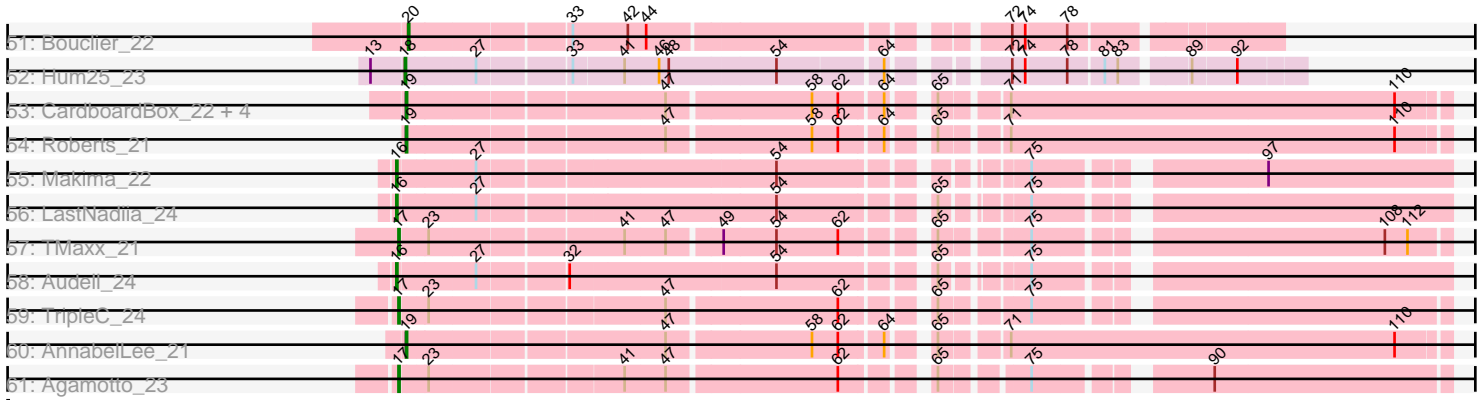


Pham 303187



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 303187 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303187 has 132 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Preamble_21, Kittykat_21
- Track 2 : GreenHearts_25
- Track 3 : Albanese_25, Lakshmi_25
- Track 4 : Immaculata_25, Cholula_25, Potatoes_25
- Track 5 : Lasagna_21
- Track 6 : Glenn_25, TattModd_25, Fluke_25, Carpal_25, Vallejo_25
- Track 7 : RAP15_25, Korra_26, MeganNoll_25, Savage2526_25, MrGloopy_25, Jumboset_25, BrotherBLo_25
- Track 8 : Gisselle_21, DreamTeam_21
- Track 9 : Aledel_21, Supakev_21, Eunoia_21, OMalley_21, Chridison_21, Riovina_21
- Track 10 : DrRobert_21, Lucy_21, Christian_21, PitaDog_21, OurGirlNessie_21
- Track 11 : PinkFriday_21, Pumancara_21
- Track 12 : Greenhouse_25
- Track 13 : Maria1952_21, Daiboju_21, Temper16_21, KingBob_21, Herb_21, Sergei_21
- Track 14 : Rozby_25, Beethoven_25, Riverdale_25
- Track 15 : Litotes_25
- Track 16 : HeadNerd_21, Moki_21, Bennie_21, Huckleberry_21
- Track 17 : AustinPowers_21
- Track 18 : Huntingdon_25, RcigaStruga_25
- Track 19 : WonderBoy_21
- Track 20 : Suppi_25, AppleCider_25, Canowicakte_25
- Track 21 : Nubia_25, Oxynfrius_25
- Track 22 : Graynor_25
- Track 23 : HunterDalle_21, Vulture_21
- Track 24 : Wawa_25
- Track 25 : CallieOMalley_25, PartyCup_25, Wayne_25
- Track 26 : MrBoss_25
- Track 27 : Urla_21
- Track 28 : EstebanJulior_21, MamaPearl_21
- Track 29 : Dino_25, Zorro_25, Kalizoi_25
- Track 30 : Bodacious_21, Nancia_21, CristinaYang_21, LilStuart_21, Lennox_21, ChewChew_21
- Track 31 : Misaeng_25
- Track 32 : BigMack_21
- Track 33 : Scuttle_25

- Track 34 : Pterodactyl_21, Makoto_21
- Track 35 : Joann_25
- Track 36 : CookieBear_27, Aikyam_27, RadFad_27, Lasker_27, Richie_27, Auxilium_27, MaterMagnus_27, BlueShadow_27, Hillester_27, Windest_28, MidnightRain_27, YoungHarleezy_27
- Track 37 : BasketStar_27
- Track 38 : Globfish_27
- Track 39 : SpicyFrank_27
- Track 40 : BenchScraper_27
- Track 41 : ShakeltOph_21, JasmineDragon_21
- Track 42 : MiniMommy_21
- Track 43 : Pigu_22
- Track 44 : Sarge_22, BrayBeast_22, Rooter_22
- Track 45 : Seldom_25, Dunamis_23, Swim_25
- Track 46 : Mendel_22
- Track 47 : Goodgraces_21
- Track 48 : Tillums_26
- Track 49 : Casab_23
- Track 50 : Anjali_20
- Track 51 : Bouclier_22
- Track 52 : Hum25_23
- Track 53 : CardboardBox_22, ChipsNGuac_21, Gerri43_21, ChamoyPickle_22, Neuville_21
- Track 54 : Roberts_21
- Track 55 : Makima_22
- Track 56 : LastNadiia_24
- Track 57 : TMaxx_21
- Track 58 : Audell_24
- Track 59 : TripleC_24
- Track 60 : AnnabelLee_21
- Track 61 : Agamoto_23

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

The start number called the most often in the published annotations is 15, it was called in 87 of the 122 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_25, Aledel_21, AppleCider_25, AustinPowers_21, Beethoven_25, Bennie_21, BigMack_21, Bodacious_21, BrotherBLo_25, CallieOMalley_25, Canowicakte_25, Carpal_25, ChewChew_21, Cholula_25, Chridison_21, Christian_21, CristinaYang_21, Daiboju_21, Dino_25, DrRobert_21, DreamTeam_21, EstebanJulior_21, Eunoia_21, Fluke_25, Gisselle_21, Glenn_25, Graynor_25, GreenHearts_25, Greenhouse_25, HeadNerd_21, Herb_21, Huckleberry_21, HunterDalle_21, Huntingdon_25, Immaculata_25, JasmineDragon_21, Joann_25, Jumboset_25, Kalizoi_25, KingBob_21, Kittykat_21, Korra_26, Lakshmi_25, Lasagna_21, Lennox_21, LilStuart_21, Litotes_25, Lucy_21, Makoto_21, MamaPearl_21, Maria1952_21, MeganNoll_25, MiniMommy_21, Misaeng_25, Moki_21, MrBoss_25, MrGloopy_25, Nancia_21, Nubia_25, OMalley_21, OurGirlNessie_21, Oxynfrius_25, PartyCup_25, PinkFriday_21, PitaDog_21,

Potatoes_25, Preamble_21, Pterodactyl_21, Pumancara_21, RAP15_25, RcigaStruga_25, Riovina_21, Riverdale_25, Rozby_25, Savage2526_25, Scuttle_25, Sergei_21, ShakeltOph_21, Supakev_21, Suppi_25, TattModd_25, Temper16_21, Urla_21, Vallejo_25, Vulture_21, Wawa_25, Wayne_25, WonderBoy_21, Zorro_25,

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

-

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

- Agamoto_23, Aikyam_27, Anjali_20, AnnabelleLee_21, Audell_24, Auxilium_27, BasketStar_27, BenchScraper_27, BlueShadow_27, Bouclier_22, BrayBeast_22, CardboardBox_22, Casab_23, ChamoyPickle_22, ChipsNGuac_21, CookieBear_27, Dunamis_23, Gerri43_21, Globfish_27, Goodgraces_21, Hillester_27, Hum25_23, Lasker_27, LastNadiia_24, Makima_22, MaterMagnus_27, Mendel_22, MidnightRain_27, Neuville_21, Pigu_22, RadFad_27, Richie_27, Roberts_21, Rooter_22, Sarge_22, Seldom_25, SpicyFrank_27, Swim_25, TMaxx_21, Tillums_26, TripleC_24, Windest_28, YoungHarleezy_27,

Summary by start number:

Start 12:

- Found in 16 of 132 (12.1%) of genes in pham
- Manual Annotations of this start: 13 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikyam_27 (AY), Auxilium_27 (AY), BasketStar_27 (AY), BenchScraper_27 (AY), BlueShadow_27 (AY), CookieBear_27 (AY), Globfish_27 (AY), Hillester_27 (AY), Lasker_27 (AY), MaterMagnus_27 (AY), MidnightRain_27 (AY), RadFad_27 (AY), Richie_27 (AY), SpicyFrank_27 (AY), Windest_28 (AY), YoungHarleezy_27 (AY),

Start 15:

- Found in 89 of 132 (67.4%) of genes in pham
- Manual Annotations of this start: 87 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Albanese_25 (AK), Aledel_21 (AK), AppleCider_25 (AK), AustinPowers_21 (AK), Beethoven_25 (AK), Bennie_21 (AK), BigMack_21 (AK), Bodacious_21 (AK), BrotherBLo_25 (AK), CallieOMalley_25 (AK), Canowicakte_25 (AK), Carpal_25 (AK), ChewChew_21 (AK), Cholula_25 (AK), Chridison_21 (AK), Christian_21 (AK), CristinaYang_21 (AK), Daiboju_21 (AK), Dino_25 (AK), DrRobert_21 (AK), DreamTeam_21 (AK), EstebanJulior_21 (AK), Eunoia_21 (AK), Fluke_25 (AK), Gisselle_21 (AK), Glenn_25 (AK), Graynor_25 (AK), GreenHearts_25 (AK), Greenhouse_25 (AK), HeadNerd_21 (AK), Herb_21 (AK), Huckleberry_21 (AK), HunterDalle_21 (AK), Huntingdon_25 (AK), Immaculata_25 (AK), JasmineDragon_21 (AZ4), Joann_25 (AK), Jumboset_25 (AK), Kalizoi_25 (AK), KingBob_21 (AK), Kittykat_21 (AK), Korra_26 (AK), Lakshmi_25 (AK), Lasagna_21 (AK), Lennox_21 (AK), LilStuart_21 (AK), Litotes_25 (AK), Lucy_21 (AK), Makoto_21 (AK), MamaPearl_21 (AK), Maria1952_21 (AK), MeganNoll_25 (AK), MiniMommy_21 (AZ4), Misaeng_25 (AK), Moki_21 (AK), MrBoss_25 (AK), MrGloopy_25 (AK), Nancia_21 (AK), Nubia_25 (AK), OMalley_21 (AK), OurGirlNessie_21 (AK), Oxynfrius_25 (AK), PartyCup_25 (AK), PinkFriday_21 (AK), PitaDog_21 (AK), Potatoes_25 (AK), Preamble_21 (AK), Pterodactyl_21 (AK), Pumancara_21 (AK), RAP15_25 (AK), RcigaStruga_25 (AK), Riovina_21 (AK), Riverdale_25 (AK), Rozby_25 (AK), Savage2526_25 (AK), Scuttle_25 (AK), Sergei_21 (AK),

ShakeltOph_21 (AZ4), Supakev_21 (AK), Suppi_25 (AK), TattModd_25 (AK), Temper16_21 (AK), Urla_21 (AK), Vallejo_25 (AK), Vulture_21 (AK), Wawa_25 (AK), Wayne_25 (AK), WonderBoy_21 (AK), Zorro_25 (AK),

Start 16:

- Found in 3 of 132 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Audell_24 (FR), LastNadiia_24 (FR), Makima_22 (FR),

Start 17:

- Found in 3 of 132 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agamoto_23 (FR), TMaxx_21 (FR), TripleC_24 (FR),

Start 18:

- Found in 5 of 132 (3.8%) of genes in pham
- Manual Annotations of this start: 3 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BrayBeast_22 (FB), Hum25_23 (FQ), Pigu_22 (FB), Rooter_22 (FB), Sarge_22 (FB),

Start 19:

- Found in 7 of 132 (5.3%) of genes in pham
- Manual Annotations of this start: 4 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_21 (FR), CardboardBox_22 (FR), ChamoyPickle_22 (FR), ChipsNGuac_21 (FR), Gerri43_21 (FR), Neuville_21 (FR), Roberts_21 (FR),

Start 20:

- Found in 9 of 132 (6.8%) of genes in pham
- Manual Annotations of this start: 9 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anjali_20 (FD), Bouclier_22 (FD), Casab_23 (FD), Dunamis_23 (FD), Goodgraces_21 (FD), Mendel_22 (FD), Seldom_25 (FD), Swim_25 (FD), Tillums_26 (FD),

Summary by clusters:

There are 7 clusters represented in this pham: FQ, FR, AK, FB, FD, AY, AZ4,

Info for manual annotations of cluster AK:

- Start number 15 was manually annotated 84 times for cluster AK.

Info for manual annotations of cluster AY:

- Start number 12 was manually annotated 13 times for cluster AY.

Info for manual annotations of cluster AZ4:

- Start number 15 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster FB:

- Start number 18 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FD:

- Start number 20 was manually annotated 9 times for cluster FD.

Info for manual annotations of cluster FQ:

- Start number 18 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster FR:

- Start number 16 was manually annotated 3 times for cluster FR.
- Start number 17 was manually annotated 3 times for cluster FR.
- Start number 19 was manually annotated 4 times for cluster FR.

Gene Information:

Gene: Agamoto_23 Start: 17205, Stop: 18047, Start Num: 17

Candidate Starts for Agamoto_23:

(Start: 17 @17205 has 3 MA's), (23, 17226), (41, 17391), (47, 17427), (62, 17577), (65, 17640), (75, 17703), (90, 17835),

Gene: Aikyam_27 Start: 19476, Stop: 20438, Start Num: 12

Candidate Starts for Aikyam_27:

(9, 19410), (Start: 12 @19476 has 13 MA's), (14, 19497), (34, 19662), (38, 19680), (39, 19686), (45, 19734), (50, 19803), (51, 19812), (53, 19833), (60, 19899), (66, 20004), (68, 20025), (75, 20085), (84, 20160), (94, 20256), (97, 20277),

Gene: Albanese_25 Start: 20058, Stop: 20894, Start Num: 15

Candidate Starts for Albanese_25:

(Start: 15 @20058 has 87 MA's), (27, 20124), (37, 20220), (41, 20250), (42, 20253), (44, 20268), (55, 20394), (56, 20397), (57, 20406), (70, 20550), (73, 20559), (77, 20589), (79, 20607), (82, 20640), (83, 20646), (96, 20760), (105, 20832), (109, 20859), (111, 20871),

Gene: Aledel_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for Aledel_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (93, 19111), (105, 19198), (109, 19225),

Gene: Anjali_20 Start: 15722, Stop: 16366, Start Num: 20

Candidate Starts for Anjali_20:

(1, 15368), (6, 15509), (10, 15665), (Start: 20 @15722 has 9 MA's), (26, 15773), (33, 15860), (54, 16040), (56, 16052), (74, 16211),

Gene: AnnabelLee_21 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for AnnabelLee_21:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: AppleCider_25 Start: 20046, Stop: 20882, Start Num: 15

Candidate Starts for AppleCider_25:

(5, 19797), (Start: 15 @20046 has 87 MA's), (41, 20238), (44, 20256), (56, 20385), (57, 20394), (59, 20415), (61, 20424), (69, 20532), (70, 20538), (82, 20628), (83, 20634), (93, 20733), (102, 20805), (109, 20847),

Gene: Audell_24 Start: 17501, Stop: 18355, Start Num: 16

Candidate Starts for Audell_24:

(Start: 16 @17501 has 3 MA's), (27, 17567), (32, 17642), (54, 17825), (65, 17945), (75, 18005),

Gene: AustinPowers_21 Start: 18422, Stop: 19261, Start Num: 15

Candidate Starts for AustinPowers_21:

(Start: 15 @18422 has 87 MA's), (29, 18518), (44, 18638), (55, 18764), (57, 18776), (70, 18917), (82, 19007), (91, 19091), (93, 19112), (105, 19199), (109, 19226),

Gene: Auxilium_27 Start: 19466, Stop: 20428, Start Num: 12

Candidate Starts for Auxilium_27:

(9, 19400), (Start: 12 @19466 has 13 MA's), (14, 19487), (34, 19652), (38, 19670), (39, 19676), (45, 19724), (50, 19793), (51, 19802), (53, 19823), (60, 19889), (66, 19994), (68, 20015), (75, 20075), (84, 20150), (94, 20246), (97, 20267),

Gene: BasketStar_27 Start: 19520, Stop: 20482, Start Num: 12

Candidate Starts for BasketStar_27:

(9, 19454), (Start: 12 @19520 has 13 MA's), (14, 19541), (34, 19706), (38, 19724), (39, 19730), (45, 19778), (50, 19847), (51, 19856), (53, 19877), (60, 19943), (66, 20048), (68, 20069), (75, 20129), (84, 20204), (94, 20300), (97, 20321),

Gene: Beethoven_25 Start: 19983, Stop: 20840, Start Num: 15

Candidate Starts for Beethoven_25:

(Start: 15 @19983 has 87 MA's), (41, 20175), (42, 20178), (43, 20190), (67, 20439), (69, 20469), (70, 20475), (82, 20565), (83, 20571), (93, 20670), (98, 20727), (101, 20760), (105, 20778), (107, 20784), (109, 20805),

Gene: BenchScraper_27 Start: 19481, Stop: 20443, Start Num: 12

Candidate Starts for BenchScraper_27:

(9, 19415), (Start: 12 @19481 has 13 MA's), (14, 19502), (34, 19667), (38, 19685), (39, 19691), (50, 19808), (51, 19817), (53, 19838), (60, 19904), (66, 20009), (68, 20030), (75, 20090), (84, 20165), (94, 20261), (97, 20282),

Gene: Bennie_21 Start: 18441, Stop: 19298, Start Num: 15

Candidate Starts for Bennie_21:

(5, 18192), (Start: 15 @18441 has 87 MA's), (41, 18633), (44, 18651), (56, 18780), (61, 18819), (69, 18927), (70, 18933), (82, 19023), (83, 19029), (88, 19074), (98, 19185), (105, 19236), (109, 19263),

Gene: BigMack_21 Start: 18430, Stop: 19293, Start Num: 15

Candidate Starts for BigMack_21:

(Start: 15 @18430 has 87 MA's), (41, 18625), (44, 18643), (55, 18769), (56, 18772), (61, 18811), (69, 18919), (70, 18925), (76, 18955), (82, 19015), (83, 19021), (88, 19066), (93, 19120), (98, 19177), (105, 19231), (109, 19258),

Gene: BlueShadow_27 Start: 19466, Stop: 20428, Start Num: 12

Candidate Starts for BlueShadow_27:

(9, 19400), (Start: 12 @19466 has 13 MA's), (14, 19487), (34, 19652), (38, 19670), (39, 19676), (45, 19724), (50, 19793), (51, 19802), (53, 19823), (60, 19889), (66, 19994), (68, 20015), (75, 20075), (84, 20150), (94, 20246), (97, 20267),

Gene: Bodacious_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for Bodacious_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (56, 18785), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: Bouclier_22 Start: 15957, Stop: 16664, Start Num: 20

Candidate Starts for Bouclier_22:

(Start: 20 @15957 has 9 MA's), (33, 16095), (42, 16146), (44, 16161), (72, 16443), (74, 16455), (78, 16491),

Gene: BrayBeast_22 Start: 17377, Stop: 18099, Start Num: 18

Candidate Starts for BrayBeast_22:

(Start: 18 @17377 has 3 MA's), (26, 17431), (32, 17515), (36, 17530), (46, 17593), (64, 17788), (74, 17875), (83, 17950), (87, 17989), (89, 18001),

Gene: BrotherBLo_25 Start: 19989, Stop: 20846, Start Num: 15

Candidate Starts for BrotherBLo_25:

(Start: 15 @19989 has 87 MA's), (41, 20181), (42, 20184), (43, 20196), (61, 20367), (67, 20445), (69, 20475), (70, 20481), (82, 20571), (83, 20577), (93, 20676), (98, 20733), (105, 20784), (107, 20790), (109, 20811),

Gene: CallieOMalley_25 Start: 20046, Stop: 20882, Start Num: 15

Candidate Starts for CallieOMalley_25:

(5, 19797), (Start: 15 @20046 has 87 MA's), (41, 20238), (44, 20256), (55, 20382), (56, 20385), (57, 20394), (59, 20415), (61, 20424), (69, 20532), (70, 20538), (82, 20628), (83, 20634), (93, 20733), (102, 20805), (109, 20847),

Gene: Canowicakte_25 Start: 20081, Stop: 20917, Start Num: 15

Candidate Starts for Canowicakte_25:

(5, 19832), (Start: 15 @20081 has 87 MA's), (41, 20273), (44, 20291), (56, 20420), (57, 20429), (59, 20450), (61, 20459), (69, 20567), (70, 20573), (82, 20663), (83, 20669), (93, 20768), (102, 20840), (109, 20882),

Gene: CardboardBox_22 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for CardboardBox_22:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: Carpal_25 Start: 19990, Stop: 20847, Start Num: 15

Candidate Starts for Carpal_25:

(Start: 15 @19990 has 87 MA's), (41, 20182), (42, 20185), (43, 20197), (61, 20368), (67, 20446), (69, 20476), (70, 20482), (82, 20572), (83, 20578), (93, 20677), (98, 20734), (101, 20767), (105, 20785), (107, 20791), (109, 20812),

Gene: Casab_23 Start: 16380, Stop: 17024, Start Num: 20

Candidate Starts for Casab_23:

(Start: 20 @16380 has 9 MA's), (26, 16431), (32, 16515), (44, 16584), (75, 16872),

Gene: ChamoyPickle_22 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for ChamoyPickle_22:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: ChewChew_21 Start: 18442, Stop: 19305, Start Num: 15

Candidate Starts for ChewChew_21:

(Start: 15 @18442 has 87 MA's), (41, 18637), (44, 18655), (56, 18784), (61, 18823), (69, 18931), (70, 18937), (76, 18967), (82, 19027), (83, 19033), (88, 19078), (95, 19138), (98, 19189), (105, 19243), (109, 19270),

Gene: ChipsNGuac_21 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for ChipsNGuac_21:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: Cholula_25 Start: 20035, Stop: 20892, Start Num: 15

Candidate Starts for Cholula_25:

(Start: 15 @20035 has 87 MA's), (41, 20227), (42, 20230), (43, 20242), (61, 20413), (67, 20491), (69, 20521), (70, 20527), (82, 20617), (83, 20623), (93, 20722), (98, 20779), (104, 20827), (105, 20830), (107, 20836), (109, 20857),

Gene: Chridison_21 Start: 18422, Stop: 19261, Start Num: 15

Candidate Starts for Chridison_21:

(Start: 15 @18422 has 87 MA's), (29, 18518), (44, 18638), (55, 18764), (57, 18776), (70, 18917), (82, 19007), (93, 19112), (105, 19199), (109, 19226),

Gene: Christian_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for Christian_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (55, 18782), (56, 18785), (57, 18794), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: CookieBear_27 Start: 19466, Stop: 20428, Start Num: 12

Candidate Starts for CookieBear_27:

(9, 19400), (Start: 12 @19466 has 13 MA's), (14, 19487), (34, 19652), (38, 19670), (39, 19676), (45, 19724), (50, 19793), (51, 19802), (53, 19823), (60, 19889), (66, 19994), (68, 20015), (75, 20075), (84, 20150), (94, 20246), (97, 20267),

Gene: CristinaYang_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for CristinaYang_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (56, 18785), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: Daiboju_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for Daiboju_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: Dino_25 Start: 19988, Stop: 20845, Start Num: 15

Candidate Starts for Dino_25:

(Start: 15 @19988 has 87 MA's), (41, 20180), (42, 20183), (43, 20195), (44, 20198), (61, 20366), (67, 20444), (69, 20474), (70, 20480), (82, 20570), (83, 20576), (93, 20675), (98, 20732), (105, 20783), (107, 20789), (109, 20810),

Gene: DrRobert_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for DrRobert_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (55, 18782), (56, 18785), (57, 18794), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: DreamTeam_21 Start: 18481, Stop: 19338, Start Num: 15

Candidate Starts for DreamTeam_21:

(5, 18232), (Start: 15 @18481 has 87 MA's), (41, 18673), (44, 18691), (55, 18817), (56, 18820), (57, 18829), (59, 18850), (61, 18859), (69, 18967), (70, 18973), (76, 19003), (82, 19063), (83, 19069), (88, 19114), (98, 19225), (109, 19303),

Gene: Dunamis_23 Start: 15879, Stop: 16523, Start Num: 20

Candidate Starts for Dunamis_23:

(11, 15831), (Start: 20 @15879 has 9 MA's), (26, 15930), (32, 16014), (33, 16017), (44, 16080), (54, 16197), (56, 16209), (74, 16368),

Gene: EstebanJulior_21 Start: 18446, Stop: 19306, Start Num: 15

Candidate Starts for EstebanJulior_21:

(5, 18197), (Start: 15 @18446 has 87 MA's), (25, 18500), (37, 18608), (42, 18641), (43, 18653), (44, 18656), (56, 18785), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (98, 19190), (105, 19244), (109, 19271),

Gene: Eunoia_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for Eunoia_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (93, 19111), (105, 19198), (109, 19225),

Gene: Fluke_25 Start: 20031, Stop: 20888, Start Num: 15

Candidate Starts for Fluke_25:

(Start: 15 @20031 has 87 MA's), (41, 20223), (42, 20226), (43, 20238), (61, 20409), (67, 20487), (69, 20517), (70, 20523), (82, 20613), (83, 20619), (93, 20718), (98, 20775), (101, 20808), (105, 20826), (107, 20832), (109, 20853),

Gene: Gerri43_21 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for Gerri43_21:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: Gisselle_21 Start: 18481, Stop: 19338, Start Num: 15

Candidate Starts for Gisselle_21:

(5, 18232), (Start: 15 @18481 has 87 MA's), (41, 18673), (44, 18691), (55, 18817), (56, 18820), (57, 18829), (59, 18850), (61, 18859), (69, 18967), (70, 18973), (76, 19003), (82, 19063), (83, 19069), (88, 19114), (98, 19225), (109, 19303),

Gene: Glenn_25 Start: 20040, Stop: 20897, Start Num: 15

Candidate Starts for Glenn_25:

(Start: 15 @20040 has 87 MA's), (41, 20232), (42, 20235), (43, 20247), (61, 20418), (67, 20496), (69, 20526), (70, 20532), (82, 20622), (83, 20628), (93, 20727), (98, 20784), (101, 20817), (105, 20835), (107, 20841), (109, 20862),

Gene: Globfish_27 Start: 19700, Stop: 20662, Start Num: 12

Candidate Starts for Globfish_27:

(Start: 12 @19700 has 13 MA's), (14, 19721), (24, 19775), (34, 19886), (38, 19904), (39, 19910), (40, 19913), (45, 19958), (51, 20036), (52, 20045), (53, 20057), (60, 20123), (63, 20162), (66, 20228), (68, 20249), (75, 20309), (84, 20384), (94, 20480), (97, 20501),

Gene: Goodgraces_21 Start: 15936, Stop: 16580, Start Num: 20

Candidate Starts for Goodgraces_21:

(Start: 20 @15936 has 9 MA's), (26, 15987), (32, 16071), (33, 16074), (44, 16137), (54, 16254), (56, 16266), (74, 16425),

Gene: Graynor_25 Start: 20067, Stop: 20903, Start Num: 15

Candidate Starts for Graynor_25:

(5, 19818), (Start: 15 @20067 has 87 MA's), (41, 20259), (44, 20277), (55, 20403), (56, 20406), (57, 20415), (69, 20553), (70, 20559), (82, 20649), (83, 20655), (93, 20754), (102, 20826), (109, 20868),

Gene: GreenHearts_25 Start: 20150, Stop: 20986, Start Num: 15

Candidate Starts for GreenHearts_25:

(Start: 15 @20150 has 87 MA's), (27, 20216), (37, 20312), (41, 20342), (42, 20345), (44, 20360), (55, 20486), (56, 20489), (57, 20498), (61, 20528), (70, 20642), (73, 20651), (77, 20681), (79, 20699), (82, 20732), (83, 20738), (96, 20852), (105, 20924), (109, 20951), (111, 20963),

Gene: Greenhouse_25 Start: 20074, Stop: 20910, Start Num: 15

Candidate Starts for Greenhouse_25:

(Start: 15 @20074 has 87 MA's), (27, 20140), (37, 20236), (41, 20266), (42, 20269), (44, 20284), (55, 20410), (56, 20413), (57, 20422), (70, 20566), (73, 20575), (77, 20605), (79, 20623), (82, 20656), (83, 20662), (96, 20776), (105, 20848), (109, 20875), (111, 20887),

Gene: HeadNerd_21 Start: 18441, Stop: 19298, Start Num: 15

Candidate Starts for HeadNerd_21:

(5, 18192), (Start: 15 @18441 has 87 MA's), (41, 18633), (44, 18651), (56, 18780), (61, 18819), (69, 18927), (70, 18933), (82, 19023), (83, 19029), (88, 19074), (98, 19185), (105, 19236), (109, 19263),

Gene: Herb_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for Herb_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: Hillester_27 Start: 19466, Stop: 20428, Start Num: 12

Candidate Starts for Hillester_27:

(9, 19400), (Start: 12 @19466 has 13 MA's), (14, 19487), (34, 19652), (38, 19670), (39, 19676), (45, 19724), (50, 19793), (51, 19802), (53, 19823), (60, 19889), (66, 19994), (68, 20015), (75, 20075), (84, 20150), (94, 20246), (97, 20267),

Gene: Huckleberry_21 Start: 18441, Stop: 19298, Start Num: 15

Candidate Starts for Huckleberry_21:

(5, 18192), (Start: 15 @18441 has 87 MA's), (41, 18633), (44, 18651), (56, 18780), (61, 18819), (69, 18927), (70, 18933), (82, 19023), (83, 19029), (88, 19074), (98, 19185), (105, 19236), (109, 19263),

Gene: Hum25_23 Start: 17016, Stop: 17738, Start Num: 18

Candidate Starts for Hum25_23:

(13, 16989), (Start: 18 @17016 has 3 MA's), (27, 17079), (33, 17157), (41, 17202), (46, 17232), (48, 17241), (54, 17337), (64, 17427), (72, 17502), (74, 17514), (78, 17550), (81, 17580), (83, 17592), (89, 17643), (92, 17682),

Gene: HunterDalle_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for HunterDalle_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (35, 18583), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (91, 19090), (93, 19111), (105, 19198), (109, 19225),

Gene: Huntingdon_25 Start: 20042, Stop: 20878, Start Num: 15

Candidate Starts for Huntingdon_25:

(Start: 15 @20042 has 87 MA's), (41, 20234), (43, 20249), (55, 20378), (56, 20381), (57, 20390), (59, 20411), (61, 20420), (67, 20498), (69, 20528), (70, 20534), (73, 20543), (77, 20573), (82, 20624), (83, 20630), (95, 20735), (97, 20753), (99, 20786), (105, 20816), (109, 20843), (111, 20855),

Gene: Immaculata_25 Start: 20034, Stop: 20891, Start Num: 15

Candidate Starts for Immaculata_25:

(Start: 15 @20034 has 87 MA's), (41, 20226), (42, 20229), (43, 20241), (61, 20412), (67, 20490), (69, 20520), (70, 20526), (82, 20616), (83, 20622), (93, 20721), (98, 20778), (104, 20826), (105, 20829), (107, 20835), (109, 20856),

Gene: JasmineDragon_21 Start: 17763, Stop: 18488, Start Num: 15

Candidate Starts for JasmineDragon_21:

(Start: 15 @17763 has 87 MA's), (26, 17820), (28, 17838), (33, 17907), (41, 17952), (65, 18204), (80, 18321), (86, 18378),

Gene: Joann_25 Start: 20008, Stop: 20844, Start Num: 15

Candidate Starts for Joann_25:

(Start: 15 @20008 has 87 MA's), (27, 20074), (37, 20170), (41, 20200), (42, 20203), (43, 20215), (44, 20218), (55, 20344), (56, 20347), (57, 20356), (61, 20386), (70, 20500), (73, 20509), (77, 20539), (79, 20557), (82, 20590), (83, 20596), (96, 20710), (105, 20782), (109, 20809), (111, 20821),

Gene: Jumboset_25 Start: 19983, Stop: 20840, Start Num: 15

Candidate Starts for Jumboset_25:

(Start: 15 @19983 has 87 MA's), (41, 20175), (42, 20178), (43, 20190), (61, 20361), (67, 20439), (69, 20469), (70, 20475), (82, 20565), (83, 20571), (93, 20670), (98, 20727), (105, 20778), (107, 20784), (109, 20805),

Gene: Kalizoi_25 Start: 19982, Stop: 20839, Start Num: 15

Candidate Starts for Kalizoi_25:

(Start: 15 @19982 has 87 MA's), (41, 20174), (42, 20177), (43, 20189), (44, 20192), (61, 20360), (67, 20438), (69, 20468), (70, 20474), (82, 20564), (83, 20570), (93, 20669), (98, 20726), (105, 20777), (107, 20783), (109, 20804),

Gene: KingBob_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for KingBob_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: Kittykat_21 Start: 18465, Stop: 19322, Start Num: 15

Candidate Starts for Kittykat_21:

(Start: 15 @18465 has 87 MA's), (41, 18657), (44, 18675), (55, 18801), (56, 18804), (61, 18843), (69, 18951), (70, 18957), (76, 18987), (82, 19047), (83, 19053), (88, 19098), (93, 19152), (98, 19209), (105, 19260), (109, 19287),

Gene: Korra_26 Start: 19988, Stop: 20845, Start Num: 15

Candidate Starts for Korra_26:

(Start: 15 @19988 has 87 MA's), (41, 20180), (42, 20183), (43, 20195), (61, 20366), (67, 20444), (69, 20474), (70, 20480), (82, 20570), (83, 20576), (93, 20675), (98, 20732), (105, 20783), (107, 20789), (109, 20810),

Gene: Lakshmi_25 Start: 20034, Stop: 20870, Start Num: 15

Candidate Starts for Lakshmi_25:

(Start: 15 @20034 has 87 MA's), (27, 20100), (37, 20196), (41, 20226), (42, 20229), (44, 20244), (55, 20370), (56, 20373), (57, 20382), (70, 20526), (73, 20535), (77, 20565), (79, 20583), (82, 20616), (83, 20622), (96, 20736), (105, 20808), (109, 20835), (111, 20847),

Gene: Lasagna_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for Lasagna_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (56, 18785), (57, 18794), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: Lasker_27 Start: 19474, Stop: 20436, Start Num: 12

Candidate Starts for Lasker_27:

(9, 19408), (Start: 12 @19474 has 13 MA's), (14, 19495), (34, 19660), (38, 19678), (39, 19684), (45, 19732), (50, 19801), (51, 19810), (53, 19831), (60, 19897), (66, 20002), (68, 20023), (75, 20083), (84, 20158), (94, 20254), (97, 20275),

Gene: LastNadiia_24 Start: 16453, Stop: 17307, Start Num: 16

Candidate Starts for LastNadiia_24:

(Start: 16 @16453 has 3 MA's), (27, 16519), (54, 16777), (65, 16897), (75, 16957),

Gene: Lennox_21 Start: 18431, Stop: 19294, Start Num: 15

Candidate Starts for Lennox_21:

(Start: 15 @18431 has 87 MA's), (41, 18626), (44, 18644), (56, 18773), (61, 18812), (69, 18920), (70, 18926), (76, 18956), (82, 19016), (83, 19022), (88, 19067), (95, 19127), (98, 19178), (105, 19232), (109, 19259),

Gene: LilStuart_21 Start: 18431, Stop: 19294, Start Num: 15

Candidate Starts for LilStuart_21:

(Start: 15 @18431 has 87 MA's), (41, 18626), (44, 18644), (56, 18773), (61, 18812), (69, 18920), (70, 18926), (76, 18956), (82, 19016), (83, 19022), (88, 19067), (95, 19127), (98, 19178), (105, 19232), (109, 19259),

Gene: Litotes_25 Start: 20031, Stop: 20867, Start Num: 15

Candidate Starts for Litotes_25:

(5, 19782), (Start: 15 @20031 has 87 MA's), (29, 20121), (41, 20223), (44, 20241), (56, 20370), (57, 20379), (59, 20400), (69, 20517), (70, 20523), (82, 20613), (83, 20619), (93, 20718), (102, 20790), (109, 20832),

Gene: Lucy_21 Start: 18423, Stop: 19286, Start Num: 15

Candidate Starts for Lucy_21:

(Start: 15 @18423 has 87 MA's), (41, 18618), (44, 18636), (55, 18762), (56, 18765), (57, 18774), (61, 18804), (69, 18912), (70, 18918), (76, 18948), (82, 19008), (83, 19014), (88, 19059), (95, 19119), (98, 19170), (105, 19224), (109, 19251),

Gene: Makima_22 Start: 15536, Stop: 16390, Start Num: 16

Candidate Starts for Makima_22:

(Start: 16 @15536 has 3 MA's), (27, 15602), (54, 15860), (75, 16040), (97, 16220),

Gene: Makoto_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for Makoto_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (55, 18782), (56, 18785), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: MamaPearl_21 Start: 18446, Stop: 19306, Start Num: 15

Candidate Starts for MamaPearl_21:

(5, 18197), (Start: 15 @18446 has 87 MA's), (25, 18500), (37, 18608), (42, 18641), (43, 18653), (44, 18656), (56, 18785), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (98, 19190), (105, 19244), (109, 19271),

Gene: Maria1952_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for Maria1952_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: MaterMagnus_27 Start: 19476, Stop: 20438, Start Num: 12

Candidate Starts for MaterMagnus_27:

(9, 19410), (Start: 12 @19476 has 13 MA's), (14, 19497), (34, 19662), (38, 19680), (39, 19686), (45, 19734), (50, 19803), (51, 19812), (53, 19833), (60, 19899), (66, 20004), (68, 20025), (75, 20085), (84, 20160), (94, 20256), (97, 20277),

Gene: MeganNoll_25 Start: 20040, Stop: 20897, Start Num: 15

Candidate Starts for MeganNoll_25:

(Start: 15 @20040 has 87 MA's), (41, 20232), (42, 20235), (43, 20247), (61, 20418), (67, 20496), (69, 20526), (70, 20532), (82, 20622), (83, 20628), (93, 20727), (98, 20784), (105, 20835), (107, 20841), (109, 20862),

Gene: Mendel_22 Start: 15637, Stop: 16281, Start Num: 20

Candidate Starts for Mendel_22:

(11, 15589), (Start: 20 @15637 has 9 MA's), (26, 15688), (33, 15775), (54, 15955), (56, 15967), (74, 16126),

Gene: MidnightRain_27 Start: 19465, Stop: 20427, Start Num: 12

Candidate Starts for MidnightRain_27:

(9, 19399), (Start: 12 @19465 has 13 MA's), (14, 19486), (34, 19651), (38, 19669), (39, 19675), (45, 19723), (50, 19792), (51, 19801), (53, 19822), (60, 19888), (66, 19993), (68, 20014), (75, 20074), (84, 20149), (94, 20245), (97, 20266),

Gene: MiniMommy_21 Start: 17764, Stop: 18489, Start Num: 15

Candidate Starts for MiniMommy_21:

(Start: 15 @17764 has 87 MA's), (26, 17821), (28, 17839), (31, 17884), (33, 17908), (41, 17953), (55, 18097), (61, 18139), (65, 18205), (80, 18322), (86, 18379),

Gene: Misaeng_25 Start: 20124, Stop: 20981, Start Num: 15

Candidate Starts for Misaeng_25:

(Start: 15 @20124 has 87 MA's), (27, 20190), (37, 20286), (41, 20316), (43, 20331), (55, 20460), (56, 20463), (57, 20472), (61, 20502), (69, 20610), (70, 20616), (76, 20646), (77, 20655), (82, 20706), (83, 20712), (85, 20733), (88, 20757), (96, 20826), (98, 20868), (103, 20916), (105, 20919), (109, 20946), (111, 20958),

Gene: Moki_21 Start: 18441, Stop: 19298, Start Num: 15

Candidate Starts for Moki_21:

(5, 18192), (Start: 15 @18441 has 87 MA's), (41, 18633), (44, 18651), (56, 18780), (61, 18819), (69, 18927), (70, 18933), (82, 19023), (83, 19029), (88, 19074), (98, 19185), (105, 19236), (109, 19263),

Gene: MrBoss_25 Start: 20031, Stop: 20867, Start Num: 15

Candidate Starts for MrBoss_25:

(7, 19911), (Start: 15 @20031 has 87 MA's), (22, 20049), (41, 20223), (44, 20241), (55, 20367), (56, 20370), (57, 20379), (69, 20517), (70, 20523), (82, 20613), (83, 20619), (93, 20718), (102, 20790), (109, 20832),

Gene: MrGloopy_25 Start: 19974, Stop: 20831, Start Num: 15

Candidate Starts for MrGloopy_25:

(Start: 15 @19974 has 87 MA's), (41, 20166), (42, 20169), (43, 20181), (61, 20352), (67, 20430), (69, 20460), (70, 20466), (82, 20556), (83, 20562), (93, 20661), (98, 20718), (105, 20769), (107, 20775), (109, 20796),

Gene: Nancia_21 Start: 18443, Stop: 19306, Start Num: 15

Candidate Starts for Nancia_21:

(Start: 15 @18443 has 87 MA's), (41, 18638), (44, 18656), (56, 18785), (61, 18824), (69, 18932), (70, 18938), (76, 18968), (82, 19028), (83, 19034), (88, 19079), (95, 19139), (98, 19190), (105, 19244), (109, 19271),

Gene: Neuville_21 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for Neuville_21:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: Nubia_25 Start: 19994, Stop: 20830, Start Num: 15

Candidate Starts for Nubia_25:

(Start: 15 @19994 has 87 MA's), (27, 20060), (37, 20156), (41, 20186), (42, 20189), (44, 20204), (55, 20330), (56, 20333), (57, 20342), (61, 20372), (70, 20486), (73, 20495), (77, 20525), (79, 20543), (82, 20576), (83, 20582), (96, 20696), (105, 20768), (109, 20795), (111, 20807),

Gene: OMalley_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for OMalley_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (93, 19111), (105, 19198), (109, 19225),

Gene: OurGirlNessie_21 Start: 18423, Stop: 19286, Start Num: 15

Candidate Starts for OurGirlNessie_21:

(Start: 15 @18423 has 87 MA's), (41, 18618), (44, 18636), (55, 18762), (56, 18765), (57, 18774), (61, 18804), (69, 18912), (70, 18918), (76, 18948), (82, 19008), (83, 19014), (88, 19059), (95, 19119), (98, 19170), (105, 19224), (109, 19251),

Gene: Oxynfrius_25 Start: 20007, Stop: 20843, Start Num: 15

Candidate Starts for Oxynfrius_25:

(Start: 15 @20007 has 87 MA's), (27, 20073), (37, 20169), (41, 20199), (42, 20202), (44, 20217), (55, 20343), (56, 20346), (57, 20355), (61, 20385), (70, 20499), (73, 20508), (77, 20538), (79, 20556), (82, 20589), (83, 20595), (96, 20709), (105, 20781), (109, 20808), (111, 20820),

Gene: PartyCup_25 Start: 20078, Stop: 20914, Start Num: 15

Candidate Starts for PartyCup_25:

(5, 19829), (Start: 15 @20078 has 87 MA's), (41, 20270), (44, 20288), (55, 20414), (56, 20417), (57, 20426), (59, 20447), (61, 20456), (69, 20564), (70, 20570), (82, 20660), (83, 20666), (93, 20765), (102, 20837), (109, 20879),

Gene: Pigu_22 Start: 17033, Stop: 17926, Start Num: 18

Candidate Starts for Pigu_22:

(8, 16931), (Start: 18 @17033 has 3 MA's), (26, 17087), (27, 17096), (30, 17129), (32, 17171), (33, 17174), (46, 17249), (64, 17444), (65, 17471), (75, 17537), (106, 17822), (113, 17894),

Gene: PinkFriday_21 Start: 18457, Stop: 19320, Start Num: 15

Candidate Starts for PinkFriday_21:

(Start: 15 @18457 has 87 MA's), (44, 18673), (70, 18952), (76, 18982), (79, 19009), (82, 19042), (83, 19048), (88, 19093), (93, 19147), (98, 19204), (105, 19258), (109, 19285),

Gene: PitaDog_21 Start: 18434, Stop: 19297, Start Num: 15

Candidate Starts for PitaDog_21:

(Start: 15 @18434 has 87 MA's), (41, 18629), (44, 18647), (55, 18773), (56, 18776), (57, 18785), (61, 18815), (69, 18923), (70, 18929), (76, 18959), (82, 19019), (83, 19025), (88, 19070), (95, 19130), (98, 19181), (105, 19235), (109, 19262),

Gene: Potatoes_25 Start: 20035, Stop: 20892, Start Num: 15

Candidate Starts for Potatoes_25:

(Start: 15 @20035 has 87 MA's), (41, 20227), (42, 20230), (43, 20242), (61, 20413), (67, 20491), (69, 20521), (70, 20527), (82, 20617), (83, 20623), (93, 20722), (98, 20779), (104, 20827), (105, 20830), (107, 20836), (109, 20857),

Gene: Preamble_21 Start: 18442, Stop: 19299, Start Num: 15

Candidate Starts for Preamble_21:

(Start: 15 @18442 has 87 MA's), (41, 18634), (44, 18652), (55, 18778), (56, 18781), (61, 18820), (69, 18928), (70, 18934), (76, 18964), (82, 19024), (83, 19030), (88, 19075), (93, 19129), (98, 19186), (105, 19237), (109, 19264),

Gene: Pterodactyl_21 Start: 18424, Stop: 19287, Start Num: 15

Candidate Starts for Pterodactyl_21:

(Start: 15 @18424 has 87 MA's), (41, 18619), (44, 18637), (55, 18763), (56, 18766), (61, 18805), (69, 18913), (70, 18919), (76, 18949), (82, 19009), (83, 19015), (88, 19060), (95, 19120), (98, 19171), (105, 19225), (109, 19252),

Gene: Pumancara_21 Start: 18439, Stop: 19302, Start Num: 15

Candidate Starts for Pumancara_21:

(Start: 15 @18439 has 87 MA's), (44, 18655), (70, 18934), (76, 18964), (79, 18991), (82, 19024), (83, 19030), (88, 19075), (93, 19129), (98, 19186), (105, 19240), (109, 19267),

Gene: RAP15_25 Start: 20040, Stop: 20897, Start Num: 15

Candidate Starts for RAP15_25:

(Start: 15 @20040 has 87 MA's), (41, 20232), (42, 20235), (43, 20247), (61, 20418), (67, 20496), (69, 20526), (70, 20532), (82, 20622), (83, 20628), (93, 20727), (98, 20784), (105, 20835), (107, 20841), (109, 20862),

Gene: RadFad_27 Start: 19466, Stop: 20428, Start Num: 12

Candidate Starts for RadFad_27:

(9, 19400), (Start: 12 @19466 has 13 MA's), (14, 19487), (34, 19652), (38, 19670), (39, 19676), (45, 19724), (50, 19793), (51, 19802), (53, 19823), (60, 19889), (66, 19994), (68, 20015), (75, 20075), (84, 20150), (94, 20246), (97, 20267),

Gene: RcigaStruga_25 Start: 20042, Stop: 20878, Start Num: 15

Candidate Starts for RcigaStruga_25:

(Start: 15 @20042 has 87 MA's), (41, 20234), (43, 20249), (55, 20378), (56, 20381), (57, 20390), (59, 20411), (61, 20420), (67, 20498), (69, 20528), (70, 20534), (73, 20543), (77, 20573), (82, 20624), (83, 20630), (95, 20735), (97, 20753), (99, 20786), (105, 20816), (109, 20843), (111, 20855),

Gene: Richie_27 Start: 19481, Stop: 20443, Start Num: 12

Candidate Starts for Richie_27:

(9, 19415), (Start: 12 @19481 has 13 MA's), (14, 19502), (34, 19667), (38, 19685), (39, 19691), (45, 19739), (50, 19808), (51, 19817), (53, 19838), (60, 19904), (66, 20009), (68, 20030), (75, 20090), (84, 20165), (94, 20261), (97, 20282),

Gene: Riovina_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for Riovina_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (93, 19111), (105, 19198), (109, 19225),

Gene: Riverdale_25 Start: 19970, Stop: 20827, Start Num: 15

Candidate Starts for Riverdale_25:

(Start: 15 @19970 has 87 MA's), (41, 20162), (42, 20165), (43, 20177), (67, 20426), (69, 20456), (70, 20462), (82, 20552), (83, 20558), (93, 20657), (98, 20714), (101, 20747), (105, 20765), (107, 20771), (109, 20792),

Gene: Roberts_21 Start: 14177, Stop: 15061, Start Num: 19

Candidate Starts for Roberts_21:

(Start: 19 @14177 has 4 MA's), (47, 14399), (58, 14525), (62, 14549), (64, 14585), (65, 14612), (71, 14663), (110, 15017),

Gene: Rooter_22 Start: 16912, Stop: 17634, Start Num: 18

Candidate Starts for Rooter_22:

(Start: 18 @16912 has 3 MA's), (26, 16966), (32, 17050), (36, 17065), (46, 17128), (64, 17323), (74, 17410), (83, 17485), (87, 17524), (89, 17536),

Gene: Rozby_25 Start: 19971, Stop: 20828, Start Num: 15

Candidate Starts for Rozby_25:

(Start: 15 @19971 has 87 MA's), (41, 20163), (42, 20166), (43, 20178), (67, 20427), (69, 20457), (70, 20463), (82, 20553), (83, 20559), (93, 20658), (98, 20715), (101, 20748), (105, 20766), (107, 20772), (109, 20793),

Gene: Sarge_22 Start: 17291, Stop: 18013, Start Num: 18

Candidate Starts for Sarge_22:

(Start: 18 @17291 has 3 MA's), (26, 17345), (32, 17429), (36, 17444), (46, 17507), (64, 17702), (74, 17789), (83, 17864), (87, 17903), (89, 17915),

Gene: Savage2526_25 Start: 20034, Stop: 20891, Start Num: 15

Candidate Starts for Savage2526_25:

(Start: 15 @20034 has 87 MA's), (41, 20226), (42, 20229), (43, 20241), (61, 20412), (67, 20490), (69, 20520), (70, 20526), (82, 20616), (83, 20622), (93, 20721), (98, 20778), (105, 20829), (107, 20835), (109, 20856),

Gene: Scuttle_25 Start: 20039, Stop: 20896, Start Num: 15

Candidate Starts for Scuttle_25:

(Start: 15 @20039 has 87 MA's), (41, 20231), (42, 20234), (43, 20246), (61, 20417), (67, 20495), (69, 20525), (70, 20531), (82, 20621), (83, 20627), (93, 20726), (98, 20783), (105, 20834), (107, 20840), (109, 20861),

Gene: Seldom_25 Start: 16263, Stop: 16907, Start Num: 20

Candidate Starts for Seldom_25:

(11, 16215), (Start: 20 @16263 has 9 MA's), (26, 16314), (32, 16398), (33, 16401), (44, 16464), (54, 16581), (56, 16593), (74, 16752),

Gene: Sergei_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for Sergei_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: ShakeltOph_21 Start: 17763, Stop: 18488, Start Num: 15

Candidate Starts for ShakeltOph_21:

(Start: 15 @17763 has 87 MA's), (26, 17820), (28, 17838), (33, 17907), (41, 17952), (65, 18204), (80, 18321), (86, 18378),

Gene: SpicyFrank_27 Start: 19701, Stop: 20663, Start Num: 12

Candidate Starts for SpicyFrank_27:

(Start: 12 @19701 has 13 MA's), (14, 19722), (24, 19776), (34, 19887), (38, 19905), (39, 19911), (45, 19959), (51, 20037), (53, 20058), (60, 20124), (66, 20229), (68, 20250), (75, 20310), (84, 20385), (94, 20481), (95, 20484), (97, 20502), (110, 20619),

Gene: Supakev_21 Start: 18423, Stop: 19262, Start Num: 15

Candidate Starts for Supakev_21:

(Start: 15 @18423 has 87 MA's), (29, 18519), (44, 18639), (55, 18765), (57, 18777), (70, 18918), (82, 19008), (93, 19113), (105, 19200), (109, 19227),

Gene: Suppi_25 Start: 20081, Stop: 20917, Start Num: 15

Candidate Starts for Suppi_25:

(5, 19832), (Start: 15 @20081 has 87 MA's), (41, 20273), (44, 20291), (56, 20420), (57, 20429), (59, 20450), (61, 20459), (69, 20567), (70, 20573), (82, 20663), (83, 20669), (93, 20768), (102, 20840), (109, 20882),

Gene: Swim_25 Start: 16136, Stop: 16780, Start Num: 20

Candidate Starts for Swim_25:

(11, 16088), (Start: 20 @16136 has 9 MA's), (26, 16187), (32, 16271), (33, 16274), (44, 16337), (54, 16454), (56, 16466), (74, 16625),

Gene: TMaxx_21 Start: 14021, Stop: 14869, Start Num: 17

Candidate Starts for TMaxx_21:

(Start: 17 @14021 has 3 MA's), (23, 14042), (41, 14210), (47, 14246), (49, 14291), (54, 14339), (62, 14396), (65, 14459), (75, 14525), (108, 14813), (112, 14834),

Gene: TattModd_25 Start: 20033, Stop: 20890, Start Num: 15

Candidate Starts for TattModd_25:

(Start: 15 @20033 has 87 MA's), (41, 20225), (42, 20228), (43, 20240), (61, 20411), (67, 20489), (69, 20519), (70, 20525), (82, 20615), (83, 20621), (93, 20720), (98, 20777), (101, 20810), (105, 20828),

(107, 20834), (109, 20855),

Gene: Temper16_21 Start: 18436, Stop: 19278, Start Num: 15

Candidate Starts for Temper16_21:

(2, 18094), (5, 18187), (Start: 15 @18436 has 87 MA's), (44, 18652), (70, 18931), (79, 18988), (82, 19021), (83, 19027), (93, 19126), (97, 19150), (100, 19183), (105, 19216), (109, 19243),

Gene: Tillums_26 Start: 16278, Stop: 16925, Start Num: 20

Candidate Starts for Tillums_26:

(1, 15915), (3, 15957), (4, 15966), (6, 16056), (10, 16221), (Start: 20 @16278 has 9 MA's), (26, 16329), (32, 16413), (33, 16416), (54, 16596), (56, 16608), (74, 16770),

Gene: TripleC_24 Start: 17518, Stop: 18363, Start Num: 17

Candidate Starts for TripleC_24:

(Start: 17 @17518 has 3 MA's), (23, 17539), (47, 17740), (62, 17890), (65, 17953), (75, 18019),

Gene: Urla_21 Start: 18448, Stop: 19308, Start Num: 15

Candidate Starts for Urla_21:

(5, 18199), (Start: 15 @18448 has 87 MA's), (25, 18502), (37, 18610), (41, 18640), (42, 18643), (43, 18655), (44, 18658), (56, 18787), (61, 18826), (69, 18934), (70, 18940), (76, 18970), (82, 19030), (83, 19036), (88, 19081), (98, 19192), (105, 19246), (109, 19273),

Gene: Vallejo_25 Start: 19972, Stop: 20829, Start Num: 15

Candidate Starts for Vallejo_25:

(Start: 15 @19972 has 87 MA's), (41, 20164), (42, 20167), (43, 20179), (61, 20350), (67, 20428), (69, 20458), (70, 20464), (82, 20554), (83, 20560), (93, 20659), (98, 20716), (101, 20749), (105, 20767), (107, 20773), (109, 20794),

Gene: Vulture_21 Start: 18421, Stop: 19260, Start Num: 15

Candidate Starts for Vulture_21:

(Start: 15 @18421 has 87 MA's), (29, 18517), (35, 18583), (44, 18637), (55, 18763), (57, 18775), (70, 18916), (82, 19006), (91, 19090), (93, 19111), (105, 19198), (109, 19225),

Gene: Wawa_25 Start: 20009, Stop: 20866, Start Num: 15

Candidate Starts for Wawa_25:

(Start: 15 @20009 has 87 MA's), (21, 20021), (41, 20201), (42, 20204), (43, 20216), (67, 20465), (69, 20495), (70, 20501), (82, 20591), (83, 20597), (93, 20696), (98, 20753), (101, 20786), (105, 20804), (107, 20810), (109, 20831),

Gene: Wayne_25 Start: 20127, Stop: 20963, Start Num: 15

Candidate Starts for Wayne_25:

(5, 19878), (Start: 15 @20127 has 87 MA's), (41, 20319), (44, 20337), (55, 20463), (56, 20466), (57, 20475), (59, 20496), (61, 20505), (69, 20613), (70, 20619), (82, 20709), (83, 20715), (93, 20814), (102, 20886), (109, 20928),

Gene: Windest_28 Start: 19531, Stop: 20493, Start Num: 12

Candidate Starts for Windest_28:

(9, 19465), (Start: 12 @19531 has 13 MA's), (14, 19552), (34, 19717), (38, 19735), (39, 19741), (45, 19789), (50, 19858), (51, 19867), (53, 19888), (60, 19954), (66, 20059), (68, 20080), (75, 20140), (84, 20215), (94, 20311), (97, 20332),

Gene: WonderBoy_21 Start: 18424, Stop: 19287, Start Num: 15

Candidate Starts for WonderBoy_21:

(Start: 15 @18424 has 87 MA's), (41, 18619), (44, 18637), (55, 18763), (56, 18766), (61, 18805), (69, 18913), (70, 18919), (76, 18949), (82, 19009), (83, 19015), (88, 19060), (98, 19171), (105, 19225), (109, 19252),

Gene: YoungHarleezy_27 Start: 19479, Stop: 20441, Start Num: 12

Candidate Starts for YoungHarleezy_27:

(9, 19413), (Start: 12 @19479 has 13 MA's), (14, 19500), (34, 19665), (38, 19683), (39, 19689), (45, 19737), (50, 19806), (51, 19815), (53, 19836), (60, 19902), (66, 20007), (68, 20028), (75, 20088), (84, 20163), (94, 20259), (97, 20280),

Gene: Zorro_25 Start: 19988, Stop: 20845, Start Num: 15

Candidate Starts for Zorro_25:

(Start: 15 @19988 has 87 MA's), (41, 20180), (42, 20183), (43, 20195), (44, 20198), (61, 20366), (67, 20444), (69, 20474), (70, 20480), (82, 20570), (83, 20576), (93, 20675), (98, 20732), (105, 20783), (107, 20789), (109, 20810),