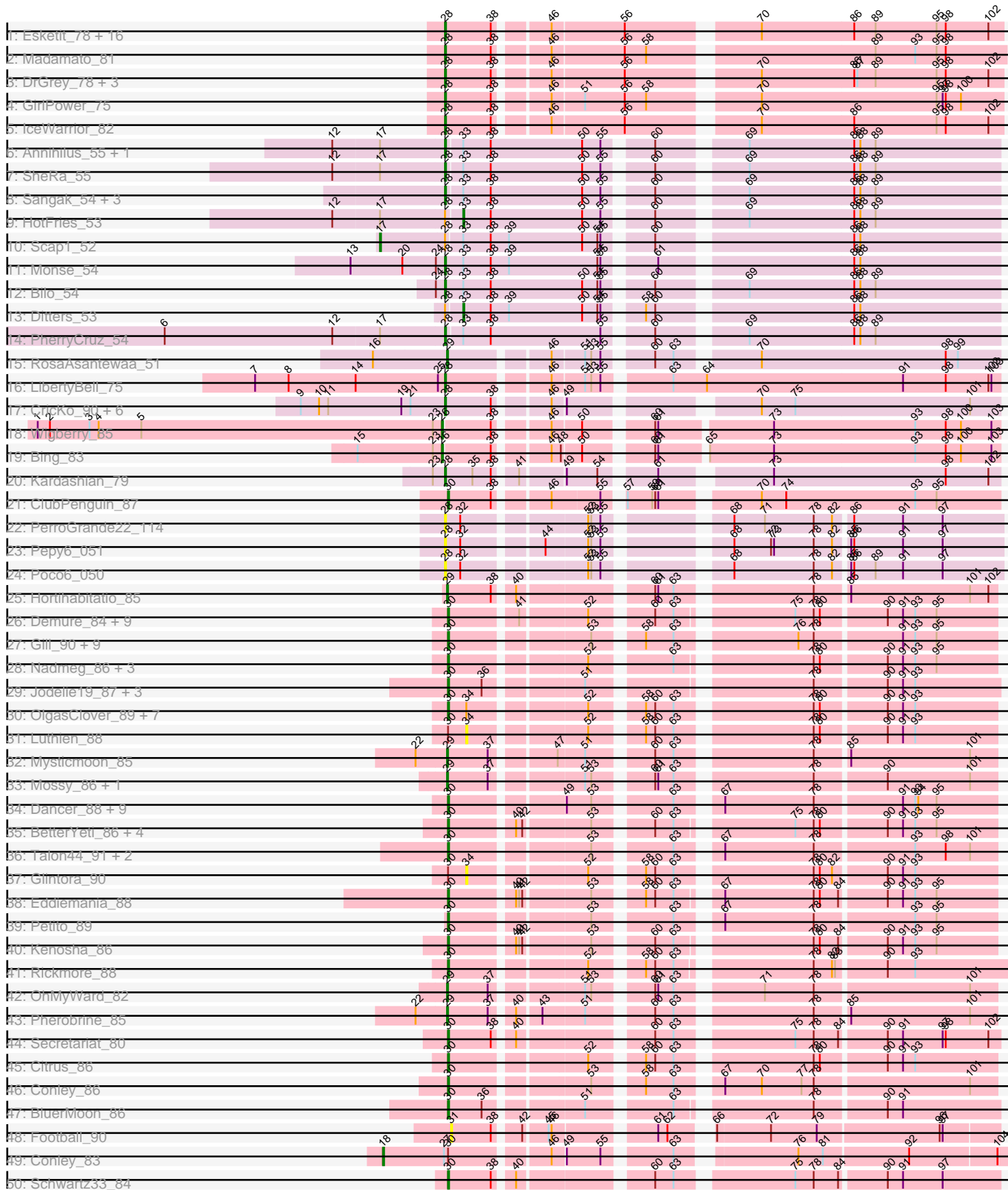
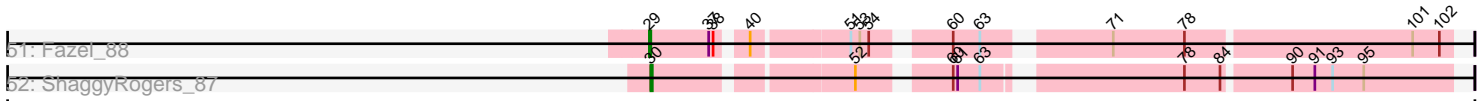


Pham 311363



Pham 311363



Lined writing area with horizontal lines and a dashed right margin.

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 311363 Report

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

Pham number 311363 has 128 members, 22 are drafts.

Phages represented in each track:

- Track 1 : Esketit_78, TaidaOne_82, Spectropatronm_81, Rima_83, OlympicHelado_84, Soshi_81, TieDye_78, Jaylociraptor_82, Meibysrarus_80, HazuAndZazu_79, FidgetOrca_84, Indigenous_84, TonyStarch_81, Hoshi_83, Maya_82, Namu_84, CherryBlossom_82
- Track 2 : Madamoto_81
- Track 3 : DrGrey_78, FrodoSwaggins_80, Espio_80, Popy_80
- Track 4 : GirlPower_75
- Track 5 : IceWarrior_82
- Track 6 : Annihilus_55, Moozy_54
- Track 7 : SheRa_55
- Track 8 : Sangak_54, GoblinVoyage_55, RavenPuff_55, Doxi13_56
- Track 9 : HotFries_53
- Track 10 : Scap1_52
- Track 11 : Monse_54
- Track 12 : Bilo_54
- Track 13 : Ditters_53
- Track 14 : PherryCruz_54
- Track 15 : RosaAsantewaa_51
- Track 16 : LibertyBell_75
- Track 17 : CricKo_90, Regigigas_90, FromIndy_88, SendItCS_82, Miek_84, Thiqqums_90, Rainydai_87
- Track 18 : Wigberry_85
- Track 19 : Bing_83
- Track 20 : Kardashian_79
- Track 21 : ClubPenguin_87
- Track 22 : PerroGrande22_114
- Track 23 : Pepy6_051
- Track 24 : POCO6_050
- Track 25 : Hortihabitatio_85
- Track 26 : Demure_84, ArtetaBall_86, Untouchable_89, Zeph_90, Arataki_87, Hydrus_87, Dialga_88, Madvan_86, CWormy_85, Phepper_88
- Track 27 : Gill_90, Magel_91, NoPickles_89, Roney_88, Capybara_87, Kerry_89, Tanis_89, Odesza_88, Captrips_87, Gravy_89
- Track 28 : Nadmeg_86, Vardy_86, Runhaar_85, Burley_86
- Track 29 : Jodelie19_87, Aflac_88, Tonaltzin_92, TenaciousP_89
- Track 30 : OlgasClover_89, Figliar_86, Duffington_88, Nithya_87, Chikenjars_88, EndAve_89, AlainaMarie_88, MajinBuu_88

- Track 31 : Luthien_88
- Track 32 : Mysticmoon_85
- Track 33 : Mossy_86, Blanky_83
- Track 34 : Dancer_88, Bugg_92, FortCran_88, JulesRay_88, Avazak_89, ChickyNuggy_90, Artorias_88, Trufflozitus_89, Tairn4Wing_91, Football_93
- Track 35 : BetterYeti_86, PestoPenguin_91, Crocheter_87, Gusicorn_88, Aloe25_90
- Track 36 : Talon44_91, SweetCrkHerbs_91, Perkunas_90
- Track 37 : Glintora_90
- Track 38 : Eddiemania_88
- Track 39 : Petite_89
- Track 40 : Kenosha_86
- Track 41 : Rickmore_88
- Track 42 : OhMyWard_82
- Track 43 : Pherobrine_85
- Track 44 : Secretariat_80
- Track 45 : Citrus_86
- Track 46 : Conley_86
- Track 47 : BluerMoon_86
- Track 48 : Football_90
- Track 49 : Conley_83
- Track 50 : Schwartz33_84
- Track 51 : Fazel_88
- Track 52 : ShaggyRogers_87

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

The start number called the most often in the published annotations is 30, it was called in 53 of the 106 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aflac_88, AlainaMarie_88, Aloe25_90, Arataki_87, ArtetaBall_86, Artorias_88, Avazak_89, BetterYeti_86, BluerMoon_86, Bugg_92, Burley_86, CWormy_85, Captrips_87, Capybara_87, ChickyNuggy_90, Chikenjars_88, Citrus_86, ClubPenguin_87, Conley_86, Crocheter_87, Dancer_88, Demure_84, Dialga_88, Duffington_88, Eddiemania_88, EndAve_89, Figliar_86, Football_93, FortCran_88, Gill_90, Gravy_89, Gusicorn_88, Hydrus_87, Jodelie19_87, JulesRay_88, Kenosha_86, Kerry_89, Madvan_86, Magel_91, MajinBuu_88, Nadmeg_86, Nithya_87, NoPickles_89, Odesza_88, OlgasClover_89, Perkunas_90, PestoPenguin_91, Petite_89, Phepper_88, Rickmore_88, Roney_88, Runhaar_85, Schwartz33_84, Secretariat_80, ShaggyRogers_87, SweetCrkHerbs_91, Tairn4Wing_91, Talon44_91, Tanis_89, TenaciousP_89, Tonaltzin_92, Trufflozitus_89, Untouchable_89, Vardy_86, Zeph_90,

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

- Conley_83, Glintora_90, Luthien_88,

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

- Annihilus_55, Bilo_54, Bing_83, Blanky_83, CherryBlossom_82, CricKo_90, Ditters_53, Doxi13_56, DrGrey_78, Esketit_78, Espio_80, Fazel_88, FidgetOrca_84, Football_90, FrodoSwaggins_80, FromIndy_88, GirlPower_75, GoblinVoyage_55,

HazuAndZazu_79, Hortihabitatio_85, Hoshi_83, HotFries_53, IceWarrior_82, Indigenous_84, Jaylociraptor_82, Kardashian_79, LibertyBell_75, Madamato_81, Maya_82, Meibysrarus_80, Miek_84, Monse_54, Moozy_54, Mossy_86, Mysticmoon_85, Namu_84, OhMyWard_82, OlympicHelado_84, Pepy6_051, PerroGrande22_114, Pherobrine_85, PherryCruz_54, Poco6_050, Popy_80, Rainydai_87, RavenPuff_55, Regigigas_90, Rima_83, RosaAsantewaa_51, Sangak_54, Scap1_52, SendItCS_82, SheRa_55, Soshi_81, Spectropatronm_81, TaidaOne_82, Thiqqums_90, TieDye_78, TonyStarch_81, Wigberry_85,

Summary by start number:

Start 17:

- Found in 6 of 128 (4.7%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Scap1_52 (BI2),

Start 18:

- Found in 1 of 128 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Conley_83 (DJ),

Start 26:

- Found in 2 of 128 (1.6%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing_83 (BI5), Wigberry_85 (BI5),

Start 28:

- Found in 49 of 128 (38.3%) of genes in pham
- Manual Annotations of this start: 40 of 106
- Called 93.9% of time when present
- Phage (with cluster) where this start called: Annihilus_55 (BI2), Bilo_54 (BI2), CherryBlossom_82 (BI1), CricKo_90 (BI4), Doxi13_56 (BI2), DrGrey_78 (BI1), Esketit_78 (BI1), Espio_80 (BI1), FidgetOrca_84 (BI1), FrodoSwaggins_80 (BI1), FromIndy_88 (BI4), GirlPower_75 (BI1), GoblinVoyage_55 (BI2), HazuAndZazu_79 (BI1), Hoshi_83 (BI1), IceWarrior_82 (BI1), Indigenous_84 (BI1), Jaylociraptor_82 (BI1), Kardashian_79 (BI6), LibertyBell_75 (BI3), Madamato_81 (BI1), Maya_82 (BI1), Meibysrarus_80 (BI1), Miek_84 (BI4), Monse_54 (BI2), Moozy_54 (BI2), Namu_84 (BI1), OlympicHelado_84 (BI1), Pepy6_051 (CC), PerroGrande22_114 (CC), PherryCruz_54 (BI2), Poco6_050 (CC), Popy_80 (BI1), Rainydai_87 (BI4), RavenPuff_55 (BI2), Regigigas_90 (BI4), Rima_83 (BI1), Sangak_54 (BI2), SendItCS_82 (BI4), SheRa_55 (BI2), Soshi_81 (BI1), Spectropatronm_81 (BI1), TaidaOne_82 (BI1), Thiqqums_90 (BI4), TieDye_78 (BI1), TonyStarch_81 (BI1),

Start 29:

- Found in 8 of 128 (6.2%) of genes in pham
- Manual Annotations of this start: 7 of 106
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blanky_83 (DJ), Fazel_88 (DJ), Hortihabitatio_85 (DJ), Mossy_86 (DJ), Mysticmoon_85 (DJ), OhMyWard_82 (DJ), Pherobrine_85 (DJ), RosaAsantewaa_51 (BI2),

Start 30:

- Found in 68 of 128 (53.1%) of genes in pham
- Manual Annotations of this start: 53 of 106
- Called 95.6% of time when present
- Phage (with cluster) where this start called: Aflac_88 (DJ), AlainaMarie_88 (DJ), Aloe25_90 (DJ), Arataki_87 (DJ), ArtetaBall_86 (DJ), Artorias_88 (DJ), Avazak_89 (DJ), BetterYeti_86 (DJ), BluerMoon_86 (DJ), Bugg_92 (DJ), Burley_86 (DJ), CWormy_85 (DJ), Captrips_87 (DJ), Copybara_87 (DJ), ChickyNuggy_90 (DJ), Chikenjars_88 (DJ), Citrus_86 (DJ), ClubPenguin_87 (BI7), Conley_86 (DJ), Crocheter_87 (DJ), Dancer_88 (DJ), Demure_84 (DJ), Dialga_88 (DJ), Duffington_88 (DJ), Eddiemania_88 (DJ), EndAve_89 (DJ), Figliar_86 (DJ), Football_93 (DJ), FortCran_88 (DJ), Gill_90 (DJ), Gravy_89 (DJ), Gusicorn_88 (DJ), Hydrus_87 (DJ), Jodelie19_87 (DJ), JulesRay_88 (DJ), Kenosha_86 (DJ), Kerry_89 (DJ), Madvan_86 (DJ), Magel_91 (DJ), MajinBuu_88 (DJ), Nadmeg_86 (DJ), Nithya_87 (DJ), NoPickles_89 (DJ), Odesza_88 (DJ), OlgasClover_89 (DJ), Perkunas_90 (DJ), PestoPenguin_91 (DJ), Petite_89 (DJ), Phepper_88 (DJ), Rickmore_88 (DJ), Roney_88 (DJ), Runhaar_85 (DJ), Schwartz33_84 (DJ), Secretariat_80 (DJ), ShaggyRogers_87 (DJ), SweetCrkHerbs_91 (DJ), Tairn4Wing_91 (DJ), Talon44_91 (DJ), Tanis_89 (DJ), TenaciousP_89 (DJ), Tonaltzin_92 (DJ), Trufflozitus_89 (DJ), Untouchable_89 (DJ), Vardy_86 (DJ), Zeph_90 (DJ),

Start 31:

- Found in 1 of 128 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Football_90 (DJ),

Start 33:

- Found in 13 of 128 (10.2%) of genes in pham
- Manual Annotations of this start: 2 of 106
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Ditters_53 (BI2), HotFries_53 (BI2),

Start 34:

- Found in 10 of 128 (7.8%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Glintora_90 (DJ), Luthien_88 (DJ),

Summary by clusters:

There are 9 clusters represented in this pham: DJ, CC, BI6, BI7, BI4, BI5, BI2, BI3, BI1,

Info for manual annotations of cluster BI1:

- Start number 28 was manually annotated 24 times for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 17 was manually annotated 1 time for cluster BI2.
- Start number 28 was manually annotated 9 times for cluster BI2.
- Start number 29 was manually annotated 1 time for cluster BI2.
- Start number 33 was manually annotated 2 times for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 28 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster BI4:

- Start number 28 was manually annotated 5 times for cluster BI4.

Info for manual annotations of cluster BI5:

- Start number 26 was manually annotated 2 times for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 28 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 30 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster DJ:

- Start number 18 was manually annotated 1 time for cluster DJ.
- Start number 29 was manually annotated 6 times for cluster DJ.
- Start number 30 was manually annotated 52 times for cluster DJ.

Gene Information:

Gene: Aflac_88 Start: 56715, Stop: 57197, Start Num: 30

Candidate Starts for Aflac_88:

(Start: 30 @56715 has 53 MA's), (36, 56748), (51, 56832), (78, 57021), (90, 57087), (91, 57102), (93, 57114),

Gene: AlainaMarie_88 Start: 56739, Stop: 57221, Start Num: 30

Candidate Starts for AlainaMarie_88:

(Start: 30 @56739 has 53 MA's), (34, 56757), (52, 56859), (58, 56901), (60, 56910), (63, 56928), (78, 57048), (80, 57054), (90, 57114), (91, 57129), (93, 57141),

Gene: Aloe25_90 Start: 55873, Stop: 56352, Start Num: 30

Candidate Starts for Aloe25_90:

(Start: 30 @55873 has 53 MA's), (40, 55930), (42, 55936), (53, 55996), (60, 56044), (63, 56062), (75, 56161), (78, 56179), (80, 56185), (90, 56245), (91, 56260), (93, 56272), (95, 56293),

Gene: Annihilus_55 Start: 38912, Stop: 39421, Start Num: 28

Candidate Starts for Annihilus_55:

(12, 38804), (Start: 17 @38849 has 1 MA's), (Start: 28 @38912 has 40 MA's), (Start: 33 @38927 has 2 MA's), (38, 38954), (50, 39044), (55, 39062), (60, 39101), (69, 39176), (86, 39278), (88, 39284), (89, 39299),

Gene: Arataki_87 Start: 55860, Stop: 56339, Start Num: 30

Candidate Starts for Arataki_87:

(Start: 30 @55860 has 53 MA's), (41, 55920), (52, 55980), (60, 56031), (63, 56049), (75, 56148), (78, 56166), (80, 56172), (90, 56232), (91, 56247), (93, 56259), (95, 56280),

Gene: ArtetaBall_86 Start: 55817, Stop: 56296, Start Num: 30

Candidate Starts for ArtetaBall_86:

(Start: 30 @55817 has 53 MA's), (41, 55877), (52, 55937), (60, 55988), (63, 56006), (75, 56105), (78, 56123), (80, 56129), (90, 56189), (91, 56204), (93, 56216), (95, 56237),

Gene: Artorias_88 Start: 55253, Stop: 55735, Start Num: 30

Candidate Starts for Artorias_88:

(Start: 30 @55253 has 53 MA's), (49, 55352), (53, 55376), (63, 55442), (67, 55475), (78, 55562), (91, 55643), (93, 55655), (94, 55658), (95, 55676),

Gene: Avazak_89 Start: 55682, Stop: 56164, Start Num: 30

Candidate Starts for Avazak_89:

(Start: 30 @55682 has 53 MA's), (49, 55781), (53, 55805), (63, 55871), (67, 55904), (78, 55991), (91, 56072), (93, 56084), (94, 56087), (95, 56105),

Gene: BetterYeti_86 Start: 55872, Stop: 56351, Start Num: 30

Candidate Starts for BetterYeti_86:

(Start: 30 @55872 has 53 MA's), (40, 55929), (42, 55935), (53, 55995), (60, 56043), (63, 56061), (75, 56160), (78, 56178), (80, 56184), (90, 56244), (91, 56259), (93, 56271), (95, 56292),

Gene: Bilo_54 Start: 39203, Stop: 39715, Start Num: 28

Candidate Starts for Bilo_54:

(24, 39194), (Start: 28 @39203 has 40 MA's), (Start: 33 @39221 has 2 MA's), (38, 39248), (50, 39338), (54, 39353), (55, 39356), (60, 39395), (69, 39470), (86, 39572), (88, 39578), (89, 39593),

Gene: Bing_83 Start: 51639, Stop: 52142, Start Num: 26

Candidate Starts for Bing_83:

(15, 51558), (23, 51630), (Start: 26 @51639 has 2 MA's), (38, 51684), (46, 51729), (48, 51738), (50, 51756), (60, 51813), (61, 51816), (65, 51858), (73, 51921), (93, 52059), (98, 52089), (100, 52104), (103, 52134),

Gene: Blanky_83 Start: 56507, Stop: 56989, Start Num: 29

Candidate Starts for Blanky_83:

(Start: 29 @56507 has 7 MA's), (37, 56546), (51, 56624), (53, 56630), (60, 56678), (61, 56681), (63, 56696), (78, 56816), (90, 56882), (101, 56963),

Gene: BluerMoon_86 Start: 56545, Stop: 57027, Start Num: 30

Candidate Starts for BluerMoon_86:

(Start: 30 @56545 has 53 MA's), (36, 56578), (51, 56662), (63, 56734), (78, 56851), (90, 56917), (91, 56932),

Gene: Bugg_92 Start: 55298, Stop: 55780, Start Num: 30

Candidate Starts for Bugg_92:

(Start: 30 @55298 has 53 MA's), (49, 55397), (53, 55421), (63, 55487), (67, 55520), (78, 55607), (91, 55688), (93, 55700), (94, 55703), (95, 55721),

Gene: Burley_86 Start: 55548, Stop: 56027, Start Num: 30

Candidate Starts for Burley_86:

(Start: 30 @55548 has 53 MA's), (52, 55668), (63, 55737), (78, 55854), (80, 55860), (90, 55920), (91, 55935), (93, 55947), (95, 55968),

Gene: CWormy_85 Start: 55500, Stop: 55979, Start Num: 30

Candidate Starts for CWormy_85:

(Start: 30 @55500 has 53 MA's), (41, 55560), (52, 55620), (60, 55671), (63, 55689), (75, 55788), (78, 55806), (80, 55812), (90, 55872), (91, 55887), (93, 55899), (95, 55920),

Gene: Captrips_87 Start: 55033, Stop: 55515, Start Num: 30

Candidate Starts for Captrips_87:

(Start: 30 @55033 has 53 MA's), (53, 55156), (58, 55195), (63, 55222), (76, 55327), (78, 55342), (91, 55423), (93, 55435), (95, 55456),

Gene: Capybara_87 Start: 55256, Stop: 55738, Start Num: 30

Candidate Starts for Capybara_87:

(Start: 30 @55256 has 53 MA's), (53, 55379), (58, 55418), (63, 55445), (76, 55550), (78, 55565), (91, 55646), (93, 55658), (95, 55679),

Gene: CherryBlossom_82 Start: 50872, Stop: 51381, Start Num: 28

Candidate Starts for CherryBlossom_82:

(Start: 28 @50872 has 40 MA's), (38, 50917), (46, 50962), (56, 51031), (70, 51145), (86, 51235), (89, 51256), (95, 51316), (98, 51325), (102, 51367),

Gene: ChickyNuggy_90 Start: 55424, Stop: 55906, Start Num: 30

Candidate Starts for ChickyNuggy_90:

(Start: 30 @55424 has 53 MA's), (49, 55523), (53, 55547), (63, 55613), (67, 55646), (78, 55733), (91, 55814), (93, 55826), (94, 55829), (95, 55847),

Gene: Chikenjars_88 Start: 56967, Stop: 57449, Start Num: 30

Candidate Starts for Chikenjars_88:

(Start: 30 @56967 has 53 MA's), (34, 56985), (52, 57087), (58, 57129), (60, 57138), (63, 57156), (78, 57276), (80, 57282), (90, 57342), (91, 57357), (93, 57369),

Gene: Citrus_86 Start: 56560, Stop: 57042, Start Num: 30

Candidate Starts for Citrus_86:

(Start: 30 @56560 has 53 MA's), (52, 56680), (58, 56722), (60, 56731), (63, 56749), (78, 56869), (80, 56875), (90, 56935), (91, 56950), (93, 56962),

Gene: ClubPenguin_87 Start: 51570, Stop: 52061, Start Num: 30

Candidate Starts for ClubPenguin_87:

(Start: 30 @51570 has 53 MA's), (38, 51612), (46, 51657), (55, 51702), (57, 51714), (59, 51738), (60, 51741), (61, 51744), (70, 51828), (74, 51852), (93, 51978), (95, 51999),

Gene: Conley_86 Start: 55548, Stop: 56030, Start Num: 30

Candidate Starts for Conley_86:

(Start: 30 @55548 has 53 MA's), (53, 55671), (58, 55710), (63, 55737), (67, 55770), (70, 55806), (77, 55845), (78, 55857), (101, 56004),

Gene: Conley_83 Start: 53384, Stop: 53935, Start Num: 18

Candidate Starts for Conley_83:

(Start: 18 @53384 has 1 MA's), (27, 53444), (Start: 30 @53447 has 53 MA's), (46, 53534), (49, 53546), (55, 53579), (63, 53636), (76, 53735), (81, 53759), (92, 53840), (104, 53924),

Gene: CricKo_90 Start: 53073, Stop: 53564, Start Num: 28

Candidate Starts for CricKo_90:

(9, 52932), (10, 52950), (11, 52959), (19, 53031), (21, 53040), (Start: 28 @53073 has 40 MA's), (38, 53118), (46, 53163), (49, 53175), (70, 53331), (75, 53364), (101, 53535),

Gene: Crocheter_87 Start: 55966, Stop: 56445, Start Num: 30

Candidate Starts for Crocheter_87:

(Start: 30 @55966 has 53 MA's), (40, 56023), (42, 56029), (53, 56089), (60, 56137), (63, 56155), (75, 56254), (78, 56272), (80, 56278), (90, 56338), (91, 56353), (93, 56365), (95, 56386),

Gene: Dancer_88 Start: 54990, Stop: 55472, Start Num: 30

Candidate Starts for Dancer_88:

(Start: 30 @54990 has 53 MA's), (49, 55089), (53, 55113), (63, 55179), (67, 55212), (78, 55299), (91, 55380), (93, 55392), (94, 55395), (95, 55413),

Gene: Demure_84 Start: 55994, Stop: 56473, Start Num: 30

Candidate Starts for Demure_84:

(Start: 30 @55994 has 53 MA's), (41, 56054), (52, 56114), (60, 56165), (63, 56183), (75, 56282), (78, 56300), (80, 56306), (90, 56366), (91, 56381), (93, 56393), (95, 56414),

Gene: Dialga_88 Start: 55833, Stop: 56312, Start Num: 30

Candidate Starts for Dialga_88:

(Start: 30 @55833 has 53 MA's), (41, 55893), (52, 55953), (60, 56004), (63, 56022), (75, 56121), (78, 56139), (80, 56145), (90, 56205), (91, 56220), (93, 56232), (95, 56253),

Gene: Ditters_53 Start: 39401, Stop: 39895, Start Num: 33

Candidate Starts for Ditters_53:

(Start: 28 @39386 has 40 MA's), (Start: 33 @39401 has 2 MA's), (38, 39428), (39, 39446), (50, 39518), (54, 39533), (55, 39536), (58, 39566), (60, 39575), (86, 39752), (88, 39758),

Gene: Doxi13_56 Start: 39042, Stop: 39551, Start Num: 28

Candidate Starts for Doxi13_56:

(Start: 28 @39042 has 40 MA's), (Start: 33 @39057 has 2 MA's), (38, 39084), (50, 39174), (55, 39192), (60, 39231), (69, 39306), (86, 39408), (88, 39414), (89, 39429),

Gene: DrGrey_78 Start: 51385, Stop: 51894, Start Num: 28

Candidate Starts for DrGrey_78:

(Start: 28 @51385 has 40 MA's), (38, 51430), (46, 51475), (56, 51544), (70, 51658), (86, 51748), (87, 51751), (89, 51769), (95, 51829), (98, 51838), (102, 51880),

Gene: Duffington_88 Start: 56767, Stop: 57249, Start Num: 30

Candidate Starts for Duffington_88:

(Start: 30 @56767 has 53 MA's), (34, 56785), (52, 56887), (58, 56929), (60, 56938), (63, 56956), (78, 57076), (80, 57082), (90, 57142), (91, 57157), (93, 57169),

Gene: Eddiemania_88 Start: 56862, Stop: 57341, Start Num: 30

Candidate Starts for Eddiemania_88:

(Start: 30 @56862 has 53 MA's), (40, 56919), (41, 56922), (42, 56925), (53, 56985), (58, 57024), (60, 57033), (63, 57051), (67, 57081), (78, 57168), (80, 57174), (84, 57192), (90, 57234), (91, 57249), (93, 57261), (95, 57282),

Gene: EndAve_89 Start: 56677, Stop: 57159, Start Num: 30

Candidate Starts for EndAve_89:

(Start: 30 @56677 has 53 MA's), (34, 56695), (52, 56797), (58, 56839), (60, 56848), (63, 56866), (78, 56986), (80, 56992), (90, 57052), (91, 57067), (93, 57079),

Gene: Esketit_78 Start: 49973, Stop: 50482, Start Num: 28

Candidate Starts for Esketit_78:

(Start: 28 @49973 has 40 MA's), (38, 50018), (46, 50063), (56, 50132), (70, 50246), (86, 50336), (89, 50357), (95, 50417), (98, 50426), (102, 50468),

Gene: Espio_80 Start: 51756, Stop: 52265, Start Num: 28

Candidate Starts for Espio_80:

(Start: 28 @51756 has 40 MA's), (38, 51801), (46, 51846), (56, 51915), (70, 52029), (86, 52119), (87, 52122), (89, 52140), (95, 52200), (98, 52209), (102, 52251),

Gene: Fazel_88 Start: 55520, Stop: 56002, Start Num: 29

Candidate Starts for Fazel_88:

(Start: 29 @55520 has 7 MA's), (37, 55559), (38, 55562), (40, 55577), (51, 55637), (53, 55643), (54, 55649), (60, 55691), (63, 55709), (71, 55781), (78, 55829), (101, 55976), (102, 55994),

Gene: FidgetOrca_84 Start: 51423, Stop: 51932, Start Num: 28

Candidate Starts for FidgetOrca_84:

(Start: 28 @51423 has 40 MA's), (38, 51468), (46, 51513), (56, 51582), (70, 51696), (86, 51786), (89, 51807), (95, 51867), (98, 51876), (102, 51918),

Gene: Figliar_86 Start: 56571, Stop: 57053, Start Num: 30

Candidate Starts for Figliar_86:

(Start: 30 @56571 has 53 MA's), (34, 56589), (52, 56691), (58, 56733), (60, 56742), (63, 56760), (78, 56880), (80, 56886), (90, 56946), (91, 56961), (93, 56973),

Gene: Football_90 Start: 53214, Stop: 53690, Start Num: 31

Candidate Starts for Football_90:

(31, 53214), (38, 53253), (42, 53274), (45, 53295), (46, 53298), (61, 53385), (62, 53394), (66, 53421), (72, 53472), (79, 53517), (96, 53634), (97, 53637),

Gene: Football_93 Start: 55333, Stop: 55815, Start Num: 30

Candidate Starts for Football_93:

(Start: 30 @55333 has 53 MA's), (49, 55432), (53, 55456), (63, 55522), (67, 55555), (78, 55642), (91, 55723), (93, 55735), (94, 55738), (95, 55756),

Gene: FortCran_88 Start: 55254, Stop: 55736, Start Num: 30

Candidate Starts for FortCran_88:

(Start: 30 @55254 has 53 MA's), (49, 55353), (53, 55377), (63, 55443), (67, 55476), (78, 55563), (91, 55644), (93, 55656), (94, 55659), (95, 55677),

Gene: FrodoSwaggins_80 Start: 51780, Stop: 52289, Start Num: 28

Candidate Starts for FrodoSwaggins_80:

(Start: 28 @51780 has 40 MA's), (38, 51825), (46, 51870), (56, 51939), (70, 52053), (86, 52143), (87, 52146), (89, 52164), (95, 52224), (98, 52233), (102, 52275),

Gene: FromIndy_88 Start: 52273, Stop: 52764, Start Num: 28

Candidate Starts for FromIndy_88:

(9, 52132), (10, 52150), (11, 52159), (19, 52231), (21, 52240), (Start: 28 @52273 has 40 MA's), (38, 52318), (46, 52363), (49, 52375), (70, 52531), (75, 52564), (101, 52735),

Gene: Gill_90 Start: 55283, Stop: 55765, Start Num: 30

Candidate Starts for Gill_90:

(Start: 30 @55283 has 53 MA's), (53, 55406), (58, 55445), (63, 55472), (76, 55577), (78, 55592), (91, 55673), (93, 55685), (95, 55706),

Gene: GirlPower_75 Start: 50852, Stop: 51361, Start Num: 28

Candidate Starts for GirlPower_75:

(Start: 28 @50852 has 40 MA's), (38, 50897), (46, 50942), (51, 50972), (56, 51011), (58, 51032), (70, 51125), (95, 51296), (97, 51302), (98, 51305), (100, 51320),

Gene: Glintora_90 Start: 56976, Stop: 57440, Start Num: 34

Candidate Starts for Glintora_90:

(Start: 30 @56958 has 53 MA's), (34, 56976), (52, 57078), (58, 57120), (60, 57129), (63, 57147), (78, 57267), (80, 57273), (82, 57285), (90, 57333), (91, 57348), (93, 57360),

Gene: GoblinVoyage_55 Start: 38886, Stop: 39395, Start Num: 28

Candidate Starts for GoblinVoyage_55:

(Start: 28 @38886 has 40 MA's), (Start: 33 @38901 has 2 MA's), (38, 38928), (50, 39018), (55, 39036), (60, 39075), (69, 39150), (86, 39252), (88, 39258), (89, 39273),

Gene: Gravy_89 Start: 54946, Stop: 55428, Start Num: 30

Candidate Starts for Gravy_89:

(Start: 30 @54946 has 53 MA's), (53, 55069), (58, 55108), (63, 55135), (76, 55240), (78, 55255), (91, 55336), (93, 55348), (95, 55369),

Gene: Gusicorn_88 Start: 55873, Stop: 56352, Start Num: 30

Candidate Starts for Gusicorn_88:

(Start: 30 @55873 has 53 MA's), (40, 55930), (42, 55936), (53, 55996), (60, 56044), (63, 56062), (75, 56161), (78, 56179), (80, 56185), (90, 56245), (91, 56260), (93, 56272), (95, 56293),

Gene: HazuAndZazu_79 Start: 51132, Stop: 51641, Start Num: 28

Candidate Starts for HazuAndZazu_79:

(Start: 28 @51132 has 40 MA's), (38, 51177), (46, 51222), (56, 51291), (70, 51405), (86, 51495), (89, 51516), (95, 51576), (98, 51585), (102, 51627),

Gene: Hortihabitatio_85 Start: 55292, Stop: 55774, Start Num: 29

Candidate Starts for Hortihabitatio_85:

(Start: 29 @55292 has 7 MA's), (38, 55334), (40, 55349), (60, 55463), (61, 55466), (63, 55481), (78, 55601), (85, 55631), (101, 55748), (102, 55766),

Gene: Hoshi_83 Start: 51036, Stop: 51545, Start Num: 28

Candidate Starts for Hoshi_83:

(Start: 28 @51036 has 40 MA's), (38, 51081), (46, 51126), (56, 51195), (70, 51309), (86, 51399), (89, 51420), (95, 51480), (98, 51489), (102, 51531),

Gene: HotFries_53 Start: 39084, Stop: 39578, Start Num: 33

Candidate Starts for HotFries_53:

(12, 38961), (Start: 17 @39006 has 1 MA's), (Start: 28 @39069 has 40 MA's), (Start: 33 @39084 has 2 MA's), (38, 39111), (50, 39201), (55, 39219), (60, 39258), (69, 39333), (86, 39435), (88, 39441), (89, 39456),

Gene: Hydrus_87 Start: 56277, Stop: 56756, Start Num: 30

Candidate Starts for Hydrus_87:

(Start: 30 @56277 has 53 MA's), (41, 56337), (52, 56397), (60, 56448), (63, 56466), (75, 56565), (78, 56583), (80, 56589), (90, 56649), (91, 56664), (93, 56676), (95, 56697),

Gene: IceWarrior_82 Start: 50842, Stop: 51351, Start Num: 28

Candidate Starts for IceWarrior_82:

(Start: 28 @50842 has 40 MA's), (38, 50887), (46, 50932), (56, 51001), (70, 51115), (86, 51205), (95, 51286), (98, 51295), (102, 51337),

Gene: Indigenous_84 Start: 51428, Stop: 51937, Start Num: 28

Candidate Starts for Indigenous_84:

(Start: 28 @51428 has 40 MA's), (38, 51473), (46, 51518), (56, 51587), (70, 51701), (86, 51791), (89, 51812), (95, 51872), (98, 51881), (102, 51923),

Gene: Jaylociraptor_82 Start: 51008, Stop: 51517, Start Num: 28

Candidate Starts for Jaylociraptor_82:

(Start: 28 @51008 has 40 MA's), (38, 51053), (46, 51098), (56, 51167), (70, 51281), (86, 51371), (89, 51392), (95, 51452), (98, 51461), (102, 51503),

Gene: Jodelie19_87 Start: 57758, Stop: 58240, Start Num: 30

Candidate Starts for Jodelie19_87:

(Start: 30 @57758 has 53 MA's), (36, 57791), (51, 57875), (78, 58064), (90, 58130), (91, 58145), (93, 58157),

Gene: JulesRay_88 Start: 55349, Stop: 55831, Start Num: 30

Candidate Starts for JulesRay_88:

(Start: 30 @55349 has 53 MA's), (49, 55448), (53, 55472), (63, 55538), (67, 55571), (78, 55658), (91, 55739), (93, 55751), (94, 55754), (95, 55772),

Gene: Kardashian_79 Start: 51398, Stop: 51889, Start Num: 28

Candidate Starts for Kardashian_79:

(23, 51386), (Start: 28 @51398 has 40 MA's), (35, 51425), (38, 51443), (41, 51461), (49, 51500), (54, 51530), (61, 51575), (73, 51668), (98, 51836), (102, 51878),

Gene: Kenosha_86 Start: 56334, Stop: 56813, Start Num: 30

Candidate Starts for Kenosha_86:

(Start: 30 @56334 has 53 MA's), (40, 56391), (41, 56394), (42, 56397), (53, 56457), (60, 56505), (63, 56523), (78, 56640), (80, 56646), (84, 56664), (90, 56706), (91, 56721), (93, 56733), (95, 56754),

Gene: Kerry_89 Start: 55009, Stop: 55491, Start Num: 30

Candidate Starts for Kerry_89:

(Start: 30 @55009 has 53 MA's), (53, 55132), (58, 55171), (63, 55198), (76, 55303), (78, 55318), (91, 55399), (93, 55411), (95, 55432),

Gene: LibertyBell_75 Start: 48093, Stop: 48605, Start Num: 28

Candidate Starts for LibertyBell_75:

(7, 47907), (8, 47940), (14, 48006), (25, 48087), (Start: 28 @48093 has 40 MA's), (46, 48183), (51, 48213), (53, 48219), (55, 48228), (63, 48285), (64, 48318), (91, 48510), (98, 48552), (102, 48594), (103, 48597),

Gene: Luthien_88 Start: 56700, Stop: 57164, Start Num: 34

Candidate Starts for Luthien_88:

(Start: 30 @56682 has 53 MA's), (34, 56700), (52, 56802), (58, 56844), (60, 56853), (63, 56871), (78, 56991), (80, 56997), (90, 57057), (91, 57072), (93, 57084),

Gene: Madamoto_81 Start: 50680, Stop: 51192, Start Num: 28

Candidate Starts for Madamoto_81:

(Start: 28 @50680 has 40 MA's), (38, 50725), (46, 50770), (56, 50839), (58, 50860), (89, 51064), (93, 51103), (95, 51124), (98, 51133),

Gene: Madvan_86 Start: 55589, Stop: 56068, Start Num: 30

Candidate Starts for Madvan_86:

(Start: 30 @55589 has 53 MA's), (41, 55649), (52, 55709), (60, 55760), (63, 55778), (75, 55877), (78, 55895), (80, 55901), (90, 55961), (91, 55976), (93, 55988), (95, 56009),

Gene: Magel_91 Start: 55198, Stop: 55680, Start Num: 30

Candidate Starts for Magel_91:

(Start: 30 @55198 has 53 MA's), (53, 55321), (58, 55360), (63, 55387), (76, 55492), (78, 55507), (91, 55588), (93, 55600), (95, 55621),

Gene: MajinBuu_88 Start: 56949, Stop: 57431, Start Num: 30

Candidate Starts for MajinBuu_88:

(Start: 30 @56949 has 53 MA's), (34, 56967), (52, 57069), (58, 57111), (60, 57120), (63, 57138), (78, 57258), (80, 57264), (90, 57324), (91, 57339), (93, 57351),

Gene: Maya_82 Start: 51022, Stop: 51531, Start Num: 28

Candidate Starts for Maya_82:

(Start: 28 @51022 has 40 MA's), (38, 51067), (46, 51112), (56, 51181), (70, 51295), (86, 51385), (89, 51406), (95, 51466), (98, 51475), (102, 51517),

Gene: Meibysrarus_80 Start: 50406, Stop: 50915, Start Num: 28

Candidate Starts for Meibysrarus_80:

(Start: 28 @50406 has 40 MA's), (38, 50451), (46, 50496), (56, 50565), (70, 50679), (86, 50769), (89, 50790), (95, 50850), (98, 50859), (102, 50901),

Gene: Miek_84 Start: 51455, Stop: 51946, Start Num: 28

Candidate Starts for Miek_84:

(9, 51314), (10, 51332), (11, 51341), (19, 51413), (21, 51422), (Start: 28 @51455 has 40 MA's), (38, 51500), (46, 51545), (49, 51557), (70, 51713), (75, 51746), (101, 51917),

Gene: Monse_54 Start: 38889, Stop: 39401, Start Num: 28

Candidate Starts for Monse_54:

(13, 38796), (20, 38847), (24, 38880), (Start: 28 @38889 has 40 MA's), (Start: 33 @38907 has 2 MA's), (38, 38934), (39, 38952), (54, 39039), (55, 39042), (61, 39084), (86, 39258), (88, 39264),

Gene: Moozy_54 Start: 38896, Stop: 39405, Start Num: 28

Candidate Starts for Moozy_54:

(12, 38788), (Start: 17 @38833 has 1 MA's), (Start: 28 @38896 has 40 MA's), (Start: 33 @38911 has 2 MA's), (38, 38938), (50, 39028), (55, 39046), (60, 39085), (69, 39160), (86, 39262), (88, 39268), (89, 39283),

Gene: Mossy_86 Start: 56611, Stop: 57093, Start Num: 29

Candidate Starts for Mossy_86:

(Start: 29 @56611 has 7 MA's), (37, 56650), (51, 56728), (53, 56734), (60, 56782), (61, 56785), (63, 56800), (78, 56920), (90, 56986), (101, 57067),

Gene: Mysticmoon_85 Start: 55708, Stop: 56190, Start Num: 29

Candidate Starts for Mysticmoon_85:

(22, 55678), (Start: 29 @55708 has 7 MA's), (37, 55747), (47, 55801), (51, 55825), (60, 55879), (63, 55897), (78, 56017), (85, 56047), (101, 56164),

Gene: Nadmeg_86 Start: 56574, Stop: 57053, Start Num: 30

Candidate Starts for Nadmeg_86:

(Start: 30 @56574 has 53 MA's), (52, 56694), (63, 56763), (78, 56880), (80, 56886), (90, 56946), (91, 56961), (93, 56973), (95, 56994),

Gene: Namo_84 Start: 51477, Stop: 51986, Start Num: 28

Candidate Starts for Namo_84:

(Start: 28 @51477 has 40 MA's), (38, 51522), (46, 51567), (56, 51636), (70, 51750), (86, 51840), (89, 51861), (95, 51921), (98, 51930), (102, 51972),

Gene: Nithya_87 Start: 56516, Stop: 56998, Start Num: 30

Candidate Starts for Nithya_87:

(Start: 30 @56516 has 53 MA's), (34, 56534), (52, 56636), (58, 56678), (60, 56687), (63, 56705), (78, 56825), (80, 56831), (90, 56891), (91, 56906), (93, 56918),

Gene: NoPickles_89 Start: 55105, Stop: 55587, Start Num: 30

Candidate Starts for NoPickles_89:

(Start: 30 @55105 has 53 MA's), (53, 55228), (58, 55267), (63, 55294), (76, 55399), (78, 55414), (91, 55495), (93, 55507), (95, 55528),

Gene: Odesza_88 Start: 55145, Stop: 55627, Start Num: 30

Candidate Starts for Odesza_88:

(Start: 30 @55145 has 53 MA's), (53, 55268), (58, 55307), (63, 55334), (76, 55439), (78, 55454), (91, 55535), (93, 55547), (95, 55568),

Gene: OhMyWard_82 Start: 56405, Stop: 56887, Start Num: 29

Candidate Starts for OhMyWard_82:

(Start: 29 @56405 has 7 MA's), (37, 56444), (51, 56522), (53, 56528), (60, 56576), (61, 56579), (63, 56594), (71, 56666), (78, 56714), (101, 56861),

Gene: OlgasClover_89 Start: 57350, Stop: 57832, Start Num: 30

Candidate Starts for OlgasClover_89:

(Start: 30 @57350 has 53 MA's), (34, 57368), (52, 57470), (58, 57512), (60, 57521), (63, 57539), (78, 57659), (80, 57665), (90, 57725), (91, 57740), (93, 57752),

Gene: OlympicHelado_84 Start: 51498, Stop: 52007, Start Num: 28

Candidate Starts for OlympicHelado_84:

(Start: 28 @51498 has 40 MA's), (38, 51543), (46, 51588), (56, 51657), (70, 51771), (86, 51861), (89, 51882), (95, 51942), (98, 51951), (102, 51993),

Gene: Pepy6_051 Start: 72091, Stop: 72582, Start Num: 28

Candidate Starts for Pepy6_051:

(Start: 28 @72091 has 40 MA's), (32, 72106), (44, 72175), (52, 72214), (53, 72217), (55, 72226), (68, 72325), (72, 72361), (73, 72364), (78, 72403), (82, 72421), (85, 72433), (86, 72436), (91, 72484), (97, 72523),

Gene: Perkunas_90 Start: 55043, Stop: 55525, Start Num: 30

Candidate Starts for Perkunas_90:

(Start: 30 @55043 has 53 MA's), (53, 55166), (63, 55232), (67, 55265), (78, 55352), (93, 55445), (98, 55475), (101, 55499),

Gene: PerroGrande22_114 Start: 74744, Stop: 75235, Start Num: 28

Candidate Starts for PerroGrande22_114:

(Start: 28 @74744 has 40 MA's), (32, 74759), (52, 74867), (53, 74870), (55, 74879), (68, 74978), (71, 75008), (78, 75056), (82, 75074), (86, 75089), (91, 75137), (97, 75176),

Gene: PestoPenguin_91 Start: 55873, Stop: 56352, Start Num: 30

Candidate Starts for PestoPenguin_91:

(Start: 30 @55873 has 53 MA's), (40, 55930), (42, 55936), (53, 55996), (60, 56044), (63, 56062), (75, 56161), (78, 56179), (80, 56185), (90, 56245), (91, 56260), (93, 56272), (95, 56293),

Gene: Petito_89 Start: 55917, Stop: 56399, Start Num: 30

Candidate Starts for Petito_89:

(Start: 30 @55917 has 53 MA's), (53, 56040), (63, 56106), (67, 56139), (78, 56226), (93, 56319), (95, 56340),

Gene: Phepper_88 Start: 56061, Stop: 56540, Start Num: 30

Candidate Starts for Phepper_88:

(Start: 30 @56061 has 53 MA's), (41, 56121), (52, 56181), (60, 56232), (63, 56250), (75, 56349), (78, 56367), (80, 56373), (90, 56433), (91, 56448), (93, 56460), (95, 56481),

Gene: Pherobrine_85 Start: 55751, Stop: 56233, Start Num: 29

Candidate Starts for Pherobrine_85:

(22, 55721), (Start: 29 @55751 has 7 MA's), (37, 55790), (40, 55808), (43, 55829), (51, 55868), (60, 55922), (63, 55940), (78, 56060), (85, 56090), (101, 56207),

Gene: PherryCruz_54 Start: 39085, Stop: 39594, Start Num: 28

Candidate Starts for PherryCruz_54:

(6, 38812), (12, 38977), (Start: 17 @39022 has 1 MA's), (Start: 28 @39085 has 40 MA's), (Start: 33 @39100 has 2 MA's), (38, 39127), (55, 39235), (60, 39274), (69, 39349), (86, 39451), (88, 39457), (89, 39472),

Gene: Poco6_050 Start: 73353, Stop: 73844, Start Num: 28

Candidate Starts for Poco6_050:

(Start: 28 @73353 has 40 MA's), (32, 73368), (52, 73476), (53, 73479), (55, 73488), (68, 73587), (78, 73665), (82, 73683), (85, 73695), (86, 73698), (89, 73719), (91, 73746), (97, 73785),

Gene: Popy_80 Start: 51779, Stop: 52288, Start Num: 28

Candidate Starts for Popy_80:

(Start: 28 @51779 has 40 MA's), (38, 51824), (46, 51869), (56, 51938), (70, 52052), (86, 52142), (87, 52145), (89, 52163), (95, 52223), (98, 52232), (102, 52274),

Gene: Rainydai_87 Start: 53073, Stop: 53564, Start Num: 28

Candidate Starts for Rainydai_87:

(9, 52932), (10, 52950), (11, 52959), (19, 53031), (21, 53040), (Start: 28 @53073 has 40 MA's), (38, 53118), (46, 53163), (49, 53175), (70, 53331), (75, 53364), (101, 53535),

Gene: RavenPuff_55 Start: 39055, Stop: 39564, Start Num: 28

Candidate Starts for RavenPuff_55:

(Start: 28 @39055 has 40 MA's), (Start: 33 @39070 has 2 MA's), (38, 39097), (50, 39187), (55, 39205), (60, 39244), (69, 39319), (86, 39421), (88, 39427), (89, 39442),

Gene: Regigigas_90 Start: 52685, Stop: 53176, Start Num: 28

Candidate Starts for Regigigas_90:

(9, 52544), (10, 52562), (11, 52571), (19, 52643), (21, 52652), (Start: 28 @52685 has 40 MA's), (38, 52730), (46, 52775), (49, 52787), (70, 52943), (75, 52976), (101, 53147),

Gene: Rickmore_88 Start: 55645, Stop: 56139, Start Num: 30

Candidate Starts for Rickmore_88:

(Start: 30 @55645 has 53 MA's), (52, 55765), (58, 55807), (60, 55816), (63, 55834), (78, 55951), (82, 55969), (83, 55972), (90, 56017), (93, 56044),

Gene: Rima_83 Start: 51477, Stop: 51986, Start Num: 28

Candidate Starts for Rima_83:

(Start: 28 @51477 has 40 MA's), (38, 51522), (46, 51567), (56, 51636), (70, 51750), (86, 51840), (89, 51861), (95, 51921), (98, 51930), (102, 51972),

Gene: Roney_88 Start: 55308, Stop: 55790, Start Num: 30

Candidate Starts for Roney_88:

(Start: 30 @55308 has 53 MA's), (53, 55431), (58, 55470), (63, 55497), (76, 55602), (78, 55617), (91, 55698), (93, 55710), (95, 55731),

Gene: RosaAsantewaa_51 Start: 38179, Stop: 38670, Start Num: 29

Candidate Starts for RosaAsantewaa_51:

(16, 38107), (Start: 29 @38179 has 7 MA's), (46, 38266), (51, 38296), (53, 38302), (55, 38311), (60, 38350), (63, 38368), (70, 38437), (98, 38617), (99, 38629),

Gene: Runhaar_85 Start: 55666, Stop: 56145, Start Num: 30

Candidate Starts for Runhaar_85:

(Start: 30 @55666 has 53 MA's), (52, 55786), (63, 55855), (78, 55972), (80, 55978), (90, 56038), (91, 56053), (93, 56065), (95, 56086),

Gene: Sangak_54 Start: 38595, Stop: 39104, Start Num: 28

Candidate Starts for Sangak_54:

(Start: 28 @38595 has 40 MA's), (Start: 33 @38610 has 2 MA's), (38, 38637), (50, 38727), (55, 38745), (60, 38784), (69, 38859), (86, 38961), (88, 38967), (89, 38982),

Gene: Scap1_52 Start: 38365, Stop: 38937, Start Num: 17

Candidate Starts for Scap1_52:

(Start: 17 @38365 has 1 MA's), (Start: 28 @38428 has 40 MA's), (Start: 33 @38443 has 2 MA's), (38, 38470), (39, 38488), (50, 38560), (54, 38575), (55, 38578), (60, 38617), (86, 38794), (88, 38800),

Gene: Schwartz33_84 Start: 54940, Stop: 55425, Start Num: 30

Candidate Starts for Schwartz33_84:

(Start: 30 @54940 has 53 MA's), (38, 54982), (40, 54997), (60, 55111), (63, 55129), (75, 55231), (78, 55249), (84, 55273), (90, 55315), (91, 55330), (97, 55369),

Gene: Secretariat_80 Start: 53208, Stop: 53693, Start Num: 30

Candidate Starts for Secretariat_80:

(Start: 30 @53208 has 53 MA's), (38, 53250), (40, 53265), (60, 53379), (63, 53397), (75, 53499), (78, 53517), (84, 53541), (90, 53583), (91, 53598), (97, 53637), (98, 53640), (102, 53682),

Gene: SendItCS_82 Start: 51443, Stop: 51934, Start Num: 28

Candidate Starts for SendItCS_82:

(9, 51302), (10, 51320), (11, 51329), (19, 51401), (21, 51410), (Start: 28 @51443 has 40 MA's), (38, 51488), (46, 51533), (49, 51545), (70, 51701), (75, 51734), (101, 51905),

Gene: ShaggyRogers_87 Start: 55632, Stop: 56111, Start Num: 30

Candidate Starts for ShaggyRogers_87:

(Start: 30 @55632 has 53 MA's), (52, 55752), (60, 55803), (61, 55806), (63, 55821), (78, 55938), (84, 55962), (90, 56004), (91, 56019), (93, 56031), (95, 56052),

Gene: SheRa_55 Start: 38965, Stop: 39474, Start Num: 28

Candidate Starts for SheRa_55:

(12, 38857), (Start: 17 @38902 has 1 MA's), (Start: 28 @38965 has 40 MA's), (Start: 33 @38980 has 2 MA's), (38, 39007), (50, 39097), (55, 39115), (60, 39154), (69, 39229), (86, 39331), (88, 39337), (89, 39352),

Gene: Soshi_81 Start: 51620, Stop: 52129, Start Num: 28

Candidate Starts for Soshi_81:

(Start: 28 @51620 has 40 MA's), (38, 51665), (46, 51710), (56, 51779), (70, 51893), (86, 51983), (89, 52004), (95, 52064), (98, 52073), (102, 52115),

Gene: Spectropatronm_81 Start: 51016, Stop: 51525, Start Num: 28

Candidate Starts for Spectropatronm_81:

(Start: 28 @51016 has 40 MA's), (38, 51061), (46, 51106), (56, 51175), (70, 51289), (86, 51379), (89, 51400), (95, 51460), (98, 51469), (102, 51511),

Gene: SweetCrkHerbs_91 Start: 55056, Stop: 55538, Start Num: 30

Candidate Starts for SweetCrkHerbs_91:

(Start: 30 @55056 has 53 MA's), (53, 55179), (63, 55245), (67, 55278), (78, 55365), (93, 55458), (98, 55488), (101, 55512),

Gene: TaidaOne_82 Start: 51492, Stop: 52001, Start Num: 28

Candidate Starts for TaidaOne_82:

(Start: 28 @51492 has 40 MA's), (38, 51537), (46, 51582), (56, 51651), (70, 51765), (86, 51855), (89, 51876), (95, 51936), (98, 51945), (102, 51987),

Gene: Tairn4Wing_91 Start: 55091, Stop: 55573, Start Num: 30

Candidate Starts for Tairn4Wing_91:

(Start: 30 @55091 has 53 MA's), (49, 55190), (53, 55214), (63, 55280), (67, 55313), (78, 55400), (91, 55481), (93, 55493), (94, 55496), (95, 55514),

Gene: Talon44_91 Start: 55653, Stop: 56135, Start Num: 30

Candidate Starts for Talon44_91:

(Start: 30 @55653 has 53 MA's), (53, 55776), (63, 55842), (67, 55875), (78, 55962), (93, 56055), (98, 56085), (101, 56109),

Gene: Tanis_89 Start: 55128, Stop: 55610, Start Num: 30

Candidate Starts for Tanis_89:

(Start: 30 @55128 has 53 MA's), (53, 55251), (58, 55290), (63, 55317), (76, 55422), (78, 55437), (91, 55518), (93, 55530), (95, 55551),

Gene: TenaciousP_89 Start: 57721, Stop: 58203, Start Num: 30

Candidate Starts for TenaciousP_89:

(Start: 30 @57721 has 53 MA's), (36, 57754), (51, 57838), (78, 58027), (90, 58093), (91, 58108), (93, 58120),

Gene: Thiqqums_90 Start: 53073, Stop: 53564, Start Num: 28

Candidate Starts for Thiqqums_90:

(9, 52932), (10, 52950), (11, 52959), (19, 53031), (21, 53040), (Start: 28 @53073 has 40 MA's), (38, 53118), (46, 53163), (49, 53175), (70, 53331), (75, 53364), (101, 53535),

Gene: TieDye_78 Start: 50340, Stop: 50849, Start Num: 28

Candidate Starts for TieDye_78:

(Start: 28 @50340 has 40 MA's), (38, 50385), (46, 50430), (56, 50499), (70, 50613), (86, 50703), (89, 50724), (95, 50784), (98, 50793), (102, 50835),

Gene: Tonaltzin_92 Start: 56460, Stop: 56942, Start Num: 30

Candidate Starts for Tonaltzin_92:

(Start: 30 @56460 has 53 MA's), (36, 56493), (51, 56577), (78, 56766), (90, 56832), (91, 56847), (93, 56859),

Gene: TonyStarch_81 Start: 50778, Stop: 51287, Start Num: 28

Candidate Starts for TonyStarch_81:

(Start: 28 @50778 has 40 MA's), (38, 50823), (46, 50868), (56, 50937), (70, 51051), (86, 51141), (89, 51162), (95, 51222), (98, 51231), (102, 51273),

Gene: Trufflozitus_89 Start: 55606, Stop: 56088, Start Num: 30

Candidate Starts for Trufflozitus_89:

(Start: 30 @55606 has 53 MA's), (49, 55705), (53, 55729), (63, 55795), (67, 55828), (78, 55915), (91, 55996), (93, 56008), (94, 56011), (95, 56029),

Gene: Untouchable_89 Start: 57058, Stop: 57537, Start Num: 30

Candidate Starts for Untouchable_89:

(Start: 30 @57058 has 53 MA's), (41, 57118), (52, 57178), (60, 57229), (63, 57247), (75, 57346), (78, 57364), (80, 57370), (90, 57430), (91, 57445), (93, 57457), (95, 57478),

Gene: Vardy_86 Start: 55581, Stop: 56060, Start Num: 30

Candidate Starts for Vardy_86:

(Start: 30 @55581 has 53 MA's), (52, 55701), (63, 55770), (78, 55887), (80, 55893), (90, 55953), (91, 55968), (93, 55980), (95, 56001),

Gene: Wigberry_85 Start: 52198, Stop: 52701, Start Num: 26

Candidate Starts for Wigberry_85:

(1, 51802), (2, 51814), (3, 51853), (4, 51862), (5, 51904), (23, 52189), (Start: 26 @52198 has 2 MA's), (38, 52243), (46, 52288), (50, 52315), (60, 52372), (61, 52375), (73, 52480), (93, 52618), (98, 52648), (100, 52663), (103, 52693),

Gene: Zeph_90 Start: 56862, Stop: 57341, Start Num: 30

Candidate Starts for Zeph_90:

(Start: 30 @56862 has 53 MA's), (41, 56922), (52, 56982), (60, 57033), (63, 57051), (75, 57150), (78, 57168), (80, 57174), (90, 57234), (91, 57249), (93, 57261), (95, 57282),