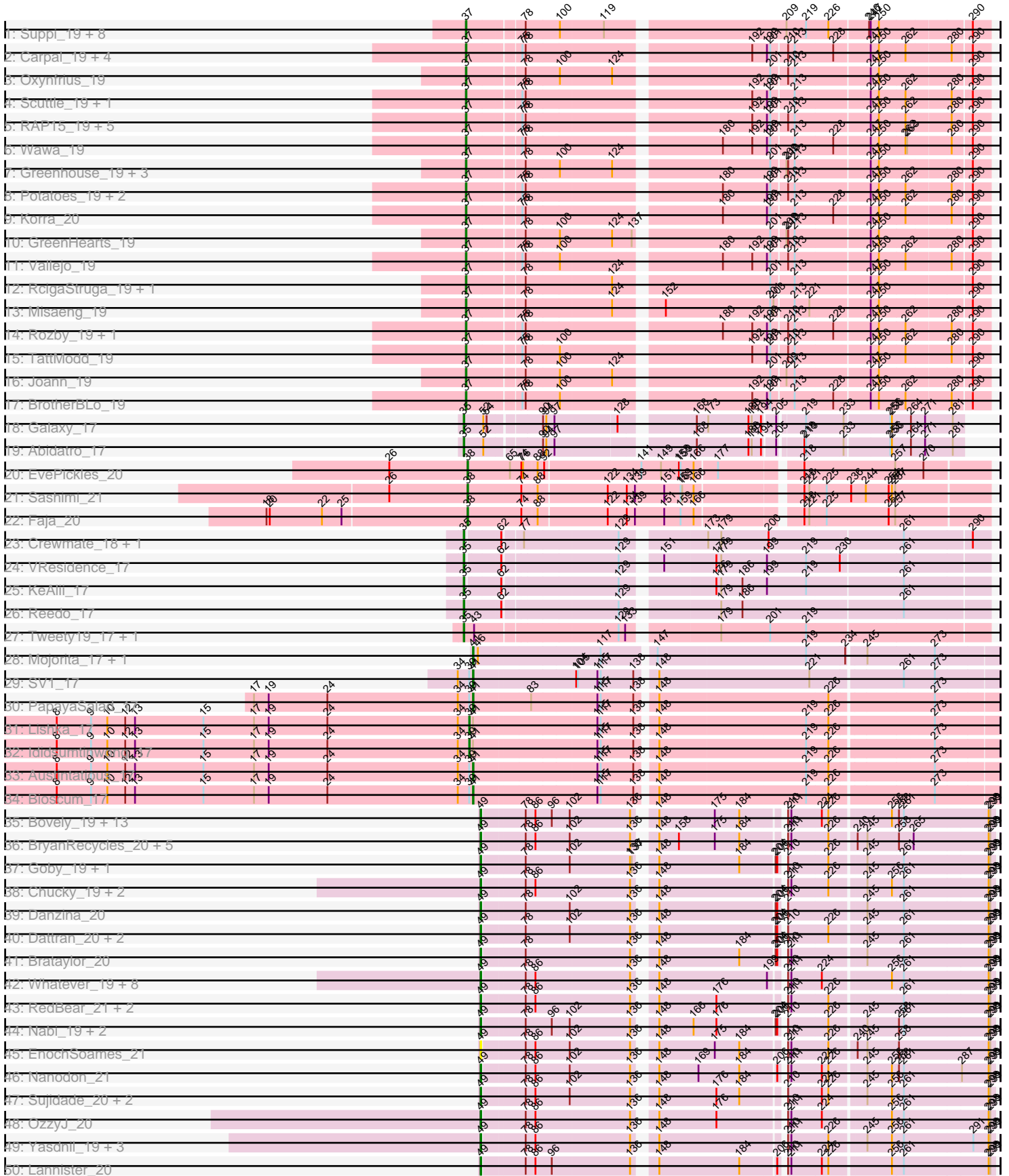
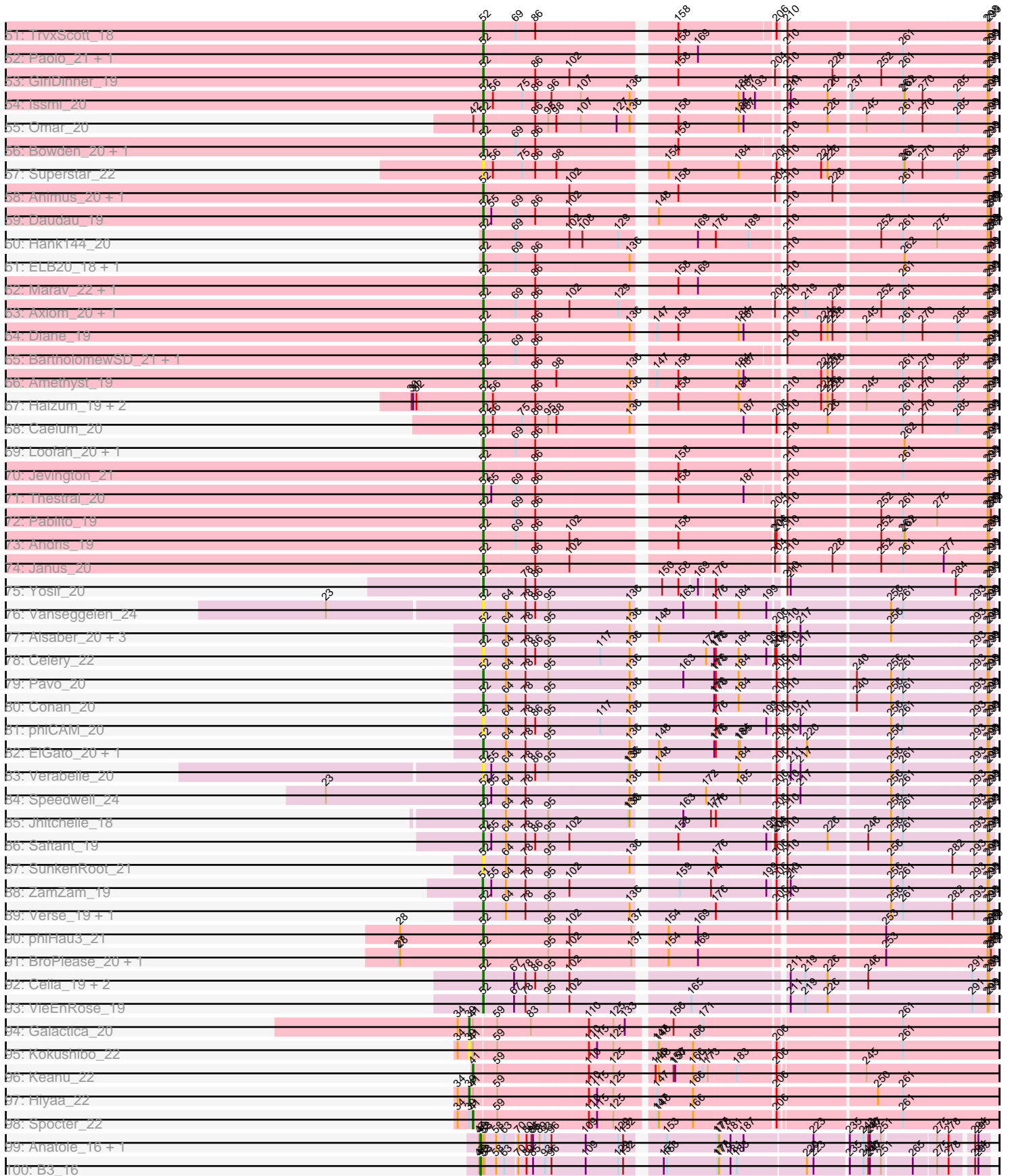


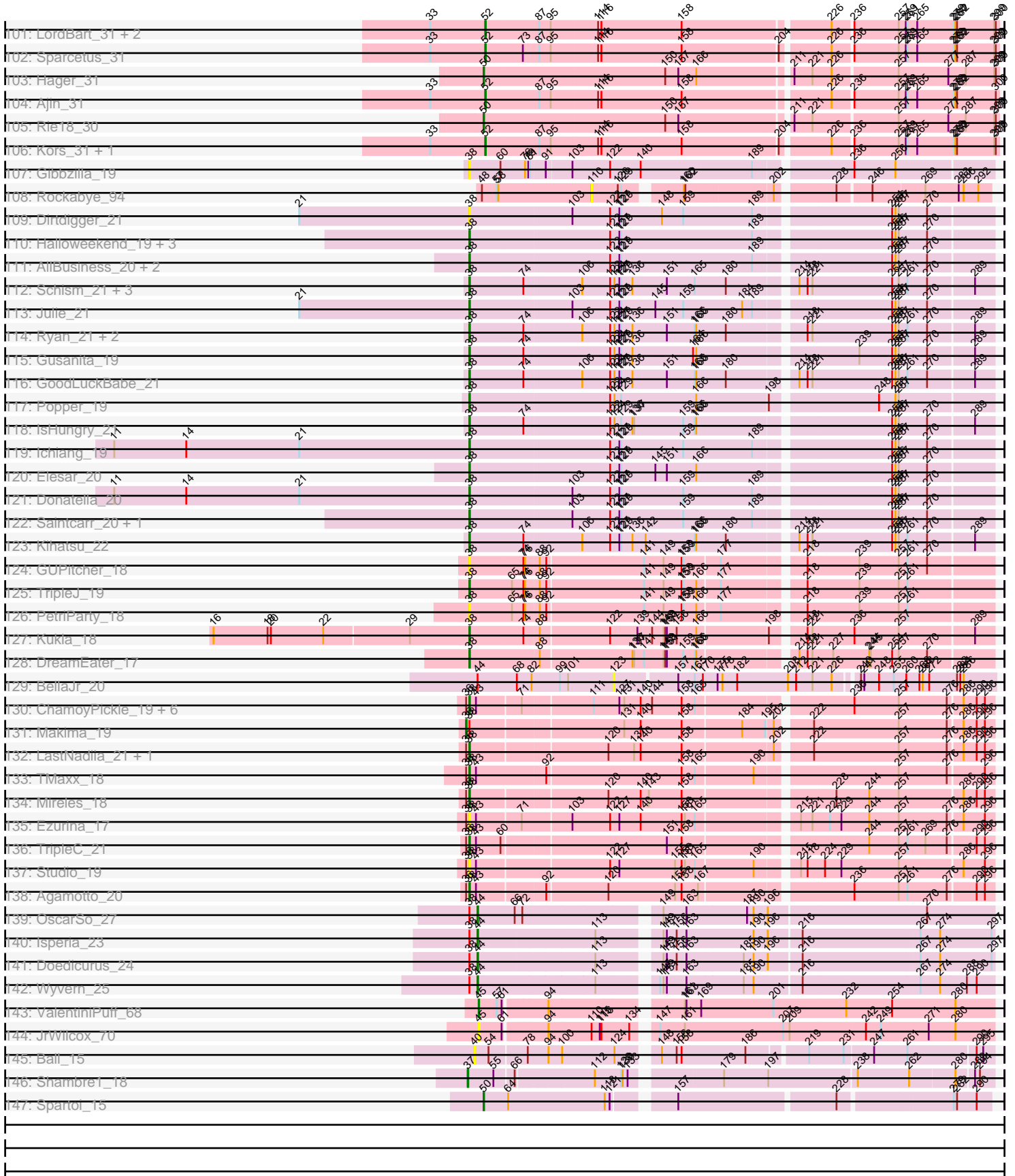
Zoomed Pham 311185



Zoomed Pham 311185



Zoomed Pham 311185



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 311185 Report

This analysis was run 06/27/26 on database version 652.

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

Pham number 311185 has 255 members, 26 are drafts.

Phages represented in each track:

- Track 1 : Suppi_19, Wayne_19, Litotes_19, PartyCup_19, Graynor_19, Canowicakte_19, MrBoss_19, CallieOMalley_19, AppleCider_19
- Track 2 : Carpal_19, Dino_19, Glenn_19, Kalizoi_19, Zorro_19
- Track 3 : Oxynfrius_19
- Track 4 : Scuttle_19, Beethoven_19
- Track 5 : RAP15_19, Fluke_19, MrGloopy_19, Jumboset_19, MeganNoll_19, Savage2526_19
- Track 6 : Wawa_19
- Track 7 : Greenhouse_19, Lakshmi_19, Albanese_19, Nubia_19
- Track 8 : Potatoes_19, Cholula_19, Immaculata_19
- Track 9 : Korra_20
- Track 10 : GreenHearts_19
- Track 11 : Vallejo_19
- Track 12 : RcigaStruga_19, Huntingdon_19
- Track 13 : Misaeng_19
- Track 14 : Rozby_19, Riverdale_19
- Track 15 : TattModd_19
- Track 16 : Joann_19
- Track 17 : BrotherBLo_19
- Track 18 : Galaxy_17
- Track 19 : Abidatro_17
- Track 20 : EvePickles_20
- Track 21 : Sashimi_21
- Track 22 : Faja_20
- Track 23 : Crewmate_18, ObiToo_17
- Track 24 : VResidence_17
- Track 25 : KeAlii_17
- Track 26 : Reedo_17
- Track 27 : Tweety19_17, Snek_17
- Track 28 : Mojorita_17, Picard_17
- Track 29 : SV1_17
- Track 30 : PapayaSalad_17
- Track 31 : Lishka_17

- Track 32 : Ididsumtinwong_17
- Track 33 : Austintatious_17
- Track 34 : Bioscum_17
- Track 35 : Bovely_19, Esperer_19, Leviticus_19, Indigo_19, BeardedLady_20, Ozzie_19, Caliburn_19, Aaronocolus_19, SunsetPointe_19, Unstoppable_19, Hydra_21, Legacy_19, Phettuccine_19, Nerdos_19
- Track 36 : BryanRecycles_20, Oliynyk_20, Izzy_20, Jash_20, Eddasa_20, Rusticus_20
- Track 37 : Goby_19, Toma_19
- Track 38 : Chucky_19, TagePhighter_20, Snorlax_19
- Track 39 : Danzina_20
- Track 40 : Dattran_20, Zemlya_20, Celeste_19
- Track 41 : Brataylor_20
- Track 42 : Whatever_19, SarahRose_19, BarryBee_21, Hippo_19, Dwayne_19, Asten_19, Emaanora_21, Triste_19, Werner_19
- Track 43 : RedBear_21, South40_20, Katalie_20
- Track 44 : Nabi_19, Lorelei_19, Rana_19
- Track 45 : EnochSoames_21
- Track 46 : Nanodon_21
- Track 47 : Sujidade_20, Lika_19, Godpower_20
- Track 48 : OzzyJ_20
- Track 49 : Yasdniil_19, Maneekul_19, TuanPN_19, Ejemplo_19
- Track 50 : Lannister_20
- Track 51 : TrvxScott_18
- Track 52 : Paolo_21, Zainub_21
- Track 53 : GirlDinner_19
- Track 54 : Issmi_20
- Track 55 : Omar_20
- Track 56 : Bowden_20, TinaBelcher_19
- Track 57 : Superstar_22
- Track 58 : Animus_20, SqueakyClean_20
- Track 59 : Daudau_19
- Track 60 : Hank144_20
- Track 61 : ELB20_18, R4_19
- Track 62 : Marav_22, Puginator_21
- Track 63 : Axiom_20, Triumph_21
- Track 64 : Diane_19
- Track 65 : BartholomewSD_21, Alvy_21
- Track 66 : Amethyst_19
- Track 67 : Haizum_19, Nishikigoi_19, Tefunt_19
- Track 68 : Caelum_20
- Track 69 : Loofah_20, Paedore_19
- Track 70 : Jevington_21
- Track 71 : Thestral_20
- Track 72 : Pablito_19
- Track 73 : Andris_19
- Track 74 : Janus_20
- Track 75 : Yosif_20
- Track 76 : Vanseggelen_24
- Track 77 : Alsaber_20, Kaine_19, Dexers_18, Sudan_19
- Track 78 : Celery_22
- Track 79 : Pavo_20
- Track 80 : Conan_20

- Track 81 : phiCAM_20
- Track 82 : ElGato_20, Provolone_20
- Track 83 : Verabelle_20
- Track 84 : Speedwell_24
- Track 85 : Jhitchelle_18
- Track 86 : Saftant_19
- Track 87 : SunkenRoot_21
- Track 88 : ZamZam_19
- Track 89 : Verse_19, Amela_19
- Track 90 : phiHau3_21
- Track 91 : BroPlease_20, GreenWeasel_21
- Track 92 : Celia_19, Itza_19, Urza_19
- Track 93 : VieEnRose_19
- Track 94 : Galactica_20
- Track 95 : Kokushibo_22
- Track 96 : Keanu_22
- Track 97 : Hiyaa_22
- Track 98 : Spocter_22
- Track 99 : Anatole_16, E1_16
- Track 100 : B3_16
- Track 101 : LordBart_31, TinyMiny_31, RikSengupta_31
- Track 102 : Sparcetus_31
- Track 103 : Hager_31
- Track 104 : Ajin_31
- Track 105 : Rie18_30
- Track 106 : Kors_31, Bramble_31
- Track 107 : Gibbzilla_19
- Track 108 : Rockabye_94
- Track 109 : Dirtdigger_21
- Track 110 : Halloweekend_19, QuinnAvery_21, Cole_19, BigSherm_21
- Track 111 : AllBusiness_20, Toodles_21, MillySue_21
- Track 112 : Schism_21, Guinevere_21, Nandita_21, Lenoxika_21
- Track 113 : Julie_21
- Track 114 : Ryan_21, Yonex_21, Zaheer_21
- Track 115 : Gusanita_19
- Track 116 : GoodLuckBabe_21
- Track 117 : Popper_19
- Track 118 : IsHungry_21
- Track 119 : Ichiang_19
- Track 120 : Elesar_20
- Track 121 : Donatella_20
- Track 122 : Saintcarr_20, ToastyOats_23
- Track 123 : Kihatsu_22
- Track 124 : GUPitcher_18
- Track 125 : TripleJ_19
- Track 126 : PetriParty_18
- Track 127 : Kukla_18
- Track 128 : DreamEater_17
- Track 129 : BellaJr_20
- Track 130 : ChamoyPickle_19, AnnabelLee_18, ChipsNGuac_18, Roberts_18, Gerri43_18, Neuville_18, CardboardBox_19
- Track 131 : Makima_19
- Track 132 : LastNadiia_21, Audell_21

- Track 133 : TMaxx_18
- Track 134 : Mireles_18
- Track 135 : Ezurina_17
- Track 136 : TripleC_21
- Track 137 : Studio_19
- Track 138 : Agamoto_20
- Track 139 : OscarSo_27
- Track 140 : Isperia_23
- Track 141 : Doedicurus_24
- Track 142 : Wyvern_25
- Track 143 : ValentiniPuff_68
- Track 144 : JrWilcox_70
- Track 145 : Ball_15
- Track 146 : Shambre1_18
- Track 147 : Spartoi_15

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

The start number called the most often in the published annotations is 52, it was called in 61 of the 229 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ajin_31, Alsaber_20, Alvy_21, Amela_19, Amethyst_19, Andris_19, Animus_20, Axiom_20, BartholomewSD_21, Bowden_20, Bramble_31, BroPlease_20, Caelum_20, Celery_22, Celia_19, Conan_20, Daudau_19, Dexers_18, Diane_19, ELB20_18, ElGato_20, GirlDinner_19, GreenWeasel_21, Haizum_19, Hank144_20, Issmi_20, Itza_19, Janus_20, Jevington_21, Jhitchelle_18, Kaine_19, Kors_31, Loofah_20, LordBart_31, Marav_22, Nishikigoi_19, Omar_20, Pablito_19, Paedore_19, Paolo_21, Pavo_20, Provolone_20, Puginator_21, R4_19, RikSengupta_31, Saftant_19, Sparcetus_31, Speedwell_24, SqueakyClean_20, Sudan_19, SunkenRoot_21, Superstar_22, Tefunt_19, Thestral_20, TinaBelcher_19, TinyMiny_31, Triumph_21, TrvxScott_18, Urza_19, Vanseggelen_24, Verabelle_20, Verse_19, VieEnRose_19, Yosif_20, Zainub_21, phiCAM_20, phiHau3_21,

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

- Abidatro_17, Anatole_16, B3_16, E1_16, Galaxy_17,

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

- Aaronocolus_19, Agamoto_20, Albanese_19, AllBusiness_20, AnnabelleLee_18, AppleCider_19, Asten_19, Audell_21, Austintatious_17, Ball_15, BarryBee_21, BeardedLady_20, Beethoven_19, BellaJr_20, BigSherm_21, Bioscum_17, Bovely_19, Brataylor_20, BrotherBLo_19, BryanRecycles_20, Caliburn_19, CallieOMalley_19, Canowicakte_19, CardboardBox_19, Carpal_19, Celeste_19, ChamoyPickle_19, ChipsNGuac_18, Cholula_19, Chucky_19, Cole_19, Crewmate_18, Danzina_20, Dattran_20, Dino_19, Dirdigger_21, Doedicurus_24, Donatella_20, DreamEater_17, Dwayne_19, Eddasa_20, Ejemplo_19, Elesar_20, Emaanora_21, EnochSoames_21, Esperer_19, EvePickles_20, Ezurina_17, Faja_20, Fluke_19, GUPitcher_18, Galactica_20, Gerri43_18, Gibbzilla_19, Glenn_19, Goby_19, Godpower_20, GoodLuckBabe_21, Graynor_19, GreenHearts_19, Greenhouse_19, Guinevere_21, Gusanita_19, Hager_31, Halloweekend_19,

Hippo_19, Hiyaa_22, Huntingdon_19, Hydra_21, Ichiang_19, Ididsuntinwong_17, Immaculata_19, Indigo_19, IsHungry_21, Isperia_23, Izzy_20, Jash_20, Joann_19, JrWilcox_70, Julie_21, Jumboset_19, Kalizoi_19, Katalie_20, KeAlii_17, Keanu_22, Kihatsu_22, Kokushibo_22, Korra_20, Kukla_18, Lakshmi_19, Lannister_20, LastNadiia_21, Legacy_19, Lenoxika_21, Leviticus_19, Lika_19, Lishka_17, Litotes_19, Lorelei_19, Makima_19, Maneekul_19, MeganNoll_19, MillySue_21, Mireles_18, Misaeng_19, Mojarita_17, MrBoss_19, MrGloopy_19, Nabi_19, Nandita_21, Nanodon_21, Nerdos_19, Neuville_18, Nubia_19, ObiToo_17, Oliynyk_20, OscarSo_27, Oxynfrius_19, Ozzie_19, OzzyJ_20, PapayaSalad_17, PartyCup_19, PetriParty_18, Phettuccine_19, Picard_17, Popper_19, Potatoes_19, QuinnAvery_21, RAP15_19, Rana_19, RcigaStruga_19, RedBear_21, Reedo_17, Rie18_30, Riverdale_19, Roberts_18, Rockabye_94, Rozby_19, Rusticus_20, Ryan_21, SV1_17, Saintcarr_20, SarahRose_19, Sashimi_21, Savage2526_19, Schism_21, Scuttle_19, Shambre1_18, Snek_17, Snorlax_19, South40_20, Spartoi_15, Spocter_22, Studio_19, Sujidade_20, SunsetPointe_19, Suppi_19, TMaxx_18, TagePhighter_20, TattModd_19, ToastyOats_23, Toma_19, Toodles_21, TripleC_21, TripleJ_19, Triste_19, TuanPN_19, Tweety19_17, Unstoppable_19, VResidence_17, ValentiniPuff_68, Vallejo_19, Wawa_19, Wayne_19, Werner_19, Whatever_19, Wyvern_25, Yasdni1_19, Yonex_21, Zaheer_21, ZamZam_19, Zemlya_20, Zorro_19,

Summary by start number:

Start 35:

- Found in 9 of 255 (3.5%) of genes in pham
- Manual Annotations of this start: 9 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro_17 (AS1), Crewmate_18 (AZ1), Galaxy_17 (AS1), KeAlii_17 (AZ1), ObiToo_17 (AZ1), Reedo_17 (AZ1), Snek_17 (AZ3), Tweety19_17 (AZ3), VResidence_17 (AZ1),

Start 36:

- Found in 16 of 255 (6.3%) of genes in pham
- Manual Annotations of this start: 1 of 229
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Makima_19 (FR),

Start 37:

- Found in 43 of 255 (16.9%) of genes in pham
- Manual Annotations of this start: 41 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Albanese_19 (AK), AppleCider_19 (AK), Beethoven_19 (AK), BrotherBLo_19 (AK), CallieOMalley_19 (AK), Canowicakte_19 (AK), Carpal_19 (AK), Cholula_19 (AK), Dino_19 (AK), Fluke_19 (AK), Glenn_19 (AK), Graynor_19 (AK), GreenHearts_19 (AK), Greenhouse_19 (AK), Huntingdon_19 (AK), Immaculata_19 (AK), Joann_19 (AK), Jumboset_19 (AK), Kalizoi_19 (AK), Korra_20 (AK), Lakshmi_19 (AK), Litotes_19 (AK), MeganNoll_19 (AK), Misaeng_19 (AK), MrBoss_19 (AK), MrGloopy_19 (AK), Nubia_19 (AK), Oxynfrius_19 (AK), PartyCup_19 (AK), Potatoes_19 (AK), RAP15_19 (AK), RcigaStruga_19 (AK), Riverdale_19 (AK), Rozby_19 (AK), Savage2526_19 (AK), Scuttle_19 (AK), Shambre1_18 (singleton), Suppi_19 (AK), TattModd_19 (AK), Vallejo_19 (AK), Wawa_19 (AK), Wayne_19 (AK), Zorro_19 (AK),

Start 38:

- Found in 55 of 255 (21.6%) of genes in pham
- Manual Annotations of this start: 38 of 229
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Agamoto_20 (FR), AllBusiness_20 (FF), AnnabelLee_18 (FR), Audell_21 (FR), BigSherm_21 (FF), CardboardBox_19 (FR), ChamoyPickle_19 (FR), ChipsNGuac_18 (FR), Cole_19 (FF), DirtDigger_21 (FF), Donatella_20 (FF), DreamEater_17 (FJ), Elesar_20 (FF), EvePickles_20 (AY), Ezurina_17 (FR), Faja_20 (AY), GUPitcher_18 (FJ), Gerri43_18 (FR), Gibbzilla_19 (FB), GoodLuckBabe_21 (FF), Guinevere_21 (FF), Gusanita_19 (FF), Halloweekend_19 (FF), Ichiang_19 (FF), IsHungry_21 (FF), Julie_21 (FF), Kihatsu_22 (FF), Kukla_18 (FJ), LastNadiia_21 (FR), Lenoxika_21 (FF), MillySue_21 (FF), Mireles_18 (FR), Nandita_21 (FF), Neuville_18 (FR), PetriParty_18 (FJ), Popper_19 (FF), QuinnAvery_21 (FF), Roberts_18 (FR), Ryan_21 (FF), Saintcarr_20 (FF), Sashimi_21 (AY), Schism_21 (FF), Studio_19 (FR), TMaxx_18 (FR), ToastyOats_23 (FF), Toodles_21 (FF), TripleC_21 (FR), TripleJ_19 (FJ), Yonex_21 (FF), Zaheer_21 (FF),

Start 39:

- Found in 10 of 255 (3.9%) of genes in pham
- Manual Annotations of this start: 4 of 229
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Galactica_20 (BQ), Hiyaa_22 (BQ), Ididsumtinwong_17 (BC3), Kokushibo_22 (BQ), Lishka_17 (BC3),

Start 40:

- Found in 1 of 255 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ball_15 (singleton),

Start 41:

- Found in 13 of 255 (5.1%) of genes in pham
- Manual Annotations of this start: 8 of 229
- Called 61.5% of time when present
- Phage (with cluster) where this start called: Austintatious_17 (BC3), Bioscum_17 (BC3), Keanu_22 (BQ), Mojarita_17 (BC1), PapayaSalad_17 (BC3), Picard_17 (BC1), SV1_17 (BC1), Spocter_22 (BQ),

Start 44:

- Found in 5 of 255 (2.0%) of genes in pham
- Manual Annotations of this start: 4 of 229
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Doedicurus_24 (GJ), Isperia_23 (GJ), OscarSo_27 (GJ), Wyvern_25 (GJ),

Start 45:

- Found in 2 of 255 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JrWilcox_70 (GL), ValentiniPuff_68 (GL),

Start 49:

- Found in 59 of 255 (23.1%) of genes in pham
- Manual Annotations of this start: 58 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aaronocolus_19 (BD1), Anatole_16 (BV), Asten_19 (BD1), B3_16 (BV), BarryBee_21 (BD1), BeardedLady_20 (BD1), Bovely_19 (BD1), Brataylor_20 (BD1), BryanRecycles_20 (BD1), Caliburn_19 (BD1), Celeste_19 (BD1), Chucky_19 (BD1), Danzina_20 (BD1), Dattran_20 (BD1), Dwayne_19 (BD1), E1_16 (BV), Eddasa_20 (BD1), Ejemplo_19 (BD1), Emaanora_21 (BD1), EnochSoames_21 (BD1), Esperer_19 (BD1), Goby_19 (BD1), Godpower_20 (BD1), Hippo_19 (BD1), Hydra_21 (BD1), Indigo_19 (BD1), Izzy_20 (BD1), Jash_20 (BD1), Katalie_20 (BD1), Lannister_20 (BD1), Legacy_19 (BD1), Leviticus_19 (BD1), Lika_19 (BD1), Lorelei_19 (BD1), Maneekul_19 (BD1), Nabi_19 (BD1), Nanodon_21 (BD1), Nerdos_19 (BD1), Oliynyk_20 (BD1), Ozzie_19 (BD1), OzzyJ_20 (BD1), Phettuccine_19 (BD1), Rana_19 (BD1), RedBear_21 (BD1), Rusticus_20 (BD1), SarahRose_19 (BD1), Snorlax_19 (BD1), South40_20 (BD1), Sujidade_20 (BD1), SunsetPointe_19 (BD1), TagePhighter_20 (BD1), Toma_19 (BD1), Triste_19 (BD1), TuanPN_19 (BD1), Unstoppable_19 (BD1), Werner_19 (BD1), Whatever_19 (BD1), Yasdni1_19 (BD1), Zemlya_20 (BD1),

Start 50:

- Found in 3 of 255 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hager_31 (EF), Rie18_30 (EF), Spartoi_15 (singleton),

Start 51:

- Found in 1 of 255 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 229
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ZamZam_19 (BD3),

Start 52:

- Found in 72 of 255 (28.2%) of genes in pham
- Manual Annotations of this start: 61 of 229
- Called 93.1% of time when present
- Phage (with cluster) where this start called: Ajin_31 (EF), Alsaber_20 (BD3), Alvy_21 (BD2), Amela_19 (BD3), Amethyst_19 (BD2), Andris_19 (BD2), Animus_20 (BD2), Axiom_20 (BD2), BartholomewSD_21 (BD2), Bowden_20 (BD2), Bramble_31 (EF), BroPlease_20 (BD4), Caelum_20 (BD2), Celery_22 (BD3), Celia_19 (BD6), Conan_20 (BD3), Daudau_19 (BD2), Dexers_18 (BD3), Diane_19 (BD2), ELB20_18 (BD2), ElGato_20 (BD3), GirlDinner_19 (BD2), GreenWeasel_21 (BD4), Haizum_19 (BD2), Hank144_20 (BD2), Issmi_20 (BD2), Itza_19 (BD6), Janus_20 (BD2), Jevington_21 (BD2), Jhitchelle_18 (BD3), Kaine_19 (BD3), Kors_31 (EF), Loofah_20 (BD2), LordBart_31 (EF), Marav_22 (BD2), Nishikigoi_19 (BD2), Omar_20 (BD2), Pablito_19 (BD2), Paedore_19 (BD2), Paolo_21 (BD2), Pavo_20 (BD3), Provolone_20 (BD3), Puginator_21 (BD2), R4_19 (BD2), RikSengupta_31 (EF), Saftant_19 (BD3), Sparcetus_31 (EF), Speedwell_24 (BD3), SqueakyClean_20 (BD2), Sudan_19 (BD3), SunkenRoot_21 (BD3), Superstar_22 (BD2), Tefunt_19 (BD2), Thestral_20 (BD2), TinaBelcher_19 (BD2), TinyMiny_31 (EF), Triumph_21 (BD2), TrvxScott_18 (BD2), Urza_19 (BD6), Vanseggelen_24 (BD3), Verabelle_20 (BD3), Verse_19 (BD3), VieEnRose_19 (BD6), Yosif_20 (BD3), Zainub_21 (BD2), phiCAM_20 (BD3), phiHau3_21 (BD4),

Start 110:

- Found in 7 of 255 (2.7%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Rockabye_94 (FC),

Start 123:

- Found in 1 of 255 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BellaJr_20 (FN),

Summary by clusters:

There are 24 clusters represented in this pham: singleton, FR, FB, FC, BQ, FF, FJ, FN, BD4, BD6, BD1, BD3, BD2, AS1, AK, EF, AY, GL, GJ, BV, AZ1, AZ3, BC1, BC3,

Info for manual annotations of cluster AK:

- Start number 37 was manually annotated 40 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 35 was manually annotated 2 times for cluster AS1.

Info for manual annotations of cluster AY:

- Start number 38 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster AZ1:

- Start number 35 was manually annotated 5 times for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 35 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster BC1:

- Start number 41 was manually annotated 3 times for cluster BC1.

Info for manual annotations of cluster BC3:

- Start number 39 was manually annotated 2 times for cluster BC3.
- Start number 41 was manually annotated 3 times for cluster BC3.

Info for manual annotations of cluster BD1:

- Start number 49 was manually annotated 55 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 52 was manually annotated 33 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 51 was manually annotated 1 time for cluster BD3.
- Start number 52 was manually annotated 14 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 52 was manually annotated 3 times for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 52 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster BQ:

- Start number 39 was manually annotated 2 times for cluster BQ.
- Start number 41 was manually annotated 2 times for cluster BQ.

Info for manual annotations of cluster BV:

- Start number 49 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster EF:

- Start number 50 was manually annotated 2 times for cluster EF.
- Start number 52 was manually annotated 7 times for cluster EF.

Info for manual annotations of cluster FF:

- Start number 38 was manually annotated 22 times for cluster FF.

Info for manual annotations of cluster FJ:

- Start number 38 was manually annotated 3 times for cluster FJ.

Info for manual annotations of cluster FR:

- Start number 36 was manually annotated 1 time for cluster FR.
- Start number 38 was manually annotated 10 times for cluster FR.

Info for manual annotations of cluster GJ:

- Start number 44 was manually annotated 4 times for cluster GJ.

Info for manual annotations of cluster GL:

- Start number 45 was manually annotated 1 time for cluster GL.

Gene Information:

Gene: Aaronocolus_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Aaronocolus_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: Abidatro_17 Start: 12853, Stop: 13671, Start Num: 35

Candidate Starts for Abidatro_17:

(Start: 35 @12853 has 9 MA's), (Start: 52 @12886 has 61 MA's), (90, 12979), (94, 12985), (97, 13000), (168, 13222), (188, 13315), (191, 13321), (194, 13336), (205, 13357), (218, 13396), (219, 13399), (233, 13462), (255, 13540), (256, 13543), (264, 13576), (271, 13600), (281, 13651),

Gene: Agamoto_20 Start: 14950, Stop: 15855, Start Num: 38

Candidate Starts for Agamoto_20:

(Start: 36 @14944 has 1 MA's), (Start: 38 @14950 has 38 MA's), (43, 14962), (92, 15082), (120, 15190), (155, 15310), (158, 15322), (167, 15352), (236, 15607), (257, 15688), (261, 15703), (276,

15775), (290, 15823), (296, 15838),

Gene: Ajin_31 Start: 17618, Stop: 18502, Start Num: 52

Candidate Starts for Ajin_31:

(33, 17519), (Start: 52 @17618 has 61 MA's), (87, 17714), (95, 17735), (114, 17819), (116, 17825), (158, 17966), (226, 18215), (236, 18245), (257, 18323), (259, 18335), (261, 18338), (265, 18356), (279, 18422), (280, 18425), (282, 18428), (300, 18497),

Gene: Albanese_19 Start: 15218, Stop: 16090, Start Num: 37

Candidate Starts for Albanese_19:

(Start: 37 @15218 has 41 MA's), (78, 15311), (100, 15371), (124, 15461), (201, 15716), (209, 15740), (210, 15743), (213, 15755), (247, 15884), (250, 15899), (290, 16058),

Gene: AllBusiness_20 Start: 15893, Stop: 16813, Start Num: 38

Candidate Starts for AllBusiness_20:

(Start: 38 @15893 has 38 MA's), (122, 16145), (127, 16160), (129, 16163), (189, 16403), (254, 16634), (256, 16640), (257, 16646), (270, 16697),

Gene: Alsaber_20 Start: 15677, Stop: 16534, Start Num: 52

Candidate Starts for Alsaber_20:

(Start: 52 @15677 has 61 MA's), (64, 15713), (78, 15749), (95, 15791), (136, 15935), (148, 15962), (206, 16169), (210, 16175), (217, 16199), (256, 16349), (293, 16499), (298, 16523), (299, 16526),

Gene: Alvy_21 Start: 15007, Stop: 15861, Start Num: 52

Candidate Starts for Alvy_21:

(Start: 52 @15007 has 61 MA's), (69, 15061), (86, 15097), (210, 15502), (298, 15850), (299, 15853),

Gene: Amela_19 Start: 15969, Stop: 16826, Start Num: 52

Candidate Starts for Amela_19:

(Start: 52 @15969 has 61 MA's), (64, 16005), (78, 16041), (95, 16083), (136, 16227), (176, 16359), (206, 16461), (210, 16467), (256, 16641), (261, 16662), (282, 16752), (293, 16791), (298, 16815), (299, 16818),

Gene: Amethyst_19 Start: 15455, Stop: 16312, Start Num: 52

Candidate Starts for Amethyst_19:

(Start: 52 @15455 has 61 MA's), (86, 15545), (98, 15584), (136, 15713), (147, 15737), (158, 15776), (184, 15887), (187, 15896), (224, 16013), (226, 16025), (228, 16034), (261, 16148), (270, 16184), (285, 16247), (298, 16301), (299, 16304),

Gene: Anatole_16 Start: 12979, Stop: 13818, Start Num: 49

Candidate Starts for Anatole_16:

(47, 12976), (Start: 49 @12979 has 58 MA's), (Start: 52 @12982 has 61 MA's), (53, 12985), (58, 13003), (63, 13015), (70, 13036), (80, 13051), (84, 13060), (85, 13063), (89, 13075), (93, 13084), (96, 13096), (109, 13159), (129, 13219), (132, 13228), (153, 13282), (177, 13375), (178, 13378), (181, 13399), (187, 13423), (223, 13543), (235, 13597), (243, 13621), (246, 13630), (247, 13633), (251, 13651), (275, 13738), (278, 13756), (294, 13792), (295, 13798),

Gene: Andris_19 Start: 14711, Stop: 15565, Start Num: 52

Candidate Starts for Andris_19:

(Start: 52 @14711 has 61 MA's), (69, 14765), (86, 14801), (102, 14864), (158, 15032), (204, 15197), (206, 15200), (210, 15206), (252, 15362), (261, 15401), (262, 15404), (298, 15554), (299, 15557),

Gene: Animus_20 Start: 15047, Stop: 15901, Start Num: 52

Candidate Starts for Animus_20:

(Start: 52 @15047 has 61 MA's), (102, 15200), (158, 15368), (204, 15533), (210, 15542), (228, 15623), (261, 15737), (298, 15890), (299, 15893),

Gene: AnnabelLee_18 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for AnnabelLee_18:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: AppleCider_19 Start: 15167, Stop: 16048, Start Num: 37

Candidate Starts for AppleCider_19:

(Start: 37 @15167 has 41 MA's), (78, 15260), (100, 15320), (119, 15398), (209, 15698), (219, 15734), (226, 15773), (246, 15839), (247, 15842), (250, 15857), (290, 16016),

Gene: Asten_19 Start: 14959, Stop: 15816, Start Num: 49

Candidate Starts for Asten_19:

(Start: 49 @14959 has 58 MA's), (78, 15031), (86, 15049), (136, 15217), (148, 15244), (199, 15439), (210, 15457), (211, 15463), (224, 15517), (256, 15631), (261, 15652), (298, 15805), (299, 15808),

Gene: Audell_21 Start: 15231, Stop: 16136, Start Num: 38

Candidate Starts for Audell_21:

(Start: 36 @15225 has 1 MA's), (Start: 38 @15231 has 38 MA's), (120, 15471), (137, 15516), (140, 15528), (158, 15603), (202, 15762), (222, 15816), (257, 15969), (276, 16056), (286, 16080), (290, 16104), (296, 16119),

Gene: Austintatious_17 Start: 12200, Stop: 13096, Start Num: 41

Candidate Starts for Austintatious_17:

(1, 11099), (2, 11144), (3, 11201), (4, 11219), (5, 11246), (6, 11273), (7, 11327), (8, 11435), (9, 11498), (10, 11528), (12, 11561), (13, 11579), (15, 11705), (17, 11798), (19, 11825), (24, 11933), (34, 12173), (Start: 39 @12194 has 4 MA's), (Start: 41 @12200 has 8 MA's), (115, 12416), (117, 12419), (138, 12476), (148, 12506), (219, 12770), (226, 12809), (273, 12983),

Gene: Axiom_20 Start: 14860, Stop: 15714, Start Num: 52

Candidate Starts for Axiom_20:

(Start: 52 @14860 has 61 MA's), (69, 14914), (86, 14950), (102, 15013), (129, 15097), (204, 15346), (210, 15355), (219, 15388), (228, 15436), (252, 15511), (261, 15550), (298, 15703), (299, 15706),

Gene: B3_16 Start: 12982, Stop: 13821, Start Num: 49

Candidate Starts for B3_16:

(47, 12979), (Start: 49 @12982 has 58 MA's), (Start: 52 @12985 has 61 MA's), (53, 12988), (58, 13006), (63, 13018), (70, 13039), (80, 13054), (85, 13066), (93, 13087), (96, 13099), (109, 13162), (129, 13222), (132, 13231), (151, 13279), (153, 13285), (177, 13378), (178, 13381), (181, 13402), (183, 13414), (220, 13534), (223, 13546), (235, 13600), (243, 13624), (246, 13633), (247, 13636), (251, 13654), (265, 13702), (275, 13741), (278, 13759), (294, 13795), (295, 13801),

Gene: Ball_15 Start: 12363, Stop: 13217, Start Num: 40

Candidate Starts for Ball_15:

(40, 12363), (54, 12387), (78, 12447), (94, 12483), (100, 12507), (124, 12597), (148, 12654), (156, 12681), (158, 12687), (186, 12801), (219, 12897), (231, 12957), (247, 13005), (261, 13065), (290, 13185), (295, 13197),

Gene: BarryBee_21 Start: 14969, Stop: 15826, Start Num: 49

Candidate Starts for BarryBee_21:

(Start: 49 @14969 has 58 MA's), (78, 15041), (86, 15059), (136, 15227), (148, 15254), (199, 15449), (210, 15467), (211, 15473), (224, 15527), (256, 15641), (261, 15662), (298, 15815), (299, 15818),

Gene: BartholomewSD_21 Start: 15007, Stop: 15861, Start Num: 52

Candidate Starts for BartholomewSD_21:

(Start: 52 @15007 has 61 MA's), (69, 15061), (86, 15097), (210, 15502), (298, 15850), (299, 15853),

Gene: BeardedLady_20 Start: 15240, Stop: 16097, Start Num: 49

Candidate Starts for BeardedLady_20:

(Start: 49 @15240 has 58 MA's), (78, 15312), (86, 15330), (96, 15360), (102, 15393), (136, 15498), (148, 15525), (175, 15627), (184, 15672), (210, 15738), (211, 15744), (224, 15798), (226, 15810), (256, 15912), (258, 15924), (261, 15933), (298, 16086), (299, 16089),

Gene: Beethoven_19 Start: 15125, Stop: 15994, Start Num: 37

Candidate Starts for Beethoven_19:

(Start: 37 @15125 has 41 MA's), (75, 15212), (78, 15218), (192, 15593), (199, 15614), (201, 15620), (213, 15659), (247, 15788), (250, 15803), (262, 15851), (280, 15929), (290, 15962),

Gene: BellaJr_20 Start: 16170, Stop: 16835, Start Num: 123

Candidate Starts for BellaJr_20:

(Start: 44 @15924 has 4 MA's), (68, 15993), (82, 16020), (99, 16071), (101, 16086), (123, 16170), (157, 16278), (165, 16308), (170, 16323), (175, 16350), (178, 16359), (182, 16386), (208, 16479), (212, 16494), (221, 16524), (226, 16557), (240, 16593), (241, 16599), (248, 16626), (255, 16653), (260, 16674), (266, 16698), (268, 16704), (272, 16716), (282, 16764), (284, 16770), (286, 16776),

Gene: BigSherm_21 Start: 15821, Stop: 16741, Start Num: 38

Candidate Starts for BigSherm_21:

(Start: 38 @15821 has 38 MA's), (122, 16073), (127, 16088), (129, 16091), (189, 16331), (254, 16562), (256, 16568), (257, 16574), (270, 16625),

Gene: Bioscum_17 Start: 12236, Stop: 13132, Start Num: 41

Candidate Starts for Bioscum_17:

(1, 11135), (2, 11180), (3, 11237), (4, 11255), (6, 11309), (7, 11363), (8, 11471), (9, 11534), (10, 11564), (12, 11597), (13, 11615), (15, 11741), (17, 11834), (19, 11861), (24, 11969), (34, 12209), (Start: 39 @12230 has 4 MA's), (Start: 41 @12236 has 8 MA's), (115, 12452), (117, 12455), (138, 12512), (148, 12542), (219, 12806), (226, 12845), (273, 13019),

Gene: Bovely_19 Start: 14999, Stop: 15856, Start Num: 49

Candidate Starts for Bovely_19:

(Start: 49 @14999 has 58 MA's), (78, 15071), (86, 15089), (96, 15119), (102, 15152), (136, 15257), (148, 15284), (175, 15386), (184, 15431), (210, 15497), (211, 15503), (224, 15557), (226, 15569), (256, 15671), (258, 15683), (261, 15692), (298, 15845), (299, 15848),

Gene: Bowden_20 Start: 14939, Stop: 15793, Start Num: 52

Candidate Starts for Bowden_20:

(Start: 52 @14939 has 61 MA's), (69, 14993), (86, 15029), (158, 15260), (210, 15434), (298, 15782), (299, 15785),

Gene: Bramble_31 Start: 17584, Stop: 18468, Start Num: 52

Candidate Starts for Bramble_31:

(33, 17485), (Start: 52 @17584 has 61 MA's), (87, 17680), (95, 17701), (114, 17785), (116, 17791), (158, 17932), (204, 18100), (226, 18181), (236, 18211), (257, 18289), (259, 18301), (261, 18304),

(265, 18322), (279, 18388), (280, 18391), (282, 18394), (299, 18460), (300, 18463),

Gene: Brataylor_20 Start: 14985, Stop: 15842, Start Num: 49

Candidate Starts for Brataylor_20:

(Start: 49 @14985 has 58 MA's), (78, 15057), (136, 15243), (148, 15270), (184, 15417), (204, 15474), (206, 15477), (210, 15483), (211, 15489), (245, 15612), (261, 15678), (298, 15831), (299, 15834),

Gene: BroPlease_20 Start: 15689, Stop: 16543, Start Num: 52

Candidate Starts for BroPlease_20:

(27, 15533), (28, 15536), (Start: 52 @15689 has 61 MA's), (95, 15803), (102, 15842), (137, 15950), (154, 15992), (169, 16046), (253, 16349), (298, 16532), (299, 16535), (300, 16538),

Gene: BrotherBLo_19 Start: 15131, Stop: 16000, Start Num: 37

Candidate Starts for BrotherBLo_19:

(Start: 37 @15131 has 41 MA's), (75, 15218), (78, 15224), (100, 15284), (192, 15599), (199, 15620), (201, 15626), (213, 15665), (228, 15734), (247, 15794), (250, 15809), (262, 15857), (280, 15935), (290, 15968),

Gene: BryanRecycles_20 Start: 15156, Stop: 16013, Start Num: 49

Candidate Starts for BryanRecycles_20:

(Start: 49 @15156 has 58 MA's), (78, 15228), (86, 15246), (102, 15309), (136, 15414), (148, 15441), (158, 15477), (175, 15543), (184, 15588), (210, 15654), (211, 15660), (226, 15726), (240, 15765), (245, 15783), (258, 15840), (265, 15867), (298, 16002), (299, 16005),

Gene: Caelum_20 Start: 15485, Stop: 16339, Start Num: 52

Candidate Starts for Caelum_20:

(Start: 52 @15485 has 61 MA's), (56, 15503), (75, 15551), (86, 15575), (95, 15599), (98, 15614), (136, 15743), (187, 15923), (206, 15974), (210, 15980), (226, 16052), (261, 16175), (270, 16211), (285, 16274), (298, 16328), (299, 16331),

Gene: Caliburn_19 Start: 14973, Stop: 15830, Start Num: 49

Candidate Starts for Caliburn_19:

(Start: 49 @14973 has 58 MA's), (78, 15045), (86, 15063), (96, 15093), (102, 15126), (136, 15231), (148, 15258), (175, 15360), (184, 15405), (210, 15471), (211, 15477), (224, 15531), (226, 15543), (256, 15645), (258, 15657), (261, 15666), (298, 15819), (299, 15822),

Gene: CallieOMalley_19 Start: 15167, Stop: 16048, Start Num: 37

Candidate Starts for CallieOMalley_19:

(Start: 37 @15167 has 41 MA's), (78, 15260), (100, 15320), (119, 15398), (209, 15698), (219, 15734), (226, 15773), (246, 15839), (247, 15842), (250, 15857), (290, 16016),

Gene: Canowicakte_19 Start: 15202, Stop: 16083, Start Num: 37

Candidate Starts for Canowicakte_19:

(Start: 37 @15202 has 41 MA's), (78, 15295), (100, 15355), (119, 15433), (209, 15733), (219, 15769), (226, 15808), (246, 15874), (247, 15877), (250, 15892), (290, 16051),

Gene: CardboardBox_19 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for CardboardBox_19:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: Carpal_19 Start: 15132, Stop: 16001, Start Num: 37

Candidate Starts for Carpal_19:

(Start: 37 @15132 has 41 MA's), (75, 15219), (78, 15225), (192, 15600), (199, 15621), (201, 15627), (210, 15654), (213, 15666), (228, 15735), (247, 15795), (250, 15810), (262, 15858), (280, 15936), (290, 15969),

Gene: Celery_22 Start: 15630, Stop: 16484, Start Num: 52

Candidate Starts for Celery_22:

(Start: 52 @15630 has 61 MA's), (64, 15666), (78, 15702), (86, 15720), (95, 15744), (117, 15837), (136, 15888), (172, 16002), (175, 16017), (176, 16020), (184, 16062), (199, 16107), (204, 16116), (206, 16119), (210, 16125), (217, 16149), (293, 16449), (298, 16473), (299, 16476),

Gene: Celeste_19 Start: 14977, Stop: 15834, Start Num: 49

Candidate Starts for Celeste_19:

(Start: 49 @14977 has 58 MA's), (78, 15049), (102, 15130), (136, 15235), (148, 15262), (204, 15466), (206, 15469), (210, 15475), (226, 15547), (245, 15604), (261, 15670), (298, 15823), (299, 15826),

Gene: Celia_19 Start: 15416, Stop: 16273, Start Num: 52

Candidate Starts for Celia_19:

(Start: 52 @15416 has 61 MA's), (67, 15467), (78, 15488), (86, 15506), (95, 15530), (102, 15569), (211, 15920), (219, 15947), (226, 15986), (246, 16046), (291, 16235), (298, 16262), (299, 16265),

Gene: ChamoyPickle_19 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for ChamoyPickle_19:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: ChipsNGuac_18 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for ChipsNGuac_18:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: Cholula_19 Start: 15177, Stop: 16046, Start Num: 37

Candidate Starts for Cholula_19:

(Start: 37 @15177 has 41 MA's), (75, 15264), (78, 15270), (180, 15591), (199, 15666), (201, 15672), (210, 15699), (213, 15711), (247, 15840), (250, 15855), (262, 15903), (280, 15981), (290, 16014),

Gene: Chucky_19 Start: 14970, Stop: 15827, Start Num: 49

Candidate Starts for Chucky_19:

(Start: 49 @14970 has 58 MA's), (78, 15042), (86, 15060), (136, 15228), (148, 15255), (210, 15468), (211, 15474), (226, 15540), (245, 15597), (256, 15642), (261, 15663), (298, 15816), (299, 15819),

Gene: Cole_19 Start: 15483, Stop: 16403, Start Num: 38

Candidate Starts for Cole_19:

(Start: 38 @15483 has 38 MA's), (122, 15735), (127, 15750), (129, 15753), (189, 15993), (254, 16224), (256, 16230), (257, 16236), (270, 16287),

Gene: Conan_20 Start: 15399, Stop: 16256, Start Num: 52

Candidate Starts for Conan_20:

(Start: 52 @15399 has 61 MA's), (64, 15435), (78, 15471), (95, 15513), (136, 15657), (175, 15786), (176, 15789), (184, 15831), (206, 15891), (210, 15897), (240, 16008), (256, 16071), (261, 16092), (293, 16221), (298, 16245), (299, 16248),

Gene: Crewmate_18 Start: 13486, Stop: 14358, Start Num: 35

Candidate Starts for Crewmate_18:

(Start: 35 @13486 has 9 MA's), (62, 13543), (77, 13573), (129, 13738), (173, 13870), (179, 13894), (200, 13972), (261, 14206), (290, 14326),

Gene: Danzina_20 Start: 15187, Stop: 16044, Start Num: 49

Candidate Starts for Danzina_20:

(Start: 49 @15187 has 58 MA's), (78, 15259), (102, 15340), (136, 15445), (148, 15472), (204, 15676), (206, 15679), (210, 15685), (245, 15814), (261, 15880), (298, 16033), (299, 16036),

Gene: Dattran_20 Start: 14976, Stop: 15833, Start Num: 49

Candidate Starts for Dattran_20:

(Start: 49 @14976 has 58 MA's), (78, 15048), (102, 15129), (136, 15234), (148, 15261), (204, 15465), (206, 15468), (210, 15474), (226, 15546), (245, 15603), (261, 15669), (298, 15822), (299, 15825),

Gene: Daudau_19 Start: 14913, Stop: 15773, Start Num: 52

Candidate Starts for Daudau_19:

(Start: 52 @14913 has 61 MA's), (55, 14928), (69, 14970), (86, 15006), (102, 15069), (148, 15201), (210, 15414), (298, 15762), (299, 15765), (300, 15768),

Gene: Dexers_18 Start: 15380, Stop: 16237, Start Num: 52

Candidate Starts for Dexers_18:

(Start: 52 @15380 has 61 MA's), (64, 15416), (78, 15452), (95, 15494), (136, 15638), (148, 15665), (206, 15872), (210, 15878), (217, 15902), (256, 16052), (293, 16202), (298, 16226), (299, 16229),

Gene: Diane_19 Start: 15448, Stop: 16305, Start Num: 52

Candidate Starts for Diane_19:

(Start: 52 @15448 has 61 MA's), (86, 15538), (136, 15706), (147, 15730), (158, 15769), (184, 15880), (187, 15889), (210, 15946), (224, 16006), (226, 16018), (228, 16027), (245, 16075), (261, 16141), (270, 16177), (285, 16240), (298, 16294), (299, 16297),

Gene: Dino_19 Start: 15130, Stop: 15999, Start Num: 37

Candidate Starts for Dino_19:

(Start: 37 @15130 has 41 MA's), (75, 15217), (78, 15223), (192, 15598), (199, 15619), (201, 15625), (210, 15652), (213, 15664), (228, 15733), (247, 15793), (250, 15808), (262, 15856), (280, 15934), (290, 15967),

Gene: Dirdigger_21 Start: 15801, Stop: 16721, Start Num: 38

Candidate Starts for Dirdigger_21:

(21, 15489), (Start: 38 @15801 has 38 MA's), (103, 15984), (122, 16053), (127, 16068), (129, 16071), (148, 16146), (159, 16185), (189, 16311), (254, 16542), (256, 16548), (257, 16554), (270, 16605),

Gene: Doedicurus_24 Start: 15959, Stop: 16837, Start Num: 44

Candidate Starts for Doedicurus_24:

(Start: 38 @15944 has 38 MA's), (Start: 44 @15959 has 4 MA's), (113, 16163), (149, 16256), (151, 16262), (156, 16280), (163, 16295), (185, 16397), (190, 16415), (196, 16439), (216, 16496), (267, 16703), (274, 16739), (297, 16832),

Gene: Donatella_20 Start: 15947, Stop: 16867, Start Num: 38

Candidate Starts for Donatella_20:

(11, 15296), (14, 15428), (21, 15635), (Start: 38 @15947 has 38 MA's), (103, 16130), (122, 16199), (127, 16214), (129, 16217), (159, 16331), (189, 16457), (254, 16688), (256, 16694), (257, 16700),

(270, 16751),

Gene: DreamEater_17 Start: 15472, Stop: 16380, Start Num: 38

Candidate Starts for DreamEater_17:

(Start: 38 @15472 has 38 MA's), (88, 15595), (136, 15757), (137, 15760), (141, 15778), (149, 15814), (150, 15817), (151, 15820), (159, 15850), (165, 15871), (166, 15874), (214, 16033), (218, 16048), (221, 16057), (227, 16093), (244, 16159), (245, 16162), (254, 16201), (257, 16213), (270, 16264),

Gene: Dwayne_19 Start: 14966, Stop: 15823, Start Num: 49

Candidate Starts for Dwayne_19:

(Start: 49 @14966 has 58 MA's), (78, 15038), (86, 15056), (136, 15224), (148, 15251), (199, 15446), (210, 15464), (211, 15470), (224, 15524), (256, 15638), (261, 15659), (298, 15812), (299, 15815),

Gene: E1_16 Start: 12979, Stop: 13818, Start Num: 49

Candidate Starts for E1_16:

(47, 12976), (Start: 49 @12979 has 58 MA's), (Start: 52 @12982 has 61 MA's), (53, 12985), (58, 13003), (63, 13015), (70, 13036), (80, 13051), (84, 13060), (85, 13063), (89, 13075), (93, 13084), (96, 13096), (109, 13159), (129, 13219), (132, 13228), (153, 13282), (177, 13375), (178, 13378), (181, 13399), (187, 13423), (223, 13543), (235, 13597), (243, 13621), (246, 13630), (247, 13633), (251, 13651), (275, 13738), (278, 13756), (294, 13792), (295, 13798),

Gene: ELB20_18 Start: 15035, Stop: 15892, Start Num: 52

Candidate Starts for ELB20_18:

(Start: 52 @15035 has 61 MA's), (69, 15089), (86, 15125), (136, 15293), (210, 15533), (262, 15731), (298, 15881), (299, 15884),

Gene: Eddasa_20 Start: 15156, Stop: 16013, Start Num: 49

Candidate Starts for Eddasa_20:

(Start: 49 @15156 has 58 MA's), (78, 15228), (86, 15246), (102, 15309), (136, 15414), (148, 15441), (158, 15477), (175, 15543), (184, 15588), (210, 15654), (211, 15660), (226, 15726), (240, 15765), (245, 15783), (258, 15840), (265, 15867), (298, 16002), (299, 16005),

Gene: Ejemplo_19 Start: 14966, Stop: 15823, Start Num: 49

Candidate Starts for Ejemplo_19:

(Start: 49 @14966 has 58 MA's), (78, 15038), (86, 15056), (136, 15224), (148, 15251), (210, 15464), (211, 15470), (226, 15536), (245, 15593), (256, 15638), (261, 15659), (291, 15785), (298, 15812), (299, 15815),

Gene: ElGato_20 Start: 15402, Stop: 16259, Start Num: 52

Candidate Starts for ElGato_20:

(Start: 52 @15402 has 61 MA's), (64, 15438), (78, 15474), (95, 15516), (136, 15660), (148, 15687), (175, 15789), (176, 15792), (184, 15834), (185, 15837), (206, 15894), (210, 15900), (220, 15936), (256, 16074), (293, 16224), (298, 16248), (299, 16251),

Gene: Elesar_20 Start: 15874, Stop: 16794, Start Num: 38

Candidate Starts for Elesar_20:

(Start: 38 @15874 has 38 MA's), (122, 16126), (127, 16141), (129, 16144), (145, 16207), (151, 16228), (166, 16282), (254, 16615), (256, 16621), (257, 16627), (270, 16678),

Gene: Emaanora_21 Start: 14969, Stop: 15826, Start Num: 49

Candidate Starts for Emaanora_21:

(Start: 49 @14969 has 58 MA's), (78, 15041), (86, 15059), (136, 15227), (148, 15254), (199, 15449), (210, 15467), (211, 15473), (224, 15527), (256, 15641), (261, 15662), (298, 15815), (299, 15818),

Gene: EnochSoames_21 Start: 15152, Stop: 16009, Start Num: 49

Candidate Starts for EnochSoames_21:

(Start: 49 @15152 has 58 MA's), (78, 15224), (86, 15242), (102, 15305), (136, 15410), (148, 15437), (175, 15539), (184, 15584), (210, 15650), (211, 15656), (226, 15722), (240, 15761), (245, 15779), (258, 15836), (298, 15998), (299, 16001),

Gene: Esperer_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Esperer_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: EvePickles_20 Start: 15163, Stop: 16071, Start Num: 38

Candidate Starts for EvePickles_20:

(26, 15019), (Start: 38 @15163 has 38 MA's), (65, 15238), (74, 15259), (76, 15262), (88, 15286), (92, 15298), (141, 15469), (149, 15505), (158, 15538), (159, 15541), (166, 15565), (177, 15604), (218, 15739), (257, 15904), (270, 15955),

Gene: Ezurina_17 Start: 11479, Stop: 12387, Start Num: 38

Candidate Starts for Ezurina_17:

(Start: 36 @11473 has 1 MA's), (Start: 38 @11479 has 38 MA's), (43, 11491), (71, 11569), (103, 11656), (122, 11725), (127, 11740), (140, 11779), (158, 11854), (161, 11860), (165, 11878), (215, 12043), (221, 12064), (225, 12094), (229, 12115), (244, 12166), (257, 12220), (276, 12307), (286, 12331), (296, 12370),

Gene: Faja_20 Start: 15058, Stop: 15966, Start Num: 38

Candidate Starts for Faja_20:

(18, 14695), (20, 14701), (22, 14797), (25, 14833), (Start: 38 @15058 has 38 MA's), (74, 15154), (88, 15181), (122, 15304), (134, 15337), (139, 15352), (151, 15406), (159, 15436), (166, 15460), (218, 15634), (221, 15643), (225, 15673), (254, 15787), (257, 15799),

Gene: Fluke_19 Start: 15173, Stop: 16042, Start Num: 37

Candidate Starts for Fluke_19:

(Start: 37 @15173 has 41 MA's), (75, 15260), (78, 15266), (192, 15641), (199, 15662), (201, 15668), (210, 15695), (213, 15707), (247, 15836), (250, 15851), (262, 15899), (280, 15977), (290, 16010),

Gene: GUPitcher_18 Start: 14815, Stop: 15723, Start Num: 38

Candidate Starts for GUPitcher_18:

(Start: 38 @14815 has 38 MA's), (74, 14911), (76, 14914), (88, 14938), (92, 14950), (141, 15121), (149, 15157), (158, 15190), (159, 15193), (177, 15256), (218, 15391), (239, 15484), (257, 15556), (261, 15571), (270, 15607),

Gene: Galactica_20 Start: 17668, Stop: 18558, Start Num: 39

Candidate Starts for Galactica_20:

(34, 17647), (Start: 39 @17668 has 4 MA's), (Start: 41 @17674 has 8 MA's), (59, 17713), (83, 17767), (110, 17869), (125, 17908), (133, 17929), (156, 18004), (171, 18058), (261, 18385),

Gene: Galaxy_17 Start: 12859, Stop: 13677, Start Num: 35

Candidate Starts for Galaxy_17:

(Start: 35 @12859 has 9 MA's), (Start: 52 @12892 has 61 MA's), (54, 12898), (90, 12985), (94, 12991), (97, 13006), (128, 13114), (168, 13228), (173, 13249), (188, 13321), (191, 13327), (194, 13342), (205, 13363), (219, 13405), (233, 13468), (255, 13546), (256, 13549), (264, 13582), (271, 13606), (281,

13657),

Gene: Gerri43_18 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for Gerri43_18:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: Gibbzilla_19 Start: 12866, Stop: 13765, Start Num: 38

Candidate Starts for Gibbzilla_19:

(Start: 38 @12866 has 38 MA's), (60, 12923), (76, 12959), (79, 12965), (81, 12968), (91, 12992), (103, 13034), (122, 13103), (140, 13157), (189, 13355), (236, 13517), (256, 13592),

Gene: GirlDinner_19 Start: 14709, Stop: 15563, Start Num: 52

Candidate Starts for GirlDinner_19:

(Start: 52 @14709 has 61 MA's), (86, 14799), (102, 14862), (158, 15030), (204, 15195), (210, 15204), (228, 15285), (252, 15360), (261, 15399), (298, 15552), (299, 15555),

Gene: Glenn_19 Start: 15182, Stop: 16051, Start Num: 37

Candidate Starts for Glenn_19:

(Start: 37 @15182 has 41 MA's), (75, 15269), (78, 15275), (192, 15650), (199, 15671), (201, 15677), (210, 15704), (213, 15716), (228, 15785), (247, 15845), (250, 15860), (262, 15908), (280, 15986), (290, 16019),

Gene: Goby_19 Start: 14982, Stop: 15839, Start Num: 49

Candidate Starts for Goby_19:

(Start: 49 @14982 has 58 MA's), (78, 15054), (102, 15135), (136, 15240), (137, 15243), (148, 15267), (184, 15414), (204, 15471), (206, 15474), (210, 15480), (226, 15552), (245, 15609), (261, 15675), (298, 15828), (299, 15831),

Gene: Godpower_20 Start: 14994, Stop: 15851, Start Num: 49

Candidate Starts for Godpower_20:

(Start: 49 @14994 has 58 MA's), (78, 15066), (86, 15084), (102, 15147), (136, 15252), (148, 15279), (176, 15384), (184, 15426), (210, 15492), (224, 15552), (226, 15564), (245, 15621), (256, 15666), (261, 15687), (298, 15840), (299, 15843),

Gene: GoodLuckBabe_21 Start: 15778, Stop: 16698, Start Num: 38

Candidate Starts for GoodLuckBabe_21:

(Start: 38 @15778 has 38 MA's), (74, 15874), (106, 15979), (122, 16030), (124, 16036), (127, 16045), (129, 16048), (136, 16069), (151, 16132), (165, 16183), (166, 16186), (180, 16240), (214, 16351), (218, 16366), (221, 16375), (254, 16519), (256, 16525), (257, 16531), (261, 16546), (270, 16582), (289, 16663),

Gene: Graynor_19 Start: 15188, Stop: 16069, Start Num: 37

Candidate Starts for Graynor_19:

(Start: 37 @15188 has 41 MA's), (78, 15281), (100, 15341), (119, 15419), (209, 15719), (219, 15755), (226, 15794), (246, 15860), (247, 15863), (250, 15878), (290, 16037),

Gene: GreenHearts_19 Start: 15265, Stop: 16137, Start Num: 37

Candidate Starts for GreenHearts_19:

(Start: 37 @15265 has 41 MA's), (78, 15358), (100, 15418), (124, 15508), (137, 15541), (201, 15763), (209, 15787), (210, 15790), (213, 15802), (247, 15931), (250, 15946), (290, 16105),

Gene: GreenWeasel_21 Start: 15698, Stop: 16552, Start Num: 52

Candidate Starts for GreenWeasel_21:

(27, 15542), (28, 15545), (Start: 52 @15698 has 61 MA's), (95, 15812), (102, 15851), (137, 15959), (154, 16001), (169, 16055), (253, 16358), (298, 16541), (299, 16544), (300, 16547),

Gene: Greenhouse_19 Start: 15189, Stop: 16061, Start Num: 37

Candidate Starts for Greenhouse_19:

(Start: 37 @15189 has 41 MA's), (78, 15282), (100, 15342), (124, 15432), (201, 15687), (209, 15711), (210, 15714), (213, 15726), (247, 15855), (250, 15870), (290, 16029),

Gene: Guinevere_21 Start: 15809, Stop: 16729, Start Num: 38

Candidate Starts for Guinevere_21:

(Start: 38 @15809 has 38 MA's), (74, 15905), (106, 16010), (122, 16061), (124, 16067), (127, 16076), (129, 16079), (136, 16100), (151, 16163), (165, 16214), (180, 16271), (214, 16382), (218, 16397), (221, 16406), (254, 16550), (257, 16562), (261, 16577), (270, 16613), (289, 16694),

Gene: Gusanita_19 Start: 15698, Stop: 16618, Start Num: 38

Candidate Starts for Gusanita_19:

(Start: 38 @15698 has 38 MA's), (74, 15794), (122, 15950), (124, 15956), (127, 15965), (129, 15968), (136, 15989), (164, 16100), (166, 16106), (239, 16379), (254, 16439), (256, 16445), (257, 16451), (270, 16502), (289, 16583),

Gene: Hager_31 Start: 17349, Stop: 18239, Start Num: 50

Candidate Starts for Hager_31:

(Start: 50 @17349 has 3 MA's), (150, 17673), (157, 17697), (166, 17730), (211, 17886), (221, 17919), (226, 17952), (257, 18060), (277, 18150), (287, 18180), (299, 18231), (300, 18234),

Gene: Haizum_19 Start: 15480, Stop: 16337, Start Num: 52

Candidate Starts for Haizum_19:

(30, 15354), (31, 15357), (32, 15363), (Start: 52 @15480 has 61 MA's), (56, 15498), (86, 15570), (136, 15738), (158, 15801), (184, 15912), (210, 15978), (224, 16038), (226, 16050), (228, 16059), (245, 16107), (261, 16173), (270, 16209), (285, 16272), (298, 16326), (299, 16329),

Gene: Halloweekend_19 Start: 15447, Stop: 16367, Start Num: 38

Candidate Starts for Halloweekend_19:

(Start: 38 @15447 has 38 MA's), (122, 15699), (127, 15714), (129, 15717), (189, 15957), (254, 16188), (256, 16194), (257, 16200), (270, 16251),

Gene: Hank144_20 Start: 15105, Stop: 15959, Start Num: 52

Candidate Starts for Hank144_20:

(Start: 52 @15105 has 61 MA's), (69, 15159), (102, 15258), (108, 15279), (129, 15342), (169, 15462), (176, 15495), (189, 15555), (210, 15600), (252, 15756), (261, 15795), (275, 15858), (298, 15948), (299, 15951), (300, 15954),

Gene: Hippo_19 Start: 14969, Stop: 15826, Start Num: 49

Candidate Starts for Hippo_19:

(Start: 49 @14969 has 58 MA's), (78, 15041), (86, 15059), (136, 15227), (148, 15254), (199, 15449), (210, 15467), (211, 15473), (224, 15527), (256, 15641), (261, 15662), (298, 15815), (299, 15818),

Gene: Hiyaa_22 Start: 18704, Stop: 19594, Start Num: 39

Candidate Starts for Hiyaa_22:

(34, 18683), (Start: 39 @18704 has 4 MA's), (Start: 41 @18710 has 8 MA's), (59, 18749), (110, 18905), (115, 18920), (125, 18944), (147, 19010), (166, 19076), (206, 19214), (250, 19376), (261, 19421),

Gene: Huntingdon_19 Start: 15175, Stop: 16047, Start Num: 37

Candidate Starts for Huntingdon_19:

(Start: 37 @15175 has 41 MA's), (78, 15268), (124, 15418), (201, 15673), (213, 15712), (247, 15841), (250, 15856), (290, 16015),

Gene: Hydra_21 Start: 15521, Stop: 16378, Start Num: 49

Candidate Starts for Hydra_21:

(Start: 49 @15521 has 58 MA's), (78, 15593), (86, 15611), (96, 15641), (102, 15674), (136, 15779), (148, 15806), (175, 15908), (184, 15953), (210, 16019), (211, 16025), (224, 16079), (226, 16091), (256, 16193), (258, 16205), (261, 16214), (298, 16367), (299, 16370),

Gene: Ichiang_19 Start: 15464, Stop: 16384, Start Num: 38

Candidate Starts for Ichiang_19:

(11, 14813), (14, 14945), (21, 15152), (Start: 38 @15464 has 38 MA's), (122, 15716), (127, 15731), (129, 15734), (159, 15848), (189, 15974), (254, 16205), (256, 16211), (257, 16217), (270, 16268),

Gene: Ididsumtinwong_17 Start: 12230, Stop: 13132, Start Num: 39

Candidate Starts for Ididsumtinwong_17:

(1, 11135), (2, 11180), (3, 11237), (4, 11255), (6, 11309), (7, 11363), (8, 11471), (9, 11534), (10, 11564), (12, 11597), (13, 11615), (15, 11741), (17, 11834), (19, 11861), (24, 11969), (34, 12209), (Start: 39 @12230 has 4 MA's), (Start: 41 @12236 has 8 MA's), (115, 12452), (117, 12455), (138, 12512), (148, 12542), (219, 12806), (226, 12845), (273, 13019),

Gene: Immaculata_19 Start: 15176, Stop: 16045, Start Num: 37

Candidate Starts for Immaculata_19:

(Start: 37 @15176 has 41 MA's), (75, 15263), (78, 15269), (180, 15590), (199, 15665), (201, 15671), (210, 15698), (213, 15710), (247, 15839), (250, 15854), (262, 15902), (280, 15980), (290, 16013),

Gene: Indigo_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Indigo_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: IsHungry_21 Start: 15775, Stop: 16695, Start Num: 38

Candidate Starts for IsHungry_21:

(Start: 38 @15775 has 38 MA's), (74, 15871), (122, 16027), (124, 16033), (129, 16045), (136, 16066), (137, 16069), (159, 16159), (165, 16180), (166, 16183), (254, 16516), (256, 16522), (257, 16528), (270, 16579), (289, 16660),

Gene: Isperia_23 Start: 15256, Stop: 16134, Start Num: 44

Candidate Starts for Isperia_23:

(Start: 38 @15241 has 38 MA's), (Start: 44 @15256 has 4 MA's), (113, 15460), (149, 15553), (151, 15559), (156, 15577), (163, 15592), (190, 15712), (196, 15736), (216, 15793), (267, 16000), (274, 16036), (297, 16129),

Gene: Issmi_20 Start: 15911, Stop: 16768, Start Num: 52

Candidate Starts for Issmi_20:

(Start: 52 @15911 has 61 MA's), (56, 15929), (75, 15977), (86, 16001), (96, 16031), (107, 16082), (136, 16169), (184, 16343), (187, 16352), (193, 16373), (210, 16409), (211, 16415), (226, 16481), (237, 16514), (261, 16604), (262, 16607), (270, 16640), (285, 16703), (298, 16757), (299, 16760),

Gene: Itza_19 Start: 15339, Stop: 16196, Start Num: 52

Candidate Starts for Itza_19:

(Start: 52 @15339 has 61 MA's), (67, 15390), (78, 15411), (86, 15429), (95, 15453), (102, 15492), (211, 15843), (219, 15870), (226, 15909), (246, 15969), (291, 16158), (298, 16185), (299, 16188),

Gene: Izzy_20 Start: 15203, Stop: 16060, Start Num: 49

Candidate Starts for Izzy_20:

(Start: 49 @15203 has 58 MA's), (78, 15275), (86, 15293), (102, 15356), (136, 15461), (148, 15488), (158, 15524), (175, 15590), (184, 15635), (210, 15701), (211, 15707), (226, 15773), (240, 15812), (245, 15830), (258, 15887), (265, 15914), (298, 16049), (299, 16052),

Gene: Janus_20 Start: 15047, Stop: 15901, Start Num: 52

Candidate Starts for Janus_20:

(Start: 52 @15047 has 61 MA's), (86, 15137), (102, 15200), (204, 15533), (210, 15542), (228, 15623), (252, 15698), (261, 15737), (277, 15812), (298, 15890), (299, 15893),

Gene: Jash_20 Start: 15156, Stop: 16013, Start Num: 49

Candidate Starts for Jash_20:

(Start: 49 @15156 has 58 MA's), (78, 15228), (86, 15246), (102, 15309), (136, 15414), (148, 15441), (158, 15477), (175, 15543), (184, 15588), (210, 15654), (211, 15660), (226, 15726), (240, 15765), (245, 15783), (258, 15840), (265, 15867), (298, 16002), (299, 16005),

Gene: Jevington_21 Start: 15349, Stop: 16206, Start Num: 52

Candidate Starts for Jevington_21:

(Start: 52 @15349 has 61 MA's), (86, 15439), (158, 15670), (210, 15847), (261, 16042), (298, 16195), (299, 16198),

Gene: Jhitchelle_18 Start: 15308, Stop: 16165, Start Num: 52

Candidate Starts for Jhitchelle_18:

(Start: 52 @15308 has 61 MA's), (64, 15344), (78, 15380), (95, 15422), (135, 15563), (136, 15566), (163, 15638), (174, 15689), (176, 15698), (206, 15800), (210, 15806), (256, 15980), (261, 16001), (293, 16130), (298, 16154), (299, 16157),

Gene: Joann_19 Start: 15169, Stop: 16041, Start Num: 37

Candidate Starts for Joann_19:

(Start: 37 @15169 has 41 MA's), (78, 15262), (100, 15322), (124, 15412), (201, 15667), (209, 15691), (213, 15706), (247, 15835), (250, 15850), (290, 16009),

Gene: JrWilcox_70 Start: 35777, Stop: 36652, Start Num: 45

Candidate Starts for JrWilcox_70:

(Start: 45 @35777 has 1 MA's), (61, 35813), (94, 35885), (110, 35963), (115, 35978), (116, 35981), (134, 36029), (147, 36059), (161, 36098), (207, 36278), (209, 36290), (242, 36422), (249, 36446), (271, 36533), (280, 36581),

Gene: Julie_21 Start: 16037, Stop: 16957, Start Num: 38

Candidate Starts for Julie_21:

(21, 15725), (Start: 38 @16037 has 38 MA's), (103, 16220), (122, 16289), (127, 16304), (129, 16307), (145, 16370), (159, 16421), (184, 16529), (189, 16547), (254, 16778), (256, 16784), (257, 16790), (270, 16841),

Gene: Jumboset_19 Start: 15125, Stop: 15994, Start Num: 37

Candidate Starts for Jumboset_19:

(Start: 37 @15125 has 41 MA's), (75, 15212), (78, 15218), (192, 15593), (199, 15614), (201, 15620), (210, 15647), (213, 15659), (247, 15788), (250, 15803), (262, 15851), (280, 15929), (290, 15962),

Gene: Kaine_19 Start: 15380, Stop: 16237, Start Num: 52

Candidate Starts for Kaine_19:

(Start: 52 @15380 has 61 MA's), (64, 15416), (78, 15452), (95, 15494), (136, 15638), (148, 15665), (206, 15872), (210, 15878), (217, 15902), (256, 16052), (293, 16202), (298, 16226), (299, 16229),

Gene: Kalizoi_19 Start: 15124, Stop: 15993, Start Num: 37

Candidate Starts for Kalizoi_19:

(Start: 37 @15124 has 41 MA's), (75, 15211), (78, 15217), (192, 15592), (199, 15613), (201, 15619), (210, 15646), (213, 15658), (228, 15727), (247, 15787), (250, 15802), (262, 15850), (280, 15928), (290, 15961),

Gene: Katalie_20 Start: 15234, Stop: 16091, Start Num: 49

Candidate Starts for Katalie_20:

(Start: 49 @15234 has 58 MA's), (78, 15306), (86, 15324), (136, 15492), (148, 15519), (176, 15624), (210, 15732), (211, 15738), (226, 15804), (261, 15927), (298, 16080), (299, 16083),

Gene: KeAlii_17 Start: 13071, Stop: 13943, Start Num: 35

Candidate Starts for KeAlii_17:

(Start: 35 @13071 has 9 MA's), (62, 13128), (129, 13323), (176, 13470), (179, 13479), (186, 13515), (199, 13554), (219, 13626), (261, 13791),

Gene: Keanu_22 Start: 18751, Stop: 19635, Start Num: 41

Candidate Starts for Keanu_22:

(Start: 41 @18751 has 8 MA's), (59, 18790), (110, 18946), (125, 18985), (146, 19048), (148, 19054), (156, 19081), (157, 19084), (166, 19117), (171, 19135), (173, 19141), (183, 19192), (206, 19255), (245, 19396),

Gene: Kihatsu_22 Start: 16131, Stop: 17051, Start Num: 38

Candidate Starts for Kihatsu_22:

(Start: 38 @16131 has 38 MA's), (74, 16227), (106, 16332), (122, 16383), (127, 16398), (129, 16401), (136, 16422), (142, 16446), (165, 16536), (166, 16539), (180, 16593), (214, 16704), (218, 16719), (221, 16728), (254, 16872), (256, 16878), (257, 16884), (261, 16899), (270, 16935), (289, 17016),

Gene: Kokushibo_22 Start: 18719, Stop: 19609, Start Num: 39

Candidate Starts for Kokushibo_22:

(34, 18698), (Start: 39 @18719 has 4 MA's), (Start: 41 @18725 has 8 MA's), (59, 18764), (110, 18920), (115, 18935), (125, 18959), (147, 19025), (148, 19028), (166, 19091), (206, 19229), (261, 19436),

Gene: Korra_20 Start: 15130, Stop: 15999, Start Num: 37

Candidate Starts for Korra_20:

(Start: 37 @15130 has 41 MA's), (75, 15217), (78, 15223), (180, 15544), (199, 15619), (201, 15625), (213, 15664), (228, 15733), (247, 15793), (250, 15808), (262, 15856), (280, 15934), (290, 15967),

Gene: Kors_31 Start: 17664, Stop: 18548, Start Num: 52

Candidate Starts for Kors_31:

(33, 17565), (Start: 52 @17664 has 61 MA's), (87, 17760), (95, 17781), (114, 17865), (116, 17871), (158, 18012), (204, 18180), (226, 18261), (236, 18291), (257, 18369), (259, 18381), (261, 18384), (265, 18402), (279, 18468), (280, 18471), (282, 18474), (299, 18540), (300, 18543),

Gene: Kukla_18 Start: 14545, Stop: 15453, Start Num: 38

Candidate Starts for Kukla_18:

(16, 14086), (18, 14185), (20, 14191), (22, 14287), (29, 14437), (Start: 38 @14545 has 38 MA's), (74, 14641), (88, 14668), (122, 14791), (139, 14839), (144, 14866), (149, 14887), (150, 14890), (151, 14893), (156, 14911), (166, 14947), (198, 15070), (218, 15121), (221, 15130), (236, 15205), (257, 15286), (289, 15418),

Gene: Lakshmi_19 Start: 15194, Stop: 16066, Start Num: 37

Candidate Starts for Lakshmi_19:

(Start: 37 @15194 has 41 MA's), (78, 15287), (100, 15347), (124, 15437), (201, 15692), (209, 15716), (210, 15719), (213, 15731), (247, 15860), (250, 15875), (290, 16034),

Gene: Lannister_20 Start: 15000, Stop: 15857, Start Num: 49

Candidate Starts for Lannister_20:

(Start: 49 @15000 has 58 MA's), (78, 15072), (86, 15090), (96, 15120), (136, 15258), (148, 15285), (184, 15432), (206, 15492), (210, 15498), (211, 15504), (224, 15558), (226, 15570), (256, 15672), (261, 15693), (298, 15846), (299, 15849),

Gene: LastNadiia_21 Start: 14183, Stop: 15088, Start Num: 38

Candidate Starts for LastNadiia_21:

(Start: 36 @14177 has 1 MA's), (Start: 38 @14183 has 38 MA's), (120, 14423), (137, 14468), (140, 14480), (158, 14555), (202, 14714), (222, 14768), (257, 14921), (276, 15008), (286, 15032), (290, 15056), (296, 15071),

Gene: Legacy_19 Start: 14964, Stop: 15821, Start Num: 49

Candidate Starts for Legacy_19:

(Start: 49 @14964 has 58 MA's), (78, 15036), (86, 15054), (96, 15084), (102, 15117), (136, 15222), (148, 15249), (175, 15351), (184, 15396), (210, 15462), (211, 15468), (224, 15522), (226, 15534), (256, 15636), (258, 15648), (261, 15657), (298, 15810), (299, 15813),

Gene: Lenoxika_21 Start: 15805, Stop: 16725, Start Num: 38

Candidate Starts for Lenoxika_21:

(Start: 38 @15805 has 38 MA's), (74, 15901), (106, 16006), (122, 16057), (124, 16063), (127, 16072), (129, 16075), (136, 16096), (151, 16159), (165, 16210), (180, 16267), (214, 16378), (218, 16393), (221, 16402), (254, 16546), (257, 16558), (261, 16573), (270, 16609), (289, 16690),

Gene: Leviticus_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Leviticus_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: Lika_19 Start: 14998, Stop: 15855, Start Num: 49

Candidate Starts for Lika_19:

(Start: 49 @14998 has 58 MA's), (78, 15070), (86, 15088), (102, 15151), (136, 15256), (148, 15283), (176, 15388), (184, 15430), (210, 15496), (224, 15556), (226, 15568), (245, 15625), (256, 15670), (261, 15691), (298, 15844), (299, 15847),

Gene: Lishka_17 Start: 12194, Stop: 13096, Start Num: 39

Candidate Starts for Lishka_17:

(1, 11099), (2, 11144), (3, 11201), (4, 11219), (5, 11246), (6, 11273), (7, 11327), (8, 11435), (9, 11498), (10, 11528), (12, 11561), (13, 11579), (15, 11705), (17, 11798), (19, 11825), (24, 11933), (34, 12173), (Start: 39 @12194 has 4 MA's), (Start: 41 @12200 has 8 MA's), (115, 12416), (117, 12419), (138, 12476), (148, 12506), (219, 12770), (226, 12809), (273, 12983),

Gene: Litotes_19 Start: 15152, Stop: 16033, Start Num: 37

Candidate Starts for Litotes_19:

(Start: 37 @15152 has 41 MA's), (78, 15245), (100, 15305), (119, 15383), (209, 15683), (219, 15719), (226, 15758), (246, 15824), (247, 15827), (250, 15842), (290, 16001),

Gene: Loofah_20 Start: 14964, Stop: 15821, Start Num: 52

Candidate Starts for Loofah_20:

(Start: 52 @14964 has 61 MA's), (69, 15018), (86, 15054), (210, 15462), (262, 15660), (298, 15810), (299, 15813),

Gene: LordBart_31 Start: 17580, Stop: 18464, Start Num: 52

Candidate Starts for LordBart_31:

(33, 17481), (Start: 52 @17580 has 61 MA's), (87, 17676), (95, 17697), (114, 17781), (116, 17787), (158, 17928), (226, 18177), (236, 18207), (257, 18285), (259, 18297), (261, 18300), (265, 18318), (279, 18384), (280, 18387), (282, 18390), (299, 18456), (300, 18459),

Gene: Lorelei_19 Start: 14967, Stop: 15824, Start Num: 49

Candidate Starts for Lorelei_19:

(Start: 49 @14967 has 58 MA's), (78, 15039), (96, 15087), (102, 15120), (136, 15225), (148, 15252), (166, 15315), (176, 15357), (204, 15456), (206, 15459), (210, 15465), (226, 15537), (245, 15594), (258, 15651), (261, 15660), (298, 15813), (299, 15816),

Gene: Makima_19 Start: 13260, Stop: 14171, Start Num: 36

Candidate Starts for Makima_19:

(Start: 36 @13260 has 1 MA's), (Start: 38 @13266 has 38 MA's), (131, 13533), (140, 13563), (158, 13638), (184, 13743), (195, 13785), (202, 13797), (222, 13851), (257, 14004), (276, 14091), (286, 14115), (290, 14139), (296, 14154),

Gene: Maneekul_19 Start: 14965, Stop: 15822, Start Num: 49

Candidate Starts for Maneekul_19:

(Start: 49 @14965 has 58 MA's), (78, 15037), (86, 15055), (136, 15223), (148, 15250), (210, 15463), (211, 15469), (226, 15535), (245, 15592), (256, 15637), (261, 15658), (291, 15784), (298, 15811), (299, 15814),

Gene: Marav_22 Start: 15699, Stop: 16556, Start Num: 52

Candidate Starts for Marav_22:

(Start: 52 @15699 has 61 MA's), (86, 15789), (158, 16020), (169, 16056), (210, 16197), (261, 16392), (298, 16545), (299, 16548),

Gene: MeganNoll_19 Start: 15182, Stop: 16051, Start Num: 37

Candidate Starts for MeganNoll_19:

(Start: 37 @15182 has 41 MA's), (75, 15269), (78, 15275), (192, 15650), (199, 15671), (201, 15677), (210, 15704), (213, 15716), (247, 15845), (250, 15860), (262, 15908), (280, 15986), (290, 16019),

Gene: MillySue_21 Start: 15823, Stop: 16743, Start Num: 38

Candidate Starts for MillySue_21:

(Start: 38 @15823 has 38 MA's), (122, 16075), (127, 16090), (129, 16093), (189, 16333), (254, 16564), (256, 16570), (257, 16576), (270, 16627),

Gene: Mireles_18 Start: 11674, Stop: 12579, Start Num: 38

Candidate Starts for Mireles_18:

(Start: 36 @11668 has 1 MA's), (Start: 38 @11674 has 38 MA's), (120, 11914), (140, 11971), (143, 11986), (158, 12046), (228, 12298), (244, 12358), (257, 12412), (286, 12523), (290, 12547), (296, 12562),

Gene: Misaeng_19 Start: 15239, Stop: 16111, Start Num: 37

Candidate Starts for Misaeng_19:

(Start: 37 @15239 has 41 MA's), (78, 15332), (124, 15482), (152, 15551), (201, 15737), (203, 15743), (213, 15776), (221, 15803), (247, 15905), (250, 15920), (290, 16079),

Gene: Mojorita_17 Start: 12339, Stop: 13232, Start Num: 41

Candidate Starts for Mojorita_17:

(Start: 41 @12339 has 8 MA's), (46, 12348), (117, 12555), (147, 12639), (219, 12906), (234, 12972), (245, 13002), (273, 13119),

Gene: MrBoss_19 Start: 15152, Stop: 16033, Start Num: 37

Candidate Starts for MrBoss_19:

(Start: 37 @15152 has 41 MA's), (78, 15245), (100, 15305), (119, 15383), (209, 15683), (219, 15719), (226, 15758), (246, 15824), (247, 15827), (250, 15842), (290, 16001),

Gene: MrGloopy_19 Start: 15116, Stop: 15985, Start Num: 37

Candidate Starts for MrGloopy_19:

(Start: 37 @15116 has 41 MA's), (75, 15203), (78, 15209), (192, 15584), (199, 15605), (201, 15611), (210, 15638), (213, 15650), (247, 15779), (250, 15794), (262, 15842), (280, 15920), (290, 15953),

Gene: Nabi_19 Start: 14967, Stop: 15824, Start Num: 49

Candidate Starts for Nabi_19:

(Start: 49 @14967 has 58 MA's), (78, 15039), (96, 15087), (102, 15120), (136, 15225), (148, 15252), (166, 15315), (176, 15357), (204, 15456), (206, 15459), (210, 15465), (226, 15537), (245, 15594), (258, 15651), (261, 15660), (298, 15813), (299, 15816),

Gene: Nandita_21 Start: 15809, Stop: 16729, Start Num: 38

Candidate Starts for Nandita_21:

(Start: 38 @15809 has 38 MA's), (74, 15905), (106, 16010), (122, 16061), (124, 16067), (127, 16076), (129, 16079), (136, 16100), (151, 16163), (165, 16214), (180, 16271), (214, 16382), (218, 16397), (221, 16406), (254, 16550), (257, 16562), (261, 16577), (270, 16613), (289, 16694),

Gene: Nanodon_21 Start: 15175, Stop: 16032, Start Num: 49

Candidate Starts for Nanodon_21:

(Start: 49 @15175 has 58 MA's), (78, 15247), (86, 15265), (102, 15328), (136, 15433), (148, 15460), (169, 15532), (184, 15607), (206, 15667), (210, 15673), (211, 15679), (224, 15733), (226, 15745), (245, 15802), (256, 15847), (258, 15859), (261, 15868), (287, 15973), (298, 16021), (299, 16024),

Gene: Nerdos_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Nerdos_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: Neuville_18 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for Neuville_18:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: Nishikigoi_19 Start: 15480, Stop: 16337, Start Num: 52

Candidate Starts for Nishikigoi_19:

(30, 15354), (31, 15357), (32, 15363), (Start: 52 @15480 has 61 MA's), (56, 15498), (86, 15570), (136, 15738), (158, 15801), (184, 15912), (210, 15978), (224, 16038), (226, 16050), (228, 16059), (245, 16107), (261, 16173), (270, 16209), (285, 16272), (298, 16326), (299, 16329),

Gene: Nubia_19 Start: 15154, Stop: 16026, Start Num: 37

Candidate Starts for Nubia_19:

(Start: 37 @15154 has 41 MA's), (78, 15247), (100, 15307), (124, 15397), (201, 15652), (209, 15676), (210, 15679), (213, 15691), (247, 15820), (250, 15835), (290, 15994),

Gene: ObiToo_17 Start: 13223, Stop: 14095, Start Num: 35

Candidate Starts for ObiToo_17:

(Start: 35 @13223 has 9 MA's), (62, 13280), (77, 13310), (129, 13475), (173, 13607), (179, 13631), (200, 13709), (261, 13943), (290, 14063),

Gene: Oliynyk_20 Start: 15156, Stop: 16013, Start Num: 49

Candidate Starts for Oliynyk_20:

(Start: 49 @15156 has 58 MA's), (78, 15228), (86, 15246), (102, 15309), (136, 15414), (148, 15441), (158, 15477), (175, 15543), (184, 15588), (210, 15654), (211, 15660), (226, 15726), (240, 15765), (245, 15783), (258, 15840), (265, 15867), (298, 16002), (299, 16005),

Gene: Omar_20 Start: 15815, Stop: 16672, Start Num: 52

Candidate Starts for Omar_20:

(42, 15797), (Start: 52 @15815 has 61 MA's), (86, 15905), (95, 15929), (98, 15944), (107, 15986), (127, 16049), (136, 16073), (158, 16136), (184, 16247), (187, 16256), (210, 16313), (226, 16385), (245, 16442), (261, 16508), (270, 16544), (285, 16607), (298, 16661), (299, 16664),

Gene: OscarSo_27 Start: 17801, Stop: 18682, Start Num: 44

Candidate Starts for OscarSo_27:

(Start: 38 @17786 has 38 MA's), (Start: 44 @17801 has 4 MA's), (66, 17864), (72, 17876), (149, 18098), (163, 18137), (187, 18245), (190, 18257), (196, 18281), (270, 18560),

Gene: Oxynfrius_19 Start: 15167, Stop: 16039, Start Num: 37

Candidate Starts for Oxynfrius_19:

(Start: 37 @15167 has 41 MA's), (78, 15260), (100, 15320), (124, 15410), (201, 15665), (210, 15692), (213, 15704), (247, 15833), (250, 15848), (290, 16007),

Gene: Ozzie_19 Start: 14973, Stop: 15830, Start Num: 49

Candidate Starts for Ozzie_19:

(Start: 49 @14973 has 58 MA's), (78, 15045), (86, 15063), (96, 15093), (102, 15126), (136, 15231), (148, 15258), (175, 15360), (184, 15405), (210, 15471), (211, 15477), (224, 15531), (226, 15543), (256, 15645), (258, 15657), (261, 15666), (298, 15819), (299, 15822),

Gene: OzzyJ_20 Start: 14960, Stop: 15817, Start Num: 49

Candidate Starts for OzzyJ_20:

(Start: 49 @14960 has 58 MA's), (78, 15032), (86, 15050), (136, 15218), (148, 15245), (176, 15350), (210, 15458), (211, 15464), (224, 15518), (256, 15632), (261, 15653), (298, 15806), (299, 15809),

Gene: Pablito_19 Start: 14808, Stop: 15662, Start Num: 52

Candidate Starts for Pablito_19:

(Start: 52 @14808 has 61 MA's), (69, 14862), (86, 14898), (204, 15294), (210, 15303), (252, 15459), (261, 15498), (275, 15561), (298, 15651), (299, 15654), (300, 15657),

Gene: Paedore_19 Start: 14964, Stop: 15821, Start Num: 52

Candidate Starts for Paedore_19:

(Start: 52 @14964 has 61 MA's), (69, 15018), (86, 15054), (210, 15462), (262, 15660), (298, 15810), (299, 15813),

Gene: Paolo_21 Start: 15362, Stop: 16219, Start Num: 52

Candidate Starts for Paolo_21:

(Start: 52 @15362 has 61 MA's), (158, 15683), (169, 15719), (210, 15860), (261, 16055), (298, 16208), (299, 16211),

Gene: PapayaSalad_17 Start: 12206, Stop: 13102, Start Num: 41

Candidate Starts for PapayaSalad_17:

(17, 11804), (19, 11831), (24, 11939), (34, 12179), (Start: 39 @12200 has 4 MA's), (Start: 41 @12206 has 8 MA's), (83, 12305), (115, 12422), (117, 12425), (138, 12482), (148, 12512), (226, 12815), (273, 12989),

Gene: PartyCup_19 Start: 15199, Stop: 16080, Start Num: 37

Candidate Starts for PartyCup_19:

(Start: 37 @15199 has 41 MA's), (78, 15292), (100, 15352), (119, 15430), (209, 15730), (219, 15766), (226, 15805), (246, 15871), (247, 15874), (250, 15889), (290, 16048),

Gene: Pavo_20 Start: 15672, Stop: 16529, Start Num: 52

Candidate Starts for Pavo_20:

(Start: 52 @15672 has 61 MA's), (64, 15708), (78, 15744), (95, 15786), (136, 15930), (163, 16002), (175, 16059), (176, 16062), (184, 16104), (206, 16164), (210, 16170), (240, 16281), (256, 16344), (261, 16365), (293, 16494), (298, 16518), (299, 16521),

Gene: PetriParty_18 Start: 15448, Stop: 16356, Start Num: 38

Candidate Starts for PetriParty_18:

(Start: 38 @15448 has 38 MA's), (65, 15523), (74, 15544), (76, 15547), (88, 15571), (92, 15583), (141, 15754), (149, 15790), (158, 15823), (159, 15826), (166, 15850), (177, 15889), (218, 16024), (239, 16117), (257, 16189), (261, 16204),

Gene: Phettuccine_19 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Phettuccine_19:

(Start: 49 @14993 has 58 MA's), (78, 15065), (86, 15083), (96, 15113), (102, 15146), (136, 15251), (148, 15278), (175, 15380), (184, 15425), (210, 15491), (211, 15497), (224, 15551), (226, 15563), (256, 15665), (258, 15677), (261, 15686), (298, 15839), (299, 15842),

Gene: Picard_17 Start: 12333, Stop: 13226, Start Num: 41

Candidate Starts for Picard_17:

(Start: 41 @12333 has 8 MA's), (46, 12342), (117, 12549), (147, 12633), (219, 12900), (234, 12966), (245, 12996), (273, 13113),

Gene: Popper_19 Start: 15336, Stop: 16256, Start Num: 38

Candidate Starts for Popper_19:

(Start: 38 @15336 has 38 MA's), (122, 15588), (124, 15594), (129, 15606), (166, 15744), (198, 15873), (248, 16053), (256, 16083), (257, 16089),

Gene: Potatoes_19 Start: 15177, Stop: 16046, Start Num: 37

Candidate Starts for Potatoes_19:

(Start: 37 @15177 has 41 MA's), (75, 15264), (78, 15270), (180, 15591), (199, 15666), (201, 15672), (210, 15699), (213, 15711), (247, 15840), (250, 15855), (262, 15903), (280, 15981), (290, 16014),

Gene: Provolone_20 Start: 15402, Stop: 16259, Start Num: 52

Candidate Starts for Provolone_20:

(Start: 52 @15402 has 61 MA's), (64, 15438), (78, 15474), (95, 15516), (136, 15660), (148, 15687), (175, 15789), (176, 15792), (184, 15834), (185, 15837), (206, 15894), (210, 15900), (220, 15936), (256, 16074), (293, 16224), (298, 16248), (299, 16251),

Gene: Puginator_21 Start: 15407, Stop: 16264, Start Num: 52

Candidate Starts for Puginator_21:

(Start: 52 @15407 has 61 MA's), (86, 15497), (158, 15728), (169, 15764), (210, 15905), (261, 16100), (298, 16253), (299, 16256),

Gene: QuinnAvery_21 Start: 15821, Stop: 16741, Start Num: 38

Candidate Starts for QuinnAvery_21:

(Start: 38 @15821 has 38 MA's), (122, 16073), (127, 16088), (129, 16091), (189, 16331), (254, 16562), (256, 16568), (257, 16574), (270, 16625),

Gene: R4_19 Start: 15046, Stop: 15903, Start Num: 52

Candidate Starts for R4_19:

(Start: 52 @15046 has 61 MA's), (69, 15100), (86, 15136), (136, 15304), (210, 15544), (262, 15742), (298, 15892), (299, 15895),

Gene: RAP15_19 Start: 15182, Stop: 16051, Start Num: 37

Candidate Starts for RAP15_19:

(Start: 37 @15182 has 41 MA's), (75, 15269), (78, 15275), (192, 15650), (199, 15671), (201, 15677), (210, 15704), (213, 15716), (247, 15845), (250, 15860), (262, 15908), (280, 15986), (290, 16019),

Gene: Rana_19 Start: 14967, Stop: 15824, Start Num: 49

Candidate Starts for Rana_19:

(Start: 49 @14967 has 58 MA's), (78, 15039), (96, 15087), (102, 15120), (136, 15225), (148, 15252), (166, 15315), (176, 15357), (204, 15456), (206, 15459), (210, 15465), (226, 15537), (245, 15594), (258, 15651), (261, 15660), (298, 15813), (299, 15816),

Gene: RcigaStruga_19 Start: 15175, Stop: 16047, Start Num: 37

Candidate Starts for RcigaStruga_19:

(Start: 37 @15175 has 41 MA's), (78, 15268), (124, 15418), (201, 15673), (213, 15712), (247, 15841), (250, 15856), (290, 16015),

Gene: RedBear_21 Start: 15234, Stop: 16091, Start Num: 49

Candidate Starts for RedBear_21:

(Start: 49 @15234 has 58 MA's), (78, 15306), (86, 15324), (136, 15492), (148, 15519), (176, 15624), (210, 15732), (211, 15738), (226, 15804), (261, 15927), (298, 16080), (299, 16083),

Gene: Reedo_17 Start: 13087, Stop: 13962, Start Num: 35

Candidate Starts for Reedo_17:

(Start: 35 @13087 has 9 MA's), (62, 13147), (129, 13342), (179, 13498), (186, 13534), (261, 13810),

Gene: Rie18_30 Start: 17302, Stop: 18192, Start Num: 50

Candidate Starts for Rie18_30:

(Start: 50 @17302 has 3 MA's), (150, 17626), (157, 17650), (211, 17839), (221, 17872), (257, 18013), (277, 18103), (287, 18133), (299, 18184), (300, 18187),

Gene: RikSengupta_31 Start: 17701, Stop: 18585, Start Num: 52

Candidate Starts for RikSengupta_31:

(33, 17602), (Start: 52 @17701 has 61 MA's), (87, 17797), (95, 17818), (114, 17902), (116, 17908), (158, 18049), (226, 18298), (236, 18328), (257, 18406), (259, 18418), (261, 18421), (265, 18439), (279, 18505), (280, 18508), (282, 18511), (299, 18577), (300, 18580),

Gene: Riverdale_19 Start: 15112, Stop: 15981, Start Num: 37

Candidate Starts for Riverdale_19:

(Start: 37 @15112 has 41 MA's), (75, 15199), (78, 15205), (180, 15526), (192, 15580), (199, 15601), (201, 15607), (210, 15634), (213, 15646), (228, 15715), (247, 15775), (250, 15790), (262, 15838), (280, 15916), (290, 15949),

Gene: Roberts_18 Start: 11910, Stop: 12815, Start Num: 38

Candidate Starts for Roberts_18:

(Start: 36 @11904 has 1 MA's), (Start: 38 @11910 has 38 MA's), (43, 11922), (71, 12000), (111, 12123), (127, 12168), (131, 12177), (140, 12207), (144, 12228), (158, 12282), (165, 12306), (236, 12567), (257, 12648), (276, 12735), (286, 12759), (290, 12783), (296, 12798),

Gene: Rockabye_94 Start: 61799, Stop: 62449, Start Num: 110

Candidate Starts for Rockabye_94:

(48, 61598), (57, 61625), (58, 61628), (110, 61799), (126, 61844), (129, 61850), (160, 61934), (162, 61937), (202, 62090), (228, 62183), (246, 62237), (269, 62330), (283, 62390), (286, 62399), (292, 62426),

Gene: Rozby_19 Start: 15113, Stop: 15982, Start Num: 37

Candidate Starts for Rozby_19:

(Start: 37 @15113 has 41 MA's), (75, 15200), (78, 15206), (180, 15527), (192, 15581), (199, 15602), (201, 15608), (210, 15635), (213, 15647), (228, 15716), (247, 15776), (250, 15791), (262, 15839), (280, 15917), (290, 15950),

Gene: Rusticus_20 Start: 15156, Stop: 16013, Start Num: 49

Candidate Starts for Rusticus_20:

(Start: 49 @15156 has 58 MA's), (78, 15228), (86, 15246), (102, 15309), (136, 15414), (148, 15441), (158, 15477), (175, 15543), (184, 15588), (210, 15654), (211, 15660), (226, 15726), (240, 15765), (245, 15783), (258, 15840), (265, 15867), (298, 16002), (299, 16005),

Gene: Ryan_21 Start: 15955, Stop: 16875, Start Num: 38

Candidate Starts for Ryan_21:

(Start: 38 @15955 has 38 MA's), (74, 16051), (106, 16156), (122, 16207), (124, 16213), (127, 16222), (129, 16225), (136, 16246), (151, 16309), (165, 16360), (166, 16363), (180, 16417), (218, 16543), (221, 16552), (254, 16696), (256, 16702), (257, 16708), (261, 16723), (270, 16759), (289, 16840),

Gene: SV1_17 Start: 12442, Stop: 13338, Start Num: 41

Candidate Starts for SV1_17:

(34, 12415), (Start: 39 @12436 has 4 MA's), (Start: 41 @12442 has 8 MA's), (104, 12619), (105, 12622), (115, 12658), (117, 12661), (138, 12718), (148, 12748), (221, 13018), (261, 13174), (273, 13225),

Gene: Saftant_19 Start: 15950, Stop: 16807, Start Num: 52

Candidate Starts for Saftant_19:

(Start: 52 @15950 has 61 MA's), (55, 15965), (64, 15986), (78, 16022), (86, 16040), (95, 16064), (102, 16103), (158, 16271), (199, 16430), (204, 16439), (206, 16442), (210, 16448), (226, 16520), (246, 16580), (256, 16622), (261, 16643), (293, 16772), (298, 16796), (299, 16799),

Gene: Saintcarr_20 Start: 15831, Stop: 16751, Start Num: 38

Candidate Starts for Saintcarr_20:

(Start: 38 @15831 has 38 MA's), (103, 16014), (122, 16083), (127, 16098), (129, 16101), (159, 16215), (189, 16341), (254, 16572), (256, 16578), (257, 16584), (270, 16635),

Gene: SarahRose_19 Start: 14966, Stop: 15823, Start Num: 49

Candidate Starts for SarahRose_19:

(Start: 49 @14966 has 58 MA's), (78, 15038), (86, 15056), (136, 15224), (148, 15251), (199, 15446), (210, 15464), (211, 15470), (224, 15524), (256, 15638), (261, 15659), (298, 15812), (299, 15815),

Gene: Sashimi_21 Start: 15164, Stop: 16072, Start Num: 38

Candidate Starts for Sashimi_21:

(26, 15020), (Start: 38 @15164 has 38 MA's), (74, 15260), (88, 15287), (122, 15410), (134, 15443), (139, 15458), (151, 15512), (159, 15542), (161, 15545), (166, 15566), (218, 15740), (221, 15749), (225, 15779), (236, 15824), (244, 15851), (254, 15893), (256, 15899), (257, 15905),

Gene: Savage2526_19 Start: 15176, Stop: 16045, Start Num: 37

Candidate Starts for Savage2526_19:

(Start: 37 @15176 has 41 MA's), (75, 15263), (78, 15269), (192, 15644), (199, 15665), (201, 15671), (210, 15698), (213, 15710), (247, 15839), (250, 15854), (262, 15902), (280, 15980), (290, 16013),

Gene: Schism_21 Start: 15809, Stop: 16729, Start Num: 38

Candidate Starts for Schism_21:

(Start: 38 @15809 has 38 MA's), (74, 15905), (106, 16010), (122, 16061), (124, 16067), (127, 16076), (129, 16079), (136, 16100), (151, 16163), (165, 16214), (180, 16271), (214, 16382), (218, 16397), (221, 16406), (254, 16550), (257, 16562), (261, 16577), (270, 16613), (289, 16694),

Gene: Scuttle_19 Start: 15181, Stop: 16050, Start Num: 37

Candidate Starts for Scuttle_19:

(Start: 37 @15181 has 41 MA's), (75, 15268), (78, 15274), (192, 15649), (199, 15670), (201, 15676), (213, 15715), (247, 15844), (250, 15859), (262, 15907), (280, 15985), (290, 16018),

Gene: Shambre1_18 Start: 14673, Stop: 15542, Start Num: 37

Candidate Starts for Shambre1_18:

(Start: 37 @14673 has 41 MA's), (55, 14718), (66, 14751), (112, 14883), (129, 14928), (130, 14931), (133, 14940), (179, 15084), (197, 15159), (238, 15309), (262, 15402), (280, 15480), (289, 15507), (294, 15516),

Gene: Snek_17 Start: 12117, Stop: 12995, Start Num: 35

Candidate Starts for Snek_17:

(Start: 35 @12117 has 9 MA's), (43, 12135), (129, 12375), (133, 12387), (179, 12531), (201, 12612), (219, 12678),

Gene: Snorlax_19 Start: 14969, Stop: 15826, Start Num: 49

Candidate Starts for Snorlax_19:

(Start: 49 @14969 has 58 MA's), (78, 15041), (86, 15059), (136, 15227), (148, 15254), (210, 15467), (211, 15473), (226, 15539), (245, 15596), (256, 15641), (261, 15662), (298, 15815), (299, 15818),

Gene: South40_20 Start: 15234, Stop: 16091, Start Num: 49

Candidate Starts for South40_20:

(Start: 49 @15234 has 58 MA's), (78, 15306), (86, 15324), (136, 15492), (148, 15519), (176, 15624), (210, 15732), (211, 15738), (226, 15804), (261, 15927), (298, 16080), (299, 16083),

Gene: Sparcetus_31 Start: 17580, Stop: 18464, Start Num: 52

Candidate Starts for Sparcetus_31:

(33, 17481), (Start: 52 @17580 has 61 MA's), (73, 17646), (87, 17676), (95, 17697), (114, 17781), (116, 17787), (158, 17928), (204, 18096), (226, 18177), (236, 18207), (257, 18285), (259, 18297), (261, 18300), (265, 18318), (279, 18384), (280, 18387), (282, 18390), (299, 18456), (300, 18459),

Gene: Spartoi_15 Start: 11996, Stop: 12856, Start Num: 50

Candidate Starts for Spartoi_15:

(Start: 50 @11996 has 3 MA's), (64, 12041), (118, 12218), (121, 12227), (157, 12320), (228, 12593), (279, 12788), (282, 12794), (290, 12830),

Gene: Speedwell_24 Start: 17695, Stop: 18552, Start Num: 52

Candidate Starts for Speedwell_24:

(23, 17407), (Start: 52 @17695 has 61 MA's), (55, 17710), (64, 17731), (78, 17767), (136, 17953), (172, 18067), (185, 18130), (206, 18187), (210, 18193), (217, 18217), (256, 18367), (261, 18388), (293, 18517), (298, 18541), (299, 18544),

Gene: Spocter_22 Start: 18698, Stop: 19582, Start Num: 41

Candidate Starts for Spocter_22:

(34, 18671), (Start: 39 @18692 has 4 MA's), (Start: 41 @18698 has 8 MA's), (59, 18737), (110, 18893), (115, 18908), (125, 18932), (147, 18998), (148, 19001), (166, 19064), (206, 19202), (261, 19409),

Gene: SqueakyClean_20 Start: 14973, Stop: 15827, Start Num: 52

Candidate Starts for SqueakyClean_20:

(Start: 52 @14973 has 61 MA's), (102, 15126), (158, 15294), (204, 15459), (210, 15468), (228, 15549), (261, 15663), (298, 15816), (299, 15819),

Gene: Studio_19 Start: 11670, Stop: 12578, Start Num: 38

Candidate Starts for Studio_19:

(Start: 36 @11664 has 1 MA's), (Start: 38 @11670 has 38 MA's), (43, 11682), (122, 11916), (127, 11931), (155, 12033), (158, 12045), (161, 12051), (165, 12069), (190, 12171), (215, 12234), (218, 12246), (224, 12276), (229, 12306), (257, 12411), (286, 12522), (296, 12561),

Gene: Sudan_19 Start: 15667, Stop: 16524, Start Num: 52

Candidate Starts for Sudan_19:

(Start: 52 @15667 has 61 MA's), (64, 15703), (78, 15739), (95, 15781), (136, 15925), (148, 15952), (206, 16159), (210, 16165), (217, 16189), (256, 16339), (293, 16489), (298, 16513), (299, 16516),

Gene: Sujidade_20 Start: 15274, Stop: 16131, Start Num: 49

Candidate Starts for Sujidade_20:

(Start: 49 @15274 has 58 MA's), (78, 15346), (86, 15364), (102, 15427), (136, 15532), (148, 15559), (176, 15664), (184, 15706), (210, 15772), (224, 15832), (226, 15844), (245, 15901), (256, 15946), (261, 15967), (298, 16120), (299, 16123),

Gene: SunkenRoot_21 Start: 15962, Stop: 16819, Start Num: 52

Candidate Starts for SunkenRoot_21:

(Start: 52 @15962 has 61 MA's), (64, 15998), (78, 16034), (95, 16076), (136, 16220), (176, 16352), (206, 16454), (210, 16460), (256, 16634), (282, 16745), (293, 16784), (298, 16808), (299, 16811),

Gene: SunsetPointe_19 Start: 14983, Stop: 15840, Start Num: 49

Candidate Starts for SunsetPointe_19:

(Start: 49 @14983 has 58 MA's), (78, 15055), (86, 15073), (96, 15103), (102, 15136), (136, 15241), (148, 15268), (175, 15370), (184, 15415), (210, 15481), (211, 15487), (224, 15541), (226, 15553), (256, 15655), (258, 15667), (261, 15676), (298, 15829), (299, 15832),

Gene: Superstar_22 Start: 16683, Stop: 17540, Start Num: 52

Candidate Starts for Superstar_22:

(Start: 52 @16683 has 61 MA's), (56, 16701), (75, 16749), (86, 16773), (98, 16812), (154, 16986), (184, 17115), (206, 17175), (210, 17181), (224, 17241), (226, 17253), (261, 17376), (262, 17379), (270, 17412), (285, 17475), (298, 17529), (299, 17532),

Gene: Suppi_19 Start: 15202, Stop: 16083, Start Num: 37

Candidate Starts for Suppi_19:

(Start: 37 @15202 has 41 MA's), (78, 15295), (100, 15355), (119, 15433), (209, 15733), (219, 15769), (226, 15808), (246, 15874), (247, 15877), (250, 15892), (290, 16051),

Gene: TMaxx_18 Start: 11767, Stop: 12675, Start Num: 38

Candidate Starts for TMaxx_18:

(Start: 36 @11761 has 1 MA's), (Start: 38 @11767 has 38 MA's), (43, 11779), (92, 11902), (158, 12142), (165, 12166), (190, 12268), (257, 12508), (276, 12595), (296, 12658),

Gene: TagePighther_20 Start: 14969, Stop: 15826, Start Num: 49

Candidate Starts for TagePighther_20:

(Start: 49 @14969 has 58 MA's), (78, 15041), (86, 15059), (136, 15227), (148, 15254), (210, 15467), (211, 15473), (226, 15539), (245, 15596), (256, 15641), (261, 15662), (298, 15815), (299, 15818),

Gene: TattModd_19 Start: 15175, Stop: 16044, Start Num: 37

Candidate Starts for TattModd_19:

(Start: 37 @15175 has 41 MA's), (75, 15262), (78, 15268), (100, 15328), (192, 15643), (199, 15664), (201, 15670), (210, 15697), (213, 15709), (247, 15838), (250, 15853), (262, 15901), (280, 15979), (290, 16012),

Gene: Tefunt_19 Start: 15480, Stop: 16337, Start Num: 52

Candidate Starts for Tefunt_19:

(30, 15354), (31, 15357), (32, 15363), (Start: 52 @15480 has 61 MA's), (56, 15498), (86, 15570), (136, 15738), (158, 15801), (184, 15912), (210, 15978), (224, 16038), (226, 16050), (228, 16059), (245, 16107), (261, 16173), (270, 16209), (285, 16272), (298, 16326), (299, 16329),

Gene: Thestral_20 Start: 14942, Stop: 15796, Start Num: 52

Candidate Starts for Thestral_20:

(Start: 52 @14942 has 61 MA's), (55, 14957), (69, 14996), (86, 15032), (158, 15263), (187, 15383), (210, 15437), (298, 15785), (299, 15788),

Gene: TinaBelcher_19 Start: 14890, Stop: 15744, Start Num: 52

Candidate Starts for TinaBelcher_19:

(Start: 52 @14890 has 61 MA's), (69, 14944), (86, 14980), (158, 15211), (210, 15385), (298, 15733), (299, 15736),

Gene: TinyMiny_31 Start: 17599, Stop: 18483, Start Num: 52

Candidate Starts for TinyMiny_31:

(33, 17500), (Start: 52 @17599 has 61 MA's), (87, 17695), (95, 17716), (114, 17800), (116, 17806), (158, 17947), (226, 18196), (236, 18226), (257, 18304), (259, 18316), (261, 18319), (265, 18337),

(279, 18403), (280, 18406), (282, 18409), (299, 18475), (300, 18478),

Gene: ToastyOats_23 Start: 16286, Stop: 17206, Start Num: 38

Candidate Starts for ToastyOats_23:

(Start: 38 @16286 has 38 MA's), (103, 16469), (122, 16538), (127, 16553), (129, 16556), (159, 16670), (189, 16796), (254, 17027), (256, 17033), (257, 17039), (270, 17090),

Gene: Toma_19 Start: 14982, Stop: 15839, Start Num: 49

Candidate Starts for Toma_19:

(Start: 49 @14982 has 58 MA's), (78, 15054), (102, 15135), (136, 15240), (137, 15243), (148, 15267), (184, 15414), (204, 15471), (206, 15474), (210, 15480), (226, 15552), (245, 15609), (261, 15675), (298, 15828), (299, 15831),

Gene: Toodles_21 Start: 16032, Stop: 16952, Start Num: 38

Candidate Starts for Toodles_21:

(Start: 38 @16032 has 38 MA's), (122, 16284), (127, 16299), (129, 16302), (189, 16542), (254, 16773), (256, 16779), (257, 16785), (270, 16836),

Gene: TripleC_21 Start: 15266, Stop: 16171, Start Num: 38

Candidate Starts for TripleC_21:

(Start: 36 @15266 has 1 MA's), (Start: 38 @15266 has 38 MA's), (43, 15278), (60, 15323), (151, 15611), (158, 15638), (244, 15950), (257, 16004), (261, 16019), (269, 16052), (276, 16091), (290, 16139), (296, 16154),

Gene: TripleJ_19 Start: 15465, Stop: 16373, Start Num: 38

Candidate Starts for TripleJ_19:

(Start: 38 @15465 has 38 MA's), (65, 15540), (74, 15561), (76, 15564), (88, 15588), (92, 15600), (141, 15771), (149, 15807), (158, 15840), (159, 15843), (166, 15867), (177, 15906), (218, 16041), (239, 16134), (257, 16206), (261, 16221),

Gene: Triste_19 Start: 14960, Stop: 15817, Start Num: 49

Candidate Starts for Triste_19:

(Start: 49 @14960 has 58 MA's), (78, 15032), (86, 15050), (136, 15218), (148, 15245), (199, 15440), (210, 15458), (211, 15464), (224, 15518), (256, 15632), (261, 15653), (298, 15806), (299, 15809),

Gene: Triumph_21 Start: 14890, Stop: 15744, Start Num: 52

Candidate Starts for Triumph_21:

(Start: 52 @14890 has 61 MA's), (69, 14944), (86, 14980), (102, 15043), (129, 15127), (204, 15376), (210, 15385), (219, 15418), (228, 15466), (252, 15541), (261, 15580), (298, 15733), (299, 15736),

Gene: TrvxScott_18 Start: 14892, Stop: 15746, Start Num: 52

Candidate Starts for TrvxScott_18:

(Start: 52 @14892 has 61 MA's), (69, 14946), (86, 14982), (158, 15213), (206, 15381), (210, 15387), (298, 15735), (299, 15738),

Gene: TuanPN_19 Start: 14966, Stop: 15823, Start Num: 49

Candidate Starts for TuanPN_19:

(Start: 49 @14966 has 58 MA's), (78, 15038), (86, 15056), (136, 15224), (148, 15251), (210, 15464), (211, 15470), (226, 15536), (245, 15593), (256, 15638), (261, 15659), (291, 15785), (298, 15812), (299, 15815),

Gene: Tweety19_17 Start: 12116, Stop: 12994, Start Num: 35

Candidate Starts for Tweety19_17:

(Start: 35 @12116 has 9 MA's), (43, 12134), (129, 12374), (133, 12386), (179, 12530), (201, 12611), (219, 12677),

Gene: Unstoppable_19 Start: 14984, Stop: 15841, Start Num: 49

Candidate Starts for Unstoppable_19:

(Start: 49 @14984 has 58 MA's), (78, 15056), (86, 15074), (96, 15104), (102, 15137), (136, 15242), (148, 15269), (175, 15371), (184, 15416), (210, 15482), (211, 15488), (224, 15542), (226, 15554), (256, 15656), (258, 15668), (261, 15677), (298, 15830), (299, 15833),

Gene: Urza_19 Start: 15351, Stop: 16208, Start Num: 52

Candidate Starts for Urza_19:

(Start: 52 @15351 has 61 MA's), (67, 15402), (78, 15423), (86, 15441), (95, 15465), (102, 15504), (211, 15855), (219, 15882), (226, 15921), (246, 15981), (291, 16170), (298, 16197), (299, 16200),

Gene: VResidence_17 Start: 13143, Stop: 14015, Start Num: 35

Candidate Starts for VResidence_17:

(Start: 35 @13143 has 9 MA's), (62, 13200), (129, 13395), (151, 13449), (176, 13542), (179, 13551), (199, 13626), (219, 13698), (230, 13755), (261, 13863),

Gene: ValentiniPuff_68 Start: 36653, Stop: 37528, Start Num: 45

Candidate Starts for ValentiniPuff_68:

(Start: 45 @36653 has 1 MA's), (57, 36680), (61, 36689), (94, 36761), (161, 36974), (163, 36977), (169, 37004), (201, 37136), (232, 37262), (254, 37343), (280, 37457),

Gene: Vallejo_19 Start: 15114, Stop: 15983, Start Num: 37

Candidate Starts for Vallejo_19:

(Start: 37 @15114 has 41 MA's), (75, 15201), (78, 15207), (100, 15267), (180, 15528), (192, 15582), (199, 15603), (201, 15609), (210, 15636), (213, 15648), (247, 15777), (250, 15792), (262, 15840), (280, 15918), (290, 15951),

Gene: Vanseggelen_24 Start: 15333, Stop: 16190, Start Num: 52

Candidate Starts for Vanseggelen_24:

(23, 15054), (Start: 52 @15333 has 61 MA's), (64, 15369), (78, 15405), (86, 15423), (95, 15447), (136, 15591), (163, 15663), (176, 15723), (184, 15765), (199, 15813), (256, 16005), (261, 16026), (293, 16155), (298, 16179), (299, 16182),

Gene: Verabelle_20 Start: 15664, Stop: 16521, Start Num: 52

Candidate Starts for Verabelle_20:

(Start: 52 @15664 has 61 MA's), (55, 15679), (64, 15700), (78, 15736), (86, 15754), (95, 15778), (135, 15919), (136, 15922), (148, 15949), (184, 16096), (206, 16156), (211, 16168), (217, 16186), (256, 16336), (261, 16357), (293, 16486), (298, 16510), (299, 16513),

Gene: Verse_19 Start: 15963, Stop: 16820, Start Num: 52

Candidate Starts for Verse_19:

(Start: 52 @15963 has 61 MA's), (64, 15999), (78, 16035), (95, 16077), (136, 16221), (176, 16353), (206, 16455), (210, 16461), (256, 16635), (261, 16656), (282, 16746), (293, 16785), (298, 16809), (299, 16812),

Gene: VieEnRose_19 Start: 15417, Stop: 16274, Start Num: 52

Candidate Starts for VieEnRose_19:

(Start: 52 @15417 has 61 MA's), (67, 15468), (78, 15489), (95, 15531), (102, 15570), (165, 15762), (211, 15921), (219, 15948), (226, 15987), (291, 16236), (298, 16263), (299, 16266),

Gene: Wawa_19 Start: 15151, Stop: 16020, Start Num: 37

Candidate Starts for Wawa_19:

(Start: 37 @15151 has 41 MA's), (75, 15238), (78, 15244), (180, 15565), (192, 15619), (199, 15640), (201, 15646), (213, 15685), (228, 15754), (247, 15814), (250, 15829), (262, 15877), (263, 15880), (280, 15955), (290, 15988),

Gene: Wayne_19 Start: 15248, Stop: 16129, Start Num: 37

Candidate Starts for Wayne_19:

(Start: 37 @15248 has 41 MA's), (78, 15341), (100, 15401), (119, 15479), (209, 15779), (219, 15815), (226, 15854), (246, 15920), (247, 15923), (250, 15938), (290, 16097),

Gene: Werner_19 Start: 14970, Stop: 15827, Start Num: 49

Candidate Starts for Werner_19:

(Start: 49 @14970 has 58 MA's), (78, 15042), (86, 15060), (136, 15228), (148, 15255), (199, 15450), (210, 15468), (211, 15474), (224, 15528), (256, 15642), (261, 15663), (298, 15816), (299, 15819),

Gene: Whatever_19 Start: 14970, Stop: 15827, Start Num: 49

Candidate Starts for Whatever_19:

(Start: 49 @14970 has 58 MA's), (78, 15042), (86, 15060), (136, 15228), (148, 15255), (199, 15450), (210, 15468), (211, 15474), (224, 15528), (256, 15642), (261, 15663), (298, 15816), (299, 15819),

Gene: Wyvern_25 Start: 16066, Stop: 16947, Start Num: 44

Candidate Starts for Wyvern_25:

(Start: 38 @16051 has 38 MA's), (Start: 44 @16066 has 4 MA's), (113, 16273), (147, 16360), (149, 16366), (151, 16372), (163, 16405), (185, 16507), (190, 16525), (216, 16606), (267, 16813), (274, 16849), (288, 16897), (290, 16915),

Gene: Yasdni1_19 Start: 14962, Stop: 15819, Start Num: 49

Candidate Starts for Yasdni1_19:

(Start: 49 @14962 has 58 MA's), (78, 15034), (86, 15052), (136, 15220), (148, 15247), (210, 15460), (211, 15466), (226, 15532), (245, 15589), (256, 15634), (261, 15655), (291, 15781), (298, 15808), (299, 15811),

Gene: Yonex_21 Start: 15955, Stop: 16875, Start Num: 38

Candidate Starts for Yonex_21:

(Start: 38 @15955 has 38 MA's), (74, 16051), (106, 16156), (122, 16207), (124, 16213), (127, 16222), (129, 16225), (136, 16246), (151, 16309), (165, 16360), (166, 16363), (180, 16417), (218, 16543), (221, 16552), (254, 16696), (256, 16702), (257, 16708), (261, 16723), (270, 16759), (289, 16840),

Gene: Yosif_20 Start: 15949, Stop: 16794, Start Num: 52

Candidate Starts for Yosif_20:

(Start: 52 @15949 has 61 MA's), (78, 16021), (86, 16039), (150, 16240), (158, 16270), (169, 16300), (176, 16327), (210, 16435), (211, 16441), (284, 16726), (298, 16783), (299, 16786),

Gene: Zaheer_21 Start: 16044, Stop: 16964, Start Num: 38

Candidate Starts for Zaheer_21:

(Start: 38 @16044 has 38 MA's), (74, 16140), (106, 16245), (122, 16296), (124, 16302), (127, 16311), (129, 16314), (136, 16335), (151, 16398), (165, 16449), (166, 16452), (180, 16506), (218, 16632), (221, 16641), (254, 16785), (256, 16791), (257, 16797), (261, 16812), (270, 16848), (289, 16929),

Gene: Zainub_21 Start: 15320, Stop: 16177, Start Num: 52

Candidate Starts for Zainub_21:

(Start: 52 @15320 has 61 MA's), (158, 15641), (169, 15677), (210, 15818), (261, 16013), (298, 16166), (299, 16169),

Gene: ZamZam_19 Start: 15956, Stop: 16813, Start Num: 51

Candidate Starts for ZamZam_19:

(Start: 51 @15956 has 1 MA's), (55, 15971), (64, 15992), (78, 16028), (95, 16070), (102, 16109), (159, 16280), (174, 16337), (199, 16436), (206, 16448), (210, 16454), (211, 16460), (256, 16628), (261, 16649), (293, 16778), (298, 16802), (299, 16805),

Gene: Zemlya_20 Start: 14993, Stop: 15850, Start Num: 49

Candidate Starts for Zemlya_20:

(Start: 49 @14993 has 58 MA's), (78, 15065), (102, 15146), (136, 15251), (148, 15278), (204, 15482), (206, 15485), (210, 15491), (226, 15563), (245, 15620), (261, 15686), (298, 15839), (299, 15842),

Gene: Zorro_19 Start: 15130, Stop: 15999, Start Num: 37

Candidate Starts for Zorro_19:

(Start: 37 @15130 has 41 MA's), (75, 15217), (78, 15223), (192, 15598), (199, 15619), (201, 15625), (210, 15652), (213, 15664), (228, 15733), (247, 15793), (250, 15808), (262, 15856), (280, 15934), (290, 15967),

Gene: phiCAM_20 Start: 17629, Stop: 18483, Start Num: 52

Candidate Starts for phiCAM_20:

(Start: 52 @17629 has 61 MA's), (64, 17665), (78, 17701), (86, 17719), (95, 17743), (117, 17836), (136, 17887), (176, 18019), (199, 18106), (206, 18118), (210, 18124), (217, 18148), (256, 18298), (261, 18319), (293, 18448), (298, 18472), (299, 18475),

Gene: phiHau3_21 Start: 15666, Stop: 16520, Start Num: 52

Candidate Starts for phiHau3_21:

(28, 15513), (Start: 52 @15666 has 61 MA's), (95, 15780), (102, 15819), (137, 15927), (154, 15969), (169, 16023), (253, 16326), (298, 16509), (299, 16512), (300, 16515),