86, 14222), (98, 14300), (103, 14324), (106, 14354), (153, 14558), (163, 14585), (170, 14612), (184, 14702), (196, 14774), (201, 14789), (206, 14804), (224, 14885), (240, 15026), (260, 15125), (262, 15140), (264, 15149), (266, 15158), (275, 15194), (281, 15218), (296, 15302), (298, 15311), (305, 15356),

Gene: Nerdos\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Nerdos\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: NewHope4\_3 Start: 2239, Stop: 3597, Start Num: 45

Candidate Starts for NewHope4\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Nichirin\_3 Start: 2282, Stop: 3607, Start Num: 53

Candidate Starts for Nichirin\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Nimbo\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Nimbo\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Nishikigoi\_7 Start: 3857, Stop: 5332, Start Num: 45

Candidate Starts for Nishikigoi\_7:

(Start: 45 @3857 has 264 MA's), (64, 3974), (82, 4073), (98, 4166), (158, 4439), (181, 4544), (194, 4619), (199, 4637), (203, 4649), (205, 4655), (229, 4802), (235, 4853), (236, 4859), (243, 4907), (269, 5039), (282, 5096), (298, 5186), (324, 5318),

Gene: Nitzel\_4 Start: 2903, Stop: 4261, Start Num: 45

Candidate Starts for Nitzel\_4:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (242, 3887), (244, 3893), (258, 3971), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223),

Gene: Nivrat\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Nivrat\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: NormanBulbieJr\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for NormanBulbieJr\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Norvs\_32 Start: 10446, Stop: 12062, Start Num: 22

Candidate Starts for Norvs\_32:

(Start: 22 @10446 has 25 MA's), (Start: 42 @10497 has 4 MA's), (46, 10506), (Start: 58 @10566 has 1 MA's), (65, 10623), (72, 10659), (83, 10704), (87, 10731), (120, 10935), (128, 10965), (138, 11001), (147, 11046), (151, 11055), (154, 11070), (183, 11208), (184, 11211), (187, 11229), (189, 11235), (195, 11277), (227, 11469), (238, 11556), (242, 11586), (251, 11631), (260, 11679), (262, 11694), (279, 11757), (283, 11781), (284, 11787), (286, 11796), (300, 11865), (309, 11916), (310, 11919), (313, 11931),

Gene: NosilaM\_28 Start: 14569, Stop: 16146, Start Num: 30

Candidate Starts for NosilaM\_28:

(Start: 30 @14569 has 23 MA's), (33, 14575), (37, 14590), (38, 14593), (86, 14845), (98, 14923), (103, 14947), (142, 15148), (153, 15181), (163, 15208), (176, 15268), (202, 15403), (206, 15415), (224, 15496), (235, 15592), (240, 15637), (260, 15736), (264, 15760), (266, 15769), (281, 15829), (291, 15889), (294, 15901), (296, 15913), (298, 15922),

Gene: NovumRegina\_25 Start: 14277, Stop: 15866, Start Num: 30

Candidate Starts for NovumRegina\_25:

(Start: 30 @14277 has 23 MA's), (33, 14283), (37, 14298), (55, 14361), (86, 14553), (98, 14631), (103, 14655), (106, 14685), (163, 14916), (184, 15033), (196, 15105), (201, 15120), (206, 15135), (224, 15216), (240, 15357), (260, 15456), (262, 15471), (264, 15480), (266, 15489), (275, 15525), (281, 15549), (296, 15633), (298, 15642), (305, 15687),

Gene: Ochi17\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for Ochi17\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: OfUltron\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for OfUltron\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Okabe\_5 Start: 2939, Stop: 4273, Start Num: 54

Candidate Starts for Okabe\_5:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (240, 3881), (242, 3887), (243, 3890), (244, 3893), (264, 4004), (267, 4016), (276, 4049), (278, 4055), (283, 4079), (309, 4223), (316, 4241),

Gene: OldBen\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for OldBen\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Oliynyk\_8 Start: 4235, Stop: 5683, Start Num: 42

Candidate Starts for Oliynyk\_8:

(40, 4232), (Start: 42 @4235 has 4 MA's), (Start: 45 @4241 has 264 MA's), (64, 4358), (70, 4406), (77, 4430), (130, 4724), (142, 4766), (148, 4793), (178, 4919), (181, 4931), (199, 5024), (224, 5102), (229, 5147), (236, 5204), (239, 5228), (282, 5441), (324, 5669),

Gene: OlympiaSaint\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for OlympiaSaint\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Omar\_8 Start: 4088, Stop: 5557, Start Num: 45

Candidate Starts for Omar\_8:

(Start: 45 @4088 has 264 MA's), (51, 4118), (64, 4205), (70, 4253), (74, 4265), (82, 4304), (98, 4397), (102, 4418), (112, 4481), (132, 4574), (148, 4637), (158, 4670), (178, 4763), (181, 4775), (194, 4850), (199, 4868), (205, 4886), (229, 5033), (236, 5090), (269, 5270), (282, 5327), (295, 5405), (298, 5417), (300, 5426), (324, 5543),

Gene: OneUp\_25 Start: 8258, Stop: 9868, Start Num: 22

Candidate Starts for OneUp\_25:

(Start: 22 @8258 has 25 MA's), (Start: 42 @8309 has 4 MA's), (46, 8318), (65, 8435), (72, 8471), (83, 8516), (87, 8543), (120, 8747), (139, 8822), (151, 8867), (177, 8987), (184, 9023), (187, 9041), (189, 9047), (194, 9086), (195, 9089), (220, 9218), (242, 9398), (251, 9443), (260, 9491), (283, 9593), (284, 9599), (286, 9608), (300, 9677), (301, 9692), (309, 9728), (310, 9731), (313, 9743),

Gene: Outis\_26 Start: 14578, Stop: 16155, Start Num: 30

Candidate Starts for Outis\_26:

(Start: 30 @14578 has 23 MA's), (33, 14584), (38, 14602), (55, 14662), (86, 14854), (98, 14932), (103, 14956), (142, 15157), (153, 15190), (176, 15277), (181, 15310), (202, 15412), (206, 15424), (224, 15505), (240, 15646), (260, 15745), (264, 15769), (266, 15778), (281, 15838), (291, 15898), (296, 15922), (298, 15931),

Gene: Ovechkin\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Ovechkin\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Ozzie\_7 Start: 4061, Stop: 5503, Start Num: 45

Candidate Starts for Ozzie\_7:

(40, 4052), (Start: 42 @4055 has 4 MA's), (Start: 45 @4061 has 264 MA's), (64, 4178), (70, 4226), (130, 4544), (142, 4586), (148, 4613), (156, 4646), (178, 4739), (181, 4751), (199, 4844), (224, 4922), (229, 4967), (236, 5024), (239, 5048), (282, 5261), (324, 5489),

Gene: OzzyJ\_8 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for OzzyJ\_8:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (148, 4608), (156, 4641), (178, 4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: P1201\_28 Start: 15559, Stop: 17196, Start Num: 31

Candidate Starts for P1201\_28:

(31, 15559), (67, 15739), (76, 15781), (88, 15850), (93, 15883), (98, 15907), (103, 15931), (109, 15970), (153, 16177), (161, 16204), (177, 16330), (206, 16462), (214, 16510), (225, 16579), (228, 16588), (231, 16624), (240, 16696), (247, 16717), (264, 16816), (269, 16834), (296, 16969), (300, 16987), (305, 17023), (311, 17050), (314, 17062),

Gene: PHappiness\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for PHappiness\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: PMC\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for PMC\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Pablito\_7 Start: 3894, Stop: 5375, Start Num: 45

Candidate Starts for Pablito\_7:

(Start: 45 @3894 has 264 MA's), (64, 4011), (70, 4059), (74, 4071), (89, 4152), (98, 4203), (131, 4377), (142, 4416), (158, 4476), (178, 4569), (181, 4581), (194, 4656), (199, 4674), (203, 4686), (205, 4692), (207, 4698), (229, 4839), (235, 4890), (236, 4896), (282, 5133), (300, 5232), (304, 5265), (324, 5361),

Gene: Pacc40\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Pacc40\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Paedore\_7 Start: 3938, Stop: 5407, Start Num: 45

Candidate Starts for Paedore\_7:

(Start: 45 @3938 has 264 MA's), (64, 4055), (70, 4103), (74, 4115), (82, 4154), (98, 4247), (129, 4412), (130, 4418), (181, 4625), (194, 4700), (199, 4718), (203, 4730), (205, 4736), (207, 4742), (229, 4883), (235, 4934), (236, 4940), (248, 5009), (256, 5054), (269, 5120), (282, 5177), (298, 5267), (304, 5309), (324, 5393),

Gene: Paolo\_9 Start: 4480, Stop: 5949, Start Num: 45

Candidate Starts for Paolo\_9:

(Start: 45 @4480 has 264 MA's), (64, 4597), (74, 4657), (82, 4696), (98, 4789), (102, 4810), (107, 4846), (142, 5002), (148, 5029), (171, 5107), (181, 5167), (190, 5209), (194, 5242), (199, 5260), (205, 5278), (208, 5287), (221, 5368), (229, 5425), (235, 5476), (236, 5482), (269, 5662), (282, 5719), (298, 5809), (300, 5818), (324, 5935),

Gene: Patio\_28 Start: 14770, Stop: 16353, Start Num: 28

Candidate Starts for Patio\_28:

(Start: 28 @14770 has 6 MA's), (33, 14779), (55, 14857), (98, 15124), (116, 15238), (181, 15508), (196, 15592), (201, 15607), (206, 15622), (224, 15703), (240, 15844), (260, 15943), (264, 15967), (266, 15976), (281, 16036), (293, 16102), (296, 16120), (298, 16129), (305, 16174),

Gene: PatoPoderoso\_3 Start: 2291, Stop: 3625, Start Num: 54

Candidate Starts for PatoPoderoso\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (316, 3593),

Gene: Pavo\_8 Start: 4175, Stop: 5608, Start Num: 45

Candidate Starts for Pavo\_8:

(Start: 45 @4175 has 264 MA's), (64, 4292), (70, 4340), (74, 4352), (115, 4595), (139, 4682), (153, 4742), (158, 4760), (161, 4766), (181, 4865), (194, 4940), (199, 4958), (216, 4997), (224, 5033), (236, 5135), (264, 5297), (269, 5315), (282, 5372), (298, 5462), (304, 5504), (319, 5570), (324, 5594),

Gene: Pemberton\_28 Start: 12143, Stop: 13720, Start Num: 30

Candidate Starts for Pemberton\_28:

(Start: 19 @12098 has 7 MA's), (Start: 30 @12143 has 23 MA's), (38, 12167), (43, 12176), (163, 12782), (173, 12827), (196, 12959), (206, 12989), (235, 13166), (239, 13196), (240, 13211), (264, 13334), (266, 13343), (275, 13379), (281, 13403), (293, 13469), (296, 13487), (298, 13496), (305, 13541),

Gene: PeteyPab\_13 Start: 8757, Stop: 10319, Start Num: 35

Candidate Starts for PeteyPab\_13:

(Start: 27 @8742 has 2 MA's), (Start: 35 @8757 has 6 MA's), (52, 8820), (57, 8841), (62, 8883), (69, 8943), (71, 8952), (74, 8961), (83, 9000), (98, 9096), (118, 9216), (119, 9222), (134, 9285), (136, 9291), (167, 9405), (170, 9426), (179, 9480), (183, 9504), (196, 9579), (201, 9594), (206, 9609), (225, 9714), (228, 9723), (240, 9831), (267, 9963), (282, 10026), (288, 10071), (299, 10116), (300, 10122), (302, 10149), (305, 10158), (307, 10173), (325, 10257),

Gene: Phalconet\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Phalconet\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Phanphagia\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Phanphagia\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Phasih\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Phasih\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Phatniss\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Phatniss\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (238, 3194), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560), (316, 3578),

Gene: PhesterPhotato\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for PhesterPhotato\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Phettuccine\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Phettuccine\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Philus\_3 Start: 2276, Stop: 3610, Start Num: 54

Candidate Starts for Philus\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: PhinkBoden\_31 Start: 10827, Stop: 12443, Start Num: 22

Candidate Starts for PhinkBoden\_31:

(Start: 22 @10827 has 25 MA's), (Start: 42 @10878 has 4 MA's), (46, 10887), (Start: 58 @10947 has 1 MA's), (65, 11004), (72, 11040), (83, 11085), (87, 11112), (120, 11316), (128, 11346), (138, 11382), (147, 11427), (151, 11436), (154, 11451), (183, 11589), (184, 11592), (187, 11610), (189, 11616), (195, 11658), (227, 11850), (238, 11937), (242, 11967), (251, 12012), (260, 12060), (262, 12075), (279, 12138), (283, 12162), (284, 12168), (286, 12177), (300, 12246), (309, 12297), (310, 12300), (313, 12312),

Gene: PhlipPhlop\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for PhlipPhlop\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Phomeo\_24 Start: 14572, Stop: 16161, Start Num: 30

Candidate Starts for Phomeo\_24:

(Start: 30 @14572 has 23 MA's), (33, 14578), (37, 14593), (41, 14602), (55, 14656), (86, 14848), (98, 14926), (103, 14950), (106, 14980), (153, 15184), (163, 15211), (170, 15238), (184, 15328), (196, 15400), (201, 15415), (206, 15430), (224, 15511), (240, 15652), (260, 15751), (262, 15766), (264, 15775), (266, 15784), (275, 15820), (281, 15844), (296, 15928), (298, 15937), (305, 15982),

Gene: Pippy\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Pippy\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Pleakley\_34 Start: 14655, Stop: 16232, Start Num: 29

Candidate Starts for Pleakley\_34:

(Start: 29 @14655 has 6 MA's), (32, 14661), (33, 14664), (43, 14691), (55, 14742), (98, 15009), (136, 15204), (139, 15219), (153, 15267), (196, 15471), (201, 15486), (206, 15501), (224, 15582), (235, 15678), (237, 15690), (240, 15723), (260, 15822), (264, 15846), (266, 15855), (275, 15891), (279,

15906), (281, 15915), (296, 15999), (303, 16047), (305, 16053),

Gene: Poenanya\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Poenanya\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Polka14\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Polka14\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (64, 2348), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Polyuki\_29 Start: 15877, Stop: 17466, Start Num: 26

Candidate Starts for Polyuki\_29:

(20, 15850), (Start: 26 @15877 has 6 MA's), (Start: 29 @15883 has 6 MA's), (33, 15892), (38, 15910), (39, 15913), (55, 15970), (61, 16012), (66, 16063), (98, 16237), (99, 16243), (119, 16363), (138, 16438), (139, 16447), (153, 16495), (193, 16675), (196, 16696), (202, 16714), (206, 16726), (225, 16831), (230, 16858), (235, 16903), (237, 16915), (240, 16948), (257, 17026), (260, 17047), (264, 17071), (266, 17080), (273, 17104), (296, 17224), (298, 17233), (301, 17257),

Gene: PopTart\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for PopTart\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: PotatoChip\_13 Start: 8759, Stop: 10321, Start Num: 35

Candidate Starts for PotatoChip\_13:

(Start: 27 @8744 has 2 MA's), (Start: 35 @8759 has 6 MA's), (52, 8822), (57, 8843), (62, 8885), (69, 8945), (71, 8954), (74, 8963), (83, 9002), (98, 9098), (118, 9218), (119, 9224), (134, 9287), (136, 9293), (167, 9407), (170, 9428), (179, 9482), (183, 9506), (196, 9581), (201, 9596), (206, 9611), (225, 9716), (228, 9725), (240, 9833), (267, 9965), (282, 10028), (288, 10073), (299, 10118), (300, 10124), (302, 10151), (305, 10160), (307, 10175), (325, 10259),

Gene: Priscilla\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Priscilla\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Provolone\_8 Start: 3905, Stop: 5338, Start Num: 45

Candidate Starts for Provolone\_8:

(Start: 45 @3905 has 264 MA's), (64, 4022), (70, 4070), (74, 4082), (115, 4325), (139, 4412), (153, 4472), (158, 4490), (161, 4496), (181, 4595), (194, 4670), (199, 4688), (216, 4727), (224, 4763), (236, 4865), (264, 5027), (269, 5045), (282, 5102), (298, 5192), (304, 5234), (319, 5300), (324, 5324),

Gene: Puginator\_9 Start: 4426, Stop: 5895, Start Num: 45

Candidate Starts for Puginator\_9:

(Start: 45 @4426 has 264 MA's), (64, 4543), (74, 4603), (82, 4642), (98, 4735), (102, 4756), (107, 4792), (142, 4948), (148, 4975), (161, 5014), (174, 5065), (181, 5113), (194, 5188), (199, 5206), (205, 5224), (208, 5233), (221, 5314), (229, 5371), (235, 5422), (236, 5428), (269, 5608), (282, 5665), (298, 5755), (300, 5764), (324, 5881),

Gene: QuickMath\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for QuickMath\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: R4\_7 Start: 3896, Stop: 5368, Start Num: 45

Candidate Starts for R4\_7:

(Start: 45 @3896 has 264 MA's), (64, 4013), (70, 4061), (74, 4073), (76, 4082), (82, 4112), (98, 4205), (129, 4370), (130, 4376), (181, 4583), (194, 4658), (199, 4676), (203, 4688), (205, 4694), (207, 4700), (229, 4841), (235, 4892), (236, 4898), (256, 5012), (269, 5078), (282, 5135), (290, 5189), (304, 5267), (324, 5354),

Gene: Radiance\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Radiance\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Rana\_7 Start: 4053, Stop: 5489, Start Num: 45

Candidate Starts for Rana\_7:

(Start: 42 @4047 has 4 MA's), (Start: 45 @4053 has 264 MA's), (50, 4077), (56, 4101), (64, 4170), (70, 4218), (74, 4230), (82, 4269), (108, 4422), (113, 4452), (130, 4536), (142, 4578), (160, 4644), (178, 4734), (181, 4746), (194, 4821), (199, 4839), (224, 4917), (229, 4962), (236, 5019), (277, 5232), (282, 5256), (304, 5388), (324, 5475),

Gene: RedBear\_9 Start: 4327, Stop: 5763, Start Num: 45

Candidate Starts for RedBear\_9:

(40, 4318), (Start: 42 @4321 has 4 MA's), (Start: 45 @4327 has 264 MA's), (50, 4351), (56, 4375), (64, 4444), (70, 4492), (77, 4516), (82, 4543), (108, 4696), (130, 4810), (142, 4852), (145, 4864), (148, 4879), (160, 4918), (178, 5008), (181, 5020), (199, 5113), (224, 5191), (229, 5236), (236, 5293), (282, 5530), (324, 5749),

Gene: RedBird\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for RedBird\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: RedRaider\_32 Start: 16783, Stop: 18366, Start Num: 28

Candidate Starts for RedRaider\_32:

(Start: 28 @16783 has 6 MA's), (33, 16792), (55, 16870), (98, 17137), (116, 17251), (153, 17395), (181, 17521), (196, 17605), (206, 17635), (224, 17716), (228, 17749), (240, 17857), (260, 17956), (264, 17980), (266, 17989), (281, 18049), (293, 18115), (296, 18133), (298, 18142), (303, 18181), (305, 18187),

Gene: Rita\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for Rita\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (244, 3246), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: RitaG\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for RitaG\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Rockne\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Rockne\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: Royals2015\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Royals2015\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Ruby\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for Ruby\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: Rusticus\_8 Start: 4241, Stop: 5683, Start Num: 45

Candidate Starts for Rusticus\_8:

(40, 4232), (Start: 42 @4235 has 4 MA's), (Start: 45 @4241 has 264 MA's), (64, 4358), (70, 4406), (77, 4430), (130, 4724), (142, 4766), (148, 4793), (178, 4919), (181, 4931), (199, 5024), (224, 5102), (229, 5147), (236, 5204), (239, 5228), (282, 5441), (324, 5669),

Gene: SG4\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for SG4\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Saal\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Saal\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (213, 3029), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Sabbb\_3 Start: 2255, Stop: 3613, Start Num: 45

Candidate Starts for Sabbb\_3:

(Start: 45 @2255 has 264 MA's), (Start: 53 @2288 has 2 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (78, 2435), (79, 2438), (80, 2441), (90, 2510), (92, 2516), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (126, 2687), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

Gene: Saftant\_7 Start: 4208, Stop: 5632, Start Num: 45

Candidate Starts for Saftant\_7:

(Start: 45 @4208 has 264 MA's), (64, 4325), (70, 4373), (74, 4385), (98, 4520), (148, 4760), (158, 4793), (161, 4799), (181, 4898), (194, 4973), (199, 4991), (216, 5030), (224, 5066), (229, 5111), (236, 5168), (254, 5273), (282, 5405), (304, 5537), (312, 5567), (321, 5612), (323, 5618),

Gene: Sandalphon\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Sandalphon\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558),

(110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (316, 3593),

Gene: SarahRose\_7 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for SarahRose\_7:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: Sassafras\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Sassafras\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: SassyB\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for SassyB\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Scottish\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Scottish\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Scuba\_34 Start: 14742, Stop: 16319, Start Num: 29

Candidate Starts for Scuba\_34:

(Start: 29 @14742 has 6 MA's), (32, 14748), (33, 14751), (43, 14778), (55, 14829), (98, 15096), (139, 15306), (153, 15354), (196, 15558), (201, 15573), (206, 15588), (224, 15669), (227, 15699), (235, 15765), (237, 15777), (240, 15810), (260, 15909), (264, 15933), (266, 15942), (275, 15978), (279, 15993), (281, 16002), (296, 16086), (303, 16134), (305, 16140),

Gene: SeaLumen\_3 Start: 2272, Stop: 3597, Start Num: 53

Candidate Starts for SeaLumen\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (126, 2671), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242,

3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (309, 3559),

Gene: Seabastian\_3 Start: 2249, Stop: 3607, Start Num: 45

Candidate Starts for Seabastian\_3:

(Start: 45 @2249 has 264 MA's), (Start: 53 @2282 has 2 MA's), (Start: 58 @2309 has 1 MA's), (59, 2318), (60, 2324), (61, 2327), (65, 2366), (79, 2432), (80, 2435), (90, 2504), (92, 2510), (98, 2543), (100, 2552), (110, 2600), (121, 2660), (135, 2708), (144, 2753), (166, 2798), (171, 2825), (178, 2870), (183, 2891), (184, 2894), (185, 2897), (189, 2918), (191, 2927), (200, 2978), (201, 2981), (204, 2990), (210, 3020), (214, 3041), (225, 3110), (228, 3119), (233, 3170), (234, 3173), (240, 3227), (242, 3233), (244, 3239), (258, 3317), (264, 3350), (267, 3362), (276, 3395), (278, 3401), (283, 3425), (309, 3569),

Gene: Shauna1\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Shauna1\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: ShiLan\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for ShiLan\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: ShowerHandel\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for ShowerHandel\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: ShroomBoi\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for ShroomBoi\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: SiSi\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for SiSi\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882),

(184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (238, 3194), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560), (316, 3578),

Gene: Skysand\_27 Start: 14990, Stop: 16573, Start Num: 28

Candidate Starts for Skysand\_27:

(Start: 28 @14990 has 6 MA's), (33, 14999), (55, 15077), (98, 15344), (116, 15458), (181, 15728), (196, 15812), (201, 15827), (206, 15842), (224, 15923), (237, 16031), (240, 16064), (260, 16163), (264, 16187), (266, 16196), (281, 16256), (293, 16322), (296, 16340), (298, 16349), (305, 16394), (307, 16409),

Gene: Smoothie\_32 Start: 10444, Stop: 12060, Start Num: 22

Candidate Starts for Smoothie\_32:

(Start: 22 @10444 has 25 MA's), (Start: 42 @10495 has 4 MA's), (46, 10504), (Start: 58 @10564 has 1 MA's), (65, 10621), (72, 10657), (83, 10702), (87, 10729), (120, 10933), (128, 10963), (138, 10999), (147, 11044), (151, 11053), (154, 11068), (183, 11206), (184, 11209), (187, 11227), (189, 11233), (195, 11275), (227, 11467), (238, 11554), (242, 11584), (251, 11629), (260, 11677), (262, 11692), (279, 11755), (283, 11779), (284, 11785), (286, 11794), (300, 11863), (309, 11914), (310, 11917), (313, 11929),

Gene: Snorlax\_7 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Snorlax\_7:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (148, 4607), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: South40\_8 Start: 4327, Stop: 5763, Start Num: 45

Candidate Starts for South40\_8:

(40, 4318), (Start: 42 @4321 has 4 MA's), (Start: 45 @4327 has 264 MA's), (50, 4351), (56, 4375), (64, 4444), (70, 4492), (77, 4516), (82, 4543), (108, 4696), (130, 4810), (142, 4852), (145, 4864), (148, 4879), (160, 4918), (178, 5008), (181, 5020), (199, 5113), (224, 5191), (229, 5236), (236, 5293), (282, 5530), (324, 5749),

Gene: Sparkdehlily\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for Sparkdehlily\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: Spartacus\_3 Start: 2243, Stop: 3613, Start Num: 45

Candidate Starts for Spartacus\_3:

(Start: 45 @2243 has 264 MA's), (Start: 54 @2279 has 9 MA's), (Start: 58 @2303 has 1 MA's), (59, 2312), (60, 2318), (61, 2321), (65, 2360), (79, 2426), (80, 2429), (90, 2498), (98, 2537), (100, 2546), (110, 2594), (121, 2654), (135, 2702), (144, 2747), (166, 2792), (171, 2819), (178, 2864), (183, 2885), (184, 2888), (185, 2891), (189, 2912), (191, 2921), (200, 2972), (201, 2975), (204, 2984), (210, 3014), (214, 3035), (225, 3104), (228, 3113), (233, 3164), (234, 3167), (242, 3227), (244, 3233), (264, 3344), (267, 3356), (276, 3389), (278, 3395), (283, 3419), (316, 3581),

Gene: SpeedDemon\_140 Start: 8140, Stop: 9699, Start Num: 22

Candidate Starts for SpeedDemon\_140:

(4, 7426), (5, 7432), (6, 7645), (10, 7774), (13, 7834), (14, 7837), (Start: 22 @8140 has 25 MA's), (72, 8356), (83, 8401), (100, 8506), (120, 8605), (121, 8608), (128, 8635), (143, 8704), (177, 8839), (183, 8872), (184, 8875), (189, 8899), (197, 8950), (220, 9070), (229, 9145), (237, 9208), (242, 9247), (252, 9295), (257, 9319), (269, 9382), (285, 9454), (287, 9469), (300, 9526), (306, 9565), (309, 9577), (310, 9580), (314, 9595), (317, 9604),

Gene: Speedwell\_8 Start: 4147, Stop: 5580, Start Num: 45

Candidate Starts for Speedwell\_8:

(Start: 45 @4147 has 264 MA's), (64, 4264), (70, 4312), (74, 4324), (148, 4699), (158, 4732), (161, 4738), (181, 4837), (194, 4912), (199, 4930), (216, 4969), (224, 5005), (229, 5050), (236, 5107), (272, 5299), (282, 5344), (304, 5476),

Gene: Spoonbill\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Spoonbill\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: SqueakyClean\_8 Start: 4130, Stop: 5617, Start Num: 45

Candidate Starts for SqueakyClean\_8:

(Start: 45 @4130 has 264 MA's), (64, 4247), (82, 4346), (91, 4400), (98, 4439), (142, 4652), (181, 4820), (194, 4895), (196, 4904), (199, 4913), (205, 4931), (207, 4937), (229, 5078), (235, 5129), (236, 5135), (282, 5372), (300, 5471), (304, 5504), (324, 5603),

Gene: StAnnes\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for StAnnes\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: StarStruck\_26 Start: 14578, Stop: 16155, Start Num: 30

Candidate Starts for StarStruck\_26:

(Start: 30 @14578 has 23 MA's), (33, 14584), (38, 14602), (55, 14662), (86, 14854), (98, 14932), (103, 14956), (142, 15157), (153, 15190), (176, 15277), (181, 15310), (202, 15412), (206, 15424), (224, 15505), (240, 15646), (260, 15745), (264, 15769), (266, 15778), (281, 15838), (291, 15898), (296, 15922), (298, 15931),

Gene: Stickynote\_15 Start: 9569, Stop: 11131, Start Num: 35

Candidate Starts for Stickynote\_15:

(Start: 27 @9554 has 2 MA's), (Start: 35 @9569 has 6 MA's), (52, 9632), (57, 9653), (62, 9695), (69, 9755), (71, 9764), (74, 9773), (98, 9908), (118, 10028), (119, 10034), (134, 10097), (136, 10103), (167, 10217), (170, 10238), (179, 10292), (183, 10316), (196, 10391), (201, 10406), (206, 10421), (225, 10526), (228, 10535), (240, 10643), (267, 10775), (282, 10838), (288, 10883), (299, 10928), (300, 10934), (302, 10961), (305, 10970), (307, 10985), (325, 11069),

Gene: Strokeseat\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Strokeseat\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Sudan\_7 Start: 4182, Stop: 5615, Start Num: 45

Candidate Starts for Sudan\_7:

(Start: 45 @4182 has 264 MA's), (64, 4299), (70, 4347), (74, 4359), (115, 4602), (139, 4689), (153, 4749), (158, 4767), (161, 4773), (181, 4872), (194, 4947), (199, 4965), (216, 5004), (224, 5040), (236, 5142), (264, 5304), (269, 5322), (282, 5379), (291, 5436), (298, 5469), (304, 5511), (319, 5577), (324, 5601),

Gene: Sujidade\_8 Start: 4351, Stop: 5787, Start Num: 45

Candidate Starts for Sujidade\_8:

(Start: 42 @4345 has 4 MA's), (Start: 45 @4351 has 264 MA's), (50, 4375), (56, 4399), (64, 4468), (70, 4516), (82, 4567), (113, 4750), (130, 4834), (142, 4876), (178, 5032), (181, 5044), (199, 5137), (224, 5215), (229, 5260), (236, 5317), (277, 5530), (282, 5554), (324, 5773),

Gene: Sukkupi\_27 Start: 13681, Stop: 15303, Start Num: 19

Candidate Starts for Sukkupi\_27:

(Start: 19 @13681 has 7 MA's), (Start: 30 @13726 has 23 MA's), (38, 13750), (43, 13759), (163, 14365), (173, 14410), (196, 14542), (206, 14572), (224, 14653), (235, 14749), (239, 14779), (240, 14794), (264, 14917), (266, 14926), (275, 14962), (281, 14986), (293, 15052), (296, 15070), (298, 15079), (305, 15124),

Gene: SunkenRoot\_9 Start: 4245, Stop: 5678, Start Num: 45

Candidate Starts for SunkenRoot\_9:

(Start: 45 @4245 has 264 MA's), (64, 4362), (70, 4410), (74, 4422), (115, 4665), (139, 4752), (158, 4830), (161, 4836), (181, 4935), (194, 5010), (199, 5028), (216, 5067), (224, 5103), (236, 5205), (264, 5367), (269, 5385), (282, 5442), (304, 5574), (312, 5604), (324, 5664),

Gene: SunsetPointe\_7 Start: 4080, Stop: 5522, Start Num: 45

Candidate Starts for SunsetPointe\_7:

(40, 4071), (Start: 42 @4074 has 4 MA's), (Start: 45 @4080 has 264 MA's), (64, 4197), (70, 4245), (130, 4563), (142, 4605), (148, 4632), (156, 4665), (178, 4758), (181, 4770), (199, 4863), (224, 4941), (229, 4986), (236, 5043), (239, 5067), (282, 5280), (324, 5508),

Gene: SuperGrey\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for SuperGrey\_3:

(Start: 45 @2255 has 264 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (78, 2435), (79, 2438), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: SuperSulley\_26 Start: 14757, Stop: 16334, Start Num: 30

Candidate Starts for SuperSulley\_26:

(Start: 30 @14757 has 23 MA's), (33, 14763), (37, 14778), (38, 14781), (86, 15033), (98, 15111), (103, 15135), (142, 15336), (153, 15369), (163, 15396), (176, 15456), (202, 15591), (206, 15603), (224, 15684), (235, 15780), (240, 15825), (260, 15924), (264, 15948), (266, 15957), (281, 16017), (291, 16077), (294, 16089), (296, 16101), (298, 16110), (303, 16149),

Gene: Superstar\_9 Start: 4995, Stop: 6473, Start Num: 45

Candidate Starts for Superstar\_9:

(Start: 45 @4995 has 264 MA's), (64, 5112), (74, 5172), (82, 5211), (98, 5304), (142, 5517), (148, 5544), (177, 5664), (178, 5670), (181, 5682), (194, 5757), (199, 5775), (203, 5787), (205, 5793), (229, 5940), (236, 5997), (243, 6045), (269, 6177), (282, 6234), (295, 6312), (298, 6324), (304, 6366), (324, 6459),

Gene: SwagPiggett\_3 Start: 2241, Stop: 3611, Start Num: 45

Candidate Starts for SwagPiggett\_3:

(Start: 45 @2241 has 264 MA's), (Start: 54 @2277 has 9 MA's), (Start: 58 @2301 has 1 MA's), (59, 2310), (60, 2316), (61, 2319), (65, 2358), (79, 2424), (80, 2427), (90, 2496), (98, 2535), (100, 2544), (110, 2592), (121, 2652), (135, 2700), (144, 2745), (166, 2790), (171, 2817), (178, 2862), (183, 2883), (184, 2886), (185, 2889), (189, 2910), (191, 2919), (200, 2970), (201, 2973), (204, 2982), (210, 3012), (214, 3033), (225, 3102), (228, 3111), (233, 3162), (234, 3165), (242, 3225), (244, 3231), (258, 3309), (264, 3342), (267, 3354), (278, 3393), (283, 3417), (316, 3579),

Gene: TDanisky\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for TDanisky\_3:

(Start: 45 @2256 has 264 MA's), (Start: 54 @2292 has 9 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (79, 2439), (80, 2442), (90, 2511), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (240, 3234), (242, 3240), (243, 3243), (244, 3246), (255, 3303), (264, 3357), (267, 3369), (276, 3402), (278, 3408), (283, 3432), (309, 3576), (316, 3594),

Gene: TagePighter\_8 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for TagePighter\_8:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (130, 4538), (142, 4580), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (319, 5456), (324, 5477),

Gene: Taj\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Taj\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Tefunt\_7 Start: 3857, Stop: 5332, Start Num: 45

Candidate Starts for Tefunt\_7:

(Start: 45 @3857 has 264 MA's), (64, 3974), (82, 4073), (98, 4166), (158, 4439), (181, 4544), (194, 4619), (199, 4637), (203, 4649), (205, 4655), (229, 4802), (235, 4853), (236, 4859), (243, 4907), (269, 5039), (282, 5096), (298, 5186), (324, 5318),

Gene: Thestral\_8 Start: 3928, Stop: 5409, Start Num: 45

Candidate Starts for Thestral\_8:

(Start: 45 @3928 has 264 MA's), (64, 4045), (70, 4093), (74, 4105), (82, 4144), (98, 4237), (102, 4258), (142, 4450), (148, 4477), (181, 4615), (194, 4690), (199, 4708), (205, 4726), (208, 4735), (225, 4852), (229, 4873), (236, 4930), (243, 4978), (269, 5110), (282, 5167), (298, 5257), (300, 5266), (324, 5395),

Gene: TinaBelcher\_7 Start: 3879, Stop: 5354, Start Num: 45

Candidate Starts for TinaBelcher\_7:

(Start: 45 @3879 has 264 MA's), (64, 3996), (70, 4044), (74, 4056), (82, 4095), (98, 4188), (102, 4209), (142, 4401), (148, 4428), (181, 4566), (190, 4608), (194, 4641), (199, 4659), (205, 4677), (208, 4686), (229, 4824), (236, 4881), (243, 4929), (269, 5061), (282, 5118), (298, 5208), (300, 5217), (320, 5322), (324, 5340),

Gene: Toma\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Toma\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (82, 4272), (113, 4455), (130, 4539), (142, 4581), (178, 4737), (181, 4749), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (324, 5478),

Gene: Toniann\_31 Start: 10389, Stop: 12005, Start Num: 22

Candidate Starts for Toniann\_31:

(Start: 22 @10389 has 25 MA's), (Start: 42 @10440 has 4 MA's), (46, 10449), (Start: 58 @10509 has 1 MA's), (65, 10566), (72, 10602), (83, 10647), (87, 10674), (120, 10878), (128, 10908), (138, 10944), (147, 10989), (151, 10998), (154, 11013), (183, 11151), (184, 11154), (187, 11172), (189, 11178), (195, 11220), (227, 11412), (238, 11499), (242, 11529), (251, 11574), (260, 11622), (262, 11637), (279, 11700), (283, 11724), (284, 11730), (286, 11739), (300, 11808), (309, 11859), (310, 11862), (313, 11874),

Gene: Topiatin\_5 Start: 2903, Stop: 4273, Start Num: 45

Candidate Starts for Topiatin\_5:

(Start: 45 @2903 has 264 MA's), (Start: 54 @2939 has 9 MA's), (Start: 58 @2963 has 1 MA's), (59, 2972), (60, 2978), (61, 2981), (65, 3020), (79, 3086), (80, 3089), (90, 3158), (98, 3197), (100, 3206), (110, 3254), (121, 3314), (135, 3362), (144, 3407), (166, 3452), (171, 3479), (178, 3524), (183, 3545), (184, 3548), (185, 3551), (189, 3572), (191, 3581), (200, 3632), (201, 3635), (204, 3644), (210, 3674), (214, 3695), (225, 3764), (228, 3773), (233, 3824), (234, 3827), (242, 3887), (244, 3893), (258, 3971), (264, 4004), (267, 4016), (278, 4055), (283, 4079), (316, 4241),

Gene: Towmatter\_12 Start: 6567, Stop: 8132, Start Num: 22

Candidate Starts for Towmatter\_12:

(Start: 22 @6567 has 25 MA's), (Start: 42 @6618 has 4 MA's), (72, 6783), (83, 6828), (94, 6903), (95, 6906), (100, 6933), (113, 7014), (120, 7032), (121, 7035), (141, 7113), (147, 7143), (177, 7266), (189, 7326), (201, 7389), (220, 7497), (237, 7635), (242, 7674), (252, 7722), (257, 7746), (269, 7809), (292, 7914), (300, 7953), (309, 8004), (310, 8007), (313, 8019),

Gene: Tracker\_25 Start: 13700, Stop: 15289, Start Num: 30

Candidate Starts for Tracker\_25:

(Start: 30 @13700 has 23 MA's), (33, 13706), (37, 13721), (41, 13730), (55, 13784), (86, 13976), (98, 14054), (103, 14078), (106, 14108), (153, 14312), (163, 14339), (170, 14366), (184, 14456), (196, 14528), (201, 14543), (206, 14558), (224, 14639), (240, 14780), (260, 14879), (262, 14894), (264, 14903), (266, 14912), (275, 14948), (281, 14972), (296, 15056), (298, 15065), (305, 15110),

Gene: Triste\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Triste\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (148, 4608), (156, 4641), (178, 4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: Triumph\_9 Start: 3896, Stop: 5380, Start Num: 45

Candidate Starts for Triumph\_9:

(Start: 45 @3896 has 264 MA's), (64, 4013), (74, 4073), (82, 4112), (98, 4205), (131, 4379), (142, 4418), (158, 4478), (177, 4565), (178, 4571), (181, 4583), (194, 4658), (199, 4676), (203, 4688), (205, 4694), (229, 4841), (235, 4892), (236, 4898), (248, 4967), (282, 5135), (300, 5234), (304, 5267), (314, 5309), (320, 5342), (324, 5366),

Gene: TrvxScott\_6 Start: 3880, Stop: 5355, Start Num: 45

Candidate Starts for TrvxScott\_6:

(Start: 45 @3880 has 264 MA's), (64, 3997), (70, 4045), (74, 4057), (82, 4096), (98, 4189), (102, 4210), (142, 4402), (148, 4429), (181, 4567), (194, 4642), (199, 4660), (205, 4678), (208, 4687), (229, 4825), (236, 4882), (269, 5062), (282, 5119), (298, 5209), (300, 5218), (320, 5323), (324, 5341),

Gene: TuanPN\_7 Start: 4059, Stop: 5495, Start Num: 45

Candidate Starts for TuanPN\_7:

(Start: 42 @4053 has 4 MA's), (Start: 45 @4059 has 264 MA's), (50, 4083), (56, 4107), (64, 4176), (70, 4224), (74, 4236), (82, 4275), (108, 4428), (113, 4458), (130, 4542), (142, 4584), (156, 4644), (160, 4650), (178, 4740), (181, 4752), (194, 4827), (199, 4845), (224, 4923), (229, 4968), (236, 5025), (277, 5238), (282, 5262), (304, 5394), (324, 5481),

Gene: Turuncu\_29 Start: 15070, Stop: 16647, Start Num: 29

Candidate Starts for Turuncu\_29:

(Start: 29 @15070 has 6 MA's), (86, 15346), (153, 15682), (176, 15769), (196, 15886), (206, 15916), (224, 15997), (240, 16138), (260, 16237), (264, 16261), (266, 16270), (275, 16306), (281, 16330), (296, 16414), (298, 16423), (305, 16468),

Gene: Tweety\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Tweety\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (258, 3323), (264, 3356), (267, 3368), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Unstoppable\_7 Start: 4081, Stop: 5523, Start Num: 45

Candidate Starts for Unstoppable\_7:

(40, 4072), (Start: 42 @4075 has 4 MA's), (Start: 45 @4081 has 264 MA's), (64, 4198), (70, 4246), (130, 4564), (142, 4606), (148, 4633), (156, 4666), (178, 4759), (181, 4771), (199, 4864), (224, 4942), (229, 4987), (236, 5044), (239, 5068), (282, 5281), (324, 5509),

Gene: Urza\_7 Start: 4278, Stop: 5753, Start Num: 45

Candidate Starts for Urza\_7:

(7, 3741), (12, 3885), (Start: 45 @4278 has 264 MA's), (Start: 49 @4299 has 1 MA's), (64, 4395), (74, 4455), (98, 4587), (102, 4608), (107, 4644), (142, 4806), (153, 4848), (175, 4932), (181, 4971), (192, 5019), (194, 5046), (199, 5064), (207, 5088), (208, 5091), (210, 5109), (215, 5145), (224, 5184), (229, 5229), (236, 5286), (239, 5310), (282, 5523), (298, 5613), (304, 5655),

Gene: VRedHorse\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for VRedHorse\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (240, 3218), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (309, 3560), (316, 3578),

Gene: Vanseggelen\_10 Start: 3797, Stop: 5233, Start Num: 45

Candidate Starts for Vanseggelen\_10:

(Start: 45 @3797 has 264 MA's), (64, 3914), (70, 3962), (74, 3974), (102, 4130), (115, 4217), (158, 4385), (161, 4391), (171, 4430), (178, 4478), (181, 4490), (194, 4565), (199, 4583), (224, 4658), (236, 4760), (263, 4919), (264, 4922), (269, 4940), (272, 4952), (282, 4997), (291, 5054), (298, 5087), (304, 5129), (324, 5219),

Gene: Verabelle\_8 Start: 4165, Stop: 5598, Start Num: 45

Candidate Starts for Verabelle\_8:

(Start: 45 @4165 has 264 MA's), (64, 4282), (70, 4330), (74, 4342), (115, 4585), (158, 4750), (161, 4756), (178, 4843), (181, 4855), (194, 4930), (199, 4948), (224, 5023), (236, 5125), (239, 5149), (263, 5284), (264, 5287), (269, 5305), (272, 5317), (282, 5362), (291, 5419), (298, 5452), (304, 5494), (324, 5584),

Gene: Verse\_7 Start: 4246, Stop: 5679, Start Num: 45

Candidate Starts for Verse\_7:

(Start: 45 @4246 has 264 MA's), (64, 4363), (70, 4411), (74, 4423), (115, 4666), (139, 4753), (158, 4831), (181, 4936), (194, 5011), (199, 5029), (216, 5068), (224, 5104), (236, 5206), (264, 5368), (269, 5386), (282, 5443), (304, 5575), (312, 5605), (324, 5665),

Gene: Veteran\_3 Start: 2256, Stop: 3626, Start Num: 45

Candidate Starts for Veteran\_3:

(Start: 45 @2256 has 264 MA's), (Start: 53 @2289 has 2 MA's), (Start: 58 @2316 has 1 MA's), (59, 2325), (60, 2331), (61, 2334), (65, 2373), (78, 2436), (79, 2439), (80, 2442), (90, 2511), (92, 2517), (98, 2550), (100, 2559), (110, 2607), (121, 2667), (135, 2715), (144, 2760), (166, 2805), (171, 2832), (178, 2877), (183, 2898), (184, 2901), (185, 2904), (189, 2925), (191, 2934), (200, 2985), (201, 2988), (204, 2997), (210, 3027), (214, 3048), (225, 3117), (228, 3126), (233, 3177), (234, 3180), (242, 3240), (244, 3246), (258, 3324), (264, 3357), (267, 3369), (278, 3408), (283, 3432), (316, 3594),

Gene: VieEnRose\_7 Start: 4373, Stop: 5827, Start Num: 49

Candidate Starts for VieEnRose\_7:

(7, 3815), (12, 3959), (Start: 45 @4352 has 264 MA's), (Start: 49 @4373 has 1 MA's), (64, 4469), (74, 4529), (98, 4661), (102, 4682), (107, 4718), (142, 4880), (153, 4922), (175, 5006), (181, 5045), (192, 5093), (194, 5120), (199, 5138), (207, 5162), (208, 5165), (210, 5183), (215, 5219), (224, 5258), (229, 5303), (236, 5360), (239, 5384), (282, 5597), (298, 5687), (304, 5729),

Gene: Violac\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Violac\_3:

(Start: 45 @2239 has 264 MA's), (Start: 53 @2272 has 2 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (78, 2419), (79, 2422), (80, 2425), (90, 2494), (92, 2500), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204,

2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (264, 3340), (267, 3352), (276, 3385), (278, 3391), (283, 3415), (316, 3577),

Gene: Vivum\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Vivum\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (213, 3029), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Wachhund\_3 Start: 2240, Stop: 3598, Start Num: 45

Candidate Starts for Wachhund\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (238, 3194), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: Wee\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Wee\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Werner\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Werner\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (148, 4608), (156, 4641), (160, 4647), (178, 4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: Whatever\_7 Start: 4056, Stop: 5492, Start Num: 45

Candidate Starts for Whatever\_7:

(Start: 42 @4050 has 4 MA's), (Start: 45 @4056 has 264 MA's), (50, 4080), (56, 4104), (64, 4173), (70, 4221), (74, 4233), (82, 4272), (108, 4425), (130, 4539), (142, 4581), (148, 4608), (156, 4641), (160, 4647), (178, 4737), (181, 4749), (194, 4824), (199, 4842), (224, 4920), (229, 4965), (236, 5022), (277, 5235), (282, 5259), (304, 5391), (319, 5457), (324, 5478),

Gene: Whatsapiecost\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for Whatsapiecost\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (243, 3242), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

(316, 3593),

Gene: Wheezy\_25 Start: 13903, Stop: 15492, Start Num: 30

Candidate Starts for Wheezy\_25:

(Start: 30 @13903 has 23 MA's), (33, 13909), (37, 13924), (41, 13933), (55, 13987), (86, 14179), (98, 14257), (103, 14281), (106, 14311), (153, 14515), (163, 14542), (184, 14659), (196, 14731), (201, 14746), (206, 14761), (224, 14842), (240, 14983), (260, 15082), (262, 15097), (264, 15106), (266, 15115), (275, 15151), (281, 15175), (296, 15259), (298, 15268), (305, 15313),

Gene: WhoseManz\_27 Start: 11741, Stop: 13363, Start Num: 19

Candidate Starts for WhoseManz\_27:

(1, 10973), (2, 11045), (3, 11048), (8, 11294), (9, 11357), (11, 11405), (Start: 19 @11741 has 7 MA's), (Start: 30 @11786 has 23 MA's), (43, 11819), (163, 12425), (173, 12470), (196, 12602), (206, 12632), (224, 12713), (235, 12809), (239, 12839), (240, 12854), (264, 12977), (266, 12986), (275, 13022), (281, 13046), (293, 13112), (296, 13130), (298, 13139), (305, 13184),

Gene: Whouxphf\_3 Start: 2273, Stop: 3598, Start Num: 53

Candidate Starts for Whouxphf\_3:

(Start: 45 @2240 has 264 MA's), (Start: 53 @2273 has 2 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (78, 2420), (79, 2423), (80, 2426), (90, 2495), (92, 2501), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (126, 2672), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (276, 3386), (278, 3392), (283, 3416), (309, 3560),

Gene: WillSterrel\_3 Start: 2243, Stop: 3613, Start Num: 45

Candidate Starts for WillSterrel\_3:

(Start: 45 @2243 has 264 MA's), (Start: 54 @2279 has 9 MA's), (Start: 58 @2303 has 1 MA's), (59, 2312), (60, 2318), (61, 2321), (65, 2360), (79, 2426), (80, 2429), (90, 2498), (98, 2537), (100, 2546), (110, 2594), (121, 2654), (135, 2702), (144, 2747), (166, 2792), (171, 2819), (178, 2864), (183, 2885), (184, 2888), (185, 2891), (189, 2912), (191, 2921), (200, 2972), (201, 2975), (204, 2984), (210, 3014), (214, 3035), (225, 3104), (228, 3113), (233, 3164), (234, 3167), (242, 3227), (244, 3233), (264, 3344), (267, 3356), (276, 3389), (278, 3395), (283, 3419), (316, 3581),

Gene: WilliamBoone\_31 Start: 9788, Stop: 11401, Start Num: 22

Candidate Starts for WilliamBoone\_31:

(Start: 22 @9788 has 25 MA's), (Start: 42 @9839 has 4 MA's), (46, 9848), (Start: 58 @9908 has 1 MA's), (59, 9917), (65, 9965), (71, 9998), (72, 10001), (83, 10046), (87, 10073), (120, 10277), (128, 10307), (138, 10343), (139, 10352), (147, 10388), (151, 10397), (154, 10412), (184, 10553), (187, 10571), (189, 10577), (195, 10619), (225, 10805), (227, 10811), (242, 10928), (251, 10973), (260, 11021), (279, 11099), (283, 11123), (284, 11129), (286, 11138), (300, 11207), (301, 11222), (309, 11258), (310, 11261), (313, 11273), (315, 11279),

Gene: XFactor\_3 Start: 2255, Stop: 3625, Start Num: 45

Candidate Starts for XFactor\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (79, 2438), (80, 2441), (90, 2510), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (240, 3233), (242, 3239), (244, 3245), (255, 3302), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575), (316, 3593),

Gene: Yasdni1\_7 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Yasdni1\_7:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (74, 4232), (82, 4271), (108, 4424), (113, 4454), (130, 4538), (142, 4580), (156, 4640), (160, 4646), (178, 4736), (181, 4748), (194, 4823), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (277, 5234), (282, 5258), (304, 5390), (324, 5477),

Gene: Yndexa\_27 Start: 13681, Stop: 15303, Start Num: 19

Candidate Starts for Yndexa\_27:

(Start: 19 @13681 has 7 MA's), (Start: 30 @13726 has 23 MA's), (38, 13750), (43, 13759), (163, 14365), (173, 14410), (196, 14542), (206, 14572), (224, 14653), (235, 14749), (239, 14779), (240, 14794), (264, 14917), (266, 14926), (275, 14962), (281, 14986), (293, 15052), (296, 15070), (298, 15079), (305, 15124),

Gene: Yorick\_3 Start: 2239, Stop: 3609, Start Num: 45

Candidate Starts for Yorick\_3:

(Start: 45 @2239 has 264 MA's), (Start: 54 @2275 has 9 MA's), (Start: 58 @2299 has 1 MA's), (59, 2308), (60, 2314), (61, 2317), (65, 2356), (79, 2422), (80, 2425), (90, 2494), (98, 2533), (100, 2542), (110, 2590), (121, 2650), (135, 2698), (144, 2743), (166, 2788), (171, 2815), (178, 2860), (183, 2881), (184, 2884), (185, 2887), (189, 2908), (191, 2917), (200, 2968), (201, 2971), (204, 2980), (210, 3010), (214, 3031), (225, 3100), (228, 3109), (233, 3160), (234, 3163), (242, 3223), (244, 3229), (258, 3307), (264, 3340), (267, 3352), (278, 3391), (283, 3415), (316, 3577),

Gene: Yosif\_8 Start: 4526, Stop: 5956, Start Num: 45

Candidate Starts for Yosif\_8:

(Start: 45 @4526 has 264 MA's), (64, 4643), (74, 4703), (98, 4838), (102, 4859), (115, 4946), (158, 5111), (165, 5129), (178, 5204), (181, 5216), (194, 5291), (199, 5309), (224, 5384), (232, 5459), (236, 5486), (254, 5591), (280, 5711), (282, 5723), (298, 5813), (304, 5855), (324, 5945),

Gene: Yvonnetastic\_29 Start: 12189, Stop: 13751, Start Num: 22

Candidate Starts for Yvonnetastic\_29:

(15, 12105), (Start: 22 @12189 has 25 MA's), (Start: 42 @12240 has 4 MA's), (46, 12249), (65, 12366), (71, 12399), (83, 12447), (84, 12450), (86, 12465), (87, 12474), (97, 12534), (101, 12555), (111, 12612), (120, 12678), (122, 12684), (128, 12708), (137, 12741), (149, 12795), (151, 12798), (177, 12918), (187, 12972), (189, 12978), (201, 13041), (220, 13149), (239, 13308), (242, 13329), (251, 13374), (255, 13392), (265, 13452), (269, 13464), (270, 13467), (306, 13647), (310, 13662), (314, 13677),

Gene: Zainub\_9 Start: 4426, Stop: 5895, Start Num: 45

Candidate Starts for Zainub\_9:

(Start: 45 @4426 has 264 MA's), (64, 4543), (74, 4603), (82, 4642), (98, 4735), (102, 4756), (142, 4948), (148, 4975), (171, 5053), (181, 5113), (190, 5155), (194, 5188), (199, 5206), (205, 5224), (208, 5233), (221, 5314), (229, 5371), (235, 5422), (236, 5428), (269, 5608), (282, 5665), (298, 5755), (300, 5764), (324, 5881),

Gene: ZamZam\_7 Start: 4178, Stop: 5602, Start Num: 45

Candidate Starts for ZamZam\_7:

(Start: 45 @4178 has 264 MA's), (64, 4295), (70, 4343), (74, 4355), (98, 4490), (129, 4655), (148, 4730), (158, 4763), (161, 4769), (181, 4868), (194, 4943), (199, 4961), (216, 5000), (224, 5036), (229, 5081), (236, 5138), (254, 5243), (282, 5375), (304, 5507), (312, 5537), (323, 5588),

Gene: Zemlya\_8 Start: 4055, Stop: 5491, Start Num: 45

Candidate Starts for Zemlya\_8:

(Start: 42 @4049 has 4 MA's), (Start: 45 @4055 has 264 MA's), (50, 4079), (56, 4103), (64, 4172), (70, 4220), (82, 4271), (108, 4424), (113, 4454), (130, 4538), (142, 4580), (160, 4646), (178, 4736), (181, 4748), (199, 4841), (224, 4919), (229, 4964), (236, 5021), (239, 5045), (277, 5234), (282, 5258), (324, 5477),

Gene: Zerg\_3 Start: 2240, Stop: 3610, Start Num: 45

Candidate Starts for Zerg\_3:

(Start: 45 @2240 has 264 MA's), (Start: 54 @2276 has 9 MA's), (Start: 58 @2300 has 1 MA's), (59, 2309), (60, 2315), (61, 2318), (65, 2357), (79, 2423), (80, 2426), (90, 2495), (98, 2534), (100, 2543), (110, 2591), (121, 2651), (135, 2699), (144, 2744), (166, 2789), (171, 2816), (178, 2861), (183, 2882), (184, 2885), (185, 2888), (189, 2909), (191, 2918), (200, 2969), (201, 2972), (204, 2981), (210, 3011), (214, 3032), (225, 3101), (228, 3110), (233, 3161), (234, 3164), (242, 3224), (244, 3230), (258, 3308), (264, 3341), (267, 3353), (278, 3392), (283, 3416), (316, 3578),

Gene: Zion\_13 Start: 8757, Stop: 10319, Start Num: 35

Candidate Starts for Zion\_13:

(Start: 27 @8742 has 2 MA's), (Start: 35 @8757 has 6 MA's), (52, 8820), (57, 8841), (62, 8883), (69, 8943), (71, 8952), (74, 8961), (83, 9000), (98, 9096), (118, 9216), (119, 9222), (134, 9285), (136, 9291), (167, 9405), (170, 9426), (179, 9480), (183, 9504), (196, 9579), (201, 9594), (206, 9609), (225, 9714), (228, 9723), (240, 9831), (267, 9963), (282, 10026), (288, 10071), (299, 10116), (300, 10122), (302, 10149), (305, 10158), (307, 10173), (325, 10257),

Gene: Zizzle\_3 Start: 2255, Stop: 3613, Start Num: 45

Candidate Starts for Zizzle\_3:

(Start: 45 @2255 has 264 MA's), (Start: 54 @2291 has 9 MA's), (Start: 58 @2315 has 1 MA's), (59, 2324), (60, 2330), (61, 2333), (65, 2372), (78, 2435), (79, 2438), (80, 2441), (90, 2510), (92, 2516), (98, 2549), (100, 2558), (110, 2606), (121, 2666), (126, 2687), (135, 2714), (144, 2759), (166, 2804), (171, 2831), (178, 2876), (183, 2897), (184, 2900), (185, 2903), (189, 2924), (191, 2933), (200, 2984), (201, 2987), (204, 2996), (210, 3026), (214, 3047), (225, 3116), (228, 3125), (233, 3176), (234, 3179), (242, 3239), (244, 3245), (264, 3356), (267, 3368), (276, 3401), (278, 3407), (283, 3431), (309, 3575),

Gene: phiCAM\_07 Start: 4309, Stop: 5625, Start Num: 64

Candidate Starts for phiCAM\_07:

(34, 4159), (36, 4165), (Start: 45 @4192 has 264 MA's), (64, 4309), (70, 4357), (74, 4369), (115, 4612), (139, 4699), (153, 4759), (158, 4777), (161, 4783), (181, 4882), (194, 4957), (199, 4975), (216, 5014), (224, 5050), (236, 5152), (264, 5314), (269, 5332), (272, 5344), (282, 5389), (298, 5479), (304, 5521),

Gene: phiHau3\_9 Start: 4031, Stop: 5515, Start Num: 45

Candidate Starts for phiHau3\_9:

(Start: 45 @4031 has 264 MA's), (64, 4148), (70, 4196), (133, 4523), (142, 4556), (158, 4616), (178, 4709), (181, 4721), (194, 4796), (199, 4814), (203, 4826), (205, 4832), (225, 4958), (235, 5030), (236, 5036), (250, 5123), (263, 5195), (279, 5258), (282, 5273), (298, 5363), (304, 5405), (320, 5477),