

51: Cornucopia_20 +	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	139	144	155	187	193	191	208	206	230	237	244	250	260
52: Inventum_19 +	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	139	144	155	187	193	191	208	206	230	237	244	250	260
53: BodEinwohner17_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	139	144	155	187	193	191	208	206	230	237	244	250	260
54: Frankie_20	0.4	3.5	5.5	6.5	7.2	8.5	8.5	107	111	124	144	155	170	172	187	193	201	224	231	244	250	260
55: DoRead_19	0.4	3.5	5.5	6.5	7.2	8.5	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
56: ByChance_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
57: Hamulus_19 + 3	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
58: PnesterPhoto_0	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	187	193	204	204	228	231	244	250	260
59: Mahavra_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	204	228	231	244	250	260
60: Plumbus_20	0.4	3.5	5.5	6.5	7.2	8.5	8.5	106	114	121	144	155	170	174	187	193	201	224	231	244	250	260
61: Sparkdenim_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	201	224	231	244	250	260
62: Fastidio_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
63: Bubbles123_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
64: Jacob_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
65: WillSterrel_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260
66: Grimmer_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	204	228	231	244	250	260
67: Alder_20 + 2	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	201	224	231	244	250	260
68: EleanorGeorge_19 +	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
69: Zerg_19 + 1	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
70: Doomphist_19 +	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
71: Spikelee_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260
72: Boomer_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
73: Harley_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
74: Moonbeam_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
75: VRedHorse_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
76: Brushbloom_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
77: Mwanjiwa_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
78: Gandaiph_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
79: Leozimno_20 + 1	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	121	144	155	170	172	187	193	204	228	231	244	250	260
80: Jani_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	201	224	231	244	250	260
81: SassyB_19 + 1	0.2	2.5	3.5	5.5	6.5	7.2	8.5	106	114	124	144	155	170	174	187	193	201	224	231	244	250	260
82: Hades_19	0.4	3.5	5.5	6.5	7.2	8.5	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
83: Violac_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
84: Che8_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
85: Beakin_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	201	224	231	244	250	260
86: DotProduct_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
87: XFactor_19 + 3	0.4	3.5	5.5	6.5	7.2	8.5	8.5	106	114	126	144	155	170	174	187	193	201	226	231	244	250	260
88: Mattes_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
89: Biexus_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	121	144	155	170	172	187	193	201	224	231	244	250	260
90: StAmes_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	170	172	187	193	201	224	231	244	250	260
91: Radiance_19 + 1	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	187	193	191	208	206	230	237	244	250	260
92: Vivum_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	111	133	144	155	170	172	187	193	201	224	231	244	250	260
93: Stap_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260
94: Lairetium_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260
95: SimranZ1_20	0.4	3.5	5.5	6.5	7.2	8.5	8.5	106	114	126	144	155	170	174	187	193	201	226	231	244	250	260
96: Nivra_19	0.4	3.5	5.5	6.5	7.2	8.5	8.5	106	114	126	144	155	170	174	187	193	201	226	231	244	250	260
97: Lizziana_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
98: Owis12W_21 + 1	0.2	2.5	3.5	5.5	6.5	7.2	8.5	108	114	126	144	155	170	174	187	193	201	226	231	244	250	260
99: Leperchaun_19	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260
100: Mozy_20	0.2	2.5	3.5	5.5	6.5	7.2	8.5	110	118	133	144	155	187	193	191	208	206	230	237	244	250	260

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 283433 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283433 has 280 members, 29 are drafts.

Phages represented in each track:

- Track 1 : Levia_32
- Track 2 : JacoRen57_21
- Track 3 : Causa_37
- Track 4 : StAugustine_35
- Track 5 : Delton_31, Prager_31, Chill_32, Giuseppe_31, Mopey_31, Visconti_31, Troll4_31, WaldoWhy_32, SuperheroCarly_32, Helpful_32
- Track 6 : Thoth_31, BigMama_29, Erk16_31, PLOT_32, Butterscotch_31, Adjutor_32, PBI1_31
- Track 7 : Phalaborwa_31
- Track 8 : Nova_31
- Track 9 : Gumball_30, SirHarley_30
- Track 10 : KandZ_31, Penelope2018_31
- Track 11 : Doomslug_21
- Track 12 : Lucia_20, RitaG_19, Eradicator_19
- Track 13 : Royals2015_19
- Track 14 : Drago_20, Enby_20, Lorde_20, UncleRicky_20
- Track 15 : Seagreen_20, Phalconet_19, IMpilo_19, Firehouse51_20, Job42_22, Whatsapiecost_19, Medindi_19, Hegedechwinu_20, Filuzino_19
- Track 16 : Ochi17_19, Modragons_19, AlpineSix_19, Seabastian_19, OfUltron_19, Jinglebell_18, Llama_19, Oksu_20
- Track 17 : Hlubikazi_19, Strokeseat_19, Mandlovu_19
- Track 18 : SuperGrey_20
- Track 19 : BuzzLyseyear_21, RedBird_19
- Track 20 : LittleShirley_20, Peridot_21, GigiOuiOui_19, PhlipPhlop_19, Tchotchke_20, Totinger_20, Starceвич_20, EmiMonkey_19, Slim_20, Rialto_21
- Track 21 : CaptainTrips_20, KingJulian_19, DillTech15_19, MinionDave_20, Corium_19, PatoPoderoso_19, JalFarm20_21, KristaRAM_20, LunaBlu_20, Cheesepuff_21
- Track 22 : Emma_19, Spartacus_20
- Track 23 : Aubs_19
- Track 24 : Polka14_20, Dorothy_19
- Track 25 : Rockne_19, Llij_19, PMC_19
- Track 26 : Florinda_19, Quico_20, Girafales_20
- Track 27 : Beanstalk_21
- Track 28 : Guppsters_20
- Track 29 : DeadP_19, Taj_19

- Track 30 : Wachhund_19, QuickMath_20, Donkeykong_19, Kimberlium_21, MilleniumForce_20, Juice456_21, Wanda_40, Gonephishing_35, Batiatus_19, MulchExplorer_22, LittleE_40, BAKA_37, Bobi_21
- Track 31 : ArcusAngelus_19, Chevrolet_19
- Track 32 : Nitzel_20, Chuckly_19, Fancypants_19, Ardmore_19
- Track 33 : Awesomesauce_20, TootsiePop_20, Misha28_20
- Track 34 : Sandalphon_20, Ovechkin_19, Minnie_20
- Track 35 : BlueCrab_19, Daenerys_19, Scottish_20, JoeyJr_19, KingMidas_20, OldBen_19, Pacc40_19, PHappiness_19
- Track 36 : DaddyRickover_19
- Track 37 : MisterCuddles_19, Karhdo_19, Girr_19, Phasih_20, Veteran_19, GUmbie_19, Ruby_19
- Track 38 : Deb65_19, Eish_19, Nimbo_19, Geralt_19
- Track 39 : Phatniss_20, DirtMcgirt_20, Mantra_19
- Track 40 : Saal_19, DRBy19_19, TDanisky_19, Philus_19, SwagPigglett_19
- Track 41 : James_19, Gorge_19, BobaPhett_19, LilMoolah_19, Sabbb_20, Zizzle_19
- Track 42 : Piper2020_20
- Track 43 : Tweety_19, Rita_19
- Track 44 : NewHope4_20, Enzomatic_21, Polo2Bam_21
- Track 45 : Alexphander_21
- Track 46 : Doug_20
- Track 47 : Galactic_19
- Track 48 : FreddyB_19, Yorick_19, Burwell21_19, Cabrinians_19, NormanBulbieJr_19, OlympiaSaint_19, Spoonbill_19, Martik_19, ShiLan_19, ShowerHandel_19, Priscilla_19
- Track 49 : DaWorst_21
- Track 50 : Byougenkin_19
- Track 51 : Cornucopia_20, Marker_20
- Track 52 : Inventum_19, Sassafras_19, Empress_20
- Track 53 : BodEinwohner17_19
- Track 54 : Frankie_20
- Track 55 : DoRead_19
- Track 56 : ByChance_19
- Track 57 : Hamulus_19, Omega_39, Wee_20, Blarby_26
- Track 58 : PhesterPhotato_19
- Track 59 : Mahavrat_19
- Track 60 : Plumbus_20
- Track 61 : Sparkdehlily_19
- Track 62 : Fastidio_19
- Track 63 : Bubbles123_20
- Track 64 : Jarcob_19
- Track 65 : WillSterrel_20
- Track 66 : Grimmer_20
- Track 67 : Aloeri_20, DocMcStuffins_20, ChickenDinner_20
- Track 68 : EleanorGeorge_19, Mova_20
- Track 69 : Zerg_19, RockyHorror_20
- Track 70 : Doomphist_19, Poenanya_19
- Track 71 : Spikelee_20
- Track 72 : Boomer_20
- Track 73 : Harley_19
- Track 74 : Moonbeam_20
- Track 75 : VRedHorse_19

- Track 76 : Brushbloom_20
- Track 77 : Mwanjiwa_19
- Track 78 : Gandalph_19
- Track 79 : Leozinho_20, SiSi_19
- Track 80 : Jant_19
- Track 81 : SassyB_19, PopTart_19
- Track 82 : Hades_19
- Track 83 : Violac_20
- Track 84 : Che8_20
- Track 85 : Beakin_20
- Track 86 : DotProduct_19
- Track 87 : XFactor_19, DLane_19, Fruitloop_19, Melissauren88_19
- Track 88 : Mattes_19
- Track 89 : Blexus_19
- Track 90 : StAnnes_19
- Track 91 : Radiance_19, Tootsieroll_20
- Track 92 : Vivum_19
- Track 93 : Stap_20
- Track 94 : Latretium_20
- Track 95 : SimranZ1_20
- Track 96 : Nivrat_19
- Track 97 : Lizziana_19
- Track 98 : OwlsT2W_21, DosHalletts_20
- Track 99 : Leperchaun_19
- Track 100 : Mozy_20
- Track 101 : Ramsey_20
- Track 102 : Maravista_19
- Track 103 : Dante_19
- Track 104 : Topiatin_21
- Track 105 : Whouxphf_19
- Track 106 : SG4_19
- Track 107 : Ibhubesi_19
- Track 108 : Juniper1_19
- Track 109 : Emmaloid_20
- Track 110 : Mutaforma13_19
- Track 111 : Krakatau_20
- Track 112 : IrishSherpFalk_20
- Track 113 : Flathead_20
- Track 114 : SilverChicken_25
- Track 115 : Toron_21
- Track 116 : Optimus_38
- Track 117 : Duke13_37, IbOuu_19
- Track 118 : Minerva_40
- Track 119 : Zenon_32
- Track 120 : Rope_31
- Track 121 : Yelo_31, Weiss13_31, MontyDev_31, Papyrus_31
- Track 122 : Candle_31, Send513_31
- Track 123 : Nilo_32
- Track 124 : Riparian_31
- Track 125 : Wildcat_44, MaryV_44, EniyanLRS_41
- Track 126 : Cosmo_44
- Track 127 : Azrael100_43
- Track 128 : Nebkiss_23, Gaia_22

- Track 129 : Kumao_31

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

The start number called the most often in the published annotations is 12, it was called in 225 of the 251 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander_21, Aloeri_20, AlpineSix_19, ArcusAngelus_19, Ardmore_19, Aubs_19, Awesomesauce_20, Azrael100_43, BAKA_37, Batiatus_19, Beakin_20, Beanstalk_21, Blarby_26, Blexus_19, BlueCrab_19, BobaPhett_19, Bobi_21, BodEinwohner17_19, Boomer_20, Brushbloom_20, Bubbles123_20, Burwell21_19, BuzzLyseyear_21, ByChance_19, Byougenkin_19, Cabrinians_19, Candle_31, CaptainTrips_20, Che8_20, CheesePuff_21, Chevrolet_19, ChickenDinner_20, Chuckly_19, Corium_19, Cornucopia_20, Cosmo_44, DLane_19, DRBy19_19, DaWorst_21, DaddyRickover_19, Daenerys_19, Dante_19, DeadP_19, Deb65_19, DillTech15_19, DirtMcGirt_20, DoRead_19, DocMcStuffins_20, Donkeykong_19, Doomphist_19, Dorothy_19, DosHalletts_20, DotProduct_19, Doug_20, Drago_20, Duke13_37, Eish_19, EleanorGeorge_19, EmiMonkey_19, Emma_19, Emmaloid_20, Empress_20, Enby_20, EniyanLRS_41, Enzomatic_21, Eradicator_19, Fancypants_19, Fastidio_19, Filuzino_19, Firehouse51_20, Flathead_20, Florinda_19, Frankie_20, FreddyB_19, Fruitloop_19, GUmbe_19, Gaia_22, Galactic_19, Gandolph_19, Geralt_19, GigiOuiOui_19, Girafales_20, Girr_19, Gonephishing_35, Gorge_19, Grimmer_20, Guppsters_20, Hades_19, Hamulus_19, Harley_19, Hegedechwinu_20, Hlubikazi_19, IMpilo_19, IbOuu_19, Ibhubesi_19, Inventum_19, IrishSherpFalk_20, JalFarm20_21, James_19, Jant_19, Jarcob_19, Jinglebell_18, Job42_22, JoeyJr_19, Juice456_21, Juniper1_19, Karhdo_19, Kimberlium_21, KingJulian_19, KingMidas_20, Krakatau_20, KristaRAM_20, Kumao_31, Latretium_20, Leozinho_20, Leperchaun_19, Levia_32, LilMoolah_19, LittleE_40, LittleShirley_20, Lizziana_19, Llama_19, Llij_19, Lorde_20, Lucia_20, LunaBlu_20, Mahavrat_19, Mandlovu_19, Mantra_19, Maravista_19, Marker_20, Martik_19, MaryV_44, Medindi_19, Melissauren88_19, MilleniumForce_20, Minerva_40, MinionDave_20, Minnie_20, Misha28_20, MisterCuddles_19, Modragons_19, MontyDev_31, Moonbeam_20, Mova_20, Mozy_20, MulchExplorer_22, Mutaforma13_19, Mwanjiwa_19, Nebkiss_23, NewHope4_20, Nilo_32, Nimbo_19, Nitzel_20, Nivrat_19, NormanBulbieJr_19, Ochi17_19, OfUltron_19, Oksu_20, OldBen_19, OlympiaSaint_19, Omega_39, Optimus_38, Ovechkin_19, OwlsT2W_21, PHappiness_19, PMC_19, Pacc40_19, Papyrus_31, PatoPoderoso_19, Peridot_21, Phalconet_19, Phasih_20, Phatniss_20, PhesterPhotato_19, Philus_19, PhilipPhlop_19, Piper2020_20, Plumbus_20, Poenanya_19, Polka14_20, Polo2Bam_21, PopTart_19, Priscilla_19, QuickMath_20, Quico_20, Radiance_19, Ramsey_20, RedBird_19, Rialto_21, Riparian_31, RitaG_19, Rita_19, Rockne_19, RockyHorror_20, Rope_31, Royals2015_19, Ruby_19, SG4_19, Saal_19, Sabbb_20, Sandalphon_20, Sassafras_19, SassyB_19, Scottish_20, Sebastian_19, Seagreen_20, Send513_31, ShiLan_19, ShowerHandel_19, SiSi_19, SilverChicken_25, SimranZ1_20, Slim_20, Spartacus_20, Spikelee_20, Spoonbill_19, StAnnes_19, Stap_20, Starceovich_20, StrokeSeat_19, SuperGrey_20, SwagPiggett_19, TDanisky_19, Taj_19, Tchochke_20, TootsiePop_20, Tootsieroll_20, Topiatin_21, Toron_21, Totinger_20, Tweety_19, UncleRicky_20, VRedHorse_19, Veteran_19, Violac_20, Vivum_19,

Wachhund_19, Wanda_40, Wee_20, Weiss13_31, Whatsapiecost_19, Whouxphf_19, Wildcat_44, WillSterrel_20, XFactor_19, Yelo_31, Yorick_19, Zenon_32, Zerg_19, Zizzle_19,

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

- Doomslug_21, Mattes_19, Sparkdehlily_19,

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

- Adjutor_32, BigMama_29, Butterscotch_31, Causa_37, Chill_32, Delton_31, Erk16_31, Giuseppe_31, Gumball_30, Helpful_32, JacoRen57_21, KandZ_31, Mopey_31, Nova_31, PBI1_31, PLOT_32, Penelope2018_31, Phalaborwa_31, Prager_31, SirHarley_30, StAugustine_35, SuperheroCarly_32, Thoth_31, Troll4_31, Visconti_31, WaldoWhy_32,

Summary by start number:

Start 9:

- Found in 140 of 280 (50.0%) of genes in pham
- No Manual Annotations of this start.
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Doomslug_21 (F),

Start 11:

- Found in 26 of 280 (9.3%) of genes in pham
- Manual Annotations of this start: 24 of 251
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor_32 (D1), BigMama_29 (D1), Butterscotch_31 (D1), Causa_37 (A1), Chill_32 (D1), Delton_31 (D1), Erk16_31 (D1), Giuseppe_31 (D1), Gumball_30 (D1), Helpful_32 (D1), JacoRen57_21 (AB), KandZ_31 (D1), Mopey_31 (D1), Nova_31 (D1), PBI1_31 (D1), PLOT_32 (D1), Penelope2018_31 (D1), Phalaborwa_31 (D1), Prager_31 (D1), SirHarley_30 (D1), StAugustine_35 (A1), SuperheroCarly_32 (D1), Thoth_31 (D1), Troll4_31 (D1), Visconti_31 (D1), WaldoWhy_32 (D1),

Start 12:

- Found in 254 of 280 (90.7%) of genes in pham
- Manual Annotations of this start: 225 of 251
- Called 98.8% of time when present
- Phage (with cluster) where this start called: Alexphander_21 (F1), Aloeri_20 (F1), AlpineSix_19 (F1), ArcusAngelus_19 (F1), Ardmore_19 (F1), Aubs_19 (F1), Awesomesauce_20 (F1), Azrael100_43 (V), BAKA_37 (J), Batiatus_19 (F1), Beakin_20 (F1), Beanstalk_21 (F1), Blarby_26 (F), Blexus_19 (F1), BlueCrab_19 (F1), BobaPhett_19 (F1), Bobi_21 (F1), BodEinwohner17_19 (F1), Boomer_20 (F1), Brushbloom_20 (F1), Bubbles123_20 (F1), Burwell21_19 (F1), BuzzLyseyear_21 (F1), ByChance_19 (F1), Byougenkin_19 (F1), Cabrinians_19 (F1), Candle_31 (R), CaptainTrips_20 (F1), Che8_20 (F1), CheesePuff_21 (F1), Chevrolet_19 (F1), ChickenDinner_20 (F1), Chuckly_19 (F1), Corium_19 (F1), Cornucopia_20 (F1), Cosmo_44 (V), DLane_19 (F1), DRBy19_19 (F1), DaWorst_21 (F1), DaddyRickover_19 (F1), Daenerys_19 (F1), Dante_19 (F1), DeadP_19 (F1), Deb65_19 (F1), DillTech15_19 (F1), DirtMcGirt_20 (F1), DoRead_19 (F1), DocMcStuffins_20 (F1), Donkeykong_19 (F1), Doomphist_19 (F1), Dorothy_19 (F1), DosHalletts_20 (F1), DotProduct_19 (F1), Doug_20 (F1), Drago_20 (F1), Duke13_37 (J), Eish_19 (F1), EleanorGeorge_19 (F1), EmiMonkey_19 (F1), Emma_19 (F1),

Emmaloid_20 (F1), Empress_20 (F1), Enby_20 (F1), EniyanLRS_41 (V), Enzomatic_21 (F1), Eradicator_19 (F1), Fancypants_19 (F1), Fastidio_19 (F1), Filuzino_19 (F1), Firehouse51_20 (F1), Flathead_20 (F1), Florinda_19 (F1), Frankie_20 (F1), FreddyB_19 (F1), Fruitloop_19 (F1), GUmbie_19 (F1), Gaia_22 (X), Galactic_19 (F1), Gandolph_19 (F1), Geralt_19 (F1), GigiOuiOui_19 (F1), Girafales_20 (F1), Girr_19 (F1), Gonephishing_35 (J), Gorge_19 (F1), Grimmer_20 (F1), Guppsters_20 (F1), Hades_19 (F1), Hamulus_19 (F1), Harley_19 (F1), Hegedechwinu_20 (F1), Hlubikazi_19 (F1), IMpilo_19 (F1), IbOuu_19 (F1), Ibhubesi_19 (F1), Inventum_19 (F1), IrishSherpFalk_20 (F1), JalFarm20_21 (F1), James_19 (F1), Jant_19 (F1), Jarcob_19 (F1), Jinglebell_18 (F1), Job42_22 (F1), JoeyJr_19 (F1), Juice456_21 (F1), Juniper1_19 (F1), Karhdo_19 (F1), Kimberlium_21 (F1), KingJulian_19 (F1), KingMidas_20 (F1), Krakatau_20 (F1), KristaRAM_20 (F1), Kumao_31 (singleton), Latretium_20 (F1), Leozinho_20 (F1), Leperchaun_19 (F1), Levia_32 (A1), LilMoolah_19 (F1), LittleE_40 (J), LittleShirley_20 (F1), Lizziana_19 (F1), Llama_19 (F1), Llij_19 (F1), Lorde_20 (F1), Lucia_20 (F1), LunaBlu_20 (F1), Mahavrat_19 (F1), Mandlovu_19 (F1), Mantra_19 (F1), Maravista_19 (F1), Marker_20 (F1), Martik_19 (F1), MaryV_44 (V), Medindi_19 (F1), Melissauren88_19 (F1), MilleniumForce_20 (F1), Minerva_40 (J), MinionDave_20 (F1), Minnie_20 (F1), Misha28_20 (F1), MisterCuddles_19 (F1), Modragons_19 (F1), MontyDev_31 (R), Moonbeam_20 (F1), Mova_20 (F1), Mozy_20 (F1), MulchExplorer_22 (F1), Mutaforma13_19 (F1), Mwanjiwa_19 (F1), Nebkiss_23 (X), NewHope4_20 (F1), Nilo_32 (R), Nimbo_19 (F1), Nitzel_20 (F1), Nivrat_19 (F1), NormanBulbieJr_19 (F1), Ochi17_19 (F1), OfUltron_19 (F1), Oksu_20 (F1), OldBen_19 (F1), OlympiaSaint_19 (F1), Omega_39 (J), Optimus_38 (J), Ovechkin_19 (F1), OwlsT2W_21 (F1), PHappiness_19 (F1), PMC_19 (F1), Pacc40_19 (F1), Papyrus_31 (R), PatoPoderoso_19 (F1), Peridot_21 (F1), Phalconet_19 (F1), Phasih_20 (F1), Phatniss_20 (F1), PhesterPotato_19 (F1), Philus_19 (F1), PhilipPhlop_19 (F1), Piper2020_20 (F1), Plumbus_20 (F1), Poenanya_19 (F1), Polka14_20 (F1), Polo2Bam_21 (F1), PopTart_19 (F1), Priscilla_19 (F1), QuickMath_20 (F1), Quico_20 (F1), Radiance_19 (F1), Ramsey_20 (F1), RedBird_19 (F1), Rialto_21 (F1), Riparian_31 (R), RitaG_19 (F1), Rita_19 (F1), Rockne_19 (F1), RockyHorror_20 (F1), Rope_31 (R), Royals2015_19 (F1), Ruby_19 (F1), SG4_19 (F1), Saal_19 (F1), Sabb_20 (F1), Sandalphon_20 (F1), Sassafras_19 (F1), SassyB_19 (F1), Scottish_20 (F1), Seabastian_19 (F1), Seagreen_20 (F1), Send513_31 (R), ShiLan_19 (F1), ShowerHandel_19 (F1), SiSi_19 (F1), SilverChicken_25 (F2), SimranZ1_20 (F1), Slim_20 (F1), Spartacus_20 (F1), Spikelee_20 (F1), Spoonbill_19 (F1), StAnnes_19 (F1), Stap_20 (F1), Starcevich_20 (F1), Strokeseat_19 (F1), SuperGrey_20 (F1), SwagPigglett_19 (F1), TDanisky_19 (F1), Taj_19 (F1), Tchotchke_20 (F1), TootsiePop_20 (F1), Tootsieroll_20 (F1), Topiatin_21 (F1), Toron_21 (F6), Totinger_20 (F1), Tweety_19 (F1), UncleRicky_20 (F1), VRedHorse_19 (F1), Veteran_19 (F1), Violac_20 (F1), Vivum_19 (F1), Wachhund_19 (F1), Wanda_40 (J), Wee_20 (F1), Weiss13_31 (R), Whatsapiecost_19 (F1), Whouxphf_19 (F1), Wildcat_44 (V), WillSterrel_20 (F1), XFactor_19 (F1), Yelo_31 (R), Yorick_19 (F1), Zenon_32 (R), Zerg_19 (F1), Zizzle_19 (F1),

Start 16:

- Found in 25 of 280 (8.9%) of genes in pham
- Manual Annotations of this start: 1 of 251
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Sparkdehlily_19 (F1),

Start 21:

- Found in 15 of 280 (5.4%) of genes in pham

- Manual Annotations of this start: 1 of 251
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Mattes_19 (F1),

Summary by clusters:

There are 13 clusters represented in this pham: F1, F2, AB, F6, F, AI, J, singleton, A1, R, V, X, D1,

Info for manual annotations of cluster A1:

- Start number 12 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AB:

- Start number 11 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AI:

- Start number 11 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster D1:

- Start number 11 was manually annotated 21 times for cluster D1.

Info for manual annotations of cluster F1:

- Start number 12 was manually annotated 200 times for cluster F1.
- Start number 16 was manually annotated 1 time for cluster F1.
- Start number 21 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster J:

- Start number 12 was manually annotated 7 times for cluster J.

Info for manual annotations of cluster R:

- Start number 12 was manually annotated 9 times for cluster R.

Info for manual annotations of cluster V:

- Start number 12 was manually annotated 5 times for cluster V.

Info for manual annotations of cluster X:

- Start number 12 was manually annotated 2 times for cluster X.

Gene Information:

Gene: Adjutor_32 Start: 26526, Stop: 28574, Start Num: 11

Candidate Starts for Adjutor_32:

(Start: 11 @26526 has 24 MA's), (14, 26547), (51, 26796), (61, 26868), (63, 26874), (71, 26949), (75, 26985), (76, 26988), (77, 26991), (89, 27084), (90, 27087), (91, 27090), (92, 27102), (99, 27141), (100, 27144), (101, 27147), (102, 27159), (105, 27180), (117, 27267), (118, 27270), (136, 27420), (137, 27423), (141, 27456), (142, 27462), (144, 27498), (148, 27519), (161, 27600), (168, 27660), (174, 27732), (175, 27765), (177, 27792), (180, 27801), (187, 27837), (197, 27924), (201, 27939), (213, 28044), (214, 28047), (225, 28122), (228, 28173), (236, 28233), (246, 28305), (253, 28362), (254,

28368), (256, 28374), (275, 28467), (280, 28503),

Gene: Alexphander_21 Start: 20457, Stop: 22343, Start Num: 12

Candidate Starts for Alexphander_21:

(Start: 12 @20457 has 225 MA's), (24, 20520), (26, 20535), (27, 20538), (30, 20562), (32, 20592), (34, 20601), (36, 20619), (47, 20676), (48, 20679), (50, 20700), (51, 20703), (52, 20709), (54, 20715), (58, 20751), (59, 20754), (67, 20808), (68, 20829), (69, 20835), (71, 20853), (72, 20871), (79, 20913), (87, 20979), (88, 20988), (91, 20997), (110, 21099), (117, 21171), (118, 21174), (126, 21243), (127, 21249), (144, 21345), (151, 21387), (153, 21402), (185, 21678), (187, 21684), (192, 21735), (196, 21750), (201, 21771), (209, 21807), (212, 21837), (215, 21846), (216, 21849), (230, 21969), (232, 22002), (237, 22026), (243, 22059), (244, 22065), (250, 22116), (255, 22134), (261, 22170), (269, 22209), (280, 22275), (282, 22314), (283, 22320), (285, 22326),

Gene: Aloeri_20 Start: 19793, Stop: 21673, Start Num: 12

Candidate Starts for Aloeri_20:

(Start: 12 @19793 has 225 MA's), (23, 19853), (27, 19874), (36, 19955), (47, 20012), (48, 20015), (50, 20036), (54, 20051), (60, 20093), (67, 20144), (71, 20189), (72, 20207), (79, 20249), (87, 20315), (88, 20324), (91, 20333), (110, 20435), (117, 20507), (127, 20585), (133, 20618), (144, 20681), (151, 20723), (153, 20738), (155, 20744), (170, 20858), (172, 20894), (185, 21014), (187, 21020), (196, 21086), (208, 21128), (212, 21173), (223, 21242), (225, 21248), (226, 21257), (227, 21290), (230, 21305), (237, 21362), (243, 21395), (250, 21452), (252, 21458), (255, 21470), (257, 21476), (264, 21515), (266, 21527), (269, 21539), (277, 21578), (282, 21644), (283, 21650),

Gene: AlpineSix_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for AlpineSix_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: ArcusAngelus_19 Start: 19972, Stop: 21858, Start Num: 12

Candidate Starts for ArcusAngelus_19:

(Start: 12 @19972 has 225 MA's), (24, 20035), (26, 20050), (27, 20053), (30, 20077), (32, 20107), (34, 20116), (36, 20134), (47, 20191), (48, 20194), (50, 20215), (51, 20218), (52, 20224), (54, 20230), (58, 20266), (59, 20269), (67, 20323), (68, 20344), (69, 20350), (71, 20368), (72, 20386), (79, 20428), (87, 20494), (88, 20503), (91, 20512), (110, 20614), (117, 20686), (151, 20902), (153, 20917), (185, 21193), (187, 21199), (192, 21250), (196, 21265), (201, 21286), (209, 21322), (212, 21352), (215, 21361), (216, 21364), (227, 21469), (230, 21484), (232, 21517), (237, 21541), (243, 21574), (244, 21580), (250, 21631), (255, 21649), (261, 21685), (269, 21724), (280, 21790), (282, 21829), (283, 21835), (285, 21841),

Gene: Ardmore_19 Start: 19981, Stop: 21861, Start Num: 12

Candidate Starts for Ardmore_19:

(9, 19960), (Start: 12 @19981 has 225 MA's), (24, 20044), (26, 20059), (27, 20062), (30, 20086), (32, 20116), (34, 20125), (36, 20143), (47, 20200), (48, 20203), (50, 20224), (51, 20227), (52, 20233), (54, 20239), (58, 20275), (59, 20278), (60, 20281), (67, 20332), (68, 20353), (69, 20359), (71, 20377), (72, 20395), (79, 20437), (81, 20446), (87, 20503), (88, 20512), (91, 20521), (106, 20611), (110, 20623), (117, 20695), (118, 20698), (127, 20773), (144, 20869), (151, 20911), (153, 20926), (170, 21046), (172, 21082), (185, 21202), (187, 21208), (192, 21259), (196, 21274), (208, 21316), (214, 21367),

(215, 21370), (216, 21373), (226, 21445), (227, 21478), (230, 21493), (231, 21514), (232, 21526), (242, 21580), (244, 21589), (245, 21595), (255, 21658), (266, 21715), (269, 21727), (276, 21760), (277, 21766), (282, 21832), (283, 21838), (285, 21844),

Gene: Aubs_19 Start: 20091, Stop: 21977, Start Num: 12

Candidate Starts for Aubs_19:

(Start: 12 @20091 has 225 MA's), (24, 20154), (26, 20169), (30, 20196), (32, 20226), (34, 20235), (36, 20253), (47, 20310), (48, 20313), (50, 20334), (51, 20337), (52, 20343), (54, 20349), (58, 20385), (59, 20388), (60, 20391), (67, 20442), (68, 20463), (69, 20469), (71, 20487), (72, 20505), (79, 20547), (87, 20613), (88, 20622), (91, 20631), (110, 20733), (117, 20805), (144, 20979), (151, 21021), (153, 21036), (155, 21042), (185, 21312), (187, 21318), (192, 21369), (196, 21384), (201, 21405), (209, 21441), (212, 21471), (215, 21480), (216, 21483), (230, 21603), (232, 21636), (237, 21660), (243, 21693), (244, 21699), (250, 21750), (255, 21768), (261, 21804), (269, 21843), (280, 21909), (282, 21948), (283, 21954), (285, 21960),

Gene: Awesomesauce_20 Start: 19790, Stop: 21670, Start Num: 12

Candidate Starts for Awesomesauce_20:

(Start: 12 @19790 has 225 MA's), (23, 19850), (27, 19871), (36, 19952), (47, 20009), (48, 20012), (50, 20033), (54, 20048), (60, 20090), (67, 20141), (71, 20186), (72, 20204), (79, 20246), (87, 20312), (88, 20321), (91, 20330), (110, 20432), (117, 20504), (127, 20582), (144, 20678), (151, 20720), (153, 20735), (155, 20741), (170, 20855), (172, 20891), (187, 21017), (192, 21068), (196, 21083), (208, 21125), (212, 21170), (223, 21239), (225, 21245), (226, 21254), (227, 21287), (230, 21302), (237, 21359), (243, 21392), (250, 21449), (255, 21467), (257, 21473), (266, 21524), (269, 21536), (277, 21575), (282, 21641), (283, 21647),

Gene: Azrael100_43 Start: 30907, Stop: 32883, Start Num: 12

Candidate Starts for Azrael100_43:

(Start: 12 @30907 has 225 MA's), (19, 30949), (34, 31045), (35, 31060), (38, 31087), (48, 31126), (53, 31159), (54, 31162), (56, 31189), (58, 31201), (59, 31204), (60, 31207), (64, 31237), (68, 31279), (70, 31291), (74, 31333), (77, 31345), (78, 31351), (84, 31414), (90, 31462), (91, 31465), (92, 31477), (97, 31504), (98, 31513), (101, 31522), (106, 31558), (108, 31564), (114, 31615), (116, 31636), (121, 31657), (128, 31714), (135, 31777), (143, 31819), (144, 31840), (147, 31852), (148, 31861), (150, 31873), (162, 31945), (167, 31981), (169, 32005), (171, 32020), (174, 32074), (178, 32137), (189, 32191), (190, 32206), (200, 32263), (204, 32287), (212, 32368), (215, 32377), (222, 32437), (232, 32536), (239, 32575), (241, 32581), (242, 32590), (267, 32743), (282, 32854), (285, 32866),

Gene: BAKA_37 Start: 32444, Stop: 34330, Start Num: 12

Candidate Starts for BAKA_37:

(9, 32423), (Start: 12 @32444 has 225 MA's), (24, 32507), (26, 32522), (27, 32525), (30, 32549), (32, 32579), (34, 32588), (36, 32606), (47, 32663), (48, 32666), (50, 32687), (51, 32690), (52, 32696), (54, 32702), (58, 32738), (59, 32741), (60, 32744), (67, 32795), (68, 32816), (69, 32822), (71, 32840), (72, 32858), (87, 32966), (88, 32975), (91, 32984), (110, 33086), (117, 33158), (151, 33374), (153, 33389), (185, 33665), (187, 33671), (192, 33722), (196, 33737), (201, 33758), (209, 33794), (212, 33824), (215, 33833), (216, 33836), (230, 33956), (232, 33989), (237, 34013), (243, 34046), (244, 34052), (250, 34103), (255, 34121), (261, 34157), (269, 34196), (280, 34262), (282, 34301), (283, 34307), (285, 34313),

Gene: Batiatus_19 Start: 19982, Stop: 21868, Start Num: 12

Candidate Starts for Batiatus_19:

(9, 19961), (Start: 12 @19982 has 225 MA's), (24, 20045), (26, 20060), (27, 20063), (30, 20087), (32, 20117), (34, 20126), (36, 20144), (47, 20201), (48, 20204), (50, 20225), (51, 20228), (52, 20234), (54, 20240), (58, 20276), (59, 20279), (60, 20282), (67, 20333), (68, 20354), (69, 20360), (71, 20378), (72, 20396), (87, 20504), (88, 20513), (91, 20522), (110, 20624), (117, 20696), (151, 20912), (153, 20927),

(185, 21203), (187, 21209), (192, 21260), (196, 21275), (201, 21296), (209, 21332), (212, 21362), (215, 21371), (216, 21374), (230, 21494), (232, 21527), (237, 21551), (243, 21584), (244, 21590), (250, 21641), (255, 21659), (261, 21695), (269, 21734), (280, 21800), (282, 21839), (283, 21845), (285, 21851),

Gene: Beakin_20 Start: 19783, Stop: 21669, Start Num: 12

Candidate Starts for Beakin_20:

(Start: 12 @19783 has 225 MA's), (24, 19846), (26, 19861), (30, 19888), (32, 19918), (34, 19927), (36, 19945), (47, 20002), (48, 20005), (50, 20026), (51, 20029), (52, 20035), (54, 20041), (58, 20077), (59, 20080), (60, 20083), (67, 20134), (68, 20155), (69, 20161), (71, 20179), (72, 20197), (79, 20239), (87, 20305), (88, 20314), (91, 20323), (110, 20425), (117, 20497), (151, 20713), (153, 20728), (185, 21004), (187, 21010), (192, 21061), (196, 21076), (201, 21097), (209, 21133), (212, 21163), (215, 21172), (216, 21175), (227, 21280), (230, 21295), (232, 21328), (237, 21352), (243, 21385), (244, 21391), (250, 21442), (255, 21460), (269, 21535), (280, 21601), (282, 21640), (283, 21646), (285, 21652),

Gene: Beanstalk_21 Start: 19934, Stop: 21820, Start Num: 12

Candidate Starts for Beanstalk_21:

(Start: 12 @19934 has 225 MA's), (24, 19997), (26, 20012), (27, 20015), (30, 20039), (32, 20069), (34, 20078), (36, 20096), (47, 20153), (48, 20156), (50, 20177), (51, 20180), (52, 20186), (54, 20192), (58, 20228), (59, 20231), (60, 20234), (67, 20285), (68, 20306), (69, 20312), (71, 20330), (72, 20348), (79, 20390), (87, 20456), (88, 20465), (91, 20474), (110, 20576), (117, 20648), (151, 20864), (153, 20879), (185, 21155), (187, 21161), (192, 21212), (196, 21227), (201, 21248), (209, 21284), (212, 21314), (215, 21323), (216, 21326), (230, 21446), (232, 21479), (237, 21503), (243, 21536), (244, 21542), (250, 21593), (255, 21611), (261, 21647), (269, 21686), (280, 21752), (282, 21791), (283, 21797), (285, 21803),

Gene: BigMama_29 Start: 26602, Stop: 28650, Start Num: 11

Candidate Starts for BigMama_29:

(Start: 11 @26602 has 24 MA's), (14, 26623), (51, 26872), (61, 26944), (63, 26950), (71, 27025), (75, 27061), (76, 27064), (77, 27067), (89, 27160), (90, 27163), (91, 27166), (92, 27178), (99, 27217), (100, 27220), (101, 27223), (102, 27235), (105, 27256), (117, 27343), (118, 27346), (136, 27496), (137, 27499), (141, 27532), (142, 27538), (144, 27574), (148, 27595), (161, 27676), (168, 27736), (174, 27808), (175, 27841), (177, 27868), (180, 27877), (187, 27913), (197, 28000), (201, 28015), (213, 28120), (214, 28123), (225, 28198), (228, 28249), (236, 28309), (246, 28381), (253, 28438), (254, 28444), (256, 28450), (275, 28543), (280, 28579),

Gene: Blarby_26 Start: 20207, Stop: 22093, Start Num: 12

Candidate Starts for Blarby_26:

(9, 20186), (Start: 12 @20207 has 225 MA's), (24, 20270), (26, 20285), (27, 20288), (30, 20312), (32, 20342), (34, 20351), (36, 20369), (47, 20426), (48, 20429), (50, 20450), (51, 20453), (52, 20459), (54, 20465), (58, 20501), (59, 20504), (60, 20507), (67, 20558), (68, 20579), (69, 20585), (71, 20603), (72, 20621), (87, 20729), (88, 20738), (91, 20747), (110, 20849), (117, 20921), (151, 21137), (153, 21152), (185, 21428), (187, 21434), (192, 21485), (196, 21500), (201, 21521), (209, 21557), (212, 21587), (215, 21596), (216, 21599), (227, 21704), (230, 21719), (232, 21752), (237, 21776), (243, 21809), (244, 21815), (250, 21866), (255, 21884), (269, 21959), (280, 22025), (282, 22064), (283, 22070), (285, 22076),

Gene: Blexus_19 Start: 20120, Stop: 22006, Start Num: 12

Candidate Starts for Blexus_19:

(9, 20099), (Start: 12 @20120 has 225 MA's), (24, 20183), (26, 20198), (30, 20225), (32, 20255), (34, 20264), (36, 20282), (47, 20339), (48, 20342), (50, 20363), (51, 20366), (54, 20378), (59, 20417), (60, 20420), (67, 20471), (68, 20492), (69, 20498), (71, 20516), (72, 20534), (79, 20576), (87, 20642), (88,

20651), (91, 20660), (110, 20762), (117, 20834), (118, 20837), (151, 21050), (153, 21065), (185, 21341), (187, 21347), (192, 21398), (196, 21413), (201, 21434), (209, 21470), (211, 21497), (212, 21500), (215, 21509), (216, 21512), (230, 21632), (232, 21665), (237, 21689), (243, 21722), (244, 21728), (250, 21779), (255, 21797), (261, 21833), (269, 21872), (280, 21938), (282, 21977), (283, 21983), (285, 21989),

Gene: BlueCrab_19 Start: 20102, Stop: 21991, Start Num: 12

Candidate Starts for BlueCrab_19:

(9, 20081), (Start: 12 @20102 has 225 MA's), (24, 20165), (26, 20180), (30, 20207), (32, 20237), (34, 20246), (36, 20264), (47, 20321), (48, 20324), (50, 20345), (51, 20348), (52, 20354), (54, 20360), (58, 20396), (59, 20399), (60, 20402), (67, 20453), (68, 20474), (69, 20480), (71, 20498), (72, 20516), (79, 20558), (87, 20624), (88, 20633), (91, 20642), (110, 20744), (117, 20816), (118, 20819), (126, 20888), (127, 20894), (144, 20990), (151, 21032), (153, 21047), (172, 21203), (185, 21323), (187, 21329), (196, 21395), (201, 21416), (207, 21428), (212, 21482), (215, 21491), (216, 21494), (230, 21614), (232, 21647), (235, 21653), (242, 21701), (244, 21710), (250, 21761), (252, 21767), (255, 21782), (258, 21794), (266, 21845), (269, 21857), (275, 21887), (276, 21890), (277, 21896), (282, 21962), (283, 21968),

Gene: BobaPhett_19 Start: 19919, Stop: 21808, Start Num: 12

Candidate Starts for BobaPhett_19:

(9, 19898), (Start: 12 @19919 has 225 MA's), (Start: 16 @19940 has 1 MA's), (Start: 21 @19976 has 1 MA's), (24, 19982), (26, 19997), (32, 20054), (36, 20081), (48, 20141), (51, 20165), (60, 20219), (67, 20270), (71, 20315), (72, 20333), (74, 20345), (86, 20432), (87, 20441), (88, 20450), (91, 20459), (107, 20552), (110, 20561), (115, 20624), (117, 20633), (118, 20636), (126, 20705), (153, 20864), (158, 20894), (170, 20981), (174, 21044), (179, 21113), (196, 21209), (198, 21215), (201, 21230), (207, 21242), (212, 21296), (214, 21302), (215, 21305), (216, 21308), (226, 21380), (227, 21413), (230, 21428), (232, 21461), (235, 21467), (237, 21485), (242, 21515), (243, 21518), (250, 21575), (255, 21596), (257, 21602), (264, 21647), (266, 21659), (269, 21671), (276, 21704), (277, 21710), (280, 21737), (282, 21776), (283, 21782),

Gene: Bobi_21 Start: 20521, Stop: 22407, Start Num: 12

Candidate Starts for Bobi_21:

(9, 20500), (Start: 12 @20521 has 225 MA's), (24, 20584), (26, 20599), (27, 20602), (30, 20626), (32, 20656), (34, 20665), (36, 20683), (47, 20740), (48, 20743), (50, 20764), (51, 20767), (52, 20773), (54, 20779), (58, 20815), (59, 20818), (60, 20821), (67, 20872), (68, 20893), (69, 20899), (71, 20917), (72, 20935), (87, 21043), (88, 21052), (91, 21061), (110, 21163), (117, 21235), (151, 21451), (153, 21466), (185, 21742), (187, 21748), (192, 21799), (196, 21814), (201, 21835), (209, 21871), (212, 21901), (215, 21910), (216, 21913), (230, 22033), (232, 22066), (237, 22090), (243, 22123), (244, 22129), (250, 22180), (255, 22198), (261, 22234), (269, 22273), (280, 22339), (282, 22378), (283, 22384), (285, 22390),

Gene: BodEinwohner17_19 Start: 20103, Stop: 21989, Start Num: 12

Candidate Starts for BodEinwohner17_19:

(9, 20082), (Start: 12 @20103 has 225 MA's), (24, 20166), (26, 20181), (30, 20208), (32, 20238), (34, 20247), (36, 20265), (47, 20322), (48, 20325), (50, 20346), (51, 20349), (54, 20361), (58, 20397), (59, 20400), (60, 20403), (67, 20454), (68, 20475), (69, 20481), (71, 20499), (72, 20517), (79, 20559), (87, 20625), (88, 20634), (91, 20643), (110, 20745), (117, 20817), (118, 20820), (151, 21033), (153, 21048), (172, 21204), (185, 21324), (187, 21330), (192, 21381), (196, 21396), (201, 21417), (209, 21453), (212, 21483), (215, 21492), (216, 21495), (230, 21615), (232, 21648), (237, 21672), (243, 21705), (244, 21711), (250, 21762), (255, 21780), (261, 21816), (269, 21855), (280, 21921), (282, 21960), (283, 21966), (285, 21972),

Gene: Boomer_20 Start: 19746, Stop: 21632, Start Num: 12

Candidate Starts for Boomer_20:

(Start: 12 @19746 has 225 MA's), (24, 19809), (26, 19824), (30, 19851), (32, 19881), (34, 19890), (36, 19908), (47, 19965), (48, 19968), (50, 19989), (51, 19992), (52, 19998), (54, 20004), (58, 20040), (59, 20043), (60, 20046), (67, 20097), (68, 20118), (69, 20124), (71, 20142), (72, 20160), (79, 20202), (81, 20211), (87, 20268), (88, 20277), (91, 20286), (110, 20388), (117, 20460), (118, 20463), (139, 20598), (144, 20634), (151, 20676), (153, 20691), (185, 20967), (187, 20973), (192, 21024), (196, 21039), (201, 21060), (209, 21096), (212, 21126), (215, 21135), (216, 21138), (230, 21258), (232, 21291), (237, 21315), (243, 21348), (244, 21354), (250, 21405), (255, 21423), (261, 21459), (269, 21498), (280, 21564), (282, 21603), (283, 21609), (285, 21615),

Gene: Brushbloom_20 Start: 19815, Stop: 21701, Start Num: 12

Candidate Starts for Brushbloom_20:

(Start: 12 @19815 has 225 MA's), (24, 19878), (26, 19893), (30, 19920), (32, 19950), (34, 19959), (36, 19977), (47, 20034), (48, 20037), (50, 20058), (51, 20061), (52, 20067), (54, 20073), (58, 20109), (59, 20112), (60, 20115), (67, 20166), (68, 20187), (69, 20193), (71, 20211), (72, 20229), (79, 20271), (87, 20337), (88, 20346), (91, 20355), (110, 20457), (117, 20529), (144, 20703), (151, 20745), (153, 20760), (155, 20766), (185, 21036), (187, 21042), (192, 21093), (196, 21108), (201, 21129), (209, 21165), (212, 21195), (214, 21201), (215, 21204), (216, 21207), (230, 21327), (232, 21360), (237, 21384), (243, 21417), (244, 21423), (250, 21474), (255, 21492), (261, 21528), (269, 21567), (280, 21633), (282, 21672), (283, 21678), (285, 21684),

Gene: Bubbles123_20 Start: 20646, Stop: 22532, Start Num: 12

Candidate Starts for Bubbles123_20:

(9, 20625), (Start: 12 @20646 has 225 MA's), (24, 20709), (26, 20724), (27, 20727), (30, 20751), (32, 20781), (34, 20790), (36, 20808), (47, 20865), (48, 20868), (50, 20889), (51, 20892), (54, 20904), (58, 20940), (59, 20943), (60, 20946), (67, 20997), (68, 21018), (69, 21024), (71, 21042), (72, 21060), (79, 21102), (87, 21168), (88, 21177), (91, 21186), (110, 21288), (117, 21360), (118, 21363), (144, 21534), (151, 21576), (153, 21591), (172, 21747), (185, 21867), (187, 21873), (192, 21924), (196, 21939), (201, 21960), (209, 21996), (212, 22026), (215, 22035), (216, 22038), (230, 22158), (232, 22191), (237, 22215), (243, 22248), (244, 22254), (250, 22305), (255, 22323), (269, 22398), (280, 22464), (282, 22503), (283, 22509), (285, 22515),

Gene: Burwell21_19 Start: 19953, Stop: 21842, Start Num: 12

Candidate Starts for Burwell21_19:

(Start: 12 @19953 has 225 MA's), (24, 20016), (37, 20133), (48, 20175), (50, 20196), (51, 20199), (60, 20253), (67, 20304), (71, 20349), (72, 20367), (74, 20379), (86, 20466), (87, 20475), (88, 20484), (91, 20493), (107, 20586), (110, 20595), (115, 20658), (117, 20667), (118, 20670), (126, 20739), (127, 20745), (153, 20898), (158, 20928), (170, 21015), (174, 21078), (179, 21147), (196, 21243), (198, 21249), (201, 21264), (207, 21276), (212, 21330), (214, 21336), (215, 21339), (216, 21342), (226, 21414), (227, 21447), (230, 21462), (232, 21495), (235, 21501), (237, 21519), (242, 21549), (243, 21552), (250, 21609), (255, 21630), (257, 21636), (264, 21681), (266, 21693), (269, 21705), (276, 21738), (277, 21744), (280, 21771), (282, 21810), (283, 21816),

Gene: Butterscotch_31 Start: 26586, Stop: 28634, Start Num: 11

Candidate Starts for Butterscotch_31:

(Start: 11 @26586 has 24 MA's), (14, 26607), (51, 26856), (61, 26928), (63, 26934), (71, 27009), (75, 27045), (76, 27048), (77, 27051), (89, 27144), (90, 27147), (91, 27150), (92, 27162), (99, 27201), (100, 27204), (101, 27207), (102, 27219), (105, 27240), (117, 27327), (118, 27330), (136, 27480), (137, 27483), (141, 27516), (142, 27522), (144, 27558), (148, 27579), (161, 27660), (168, 27720), (174, 27792), (175, 27825), (177, 27852), (180, 27861), (187, 27897), (197, 27984), (201, 27999), (213, 28104), (214, 28107), (225, 28182), (228, 28233), (236, 28293), (246, 28365), (253, 28422), (254, 28428), (256, 28434), (275, 28527), (280, 28563),

Gene: BuzzLyseyear_21 Start: 20325, Stop: 22211, Start Num: 12

Candidate Starts for BuzzLyseyear_21:

(Start: 12 @20325 has 225 MA's), (24, 20388), (26, 20403), (30, 20430), (32, 20460), (34, 20469), (36, 20487), (47, 20544), (48, 20547), (50, 20568), (51, 20571), (54, 20583), (58, 20619), (59, 20622), (60, 20625), (67, 20676), (68, 20697), (69, 20703), (71, 20721), (72, 20739), (79, 20781), (87, 20847), (88, 20856), (91, 20865), (110, 20967), (117, 21039), (151, 21255), (153, 21270), (172, 21426), (185, 21546), (187, 21552), (192, 21603), (196, 21618), (201, 21639), (209, 21675), (211, 21702), (212, 21705), (215, 21714), (216, 21717), (230, 21837), (232, 21870), (237, 21894), (243, 21927), (244, 21933), (250, 21984), (255, 22002), (261, 22038), (269, 22077), (280, 22143), (282, 22182), (283, 22188), (285, 22194),

Gene: ByChance_19 Start: 19930, Stop: 21819, Start Num: 12

Candidate Starts for ByChance_19:

(9, 19909), (Start: 12 @19930 has 225 MA's), (Start: 16 @19951 has 1 MA's), (18, 19972), (Start: 21 @19987 has 1 MA's), (24, 19993), (32, 20065), (36, 20092), (37, 20110), (48, 20152), (50, 20173), (51, 20176), (60, 20230), (67, 20281), (71, 20326), (72, 20344), (74, 20356), (86, 20443), (87, 20452), (88, 20461), (91, 20470), (107, 20563), (110, 20572), (115, 20635), (117, 20644), (118, 20647), (126, 20716), (153, 20875), (158, 20905), (170, 20992), (174, 21055), (179, 21124), (196, 21220), (198, 21226), (201, 21241), (207, 21253), (212, 21307), (214, 21313), (215, 21316), (216, 21319), (226, 21391), (227, 21424), (230, 21439), (232, 21472), (235, 21478), (237, 21496), (242, 21526), (243, 21529), (250, 21586), (255, 21607), (257, 21613), (264, 21658), (266, 21670), (269, 21682), (276, 21715), (277, 21721), (280, 21748), (282, 21787), (283, 21793),

Gene: Byougenkin_19 Start: 19946, Stop: 21832, Start Num: 12

Candidate Starts for Byougenkin_19:

(9, 19925), (Start: 12 @19946 has 225 MA's), (24, 20009), (26, 20024), (27, 20027), (30, 20051), (32, 20081), (34, 20090), (36, 20108), (47, 20165), (48, 20168), (50, 20189), (51, 20192), (52, 20198), (54, 20204), (58, 20240), (59, 20243), (60, 20246), (67, 20297), (68, 20318), (69, 20324), (71, 20342), (72, 20360), (79, 20402), (81, 20411), (87, 20468), (88, 20477), (91, 20486), (110, 20588), (117, 20660), (151, 20876), (153, 20891), (172, 21047), (185, 21167), (187, 21173), (192, 21224), (196, 21239), (201, 21260), (209, 21296), (212, 21326), (215, 21335), (216, 21338), (227, 21443), (230, 21458), (232, 21491), (237, 21515), (243, 21548), (244, 21554), (250, 21605), (255, 21623), (261, 21659), (269, 21698), (280, 21764), (282, 21803), (283, 21809), (285, 21815),

Gene: Cabrinians_19 Start: 19947, Stop: 21836, Start Num: 12

Candidate Starts for Cabrinians_19:

(Start: 12 @19947 has 225 MA's), (24, 20010), (37, 20127), (48, 20169), (50, 20190), (51, 20193), (60, 20247), (67, 20298), (71, 20343), (72, 20361), (74, 20373), (86, 20460), (87, 20469), (88, 20478), (91, 20487), (107, 20580), (110, 20589), (115, 20652), (117, 20661), (118, 20664), (126, 20733), (127, 20739), (153, 20892), (158, 20922), (170, 21009), (174, 21072), (179, 21141), (196, 21237), (198, 21243), (201, 21258), (207, 21270), (212, 21324), (214, 21330), (215, 21333), (216, 21336), (226, 21408), (227, 21441), (230, 21456), (232, 21489), (235, 21495), (237, 21513), (242, 21543), (243, 21546), (250, 21603), (255, 21624), (257, 21630), (264, 21675), (266, 21687), (269, 21699), (276, 21732), (277, 21738), (280, 21765), (282, 21804), (283, 21810),

Gene: Candle_31 Start: 28131, Stop: 30086, Start Num: 12

Candidate Starts for Candle_31:

(Start: 12 @28131 has 225 MA's), (13, 28137), (25, 28203), (26, 28209), (30, 28236), (39, 28320), (43, 28332), (44, 28338), (46, 28347), (48, 28356), (56, 28416), (62, 28452), (68, 28503), (69, 28509), (84, 28638), (87, 28671), (88, 28680), (90, 28686), (91, 28689), (101, 28746), (112, 28809), (117, 28866), (119, 28872), (122, 28905), (123, 28908), (127, 28938), (131, 28971), (148, 29091), (151, 29112), (159, 29163), (163, 29181), (174, 29286), (181, 29361), (188, 29400), (191, 29418), (193, 29448), (207, 29517), (212, 29571), (214, 29577), (222, 29637), (232, 29739), (242, 29796), (246, 29817),

(250, 29856), (258, 29889), (275, 29982), (285, 30069),

Gene: CaptainTrips_20 Start: 20626, Stop: 22512, Start Num: 12

Candidate Starts for CaptainTrips_20:

(9, 20605), (Start: 12 @20626 has 225 MA's), (24, 20689), (26, 20704), (27, 20707), (30, 20731), (32, 20761), (34, 20770), (36, 20788), (47, 20845), (48, 20848), (50, 20869), (51, 20872), (52, 20878), (54, 20884), (58, 20920), (59, 20923), (60, 20926), (67, 20977), (68, 20998), (69, 21004), (71, 21022), (72, 21040), (79, 21082), (81, 21091), (87, 21148), (88, 21157), (91, 21166), (110, 21268), (117, 21340), (151, 21556), (153, 21571), (172, 21727), (185, 21847), (187, 21853), (192, 21904), (196, 21919), (201, 21940), (209, 21976), (212, 22006), (215, 22015), (216, 22018), (230, 22138), (232, 22171), (237, 22195), (243, 22228), (244, 22234), (250, 22285), (255, 22303), (261, 22339), (269, 22378), (280, 22444), (282, 22483), (283, 22489), (285, 22495),

Gene: Causa_37 Start: 33759, Stop: 35762, Start Num: 11

Candidate Starts for Causa_37:

(1, 33429), (2, 33465), (3, 33549), (6, 33621), (10, 33753), (Start: 11 @33759 has 24 MA's), (20, 33810), (49, 33993), (51, 33999), (57, 34047), (66, 34107), (73, 34173), (75, 34188), (80, 34215), (89, 34284), (91, 34290), (93, 34311), (99, 34341), (102, 34359), (103, 34365), (104, 34371), (105, 34380), (109, 34392), (111, 34410), (118, 34473), (120, 34482), (121, 34485), (127, 34548), (129, 34551), (144, 34701), (146, 34710), (158, 34788), (160, 34803), (161, 34806), (170, 34878), (174, 34941), (192, 35103), (205, 35172), (219, 35286), (225, 35322), (240, 35457), (246, 35493), (259, 35571), (260, 35574), (261, 35592), (268, 35628), (271, 35640), (281, 35694), (286, 35748),

Gene: Che8_20 Start: 19960, Stop: 21846, Start Num: 12

Candidate Starts for Che8_20:

(Start: 12 @19960 has 225 MA's), (24, 20023), (26, 20038), (27, 20041), (30, 20065), (32, 20095), (34, 20104), (36, 20122), (47, 20179), (48, 20182), (51, 20206), (54, 20218), (58, 20254), (59, 20257), (60, 20260), (67, 20311), (68, 20332), (69, 20338), (71, 20356), (72, 20374), (79, 20416), (87, 20482), (88, 20491), (91, 20500), (110, 20602), (117, 20674), (118, 20677), (126, 20746), (127, 20752), (139, 20812), (144, 20848), (151, 20890), (153, 20905), (172, 21061), (185, 21181), (187, 21187), (192, 21238), (196, 21253), (201, 21274), (209, 21310), (212, 21340), (215, 21349), (216, 21352), (230, 21472), (232, 21505), (237, 21529), (243, 21562), (244, 21568), (250, 21619), (255, 21637), (261, 21673), (269, 21712), (280, 21778), (282, 21817), (283, 21823), (285, 21829),

Gene: Cheesepuff_21 Start: 20782, Stop: 22668, Start Num: 12

Candidate Starts for Cheesepuff_21:

(9, 20761), (Start: 12 @20782 has 225 MA's), (24, 20845), (26, 20860), (27, 20863), (30, 20887), (32, 20917), (34, 20926), (36, 20944), (47, 21001), (48, 21004), (50, 21025), (51, 21028), (52, 21034), (54, 21040), (58, 21076), (59, 21079), (60, 21082), (67, 21133), (68, 21154), (69, 21160), (71, 21178), (72, 21196), (79, 21238), (81, 21247), (87, 21304), (88, 21313), (91, 21322), (110, 21424), (117, 21496), (151, 21712), (153, 21727), (172, 21883), (185, 22003), (187, 22009), (192, 22060), (196, 22075), (201, 22096), (209, 22132), (212, 22162), (215, 22171), (216, 22174), (230, 22294), (232, 22327), (237, 22351), (243, 22384), (244, 22390), (250, 22441), (255, 22459), (261, 22495), (269, 22534), (280, 22600), (282, 22639), (283, 22645), (285, 22651),

Gene: Chevrolet_19 Start: 19972, Stop: 21858, Start Num: 12

Candidate Starts for Chevrolet_19:

(Start: 12 @19972 has 225 MA's), (24, 20035), (26, 20050), (27, 20053), (30, 20077), (32, 20107), (34, 20116), (36, 20134), (47, 20191), (48, 20194), (50, 20215), (51, 20218), (52, 20224), (54, 20230), (58, 20266), (59, 20269), (67, 20323), (68, 20344), (69, 20350), (71, 20368), (72, 20386), (79, 20428), (87, 20494), (88, 20503), (91, 20512), (110, 20614), (117, 20686), (151, 20902), (153, 20917), (185, 21193), (187, 21199), (192, 21250), (196, 21265), (201, 21286), (209, 21322), (212, 21352), (215, 21361), (216, 21364), (227, 21469), (230, 21484), (232, 21517), (237, 21541), (243, 21574), (244,

21580), (250, 21631), (255, 21649), (261, 21685), (269, 21724), (280, 21790), (282, 21829), (283, 21835), (285, 21841),

Gene: ChickenDinner_20 Start: 19793, Stop: 21673, Start Num: 12

Candidate Starts for ChickenDinner_20:

(Start: 12 @19793 has 225 MA's), (23, 19853), (27, 19874), (36, 19955), (47, 20012), (48, 20015), (50, 20036), (54, 20051), (60, 20093), (67, 20144), (71, 20189), (72, 20207), (79, 20249), (87, 20315), (88, 20324), (91, 20333), (110, 20435), (117, 20507), (127, 20585), (133, 20618), (144, 20681), (151, 20723), (153, 20738), (155, 20744), (170, 20858), (172, 20894), (185, 21014), (187, 21020), (196, 21086), (208, 21128), (212, 21173), (223, 21242), (225, 21248), (226, 21257), (227, 21290), (230, 21305), (237, 21362), (243, 21395), (250, 21452), (252, 21458), (255, 21470), (257, 21476), (264, 21515), (266, 21527), (269, 21539), (277, 21578), (282, 21644), (283, 21650),

Gene: Chill_32 Start: 26592, Stop: 28640, Start Num: 11

Candidate Starts for Chill_32:

(Start: 11 @26592 has 24 MA's), (14, 26613), (51, 26862), (61, 26934), (63, 26940), (71, 27015), (75, 27051), (76, 27054), (77, 27057), (89, 27150), (90, 27153), (91, 27156), (92, 27168), (99, 27207), (100, 27210), (101, 27213), (102, 27225), (105, 27246), (117, 27333), (118, 27336), (136, 27486), (137, 27489), (141, 27522), (142, 27528), (144, 27564), (148, 27585), (161, 27666), (168, 27726), (174, 27798), (175, 27831), (180, 27867), (187, 27903), (197, 27990), (201, 28005), (213, 28110), (214, 28113), (225, 28188), (226, 28200), (228, 28239), (236, 28299), (246, 28371), (253, 28428), (254, 28434), (256, 28440), (275, 28533), (280, 28569),

Gene: Chuckly_19 Start: 20103, Stop: 21983, Start Num: 12

Candidate Starts for Chuckly_19:

(9, 20082), (Start: 12 @20103 has 225 MA's), (24, 20166), (26, 20181), (27, 20184), (30, 20208), (32, 20238), (34, 20247), (36, 20265), (47, 20322), (48, 20325), (50, 20346), (51, 20349), (52, 20355), (54, 20361), (58, 20397), (59, 20400), (60, 20403), (67, 20454), (68, 20475), (69, 20481), (71, 20499), (72, 20517), (79, 20559), (81, 20568), (87, 20625), (88, 20634), (91, 20643), (106, 20733), (110, 20745), (117, 20817), (118, 20820), (127, 20895), (144, 20991), (151, 21033), (153, 21048), (170, 21168), (172, 21204), (185, 21324), (187, 21330), (192, 21381), (196, 21396), (208, 21438), (214, 21489), (215, 21492), (216, 21495), (226, 21567), (227, 21600), (230, 21615), (231, 21636), (232, 21648), (242, 21702), (244, 21711), (245, 21717), (255, 21780), (266, 21837), (269, 21849), (276, 21882), (277, 21888), (282, 21954), (283, 21960), (285, 21966),

Gene: Corium_19 Start: 19971, Stop: 21857, Start Num: 12

Candidate Starts for Corium_19:

(9, 19950), (Start: 12 @19971 has 225 MA's), (24, 20034), (26, 20049), (27, 20052), (30, 20076), (32, 20106), (34, 20115), (36, 20133), (47, 20190), (48, 20193), (50, 20214), (51, 20217), (52, 20223), (54, 20229), (58, 20265), (59, 20268), (60, 20271), (67, 20322), (68, 20343), (69, 20349), (71, 20367), (72, 20385), (79, 20427), (81, 20436), (87, 20493), (88, 20502), (91, 20511), (110, 20613), (117, 20685), (151, 20901), (153, 20916), (172, 21072), (185, 21192), (187, 21198), (192, 21249), (196, 21264), (201, 21285), (209, 21321), (212, 21351), (215, 21360), (216, 21363), (230, 21483), (232, 21516), (237, 21540), (243, 21573), (244, 21579), (250, 21630), (255, 21648), (261, 21684), (269, 21723), (280, 21789), (282, 21828), (283, 21834), (285, 21840),

Gene: Cornucopia_20 Start: 19969, Stop: 21855, Start Num: 12

Candidate Starts for Cornucopia_20:

(9, 19948), (Start: 12 @19969 has 225 MA's), (24, 20032), (26, 20047), (27, 20050), (30, 20074), (32, 20104), (34, 20113), (36, 20131), (47, 20188), (48, 20191), (50, 20212), (51, 20215), (52, 20221), (54, 20227), (58, 20263), (59, 20266), (60, 20269), (67, 20320), (68, 20341), (69, 20347), (71, 20365), (72, 20383), (87, 20491), (88, 20500), (91, 20509), (110, 20611), (117, 20683), (118, 20686), (139, 20821), (144, 20857), (151, 20899), (153, 20914), (185, 21190), (187, 21196), (192, 21247), (196, 21262),

(201, 21283), (209, 21319), (212, 21349), (215, 21358), (216, 21361), (230, 21481), (232, 21514), (237, 21538), (243, 21571), (244, 21577), (250, 21628), (255, 21646), (257, 21652), (269, 21721), (280, 21787), (282, 21826), (283, 21832), (285, 21838),

Gene: Cosmo_44 Start: 30914, Stop: 32890, Start Num: 12

Candidate Starts for Cosmo_44:

(Start: 12 @30914 has 225 MA's), (19, 30956), (34, 31052), (35, 31067), (38, 31094), (48, 31133), (53, 31166), (54, 31169), (56, 31196), (58, 31208), (59, 31211), (60, 31214), (64, 31244), (68, 31286), (70, 31298), (74, 31340), (77, 31352), (78, 31358), (84, 31421), (90, 31469), (91, 31472), (92, 31484), (97, 31511), (98, 31520), (101, 31529), (106, 31565), (108, 31571), (114, 31622), (116, 31643), (121, 31664), (128, 31721), (135, 31784), (143, 31826), (144, 31847), (147, 31859), (148, 31868), (150, 31880), (156, 31919), (162, 31952), (167, 31988), (169, 32012), (171, 32027), (174, 32081), (178, 32144), (189, 32198), (190, 32213), (200, 32270), (204, 32294), (212, 32375), (215, 32384), (222, 32444), (232, 32543), (239, 32582), (241, 32588), (242, 32597), (267, 32750), (282, 32861), (285, 32873),

Gene: DLane_19 Start: 19920, Stop: 21806, Start Num: 12

Candidate Starts for DLane_19:

(9, 19899), (Start: 12 @19920 has 225 MA's), (24, 19983), (26, 19998), (27, 20001), (30, 20025), (32, 20055), (34, 20064), (36, 20082), (47, 20139), (48, 20142), (50, 20163), (51, 20166), (52, 20172), (54, 20178), (58, 20214), (59, 20217), (60, 20220), (67, 20271), (68, 20292), (69, 20298), (71, 20316), (72, 20334), (79, 20376), (87, 20442), (88, 20451), (91, 20460), (110, 20562), (117, 20634), (151, 20850), (153, 20865), (185, 21141), (187, 21147), (192, 21198), (196, 21213), (201, 21234), (209, 21270), (212, 21300), (215, 21309), (216, 21312), (227, 21417), (230, 21432), (232, 21465), (237, 21489), (243, 21522), (244, 21528), (250, 21579), (255, 21597), (261, 21633), (269, 21672), (280, 21738), (282, 21777), (283, 21783), (285, 21789),

Gene: DRBy19_19 Start: 19963, Stop: 21849, Start Num: 12

Candidate Starts for DRBy19_19:

(9, 19942), (Start: 12 @19963 has 225 MA's), (Start: 16 @19984 has 1 MA's), (24, 20026), (32, 20098), (36, 20125), (37, 20143), (48, 20185), (51, 20209), (60, 20263), (65, 20308), (67, 20314), (68, 20335), (71, 20359), (72, 20377), (74, 20389), (86, 20476), (87, 20485), (88, 20494), (91, 20503), (107, 20596), (110, 20605), (115, 20668), (117, 20677), (118, 20680), (127, 20755), (153, 20908), (158, 20938), (170, 21025), (174, 21088), (179, 21157), (196, 21253), (198, 21259), (201, 21274), (207, 21286), (212, 21340), (214, 21346), (215, 21349), (216, 21352), (230, 21472), (232, 21505), (235, 21511), (242, 21559), (244, 21568), (250, 21619), (252, 21625), (255, 21640), (266, 21703), (275, 21745), (276, 21748), (277, 21754), (282, 21820), (283, 21826), (285, 21832),

Gene: DaWorst_21 Start: 20464, Stop: 22350, Start Num: 12

Candidate Starts for DaWorst_21:

(Start: 12 @20464 has 225 MA's), (24, 20527), (26, 20542), (27, 20545), (30, 20569), (32, 20599), (34, 20608), (36, 20626), (47, 20683), (48, 20686), (50, 20707), (51, 20710), (52, 20716), (54, 20722), (58, 20758), (59, 20761), (67, 20815), (68, 20836), (69, 20842), (71, 20860), (72, 20878), (79, 20920), (87, 20986), (88, 20995), (91, 21004), (110, 21106), (117, 21178), (151, 21394), (153, 21409), (185, 21685), (187, 21691), (192, 21742), (196, 21757), (201, 21778), (209, 21814), (212, 21844), (215, 21853), (216, 21856), (230, 21976), (232, 22009), (237, 22033), (243, 22066), (244, 22072), (250, 22123), (255, 22141), (261, 22177), (269, 22216), (280, 22282), (282, 22321), (283, 22327), (285, 22333),

Gene: DaddyRickover_19 Start: 20102, Stop: 21988, Start Num: 12

Candidate Starts for DaddyRickover_19:

(9, 20081), (Start: 12 @20102 has 225 MA's), (24, 20165), (26, 20180), (30, 20207), (32, 20237), (34, 20246), (36, 20264), (47, 20321), (48, 20324), (50, 20345), (51, 20348), (52, 20354), (54, 20360), (58,

20396), (59, 20399), (60, 20402), (67, 20453), (68, 20474), (69, 20480), (71, 20498), (72, 20516), (79, 20558), (87, 20624), (88, 20633), (91, 20642), (110, 20744), (117, 20816), (118, 20819), (151, 21032), (153, 21047), (185, 21323), (187, 21329), (192, 21380), (196, 21395), (201, 21416), (202, 21422), (209, 21452), (212, 21482), (215, 21491), (216, 21494), (227, 21599), (230, 21614), (232, 21647), (237, 21671), (243, 21704), (244, 21710), (250, 21761), (255, 21779), (261, 21815), (269, 21854), (280, 21920), (282, 21959), (283, 21965), (285, 21971),

Gene: Daenerys_19 Start: 19934, Stop: 21823, Start Num: 12

Candidate Starts for Daenerys_19:

(9, 19913), (Start: 12 @19934 has 225 MA's), (24, 19997), (26, 20012), (30, 20039), (32, 20069), (34, 20078), (36, 20096), (47, 20153), (48, 20156), (50, 20177), (51, 20180), (52, 20186), (54, 20192), (58, 20228), (59, 20231), (60, 20234), (67, 20285), (68, 20306), (69, 20312), (71, 20330), (72, 20348), (79, 20390), (87, 20456), (88, 20465), (91, 20474), (110, 20576), (117, 20648), (118, 20651), (126, 20720), (127, 20726), (144, 20822), (151, 20864), (153, 20879), (172, 21035), (185, 21155), (187, 21161), (196, 21227), (201, 21248), (207, 21260), (212, 21314), (215, 21323), (216, 21326), (230, 21446), (232, 21479), (235, 21485), (242, 21533), (244, 21542), (250, 21593), (252, 21599), (255, 21614), (258, 21626), (266, 21677), (269, 21689), (275, 21719), (276, 21722), (277, 21728), (282, 21794), (283, 21800),

Gene: Dante_19 Start: 19950, Stop: 21836, Start Num: 12

Candidate Starts for Dante_19:

(9, 19929), (Start: 12 @19950 has 225 MA's), (24, 20013), (26, 20028), (30, 20055), (32, 20085), (34, 20094), (36, 20112), (47, 20169), (48, 20172), (50, 20193), (51, 20196), (52, 20202), (54, 20208), (58, 20244), (59, 20247), (60, 20250), (67, 20301), (68, 20322), (69, 20328), (71, 20346), (72, 20364), (79, 20406), (87, 20472), (88, 20481), (91, 20490), (110, 20592), (117, 20664), (151, 20880), (153, 20895), (185, 21171), (187, 21177), (192, 21228), (196, 21243), (201, 21264), (209, 21300), (212, 21330), (215, 21339), (216, 21342), (230, 21462), (232, 21495), (237, 21519), (243, 21552), (244, 21558), (250, 21609), (255, 21627), (261, 21663), (269, 21702), (280, 21768), (282, 21807), (283, 21813), (285, 21819),

Gene: DeadP_19 Start: 19964, Stop: 21850, Start Num: 12

Candidate Starts for DeadP_19:

(9, 19943), (Start: 12 @19964 has 225 MA's), (24, 20027), (26, 20042), (27, 20045), (30, 20069), (32, 20099), (34, 20108), (36, 20126), (47, 20183), (48, 20186), (50, 20207), (51, 20210), (52, 20216), (54, 20222), (58, 20258), (59, 20261), (60, 20264), (67, 20315), (68, 20336), (69, 20342), (71, 20360), (72, 20378), (79, 20420), (81, 20429), (87, 20486), (88, 20495), (91, 20504), (110, 20606), (117, 20678), (151, 20894), (153, 20909), (185, 21185), (187, 21191), (192, 21242), (196, 21257), (201, 21278), (209, 21314), (212, 21344), (215, 21353), (216, 21356), (227, 21461), (230, 21476), (232, 21509), (237, 21533), (243, 21566), (244, 21572), (250, 21623), (255, 21641), (269, 21716), (280, 21782), (282, 21821), (283, 21827), (285, 21833),

Gene: Deb65_19 Start: 19931, Stop: 21820, Start Num: 12

Candidate Starts for Deb65_19:

(9, 19910), (Start: 12 @19931 has 225 MA's), (24, 19994), (26, 20009), (30, 20036), (32, 20066), (34, 20075), (36, 20093), (47, 20150), (48, 20153), (50, 20174), (51, 20177), (54, 20189), (58, 20225), (59, 20228), (60, 20231), (67, 20282), (68, 20303), (69, 20309), (71, 20327), (72, 20345), (79, 20387), (87, 20453), (88, 20462), (91, 20471), (110, 20573), (117, 20645), (118, 20648), (126, 20717), (127, 20723), (144, 20819), (151, 20861), (153, 20876), (172, 21032), (185, 21152), (187, 21158), (196, 21224), (201, 21245), (207, 21257), (212, 21311), (215, 21320), (216, 21323), (230, 21443), (232, 21476), (235, 21482), (242, 21530), (244, 21539), (250, 21590), (252, 21596), (255, 21611), (258, 21623), (266, 21674), (269, 21686), (275, 21716), (276, 21719), (277, 21725), (282, 21791), (283, 21797),

Gene: Delton_31 Start: 26598, Stop: 28646, Start Num: 11

Candidate Starts for Delton_31:

(Start: 11 @26598 has 24 MA's), (14, 26619), (51, 26868), (61, 26940), (63, 26946), (71, 27021), (75, 27057), (76, 27060), (77, 27063), (89, 27156), (90, 27159), (91, 27162), (92, 27174), (99, 27213), (100, 27216), (101, 27219), (102, 27231), (105, 27252), (117, 27339), (118, 27342), (136, 27492), (137, 27495), (141, 27528), (142, 27534), (144, 27570), (148, 27591), (161, 27672), (168, 27732), (174, 27804), (175, 27837), (180, 27873), (187, 27909), (197, 27996), (201, 28011), (213, 28116), (214, 28119), (225, 28194), (226, 28206), (228, 28245), (236, 28305), (246, 28377), (253, 28434), (254, 28440), (256, 28446), (275, 28539), (280, 28575),

Gene: DillTech15_19 Start: 19968, Stop: 21854, Start Num: 12

Candidate Starts for DillTech15_19:

(9, 19947), (Start: 12 @19968 has 225 MA's), (24, 20031), (26, 20046), (27, 20049), (30, 20073), (32, 20103), (34, 20112), (36, 20130), (47, 20187), (48, 20190), (50, 20211), (51, 20214), (52, 20220), (54, 20226), (58, 20262), (59, 20265), (60, 20268), (67, 20319), (68, 20340), (69, 20346), (71, 20364), (72, 20382), (79, 20424), (81, 20433), (87, 20490), (88, 20499), (91, 20508), (110, 20610), (117, 20682), (151, 20898), (153, 20913), (172, 21069), (185, 21189), (187, 21195), (192, 21246), (196, 21261), (201, 21282), (209, 21318), (212, 21348), (215, 21357), (216, 21360), (230, 21480), (232, 21513), (237, 21537), (243, 21570), (244, 21576), (250, 21627), (255, 21645), (261, 21681), (269, 21720), (280, 21786), (282, 21825), (283, 21831), (285, 21837),

Gene: DirtMcgirt_20 Start: 19755, Stop: 21641, Start Num: 12

Candidate Starts for DirtMcgirt_20:

(Start: 12 @19755 has 225 MA's), (24, 19818), (26, 19833), (30, 19860), (32, 19890), (34, 19899), (36, 19917), (47, 19974), (48, 19977), (50, 19998), (51, 20001), (52, 20007), (54, 20013), (58, 20049), (59, 20052), (60, 20055), (67, 20106), (68, 20127), (69, 20133), (71, 20151), (72, 20169), (79, 20211), (81, 20220), (87, 20277), (88, 20286), (91, 20295), (110, 20397), (117, 20469), (151, 20685), (153, 20700), (185, 20976), (187, 20982), (192, 21033), (196, 21048), (201, 21069), (209, 21105), (212, 21135), (215, 21144), (216, 21147), (227, 21252), (230, 21267), (232, 21300), (237, 21324), (243, 21357), (244, 21363), (250, 21414), (255, 21432), (261, 21468), (269, 21507), (280, 21573), (282, 21612), (283, 21618), (285, 21624),

Gene: DoRead_19 Start: 19888, Stop: 21774, Start Num: 12

Candidate Starts for DoRead_19:

(9, 19867), (Start: 12 @19888 has 225 MA's), (Start: 16 @19909 has 1 MA's), (Start: 21 @19945 has 1 MA's), (24, 19951), (26, 19966), (32, 20023), (36, 20050), (37, 20068), (48, 20110), (51, 20134), (54, 20146), (58, 20182), (60, 20188), (71, 20284), (72, 20302), (78, 20332), (81, 20353), (82, 20365), (87, 20410), (89, 20422), (91, 20428), (92, 20440), (107, 20521), (117, 20602), (126, 20674), (153, 20833), (155, 20836), (157, 20857), (158, 20863), (170, 20950), (189, 21124), (212, 21265), (214, 21271), (215, 21274), (216, 21277), (223, 21334), (227, 21382), (230, 21397), (232, 21430), (237, 21454), (242, 21484), (244, 21493), (248, 21535), (250, 21544), (255, 21562), (257, 21568), (263, 21604), (265, 21622), (275, 21667), (276, 21670), (277, 21676), (282, 21742), (283, 21748),

Gene: DocMcStuffins_20 Start: 19793, Stop: 21673, Start Num: 12

Candidate Starts for DocMcStuffins_20:

(Start: 12 @19793 has 225 MA's), (23, 19853), (27, 19874), (36, 19955), (47, 20012), (48, 20015), (50, 20036), (54, 20051), (60, 20093), (67, 20144), (71, 20189), (72, 20207), (79, 20249), (87, 20315), (88, 20324), (91, 20333), (110, 20435), (117, 20507), (127, 20585), (133, 20618), (144, 20681), (151, 20723), (153, 20738), (155, 20744), (170, 20858), (172, 20894), (185, 21014), (187, 21020), (196, 21086), (208, 21128), (212, 21173), (223, 21242), (225, 21248), (226, 21257), (227, 21290), (230, 21305), (237, 21362), (243, 21395), (250, 21452), (252, 21458), (255, 21470), (257, 21476), (264, 21515), (266, 21527), (269, 21539), (277, 21578), (282, 21644), (283, 21650),

Gene: Donkeykong_19 Start: 20108, Stop: 21994, Start Num: 12

Candidate Starts for Donkeykong_19:

(9, 20087), (Start: 12 @20108 has 225 MA's), (24, 20171), (26, 20186), (27, 20189), (30, 20213), (32, 20243), (34, 20252), (36, 20270), (47, 20327), (48, 20330), (50, 20351), (51, 20354), (52, 20360), (54, 20366), (58, 20402), (59, 20405), (60, 20408), (67, 20459), (68, 20480), (69, 20486), (71, 20504), (72, 20522), (87, 20630), (88, 20639), (91, 20648), (110, 20750), (117, 20822), (151, 21038), (153, 21053), (185, 21329), (187, 21335), (192, 21386), (196, 21401), (201, 21422), (209, 21458), (212, 21488), (215, 21497), (216, 21500), (230, 21620), (232, 21653), (237, 21677), (243, 21710), (244, 21716), (250, 21767), (255, 21785), (261, 21821), (269, 21860), (280, 21926), (282, 21965), (283, 21971), (285, 21977),

Gene: Doomphist_19 Start: 20068, Stop: 21954, Start Num: 12

Candidate Starts for Doomphist_19:

(Start: 12 @20068 has 225 MA's), (24, 20131), (26, 20146), (27, 20149), (30, 20173), (32, 20203), (34, 20212), (36, 20230), (47, 20287), (48, 20290), (50, 20311), (51, 20314), (52, 20320), (54, 20326), (58, 20362), (59, 20365), (60, 20368), (67, 20419), (68, 20440), (69, 20446), (71, 20464), (72, 20482), (79, 20524), (87, 20590), (88, 20599), (91, 20608), (110, 20710), (117, 20782), (118, 20785), (151, 20998), (153, 21013), (185, 21289), (187, 21295), (192, 21346), (196, 21361), (201, 21382), (209, 21418), (212, 21448), (215, 21457), (216, 21460), (227, 21565), (230, 21580), (232, 21613), (237, 21637), (243, 21670), (244, 21676), (250, 21727), (255, 21745), (261, 21781), (269, 21820), (280, 21886), (282, 21925), (283, 21931), (285, 21937),

Gene: Doomslug_21 Start: 19768, Stop: 21675, Start Num: 9

Candidate Starts for Doomslug_21:

(9, 19768), (Start: 12 @19789 has 225 MA's), (24, 19852), (26, 19867), (27, 19870), (30, 19894), (32, 19924), (34, 19933), (36, 19951), (47, 20008), (48, 20011), (50, 20032), (51, 20035), (52, 20041), (54, 20047), (58, 20083), (59, 20086), (60, 20089), (67, 20140), (68, 20161), (69, 20167), (71, 20185), (72, 20203), (79, 20245), (81, 20254), (87, 20311), (88, 20320), (91, 20329), (110, 20431), (117, 20503), (151, 20719), (153, 20734), (172, 20890), (185, 21010), (187, 21016), (192, 21067), (196, 21082), (201, 21103), (209, 21139), (212, 21169), (215, 21178), (216, 21181), (230, 21301), (232, 21334), (237, 21358), (243, 21391), (244, 21397), (250, 21448), (255, 21466), (261, 21502), (269, 21541), (280, 21607), (282, 21646), (283, 21652), (285, 21658),

Gene: Dorothy_19 Start: 19892, Stop: 21781, Start Num: 12

Candidate Starts for Dorothy_19:

(9, 19871), (Start: 12 @19892 has 225 MA's), (24, 19955), (26, 19970), (30, 19997), (32, 20027), (34, 20036), (36, 20054), (47, 20111), (48, 20114), (50, 20135), (51, 20138), (52, 20144), (54, 20150), (58, 20186), (59, 20189), (60, 20192), (67, 20243), (68, 20264), (69, 20270), (71, 20288), (72, 20306), (79, 20348), (87, 20414), (88, 20423), (91, 20432), (110, 20534), (117, 20606), (118, 20609), (144, 20780), (151, 20822), (153, 20837), (172, 20993), (185, 21113), (187, 21119), (196, 21185), (201, 21206), (207, 21218), (212, 21272), (215, 21281), (216, 21284), (230, 21404), (232, 21437), (235, 21443), (242, 21491), (244, 21500), (250, 21551), (252, 21557), (255, 21572), (258, 21584), (266, 21635), (269, 21647), (275, 21677), (276, 21680), (277, 21686), (282, 21752), (283, 21758),

Gene: DosHalletts_20 Start: 19876, Stop: 21765, Start Num: 12

Candidate Starts for DosHalletts_20:

(Start: 12 @19876 has 225 MA's), (24, 19939), (37, 20056), (48, 20098), (50, 20119), (51, 20122), (60, 20176), (67, 20227), (71, 20272), (72, 20290), (74, 20302), (86, 20389), (87, 20398), (88, 20407), (91, 20416), (107, 20509), (110, 20518), (115, 20581), (117, 20590), (118, 20593), (126, 20662), (127, 20668), (153, 20821), (158, 20851), (170, 20938), (174, 21001), (179, 21070), (196, 21166), (198, 21172), (201, 21187), (207, 21199), (212, 21253), (214, 21259), (215, 21262), (216, 21265), (226, 21337), (227, 21370), (230, 21385), (232, 21418), (235, 21424), (237, 21442), (242, 21472), (243, 21475), (250, 21532), (255, 21553), (257, 21559), (266, 21616), (269, 21628), (277, 21667), (282,

21733), (283, 21739),

Gene: DotProduct_19 Start: 19936, Stop: 21822, Start Num: 12

Candidate Starts for DotProduct_19:

(9, 19915), (Start: 12 @19936 has 225 MA's), (24, 19999), (26, 20014), (27, 20017), (30, 20041), (32, 20071), (34, 20080), (36, 20098), (47, 20155), (48, 20158), (50, 20179), (51, 20182), (52, 20188), (54, 20194), (58, 20230), (59, 20233), (60, 20236), (67, 20287), (68, 20308), (69, 20314), (71, 20332), (72, 20350), (79, 20392), (87, 20458), (88, 20467), (91, 20476), (110, 20578), (117, 20650), (151, 20866), (153, 20881), (172, 21037), (185, 21157), (187, 21163), (192, 21214), (196, 21229), (201, 21250), (209, 21286), (212, 21316), (215, 21325), (216, 21328), (227, 21433), (230, 21448), (232, 21481), (237, 21505), (243, 21538), (244, 21544), (250, 21595), (255, 21613), (261, 21649), (269, 21688), (280, 21754), (282, 21793), (283, 21799), (285, 21805),

Gene: Doug_20 Start: 20484, Stop: 22373, Start Num: 12

Candidate Starts for Doug_20:

(Start: 12 @20484 has 225 MA's), (24, 20547), (26, 20562), (27, 20565), (30, 20589), (32, 20619), (34, 20628), (36, 20646), (47, 20703), (48, 20706), (50, 20727), (51, 20730), (52, 20736), (54, 20742), (58, 20778), (59, 20781), (60, 20784), (67, 20835), (68, 20856), (69, 20862), (71, 20880), (72, 20898), (79, 20940), (87, 21006), (88, 21015), (91, 21024), (110, 21126), (117, 21198), (118, 21201), (126, 21270), (127, 21276), (139, 21336), (144, 21372), (151, 21414), (153, 21429), (155, 21435), (172, 21585), (185, 21705), (187, 21711), (196, 21777), (201, 21798), (207, 21810), (212, 21864), (215, 21873), (216, 21876), (230, 21996), (232, 22029), (235, 22035), (242, 22083), (244, 22092), (250, 22143), (252, 22149), (255, 22164), (258, 22176), (266, 22227), (269, 22239), (275, 22269), (276, 22272), (277, 22278), (282, 22344), (283, 22350),

Gene: Drago_20 Start: 19753, Stop: 21639, Start Num: 12

Candidate Starts for Drago_20:

(Start: 12 @19753 has 225 MA's), (24, 19816), (26, 19831), (30, 19858), (32, 19888), (34, 19897), (36, 19915), (47, 19972), (48, 19975), (50, 19996), (51, 19999), (52, 20005), (54, 20011), (58, 20047), (59, 20050), (60, 20053), (67, 20104), (68, 20125), (69, 20131), (71, 20149), (72, 20167), (79, 20209), (81, 20218), (87, 20275), (88, 20284), (91, 20293), (110, 20395), (117, 20467), (151, 20683), (153, 20698), (185, 20974), (187, 20980), (192, 21031), (196, 21046), (201, 21067), (209, 21103), (212, 21133), (215, 21142), (216, 21145), (230, 21265), (232, 21298), (237, 21322), (243, 21355), (244, 21361), (250, 21412), (255, 21430), (261, 21466), (269, 21505), (280, 21571), (282, 21610), (283, 21616), (285, 21622),

Gene: Duke13_37 Start: 32333, Stop: 34219, Start Num: 12

Candidate Starts for Duke13_37:

(9, 32312), (Start: 12 @32333 has 225 MA's), (24, 32396), (26, 32411), (30, 32438), (32, 32468), (34, 32477), (36, 32495), (47, 32552), (48, 32555), (50, 32576), (51, 32579), (52, 32585), (54, 32591), (58, 32627), (59, 32630), (60, 32633), (67, 32684), (68, 32705), (69, 32711), (71, 32729), (72, 32747), (79, 32789), (87, 32855), (88, 32864), (91, 32873), (110, 32975), (117, 33047), (118, 33050), (151, 33263), (153, 33278), (185, 33554), (187, 33560), (192, 33611), (196, 33626), (201, 33647), (209, 33683), (212, 33713), (215, 33722), (216, 33725), (227, 33830), (230, 33845), (232, 33878), (237, 33902), (243, 33935), (244, 33941), (250, 33992), (255, 34010), (261, 34046), (269, 34085), (280, 34151), (282, 34190), (283, 34196), (285, 34202),

Gene: Eish_19 Start: 20074, Stop: 21963, Start Num: 12

Candidate Starts for Eish_19:

(9, 20053), (Start: 12 @20074 has 225 MA's), (24, 20137), (26, 20152), (30, 20179), (32, 20209), (34, 20218), (36, 20236), (47, 20293), (48, 20296), (50, 20317), (51, 20320), (54, 20332), (58, 20368), (59, 20371), (60, 20374), (67, 20425), (68, 20446), (69, 20452), (71, 20470), (72, 20488), (79, 20530), (87, 20596), (88, 20605), (91, 20614), (110, 20716), (117, 20788), (118, 20791), (126, 20860), (127,

20866), (144, 20962), (151, 21004), (153, 21019), (172, 21175), (185, 21295), (187, 21301), (196, 21367), (201, 21388), (207, 21400), (212, 21454), (215, 21463), (216, 21466), (230, 21586), (232, 21619), (235, 21625), (242, 21673), (244, 21682), (250, 21733), (252, 21739), (255, 21754), (258, 21766), (266, 21817), (269, 21829), (275, 21859), (276, 21862), (277, 21868), (282, 21934), (283, 21940),

Gene: EleanorGeorge_19 Start: 20102, Stop: 21988, Start Num: 12

Candidate Starts for EleanorGeorge_19:

(9, 20081), (Start: 12 @20102 has 225 MA's), (24, 20165), (26, 20180), (27, 20183), (30, 20207), (32, 20237), (34, 20246), (36, 20264), (47, 20321), (48, 20324), (50, 20345), (51, 20348), (52, 20354), (54, 20360), (58, 20396), (59, 20399), (60, 20402), (67, 20453), (68, 20474), (69, 20480), (71, 20498), (72, 20516), (79, 20558), (87, 20624), (88, 20633), (91, 20642), (110, 20744), (117, 20816), (151, 21032), (153, 21047), (172, 21203), (185, 21323), (187, 21329), (192, 21380), (196, 21395), (201, 21416), (209, 21452), (212, 21482), (215, 21491), (216, 21494), (230, 21614), (232, 21647), (237, 21671), (243, 21704), (244, 21710), (250, 21761), (255, 21779), (261, 21815), (269, 21854), (280, 21920), (282, 21959), (283, 21965), (285, 21971),

Gene: EmiMonkey_19 Start: 19886, Stop: 21772, Start Num: 12

Candidate Starts for EmiMonkey_19:

(Start: 12 @19886 has 225 MA's), (24, 19949), (26, 19964), (27, 19967), (30, 19991), (32, 20021), (34, 20030), (36, 20048), (47, 20105), (48, 20108), (50, 20129), (51, 20132), (52, 20138), (54, 20144), (58, 20180), (59, 20183), (60, 20186), (67, 20237), (68, 20258), (69, 20264), (71, 20282), (72, 20300), (79, 20342), (81, 20351), (87, 20408), (88, 20417), (91, 20426), (110, 20528), (117, 20600), (151, 20816), (153, 20831), (185, 21107), (187, 21113), (192, 21164), (196, 21179), (201, 21200), (209, 21236), (212, 21266), (215, 21275), (216, 21278), (227, 21383), (230, 21398), (232, 21431), (237, 21455), (243, 21488), (244, 21494), (250, 21545), (255, 21563), (261, 21599), (269, 21638), (280, 21704), (282, 21743), (283, 21749), (285, 21755),

Gene: Emma_19 Start: 19982, Stop: 21868, Start Num: 12

Candidate Starts for Emma_19:

(Start: 12 @19982 has 225 MA's), (24, 20045), (26, 20060), (27, 20063), (30, 20087), (32, 20117), (34, 20126), (36, 20144), (47, 20201), (48, 20204), (50, 20225), (51, 20228), (52, 20234), (54, 20240), (58, 20276), (59, 20279), (60, 20282), (67, 20333), (68, 20354), (69, 20360), (71, 20378), (72, 20396), (79, 20438), (81, 20447), (87, 20504), (88, 20513), (91, 20522), (110, 20624), (117, 20696), (151, 20912), (153, 20927), (185, 21203), (187, 21209), (192, 21260), (196, 21275), (201, 21296), (209, 21332), (212, 21362), (215, 21371), (216, 21374), (230, 21494), (232, 21527), (237, 21551), (243, 21584), (244, 21590), (250, 21641), (255, 21659), (261, 21695), (269, 21734), (280, 21800), (282, 21839), (283, 21845), (285, 21851),

Gene: Emmaloid_20 Start: 19723, Stop: 21618, Start Num: 12

Candidate Starts for Emmaloid_20:

(Start: 12 @19723 has 225 MA's), (24, 19786), (26, 19801), (27, 19804), (30, 19828), (32, 19858), (34, 19867), (36, 19885), (47, 19942), (48, 19945), (50, 19966), (51, 19969), (52, 19975), (54, 19981), (58, 20017), (59, 20020), (60, 20023), (67, 20074), (68, 20095), (69, 20101), (71, 20119), (72, 20137), (79, 20179), (81, 20188), (87, 20245), (88, 20254), (91, 20263), (110, 20365), (117, 20437), (151, 20653), (153, 20668), (185, 20944), (187, 20950), (192, 21001), (194, 21016), (196, 21025), (201, 21046), (209, 21082), (212, 21112), (215, 21121), (216, 21124), (227, 21229), (230, 21244), (232, 21277), (237, 21301), (243, 21334), (244, 21340), (250, 21391), (255, 21409), (261, 21445), (269, 21484), (280, 21550), (282, 21589), (283, 21595), (285, 21601),

Gene: Empress_20 Start: 21283, Stop: 23172, Start Num: 12

Candidate Starts for Empress_20:

(Start: 12 @21283 has 225 MA's), (24, 21346), (26, 21361), (30, 21388), (32, 21418), (34, 21427), (36, 21445), (47, 21502), (48, 21505), (50, 21526), (51, 21529), (54, 21541), (58, 21577), (59, 21580), (60, 21583), (67, 21634), (68, 21655), (69, 21661), (71, 21679), (72, 21697), (79, 21739), (87, 21805), (88, 21814), (91, 21823), (110, 21925), (117, 21997), (118, 22000), (126, 22069), (127, 22075), (144, 22171), (151, 22213), (153, 22228), (172, 22384), (185, 22504), (187, 22510), (196, 22576), (201, 22597), (207, 22609), (212, 22663), (215, 22672), (216, 22675), (230, 22795), (232, 22828), (235, 22834), (242, 22882), (244, 22891), (250, 22942), (252, 22948), (255, 22963), (258, 22975), (266, 23026), (269, 23038), (275, 23068), (276, 23071), (277, 23077), (282, 23143), (283, 23149),

Gene: Enby_20 Start: 19753, Stop: 21639, Start Num: 12

Candidate Starts for Enby_20:

(Start: 12 @19753 has 225 MA's), (24, 19816), (26, 19831), (30, 19858), (32, 19888), (34, 19897), (36, 19915), (47, 19972), (48, 19975), (50, 19996), (51, 19999), (52, 20005), (54, 20011), (58, 20047), (59, 20050), (60, 20053), (67, 20104), (68, 20125), (69, 20131), (71, 20149), (72, 20167), (79, 20209), (81, 20218), (87, 20275), (88, 20284), (91, 20293), (110, 20395), (117, 20467), (151, 20683), (153, 20698), (185, 20974), (187, 20980), (192, 21031), (196, 21046), (201, 21067), (209, 21103), (212, 21133), (215, 21142), (216, 21145), (230, 21265), (232, 21298), (237, 21322), (243, 21355), (244, 21361), (250, 21412), (255, 21430), (261, 21466), (269, 21505), (280, 21571), (282, 21610), (283, 21616), (285, 21622),

Gene: EniyanLRS_41 Start: 30612, Stop: 32588, Start Num: 12

Candidate Starts for EniyanLRS_41:

(Start: 12 @30612 has 225 MA's), (19, 30654), (34, 30750), (35, 30765), (38, 30792), (48, 30831), (53, 30864), (54, 30867), (56, 30894), (58, 30906), (59, 30909), (60, 30912), (64, 30942), (68, 30984), (70, 30996), (74, 31038), (77, 31050), (78, 31056), (84, 31119), (90, 31167), (91, 31170), (92, 31182), (97, 31209), (98, 31218), (101, 31227), (106, 31263), (108, 31269), (113, 31308), (114, 31320), (116, 31341), (121, 31362), (128, 31419), (135, 31482), (143, 31524), (144, 31545), (147, 31557), (148, 31566), (150, 31578), (156, 31617), (162, 31650), (167, 31686), (169, 31710), (171, 31725), (174, 31779), (178, 31842), (189, 31896), (190, 31911), (200, 31968), (204, 31992), (212, 32073), (215, 32082), (222, 32142), (232, 32241), (239, 32280), (241, 32286), (242, 32295), (267, 32448), (282, 32559), (285, 32571),

Gene: Enzomatic_21 Start: 19980, Stop: 21866, Start Num: 12

Candidate Starts for Enzomatic_21:

(Start: 12 @19980 has 225 MA's), (24, 20043), (26, 20058), (27, 20061), (30, 20085), (32, 20115), (34, 20124), (36, 20142), (47, 20199), (48, 20202), (50, 20223), (51, 20226), (52, 20232), (54, 20238), (58, 20274), (59, 20277), (60, 20280), (67, 20331), (68, 20352), (69, 20358), (71, 20376), (72, 20394), (87, 20502), (88, 20511), (91, 20520), (110, 20622), (117, 20694), (144, 20868), (151, 20910), (153, 20925), (155, 20931), (185, 21201), (187, 21207), (192, 21258), (196, 21273), (201, 21294), (209, 21330), (212, 21360), (215, 21369), (216, 21372), (230, 21492), (232, 21525), (237, 21549), (243, 21582), (244, 21588), (250, 21639), (255, 21657), (257, 21663), (269, 21732), (280, 21798), (282, 21837), (283, 21843), (285, 21849),

Gene: Eradicator_19 Start: 19912, Stop: 21801, Start Num: 12

Candidate Starts for Eradicator_19:

(9, 19891), (Start: 12 @19912 has 225 MA's), (Start: 16 @19933 has 1 MA's), (18, 19954), (24, 19975), (26, 19990), (36, 20074), (37, 20092), (48, 20134), (50, 20155), (51, 20158), (60, 20212), (67, 20263), (71, 20308), (72, 20326), (74, 20338), (86, 20425), (87, 20434), (88, 20443), (91, 20452), (107, 20545), (110, 20554), (115, 20617), (117, 20626), (118, 20629), (126, 20698), (127, 20704), (153, 20857), (158, 20887), (170, 20974), (174, 21037), (179, 21106), (196, 21202), (198, 21208), (201, 21223), (207, 21235), (212, 21289), (214, 21295), (215, 21298), (216, 21301), (226, 21373), (227, 21406), (230, 21421), (232, 21454), (235, 21460), (237, 21478), (242, 21508), (243, 21511), (247, 21535), (250, 21568), (255, 21589), (257, 21595), (258, 21601), (266, 21652), (269, 21664), (275, 21694),

(276, 21697), (277, 21703), (280, 21730), (282, 21769), (283, 21775),

Gene: Erk16_31 Start: 26589, Stop: 28637, Start Num: 11

Candidate Starts for Erk16_31:

(Start: 11 @26589 has 24 MA's), (14, 26610), (51, 26859), (61, 26931), (63, 26937), (71, 27012), (75, 27048), (76, 27051), (77, 27054), (89, 27147), (90, 27150), (91, 27153), (92, 27165), (99, 27204), (100, 27207), (101, 27210), (102, 27222), (105, 27243), (117, 27330), (118, 27333), (136, 27483), (137, 27486), (141, 27519), (142, 27525), (144, 27561), (148, 27582), (161, 27663), (168, 27723), (174, 27795), (175, 27828), (177, 27855), (180, 27864), (187, 27900), (197, 27987), (201, 28002), (213, 28107), (214, 28110), (225, 28185), (228, 28236), (236, 28296), (246, 28368), (253, 28425), (254, 28431), (256, 28437), (275, 28530), (280, 28566),

Gene: Fancypants_19 Start: 19942, Stop: 21822, Start Num: 12

Candidate Starts for Fancypants_19:

(9, 19921), (Start: 12 @19942 has 225 MA's), (24, 20005), (26, 20020), (27, 20023), (30, 20047), (32, 20077), (34, 20086), (36, 20104), (47, 20161), (48, 20164), (50, 20185), (51, 20188), (52, 20194), (54, 20200), (58, 20236), (59, 20239), (60, 20242), (67, 20293), (68, 20314), (69, 20320), (71, 20338), (72, 20356), (79, 20398), (81, 20407), (87, 20464), (88, 20473), (91, 20482), (106, 20572), (110, 20584), (117, 20656), (118, 20659), (127, 20734), (144, 20830), (151, 20872), (153, 20887), (170, 21007), (172, 21043), (185, 21163), (187, 21169), (192, 21220), (196, 21235), (208, 21277), (214, 21328), (215, 21331), (216, 21334), (226, 21406), (227, 21439), (230, 21454), (231, 21475), (232, 21487), (242, 21541), (244, 21550), (245, 21556), (255, 21619), (266, 21676), (269, 21688), (276, 21721), (277, 21727), (282, 21793), (283, 21799), (285, 21805),

Gene: Fastidio_19 Start: 19899, Stop: 21785, Start Num: 12

Candidate Starts for Fastidio_19:

(Start: 12 @19899 has 225 MA's), (24, 19962), (26, 19977), (27, 19980), (30, 20004), (32, 20034), (34, 20043), (36, 20061), (47, 20118), (48, 20121), (51, 20145), (54, 20157), (58, 20193), (59, 20196), (60, 20199), (67, 20250), (68, 20271), (69, 20277), (71, 20295), (72, 20313), (79, 20355), (87, 20421), (88, 20430), (91, 20439), (110, 20541), (117, 20613), (151, 20829), (153, 20844), (172, 21000), (185, 21120), (187, 21126), (192, 21177), (196, 21192), (201, 21213), (209, 21249), (212, 21279), (215, 21288), (216, 21291), (230, 21411), (232, 21444), (237, 21468), (243, 21501), (244, 21507), (250, 21558), (255, 21576), (261, 21612), (269, 21651), (280, 21717), (282, 21756), (283, 21762), (285, 21768),

Gene: Filuzino_19 Start: 19924, Stop: 21810, Start Num: 12

Candidate Starts for Filuzino_19:

(9, 19903), (Start: 12 @19924 has 225 MA's), (24, 19987), (26, 20002), (27, 20005), (30, 20029), (32, 20059), (34, 20068), (36, 20086), (47, 20143), (48, 20146), (50, 20167), (51, 20170), (52, 20176), (54, 20182), (58, 20218), (59, 20221), (60, 20224), (67, 20275), (68, 20296), (69, 20302), (71, 20320), (72, 20338), (79, 20380), (87, 20446), (88, 20455), (91, 20464), (110, 20566), (117, 20638), (151, 20854), (153, 20869), (185, 21145), (187, 21151), (192, 21202), (196, 21217), (201, 21238), (209, 21274), (212, 21304), (215, 21313), (216, 21316), (230, 21436), (232, 21469), (237, 21493), (243, 21526), (244, 21532), (250, 21583), (255, 21601), (261, 21637), (269, 21676), (280, 21742), (282, 21781), (283, 21787), (285, 21793),

Gene: Firehouse51_20 Start: 20491, Stop: 22377, Start Num: 12

Candidate Starts for Firehouse51_20:

(9, 20470), (Start: 12 @20491 has 225 MA's), (24, 20554), (26, 20569), (27, 20572), (30, 20596), (32, 20626), (34, 20635), (36, 20653), (47, 20710), (48, 20713), (50, 20734), (51, 20737), (52, 20743), (54, 20749), (58, 20785), (59, 20788), (60, 20791), (67, 20842), (68, 20863), (69, 20869), (71, 20887), (72, 20905), (79, 20947), (87, 21013), (88, 21022), (91, 21031), (110, 21133), (117, 21205), (151, 21421), (153, 21436), (185, 21712), (187, 21718), (192, 21769), (196, 21784), (201, 21805), (209, 21841),

(212, 21871), (215, 21880), (216, 21883), (230, 22003), (232, 22036), (237, 22060), (243, 22093), (244, 22099), (250, 22150), (255, 22168), (261, 22204), (269, 22243), (280, 22309), (282, 22348), (283, 22354), (285, 22360),

Gene: Flathead_20 Start: 19799, Stop: 21685, Start Num: 12

Candidate Starts for Flathead_20:

(9, 19778), (Start: 12 @19799 has 225 MA's), (24, 19862), (26, 19877), (27, 19880), (30, 19904), (32, 19934), (34, 19943), (36, 19961), (47, 20018), (48, 20021), (50, 20042), (51, 20045), (52, 20051), (54, 20057), (58, 20093), (59, 20096), (60, 20099), (67, 20150), (68, 20171), (69, 20177), (71, 20195), (72, 20213), (79, 20255), (81, 20264), (87, 20321), (88, 20330), (91, 20339), (110, 20441), (117, 20513), (151, 20729), (153, 20744), (185, 21020), (187, 21026), (192, 21077), (196, 21092), (201, 21113), (209, 21149), (212, 21179), (215, 21188), (216, 21191), (230, 21311), (232, 21344), (237, 21368), (243, 21401), (244, 21407), (250, 21458), (255, 21476), (261, 21512), (269, 21551), (280, 21617), (282, 21656), (283, 21662), (285, 21668),

Gene: Florinda_19 Start: 19953, Stop: 21839, Start Num: 12

Candidate Starts for Florinda_19:

(Start: 12 @19953 has 225 MA's), (24, 20016), (26, 20031), (27, 20034), (30, 20058), (32, 20088), (34, 20097), (36, 20115), (48, 20175), (51, 20199), (60, 20253), (65, 20298), (67, 20304), (71, 20349), (72, 20367), (74, 20379), (86, 20466), (87, 20475), (88, 20484), (91, 20493), (107, 20586), (110, 20595), (115, 20658), (117, 20667), (118, 20670), (126, 20739), (127, 20745), (153, 20898), (158, 20928), (170, 21015), (174, 21078), (179, 21147), (196, 21243), (198, 21249), (201, 21264), (207, 21276), (212, 21330), (214, 21336), (215, 21339), (216, 21342), (230, 21462), (232, 21495), (235, 21501), (242, 21549), (244, 21558), (250, 21609), (252, 21615), (255, 21630), (266, 21693), (275, 21735), (276, 21738), (277, 21744), (282, 21810), (283, 21816), (285, 21822),

Gene: Frankie_20 Start: 20037, Stop: 21917, Start Num: 12

Candidate Starts for Frankie_20:

(Start: 12 @20037 has 225 MA's), (Start: 21 @20094 has 1 MA's), (24, 20100), (26, 20115), (27, 20118), (30, 20142), (32, 20172), (34, 20181), (36, 20199), (47, 20256), (48, 20259), (51, 20283), (54, 20295), (58, 20331), (59, 20334), (60, 20337), (67, 20388), (68, 20409), (69, 20415), (71, 20433), (72, 20451), (79, 20493), (86, 20550), (87, 20559), (88, 20568), (91, 20577), (110, 20679), (117, 20751), (118, 20754), (127, 20829), (144, 20925), (151, 20967), (153, 20982), (170, 21102), (187, 21264), (188, 21273), (189, 21276), (196, 21330), (212, 21417), (214, 21423), (215, 21426), (223, 21486), (226, 21501), (227, 21534), (230, 21549), (231, 21570), (237, 21606), (242, 21636), (243, 21639), (244, 21645), (250, 21696), (255, 21714), (257, 21720), (265, 21768), (266, 21771), (275, 21813), (276, 21816), (277, 21822), (282, 21888), (283, 21894),

Gene: FreddyB_19 Start: 19956, Stop: 21845, Start Num: 12

Candidate Starts for FreddyB_19:

(Start: 12 @19956 has 225 MA's), (24, 20019), (37, 20136), (48, 20178), (50, 20199), (51, 20202), (60, 20256), (67, 20307), (71, 20352), (72, 20370), (74, 20382), (86, 20469), (87, 20478), (88, 20487), (91, 20496), (107, 20589), (110, 20598), (115, 20661), (117, 20670), (118, 20673), (126, 20742), (127, 20748), (153, 20901), (158, 20931), (170, 21018), (174, 21081), (179, 21150), (196, 21246), (198, 21252), (201, 21267), (207, 21279), (212, 21333), (214, 21339), (215, 21342), (216, 21345), (226, 21417), (227, 21450), (230, 21465), (232, 21498), (235, 21504), (237, 21522), (242, 21552), (243, 21555), (250, 21612), (255, 21633), (257, 21639), (264, 21684), (266, 21696), (269, 21708), (276, 21741), (277, 21747), (280, 21774), (282, 21813), (283, 21819),

Gene: Fruitloop_19 Start: 19963, Stop: 21849, Start Num: 12

Candidate Starts for Fruitloop_19:

(9, 19942), (Start: 12 @19963 has 225 MA's), (24, 20026), (26, 20041), (27, 20044), (30, 20068), (32, 20098), (34, 20107), (36, 20125), (47, 20182), (48, 20185), (50, 20206), (51, 20209), (52, 20215), (54,

20221), (58, 20257), (59, 20260), (60, 20263), (67, 20314), (68, 20335), (69, 20341), (71, 20359), (72, 20377), (79, 20419), (87, 20485), (88, 20494), (91, 20503), (110, 20605), (117, 20677), (151, 20893), (153, 20908), (185, 21184), (187, 21190), (192, 21241), (196, 21256), (201, 21277), (209, 21313), (212, 21343), (215, 21352), (216, 21355), (227, 21460), (230, 21475), (232, 21508), (237, 21532), (243, 21565), (244, 21571), (250, 21622), (255, 21640), (261, 21676), (269, 21715), (280, 21781), (282, 21820), (283, 21826), (285, 21832),

Gene: GUmbie_19 Start: 19936, Stop: 21822, Start Num: 12

Candidate Starts for GUmbie_19:

(Start: 12 @19936 has 225 MA's), (24, 19999), (26, 20014), (27, 20017), (30, 20041), (32, 20071), (34, 20080), (36, 20098), (47, 20155), (48, 20158), (50, 20179), (51, 20182), (52, 20188), (54, 20194), (58, 20230), (59, 20233), (60, 20236), (67, 20287), (68, 20308), (69, 20314), (71, 20332), (72, 20350), (79, 20392), (81, 20401), (87, 20458), (88, 20467), (91, 20476), (110, 20578), (117, 20650), (118, 20653), (126, 20722), (139, 20788), (144, 20824), (151, 20866), (153, 20881), (185, 21157), (187, 21163), (192, 21214), (196, 21229), (201, 21250), (209, 21286), (212, 21316), (215, 21325), (216, 21328), (230, 21448), (232, 21481), (237, 21505), (243, 21538), (244, 21544), (250, 21595), (255, 21613), (261, 21649), (269, 21688), (280, 21754), (282, 21793), (283, 21799), (285, 21805),

Gene: Gaia_22 Start: 22498, Stop: 24378, Start Num: 12

Candidate Starts for Gaia_22:

(Start: 12 @22498 has 225 MA's), (Start: 16 @22519 has 1 MA's), (30, 22603), (32, 22633), (48, 22720), (51, 22744), (54, 22756), (67, 22849), (69, 22876), (71, 22894), (72, 22912), (78, 22942), (85, 22996), (86, 23011), (87, 23020), (88, 23029), (91, 23038), (92, 23050), (96, 23071), (101, 23092), (110, 23140), (115, 23203), (116, 23206), (118, 23215), (119, 23218), (121, 23227), (126, 23284), (127, 23290), (129, 23293), (158, 23473), (170, 23560), (187, 23722), (208, 23830), (212, 23875), (215, 23884), (216, 23887), (221, 23920), (227, 23992), (230, 24007), (232, 24040), (235, 24046), (255, 24172), (257, 24178), (265, 24226), (275, 24271), (276, 24274), (277, 24280), (280, 24307), (282, 24346), (283, 24352),

Gene: Galactic_19 Start: 19928, Stop: 21814, Start Num: 12

Candidate Starts for Galactic_19:

(9, 19907), (Start: 12 @19928 has 225 MA's), (24, 19991), (26, 20006), (27, 20009), (30, 20033), (32, 20063), (34, 20072), (36, 20090), (47, 20147), (48, 20150), (50, 20171), (51, 20174), (52, 20180), (54, 20186), (58, 20222), (59, 20225), (60, 20228), (67, 20279), (68, 20300), (69, 20306), (71, 20324), (72, 20342), (79, 20384), (81, 20393), (87, 20450), (88, 20459), (91, 20468), (110, 20570), (117, 20642), (118, 20645), (144, 20816), (151, 20858), (153, 20873), (172, 21029), (185, 21149), (187, 21155), (192, 21206), (196, 21221), (201, 21242), (209, 21278), (212, 21308), (215, 21317), (216, 21320), (227, 21425), (230, 21440), (232, 21473), (237, 21497), (243, 21530), (244, 21536), (250, 21587), (255, 21605), (269, 21680), (280, 21746), (282, 21785), (283, 21791), (285, 21797),

Gene: Gandalph_19 Start: 19962, Stop: 21851, Start Num: 12

Candidate Starts for Gandalph_19:

(Start: 12 @19962 has 225 MA's), (24, 20025), (37, 20142), (48, 20184), (50, 20205), (51, 20208), (60, 20262), (67, 20313), (71, 20358), (72, 20376), (74, 20388), (86, 20475), (87, 20484), (88, 20493), (91, 20502), (107, 20595), (110, 20604), (115, 20667), (117, 20676), (118, 20679), (126, 20748), (127, 20754), (153, 20907), (158, 20937), (170, 21024), (174, 21087), (179, 21156), (196, 21252), (198, 21258), (201, 21273), (207, 21285), (212, 21339), (214, 21345), (215, 21348), (216, 21351), (226, 21423), (227, 21456), (230, 21471), (232, 21504), (235, 21510), (237, 21528), (242, 21558), (243, 21561), (250, 21618), (252, 21624), (255, 21639), (257, 21645), (258, 21651), (265, 21699), (266, 21702), (283, 21825),

Gene: Geralt_19 Start: 19930, Stop: 21819, Start Num: 12

Candidate Starts for Geralt_19:

(9, 19909), (Start: 12 @19930 has 225 MA's), (24, 19993), (26, 20008), (30, 20035), (32, 20065), (34, 20074), (36, 20092), (47, 20149), (48, 20152), (50, 20173), (51, 20176), (54, 20188), (58, 20224), (59, 20227), (60, 20230), (67, 20281), (68, 20302), (69, 20308), (71, 20326), (72, 20344), (79, 20386), (87, 20452), (88, 20461), (91, 20470), (110, 20572), (117, 20644), (118, 20647), (126, 20716), (127, 20722), (144, 20818), (151, 20860), (153, 20875), (172, 21031), (185, 21151), (187, 21157), (196, 21223), (201, 21244), (207, 21256), (212, 21310), (215, 21319), (216, 21322), (230, 21442), (232, 21475), (235, 21481), (242, 21529), (244, 21538), (250, 21589), (252, 21595), (255, 21610), (258, 21622), (266, 21673), (269, 21685), (275, 21715), (276, 21718), (277, 21724), (282, 21790), (283, 21796),

Gene: GigiOuiOui_19 Start: 20061, Stop: 21947, Start Num: 12

Candidate Starts for GigiOuiOui_19:

(Start: 12 @20061 has 225 MA's), (24, 20124), (26, 20139), (27, 20142), (30, 20166), (32, 20196), (34, 20205), (36, 20223), (47, 20280), (48, 20283), (50, 20304), (51, 20307), (52, 20313), (54, 20319), (58, 20355), (59, 20358), (60, 20361), (67, 20412), (68, 20433), (69, 20439), (71, 20457), (72, 20475), (79, 20517), (81, 20526), (87, 20583), (88, 20592), (91, 20601), (110, 20703), (117, 20775), (151, 20991), (153, 21006), (185, 21282), (187, 21288), (192, 21339), (196, 21354), (201, 21375), (209, 21411), (212, 21441), (215, 21450), (216, 21453), (227, 21558), (230, 21573), (232, 21606), (237, 21630), (243, 21663), (244, 21669), (250, 21720), (255, 21738), (261, 21774), (269, 21813), (280, 21879), (282, 21918), (283, 21924), (285, 21930),

Gene: Girafales_20 Start: 19761, Stop: 21647, Start Num: 12

Candidate Starts for Girafales_20:

(Start: 12 @19761 has 225 MA's), (24, 19824), (26, 19839), (27, 19842), (30, 19866), (32, 19896), (34, 19905), (36, 19923), (48, 19983), (51, 20007), (60, 20061), (65, 20106), (67, 20112), (71, 20157), (72, 20175), (74, 20187), (86, 20274), (87, 20283), (88, 20292), (91, 20301), (107, 20394), (110, 20403), (115, 20466), (117, 20475), (118, 20478), (126, 20547), (127, 20553), (153, 20706), (158, 20736), (170, 20823), (174, 20886), (179, 20955), (196, 21051), (198, 21057), (201, 21072), (207, 21084), (212, 21138), (214, 21144), (215, 21147), (216, 21150), (230, 21270), (232, 21303), (235, 21309), (242, 21357), (244, 21366), (250, 21417), (252, 21423), (255, 21438), (266, 21501), (275, 21543), (276, 21546), (277, 21552), (282, 21618), (283, 21624), (285, 21630),

Gene: Girr_19 Start: 19905, Stop: 21791, Start Num: 12

Candidate Starts for Girr_19:

(Start: 12 @19905 has 225 MA's), (24, 19968), (26, 19983), (27, 19986), (30, 20010), (32, 20040), (34, 20049), (36, 20067), (47, 20124), (48, 20127), (50, 20148), (51, 20151), (52, 20157), (54, 20163), (58, 20199), (59, 20202), (60, 20205), (67, 20256), (68, 20277), (69, 20283), (71, 20301), (72, 20319), (79, 20361), (81, 20370), (87, 20427), (88, 20436), (91, 20445), (110, 20547), (117, 20619), (118, 20622), (126, 20691), (139, 20757), (144, 20793), (151, 20835), (153, 20850), (185, 21126), (187, 21132), (192, 21183), (196, 21198), (201, 21219), (209, 21255), (212, 21285), (215, 21294), (216, 21297), (230, 21417), (232, 21450), (237, 21474), (243, 21507), (244, 21513), (250, 21564), (255, 21582), (261, 21618), (269, 21657), (280, 21723), (282, 21762), (283, 21768), (285, 21774),

Gene: Giuseppe_31 Start: 26578, Stop: 28626, Start Num: 11

Candidate Starts for Giuseppe_31:

(Start: 11 @26578 has 24 MA's), (14, 26599), (51, 26848), (61, 26920), (63, 26926), (71, 27001), (75, 27037), (76, 27040), (77, 27043), (89, 27136), (90, 27139), (91, 27142), (92, 27154), (99, 27193), (100, 27196), (101, 27199), (102, 27211), (105, 27232), (117, 27319), (118, 27322), (136, 27472), (137, 27475), (141, 27508), (142, 27514), (144, 27550), (148, 27571), (161, 27652), (168, 27712), (174, 27784), (175, 27817), (180, 27853), (187, 27889), (197, 27976), (201, 27991), (213, 28096), (214, 28099), (225, 28174), (226, 28186), (228, 28225), (236, 28285), (246, 28357), (253, 28414), (254, 28420), (256, 28426), (275, 28519), (280, 28555),

Gene: Gonephishing_35 Start: 30445, Stop: 32331, Start Num: 12

Candidate Starts for Gonephishing_35:

(9, 30424), (Start: 12 @30445 has 225 MA's), (24, 30508), (26, 30523), (27, 30526), (30, 30550), (32, 30580), (34, 30589), (36, 30607), (47, 30664), (48, 30667), (50, 30688), (51, 30691), (52, 30697), (54, 30703), (58, 30739), (59, 30742), (60, 30745), (67, 30796), (68, 30817), (69, 30823), (71, 30841), (72, 30859), (87, 30967), (88, 30976), (91, 30985), (110, 31087), (117, 31159), (151, 31375), (153, 31390), (185, 31666), (187, 31672), (192, 31723), (196, 31738), (201, 31759), (209, 31795), (212, 31825), (215, 31834), (216, 31837), (230, 31957), (232, 31990), (237, 32014), (243, 32047), (244, 32053), (250, 32104), (255, 32122), (261, 32158), (269, 32197), (280, 32263), (282, 32302), (283, 32308), (285, 32314),

Gene: Gorge_19 Start: 19923, Stop: 21812, Start Num: 12

Candidate Starts for Gorge_19:

(9, 19902), (Start: 12 @19923 has 225 MA's), (Start: 16 @19944 has 1 MA's), (Start: 21 @19980 has 1 MA's), (24, 19986), (26, 20001), (32, 20058), (36, 20085), (48, 20145), (51, 20169), (60, 20223), (67, 20274), (71, 20319), (72, 20337), (74, 20349), (86, 20436), (87, 20445), (88, 20454), (91, 20463), (107, 20556), (110, 20565), (115, 20628), (117, 20637), (118, 20640), (126, 20709), (153, 20868), (158, 20898), (170, 20985), (174, 21048), (179, 21117), (196, 21213), (198, 21219), (201, 21234), (207, 21246), (212, 21300), (214, 21306), (215, 21309), (216, 21312), (226, 21384), (227, 21417), (230, 21432), (232, 21465), (235, 21471), (237, 21489), (242, 21519), (243, 21522), (250, 21579), (255, 21600), (257, 21606), (264, 21651), (266, 21663), (269, 21675), (276, 21708), (277, 21714), (280, 21741), (282, 21780), (283, 21786),

Gene: Grimmer_20 Start: 20594, Stop: 22480, Start Num: 12

Candidate Starts for Grimmer_20:

(9, 20573), (Start: 12 @20594 has 225 MA's), (24, 20657), (26, 20672), (27, 20675), (30, 20699), (32, 20729), (34, 20738), (36, 20756), (47, 20813), (48, 20816), (51, 20840), (54, 20852), (58, 20888), (59, 20891), (60, 20894), (67, 20945), (68, 20966), (69, 20972), (71, 20990), (72, 21008), (79, 21050), (87, 21116), (88, 21125), (91, 21134), (110, 21236), (117, 21308), (118, 21311), (126, 21380), (127, 21386), (139, 21446), (144, 21482), (151, 21524), (153, 21539), (155, 21545), (185, 21815), (187, 21821), (192, 21872), (196, 21887), (201, 21908), (209, 21944), (212, 21974), (215, 21983), (216, 21986), (230, 22106), (232, 22139), (237, 22163), (243, 22196), (244, 22202), (250, 22253), (255, 22271), (261, 22307), (269, 22346), (280, 22412), (282, 22451), (283, 22457), (285, 22463),

Gene: Gumball_30 Start: 26536, Stop: 28584, Start Num: 11

Candidate Starts for Gumball_30:

(Start: 11 @26536 has 24 MA's), (14, 26557), (51, 26806), (61, 26878), (63, 26884), (71, 26959), (75, 26995), (76, 26998), (77, 27001), (89, 27094), (90, 27097), (91, 27100), (92, 27112), (99, 27151), (101, 27157), (102, 27169), (105, 27190), (117, 27277), (118, 27280), (136, 27430), (137, 27433), (141, 27466), (142, 27472), (144, 27508), (148, 27529), (161, 27610), (168, 27670), (174, 27742), (175, 27775), (177, 27802), (180, 27811), (187, 27847), (197, 27934), (201, 27949), (213, 28054), (214, 28057), (225, 28132), (226, 28144), (228, 28183), (236, 28243), (246, 28315), (253, 28372), (254, 28378), (256, 28384), (275, 28477), (280, 28513),

Gene: Guppsters_20 Start: 20106, Stop: 21995, Start Num: 12

Candidate Starts for Guppsters_20:

(9, 20085), (Start: 12 @20106 has 225 MA's), (Start: 16 @20127 has 1 MA's), (18, 20148), (Start: 21 @20163 has 1 MA's), (24, 20169), (32, 20241), (36, 20268), (37, 20286), (48, 20328), (51, 20352), (60, 20406), (67, 20457), (71, 20502), (72, 20520), (74, 20532), (86, 20619), (87, 20628), (88, 20637), (91, 20646), (107, 20739), (110, 20748), (115, 20811), (117, 20820), (118, 20823), (126, 20892), (153, 21051), (158, 21081), (170, 21168), (174, 21231), (179, 21300), (196, 21396), (198, 21402), (201, 21417), (207, 21429), (212, 21483), (214, 21489), (215, 21492), (216, 21495), (226, 21567), (227, 21600), (230, 21615), (232, 21648), (235, 21654), (237, 21672), (242, 21702), (243, 21705), (247,

21729), (250, 21762), (255, 21783), (257, 21789), (258, 21795), (264, 21834), (266, 21846), (269, 21858), (275, 21888), (276, 21891), (277, 21897), (280, 21924), (282, 21963), (283, 21969),

Gene: Hades_19 Start: 19955, Stop: 21844, Start Num: 12

Candidate Starts for Hades_19:

(Start: 12 @19955 has 225 MA's), (24, 20018), (37, 20135), (48, 20177), (50, 20198), (51, 20201), (60, 20255), (67, 20306), (71, 20351), (72, 20369), (74, 20381), (86, 20468), (87, 20477), (88, 20486), (91, 20495), (107, 20588), (110, 20597), (115, 20660), (117, 20669), (118, 20672), (126, 20741), (127, 20747), (153, 20900), (158, 20930), (170, 21017), (174, 21080), (179, 21149), (196, 21245), (198, 21251), (201, 21266), (207, 21278), (212, 21332), (214, 21338), (215, 21341), (216, 21344), (226, 21416), (227, 21449), (230, 21464), (232, 21497), (235, 21503), (237, 21521), (242, 21551), (243, 21554), (250, 21611), (255, 21632), (257, 21638), (264, 21683), (266, 21695), (269, 21707), (277, 21746), (280, 21773), (282, 21812), (283, 21818),

Gene: Hamulus_19 Start: 19937, Stop: 21823, Start Num: 12

Candidate Starts for Hamulus_19:

(9, 19916), (Start: 12 @19937 has 225 MA's), (24, 20000), (26, 20015), (27, 20018), (30, 20042), (32, 20072), (34, 20081), (36, 20099), (47, 20156), (48, 20159), (50, 20180), (51, 20183), (52, 20189), (54, 20195), (58, 20231), (59, 20234), (60, 20237), (67, 20288), (68, 20309), (69, 20315), (71, 20333), (72, 20351), (87, 20459), (88, 20468), (91, 20477), (110, 20579), (117, 20651), (151, 20867), (153, 20882), (185, 21158), (187, 21164), (192, 21215), (196, 21230), (201, 21251), (209, 21287), (212, 21317), (215, 21326), (216, 21329), (227, 21434), (230, 21449), (232, 21482), (237, 21506), (243, 21539), (244, 21545), (250, 21596), (255, 21614), (269, 21689), (280, 21755), (282, 21794), (283, 21800), (285, 21806),

Gene: Harley_19 Start: 19927, Stop: 21813, Start Num: 12

Candidate Starts for Harley_19:

(9, 19906), (Start: 12 @19927 has 225 MA's), (24, 19990), (26, 20005), (27, 20008), (30, 20032), (32, 20062), (34, 20071), (36, 20089), (47, 20146), (48, 20149), (50, 20170), (54, 20185), (58, 20221), (59, 20224), (60, 20227), (67, 20278), (68, 20299), (69, 20305), (71, 20323), (72, 20341), (79, 20383), (87, 20449), (88, 20458), (91, 20467), (110, 20569), (117, 20641), (144, 20815), (151, 20857), (153, 20872), (155, 20878), (185, 21148), (187, 21154), (192, 21205), (196, 21220), (201, 21241), (209, 21277), (212, 21307), (215, 21316), (216, 21319), (230, 21439), (232, 21472), (237, 21496), (243, 21529), (244, 21535), (250, 21586), (255, 21604), (261, 21640), (269, 21679), (280, 21745), (282, 21784), (283, 21790), (285, 21796),

Gene: Hegedechwinu_20 Start: 19782, Stop: 21668, Start Num: 12

Candidate Starts for Hegedechwinu_20:

(9, 19761), (Start: 12 @19782 has 225 MA's), (24, 19845), (26, 19860), (27, 19863), (30, 19887), (32, 19917), (34, 19926), (36, 19944), (47, 20001), (48, 20004), (50, 20025), (51, 20028), (52, 20034), (54, 20040), (58, 20076), (59, 20079), (60, 20082), (67, 20133), (68, 20154), (69, 20160), (71, 20178), (72, 20196), (79, 20238), (87, 20304), (88, 20313), (91, 20322), (110, 20424), (117, 20496), (151, 20712), (153, 20727), (185, 21003), (187, 21009), (192, 21060), (196, 21075), (201, 21096), (209, 21132), (212, 21162), (215, 21171), (216, 21174), (230, 21294), (232, 21327), (237, 21351), (243, 21384), (244, 21390), (250, 21441), (255, 21459), (261, 21495), (269, 21534), (280, 21600), (282, 21639), (283, 21645), (285, 21651),

Gene: Helpful_32 Start: 26586, Stop: 28634, Start Num: 11

Candidate Starts for Helpful_32:

(Start: 11 @26586 has 24 MA's), (14, 26607), (51, 26856), (61, 26928), (63, 26934), (71, 27009), (75, 27045), (76, 27048), (77, 27051), (89, 27144), (90, 27147), (91, 27150), (92, 27162), (99, 27201), (100, 27204), (101, 27207), (102, 27219), (105, 27240), (117, 27327), (118, 27330), (136, 27480), (137, 27483), (141, 27516), (142, 27522), (144, 27558), (148, 27579), (161, 27660), (168, 27720), (174,

27792), (175, 27825), (180, 27861), (187, 27897), (197, 27984), (201, 27999), (213, 28104), (214, 28107), (225, 28182), (226, 28194), (228, 28233), (236, 28293), (246, 28365), (253, 28422), (254, 28428), (256, 28434), (275, 28527), (280, 28563),

Gene: Hlubikazi_19 Start: 20029, Stop: 21915, Start Num: 12

Candidate Starts for Hlubikazi_19:

(9, 20008), (Start: 12 @20029 has 225 MA's), (24, 20092), (26, 20107), (30, 20134), (32, 20164), (34, 20173), (36, 20191), (47, 20248), (48, 20251), (51, 20275), (54, 20287), (58, 20323), (59, 20326), (60, 20329), (67, 20380), (68, 20401), (69, 20407), (71, 20425), (72, 20443), (79, 20485), (87, 20551), (88, 20560), (91, 20569), (110, 20671), (117, 20743), (151, 20959), (153, 20974), (185, 21250), (187, 21256), (192, 21307), (196, 21322), (201, 21343), (209, 21379), (212, 21409), (215, 21418), (216, 21421), (230, 21541), (232, 21574), (237, 21598), (243, 21631), (244, 21637), (250, 21688), (255, 21706), (261, 21742), (269, 21781), (280, 21847), (282, 21886), (283, 21892), (285, 21898),

Gene: IMpilo_19 Start: 19964, Stop: 21850, Start Num: 12

Candidate Starts for IMpilo_19:

(9, 19943), (Start: 12 @19964 has 225 MA's), (24, 20027), (26, 20042), (27, 20045), (30, 20069), (32, 20099), (34, 20108), (36, 20126), (47, 20183), (48, 20186), (50, 20207), (51, 20210), (52, 20216), (54, 20222), (58, 20258), (59, 20261), (60, 20264), (67, 20315), (68, 20336), (69, 20342), (71, 20360), (72, 20378), (79, 20420), (87, 20486), (88, 20495), (91, 20504), (110, 20606), (117, 20678), (151, 20894), (153, 20909), (185, 21185), (187, 21191), (192, 21242), (196, 21257), (201, 21278), (209, 21314), (212, 21344), (215, 21353), (216, 21356), (230, 21476), (232, 21509), (237, 21533), (243, 21566), (244, 21572), (250, 21623), (255, 21641), (261, 21677), (269, 21716), (280, 21782), (282, 21821), (283, 21827), (285, 21833),

Gene: IbOuu_19 Start: 19931, Stop: 21817, Start Num: 12

Candidate Starts for IbOuu_19:

(9, 19910), (Start: 12 @19931 has 225 MA's), (24, 19994), (26, 20009), (30, 20036), (32, 20066), (34, 20075), (36, 20093), (47, 20150), (48, 20153), (50, 20174), (51, 20177), (52, 20183), (54, 20189), (58, 20225), (59, 20228), (60, 20231), (67, 20282), (68, 20303), (69, 20309), (71, 20327), (72, 20345), (79, 20387), (87, 20453), (88, 20462), (91, 20471), (110, 20573), (117, 20645), (118, 20648), (151, 20861), (153, 20876), (185, 21152), (187, 21158), (192, 21209), (196, 21224), (201, 21245), (209, 21281), (212, 21311), (215, 21320), (216, 21323), (227, 21428), (230, 21443), (232, 21476), (237, 21500), (243, 21533), (244, 21539), (250, 21590), (255, 21608), (261, 21644), (269, 21683), (280, 21749), (282, 21788), (283, 21794), (285, 21800),

Gene: lbhubesi_19 Start: 19927, Stop: 21807, Start Num: 12

Candidate Starts for lbhubesi_19:

(9, 19906), (Start: 12 @19927 has 225 MA's), (Start: 21 @19984 has 1 MA's), (24, 19990), (26, 20005), (27, 20008), (30, 20032), (32, 20062), (34, 20071), (36, 20089), (47, 20146), (48, 20149), (50, 20170), (54, 20185), (58, 20221), (67, 20278), (71, 20323), (72, 20341), (79, 20383), (87, 20449), (88, 20458), (91, 20467), (110, 20569), (117, 20641), (118, 20644), (119, 20647), (127, 20719), (144, 20815), (151, 20857), (153, 20872), (172, 21028), (185, 21148), (187, 21154), (196, 21220), (208, 21262), (212, 21307), (223, 21376), (225, 21382), (226, 21391), (227, 21424), (230, 21439), (237, 21496), (243, 21529), (250, 21586), (255, 21604), (257, 21610), (266, 21661), (269, 21673), (277, 21712), (282, 21778), (283, 21784),

Gene: Inventum_19 Start: 20066, Stop: 21955, Start Num: 12

Candidate Starts for Inventum_19:

(Start: 12 @20066 has 225 MA's), (24, 20129), (26, 20144), (30, 20171), (32, 20201), (34, 20210), (36, 20228), (47, 20285), (48, 20288), (50, 20309), (51, 20312), (54, 20324), (58, 20360), (59, 20363), (60, 20366), (67, 20417), (68, 20438), (69, 20444), (71, 20462), (72, 20480), (79, 20522), (87, 20588), (88, 20597), (91, 20606), (110, 20708), (117, 20780), (118, 20783), (126, 20852), (127, 20858), (144,

20954), (151, 20996), (153, 21011), (172, 21167), (185, 21287), (187, 21293), (196, 21359), (201, 21380), (207, 21392), (212, 21446), (215, 21455), (216, 21458), (230, 21578), (232, 21611), (235, 21617), (242, 21665), (244, 21674), (250, 21725), (252, 21731), (255, 21746), (258, 21758), (266, 21809), (269, 21821), (275, 21851), (276, 21854), (277, 21860), (282, 21926), (283, 21932),

Gene: IrishSherpFalk_20 Start: 21291, Stop: 23177, Start Num: 12

Candidate Starts for IrishSherpFalk_20:

(Start: 12 @21291 has 225 MA's), (24, 21354), (26, 21369), (30, 21396), (32, 21426), (34, 21435), (36, 21453), (47, 21510), (48, 21513), (50, 21534), (51, 21537), (54, 21549), (58, 21585), (59, 21588), (60, 21591), (67, 21642), (68, 21663), (69, 21669), (71, 21687), (72, 21705), (79, 21747), (87, 21813), (88, 21822), (91, 21831), (110, 21933), (117, 22005), (144, 22179), (151, 22221), (153, 22236), (155, 22242), (185, 22512), (187, 22518), (192, 22569), (196, 22584), (201, 22605), (209, 22641), (212, 22671), (215, 22680), (216, 22683), (230, 22803), (232, 22836), (237, 22860), (243, 22893), (244, 22899), (250, 22950), (255, 22968), (261, 23004), (269, 23043), (280, 23109), (282, 23148), (283, 23154), (285, 23160),

Gene: JacoRen57_21 Start: 20730, Stop: 22778, Start Num: 11

Candidate Starts for JacoRen57_21:

(Start: 11 @20730 has 24 MA's), (22, 20796), (31, 20874), (40, 20940), (51, 20997), (61, 21069), (71, 21150), (75, 21186), (76, 21189), (77, 21192), (81, 21219), (89, 21285), (90, 21288), (91, 21291), (92, 21303), (99, 21342), (100, 21345), (101, 21348), (102, 21360), (105, 21381), (118, 21474), (125, 21534), (127, 21549), (129, 21552), (136, 21624), (142, 21666), (144, 21702), (148, 21723), (149, 21726), (161, 21804), (168, 21864), (174, 21936), (182, 22014), (187, 22041), (195, 22119), (201, 22143), (205, 22167), (217, 22260), (225, 22326), (226, 22338), (236, 22443), (246, 22515), (254, 22575), (271, 22659), (284, 22755), (285, 22758),

Gene: JalFarm20_21 Start: 20301, Stop: 22187, Start Num: 12

Candidate Starts for JalFarm20_21:

(9, 20280), (Start: 12 @20301 has 225 MA's), (24, 20364), (26, 20379), (27, 20382), (30, 20406), (32, 20436), (34, 20445), (36, 20463), (47, 20520), (48, 20523), (50, 20544), (51, 20547), (52, 20553), (54, 20559), (58, 20595), (59, 20598), (60, 20601), (67, 20652), (68, 20673), (69, 20679), (71, 20697), (72, 20715), (79, 20757), (81, 20766), (87, 20823), (88, 20832), (91, 20841), (110, 20943), (117, 21015), (151, 21231), (153, 21246), (172, 21402), (185, 21522), (187, 21528), (192, 21579), (196, 21594), (201, 21615), (209, 21651), (212, 21681), (215, 21690), (216, 21693), (230, 21813), (232, 21846), (237, 21870), (243, 21903), (244, 21909), (250, 21960), (255, 21978), (261, 22014), (269, 22053), (280, 22119), (282, 22158), (283, 22164), (285, 22170),

Gene: James_19 Start: 19919, Stop: 21808, Start Num: 12

Candidate Starts for James_19:

(9, 19898), (Start: 12 @19919 has 225 MA's), (Start: 16 @19940 has 1 MA's), (Start: 21 @19976 has 1 MA's), (24, 19982), (26, 19997), (32, 20054), (36, 20081), (48, 20141), (51, 20165), (60, 20219), (67, 20270), (71, 20315), (72, 20333), (74, 20345), (86, 20432), (87, 20441), (88, 20450), (91, 20459), (107, 20552), (110, 20561), (115, 20624), (117, 20633), (118, 20636), (126, 20705), (153, 20864), (158, 20894), (170, 20981), (174, 21044), (179, 21113), (196, 21209), (198, 21215), (201, 21230), (207, 21242), (212, 21296), (214, 21302), (215, 21305), (216, 21308), (226, 21380), (227, 21413), (230, 21428), (232, 21461), (235, 21467), (237, 21485), (242, 21515), (243, 21518), (250, 21575), (255, 21596), (257, 21602), (264, 21647), (266, 21659), (269, 21671), (276, 21704), (277, 21710), (280, 21737), (282, 21776), (283, 21782),

Gene: Jant_19 Start: 20087, Stop: 21967, Start Num: 12

Candidate Starts for Jant_19:

(9, 20066), (Start: 12 @20087 has 225 MA's), (24, 20150), (26, 20165), (27, 20168), (30, 20192), (32, 20222), (34, 20231), (36, 20249), (47, 20306), (48, 20309), (50, 20330), (51, 20333), (52, 20339), (54,

20345), (58, 20381), (59, 20384), (60, 20387), (67, 20438), (68, 20459), (69, 20465), (71, 20483), (72, 20501), (79, 20543), (81, 20552), (87, 20609), (88, 20618), (91, 20627), (106, 20717), (110, 20729), (117, 20801), (118, 20804), (127, 20879), (151, 21017), (153, 21032), (170, 21152), (172, 21188), (185, 21308), (187, 21314), (192, 21365), (196, 21380), (208, 21422), (214, 21473), (215, 21476), (216, 21479), (226, 21551), (227, 21584), (230, 21599), (231, 21620), (242, 21686), (244, 21695), (250, 21746), (252, 21752), (255, 21764), (266, 21821), (269, 21833), (276, 21866), (277, 21872), (282, 21938), (283, 21944),

Gene: Jacob_19 Start: 19954, Stop: 21843, Start Num: 12

Candidate Starts for Jacob_19:

(Start: 12 @19954 has 225 MA's), (24, 20017), (37, 20134), (48, 20176), (50, 20197), (51, 20200), (60, 20254), (67, 20305), (71, 20350), (72, 20368), (74, 20380), (86, 20467), (87, 20476), (88, 20485), (91, 20494), (107, 20587), (110, 20596), (115, 20659), (117, 20668), (118, 20671), (126, 20740), (153, 20899), (158, 20929), (170, 21016), (174, 21079), (179, 21148), (196, 21244), (198, 21250), (201, 21265), (207, 21277), (212, 21331), (214, 21337), (215, 21340), (216, 21343), (226, 21415), (227, 21448), (230, 21463), (232, 21496), (235, 21502), (237, 21520), (242, 21550), (243, 21553), (250, 21610), (255, 21631), (257, 21637), (264, 21682), (266, 21694), (269, 21706), (276, 21739), (277, 21745), (280, 21772), (282, 21811), (283, 21817),

Gene: Jinglebell_18 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for Jinglebell_18:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: Job42_22 Start: 21616, Stop: 23502, Start Num: 12

Candidate Starts for Job42_22:

(9, 21595), (Start: 12 @21616 has 225 MA's), (24, 21679), (26, 21694), (27, 21697), (30, 21721), (32, 21751), (34, 21760), (36, 21778), (47, 21835), (48, 21838), (50, 21859), (51, 21862), (52, 21868), (54, 21874), (58, 21910), (59, 21913), (60, 21916), (67, 21967), (68, 21988), (69, 21994), (71, 22012), (72, 22030), (79, 22072), (87, 22138), (88, 22147), (91, 22156), (110, 22258), (117, 22330), (151, 22546), (153, 22561), (185, 22837), (187, 22843), (192, 22894), (196, 22909), (201, 22930), (209, 22966), (212, 22996), (215, 23005), (216, 23008), (230, 23128), (232, 23161), (237, 23185), (243, 23218), (244, 23224), (250, 23275), (255, 23293), (261, 23329), (269, 23368), (280, 23434), (282, 23473), (283, 23479), (285, 23485),

Gene: JoeyJr_19 Start: 20102, Stop: 21991, Start Num: 12

Candidate Starts for JoeyJr_19:

(9, 20081), (Start: 12 @20102 has 225 MA's), (24, 20165), (26, 20180), (30, 20207), (32, 20237), (34, 20246), (36, 20264), (47, 20321), (48, 20324), (50, 20345), (51, 20348), (52, 20354), (54, 20360), (58, 20396), (59, 20399), (60, 20402), (67, 20453), (68, 20474), (69, 20480), (71, 20498), (72, 20516), (79, 20558), (87, 20624), (88, 20633), (91, 20642), (110, 20744), (117, 20816), (118, 20819), (126, 20888), (127, 20894), (144, 20990), (151, 21032), (153, 21047), (172, 21203), (185, 21323), (187, 21329), (196, 21395), (201, 21416), (207, 21428), (212, 21482), (215, 21491), (216, 21494), (230, 21614), (232, 21647), (235, 21653), (242, 21701), (244, 21710), (250, 21761), (252, 21767), (255, 21782), (258, 21794), (266, 21845), (269, 21857), (275, 21887), (276, 21890), (277, 21896), (282, 21962), (283, 21968),

Gene: Juice456_21 Start: 21053, Stop: 22939, Start Num: 12

Candidate Starts for Juice456_21:

(9, 21032), (Start: 12 @21053 has 225 MA's), (24, 21116), (26, 21131), (27, 21134), (30, 21158), (32, 21188), (34, 21197), (36, 21215), (47, 21272), (48, 21275), (50, 21296), (51, 21299), (52, 21305), (54, 21311), (58, 21347), (59, 21350), (60, 21353), (67, 21404), (68, 21425), (69, 21431), (71, 21449), (72, 21467), (87, 21575), (88, 21584), (91, 21593), (110, 21695), (117, 21767), (151, 21983), (153, 21998), (185, 22274), (187, 22280), (192, 22331), (196, 22346), (201, 22367), (209, 22403), (212, 22433), (215, 22442), (216, 22445), (230, 22565), (232, 22598), (237, 22622), (243, 22655), (244, 22661), (250, 22712), (255, 22730), (261, 22766), (269, 22805), (280, 22871), (282, 22910), (283, 22916), (285, 22922),

Gene: Juniper1_19 Start: 19928, Stop: 21811, Start Num: 12

Candidate Starts for Juniper1_19:

(9, 19907), (Start: 12 @19928 has 225 MA's), (24, 19991), (26, 20006), (30, 20033), (32, 20063), (34, 20072), (36, 20090), (47, 20147), (48, 20150), (51, 20174), (54, 20186), (58, 20222), (59, 20225), (60, 20228), (67, 20279), (68, 20300), (69, 20306), (71, 20324), (72, 20342), (79, 20384), (87, 20450), (88, 20459), (91, 20468), (110, 20570), (117, 20642), (118, 20645), (127, 20720), (133, 20753), (144, 20816), (151, 20858), (153, 20873), (155, 20879), (158, 20906), (170, 20993), (172, 21029), (185, 21149), (187, 21155), (196, 21221), (208, 21263), (214, 21314), (215, 21317), (216, 21320), (230, 21440), (232, 21473), (235, 21479), (242, 21527), (244, 21536), (250, 21587), (252, 21593), (255, 21608), (266, 21665), (269, 21677), (276, 21710), (277, 21716), (282, 21782), (283, 21788),

Gene: KandZ_31 Start: 26686, Stop: 28734, Start Num: 11

Candidate Starts for KandZ_31:

(Start: 11 @26686 has 24 MA's), (14, 26707), (51, 26956), (61, 27028), (63, 27034), (71, 27109), (75, 27145), (76, 27148), (77, 27151), (89, 27244), (90, 27247), (91, 27250), (92, 27262), (99, 27301), (100, 27304), (101, 27307), (102, 27319), (105, 27340), (117, 27427), (118, 27430), (136, 27580), (137, 27583), (141, 27616), (142, 27622), (144, 27658), (148, 27679), (161, 27760), (168, 27820), (174, 27892), (175, 27925), (177, 27952), (180, 27961), (187, 27997), (197, 28084), (201, 28099), (213, 28204), (214, 28207), (225, 28282), (226, 28294), (228, 28333), (236, 28393), (246, 28465), (253, 28522), (254, 28528), (256, 28534), (275, 28627), (280, 28663),

Gene: Karhdo_19 Start: 20062, Stop: 21948, Start Num: 12

Candidate Starts for Karhdo_19:

(Start: 12 @20062 has 225 MA's), (24, 20125), (26, 20140), (27, 20143), (30, 20167), (32, 20197), (34, 20206), (36, 20224), (47, 20281), (48, 20284), (50, 20305), (51, 20308), (52, 20314), (54, 20320), (58, 20356), (59, 20359), (60, 20362), (67, 20413), (68, 20434), (69, 20440), (71, 20458), (72, 20476), (79, 20518), (81, 20527), (87, 20584), (88, 20593), (91, 20602), (110, 20704), (117, 20776), (118, 20779), (126, 20848), (139, 20914), (144, 20950), (151, 20992), (153, 21007), (185, 21283), (187, 21289), (192, 21340), (196, 21355), (201, 21376), (209, 21412), (212, 21442), (215, 21451), (216, 21454), (230, 21574), (232, 21607), (237, 21631), (243, 21664), (244, 21670), (250, 21721), (255, 21739), (261, 21775), (269, 21814), (280, 21880), (282, 21919), (283, 21925), (285, 21931),

Gene: Kimberlium_21 Start: 21053, Stop: 22939, Start Num: 12

Candidate Starts for Kimberlium_21:

(9, 21032), (Start: 12 @21053 has 225 MA's), (24, 21116), (26, 21131), (27, 21134), (30, 21158), (32, 21188), (34, 21197), (36, 21215), (47, 21272), (48, 21275), (50, 21296), (51, 21299), (52, 21305), (54, 21311), (58, 21347), (59, 21350), (60, 21353), (67, 21404), (68, 21425), (69, 21431), (71, 21449), (72, 21467), (87, 21575), (88, 21584), (91, 21593), (110, 21695), (117, 21767), (151, 21983), (153, 21998), (185, 22274), (187, 22280), (192, 22331), (196, 22346), (201, 22367), (209, 22403), (212, 22433), (215, 22442), (216, 22445), (230, 22565), (232, 22598), (237, 22622), (243, 22655), (244, 22661), (250, 22712), (255, 22730), (261, 22766), (269, 22805), (280, 22871), (282, 22910), (283, 22916), (285, 22922),

Gene: KingJulian_19 Start: 19971, Stop: 21857, Start Num: 12

Candidate Starts for KingJulian_19:

(9, 19950), (Start: 12 @19971 has 225 MA's), (24, 20034), (26, 20049), (27, 20052), (30, 20076), (32, 20106), (34, 20115), (36, 20133), (47, 20190), (48, 20193), (50, 20214), (51, 20217), (52, 20223), (54, 20229), (58, 20265), (59, 20268), (60, 20271), (67, 20322), (68, 20343), (69, 20349), (71, 20367), (72, 20385), (79, 20427), (81, 20436), (87, 20493), (88, 20502), (91, 20511), (110, 20613), (117, 20685), (151, 20901), (153, 20916), (172, 21072), (185, 21192), (187, 21198), (192, 21249), (196, 21264), (201, 21285), (209, 21321), (212, 21351), (215, 21360), (216, 21363), (230, 21483), (232, 21516), (237, 21540), (243, 21573), (244, 21579), (250, 21630), (255, 21648), (261, 21684), (269, 21723), (280, 21789), (282, 21828), (283, 21834), (285, 21840),

Gene: KingMidas_20 Start: 21235, Stop: 23124, Start Num: 12

Candidate Starts for KingMidas_20:

(9, 21214), (Start: 12 @21235 has 225 MA's), (24, 21298), (26, 21313), (30, 21340), (32, 21370), (34, 21379), (36, 21397), (47, 21454), (48, 21457), (50, 21478), (51, 21481), (52, 21487), (54, 21493), (58, 21529), (59, 21532), (60, 21535), (67, 21586), (68, 21607), (69, 21613), (71, 21631), (72, 21649), (79, 21691), (87, 21757), (88, 21766), (91, 21775), (110, 21877), (117, 21949), (118, 21952), (126, 22021), (127, 22027), (144, 22123), (151, 22165), (153, 22180), (172, 22336), (185, 22456), (187, 22462), (196, 22528), (201, 22549), (207, 22561), (212, 22615), (215, 22624), (216, 22627), (230, 22747), (232, 22780), (235, 22786), (242, 22834), (244, 22843), (250, 22894), (252, 22900), (255, 22915), (258, 22927), (266, 22978), (269, 22990), (275, 23020), (276, 23023), (277, 23029), (282, 23095), (283, 23101),

Gene: Krakatau_20 Start: 20629, Stop: 22515, Start Num: 12

Candidate Starts for Krakatau_20:

(Start: 12 @20629 has 225 MA's), (24, 20692), (26, 20707), (30, 20734), (32, 20764), (34, 20773), (36, 20791), (47, 20848), (48, 20851), (50, 20872), (51, 20875), (52, 20881), (54, 20887), (58, 20923), (59, 20926), (60, 20929), (67, 20980), (68, 21001), (69, 21007), (71, 21025), (72, 21043), (79, 21085), (87, 21151), (88, 21160), (91, 21169), (110, 21271), (117, 21343), (144, 21517), (151, 21559), (153, 21574), (155, 21580), (185, 21850), (187, 21856), (192, 21907), (196, 21922), (201, 21943), (209, 21979), (212, 22009), (215, 22018), (216, 22021), (230, 22141), (232, 22174), (237, 22198), (243, 22231), (244, 22237), (250, 22288), (261, 22342), (269, 22381), (280, 22447), (282, 22486), (283, 22492), (285, 22498),

Gene: KristaRAM_20 Start: 20604, Stop: 22490, Start Num: 12

Candidate Starts for KristaRAM_20:

(9, 20583), (Start: 12 @20604 has 225 MA's), (24, 20667), (26, 20682), (27, 20685), (30, 20709), (32, 20739), (34, 20748), (36, 20766), (47, 20823), (48, 20826), (50, 20847), (51, 20850), (52, 20856), (54, 20862), (58, 20898), (59, 20901), (60, 20904), (67, 20955), (68, 20976), (69, 20982), (71, 21000), (72, 21018), (79, 21060), (81, 21069), (87, 21126), (88, 21135), (91, 21144), (110, 21246), (117, 21318), (151, 21534), (153, 21549), (172, 21705), (185, 21825), (187, 21831), (192, 21882), (196, 21897), (201, 21918), (209, 21954), (212, 21984), (215, 21993), (216, 21996), (230, 22116), (232, 22149), (237, 22173), (243, 22206), (244, 22212), (250, 22263), (255, 22281), (261, 22317), (269, 22356), (280, 22422), (282, 22461), (283, 22467), (285, 22473),

Gene: Kumao_31 Start: 26268, Stop: 28241, Start Num: 12

Candidate Starts for Kumao_31:

(Start: 12 @26268 has 225 MA's), (28, 26358), (30, 26370), (34, 26409), (39, 26454), (41, 26457), (45, 26478), (48, 26490), (51, 26514), (55, 26538), (56, 26553), (58, 26565), (59, 26568), (64, 26601), (68, 26643), (70, 26655), (77, 26709), (89, 26823), (90, 26826), (91, 26829), (97, 26868), (98, 26877), (106, 26922), (128, 27078), (131, 27108), (135, 27141), (147, 27216), (162, 27309), (164, 27321), (173, 27417), (174, 27438), (175, 27471), (180, 27504), (183, 27519), (186, 27537), (187, 27540), (189,

27552), (210, 27717), (215, 27738), (222, 27798), (239, 27936), (249, 28005), (265, 28089), (272, 28119), (276, 28140), (277, 28146), (279, 28161), (282, 28212),

Gene: Latretium_20 Start: 20611, Stop: 22497, Start Num: 12

Candidate Starts for Latretium_20:

(9, 20590), (Start: 12 @20611 has 225 MA's), (24, 20674), (26, 20689), (27, 20692), (30, 20716), (32, 20746), (34, 20755), (36, 20773), (47, 20830), (48, 20833), (50, 20854), (51, 20857), (52, 20863), (54, 20869), (67, 20962), (71, 21007), (72, 21025), (79, 21067), (87, 21133), (88, 21142), (91, 21151), (110, 21253), (117, 21325), (118, 21328), (126, 21397), (127, 21403), (144, 21499), (151, 21541), (153, 21556), (185, 21832), (187, 21838), (192, 21889), (196, 21904), (201, 21925), (209, 21961), (212, 21991), (215, 22000), (216, 22003), (230, 22123), (232, 22156), (237, 22180), (243, 22213), (244, 22219), (250, 22270), (255, 22288), (261, 22324), (269, 22363), (280, 22429), (282, 22468), (283, 22474), (285, 22480),

Gene: Leozinho_20 Start: 19777, Stop: 21663, Start Num: 12

Candidate Starts for Leozinho_20:

(9, 19756), (Start: 12 @19777 has 225 MA's), (24, 19840), (26, 19855), (30, 19882), (32, 19912), (34, 19921), (36, 19939), (47, 19996), (48, 19999), (50, 20020), (51, 20023), (52, 20029), (54, 20035), (58, 20071), (59, 20074), (60, 20077), (67, 20128), (68, 20149), (69, 20155), (71, 20173), (72, 20191), (79, 20233), (81, 20242), (87, 20299), (88, 20308), (91, 20317), (110, 20419), (117, 20491), (151, 20707), (153, 20722), (185, 20998), (187, 21004), (192, 21055), (196, 21070), (201, 21091), (209, 21127), (212, 21157), (215, 21166), (216, 21169), (227, 21274), (230, 21289), (232, 21322), (237, 21346), (243, 21379), (244, 21385), (250, 21436), (255, 21454), (261, 21490), (269, 21529), (280, 21595), (282, 21634), (283, 21640), (285, 21646),

Gene: Leperchaun_19 Start: 19936, Stop: 21825, Start Num: 12

Candidate Starts for Leperchaun_19:

(Start: 12 @19936 has 225 MA's), (24, 19999), (37, 20116), (48, 20158), (51, 20182), (60, 20236), (67, 20287), (71, 20332), (72, 20350), (74, 20362), (86, 20449), (87, 20458), (88, 20467), (91, 20476), (107, 20569), (110, 20578), (115, 20641), (117, 20650), (118, 20653), (126, 20722), (153, 20881), (158, 20911), (170, 20998), (174, 21061), (179, 21130), (196, 21226), (198, 21232), (201, 21247), (207, 21259), (212, 21313), (214, 21319), (215, 21322), (216, 21325), (226, 21397), (227, 21430), (230, 21445), (232, 21478), (235, 21484), (237, 21502), (242, 21532), (243, 21535), (250, 21592), (255, 21613), (257, 21619), (264, 21664), (266, 21676), (269, 21688), (277, 21727), (280, 21754), (282, 21793), (283, 21799),

Gene: Levia_32 Start: 26702, Stop: 28732, Start Num: 12

Candidate Starts for Levia_32:

(4, 26528), (5, 26537), (8, 26585), (Start: 12 @26702 has 225 MA's), (17, 26729), (26, 26783), (33, 26849), (44, 26915), (72, 27131), (94, 27281), (124, 27476), (128, 27503), (132, 27536), (165, 27761), (166, 27773), (173, 27851), (184, 27965), (199, 28064), (202, 28079), (209, 28139), (230, 28310), (238, 28379), (278, 28628),

Gene: LilMoolah_19 Start: 20053, Stop: 21942, Start Num: 12

Candidate Starts for LilMoolah_19:

(9, 20032), (Start: 12 @20053 has 225 MA's), (Start: 16 @20074 has 1 MA's), (Start: 21 @20110 has 1 MA's), (24, 20116), (26, 20131), (32, 20188), (36, 20215), (48, 20275), (51, 20299), (60, 20353), (67, 20404), (71, 20449), (72, 20467), (74, 20479), (86, 20566), (87, 20575), (88, 20584), (91, 20593), (107, 20686), (110, 20695), (115, 20758), (117, 20767), (118, 20770), (126, 20839), (153, 20998), (158, 21028), (170, 21115), (174, 21178), (179, 21247), (196, 21343), (198, 21349), (201, 21364), (207, 21376), (212, 21430), (214, 21436), (215, 21439), (216, 21442), (226, 21514), (227, 21547), (230, 21562), (232, 21595), (235, 21601), (237, 21619), (242, 21649), (243, 21652), (250, 21709), (255, 21730), (257, 21736), (264, 21781), (266, 21793), (269, 21805), (276, 21838), (277, 21844), (280,

21871), (282, 21910), (283, 21916),

Gene: LittleE_40 Start: 33524, Stop: 35410, Start Num: 12

Candidate Starts for LittleE_40:

(9, 33503), (Start: 12 @33524 has 225 MA's), (24, 33587), (26, 33602), (27, 33605), (30, 33629), (32, 33659), (34, 33668), (36, 33686), (47, 33743), (48, 33746), (50, 33767), (51, 33770), (52, 33776), (54, 33782), (58, 33818), (59, 33821), (60, 33824), (67, 33875), (68, 33896), (69, 33902), (71, 33920), (72, 33938), (87, 34046), (88, 34055), (91, 34064), (110, 34166), (117, 34238), (151, 34454), (153, 34469), (185, 34745), (187, 34751), (192, 34802), (196, 34817), (201, 34838), (209, 34874), (212, 34904), (215, 34913), (216, 34916), (230, 35036), (232, 35069), (237, 35093), (243, 35126), (244, 35132), (250, 35183), (255, 35201), (261, 35237), (269, 35276), (280, 35342), (282, 35381), (283, 35387), (285, 35393),

Gene: LittleShirley_20 Start: 19752, Stop: 21638, Start Num: 12

Candidate Starts for LittleShirley_20:

(Start: 12 @19752 has 225 MA's), (24, 19815), (26, 19830), (27, 19833), (30, 19857), (32, 19887), (34, 19896), (36, 19914), (47, 19971), (48, 19974), (50, 19995), (51, 19998), (52, 20004), (54, 20010), (58, 20046), (59, 20049), (60, 20052), (67, 20103), (68, 20124), (69, 20130), (71, 20148), (72, 20166), (79, 20208), (81, 20217), (87, 20274), (88, 20283), (91, 20292), (110, 20394), (117, 20466), (151, 20682), (153, 20697), (185, 20973), (187, 20979), (192, 21030), (196, 21045), (201, 21066), (209, 21102), (212, 21132), (215, 21141), (216, 21144), (227, 21249), (230, 21264), (232, 21297), (237, 21321), (243, 21354), (244, 21360), (250, 21411), (255, 21429), (261, 21465), (269, 21504), (280, 21570), (282, 21609), (283, 21615), (285, 21621),

Gene: Lizziana_19 Start: 19928, Stop: 21817, Start Num: 12

Candidate Starts for Lizziana_19:

(9, 19907), (Start: 12 @19928 has 225 MA's), (Start: 16 @19949 has 1 MA's), (24, 19991), (37, 20108), (48, 20150), (50, 20171), (51, 20174), (60, 20228), (67, 20279), (71, 20324), (72, 20342), (74, 20354), (86, 20441), (87, 20450), (88, 20459), (91, 20468), (107, 20561), (110, 20570), (115, 20633), (117, 20642), (118, 20645), (126, 20714), (127, 20720), (153, 20873), (158, 20903), (170, 20990), (174, 21053), (179, 21122), (196, 21218), (198, 21224), (201, 21239), (207, 21251), (212, 21305), (214, 21311), (215, 21314), (216, 21317), (226, 21389), (227, 21422), (230, 21437), (232, 21470), (235, 21476), (237, 21494), (242, 21524), (243, 21527), (250, 21584), (255, 21605), (257, 21611), (264, 21656), (266, 21668), (269, 21680), (276, 21713), (277, 21719), (280, 21746), (282, 21785), (283, 21791),

Gene: Llama_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for Llama_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: Llij_19 Start: 19917, Stop: 21803, Start Num: 12

Candidate Starts for Llij_19:

(9, 19896), (Start: 12 @19917 has 225 MA's), (24, 19980), (26, 19995), (30, 20022), (32, 20052), (34, 20061), (36, 20079), (47, 20136), (48, 20139), (50, 20160), (51, 20163), (52, 20169), (54, 20175), (58, 20211), (59, 20214), (60, 20217), (67, 20268), (68, 20289), (69, 20295), (71, 20313), (72, 20331), (79, 20373), (81, 20382), (87, 20439), (88, 20448), (91, 20457), (110, 20559), (117, 20631), (151, 20847),

(153, 20862), (185, 21138), (187, 21144), (192, 21195), (196, 21210), (201, 21231), (209, 21267), (212, 21297), (215, 21306), (216, 21309), (230, 21429), (232, 21462), (237, 21486), (243, 21519), (244, 21525), (250, 21576), (255, 21594), (261, 21630), (269, 21669), (280, 21735), (282, 21774), (283, 21780), (285, 21786),

Gene: Lorde_20 Start: 19753, Stop: 21639, Start Num: 12

Candidate Starts for Lorde_20:

(Start: 12 @19753 has 225 MA's), (24, 19816), (26, 19831), (30, 19858), (32, 19888), (34, 19897), (36, 19915), (47, 19972), (48, 19975), (50, 19996), (51, 19999), (52, 20005), (54, 20011), (58, 20047), (59, 20050), (60, 20053), (67, 20104), (68, 20125), (69, 20131), (71, 20149), (72, 20167), (79, 20209), (81, 20218), (87, 20275), (88, 20284), (91, 20293), (110, 20395), (117, 20467), (151, 20683), (153, 20698), (185, 20974), (187, 20980), (192, 21031), (196, 21046), (201, 21067), (209, 21103), (212, 21133), (215, 21142), (216, 21145), (230, 21265), (232, 21298), (237, 21322), (243, 21355), (244, 21361), (250, 21412), (255, 21430), (261, 21466), (269, 21505), (280, 21571), (282, 21610), (283, 21616), (285, 21622),

Gene: Lucia_20 Start: 19970, Stop: 21859, Start Num: 12

Candidate Starts for Lucia_20:

(9, 19949), (Start: 12 @19970 has 225 MA's), (Start: 16 @19991 has 1 MA's), (18, 20012), (24, 20033), (26, 20048), (36, 20132), (37, 20150), (48, 20192), (50, 20213), (51, 20216), (60, 20270), (67, 20321), (71, 20366), (72, 20384), (74, 20396), (86, 20483), (87, 20492), (88, 20501), (91, 20510), (107, 20603), (110, 20612), (115, 20675), (117, 20684), (118, 20687), (126, 20756), (127, 20762), (153, 20915), (158, 20945), (170, 21032), (174, 21095), (179, 21164), (196, 21260), (198, 21266), (201, 21281), (207, 21293), (212, 21347), (214, 21353), (215, 21356), (216, 21359), (226, 21431), (227, 21464), (230, 21479), (232, 21512), (235, 21518), (237, 21536), (242, 21566), (243, 21569), (247, 21593), (250, 21626), (255, 21647), (257, 21653), (258, 21659), (266, 21710), (269, 21722), (275, 21752), (276, 21755), (277, 21761), (280, 21788), (282, 21827), (283, 21833),

Gene: LunaBlu_20 Start: 20011, Stop: 21897, Start Num: 12

Candidate Starts for LunaBlu_20:

(9, 19990), (Start: 12 @20011 has 225 MA's), (24, 20074), (26, 20089), (27, 20092), (30, 20116), (32, 20146), (34, 20155), (36, 20173), (47, 20230), (48, 20233), (50, 20254), (51, 20257), (52, 20263), (54, 20269), (58, 20305), (59, 20308), (60, 20311), (67, 20362), (68, 20383), (69, 20389), (71, 20407), (72, 20425), (79, 20467), (81, 20476), (87, 20533), (88, 20542), (91, 20551), (110, 20653), (117, 20725), (151, 20941), (153, 20956), (172, 21112), (185, 21232), (187, 21238), (192, 21289), (196, 21304), (201, 21325), (209, 21361), (212, 21391), (215, 21400), (216, 21403), (230, 21523), (232, 21556), (237, 21580), (243, 21613), (244, 21619), (250, 21670), (255, 21688), (261, 21724), (269, 21763), (280, 21829), (282, 21868), (283, 21874), (285, 21880),

Gene: Mahavrat_19 Start: 19928, Stop: 21808, Start Num: 12

Candidate Starts for Mahavrat_19:

(9, 19907), (Start: 12 @19928 has 225 MA's), (24, 19991), (26, 20006), (30, 20033), (32, 20063), (34, 20072), (36, 20090), (47, 20147), (48, 20150), (51, 20174), (54, 20186), (58, 20222), (59, 20225), (60, 20228), (67, 20279), (68, 20300), (69, 20306), (71, 20324), (72, 20342), (79, 20384), (87, 20450), (88, 20459), (91, 20468), (110, 20570), (117, 20642), (118, 20645), (133, 20753), (144, 20816), (151, 20858), (153, 20873), (155, 20879), (158, 20906), (170, 20993), (185, 21149), (187, 21155), (196, 21221), (208, 21263), (214, 21314), (215, 21317), (216, 21320), (226, 21392), (227, 21425), (230, 21440), (231, 21461), (242, 21527), (244, 21536), (250, 21587), (252, 21593), (255, 21605), (266, 21662), (269, 21674), (276, 21707), (277, 21713), (282, 21779), (283, 21785),

Gene: Mandlovu_19 Start: 20029, Stop: 21915, Start Num: 12

Candidate Starts for Mandlovu_19:

(9, 20008), (Start: 12 @20029 has 225 MA's), (24, 20092), (26, 20107), (30, 20134), (32, 20164), (34, 20173), (36, 20191), (47, 20248), (48, 20251), (51, 20275), (54, 20287), (58, 20323), (59, 20326), (60, 20329), (67, 20380), (68, 20401), (69, 20407), (71, 20425), (72, 20443), (79, 20485), (87, 20551), (88, 20560), (91, 20569), (110, 20671), (117, 20743), (151, 20959), (153, 20974), (185, 21250), (187, 21256), (192, 21307), (196, 21322), (201, 21343), (209, 21379), (212, 21409), (215, 21418), (216, 21421), (230, 21541), (232, 21574), (237, 21598), (243, 21631), (244, 21637), (250, 21688), (255, 21706), (261, 21742), (269, 21781), (280, 21847), (282, 21886), (283, 21892), (285, 21898),

Gene: Mantra_19 Start: 20030, Stop: 21916, Start Num: 12

Candidate Starts for Mantra_19:

(Start: 12 @20030 has 225 MA's), (24, 20093), (26, 20108), (30, 20135), (32, 20165), (34, 20174), (36, 20192), (47, 20249), (48, 20252), (50, 20273), (51, 20276), (52, 20282), (54, 20288), (58, 20324), (59, 20327), (60, 20330), (67, 20381), (68, 20402), (69, 20408), (71, 20426), (72, 20444), (79, 20486), (81, 20495), (87, 20552), (88, 20561), (91, 20570), (110, 20672), (117, 20744), (151, 20960), (153, 20975), (185, 21251), (187, 21257), (192, 21308), (196, 21323), (201, 21344), (209, 21380), (212, 21410), (215, 21419), (216, 21422), (227, 21527), (230, 21542), (232, 21575), (237, 21599), (243, 21632), (244, 21638), (250, 21689), (255, 21707), (261, 21743), (269, 21782), (280, 21848), (282, 21887), (283, 21893), (285, 21899),

Gene: Maravista_19 Start: 19877, Stop: 21763, Start Num: 12

Candidate Starts for Maravista_19:

(9, 19856), (Start: 12 @19877 has 225 MA's), (24, 19940), (26, 19955), (30, 19982), (32, 20012), (34, 20021), (36, 20039), (47, 20096), (48, 20099), (50, 20120), (51, 20123), (54, 20135), (58, 20171), (59, 20174), (60, 20177), (67, 20228), (68, 20249), (69, 20255), (71, 20273), (72, 20291), (79, 20333), (87, 20399), (88, 20408), (91, 20417), (110, 20519), (117, 20591), (118, 20594), (126, 20663), (127, 20669), (144, 20765), (151, 20807), (153, 20822), (172, 20978), (185, 21098), (187, 21104), (192, 21155), (196, 21170), (201, 21191), (209, 21227), (212, 21257), (215, 21266), (216, 21269), (230, 21389), (232, 21422), (237, 21446), (243, 21479), (244, 21485), (250, 21536), (255, 21554), (261, 21590), (269, 21629), (280, 21695), (282, 21734), (283, 21740), (285, 21746),

Gene: Marker_20 Start: 19780, Stop: 21666, Start Num: 12

Candidate Starts for Marker_20:

(9, 19759), (Start: 12 @19780 has 225 MA's), (24, 19843), (26, 19858), (27, 19861), (30, 19885), (32, 19915), (34, 19924), (36, 19942), (47, 19999), (48, 20002), (50, 20023), (51, 20026), (52, 20032), (54, 20038), (58, 20074), (59, 20077), (60, 20080), (67, 20131), (68, 20152), (69, 20158), (71, 20176), (72, 20194), (87, 20302), (88, 20311), (91, 20320), (110, 20422), (117, 20494), (118, 20497), (139, 20632), (144, 20668), (151, 20710), (153, 20725), (185, 21001), (187, 21007), (192, 21058), (196, 21073), (201, 21094), (209, 21130), (212, 21160), (215, 21169), (216, 21172), (230, 21292), (232, 21325), (237, 21349), (243, 21382), (244, 21388), (250, 21439), (255, 21457), (257, 21463), (269, 21532), (280, 21598), (282, 21637), (283, 21643), (285, 21649),

Gene: Martik_19 Start: 19955, Stop: 21844, Start Num: 12

Candidate Starts for Martik_19:

(Start: 12 @19955 has 225 MA's), (24, 20018), (37, 20135), (48, 20177), (50, 20198), (51, 20201), (60, 20255), (67, 20306), (71, 20351), (72, 20369), (74, 20381), (86, 20468), (87, 20477), (88, 20486), (91, 20495), (107, 20588), (110, 20597), (115, 20660), (117, 20669), (118, 20672), (126, 20741), (127, 20747), (153, 20900), (158, 20930), (170, 21017), (174, 21080), (179, 21149), (196, 21245), (198, 21251), (201, 21266), (207, 21278), (212, 21332), (214, 21338), (215, 21341), (216, 21344), (226, 21416), (227, 21449), (230, 21464), (232, 21497), (235, 21503), (237, 21521), (242, 21551), (243, 21554), (250, 21611), (255, 21632), (257, 21638), (264, 21683), (266, 21695), (269, 21707), (276, 21740), (277, 21746), (280, 21773), (282, 21812), (283, 21818),

Gene: MaryV_44 Start: 30899, Stop: 32875, Start Num: 12

Candidate Starts for MaryV_44:

(Start: 12 @30899 has 225 MA's), (19, 30941), (34, 31037), (35, 31052), (38, 31079), (48, 31118), (53, 31151), (54, 31154), (56, 31181), (58, 31193), (59, 31196), (60, 31199), (64, 31229), (68, 31271), (70, 31283), (74, 31325), (77, 31337), (78, 31343), (84, 31406), (90, 31454), (91, 31457), (92, 31469), (97, 31496), (98, 31505), (101, 31514), (106, 31550), (108, 31556), (113, 31595), (114, 31607), (116, 31628), (121, 31649), (128, 31706), (135, 31769), (143, 31811), (144, 31832), (147, 31844), (148, 31853), (150, 31865), (156, 31904), (162, 31937), (167, 31973), (169, 31997), (171, 32012), (174, 32066), (178, 32129), (189, 32183), (190, 32198), (200, 32255), (204, 32279), (212, 32360), (215, 32369), (222, 32429), (232, 32528), (239, 32567), (241, 32573), (242, 32582), (267, 32735), (282, 32846), (285, 32858),

Gene: Mattes_19 Start: 19976, Stop: 21808, Start Num: 21

Candidate Starts for Mattes_19:

(9, 19898), (Start: 12 @19919 has 225 MA's), (Start: 16 @19940 has 1 MA's), (Start: 21 @19976 has 1 MA's), (24, 19982), (26, 19997), (32, 20054), (36, 20081), (48, 20141), (51, 20165), (60, 20219), (67, 20270), (71, 20315), (72, 20333), (74, 20345), (86, 20432), (87, 20441), (88, 20450), (91, 20459), (107, 20552), (110, 20561), (115, 20624), (117, 20633), (118, 20636), (126, 20705), (153, 20864), (158, 20894), (170, 20981), (174, 21044), (179, 21113), (196, 21209), (198, 21215), (201, 21230), (207, 21242), (212, 21296), (214, 21302), (215, 21305), (216, 21308), (226, 21380), (227, 21413), (230, 21428), (232, 21461), (235, 21467), (237, 21485), (242, 21515), (243, 21518), (250, 21575), (255, 21596), (257, 21602), (264, 21647), (266, 21659), (269, 21671), (276, 21704), (277, 21710), (280, 21737), (282, 21776), (283, 21782),

Gene: Medindi_19 Start: 19927, Stop: 21813, Start Num: 12

Candidate Starts for Medindi_19:

(9, 19906), (Start: 12 @19927 has 225 MA's), (24, 19990), (26, 20005), (27, 20008), (30, 20032), (32, 20062), (34, 20071), (36, 20089), (47, 20146), (48, 20149), (50, 20170), (51, 20173), (52, 20179), (54, 20185), (58, 20221), (59, 20224), (60, 20227), (67, 20278), (68, 20299), (69, 20305), (71, 20323), (72, 20341), (79, 20383), (87, 20449), (88, 20458), (91, 20467), (110, 20569), (117, 20641), (151, 20857), (153, 20872), (185, 21148), (187, 21154), (192, 21205), (196, 21220), (201, 21241), (209, 21277), (212, 21307), (215, 21316), (216, 21319), (230, 21439), (232, 21472), (237, 21496), (243, 21529), (244, 21535), (250, 21586), (255, 21604), (261, 21640), (269, 21679), (280, 21745), (282, 21784), (283, 21790), (285, 21796),

Gene: Melissauren88_19 Start: 19962, Stop: 21848, Start Num: 12

Candidate Starts for Melissauren88_19:

(9, 19941), (Start: 12 @19962 has 225 MA's), (24, 20025), (26, 20040), (27, 20043), (30, 20067), (32, 20097), (34, 20106), (36, 20124), (47, 20181), (48, 20184), (50, 20205), (51, 20208), (52, 20214), (54, 20220), (58, 20256), (59, 20259), (60, 20262), (67, 20313), (68, 20334), (69, 20340), (71, 20358), (72, 20376), (79, 20418), (87, 20484), (88, 20493), (91, 20502), (110, 20604), (117, 20676), (151, 20892), (153, 20907), (185, 21183), (187, 21189), (192, 21240), (196, 21255), (201, 21276), (209, 21312), (212, 21342), (215, 21351), (216, 21354), (227, 21459), (230, 21474), (232, 21507), (237, 21531), (243, 21564), (244, 21570), (250, 21621), (255, 21639), (261, 21675), (269, 21714), (280, 21780), (282, 21819), (283, 21825), (285, 21831),

Gene: MilleniumForce_20 Start: 20745, Stop: 22631, Start Num: 12

Candidate Starts for MilleniumForce_20:

(9, 20724), (Start: 12 @20745 has 225 MA's), (24, 20808), (26, 20823), (27, 20826), (30, 20850), (32, 20880), (34, 20889), (36, 20907), (47, 20964), (48, 20967), (50, 20988), (51, 20991), (52, 20997), (54, 21003), (58, 21039), (59, 21042), (60, 21045), (67, 21096), (68, 21117), (69, 21123), (71, 21141), (72, 21159), (87, 21267), (88, 21276), (91, 21285), (110, 21387), (117, 21459), (151, 21675), (153, 21690), (185, 21966), (187, 21972), (192, 22023), (196, 22038), (201, 22059), (209, 22095), (212, 22125), (215, 22134), (216, 22137), (230, 22257), (232, 22290), (237, 22314), (243, 22347), (244, 22353),

(250, 22404), (255, 22422), (261, 22458), (269, 22497), (280, 22563), (282, 22602), (283, 22608), (285, 22614),

Gene: Minerva_40 Start: 33761, Stop: 35650, Start Num: 12

Candidate Starts for Minerva_40:

(7, 33623), (9, 33740), (Start: 12 @33761 has 225 MA's), (Start: 16 @33782 has 1 MA's), (24, 33824), (37, 33941), (50, 34004), (51, 34007), (54, 34019), (58, 34055), (67, 34112), (68, 34133), (71, 34157), (79, 34217), (83, 34250), (86, 34274), (87, 34283), (88, 34292), (89, 34295), (91, 34301), (110, 34403), (115, 34466), (117, 34475), (119, 34481), (127, 34553), (152, 34703), (154, 34709), (170, 34823), (176, 34934), (196, 35051), (198, 35057), (201, 35072), (207, 35084), (212, 35138), (214, 35144), (215, 35147), (216, 35150), (226, 35222), (227, 35255), (230, 35270), (232, 35303), (235, 35309), (237, 35327), (242, 35357), (243, 35360), (250, 35417), (252, 35423), (255, 35438), (257, 35444), (258, 35450), (265, 35498), (266, 35501), (269, 35513), (282, 35618), (283, 35624),

Gene: MinionDave_20 Start: 20614, Stop: 22500, Start Num: 12

Candidate Starts for MinionDave_20:

(9, 20593), (Start: 12 @20614 has 225 MA's), (24, 20677), (26, 20692), (27, 20695), (30, 20719), (32, 20749), (34, 20758), (36, 20776), (47, 20833), (48, 20836), (50, 20857), (51, 20860), (52, 20866), (54, 20872), (58, 20908), (59, 20911), (60, 20914), (67, 20965), (68, 20986), (69, 20992), (71, 21010), (72, 21028), (79, 21070), (81, 21079), (87, 21136), (88, 21145), (91, 21154), (110, 21256), (117, 21328), (151, 21544), (153, 21559), (172, 21715), (185, 21835), (187, 21841), (192, 21892), (196, 21907), (201, 21928), (209, 21964), (212, 21994), (215, 22003), (216, 22006), (230, 22126), (232, 22159), (237, 22183), (243, 22216), (244, 22222), (250, 22273), (255, 22291), (261, 22327), (269, 22366), (280, 22432), (282, 22471), (283, 22477), (285, 22483),

Gene: Minnie_20 Start: 20474, Stop: 22360, Start Num: 12

Candidate Starts for Minnie_20:

(9, 20453), (Start: 12 @20474 has 225 MA's), (24, 20537), (26, 20552), (27, 20555), (30, 20579), (32, 20609), (34, 20618), (36, 20636), (47, 20693), (48, 20696), (50, 20717), (51, 20720), (52, 20726), (54, 20732), (58, 20768), (59, 20771), (60, 20774), (67, 20825), (68, 20846), (69, 20852), (71, 20870), (72, 20888), (79, 20930), (81, 20939), (87, 20996), (88, 21005), (91, 21014), (110, 21116), (117, 21188), (151, 21404), (153, 21419), (185, 21695), (187, 21701), (192, 21752), (196, 21767), (201, 21788), (209, 21824), (212, 21854), (215, 21863), (216, 21866), (227, 21971), (230, 21986), (232, 22019), (237, 22043), (243, 22076), (244, 22082), (250, 22133), (255, 22151), (261, 22187), (269, 22226), (280, 22292), (282, 22331), (283, 22337), (285, 22343),

Gene: Misha28_20 Start: 19795, Stop: 21675, Start Num: 12

Candidate Starts for Misha28_20:

(Start: 12 @19795 has 225 MA's), (23, 19855), (27, 19876), (36, 19957), (47, 20014), (48, 20017), (50, 20038), (54, 20053), (60, 20095), (67, 20146), (71, 20191), (72, 20209), (79, 20251), (87, 20317), (88, 20326), (91, 20335), (110, 20437), (117, 20509), (127, 20587), (144, 20683), (151, 20725), (153, 20740), (155, 20746), (170, 20860), (172, 20896), (187, 21022), (192, 21073), (196, 21088), (208, 21130), (212, 21175), (223, 21244), (225, 21250), (226, 21259), (227, 21292), (230, 21307), (237, 21364), (243, 21397), (250, 21454), (255, 21472), (257, 21478), (266, 21529), (269, 21541), (277, 21580), (282, 21646), (283, 21652),

Gene: MisterCuddles_19 Start: 19905, Stop: 21791, Start Num: 12

Candidate Starts for MisterCuddles_19:

(Start: 12 @19905 has 225 MA's), (24, 19968), (26, 19983), (27, 19986), (30, 20010), (32, 20040), (34, 20049), (36, 20067), (47, 20124), (48, 20127), (50, 20148), (51, 20151), (52, 20157), (54, 20163), (58, 20199), (59, 20202), (60, 20205), (67, 20256), (68, 20277), (69, 20283), (71, 20301), (72, 20319), (79, 20361), (81, 20370), (87, 20427), (88, 20436), (91, 20445), (110, 20547), (117, 20619), (118, 20622), (126, 20691), (139, 20757), (144, 20793), (151, 20835), (153, 20850), (185, 21126), (187, 21132),

(192, 21183), (196, 21198), (201, 21219), (209, 21255), (212, 21285), (215, 21294), (216, 21297), (230, 21417), (232, 21450), (237, 21474), (243, 21507), (244, 21513), (250, 21564), (255, 21582), (261, 21618), (269, 21657), (280, 21723), (282, 21762), (283, 21768), (285, 21774),

Gene: Modragons_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for Modragons_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: MontyDev_31 Start: 27778, Stop: 29733, Start Num: 12

Candidate Starts for MontyDev_31:

(Start: 12 @27778 has 225 MA's), (13, 27784), (25, 27850), (26, 27856), (30, 27883), (39, 27967), (43, 27979), (44, 27985), (46, 27994), (48, 28003), (56, 28063), (62, 28099), (65, 28126), (68, 28150), (69, 28156), (84, 28285), (87, 28318), (88, 28327), (90, 28333), (91, 28336), (101, 28393), (112, 28456), (117, 28513), (119, 28519), (122, 28552), (123, 28555), (127, 28585), (131, 28618), (148, 28738), (151, 28759), (157, 28798), (159, 28810), (163, 28828), (174, 28933), (181, 29008), (188, 29047), (191, 29065), (193, 29095), (207, 29164), (212, 29218), (214, 29224), (222, 29284), (232, 29386), (242, 29443), (246, 29464), (250, 29503), (258, 29536), (275, 29629), (285, 29716),

Gene: Moonbeam_20 Start: 20423, Stop: 22309, Start Num: 12

Candidate Starts for Moonbeam_20:

(9, 20402), (Start: 12 @20423 has 225 MA's), (24, 20486), (26, 20501), (27, 20504), (30, 20528), (32, 20558), (34, 20567), (36, 20585), (47, 20642), (48, 20645), (50, 20666), (51, 20669), (52, 20675), (54, 20681), (58, 20717), (59, 20720), (60, 20723), (67, 20774), (68, 20795), (69, 20801), (71, 20819), (72, 20837), (87, 20945), (88, 20954), (91, 20963), (110, 21065), (117, 21137), (151, 21353), (153, 21368), (185, 21644), (187, 21650), (192, 21701), (196, 21716), (201, 21737), (209, 21773), (212, 21803), (215, 21812), (216, 21815), (227, 21920), (230, 21935), (232, 21968), (237, 21992), (243, 22025), (244, 22031), (250, 22082), (255, 22100), (261, 22136), (269, 22175), (280, 22241), (282, 22280), (283, 22286), (285, 22292),

Gene: Mopey_31 Start: 26586, Stop: 28634, Start Num: 11

Candidate Starts for Mopey_31:

(Start: 11 @26586 has 24 MA's), (14, 26607), (51, 26856), (61, 26928), (63, 26934), (71, 27009), (75, 27045), (76, 27048), (77, 27051), (89, 27144), (90, 27147), (91, 27150), (92, 27162), (99, 27201), (100, 27204), (101, 27207), (102, 27219), (105, 27240), (117, 27327), (118, 27330), (136, 27480), (137, 27483), (141, 27516), (142, 27522), (144, 27558), (148, 27579), (161, 27660), (168, 27720), (174, 27792), (175, 27825), (180, 27861), (187, 27897), (197, 27984), (201, 27999), (213, 28104), (214, 28107), (225, 28182), (226, 28194), (228, 28233), (236, 28293), (246, 28365), (253, 28422), (254, 28428), (256, 28434), (275, 28527), (280, 28563),

Gene: Mova_20 Start: 19782, Stop: 21668, Start Num: 12

Candidate Starts for Mova_20:

(9, 19761), (Start: 12 @19782 has 225 MA's), (24, 19845), (26, 19860), (27, 19863), (30, 19887), (32, 19917), (34, 19926), (36, 19944), (47, 20001), (48, 20004), (50, 20025), (51, 20028), (52, 20034), (54, 20040), (58, 20076), (59, 20079), (60, 20082), (67, 20133), (68, 20154), (69, 20160), (71, 20178), (72, 20196), (79, 20238), (87, 20304), (88, 20313), (91, 20322), (110, 20424), (117, 20496), (151, 20712), (153, 20727), (172, 20883), (185, 21003), (187, 21009), (192, 21060), (196, 21075), (201, 21096),

(209, 21132), (212, 21162), (215, 21171), (216, 21174), (230, 21294), (232, 21327), (237, 21351), (243, 21384), (244, 21390), (250, 21441), (255, 21459), (261, 21495), (269, 21534), (280, 21600), (282, 21639), (283, 21645), (285, 21651),

Gene: Mozy_20 Start: 19832, Stop: 21718, Start Num: 12

Candidate Starts for Mozy_20:

(Start: 12 @19832 has 225 MA's), (24, 19895), (26, 19910), (30, 19937), (32, 19967), (34, 19976), (36, 19994), (47, 20051), (48, 20054), (50, 20075), (51, 20078), (52, 20084), (54, 20090), (58, 20126), (59, 20129), (60, 20132), (67, 20183), (68, 20204), (69, 20210), (71, 20228), (72, 20246), (79, 20288), (87, 20354), (88, 20363), (91, 20372), (110, 20474), (117, 20546), (118, 20549), (144, 20720), (151, 20762), (153, 20777), (155, 20783), (185, 21053), (187, 21059), (192, 21110), (196, 21125), (201, 21146), (209, 21182), (212, 21212), (215, 21221), (216, 21224), (230, 21344), (232, 21377), (237, 21401), (243, 21434), (244, 21440), (250, 21491), (255, 21509), (261, 21545), (269, 21584), (280, 21650), (282, 21689), (283, 21695), (285, 21701),

Gene: MulchExplorer_22 Start: 21053, Stop: 22939, Start Num: 12

Candidate Starts for MulchExplorer_22:

(9, 21032), (Start: 12 @21053 has 225 MA's), (24, 21116), (26, 21131), (27, 21134), (30, 21158), (32, 21188), (34, 21197), (36, 21215), (47, 21272), (48, 21275), (50, 21296), (51, 21299), (52, 21305), (54, 21311), (58, 21347), (59, 21350), (60, 21353), (67, 21404), (68, 21425), (69, 21431), (71, 21449), (72, 21467), (87, 21575), (88, 21584), (91, 21593), (110, 21695), (117, 21767), (151, 21983), (153, 21998), (185, 22274), (187, 22280), (192, 22331), (196, 22346), (201, 22367), (209, 22403), (212, 22433), (215, 22442), (216, 22445), (230, 22565), (232, 22598), (237, 22622), (243, 22655), (244, 22661), (250, 22712), (255, 22730), (261, 22766), (269, 22805), (280, 22871), (282, 22910), (283, 22916), (285, 22922),

Gene: Mutaforma13_19 Start: 19978, Stop: 21864, Start Num: 12

Candidate Starts for Mutaforma13_19:

(Start: 12 @19978 has 225 MA's), (24, 20041), (26, 20056), (30, 20083), (32, 20113), (34, 20122), (36, 20140), (47, 20197), (48, 20200), (50, 20221), (51, 20224), (52, 20230), (54, 20236), (58, 20272), (59, 20275), (60, 20278), (67, 20329), (68, 20350), (69, 20356), (71, 20374), (72, 20392), (79, 20434), (87, 20500), (88, 20509), (91, 20518), (110, 20620), (117, 20692), (151, 20908), (153, 20923), (155, 20929), (185, 21199), (187, 21205), (192, 21256), (196, 21271), (201, 21292), (209, 21328), (212, 21358), (215, 21367), (216, 21370), (230, 21490), (232, 21523), (237, 21547), (243, 21580), (244, 21586), (250, 21637), (269, 21730), (280, 21796), (282, 21835), (283, 21841), (285, 21847),

Gene: Mwanjiwa_19 Start: 19916, Stop: 21802, Start Num: 12

Candidate Starts for Mwanjiwa_19:

(9, 19895), (Start: 12 @19916 has 225 MA's), (24, 19979), (26, 19994), (27, 19997), (30, 20021), (32, 20051), (34, 20060), (36, 20078), (47, 20135), (48, 20138), (50, 20159), (51, 20162), (52, 20168), (54, 20174), (58, 20210), (59, 20213), (60, 20216), (67, 20267), (68, 20288), (69, 20294), (71, 20312), (72, 20330), (79, 20372), (87, 20438), (88, 20447), (91, 20456), (110, 20558), (117, 20630), (118, 20633), (126, 20702), (127, 20708), (139, 20768), (144, 20804), (151, 20846), (153, 20861), (172, 21017), (185, 21137), (187, 21143), (192, 21194), (196, 21209), (201, 21230), (209, 21266), (212, 21296), (215, 21305), (216, 21308), (230, 21428), (232, 21461), (237, 21485), (243, 21518), (244, 21524), (250, 21575), (255, 21593), (261, 21629), (269, 21668), (280, 21734), (282, 21773), (283, 21779), (285, 21785),

Gene: Nebkiss_23 Start: 22499, Stop: 24379, Start Num: 12

Candidate Starts for Nebkiss_23:

(Start: 12 @22499 has 225 MA's), (Start: 16 @22520 has 1 MA's), (30, 22604), (32, 22634), (48, 22721), (51, 22745), (54, 22757), (67, 22850), (69, 22877), (71, 22895), (72, 22913), (78, 22943), (85, 22997), (86, 23012), (87, 23021), (88, 23030), (91, 23039), (92, 23051), (96, 23072), (101, 23093),

(110, 23141), (115, 23204), (116, 23207), (118, 23216), (119, 23219), (121, 23228), (126, 23285), (127, 23291), (129, 23294), (158, 23474), (170, 23561), (187, 23723), (208, 23831), (212, 23876), (215, 23885), (216, 23888), (221, 23921), (227, 23993), (230, 24008), (232, 24041), (235, 24047), (255, 24173), (257, 24179), (265, 24227), (275, 24272), (276, 24275), (277, 24281), (280, 24308), (282, 24347), (283, 24353),

Gene: NewHope4_20 Start: 19980, Stop: 21866, Start Num: 12

Candidate Starts for NewHope4_20:

(Start: 12 @19980 has 225 MA's), (24, 20043), (26, 20058), (27, 20061), (30, 20085), (32, 20115), (34, 20124), (36, 20142), (47, 20199), (48, 20202), (50, 20223), (51, 20226), (52, 20232), (54, 20238), (58, 20274), (59, 20277), (60, 20280), (67, 20331), (68, 20352), (69, 20358), (71, 20376), (72, 20394), (87, 20502), (88, 20511), (91, 20520), (110, 20622), (117, 20694), (144, 20868), (151, 20910), (153, 20925), (155, 20931), (185, 21201), (187, 21207), (192, 21258), (196, 21273), (201, 21294), (209, 21330), (212, 21360), (215, 21369), (216, 21372), (230, 21492), (232, 21525), (237, 21549), (243, 21582), (244, 21588), (250, 21639), (255, 21657), (257, 21663), (269, 21732), (280, 21798), (282, 21837), (283, 21843), (285, 21849),

Gene: Nilo_32 Start: 28134, Stop: 30089, Start Num: 12

Candidate Starts for Nilo_32:

(Start: 12 @28134 has 225 MA's), (13, 28140), (25, 28206), (26, 28212), (30, 28239), (39, 28323), (43, 28335), (44, 28341), (46, 28350), (48, 28359), (56, 28419), (62, 28455), (65, 28482), (68, 28506), (69, 28512), (82, 28611), (84, 28641), (87, 28674), (88, 28683), (90, 28689), (91, 28692), (101, 28749), (112, 28812), (117, 28869), (119, 28875), (122, 28908), (123, 28911), (127, 28941), (131, 28974), (148, 29094), (151, 29115), (157, 29154), (159, 29166), (163, 29184), (174, 29289), (181, 29364), (188, 29403), (191, 29421), (207, 29520), (212, 29574), (214, 29580), (222, 29640), (232, 29742), (242, 29799), (246, 29820), (250, 29859), (258, 29892), (275, 29985), (285, 30072),

Gene: Nimbo_19 Start: 19934, Stop: 21823, Start Num: 12

Candidate Starts for Nimbo_19:

(9, 19913), (Start: 12 @19934 has 225 MA's), (24, 19997), (26, 20012), (30, 20039), (32, 20069), (34, 20078), (36, 20096), (47, 20153), (48, 20156), (50, 20177), (51, 20180), (54, 20192), (58, 20228), (59, 20231), (60, 20234), (67, 20285), (68, 20306), (69, 20312), (71, 20330), (72, 20348), (79, 20390), (87, 20456), (88, 20465), (91, 20474), (110, 20576), (117, 20648), (118, 20651), (126, 20720), (127, 20726), (144, 20822), (151, 20864), (153, 20879), (172, 21035), (185, 21155), (187, 21161), (196, 21227), (201, 21248), (207, 21260), (212, 21314), (215, 21323), (216, 21326), (230, 21446), (232, 21479), (235, 21485), (242, 21533), (244, 21542), (250, 21593), (252, 21599), (255, 21614), (258, 21626), (266, 21677), (269, 21689), (275, 21719), (276, 21722), (277, 21728), (282, 21794), (283, 21800),

Gene: Nitzel_20 Start: 20670, Stop: 22550, Start Num: 12

Candidate Starts for Nitzel_20:

(9, 20649), (Start: 12 @20670 has 225 MA's), (24, 20733), (26, 20748), (27, 20751), (30, 20775), (32, 20805), (34, 20814), (36, 20832), (47, 20889), (48, 20892), (50, 20913), (51, 20916), (52, 20922), (54, 20928), (58, 20964), (59, 20967), (60, 20970), (67, 21021), (68, 21042), (69, 21048), (71, 21066), (72, 21084), (79, 21126), (81, 21135), (87, 21192), (88, 21201), (91, 21210), (106, 21300), (110, 21312), (117, 21384), (118, 21387), (127, 21462), (144, 21558), (151, 21600), (153, 21615), (170, 21735), (172, 21771), (185, 21891), (187, 21897), (192, 21948), (196, 21963), (208, 22005), (214, 22056), (215, 22059), (216, 22062), (226, 22134), (227, 22167), (230, 22182), (231, 22203), (232, 22215), (242, 22269), (244, 22278), (245, 22284), (255, 22347), (266, 22404), (269, 22416), (276, 22449), (277, 22455), (282, 22521), (283, 22527), (285, 22533),

Gene: Nivrat_19 Start: 19927, Stop: 21816, Start Num: 12

Candidate Starts for Nivrat_19:

(9, 19906), (Start: 12 @19927 has 225 MA's), (Start: 16 @19948 has 1 MA's), (24, 19990), (37, 20107), (48, 20149), (50, 20170), (51, 20173), (60, 20227), (67, 20278), (71, 20323), (72, 20341), (74, 20353), (86, 20440), (87, 20449), (88, 20458), (91, 20467), (107, 20560), (110, 20569), (115, 20632), (117, 20641), (118, 20644), (126, 20713), (153, 20872), (158, 20902), (170, 20989), (174, 21052), (179, 21121), (196, 21217), (198, 21223), (201, 21238), (207, 21250), (212, 21304), (214, 21310), (215, 21313), (216, 21316), (226, 21388), (227, 21421), (230, 21436), (232, 21469), (235, 21475), (237, 21493), (242, 21523), (243, 21526), (250, 21583), (255, 21604), (257, 21610), (264, 21655), (266, 21667), (269, 21679), (276, 21712), (277, 21718), (280, 21745), (282, 21784), (283, 21790),

Gene: NormanBulbieJr_19 Start: 19942, Stop: 21831, Start Num: 12

Candidate Starts for NormanBulbieJr_19:

(Start: 12 @19942 has 225 MA's), (24, 20005), (37, 20122), (48, 20164), (50, 20185), (51, 20188), (60, 20242), (67, 20293), (71, 20338), (72, 20356), (74, 20368), (86, 20455), (87, 20464), (88, 20473), (91, 20482), (107, 20575), (110, 20584), (115, 20647), (117, 20656), (118, 20659), (126, 20728), (127, 20734), (153, 20887), (158, 20917), (170, 21004), (174, 21067), (179, 21136), (196, 21232), (198, 21238), (201, 21253), (207, 21265), (212, 21319), (214, 21325), (215, 21328), (216, 21331), (226, 21403), (227, 21436), (230, 21451), (232, 21484), (235, 21490), (237, 21508), (242, 21538), (243, 21541), (250, 21598), (255, 21619), (257, 21625), (264, 21670), (266, 21682), (269, 21694), (276, 21727), (277, 21733), (280, 21760), (282, 21799), (283, 21805),

Gene: Nova_31 Start: 27013, Stop: 29061, Start Num: 11

Candidate Starts for Nova_31:

(Start: 11 @27013 has 24 MA's), (14, 27034), (51, 27283), (61, 27355), (63, 27361), (71, 27436), (75, 27472), (76, 27475), (77, 27478), (89, 27571), (90, 27574), (91, 27577), (92, 27589), (99, 27628), (100, 27631), (101, 27634), (102, 27646), (105, 27667), (117, 27754), (118, 27757), (136, 27907), (137, 27910), (141, 27943), (142, 27949), (144, 27985), (148, 28006), (161, 28087), (168, 28147), (174, 28219), (175, 28252), (177, 28279), (180, 28288), (187, 28324), (197, 28411), (201, 28426), (213, 28531), (214, 28534), (225, 28609), (226, 28621), (228, 28660), (236, 28720), (246, 28792), (253, 28849), (254, 28855), (256, 28861), (280, 28990),

Gene: Ochi17_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for Ochi17_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: OfUltron_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for OfUltron_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: Oksu_20 Start: 20013, Stop: 21893, Start Num: 12

Candidate Starts for Oksu_20:

(9, 19992), (Start: 12 @20013 has 225 MA's), (24, 20076), (26, 20091), (30, 20118), (32, 20148), (34, 20157), (36, 20175), (47, 20232), (48, 20235), (51, 20259), (54, 20271), (58, 20307), (59, 20310), (60, 20313), (67, 20364), (68, 20385), (69, 20391), (71, 20409), (72, 20427), (79, 20469), (87, 20535), (88, 20544), (91, 20553), (110, 20655), (117, 20727), (118, 20730), (133, 20838), (144, 20901), (151, 20943), (153, 20958), (155, 20964), (158, 20991), (170, 21078), (185, 21234), (196, 21306), (212, 21393), (214, 21399), (215, 21402), (226, 21477), (230, 21525), (231, 21546), (237, 21582), (242, 21612), (244, 21621), (250, 21672), (255, 21690), (265, 21744), (266, 21747), (269, 21759), (277, 21798), (282, 21864), (283, 21870), (285, 21876),

Gene: OldBen_19 Start: 19904, Stop: 21793, Start Num: 12

Candidate Starts for OldBen_19:

(9, 19883), (Start: 12 @19904 has 225 MA's), (24, 19967), (26, 19982), (30, 20009), (32, 20039), (34, 20048), (36, 20066), (47, 20123), (48, 20126), (50, 20147), (51, 20150), (52, 20156), (54, 20162), (58, 20198), (59, 20201), (60, 20204), (67, 20255), (68, 20276), (69, 20282), (71, 20300), (72, 20318), (79, 20360), (87, 20426), (88, 20435), (91, 20444), (110, 20546), (117, 20618), (118, 20621), (126, 20690), (127, 20696), (144, 20792), (151, 20834), (153, 20849), (172, 21005), (185, 21125), (187, 21131), (196, 21197), (201, 21218), (207, 21230), (212, 21284), (215, 21293), (216, 21296), (230, 21416), (232, 21449), (235, 21455), (242, 21503), (244, 21512), (250, 21563), (252, 21569), (255, 21584), (258, 21596), (266, 21647), (269, 21659), (275, 21689), (276, 21692), (277, 21698), (282, 21764), (283, 21770),

Gene: OlympiaSaint_19 Start: 20142, Stop: 22031, Start Num: 12

Candidate Starts for OlympiaSaint_19:

(Start: 12 @20142 has 225 MA's), (24, 20205), (37, 20322), (48, 20364), (50, 20385), (51, 20388), (60, 20442), (67, 20493), (71, 20538), (72, 20556), (74, 20568), (86, 20655), (87, 20664), (88, 20673), (91, 20682), (107, 20775), (110, 20784), (115, 20847), (117, 20856), (118, 20859), (126, 20928), (127, 20934), (153, 21087), (158, 21117), (170, 21204), (174, 21267), (179, 21336), (196, 21432), (198, 21438), (201, 21453), (207, 21465), (212, 21519), (214, 21525), (215, 21528), (216, 21531), (226, 21603), (227, 21636), (230, 21651), (232, 21684), (235, 21690), (237, 21708), (242, 21738), (243, 21741), (250, 21798), (255, 21819), (257, 21825), (264, 21870), (266, 21882), (269, 21894), (276, 21927), (277, 21933), (280, 21960), (282, 21999), (283, 22005),

Gene: Omega_39 Start: 33983, Stop: 35869, Start Num: 12

Candidate Starts for Omega_39:

(9, 33962), (Start: 12 @33983 has 225 MA's), (24, 34046), (26, 34061), (27, 34064), (30, 34088), (32, 34118), (34, 34127), (36, 34145), (47, 34202), (48, 34205), (50, 34226), (51, 34229), (52, 34235), (54, 34241), (58, 34277), (59, 34280), (60, 34283), (67, 34334), (68, 34355), (69, 34361), (71, 34379), (72, 34397), (87, 34505), (88, 34514), (91, 34523), (110, 34625), (117, 34697), (151, 34913), (153, 34928), (185, 35204), (187, 35210), (192, 35261), (196, 35276), (201, 35297), (209, 35333), (212, 35363), (215, 35372), (216, 35375), (227, 35480), (230, 35495), (232, 35528), (237, 35552), (243, 35585), (244, 35591), (250, 35642), (255, 35660), (269, 35735), (280, 35801), (282, 35840), (283, 35846), (285, 35852),

Gene: Optimus_38 Start: 33327, Stop: 35213, Start Num: 12

Candidate Starts for Optimus_38:

(9, 33306), (Start: 12 @33327 has 225 MA's), (24, 33390), (26, 33405), (30, 33432), (32, 33462), (34, 33471), (36, 33489), (47, 33546), (48, 33549), (50, 33570), (51, 33573), (54, 33585), (58, 33621), (59, 33624), (60, 33627), (67, 33678), (68, 33699), (69, 33705), (71, 33723), (72, 33741), (79, 33783), (87, 33849), (88, 33858), (91, 33867), (110, 33969), (117, 34041), (118, 34044), (151, 34257), (153, 34272), (185, 34548), (187, 34554), (192, 34605), (196, 34620), (201, 34641), (209, 34677), (212, 34707), (215, 34716), (216, 34719), (227, 34824), (230, 34839), (232, 34872), (237, 34896), (243, 34929), (244, 34935), (250, 34986), (255, 35004), (261, 35040), (269, 35079), (280, 35145), (282,

35184), (283, 35190), (285, 35196),

Gene: Ovechkin_19 Start: 19961, Stop: 21847, Start Num: 12

Candidate Starts for Ovechkin_19:

(9, 19940), (Start: 12 @19961 has 225 MA's), (24, 20024), (26, 20039), (27, 20042), (30, 20066), (32, 20096), (34, 20105), (36, 20123), (47, 20180), (48, 20183), (50, 20204), (51, 20207), (52, 20213), (54, 20219), (58, 20255), (59, 20258), (60, 20261), (67, 20312), (68, 20333), (69, 20339), (71, 20357), (72, 20375), (79, 20417), (81, 20426), (87, 20483), (88, 20492), (91, 20501), (110, 20603), (117, 20675), (151, 20891), (153, 20906), (185, 21182), (187, 21188), (192, 21239), (196, 21254), (201, 21275), (209, 21311), (212, 21341), (215, 21350), (216, 21353), (227, 21458), (230, 21473), (232, 21506), (237, 21530), (243, 21563), (244, 21569), (250, 21620), (255, 21638), (261, 21674), (269, 21713), (280, 21779), (282, 21818), (283, 21824), (285, 21830),

Gene: OwlsT2W_21 Start: 20314, Stop: 22203, Start Num: 12

Candidate Starts for OwlsT2W_21:

(Start: 12 @20314 has 225 MA's), (24, 20377), (37, 20494), (48, 20536), (50, 20557), (51, 20560), (60, 20614), (67, 20665), (71, 20710), (72, 20728), (74, 20740), (86, 20827), (87, 20836), (88, 20845), (91, 20854), (107, 20947), (110, 20956), (115, 21019), (117, 21028), (118, 21031), (126, 21100), (127, 21106), (153, 21259), (158, 21289), (170, 21376), (174, 21439), (179, 21508), (196, 21604), (198, 21610), (201, 21625), (207, 21637), (212, 21691), (214, 21697), (215, 21700), (216, 21703), (226, 21775), (227, 21808), (230, 21823), (232, 21856), (235, 21862), (237, 21880), (242, 21910), (243, 21913), (250, 21970), (255, 21991), (257, 21997), (266, 22054), (269, 22066), (277, 22105), (282, 22171), (283, 22177),

Gene: PBI1_31 Start: 26517, Stop: 28565, Start Num: 11

Candidate Starts for PBI1_31:

(Start: 11 @26517 has 24 MA's), (14, 26538), (51, 26787), (61, 26859), (63, 26865), (71, 26940), (75, 26976), (76, 26979), (77, 26982), (89, 27075), (90, 27078), (91, 27081), (92, 27093), (99, 27132), (100, 27135), (101, 27138), (102, 27150), (105, 27171), (117, 27258), (118, 27261), (136, 27411), (137, 27414), (141, 27447), (142, 27453), (144, 27489), (148, 27510), (161, 27591), (168, 27651), (174, 27723), (175, 27756), (177, 27783), (180, 27792), (187, 27828), (197, 27915), (201, 27930), (213, 28035), (214, 28038), (225, 28113), (228, 28164), (236, 28224), (246, 28296), (253, 28353), (254, 28359), (256, 28365), (275, 28458), (280, 28494),

Gene: PHappiness_19 Start: 19912, Stop: 21801, Start Num: 12

Candidate Starts for PHappiness_19:

(9, 19891), (Start: 12 @19912 has 225 MA's), (24, 19975), (26, 19990), (30, 20017), (32, 20047), (34, 20056), (36, 20074), (47, 20131), (48, 20134), (50, 20155), (51, 20158), (52, 20164), (54, 20170), (58, 20206), (59, 20209), (60, 20212), (67, 20263), (68, 20284), (69, 20290), (71, 20308), (72, 20326), (79, 20368), (87, 20434), (88, 20443), (91, 20452), (110, 20554), (117, 20626), (118, 20629), (126, 20698), (127, 20704), (144, 20800), (151, 20842), (153, 20857), (172, 21013), (185, 21133), (187, 21139), (196, 21205), (201, 21226), (207, 21238), (212, 21292), (215, 21301), (216, 21304), (230, 21424), (232, 21457), (235, 21463), (242, 21511), (244, 21520), (250, 21571), (252, 21577), (255, 21592), (258, 21604), (266, 21655), (269, 21667), (275, 21697), (276, 21700), (277, 21706), (282, 21772), (283, 21778),

Gene: PLOT_32 Start: 26589, Stop: 28637, Start Num: 11

Candidate Starts for PLOT_32:

(Start: 11 @26589 has 24 MA's), (14, 26610), (51, 26859), (61, 26931), (63, 26937), (71, 27012), (75, 27048), (76, 27051), (77, 27054), (89, 27147), (90, 27150), (91, 27153), (92, 27165), (99, 27204), (100, 27207), (101, 27210), (102, 27222), (105, 27243), (117, 27330), (118, 27333), (136, 27483), (137, 27486), (141, 27519), (142, 27525), (144, 27561), (148, 27582), (161, 27663), (168, 27723), (174, 27795), (175, 27828), (177, 27855), (180, 27864), (187, 27900), (197, 27987), (201, 28002), (213,

28107), (214, 28110), (225, 28185), (228, 28236), (236, 28296), (246, 28368), (253, 28425), (254, 28431), (256, 28437), (275, 28530), (280, 28566),

Gene: PMC_19 Start: 19917, Stop: 21803, Start Num: 12

Candidate Starts for PMC_19:

(9, 19896), (Start: 12 @19917 has 225 MA's), (24, 19980), (26, 19995), (30, 20022), (32, 20052), (34, 20061), (36, 20079), (47, 20136), (48, 20139), (50, 20160), (51, 20163), (52, 20169), (54, 20175), (58, 20211), (59, 20214), (60, 20217), (67, 20268), (68, 20289), (69, 20295), (71, 20313), (72, 20331), (79, 20373), (81, 20382), (87, 20439), (88, 20448), (91, 20457), (110, 20559), (117, 20631), (151, 20847), (153, 20862), (185, 21138), (187, 21144), (192, 21195), (196, 21210), (201, 21231), (209, 21267), (212, 21297), (215, 21306), (216, 21309), (230, 21429), (232, 21462), (237, 21486), (243, 21519), (244, 21525), (250, 21576), (255, 21594), (261, 21630), (269, 21669), (280, 21735), (282, 21774), (283, 21780), (285, 21786),

Gene: Pacc40_19 Start: 20102, Stop: 21991, Start Num: 12

Candidate Starts for Pacc40_19:

(9, 20081), (Start: 12 @20102 has 225 MA's), (24, 20165), (26, 20180), (30, 20207), (32, 20237), (34, 20246), (36, 20264), (47, 20321), (48, 20324), (50, 20345), (51, 20348), (52, 20354), (54, 20360), (58, 20396), (59, 20399), (60, 20402), (67, 20453), (68, 20474), (69, 20480), (71, 20498), (72, 20516), (79, 20558), (87, 20624), (88, 20633), (91, 20642), (110, 20744), (117, 20816), (118, 20819), (126, 20888), (127, 20894), (144, 20990), (151, 21032), (153, 21047), (172, 21203), (185, 21323), (187, 21329), (196, 21395), (201, 21416), (207, 21428), (212, 21482), (215, 21491), (216, 21494), (230, 21614), (232, 21647), (235, 21653), (242, 21701), (244, 21710), (250, 21761), (252, 21767), (255, 21782), (258, 21794), (266, 21845), (269, 21857), (275, 21887), (276, 21890), (277, 21896), (282, 21962), (283, 21968),

Gene: Papyrus_31 Start: 27793, Stop: 29748, Start Num: 12

Candidate Starts for Papyrus_31:

(Start: 12 @27793 has 225 MA's), (13, 27799), (25, 27865), (26, 27871), (30, 27898), (39, 27982), (43, 27994), (44, 28000), (46, 28009), (48, 28018), (56, 28078), (62, 28114), (65, 28141), (68, 28165), (69, 28171), (84, 28300), (87, 28333), (88, 28342), (90, 28348), (91, 28351), (101, 28408), (112, 28471), (117, 28528), (119, 28534), (122, 28567), (123, 28570), (127, 28600), (131, 28633), (148, 28753), (151, 28774), (157, 28813), (159, 28825), (163, 28843), (174, 28948), (181, 29023), (188, 29062), (191, 29080), (193, 29110), (207, 29179), (212, 29233), (214, 29239), (222, 29299), (232, 29401), (242, 29458), (246, 29479), (250, 29518), (258, 29551), (275, 29644), (285, 29731),

Gene: PatoPoderoso_19 Start: 19971, Stop: 21857, Start Num: 12

Candidate Starts for PatoPoderoso_19:

(9, 19950), (Start: 12 @19971 has 225 MA's), (24, 20034), (26, 20049), (27, 20052), (30, 20076), (32, 20106), (34, 20115), (36, 20133), (47, 20190), (48, 20193), (50, 20214), (51, 20217), (52, 20223), (54, 20229), (58, 20265), (59, 20268), (60, 20271), (67, 20322), (68, 20343), (69, 20349), (71, 20367), (72, 20385), (79, 20427), (81, 20436), (87, 20493), (88, 20502), (91, 20511), (110, 20613), (117, 20685), (151, 20901), (153, 20916), (172, 21072), (185, 21192), (187, 21198), (192, 21249), (196, 21264), (201, 21285), (209, 21321), (212, 21351), (215, 21360), (216, 21363), (230, 21483), (232, 21516), (237, 21540), (243, 21573), (244, 21579), (250, 21630), (255, 21648), (261, 21684), (269, 21723), (280, 21789), (282, 21828), (283, 21834), (285, 21840),

Gene: Penelope2018_31 Start: 26586, Stop: 28634, Start Num: 11

Candidate Starts for Penelope2018_31:

(Start: 11 @26586 has 24 MA's), (14, 26607), (51, 26856), (61, 26928), (63, 26934), (71, 27009), (75, 27045), (76, 27048), (77, 27051), (89, 27144), (90, 27147), (91, 27150), (92, 27162), (99, 27201), (100, 27204), (101, 27207), (102, 27219), (105, 27240), (117, 27327), (118, 27330), (136, 27480), (137, 27483), (141, 27516), (142, 27522), (144, 27558), (148, 27579), (161, 27660), (168, 27720), (174,

27792), (175, 27825), (177, 27852), (180, 27861), (187, 27897), (197, 27984), (201, 27999), (213, 28104), (214, 28107), (225, 28182), (226, 28194), (228, 28233), (236, 28293), (246, 28365), (253, 28422), (254, 28428), (256, 28434), (275, 28527), (280, 28563),

Gene: Peridot_21 Start: 19743, Stop: 21629, Start Num: 12

Candidate Starts for Peridot_21:

(Start: 12 @19743 has 225 MA's), (24, 19806), (26, 19821), (27, 19824), (30, 19848), (32, 19878), (34, 19887), (36, 19905), (47, 19962), (48, 19965), (50, 19986), (51, 19989), (52, 19995), (54, 20001), (58, 20037), (59, 20040), (60, 20043), (67, 20094), (68, 20115), (69, 20121), (71, 20139), (72, 20157), (79, 20199), (81, 20208), (87, 20265), (88, 20274), (91, 20283), (110, 20385), (117, 20457), (151, 20673), (153, 20688), (185, 20964), (187, 20970), (192, 21021), (196, 21036), (201, 21057), (209, 21093), (212, 21123), (215, 21132), (216, 21135), (227, 21240), (230, 21255), (232, 21288), (237, 21312), (243, 21345), (244, 21351), (250, 21402), (255, 21420), (261, 21456), (269, 21495), (280, 21561), (282, 21600), (283, 21606), (285, 21612),

Gene: Phalaborwa_31 Start: 26613, Stop: 28658, Start Num: 11

Candidate Starts for Phalaborwa_31:

(Start: 11 @26613 has 24 MA's), (14, 26634), (29, 26721), (42, 26832), (51, 26883), (63, 26961), (71, 27036), (75, 27072), (76, 27075), (77, 27078), (89, 27171), (90, 27174), (91, 27177), (92, 27189), (101, 27234), (102, 27246), (105, 27267), (117, 27354), (118, 27357), (130, 27456), (134, 27489), (137, 27510), (141, 27543), (142, 27549), (144, 27585), (148, 27606), (153, 27642), (161, 27687), (168, 27747), (174, 27819), (175, 27852), (177, 27879), (187, 27924), (201, 28026), (213, 28128), (214, 28131), (225, 28206), (229, 28260), (233, 28305), (234, 28308), (242, 28368), (253, 28446), (254, 28452), (270, 28527), (274, 28548),

Gene: Phalconet_19 Start: 19976, Stop: 21862, Start Num: 12

Candidate Starts for Phalconet_19:

(9, 19955), (Start: 12 @19976 has 225 MA's), (24, 20039), (26, 20054), (27, 20057), (30, 20081), (32, 20111), (34, 20120), (36, 20138), (47, 20195), (48, 20198), (50, 20219), (51, 20222), (52, 20228), (54, 20234), (58, 20270), (59, 20273), (60, 20276), (67, 20327), (68, 20348), (69, 20354), (71, 20372), (72, 20390), (79, 20432), (87, 20498), (88, 20507), (91, 20516), (110, 20618), (117, 20690), (151, 20906), (153, 20921), (185, 21197), (187, 21203), (192, 21254), (196, 21269), (201, 21290), (209, 21326), (212, 21356), (215, 21365), (216, 21368), (230, 21488), (232, 21521), (237, 21545), (243, 21578), (244, 21584), (250, 21635), (255, 21653), (261, 21689), (269, 21728), (280, 21794), (282, 21833), (283, 21839), (285, 21845),

Gene: Phasih_20 Start: 20473, Stop: 22359, Start Num: 12

Candidate Starts for Phasih_20:

(Start: 12 @20473 has 225 MA's), (24, 20536), (26, 20551), (27, 20554), (30, 20578), (32, 20608), (34, 20617), (36, 20635), (47, 20692), (48, 20695), (50, 20716), (51, 20719), (52, 20725), (54, 20731), (58, 20767), (59, 20770), (60, 20773), (67, 20824), (68, 20845), (69, 20851), (71, 20869), (72, 20887), (79, 20929), (81, 20938), (87, 20995), (88, 21004), (91, 21013), (110, 21115), (117, 21187), (118, 21190), (126, 21259), (139, 21325), (144, 21361), (151, 21403), (153, 21418), (185, 21694), (187, 21700), (192, 21751), (196, 21766), (201, 21787), (209, 21823), (212, 21853), (215, 21862), (216, 21865), (230, 21985), (232, 22018), (237, 22042), (243, 22075), (244, 22081), (250, 22132), (255, 22150), (261, 22186), (269, 22225), (280, 22291), (282, 22330), (283, 22336), (285, 22342),

Gene: Phatniss_20 Start: 20435, Stop: 22321, Start Num: 12

Candidate Starts for Phatniss_20:

(Start: 12 @20435 has 225 MA's), (24, 20498), (26, 20513), (30, 20540), (32, 20570), (34, 20579), (36, 20597), (47, 20654), (48, 20657), (50, 20678), (51, 20681), (52, 20687), (54, 20693), (58, 20729), (59, 20732), (60, 20735), (67, 20786), (68, 20807), (69, 20813), (71, 20831), (72, 20849), (79, 20891), (81, 20900), (87, 20957), (88, 20966), (91, 20975), (110, 21077), (117, 21149), (151, 21365), (153, 21380),

(185, 21656), (187, 21662), (192, 21713), (196, 21728), (201, 21749), (209, 21785), (212, 21815), (215, 21824), (216, 21827), (227, 21932), (230, 21947), (232, 21980), (237, 22004), (243, 22037), (244, 22043), (250, 22094), (255, 22112), (261, 22148), (269, 22187), (280, 22253), (282, 22292), (283, 22298), (285, 22304),

Gene: PhesterPhotato_19 Start: 19953, Stop: 21839, Start Num: 12

Candidate Starts for PhesterPhotato_19:

(9, 19932), (Start: 12 @19953 has 225 MA's), (24, 20016), (26, 20031), (27, 20034), (30, 20058), (32, 20088), (34, 20097), (36, 20115), (47, 20172), (48, 20175), (50, 20196), (51, 20199), (52, 20205), (54, 20211), (58, 20247), (59, 20250), (60, 20253), (67, 20304), (68, 20325), (69, 20331), (71, 20349), (72, 20367), (79, 20409), (87, 20475), (88, 20484), (91, 20493), (110, 20595), (117, 20667), (151, 20883), (153, 20898), (185, 21174), (187, 21180), (192, 21231), (196, 21246), (201, 21267), (209, 21303), (212, 21333), (215, 21342), (216, 21345), (227, 21450), (230, 21465), (232, 21498), (237, 21522), (243, 21555), (244, 21561), (250, 21612), (255, 21630), (269, 21705), (280, 21771), (282, 21810), (283, 21816), (285, 21822),

Gene: Philus_19 Start: 19939, Stop: 21825, Start Num: 12

Candidate Starts for Philus_19:

(9, 19918), (Start: 12 @19939 has 225 MA's), (Start: 16 @19960 has 1 MA's), (24, 20002), (32, 20074), (36, 20101), (37, 20119), (48, 20161), (51, 20185), (60, 20239), (65, 20284), (67, 20290), (68, 20311), (71, 20335), (72, 20353), (74, 20365), (86, 20452), (87, 20461), (88, 20470), (91, 20479), (107, 20572), (110, 20581), (115, 20644), (117, 20653), (118, 20656), (127, 20731), (153, 20884), (158, 20914), (170, 21001), (174, 21064), (179, 21133), (196, 21229), (198, 21235), (201, 21250), (207, 21262), (212, 21316), (214, 21322), (215, 21325), (216, 21328), (230, 21448), (232, 21481), (235, 21487), (242, 21535), (244, 21544), (250, 21595), (252, 21601), (255, 21616), (266, 21679), (275, 21721), (276, 21724), (277, 21730), (282, 21796), (283, 21802), (285, 21808),

Gene: PhlipPhlop_19 Start: 19886, Stop: 21772, Start Num: 12

Candidate Starts for PhlipPhlop_19:

(Start: 12 @19886 has 225 MA's), (24, 19949), (26, 19964), (27, 19967), (30, 19991), (32, 20021), (34, 20030), (36, 20048), (47, 20105), (48, 20108), (50, 20129), (51, 20132), (52, 20138), (54, 20144), (58, 20180), (59, 20183), (60, 20186), (67, 20237), (68, 20258), (69, 20264), (71, 20282), (72, 20300), (79, 20342), (81, 20351), (87, 20408), (88, 20417), (91, 20426), (110, 20528), (117, 20600), (151, 20816), (153, 20831), (185, 21107), (187, 21113), (192, 21164), (196, 21179), (201, 21200), (209, 21236), (212, 21266), (215, 21275), (216, 21278), (227, 21383), (230, 21398), (232, 21431), (237, 21455), (243, 21488), (244, 21494), (250, 21545), (255, 21563), (261, 21599), (269, 21638), (280, 21704), (282, 21743), (283, 21749), (285, 21755),

Gene: Piper2020_20 Start: 19792, Stop: 21672, Start Num: 12

Candidate Starts for Piper2020_20:

(Start: 12 @19792 has 225 MA's), (23, 19852), (27, 19873), (36, 19954), (47, 20011), (48, 20014), (50, 20035), (54, 20050), (60, 20092), (67, 20143), (71, 20188), (72, 20206), (79, 20248), (87, 20314), (88, 20323), (91, 20332), (110, 20434), (117, 20506), (127, 20584), (144, 20680), (151, 20722), (153, 20737), (155, 20743), (170, 20857), (172, 20893), (187, 21019), (192, 21070), (196, 21085), (208, 21127), (212, 21172), (223, 21241), (225, 21247), (226, 21256), (227, 21289), (230, 21304), (237, 21361), (243, 21394), (250, 21451), (255, 21469), (257, 21475), (264, 21514), (266, 21526), (269, 21538), (277, 21577), (282, 21643), (283, 21649),

Gene: Plumbus_20 Start: 19760, Stop: 21646, Start Num: 12

Candidate Starts for Plumbus_20:

(Start: 12 @19760 has 225 MA's), (24, 19823), (26, 19838), (27, 19841), (30, 19865), (32, 19895), (34, 19904), (36, 19922), (47, 19979), (48, 19982), (50, 20003), (51, 20006), (52, 20012), (54, 20018), (58, 20054), (59, 20057), (67, 20111), (68, 20132), (69, 20138), (71, 20156), (72, 20174), (79, 20216), (87,

20282), (88, 20291), (91, 20300), (110, 20402), (117, 20474), (118, 20477), (144, 20648), (151, 20690), (153, 20705), (172, 20861), (185, 20981), (187, 20987), (192, 21038), (196, 21053), (201, 21074), (209, 21110), (212, 21140), (215, 21149), (216, 21152), (227, 21257), (230, 21272), (232, 21305), (237, 21329), (243, 21362), (244, 21368), (250, 21419), (255, 21437), (269, 21512), (280, 21578), (282, 21617), (283, 21623), (285, 21629),

Gene: Poenanya_19 Start: 20068, Stop: 21954, Start Num: 12

Candidate Starts for Poenanya_19:

(Start: 12 @20068 has 225 MA's), (24, 20131), (26, 20146), (27, 20149), (30, 20173), (32, 20203), (34, 20212), (36, 20230), (47, 20287), (48, 20290), (50, 20311), (51, 20314), (52, 20320), (54, 20326), (58, 20362), (59, 20365), (60, 20368), (67, 20419), (68, 20440), (69, 20446), (71, 20464), (72, 20482), (79, 20524), (87, 20590), (88, 20599), (91, 20608), (110, 20710), (117, 20782), (118, 20785), (151, 20998), (153, 21013), (185, 21289), (187, 21295), (192, 21346), (196, 21361), (201, 21382), (209, 21418), (212, 21448), (215, 21457), (216, 21460), (227, 21565), (230, 21580), (232, 21613), (237, 21637), (243, 21670), (244, 21676), (250, 21727), (255, 21745), (261, 21781), (269, 21820), (280, 21886), (282, 21925), (283, 21931), (285, 21937),

Gene: Polka14_20 Start: 20474, Stop: 22363, Start Num: 12

Candidate Starts for Polka14_20:

(9, 20453), (Start: 12 @20474 has 225 MA's), (24, 20537), (26, 20552), (30, 20579), (32, 20609), (34, 20618), (36, 20636), (47, 20693), (48, 20696), (50, 20717), (51, 20720), (52, 20726), (54, 20732), (58, 20768), (59, 20771), (60, 20774), (67, 20825), (68, 20846), (69, 20852), (71, 20870), (72, 20888), (79, 20930), (87, 20996), (88, 21005), (91, 21014), (110, 21116), (117, 21188), (118, 21191), (144, 21362), (151, 21404), (153, 21419), (172, 21575), (185, 21695), (187, 21701), (196, 21767), (201, 21788), (207, 21800), (212, 21854), (215, 21863), (216, 21866), (230, 21986), (232, 22019), (235, 22025), (242, 22073), (244, 22082), (250, 22133), (252, 22139), (255, 22154), (258, 22166), (266, 22217), (269, 22229), (275, 22259), (276, 22262), (277, 22268), (282, 22334), (283, 22340),

Gene: Polo2Bam_21 Start: 19980, Stop: 21866, Start Num: 12

Candidate Starts for Polo2Bam_21:

(Start: 12 @19980 has 225 MA's), (24, 20043), (26, 20058), (27, 20061), (30, 20085), (32, 20115), (34, 20124), (36, 20142), (47, 20199), (48, 20202), (50, 20223), (51, 20226), (52, 20232), (54, 20238), (58, 20274), (59, 20277), (60, 20280), (67, 20331), (68, 20352), (69, 20358), (71, 20376), (72, 20394), (87, 20502), (88, 20511), (91, 20520), (110, 20622), (117, 20694), (144, 20868), (151, 20910), (153, 20925), (155, 20931), (185, 21201), (187, 21207), (192, 21258), (196, 21273), (201, 21294), (209, 21330), (212, 21360), (215, 21369), (216, 21372), (230, 21492), (232, 21525), (237, 21549), (243, 21582), (244, 21588), (250, 21639), (255, 21657), (257, 21663), (269, 21732), (280, 21798), (282, 21837), (283, 21843), (285, 21849),

Gene: PopTart_19 Start: 19979, Stop: 21865, Start Num: 12

Candidate Starts for PopTart_19:

(Start: 12 @19979 has 225 MA's), (24, 20042), (26, 20057), (27, 20060), (30, 20084), (32, 20114), (34, 20123), (36, 20141), (47, 20198), (48, 20201), (50, 20222), (51, 20225), (52, 20231), (54, 20237), (58, 20273), (59, 20276), (67, 20330), (68, 20351), (69, 20357), (71, 20375), (72, 20393), (79, 20435), (87, 20501), (88, 20510), (91, 20519), (110, 20621), (117, 20693), (151, 20909), (153, 20924), (172, 21080), (185, 21200), (187, 21206), (192, 21257), (196, 21272), (201, 21293), (209, 21329), (212, 21359), (215, 21368), (216, 21371), (227, 21476), (230, 21491), (232, 21524), (237, 21548), (243, 21581), (244, 21587), (250, 21638), (261, 21692), (269, 21731), (280, 21797), (282, 21836), (283, 21842), (285, 21848),

Gene: Prager_31 Start: 26598, Stop: 28646, Start Num: 11

Candidate Starts for Prager_31:

(Start: 11 @26598 has 24 MA's), (14, 26619), (51, 26868), (61, 26940), (63, 26946), (71, 27021), (75, 27057), (76, 27060), (77, 27063), (89, 27156), (90, 27159), (91, 27162), (92, 27174), (99, 27213), (100, 27216), (101, 27219), (102, 27231), (105, 27252), (117, 27339), (118, 27342), (136, 27492), (137, 27495), (141, 27528), (142, 27534), (144, 27570), (148, 27591), (161, 27672), (168, 27732), (174, 27804), (175, 27837), (180, 27873), (187, 27909), (197, 27996), (201, 28011), (213, 28116), (214, 28119), (225, 28194), (226, 28206), (228, 28245), (236, 28305), (246, 28377), (253, 28434), (254, 28440), (256, 28446), (275, 28539), (280, 28575),

Gene: Priscilla_19 Start: 19956, Stop: 21845, Start Num: 12

Candidate Starts for Priscilla_19:

(Start: 12 @19956 has 225 MA's), (24, 20019), (37, 20136), (48, 20178), (50, 20199), (51, 20202), (60, 20256), (67, 20307), (71, 20352), (72, 20370), (74, 20382), (86, 20469), (87, 20478), (88, 20487), (91, 20496), (107, 20589), (110, 20598), (115, 20661), (117, 20670), (118, 20673), (126, 20742), (127, 20748), (153, 20901), (158, 20931), (170, 21018), (174, 21081), (179, 21150), (196, 21246), (198, 21252), (201, 21267), (207, 21279), (212, 21333), (214, 21339), (215, 21342), (216, 21345), (226, 21417), (227, 21450), (230, 21465), (232, 21498), (235, 21504), (237, 21522), (242, 21552), (243, 21555), (250, 21612), (255, 21633), (257, 21639), (264, 21684), (266, 21696), (269, 21708), (276, 21741), (277, 21747), (280, 21774), (282, 21813), (283, 21819),

Gene: QuickMath_20 Start: 21277, Stop: 23163, Start Num: 12

Candidate Starts for QuickMath_20:

(9, 21256), (Start: 12 @21277 has 225 MA's), (24, 21340), (26, 21355), (27, 21358), (30, 21382), (32, 21412), (34, 21421), (36, 21439), (47, 21496), (48, 21499), (50, 21520), (51, 21523), (52, 21529), (54, 21535), (58, 21571), (59, 21574), (60, 21577), (67, 21628), (68, 21649), (69, 21655), (71, 21673), (72, 21691), (87, 21799), (88, 21808), (91, 21817), (110, 21919), (117, 21991), (151, 22207), (153, 22222), (185, 22498), (187, 22504), (192, 22555), (196, 22570), (201, 22591), (209, 22627), (212, 22657), (215, 22666), (216, 22669), (230, 22789), (232, 22822), (237, 22846), (243, 22879), (244, 22885), (250, 22936), (255, 22954), (261, 22990), (269, 23029), (280, 23095), (282, 23134), (283, 23140), (285, 23146),

Gene: Quico_20 Start: 19761, Stop: 21647, Start Num: 12

Candidate Starts for Quico_20:

(Start: 12 @19761 has 225 MA's), (24, 19824), (26, 19839), (27, 19842), (30, 19866), (32, 19896), (34, 19905), (36, 19923), (48, 19983), (51, 20007), (60, 20061), (65, 20106), (67, 20112), (71, 20157), (72, 20175), (74, 20187), (86, 20274), (87, 20283), (88, 20292), (91, 20301), (107, 20394), (110, 20403), (115, 20466), (117, 20475), (118, 20478), (126, 20547), (127, 20553), (153, 20706), (158, 20736), (170, 20823), (174, 20886), (179, 20955), (196, 21051), (198, 21057), (201, 21072), (207, 21084), (212, 21138), (214, 21144), (215, 21147), (216, 21150), (230, 21270), (232, 21303), (235, 21309), (242, 21357), (244, 21366), (250, 21417), (252, 21423), (255, 21438), (266, 21501), (275, 21543), (276, 21546), (277, 21552), (282, 21618), (283, 21624), (285, 21630),

Gene: Radiance_19 Start: 19914, Stop: 21800, Start Num: 12

Candidate Starts for Radiance_19:

(9, 19893), (Start: 12 @19914 has 225 MA's), (24, 19977), (26, 19992), (30, 20019), (32, 20049), (34, 20058), (36, 20076), (47, 20133), (48, 20136), (50, 20157), (51, 20160), (52, 20166), (54, 20172), (58, 20208), (59, 20211), (60, 20214), (67, 20265), (68, 20286), (69, 20292), (71, 20310), (72, 20328), (79, 20370), (87, 20436), (88, 20445), (91, 20454), (110, 20556), (117, 20628), (118, 20631), (151, 20844), (153, 20859), (185, 21135), (187, 21141), (192, 21192), (196, 21207), (201, 21228), (209, 21264), (212, 21294), (215, 21303), (216, 21306), (230, 21426), (232, 21459), (237, 21483), (243, 21516), (244, 21522), (250, 21573), (255, 21591), (261, 21627), (269, 21666), (280, 21732), (282, 21771), (283, 21777), (285, 21783),

Gene: Ramsey_20 Start: 19963, Stop: 21849, Start Num: 12

Candidate Starts for Ramsey_20:

(9, 19942), (Start: 12 @19963 has 225 MA's), (24, 20026), (26, 20041), (30, 20068), (32, 20098), (34, 20107), (36, 20125), (47, 20182), (48, 20185), (50, 20206), (51, 20209), (54, 20221), (58, 20257), (59, 20260), (60, 20263), (67, 20314), (68, 20335), (69, 20341), (71, 20359), (72, 20377), (79, 20419), (87, 20485), (88, 20494), (91, 20503), (110, 20605), (117, 20677), (118, 20680), (126, 20749), (127, 20755), (151, 20893), (153, 20908), (185, 21184), (187, 21190), (192, 21241), (196, 21256), (201, 21277), (209, 21313), (212, 21343), (215, 21352), (216, 21355), (227, 21460), (230, 21475), (232, 21508), (237, 21532), (243, 21565), (244, 21571), (250, 21622), (255, 21640), (261, 21676), (269, 21715), (280, 21781), (282, 21820), (283, 21826), (285, 21832),

Gene: RedBird_19 Start: 19891, Stop: 21777, Start Num: 12

Candidate Starts for RedBird_19:

(Start: 12 @19891 has 225 MA's), (24, 19954), (26, 19969), (30, 19996), (32, 20026), (34, 20035), (36, 20053), (47, 20110), (48, 20113), (50, 20134), (51, 20137), (54, 20149), (58, 20185), (59, 20188), (60, 20191), (67, 20242), (68, 20263), (69, 20269), (71, 20287), (72, 20305), (79, 20347), (87, 20413), (88, 20422), (91, 20431), (110, 20533), (117, 20605), (151, 20821), (153, 20836), (172, 20992), (185, 21112), (187, 21118), (192, 21169), (196, 21184), (201, 21205), (209, 21241), (211, 21268), (212, 21271), (215, 21280), (216, 21283), (230, 21403), (232, 21436), (237, 21460), (243, 21493), (244, 21499), (250, 21550), (255, 21568), (261, 21604), (269, 21643), (280, 21709), (282, 21748), (283, 21754), (285, 21760),

Gene: Rialto_21 Start: 20443, Stop: 22329, Start Num: 12

Candidate Starts for Rialto_21:

(Start: 12 @20443 has 225 MA's), (24, 20506), (26, 20521), (27, 20524), (30, 20548), (32, 20578), (34, 20587), (36, 20605), (47, 20662), (48, 20665), (50, 20686), (51, 20689), (52, 20695), (54, 20701), (58, 20737), (59, 20740), (60, 20743), (67, 20794), (68, 20815), (69, 20821), (71, 20839), (72, 20857), (79, 20899), (81, 20908), (87, 20965), (88, 20974), (91, 20983), (110, 21085), (117, 21157), (151, 21373), (153, 21388), (185, 21664), (187, 21670), (192, 21721), (196, 21736), (201, 21757), (209, 21793), (212, 21823), (215, 21832), (216, 21835), (227, 21940), (230, 21955), (232, 21988), (237, 22012), (243, 22045), (244, 22051), (250, 22102), (255, 22120), (261, 22156), (269, 22195), (280, 22261), (282, 22300), (283, 22306), (285, 22312),

Gene: Riparian_31 Start: 27595, Stop: 29550, Start Num: 12

Candidate Starts for Riparian_31:

(Start: 12 @27595 has 225 MA's), (13, 27601), (25, 27667), (30, 27700), (39, 27784), (43, 27796), (44, 27802), (46, 27811), (48, 27820), (56, 27880), (62, 27916), (65, 27943), (68, 27967), (69, 27973), (84, 28102), (87, 28135), (88, 28144), (90, 28150), (91, 28153), (101, 28210), (112, 28273), (117, 28330), (119, 28336), (122, 28369), (123, 28372), (127, 28402), (131, 28435), (148, 28555), (151, 28576), (157, 28615), (159, 28627), (163, 28645), (174, 28750), (181, 28825), (188, 28864), (191, 28882), (193, 28912), (207, 28981), (212, 29035), (214, 29041), (222, 29101), (232, 29203), (242, 29260), (246, 29281), (250, 29320), (258, 29353), (275, 29446), (285, 29533),

Gene: Rita_19 Start: 19944, Stop: 21830, Start Num: 12

Candidate Starts for Rita_19:

(9, 19923), (Start: 12 @19944 has 225 MA's), (24, 20007), (26, 20022), (27, 20025), (30, 20049), (32, 20079), (34, 20088), (36, 20106), (47, 20163), (48, 20166), (50, 20187), (51, 20190), (52, 20196), (54, 20202), (58, 20238), (59, 20241), (60, 20244), (67, 20295), (68, 20316), (69, 20322), (71, 20340), (72, 20358), (79, 20400), (87, 20466), (88, 20475), (91, 20484), (110, 20586), (117, 20658), (144, 20832), (151, 20874), (153, 20889), (155, 20895), (185, 21165), (187, 21171), (192, 21222), (196, 21237), (201, 21258), (209, 21294), (212, 21324), (215, 21333), (216, 21336), (230, 21456), (232, 21489), (237, 21513), (243, 21546), (244, 21552), (250, 21603), (255, 21621), (261, 21657), (269, 21696), (280, 21762), (282, 21801), (283, 21807), (285, 21813),

Gene: RitaG_19 Start: 20088, Stop: 21977, Start Num: 12

Candidate Starts for RitaG_19:

(9, 20067), (Start: 12 @20088 has 225 MA's), (Start: 16 @20109 has 1 MA's), (18, 20130), (24, 20151), (26, 20166), (36, 20250), (37, 20268), (48, 20310), (50, 20331), (51, 20334), (60, 20388), (67, 20439), (71, 20484), (72, 20502), (74, 20514), (86, 20601), (87, 20610), (88, 20619), (91, 20628), (107, 20721), (110, 20730), (115, 20793), (117, 20802), (118, 20805), (126, 20874), (127, 20880), (153, 21033), (158, 21063), (170, 21150), (174, 21213), (179, 21282), (196, 21378), (198, 21384), (201, 21399), (207, 21411), (212, 21465), (214, 21471), (215, 21474), (216, 21477), (226, 21549), (227, 21582), (230, 21597), (232, 21630), (235, 21636), (237, 21654), (242, 21684), (243, 21687), (247, 21711), (250, 21744), (255, 21765), (257, 21771), (258, 21777), (266, 21828), (269, 21840), (275, 21870), (276, 21873), (277, 21879), (280, 21906), (282, 21945), (283, 21951),

Gene: Rockne_19 Start: 19917, Stop: 21803, Start Num: 12

Candidate Starts for Rockne_19:

(9, 19896), (Start: 12 @19917 has 225 MA's), (24, 19980), (26, 19995), (30, 20022), (32, 20052), (34, 20061), (36, 20079), (47, 20136), (48, 20139), (50, 20160), (51, 20163), (52, 20169), (54, 20175), (58, 20211), (59, 20214), (60, 20217), (67, 20268), (68, 20289), (69, 20295), (71, 20313), (72, 20331), (79, 20373), (81, 20382), (87, 20439), (88, 20448), (91, 20457), (110, 20559), (117, 20631), (151, 20847), (153, 20862), (185, 21138), (187, 21144), (192, 21195), (196, 21210), (201, 21231), (209, 21267), (212, 21297), (215, 21306), (216, 21309), (230, 21429), (232, 21462), (237, 21486), (243, 21519), (244, 21525), (250, 21576), (255, 21594), (261, 21630), (269, 21669), (280, 21735), (282, 21774), (283, 21780), (285, 21786),

Gene: RockyHorror_20 Start: 19792, Stop: 21681, Start Num: 12

Candidate Starts for RockyHorror_20:

(Start: 12 @19792 has 225 MA's), (24, 19855), (26, 19870), (30, 19897), (32, 19927), (34, 19936), (36, 19954), (47, 20011), (48, 20014), (50, 20035), (51, 20038), (54, 20050), (58, 20086), (59, 20089), (60, 20092), (67, 20143), (68, 20164), (69, 20170), (71, 20188), (72, 20206), (79, 20248), (87, 20314), (88, 20323), (91, 20332), (110, 20434), (117, 20506), (118, 20509), (126, 20578), (127, 20584), (144, 20680), (151, 20722), (153, 20737), (172, 20893), (185, 21013), (187, 21019), (196, 21085), (201, 21106), (207, 21118), (212, 21172), (215, 21181), (216, 21184), (220, 21214), (230, 21304), (232, 21337), (235, 21343), (242, 21391), (244, 21400), (250, 21451), (252, 21457), (255, 21472), (258, 21484), (266, 21535), (269, 21547), (275, 21577), (276, 21580), (277, 21586), (282, 21652), (283, 21658),

Gene: Rope_31 Start: 27775, Stop: 29730, Start Num: 12

Candidate Starts for Rope_31:

(Start: 12 @27775 has 225 MA's), (13, 27781), (25, 27847), (26, 27853), (30, 27880), (39, 27964), (43, 27976), (44, 27982), (46, 27991), (48, 28000), (56, 28060), (62, 28096), (65, 28123), (68, 28147), (69, 28153), (84, 28282), (87, 28315), (88, 28324), (90, 28330), (91, 28333), (101, 28390), (112, 28453), (117, 28510), (119, 28516), (122, 28549), (123, 28552), (127, 28582), (131, 28615), (148, 28735), (151, 28756), (159, 28807), (163, 28825), (174, 28930), (181, 29005), (188, 29044), (191, 29062), (193, 29092), (207, 29161), (212, 29215), (214, 29221), (222, 29281), (232, 29383), (242, 29440), (246, 29461), (250, 29500), (258, 29533), (275, 29626), (285, 29713),

Gene: Royals2015_19 Start: 19945, Stop: 21834, Start Num: 12

Candidate Starts for Royals2015_19:

(Start: 12 @19945 has 225 MA's), (24, 20008), (26, 20023), (30, 20050), (32, 20080), (34, 20089), (36, 20107), (48, 20167), (50, 20188), (51, 20191), (60, 20245), (67, 20296), (71, 20341), (72, 20359), (74, 20371), (86, 20458), (87, 20467), (88, 20476), (91, 20485), (107, 20578), (110, 20587), (115, 20650), (117, 20659), (118, 20662), (126, 20731), (127, 20737), (153, 20890), (158, 20920), (170, 21007), (174, 21070), (179, 21139), (196, 21235), (198, 21241), (201, 21256), (207, 21268), (212, 21322), (214, 21328), (215, 21331), (216, 21334), (226, 21406), (227, 21439), (230, 21454), (232, 21487),

(235, 21493), (237, 21511), (242, 21541), (243, 21544), (247, 21568), (250, 21601), (255, 21622), (257, 21628), (258, 21634), (264, 21673), (266, 21685), (269, 21697), (275, 21727), (276, 21730), (277, 21736), (280, 21763), (282, 21802), (283, 21808),

Gene: Ruby_19 Start: 19905, Stop: 21791, Start Num: 12

Candidate Starts for Ruby_19:

(Start: 12 @19905 has 225 MA's), (24, 19968), (26, 19983), (27, 19986), (30, 20010), (32, 20040), (34, 20049), (36, 20067), (47, 20124), (48, 20127), (50, 20148), (51, 20151), (52, 20157), (54, 20163), (58, 20199), (59, 20202), (60, 20205), (67, 20256), (68, 20277), (69, 20283), (71, 20301), (72, 20319), (79, 20361), (81, 20370), (87, 20427), (88, 20436), (91, 20445), (110, 20547), (117, 20619), (118, 20622), (126, 20691), (139, 20757), (144, 20793), (151, 20835), (153, 20850), (185, 21126), (187, 21132), (192, 21183), (196, 21198), (201, 21219), (209, 21255), (212, 21285), (215, 21294), (216, 21297), (230, 21417), (232, 21450), (237, 21474), (243, 21507), (244, 21513), (250, 21564), (255, 21582), (261, 21618), (269, 21657), (280, 21723), (282, 21762), (283, 21768), (285, 21774),

Gene: SG4_19 Start: 20082, Stop: 21968, Start Num: 12

Candidate Starts for SG4_19:

(Start: 12 @20082 has 225 MA's), (24, 20145), (26, 20160), (27, 20163), (30, 20187), (32, 20217), (34, 20226), (36, 20244), (47, 20301), (48, 20304), (50, 20325), (51, 20328), (52, 20334), (54, 20340), (58, 20376), (59, 20379), (60, 20382), (67, 20433), (68, 20454), (69, 20460), (71, 20478), (72, 20496), (87, 20604), (88, 20613), (91, 20622), (110, 20724), (117, 20796), (151, 21012), (153, 21027), (185, 21303), (187, 21309), (192, 21360), (196, 21375), (201, 21396), (209, 21432), (212, 21462), (215, 21471), (216, 21474), (230, 21594), (232, 21627), (237, 21651), (243, 21684), (244, 21690), (250, 21741), (255, 21759), (261, 21795), (269, 21834), (280, 21900), (282, 21939), (283, 21945), (285, 21951),

Gene: Saal_19 Start: 19917, Stop: 21803, Start Num: 12

Candidate Starts for Saal_19:

(9, 19896), (Start: 12 @19917 has 225 MA's), (Start: 16 @19938 has 1 MA's), (24, 19980), (32, 20052), (36, 20079), (37, 20097), (48, 20139), (51, 20163), (60, 20217), (65, 20262), (67, 20268), (68, 20289), (71, 20313), (72, 20331), (74, 20343), (86, 20430), (87, 20439), (88, 20448), (91, 20457), (107, 20550), (110, 20559), (115, 20622), (117, 20631), (118, 20634), (127, 20709), (153, 20862), (158, 20892), (170, 20979), (174, 21042), (179, 21111), (196, 21207), (198, 21213), (201, 21228), (207, 21240), (212, 21294), (214, 21300), (215, 21303), (216, 21306), (230, 21426), (232, 21459), (235, 21465), (242, 21513), (244, 21522), (250, 21573), (252, 21579), (255, 21594), (266, 21657), (275, 21699), (276, 21702), (277, 21708), (282, 21774), (283, 21780), (285, 21786),

Gene: Sabbb_20 Start: 20165, Stop: 22054, Start Num: 12

Candidate Starts for Sabbb_20:

(9, 20144), (Start: 12 @20165 has 225 MA's), (Start: 16 @20186 has 1 MA's), (Start: 21 @20222 has 1 MA's), (24, 20228), (26, 20243), (32, 20300), (36, 20327), (48, 20387), (51, 20411), (60, 20465), (67, 20516), (71, 20561), (72, 20579), (74, 20591), (86, 20678), (87, 20687), (88, 20696), (91, 20705), (107, 20798), (110, 20807), (115, 20870), (117, 20879), (118, 20882), (126, 20951), (153, 21110), (158, 21140), (170, 21227), (174, 21290), (179, 21359), (196, 21455), (198, 21461), (201, 21476), (207, 21488), (212, 21542), (214, 21548), (215, 21551), (216, 21554), (226, 21626), (227, 21659), (230, 21674), (232, 21707), (235, 21713), (237, 21731), (242, 21761), (243, 21764), (250, 21821), (255, 21842), (257, 21848), (264, 21893), (266, 21905), (269, 21917), (276, 21950), (277, 21956), (280, 21983), (282, 22022), (283, 22028),

Gene: Sandalphon_20 Start: 20488, Stop: 22374, Start Num: 12

Candidate Starts for Sandalphon_20:

(9, 20467), (Start: 12 @20488 has 225 MA's), (24, 20551), (26, 20566), (27, 20569), (30, 20593), (32, 20623), (34, 20632), (36, 20650), (47, 20707), (48, 20710), (50, 20731), (51, 20734), (52, 20740), (54,

20746), (58, 20782), (59, 20785), (60, 20788), (67, 20839), (68, 20860), (69, 20866), (71, 20884), (72, 20902), (79, 20944), (81, 20953), (87, 21010), (88, 21019), (91, 21028), (110, 21130), (117, 21202), (151, 21418), (153, 21433), (185, 21709), (187, 21715), (192, 21766), (196, 21781), (201, 21802), (209, 21838), (212, 21868), (215, 21877), (216, 21880), (227, 21985), (230, 22000), (232, 22033), (237, 22057), (243, 22090), (244, 22096), (250, 22147), (255, 22165), (261, 22201), (269, 22240), (280, 22306), (282, 22345), (283, 22351), (285, 22357),

Gene: Sassafras_19 Start: 20066, Stop: 21955, Start Num: 12

Candidate Starts for Sassafras_19:

(Start: 12 @20066 has 225 MA's), (24, 20129), (26, 20144), (30, 20171), (32, 20201), (34, 20210), (36, 20228), (47, 20285), (48, 20288), (50, 20309), (51, 20312), (54, 20324), (58, 20360), (59, 20363), (60, 20366), (67, 20417), (68, 20438), (69, 20444), (71, 20462), (72, 20480), (79, 20522), (87, 20588), (88, 20597), (91, 20606), (110, 20708), (117, 20780), (118, 20783), (126, 20852), (127, 20858), (144, 20954), (151, 20996), (153, 21011), (172, 21167), (185, 21287), (187, 21293), (196, 21359), (201, 21380), (207, 21392), (212, 21446), (215, 21455), (216, 21458), (230, 21578), (232, 21611), (235, 21617), (242, 21665), (244, 21674), (250, 21725), (252, 21731), (255, 21746), (258, 21758), (266, 21809), (269, 21821), (275, 21851), (276, 21854), (277, 21860), (282, 21926), (283, 21932),

Gene: SassyB_19 Start: 19979, Stop: 21865, Start Num: 12

Candidate Starts for SassyB_19:

(Start: 12 @19979 has 225 MA's), (24, 20042), (26, 20057), (27, 20060), (30, 20084), (32, 20114), (34, 20123), (36, 20141), (47, 20198), (48, 20201), (50, 20222), (51, 20225), (52, 20231), (54, 20237), (58, 20273), (59, 20276), (67, 20330), (68, 20351), (69, 20357), (71, 20375), (72, 20393), (79, 20435), (87, 20501), (88, 20510), (91, 20519), (110, 20621), (117, 20693), (151, 20909), (153, 20924), (172, 21080), (185, 21200), (187, 21206), (192, 21257), (196, 21272), (201, 21293), (209, 21329), (212, 21359), (215, 21368), (216, 21371), (227, 21476), (230, 21491), (232, 21524), (237, 21548), (243, 21581), (244, 21587), (250, 21638), (261, 21692), (269, 21731), (280, 21797), (282, 21836), (283, 21842), (285, 21848),

Gene: Scottish_20 Start: 21235, Stop: 23124, Start Num: 12

Candidate Starts for Scottish_20:

(9, 21214), (Start: 12 @21235 has 225 MA's), (24, 21298), (26, 21313), (30, 21340), (32, 21370), (34, 21379), (36, 21397), (47, 21454), (48, 21457), (50, 21478), (51, 21481), (52, 21487), (54, 21493), (58, 21529), (59, 21532), (60, 21535), (67, 21586), (68, 21607), (69, 21613), (71, 21631), (72, 21649), (79, 21691), (87, 21757), (88, 21766), (91, 21775), (110, 21877), (117, 21949), (118, 21952), (126, 22021), (127, 22027), (144, 22123), (151, 22165), (153, 22180), (172, 22336), (185, 22456), (187, 22462), (196, 22528), (201, 22549), (207, 22561), (212, 22615), (215, 22624), (216, 22627), (230, 22747), (232, 22780), (235, 22786), (242, 22834), (244, 22843), (250, 22894), (252, 22900), (255, 22915), (258, 22927), (266, 22978), (269, 22990), (275, 23020), (276, 23023), (277, 23029), (282, 23095), (283, 23101),

Gene: Seabastian_19 Start: 20168, Stop: 22048, Start Num: 12

Candidate Starts for Seabastian_19:

(9, 20147), (Start: 12 @20168 has 225 MA's), (24, 20231), (26, 20246), (30, 20273), (32, 20303), (34, 20312), (36, 20330), (47, 20387), (48, 20390), (51, 20414), (54, 20426), (58, 20462), (59, 20465), (60, 20468), (67, 20519), (68, 20540), (69, 20546), (71, 20564), (72, 20582), (79, 20624), (87, 20690), (88, 20699), (91, 20708), (110, 20810), (117, 20882), (118, 20885), (133, 20993), (144, 21056), (151, 21098), (153, 21113), (155, 21119), (158, 21146), (170, 21233), (185, 21389), (196, 21461), (212, 21548), (214, 21554), (215, 21557), (226, 21632), (230, 21680), (231, 21701), (237, 21737), (242, 21767), (244, 21776), (250, 21827), (255, 21845), (265, 21899), (266, 21902), (269, 21914), (277, 21953), (282, 22019), (283, 22025), (285, 22031),

Gene: Seagreen_20 Start: 19775, Stop: 21661, Start Num: 12

Candidate Starts for Seagreen_20:

(9, 19754), (Start: 12 @19775 has 225 MA's), (24, 19838), (26, 19853), (27, 19856), (30, 19880), (32, 19910), (34, 19919), (36, 19937), (47, 19994), (48, 19997), (50, 20018), (51, 20021), (52, 20027), (54, 20033), (58, 20069), (59, 20072), (60, 20075), (67, 20126), (68, 20147), (69, 20153), (71, 20171), (72, 20189), (79, 20231), (87, 20297), (88, 20306), (91, 20315), (110, 20417), (117, 20489), (151, 20705), (153, 20720), (185, 20996), (187, 21002), (192, 21053), (196, 21068), (201, 21089), (209, 21125), (212, 21155), (215, 21164), (216, 21167), (230, 21287), (232, 21320), (237, 21344), (243, 21377), (244, 21383), (250, 21434), (255, 21452), (261, 21488), (269, 21527), (280, 21593), (282, 21632), (283, 21638), (285, 21644),

Gene: Send513_31 Start: 28131, Stop: 30086, Start Num: 12

Candidate Starts for Send513_31:

(Start: 12 @28131 has 225 MA's), (13, 28137), (25, 28203), (26, 28209), (30, 28236), (39, 28320), (43, 28332), (44, 28338), (46, 28347), (48, 28356), (56, 28416), (62, 28452), (68, 28503), (69, 28509), (84, 28638), (87, 28671), (88, 28680), (90, 28686), (91, 28689), (101, 28746), (112, 28809), (117, 28866), (119, 28872), (122, 28905), (123, 28908), (127, 28938), (131, 28971), (148, 29091), (151, 29112), (159, 29163), (163, 29181), (174, 29286), (181, 29361), (188, 29400), (191, 29418), (193, 29448), (207, 29517), (212, 29571), (214, 29577), (222, 29637), (232, 29739), (242, 29796), (246, 29817), (250, 29856), (258, 29889), (275, 29982), (285, 30069),

Gene: ShiLan_19 Start: 19954, Stop: 21843, Start Num: 12

Candidate Starts for ShiLan_19:

(Start: 12 @19954 has 225 MA's), (24, 20017), (37, 20134), (48, 20176), (50, 20197), (51, 20200), (60, 20254), (67, 20305), (71, 20350), (72, 20368), (74, 20380), (86, 20467), (87, 20476), (88, 20485), (91, 20494), (107, 20587), (110, 20596), (115, 20659), (117, 20668), (118, 20671), (126, 20740), (127, 20746), (153, 20899), (158, 20929), (170, 21016), (174, 21079), (179, 21148), (196, 21244), (198, 21250), (201, 21265), (207, 21277), (212, 21331), (214, 21337), (215, 21340), (216, 21343), (226, 21415), (227, 21448), (230, 21463), (232, 21496), (235, 21502), (237, 21520), (242, 21550), (243, 21553), (250, 21610), (255, 21631), (257, 21637), (264, 21682), (266, 21694), (269, 21706), (276, 21739), (277, 21745), (280, 21772), (282, 21811), (283, 21817),

Gene: ShowerHandel_19 Start: 19955, Stop: 21844, Start Num: 12

Candidate Starts for ShowerHandel_19:

(Start: 12 @19955 has 225 MA's), (24, 20018), (37, 20135), (48, 20177), (50, 20198), (51, 20201), (60, 20255), (67, 20306), (71, 20351), (72, 20369), (74, 20381), (86, 20468), (87, 20477), (88, 20486), (91, 20495), (107, 20588), (110, 20597), (115, 20660), (117, 20669), (118, 20672), (126, 20741), (127, 20747), (153, 20900), (158, 20930), (170, 21017), (174, 21080), (179, 21149), (196, 21245), (198, 21251), (201, 21266), (207, 21278), (212, 21332), (214, 21338), (215, 21341), (216, 21344), (226, 21416), (227, 21449), (230, 21464), (232, 21497), (235, 21503), (237, 21521), (242, 21551), (243, 21554), (250, 21611), (255, 21632), (257, 21638), (264, 21683), (266, 21695), (269, 21707), (276, 21740), (277, 21746), (280, 21773), (282, 21812), (283, 21818),

Gene: SiSi_19 Start: 19923, Stop: 21809, Start Num: 12

Candidate Starts for SiSi_19:

(9, 19902), (Start: 12 @19923 has 225 MA's), (24, 19986), (26, 20001), (30, 20028), (32, 20058), (34, 20067), (36, 20085), (47, 20142), (48, 20145), (50, 20166), (51, 20169), (52, 20175), (54, 20181), (58, 20217), (59, 20220), (60, 20223), (67, 20274), (68, 20295), (69, 20301), (71, 20319), (72, 20337), (79, 20379), (81, 20388), (87, 20445), (88, 20454), (91, 20463), (110, 20565), (117, 20637), (151, 20853), (153, 20868), (185, 21144), (187, 21150), (192, 21201), (196, 21216), (201, 21237), (209, 21273), (212, 21303), (215, 21312), (216, 21315), (227, 21420), (230, 21435), (232, 21468), (237, 21492), (243, 21525), (244, 21531), (250, 21582), (255, 21600), (261, 21636), (269, 21675), (280, 21741), (282, 21780), (283, 21786), (285, 21792),

Gene: SilverChicken_25 Start: 19552, Stop: 21453, Start Num: 12

Candidate Starts for SilverChicken_25:

(Start: 12 @19552 has 225 MA's), (Start: 21 @19609 has 1 MA's), (26, 19630), (37, 19732), (51, 19798), (54, 19810), (58, 19846), (67, 19903), (68, 19924), (71, 19948), (72, 19966), (79, 20008), (82, 20029), (87, 20074), (88, 20083), (91, 20092), (110, 20212), (115, 20275), (116, 20278), (118, 20287), (119, 20290), (121, 20299), (133, 20395), (140, 20425), (153, 20515), (172, 20671), (192, 20848), (196, 20863), (201, 20884), (208, 20905), (209, 20920), (212, 20950), (215, 20959), (216, 20962), (224, 21022), (227, 21067), (230, 21082), (235, 21121), (237, 21139), (242, 21169), (244, 21178), (250, 21229), (255, 21247), (257, 21253), (261, 21277), (262, 21280), (265, 21301), (276, 21349), (277, 21355), (280, 21382), (282, 21421), (283, 21427),

Gene: SimranZ1_20 Start: 19791, Stop: 21677, Start Num: 12

Candidate Starts for SimranZ1_20:

(9, 19770), (Start: 12 @19791 has 225 MA's), (24, 19854), (26, 19869), (30, 19896), (32, 19926), (34, 19935), (36, 19953), (47, 20010), (48, 20013), (51, 20037), (54, 20049), (58, 20085), (59, 20088), (60, 20091), (67, 20142), (68, 20163), (69, 20169), (71, 20187), (72, 20205), (79, 20247), (87, 20313), (88, 20322), (91, 20331), (110, 20433), (117, 20505), (118, 20508), (126, 20577), (127, 20583), (139, 20643), (144, 20679), (151, 20721), (153, 20736), (172, 20892), (185, 21012), (187, 21018), (192, 21069), (196, 21084), (201, 21105), (209, 21141), (212, 21171), (215, 21180), (216, 21183), (230, 21303), (232, 21336), (237, 21360), (243, 21393), (244, 21399), (250, 21450), (255, 21468), (257, 21474), (261, 21504), (269, 21543), (280, 21609), (282, 21648), (283, 21654), (285, 21660),

Gene: SirHarley_30 Start: 26518, Stop: 28566, Start Num: 11

Candidate Starts for SirHarley_30:

(Start: 11 @26518 has 24 MA's), (14, 26539), (51, 26788), (61, 26860), (63, 26866), (71, 26941), (75, 26977), (76, 26980), (77, 26983), (89, 27076), (90, 27079), (91, 27082), (92, 27094), (99, 27133), (101, 27139), (102, 27151), (105, 27172), (117, 27259), (118, 27262), (136, 27412), (137, 27415), (141, 27448), (142, 27454), (144, 27490), (148, 27511), (161, 27592), (168, 27652), (174, 27724), (175, 27757), (177, 27784), (180, 27793), (187, 27829), (197, 27916), (201, 27931), (213, 28036), (214, 28039), (225, 28114), (226, 28126), (228, 28165), (236, 28225), (246, 28297), (253, 28354), (254, 28360), (256, 28366), (275, 28459), (280, 28495),

Gene: Slim_20 Start: 19723, Stop: 21609, Start Num: 12

Candidate Starts for Slim_20:

(Start: 12 @19723 has 225 MA's), (24, 19786), (26, 19801), (27, 19804), (30, 19828), (32, 19858), (34, 19867), (36, 19885), (47, 19942), (48, 19945), (50, 19966), (51, 19969), (52, 19975), (54, 19981), (58, 20017), (59, 20020), (60, 20023), (67, 20074), (68, 20095), (69, 20101), (71, 20119), (72, 20137), (79, 20179), (81, 20188), (87, 20245), (88, 20254), (91, 20263), (110, 20365), (117, 20437), (151, 20653), (153, 20668), (185, 20944), (187, 20950), (192, 21001), (196, 21016), (201, 21037), (209, 21073), (212, 21103), (215, 21112), (216, 21115), (227, 21220), (230, 21235), (232, 21268), (237, 21292), (243, 21325), (244, 21331), (250, 21382), (255, 21400), (261, 21436), (269, 21475), (280, 21541), (282, 21580), (283, 21586), (285, 21592),

Gene: Sparkdehlily_19 Start: 19984, Stop: 21849, Start Num: 16

Candidate Starts for Sparkdehlily_19:

(9, 19942), (Start: 12 @19963 has 225 MA's), (Start: 16 @19984 has 1 MA's), (24, 20026), (32, 20098), (36, 20125), (37, 20143), (48, 20185), (51, 20209), (60, 20263), (65, 20308), (67, 20314), (68, 20335), (71, 20359), (72, 20377), (74, 20389), (86, 20476), (87, 20485), (88, 20494), (91, 20503), (107, 20596), (110, 20605), (115, 20668), (117, 20677), (118, 20680), (127, 20755), (153, 20908), (158, 20938), (170, 21025), (174, 21088), (179, 21157), (196, 21253), (198, 21259), (201, 21274), (207, 21286), (212, 21340), (214, 21346), (215, 21349), (216, 21352), (230, 21472), (232, 21505), (235, 21511), (242, 21559), (244, 21568), (250, 21619), (252, 21625), (255, 21640), (266, 21703), (275, 21745), (276, 21748), (277, 21754), (282, 21820), (283, 21826), (285, 21832),

Gene: Spartacus_20 Start: 20015, Stop: 21901, Start Num: 12

Candidate Starts for Spartacus_20:

(Start: 12 @20015 has 225 MA's), (24, 20078), (26, 20093), (27, 20096), (30, 20120), (32, 20150), (34, 20159), (36, 20177), (47, 20234), (48, 20237), (50, 20258), (51, 20261), (52, 20267), (54, 20273), (58, 20309), (59, 20312), (60, 20315), (67, 20366), (68, 20387), (69, 20393), (71, 20411), (72, 20429), (79, 20471), (81, 20480), (87, 20537), (88, 20546), (91, 20555), (110, 20657), (117, 20729), (151, 20945), (153, 20960), (185, 21236), (187, 21242), (192, 21293), (196, 21308), (201, 21329), (209, 21365), (212, 21395), (215, 21404), (216, 21407), (230, 21527), (232, 21560), (237, 21584), (243, 21617), (244, 21623), (250, 21674), (255, 21692), (261, 21728), (269, 21767), (280, 21833), (282, 21872), (283, 21878), (285, 21884),

Gene: Spikelee_20 Start: 19757, Stop: 21643, Start Num: 12

Candidate Starts for Spikelee_20:

(Start: 12 @19757 has 225 MA's), (24, 19820), (26, 19835), (30, 19862), (32, 19892), (34, 19901), (36, 19919), (47, 19976), (48, 19979), (50, 20000), (51, 20003), (54, 20015), (58, 20051), (59, 20054), (60, 20057), (67, 20108), (68, 20129), (69, 20135), (71, 20153), (72, 20171), (79, 20213), (87, 20279), (88, 20288), (91, 20297), (110, 20399), (117, 20471), (118, 20474), (151, 20687), (153, 20702), (172, 20858), (185, 20978), (187, 20984), (192, 21035), (196, 21050), (201, 21071), (209, 21107), (212, 21137), (215, 21146), (216, 21149), (230, 21269), (232, 21302), (237, 21326), (243, 21359), (244, 21365), (250, 21416), (255, 21434), (261, 21470), (269, 21509), (280, 21575), (282, 21614), (283, 21620), (285, 21626),

Gene: Spoonbill_19 Start: 19953, Stop: 21842, Start Num: 12

Candidate Starts for Spoonbill_19:

(Start: 12 @19953 has 225 MA's), (24, 20016), (37, 20133), (48, 20175), (50, 20196), (51, 20199), (60, 20253), (67, 20304), (71, 20349), (72, 20367), (74, 20379), (86, 20466), (87, 20475), (88, 20484), (91, 20493), (107, 20586), (110, 20595), (115, 20658), (117, 20667), (118, 20670), (126, 20739), (127, 20745), (153, 20898), (158, 20928), (170, 21015), (174, 21078), (179, 21147), (196, 21243), (198, 21249), (201, 21264), (207, 21276), (212, 21330), (214, 21336), (215, 21339), (216, 21342), (226, 21414), (227, 21447), (230, 21462), (232, 21495), (235, 21501), (237, 21519), (242, 21549), (243, 21552), (250, 21609), (255, 21630), (257, 21636), (264, 21681), (266, 21693), (269, 21705), (276, 21738), (277, 21744), (280, 21771), (282, 21810), (283, 21816),

Gene: StAnnes_19 Start: 19981, Stop: 21861, Start Num: 12

Candidate Starts for StAnnes_19:

(Start: 12 @19981 has 225 MA's), (24, 20044), (26, 20059), (27, 20062), (30, 20086), (32, 20116), (34, 20125), (36, 20143), (47, 20200), (48, 20203), (50, 20224), (51, 20227), (52, 20233), (54, 20239), (58, 20275), (59, 20278), (60, 20281), (67, 20332), (68, 20353), (69, 20359), (71, 20377), (72, 20395), (79, 20437), (81, 20446), (87, 20503), (88, 20512), (91, 20521), (106, 20611), (110, 20623), (117, 20695), (118, 20698), (127, 20773), (144, 20869), (151, 20911), (153, 20926), (170, 21046), (172, 21082), (185, 21202), (187, 21208), (192, 21259), (196, 21274), (208, 21316), (214, 21367), (215, 21370), (216, 21373), (226, 21445), (227, 21478), (230, 21493), (231, 21514), (232, 21526), (242, 21580), (244, 21589), (245, 21595), (255, 21658), (266, 21715), (269, 21727), (276, 21760), (277, 21766), (282, 21832), (283, 21838), (285, 21844),

Gene: StAugustine_35 Start: 33774, Stop: 35777, Start Num: 11

Candidate Starts for StAugustine_35:

(1, 33444), (2, 33480), (3, 33564), (10, 33768), (Start: 11 @33774 has 24 MA's), (20, 33825), (49, 34008), (51, 34014), (57, 34062), (66, 34122), (73, 34188), (75, 34203), (80, 34230), (89, 34299), (91, 34305), (93, 34326), (99, 34356), (102, 34374), (103, 34380), (104, 34386), (105, 34395), (109, 34407), (111, 34425), (118, 34488), (120, 34497), (121, 34500), (127, 34563), (129, 34566), (144, 34716), (146, 34725), (158, 34803), (160, 34818), (161, 34821), (170, 34893), (174, 34956), (192,

35118), (205, 35187), (219, 35301), (225, 35337), (240, 35472), (246, 35508), (259, 35586), (260, 35589), (261, 35607), (268, 35643), (271, 35655), (281, 35709), (286, 35763),

Gene: Stap_20 Start: 19964, Stop: 21850, Start Num: 12

Candidate Starts for Stap_20:

(9, 19943), (Start: 12 @19964 has 225 MA's), (24, 20027), (26, 20042), (30, 20069), (32, 20099), (34, 20108), (36, 20126), (47, 20183), (48, 20186), (50, 20207), (51, 20210), (52, 20216), (54, 20222), (58, 20258), (59, 20261), (60, 20264), (67, 20315), (68, 20336), (69, 20342), (71, 20360), (72, 20378), (79, 20420), (87, 20486), (88, 20495), (91, 20504), (110, 20606), (117, 20678), (151, 20894), (153, 20909), (172, 21065), (185, 21185), (187, 21191), (192, 21242), (196, 21257), (201, 21278), (209, 21314), (212, 21344), (215, 21353), (216, 21356), (230, 21476), (232, 21509), (237, 21533), (243, 21566), (244, 21572), (250, 21623), (255, 21641), (261, 21677), (269, 21716), (280, 21782), (282, 21821), (283, 21827), (285, 21833),

Gene: Starcevich_20 Start: 19725, Stop: 21611, Start Num: 12

Candidate Starts for Starcevich_20:

(Start: 12 @19725 has 225 MA's), (24, 19788), (26, 19803), (27, 19806), (30, 19830), (32, 19860), (34, 19869), (36, 19887), (47, 19944), (48, 19947), (50, 19968), (51, 19971), (52, 19977), (54, 19983), (58, 20019), (59, 20022), (60, 20025), (67, 20076), (68, 20097), (69, 20103), (71, 20121), (72, 20139), (79, 20181), (81, 20190), (87, 20247), (88, 20256), (91, 20265), (110, 20367), (117, 20439), (151, 20655), (153, 20670), (185, 20946), (187, 20952), (192, 21003), (196, 21018), (201, 21039), (209, 21075), (212, 21105), (215, 21114), (216, 21117), (227, 21222), (230, 21237), (232, 21270), (237, 21294), (243, 21327), (244, 21333), (250, 21384), (255, 21402), (261, 21438), (269, 21477), (280, 21543), (282, 21582), (283, 21588), (285, 21594),

Gene: Strokeseat_19 Start: 20029, Stop: 21915, Start Num: 12

Candidate Starts for Strokeseat_19:

(9, 20008), (Start: 12 @20029 has 225 MA's), (24, 20092), (26, 20107), (30, 20134), (32, 20164), (34, 20173), (36, 20191), (47, 20248), (48, 20251), (51, 20275), (54, 20287), (58, 20323), (59, 20326), (60, 20329), (67, 20380), (68, 20401), (69, 20407), (71, 20425), (72, 20443), (79, 20485), (87, 20551), (88, 20560), (91, 20569), (110, 20671), (117, 20743), (151, 20959), (153, 20974), (185, 21250), (187, 21256), (192, 21307), (196, 21322), (201, 21343), (209, 21379), (212, 21409), (215, 21418), (216, 21421), (230, 21541), (232, 21574), (237, 21598), (243, 21631), (244, 21637), (250, 21688), (255, 21706), (261, 21742), (269, 21781), (280, 21847), (282, 21886), (283, 21892), (285, 21898),

Gene: SuperGrey_20 Start: 20608, Stop: 22494, Start Num: 12

Candidate Starts for SuperGrey_20:

(Start: 12 @20608 has 225 MA's), (24, 20671), (26, 20686), (27, 20689), (30, 20713), (32, 20743), (34, 20752), (36, 20770), (47, 20827), (48, 20830), (51, 20854), (54, 20866), (58, 20902), (59, 20905), (60, 20908), (67, 20959), (68, 20980), (69, 20986), (71, 21004), (72, 21022), (79, 21064), (87, 21130), (88, 21139), (91, 21148), (110, 21250), (117, 21322), (151, 21538), (153, 21553), (185, 21829), (187, 21835), (192, 21886), (196, 21901), (201, 21922), (209, 21958), (212, 21988), (215, 21997), (216, 22000), (227, 22105), (230, 22120), (232, 22153), (237, 22177), (243, 22210), (244, 22216), (250, 22267), (255, 22285), (269, 22360), (280, 22426), (282, 22465), (283, 22471), (285, 22477),

Gene: SuperheroCarly_32 Start: 26448, Stop: 28496, Start Num: 11

Candidate Starts for SuperheroCarly_32:

(Start: 11 @26448 has 24 MA's), (14, 26469), (51, 26718), (61, 26790), (63, 26796), (71, 26871), (75, 26907), (76, 26910), (77, 26913), (89, 27006), (90, 27009), (91, 27012), (92, 27024), (99, 27063), (100, 27066), (101, 27069), (102, 27081), (105, 27102), (117, 27189), (118, 27192), (136, 27342), (137, 27345), (141, 27378), (142, 27384), (144, 27420), (148, 27441), (161, 27522), (168, 27582), (174, 27654), (175, 27687), (180, 27723), (187, 27759), (197, 27846), (201, 27861), (213, 27966), (214, 27969), (225, 28044), (226, 28056), (228, 28095), (236, 28155), (246, 28227), (253, 28284), (254,

28290), (256, 28296), (275, 28389), (280, 28425),

Gene: SwagPigglett_19 Start: 19940, Stop: 21826, Start Num: 12

Candidate Starts for SwagPigglett_19:

(9, 19919), (Start: 12 @19940 has 225 MA's), (Start: 16 @19961 has 1 MA's), (24, 20003), (32, 20075), (36, 20102), (37, 20120), (48, 20162), (51, 20186), (60, 20240), (65, 20285), (67, 20291), (68, 20312), (71, 20336), (72, 20354), (74, 20366), (86, 20453), (87, 20462), (88, 20471), (91, 20480), (107, 20573), (110, 20582), (115, 20645), (117, 20654), (118, 20657), (127, 20732), (153, 20885), (158, 20915), (170, 21002), (174, 21065), (179, 21134), (196, 21230), (198, 21236), (201, 21251), (207, 21263), (212, 21317), (214, 21323), (215, 21326), (216, 21329), (230, 21449), (232, 21482), (235, 21488), (242, 21536), (244, 21545), (250, 21596), (252, 21602), (255, 21617), (266, 21680), (275, 21722), (276, 21725), (277, 21731), (282, 21797), (283, 21803), (285, 21809),

Gene: TDanisky_19 Start: 19963, Stop: 21849, Start Num: 12

Candidate Starts for TDanisky_19:

(9, 19942), (Start: 12 @19963 has 225 MA's), (Start: 16 @19984 has 1 MA's), (24, 20026), (32, 20098), (36, 20125), (37, 20143), (48, 20185), (51, 20209), (60, 20263), (65, 20308), (67, 20314), (68, 20335), (71, 20359), (72, 20377), (74, 20389), (86, 20476), (87, 20485), (88, 20494), (91, 20503), (107, 20596), (110, 20605), (115, 20668), (117, 20677), (118, 20680), (127, 20755), (153, 20908), (158, 20938), (170, 21025), (174, 21088), (179, 21157), (196, 21253), (198, 21259), (201, 21274), (207, 21286), (212, 21340), (214, 21346), (215, 21349), (216, 21352), (230, 21472), (232, 21505), (235, 21511), (242, 21559), (244, 21568), (250, 21619), (252, 21625), (255, 21640), (266, 21703), (275, 21745), (276, 21748), (277, 21754), (282, 21820), (283, 21826), (285, 21832),

Gene: Taj_19 Start: 19964, Stop: 21850, Start Num: 12

Candidate Starts for Taj_19:

(9, 19943), (Start: 12 @19964 has 225 MA's), (24, 20027), (26, 20042), (27, 20045), (30, 20069), (32, 20099), (34, 20108), (36, 20126), (47, 20183), (48, 20186), (50, 20207), (51, 20210), (52, 20216), (54, 20222), (58, 20258), (59, 20261), (60, 20264), (67, 20315), (68, 20336), (69, 20342), (71, 20360), (72, 20378), (79, 20420), (81, 20429), (87, 20486), (88, 20495), (91, 20504), (110, 20606), (117, 20678), (151, 20894), (153, 20909), (185, 21185), (187, 21191), (192, 21242), (196, 21257), (201, 21278), (209, 21314), (212, 21344), (215, 21353), (216, 21356), (227, 21461), (230, 21476), (232, 21509), (237, 21533), (243, 21566), (244, 21572), (250, 21623), (255, 21641), (269, 21716), (280, 21782), (282, 21821), (283, 21827), (285, 21833),

Gene: Tchotchke_20 Start: 19865, Stop: 21751, Start Num: 12

Candidate Starts for Tchotchke_20:

(Start: 12 @19865 has 225 MA's), (24, 19928), (26, 19943), (27, 19946), (30, 19970), (32, 20000), (34, 20009), (36, 20027), (47, 20084), (48, 20087), (50, 20108), (51, 20111), (52, 20117), (54, 20123), (58, 20159), (59, 20162), (60, 20165), (67, 20216), (68, 20237), (69, 20243), (71, 20261), (72, 20279), (79, 20321), (81, 20330), (87, 20387), (88, 20396), (91, 20405), (110, 20507), (117, 20579), (151, 20795), (153, 20810), (185, 21086), (187, 21092), (192, 21143), (196, 21158), (201, 21179), (209, 21215), (212, 21245), (215, 21254), (216, 21257), (227, 21362), (230, 21377), (232, 21410), (237, 21434), (243, 21467), (244, 21473), (250, 21524), (255, 21542), (261, 21578), (269, 21617), (280, 21683), (282, 21722), (283, 21728), (285, 21734),

Gene: Thoth_31 Start: 26583, Stop: 28631, Start Num: 11

Candidate Starts for Thoth_31:

(Start: 11 @26583 has 24 MA's), (14, 26604), (51, 26853), (61, 26925), (63, 26931), (71, 27006), (75, 27042), (76, 27045), (77, 27048), (89, 27141), (90, 27144), (91, 27147), (92, 27159), (99, 27198), (100, 27201), (101, 27204), (102, 27216), (105, 27237), (117, 27324), (118, 27327), (136, 27477), (137, 27480), (141, 27513), (142, 27519), (144, 27555), (148, 27576), (161, 27657), (168, 27717), (174, 27789), (175, 27822), (177, 27849), (180, 27858), (187, 27894), (197, 27981), (201, 27996), (213,

28101), (214, 28104), (225, 28179), (228, 28230), (236, 28290), (246, 28362), (253, 28419), (254, 28425), (256, 28431), (275, 28524), (280, 28560),

Gene: TootsiePop_20 Start: 19795, Stop: 21675, Start Num: 12

Candidate Starts for TootsiePop_20:

(Start: 12 @19795 has 225 MA's), (23, 19855), (27, 19876), (36, 19957), (47, 20014), (48, 20017), (50, 20038), (54, 20053), (60, 20095), (67, 20146), (71, 20191), (72, 20209), (79, 20251), (87, 20317), (88, 20326), (91, 20335), (110, 20437), (117, 20509), (127, 20587), (144, 20683), (151, 20725), (153, 20740), (155, 20746), (170, 20860), (172, 20896), (187, 21022), (192, 21073), (196, 21088), (208, 21130), (212, 21175), (223, 21244), (225, 21250), (226, 21259), (227, 21292), (230, 21307), (237, 21364), (243, 21397), (250, 21454), (255, 21472), (257, 21478), (266, 21529), (269, 21541), (277, 21580), (282, 21646), (283, 21652),

Gene: Tootsieroll_20 Start: 19773, Stop: 21659, Start Num: 12

Candidate Starts for Tootsieroll_20:

(9, 19752), (Start: 12 @19773 has 225 MA's), (24, 19836), (26, 19851), (30, 19878), (32, 19908), (34, 19917), (36, 19935), (47, 19992), (48, 19995), (50, 20016), (51, 20019), (52, 20025), (54, 20031), (58, 20067), (59, 20070), (60, 20073), (67, 20124), (68, 20145), (69, 20151), (71, 20169), (72, 20187), (79, 20229), (87, 20295), (88, 20304), (91, 20313), (110, 20415), (117, 20487), (118, 20490), (151, 20703), (153, 20718), (185, 20994), (187, 21000), (192, 21051), (196, 21066), (201, 21087), (209, 21123), (212, 21153), (215, 21162), (216, 21165), (230, 21285), (232, 21318), (237, 21342), (243, 21375), (244, 21381), (250, 21432), (255, 21450), (261, 21486), (269, 21525), (280, 21591), (282, 21630), (283, 21636), (285, 21642),

Gene: Topiatin_21 Start: 20632, Stop: 22518, Start Num: 12

Candidate Starts for Topiatin_21:

(9, 20611), (Start: 12 @20632 has 225 MA's), (24, 20695), (26, 20710), (27, 20713), (30, 20737), (32, 20767), (34, 20776), (36, 20794), (47, 20851), (48, 20854), (50, 20875), (51, 20878), (52, 20884), (54, 20890), (58, 20926), (59, 20929), (60, 20932), (67, 20983), (68, 21004), (69, 21010), (71, 21028), (72, 21046), (79, 21088), (87, 21154), (88, 21163), (91, 21172), (110, 21274), (117, 21346), (151, 21562), (153, 21577), (185, 21853), (187, 21859), (192, 21910), (196, 21925), (201, 21946), (209, 21982), (212, 22012), (215, 22021), (216, 22024), (230, 22144), (232, 22177), (237, 22201), (243, 22234), (244, 22240), (250, 22291), (255, 22309), (261, 22345), (280, 22450), (282, 22489), (283, 22495), (285, 22501),

Gene: Toron_21 Start: 20289, Stop: 22193, Start Num: 12

Candidate Starts for Toron_21:

(9, 20268), (Start: 12 @20289 has 225 MA's), (15, 20307), (Start: 21 @20346 has 1 MA's), (24, 20352), (26, 20367), (30, 20394), (32, 20424), (36, 20451), (37, 20469), (48, 20511), (49, 20529), (58, 20583), (60, 20589), (67, 20640), (71, 20685), (72, 20703), (78, 20733), (79, 20745), (82, 20766), (87, 20811), (88, 20820), (91, 20829), (95, 20871), (98, 20892), (101, 20901), (110, 20949), (115, 21012), (117, 21021), (118, 21024), (123, 21069), (126, 21093), (138, 21153), (144, 21195), (145, 21198), (157, 21276), (158, 21282), (170, 21369), (185, 21525), (187, 21531), (198, 21603), (212, 21684), (215, 21693), (216, 21696), (218, 21720), (221, 21729), (223, 21753), (224, 21756), (226, 21768), (227, 21801), (230, 21816), (235, 21855), (242, 21903), (244, 21912), (251, 21966), (255, 21981), (257, 21987), (264, 22032), (265, 22041), (273, 22077), (276, 22089), (282, 22161), (283, 22167),

Gene: Totinger_20 Start: 19723, Stop: 21609, Start Num: 12

Candidate Starts for Totinger_20:

(Start: 12 @19723 has 225 MA's), (24, 19786), (26, 19801), (27, 19804), (30, 19828), (32, 19858), (34, 19867), (36, 19885), (47, 19942), (48, 19945), (50, 19966), (51, 19969), (52, 19975), (54, 19981), (58, 20017), (59, 20020), (60, 20023), (67, 20074), (68, 20095), (69, 20101), (71, 20119), (72, 20137), (79, 20179), (81, 20188), (87, 20245), (88, 20254), (91, 20263), (110, 20365), (117, 20437), (151, 20653),

(153, 20668), (185, 20944), (187, 20950), (192, 21001), (196, 21016), (201, 21037), (209, 21073), (212, 21103), (215, 21112), (216, 21115), (227, 21220), (230, 21235), (232, 21268), (237, 21292), (243, 21325), (244, 21331), (250, 21382), (255, 21400), (261, 21436), (269, 21475), (280, 21541), (282, 21580), (283, 21586), (285, 21592),

Gene: Troll4_31 Start: 26587, Stop: 28635, Start Num: 11

Candidate Starts for Troll4_31:

(Start: 11 @26587 has 24 MA's), (14, 26608), (51, 26857), (61, 26929), (63, 26935), (71, 27010), (75, 27046), (76, 27049), (77, 27052), (89, 27145), (90, 27148), (91, 27151), (92, 27163), (99, 27202), (100, 27205), (101, 27208), (102, 27220), (105, 27241), (117, 27328), (118, 27331), (136, 27481), (137, 27484), (141, 27517), (142, 27523), (144, 27559), (148, 27580), (161, 27661), (168, 27721), (174, 27793), (175, 27826), (180, 27862), (187, 27898), (197, 27985), (201, 28000), (213, 28105), (214, 28108), (225, 28183), (226, 28195), (228, 28234), (236, 28294), (246, 28366), (253, 28423), (254, 28429), (256, 28435), (275, 28528), (280, 28564),

Gene: Tweety_19 Start: 19985, Stop: 21871, Start Num: 12

Candidate Starts for Tweety_19:

(9, 19964), (Start: 12 @19985 has 225 MA's), (24, 20048), (26, 20063), (27, 20066), (30, 20090), (32, 20120), (34, 20129), (36, 20147), (47, 20204), (48, 20207), (50, 20228), (51, 20231), (52, 20237), (54, 20243), (58, 20279), (59, 20282), (60, 20285), (67, 20336), (68, 20357), (69, 20363), (71, 20381), (72, 20399), (79, 20441), (87, 20507), (88, 20516), (91, 20525), (110, 20627), (117, 20699), (144, 20873), (151, 20915), (153, 20930), (155, 20936), (185, 21206), (187, 21212), (192, 21263), (196, 21278), (201, 21299), (209, 21335), (212, 21365), (215, 21374), (216, 21377), (230, 21497), (232, 21530), (237, 21554), (243, 21587), (244, 21593), (250, 21644), (255, 21662), (261, 21698), (269, 21737), (280, 21803), (282, 21842), (283, 21848), (285, 21854),

Gene: UncleRicky_20 Start: 19753, Stop: 21639, Start Num: 12

Candidate Starts for UncleRicky_20:

(Start: 12 @19753 has 225 MA's), (24, 19816), (26, 19831), (30, 19858), (32, 19888), (34, 19897), (36, 19915), (47, 19972), (48, 19975), (50, 19996), (51, 19999), (52, 20005), (54, 20011), (58, 20047), (59, 20050), (60, 20053), (67, 20104), (68, 20125), (69, 20131), (71, 20149), (72, 20167), (79, 20209), (81, 20218), (87, 20275), (88, 20284), (91, 20293), (110, 20395), (117, 20467), (151, 20683), (153, 20698), (185, 20974), (187, 20980), (192, 21031), (196, 21046), (201, 21067), (209, 21103), (212, 21133), (215, 21142), (216, 21145), (230, 21265), (232, 21298), (237, 21322), (243, 21355), (244, 21361), (250, 21412), (255, 21430), (261, 21466), (269, 21505), (280, 21571), (282, 21610), (283, 21616), (285, 21622),

Gene: VRedHorse_19 Start: 20098, Stop: 21984, Start Num: 12

Candidate Starts for VRedHorse_19:

(Start: 12 @20098 has 225 MA's), (24, 20161), (26, 20176), (30, 20203), (32, 20233), (34, 20242), (36, 20260), (47, 20317), (48, 20320), (50, 20341), (51, 20344), (52, 20350), (54, 20356), (58, 20392), (59, 20395), (60, 20398), (67, 20449), (68, 20470), (69, 20476), (71, 20494), (72, 20512), (79, 20554), (87, 20620), (88, 20629), (91, 20638), (110, 20740), (117, 20812), (151, 21028), (153, 21043), (185, 21319), (187, 21325), (192, 21376), (196, 21391), (201, 21412), (209, 21448), (212, 21478), (215, 21487), (216, 21490), (230, 21610), (232, 21643), (237, 21667), (243, 21700), (244, 21706), (250, 21757), (255, 21775), (261, 21811), (269, 21850), (280, 21916), (282, 21955), (283, 21961), (285, 21967),

Gene: Veteran_19 Start: 19936, Stop: 21822, Start Num: 12

Candidate Starts for Veteran_19:

(Start: 12 @19936 has 225 MA's), (24, 19999), (26, 20014), (27, 20017), (30, 20041), (32, 20071), (34, 20080), (36, 20098), (47, 20155), (48, 20158), (50, 20179), (51, 20182), (52, 20188), (54, 20194), (58, 20230), (59, 20233), (60, 20236), (67, 20287), (68, 20308), (69, 20314), (71, 20332), (72, 20350), (79,

20392), (81, 20401), (87, 20458), (88, 20467), (91, 20476), (110, 20578), (117, 20650), (118, 20653), (126, 20722), (139, 20788), (144, 20824), (151, 20866), (153, 20881), (185, 21157), (187, 21163), (192, 21214), (196, 21229), (201, 21250), (209, 21286), (212, 21316), (215, 21325), (216, 21328), (230, 21448), (232, 21481), (237, 21505), (243, 21538), (244, 21544), (250, 21595), (255, 21613), (261, 21649), (269, 21688), (280, 21754), (282, 21793), (283, 21799), (285, 21805),

Gene: *Violac_20* Start: 20468, Stop: 22357, Start Num: 12

Candidate Starts for *Violac_20*:

(9, 20447), (Start: 12 @20468 has 225 MA's), (Start: 16 @20489 has 1 MA's), (18, 20510), (Start: 21 @20525 has 1 MA's), (24, 20531), (32, 20603), (36, 20630), (37, 20648), (48, 20690), (50, 20711), (51, 20714), (60, 20768), (67, 20819), (71, 20864), (72, 20882), (74, 20894), (86, 20981), (87, 20990), (88, 20999), (91, 21008), (107, 21101), (110, 21110), (115, 21173), (117, 21182), (118, 21185), (126, 21254), (153, 21413), (158, 21443), (170, 21530), (174, 21593), (179, 21662), (196, 21758), (198, 21764), (201, 21779), (207, 21791), (212, 21845), (214, 21851), (215, 21854), (216, 21857), (226, 21929), (227, 21962), (230, 21977), (232, 22010), (235, 22016), (237, 22034), (242, 22064), (243, 22067), (250, 22124), (257, 22151), (266, 22208), (269, 22220), (275, 22250), (276, 22253), (277, 22259), (280, 22286), (282, 22325), (283, 22331),

Gene: *Visconti_31* Start: 26596, Stop: 28644, Start Num: 11

Candidate Starts for *Visconti_31*:

(Start: 11 @26596 has 24 MA's), (14, 26617), (51, 26866), (61, 26938), (63, 26944), (71, 27019), (75, 27055), (76, 27058), (77, 27061), (89, 27154), (90, 27157), (91, 27160), (92, 27172), (99, 27211), (100, 27214), (101, 27217), (102, 27229), (105, 27250), (117, 27337), (118, 27340), (136, 27490), (137, 27493), (141, 27526), (142, 27532), (144, 27568), (148, 27589), (161, 27670), (168, 27730), (174, 27802), (175, 27835), (180, 27871), (187, 27907), (197, 27994), (201, 28009), (213, 28114), (214, 28117), (225, 28192), (226, 28204), (228, 28243), (236, 28303), (246, 28375), (253, 28432), (254, 28438), (256, 28444), (275, 28537), (280, 28573),

Gene: *Vivum_19* Start: 19878, Stop: 21764, Start Num: 12

Candidate Starts for *Vivum_19*:

(Start: 12 @19878 has 225 MA's), (24, 19941), (26, 19956), (27, 19959), (30, 19983), (32, 20013), (34, 20022), (36, 20040), (47, 20097), (48, 20100), (50, 20121), (51, 20124), (52, 20130), (54, 20136), (58, 20172), (59, 20175), (60, 20178), (67, 20229), (68, 20250), (69, 20256), (71, 20274), (72, 20292), (79, 20334), (81, 20343), (87, 20400), (88, 20409), (91, 20418), (110, 20520), (117, 20592), (151, 20808), (153, 20823), (185, 21099), (187, 21105), (192, 21156), (196, 21171), (201, 21192), (209, 21228), (211, 21255), (212, 21258), (215, 21267), (216, 21270), (230, 21390), (232, 21423), (237, 21447), (243, 21480), (244, 21486), (250, 21537), (255, 21555), (261, 21591), (269, 21630), (280, 21696), (282, 21735), (283, 21741), (285, 21747),

Gene: *Wachhund_19* Start: 19956, Stop: 21842, Start Num: 12

Candidate Starts for *Wachhund_19*:

(9, 19935), (Start: 12 @19956 has 225 MA's), (24, 20019), (26, 20034), (27, 20037), (30, 20061), (32, 20091), (34, 20100), (36, 20118), (47, 20175), (48, 20178), (50, 20199), (51, 20202), (52, 20208), (54, 20214), (58, 20250), (59, 20253), (60, 20256), (67, 20307), (68, 20328), (69, 20334), (71, 20352), (72, 20370), (87, 20478), (88, 20487), (91, 20496), (110, 20598), (117, 20670), (151, 20886), (153, 20901), (185, 21177), (187, 21183), (192, 21234), (196, 21249), (201, 21270), (209, 21306), (212, 21336), (215, 21345), (216, 21348), (230, 21468), (232, 21501), (237, 21525), (243, 21558), (244, 21564), (250, 21615), (255, 21633), (261, 21669), (269, 21708), (280, 21774), (282, 21813), (283, 21819), (285, 21825),

Gene: *WaldoWhy_32* Start: 26592, Stop: 28640, Start Num: 11

Candidate Starts for *WaldoWhy_32*:

(Start: 11 @26592 has 24 MA's), (14, 26613), (51, 26862), (61, 26934), (63, 26940), (71, 27015), (75, 27051), (76, 27054), (77, 27057), (89, 27150), (90, 27153), (91, 27156), (92, 27168), (99, 27207), (100, 27210), (101, 27213), (102, 27225), (105, 27246), (117, 27333), (118, 27336), (136, 27486), (137, 27489), (141, 27522), (142, 27528), (144, 27564), (148, 27585), (161, 27666), (168, 27726), (174, 27798), (175, 27831), (180, 27867), (187, 27903), (197, 27990), (201, 28005), (213, 28110), (214, 28113), (225, 28188), (226, 28200), (228, 28239), (236, 28299), (246, 28371), (253, 28428), (254, 28434), (256, 28440), (275, 28533), (280, 28569),

Gene: Wanda_40 Start: 32359, Stop: 34245, Start Num: 12

Candidate Starts for Wanda_40:

(9, 32338), (Start: 12 @32359 has 225 MA's), (24, 32422), (26, 32437), (27, 32440), (30, 32464), (32, 32494), (34, 32503), (36, 32521), (47, 32578), (48, 32581), (50, 32602), (51, 32605), (52, 32611), (54, 32617), (58, 32653), (59, 32656), (60, 32659), (67, 32710), (68, 32731), (69, 32737), (71, 32755), (72, 32773), (87, 32881), (88, 32890), (91, 32899), (110, 33001), (117, 33073), (151, 33289), (153, 33304), (185, 33580), (187, 33586), (192, 33637), (196, 33652), (201, 33673), (209, 33709), (212, 33739), (215, 33748), (216, 33751), (230, 33871), (232, 33904), (237, 33928), (243, 33961), (244, 33967), (250, 34018), (255, 34036), (261, 34072), (269, 34111), (280, 34177), (282, 34216), (283, 34222), (285, 34228),

Gene: Wee_20 Start: 20505, Stop: 22391, Start Num: 12

Candidate Starts for Wee_20:

(9, 20484), (Start: 12 @20505 has 225 MA's), (24, 20568), (26, 20583), (27, 20586), (30, 20610), (32, 20640), (34, 20649), (36, 20667), (47, 20724), (48, 20727), (50, 20748), (51, 20751), (52, 20757), (54, 20763), (58, 20799), (59, 20802), (60, 20805), (67, 20856), (68, 20877), (69, 20883), (71, 20901), (72, 20919), (87, 21027), (88, 21036), (91, 21045), (110, 21147), (117, 21219), (151, 21435), (153, 21450), (185, 21726), (187, 21732), (192, 21783), (196, 21798), (201, 21819), (209, 21855), (212, 21885), (215, 21894), (216, 21897), (227, 22002), (230, 22017), (232, 22050), (237, 22074), (243, 22107), (244, 22113), (250, 22164), (255, 22182), (269, 22257), (280, 22323), (282, 22362), (283, 22368), (285, 22374),

Gene: Weiss13_31 Start: 27827, Stop: 29782, Start Num: 12

Candidate Starts for Weiss13_31:

(Start: 12 @27827 has 225 MA's), (13, 27833), (25, 27899), (26, 27905), (30, 27932), (39, 28016), (43, 28028), (44, 28034), (46, 28043), (48, 28052), (56, 28112), (62, 28148), (65, 28175), (68, 28199), (69, 28205), (84, 28334), (87, 28367), (88, 28376), (90, 28382), (91, 28385), (101, 28442), (112, 28505), (117, 28562), (119, 28568), (122, 28601), (123, 28604), (127, 28634), (131, 28667), (148, 28787), (151, 28808), (157, 28847), (159, 28859), (163, 28877), (174, 28982), (181, 29057), (188, 29096), (191, 29114), (193, 29144), (207, 29213), (212, 29267), (214, 29273), (222, 29333), (232, 29435), (242, 29492), (246, 29513), (250, 29552), (258, 29585), (275, 29678), (285, 29765),

Gene: Whatsapiecost_19 Start: 19981, Stop: 21867, Start Num: 12

Candidate Starts for Whatsapiecost_19:

(9, 19960), (Start: 12 @19981 has 225 MA's), (24, 20044), (26, 20059), (27, 20062), (30, 20086), (32, 20116), (34, 20125), (36, 20143), (47, 20200), (48, 20203), (50, 20224), (51, 20227), (52, 20233), (54, 20239), (58, 20275), (59, 20278), (60, 20281), (67, 20332), (68, 20353), (69, 20359), (71, 20377), (72, 20395), (79, 20437), (87, 20503), (88, 20512), (91, 20521), (110, 20623), (117, 20695), (151, 20911), (153, 20926), (185, 21202), (187, 21208), (192, 21259), (196, 21274), (201, 21295), (209, 21331), (212, 21361), (215, 21370), (216, 21373), (230, 21493), (232, 21526), (237, 21550), (243, 21583), (244, 21589), (250, 21640), (255, 21658), (261, 21694), (269, 21733), (280, 21799), (282, 21838), (283, 21844), (285, 21850),

Gene: Whouxphf_19 Start: 20038, Stop: 21924, Start Num: 12

Candidate Starts for Whouxphf_19:

(9, 20017), (Start: 12 @20038 has 225 MA's), (24, 20101), (26, 20116), (30, 20143), (32, 20173), (34, 20182), (36, 20200), (47, 20257), (48, 20260), (50, 20281), (51, 20284), (52, 20290), (54, 20296), (58, 20332), (59, 20335), (60, 20338), (67, 20389), (68, 20410), (69, 20416), (71, 20434), (72, 20452), (79, 20494), (87, 20560), (88, 20569), (91, 20578), (110, 20680), (117, 20752), (118, 20755), (126, 20824), (127, 20830), (139, 20890), (144, 20926), (151, 20968), (153, 20983), (155, 20989), (185, 21259), (187, 21265), (192, 21316), (196, 21331), (201, 21352), (209, 21388), (212, 21418), (215, 21427), (216, 21430), (230, 21550), (232, 21583), (237, 21607), (243, 21640), (244, 21646), (250, 21697), (255, 21715), (261, 21751), (269, 21790), (280, 21856), (282, 21895), (283, 21901), (285, 21907),

Gene: Wildcat_44 Start: 30909, Stop: 32885, Start Num: 12

Candidate Starts for Wildcat_44:

(Start: 12 @30909 has 225 MA's), (19, 30951), (34, 31047), (35, 31062), (38, 31089), (48, 31128), (53, 31161), (54, 31164), (56, 31191), (58, 31203), (59, 31206), (60, 31209), (64, 31239), (68, 31281), (70, 31293), (74, 31335), (77, 31347), (78, 31353), (84, 31416), (90, 31464), (91, 31467), (92, 31479), (97, 31506), (98, 31515), (101, 31524), (106, 31560), (108, 31566), (113, 31605), (114, 31617), (116, 31638), (121, 31659), (128, 31716), (135, 31779), (143, 31821), (144, 31842), (147, 31854), (148, 31863), (150, 31875), (156, 31914), (162, 31947), (167, 31983), (169, 32007), (171, 32022), (174, 32076), (178, 32139), (189, 32193), (190, 32208), (200, 32265), (204, 32289), (212, 32370), (215, 32379), (222, 32439), (232, 32538), (239, 32577), (241, 32583), (242, 32592), (267, 32745), (282, 32856), (285, 32868),

Gene: WillSterrel_20 Start: 21291, Stop: 23210, Start Num: 12

Candidate Starts for WillSterrel_20:

(Start: 12 @21291 has 225 MA's), (24, 21354), (26, 21369), (30, 21396), (32, 21426), (34, 21435), (36, 21453), (47, 21510), (48, 21513), (50, 21534), (51, 21537), (54, 21549), (58, 21585), (59, 21588), (60, 21591), (67, 21642), (68, 21663), (69, 21669), (71, 21687), (72, 21705), (79, 21747), (87, 21813), (88, 21822), (91, 21831), (110, 21933), (117, 22005), (144, 22179), (151, 22221), (153, 22236), (155, 22242), (185, 22512), (187, 22518), (192, 22569), (196, 22584), (201, 22605), (203, 22617), (206, 22638), (209, 22674), (212, 22704), (215, 22713), (216, 22716), (230, 22836), (232, 22869), (237, 22893), (243, 22926), (244, 22932), (250, 22983), (255, 23001), (261, 23037), (269, 23076), (280, 23142), (282, 23181), (283, 23187), (285, 23193),

Gene: XFactor_19 Start: 19937, Stop: 21823, Start Num: 12

Candidate Starts for XFactor_19:

(9, 19916), (Start: 12 @19937 has 225 MA's), (24, 20000), (26, 20015), (27, 20018), (30, 20042), (32, 20072), (34, 20081), (36, 20099), (47, 20156), (48, 20159), (50, 20180), (51, 20183), (52, 20189), (54, 20195), (58, 20231), (59, 20234), (60, 20237), (67, 20288), (68, 20309), (69, 20315), (71, 20333), (72, 20351), (79, 20393), (87, 20459), (88, 20468), (91, 20477), (110, 20579), (117, 20651), (151, 20867), (153, 20882), (185, 21158), (187, 21164), (192, 21215), (196, 21230), (201, 21251), (209, 21287), (212, 21317), (215, 21326), (216, 21329), (227, 21434), (230, 21449), (232, 21482), (237, 21506), (243, 21539), (244, 21545), (250, 21596), (255, 21614), (261, 21650), (269, 21689), (280, 21755), (282, 21794), (283, 21800), (285, 21806),

Gene: Yelo_31 Start: 28120, Stop: 30075, Start Num: 12

Candidate Starts for Yelo_31:

(Start: 12 @28120 has 225 MA's), (13, 28126), (25, 28192), (26, 28198), (30, 28225), (39, 28309), (43, 28321), (44, 28327), (46, 28336), (48, 28345), (56, 28405), (62, 28441), (65, 28468), (68, 28492), (69, 28498), (84, 28627), (87, 28660), (88, 28669), (90, 28675), (91, 28678), (101, 28735), (112, 28798), (117, 28855), (119, 28861), (122, 28894), (123, 28897), (127, 28927), (131, 28960), (148, 29080), (151, 29101), (157, 29140), (159, 29152), (163, 29170), (174, 29275), (181, 29350), (188, 29389), (191, 29407), (193, 29437), (207, 29506), (212, 29560), (214, 29566), (222, 29626), (232, 29728), (242, 29785), (246, 29806), (250, 29845), (258, 29878), (275, 29971), (285, 30058),

Gene: Yorick_19 Start: 19953, Stop: 21842, Start Num: 12

Candidate Starts for Yorick_19:

(Start: 12 @19953 has 225 MA's), (24, 20016), (37, 20133), (48, 20175), (50, 20196), (51, 20199), (60, 20253), (67, 20304), (71, 20349), (72, 20367), (74, 20379), (86, 20466), (87, 20475), (88, 20484), (91, 20493), (107, 20586), (110, 20595), (115, 20658), (117, 20667), (118, 20670), (126, 20739), (127, 20745), (153, 20898), (158, 20928), (170, 21015), (174, 21078), (179, 21147), (196, 21243), (198, 21249), (201, 21264), (207, 21276), (212, 21330), (214, 21336), (215, 21339), (216, 21342), (226, 21414), (227, 21447), (230, 21462), (232, 21495), (235, 21501), (237, 21519), (242, 21549), (243, 21552), (250, 21609), (255, 21630), (257, 21636), (264, 21681), (266, 21693), (269, 21705), (276, 21738), (277, 21744), (280, 21771), (282, 21810), (283, 21816),

Gene: Zenon_32 Start: 28139, Stop: 30094, Start Num: 12

Candidate Starts for Zenon_32:

(Start: 12 @28139 has 225 MA's), (13, 28145), (25, 28211), (26, 28217), (30, 28244), (39, 28328), (43, 28340), (44, 28346), (46, 28355), (48, 28364), (56, 28424), (62, 28460), (68, 28511), (69, 28517), (84, 28646), (87, 28679), (88, 28688), (90, 28694), (91, 28697), (101, 28754), (112, 28817), (117, 28874), (119, 28880), (122, 28913), (123, 28916), (127, 28946), (131, 28979), (148, 29099), (151, 29120), (157, 29159), (159, 29171), (163, 29189), (174, 29294), (181, 29369), (188, 29408), (191, 29426), (193, 29456), (207, 29525), (212, 29579), (214, 29585), (222, 29645), (232, 29747), (242, 29804), (246, 29825), (250, 29864), (258, 29897), (275, 29990), (285, 30077),

Gene: Zerg_19 Start: 19901, Stop: 21790, Start Num: 12

Candidate Starts for Zerg_19:

(Start: 12 @19901 has 225 MA's), (24, 19964), (26, 19979), (30, 20006), (32, 20036), (34, 20045), (36, 20063), (47, 20120), (48, 20123), (50, 20144), (51, 20147), (54, 20159), (58, 20195), (59, 20198), (60, 20201), (67, 20252), (68, 20273), (69, 20279), (71, 20297), (72, 20315), (79, 20357), (87, 20423), (88, 20432), (91, 20441), (110, 20543), (117, 20615), (118, 20618), (126, 20687), (127, 20693), (144, 20789), (151, 20831), (153, 20846), (172, 21002), (185, 21122), (187, 21128), (196, 21194), (201, 21215), (207, 21227), (212, 21281), (215, 21290), (216, 21293), (220, 21323), (230, 21413), (232, 21446), (235, 21452), (242, 21500), (244, 21509), (250, 21560), (252, 21566), (255, 21581), (258, 21593), (266, 21644), (269, 21656), (275, 21686), (276, 21689), (277, 21695), (282, 21761), (283, 21767),

Gene: Zizzle_19 Start: 19897, Stop: 21786, Start Num: 12

Candidate Starts for Zizzle_19:

(9, 19876), (Start: 12 @19897 has 225 MA's), (Start: 16 @19918 has 1 MA's), (Start: 21 @19954 has 1 MA's), (24, 19960), (26, 19975), (32, 20032), (36, 20059), (48, 20119), (51, 20143), (60, 20197), (67, 20248), (71, 20293), (72, 20311), (74, 20323), (86, 20410), (87, 20419), (88, 20428), (91, 20437), (107, 20530), (110, 20539), (115, 20602), (117, 20611), (118, 20614), (126, 20683), (153, 20842), (158, 20872), (170, 20959), (174, 21022), (179, 21091), (196, 21187), (198, 21193), (201, 21208), (207, 21220), (212, 21274), (214, 21280), (215, 21283), (216, 21286), (226, 21358), (227, 21391), (230, 21406), (232, 21439), (235, 21445), (237, 21463), (242, 21493), (243, 21496), (250, 21553), (255, 21574), (257, 21580), (264, 21625), (266, 21637), (269, 21649), (276, 21682), (277, 21688), (280, 21715), (282, 21754), (283, 21760),