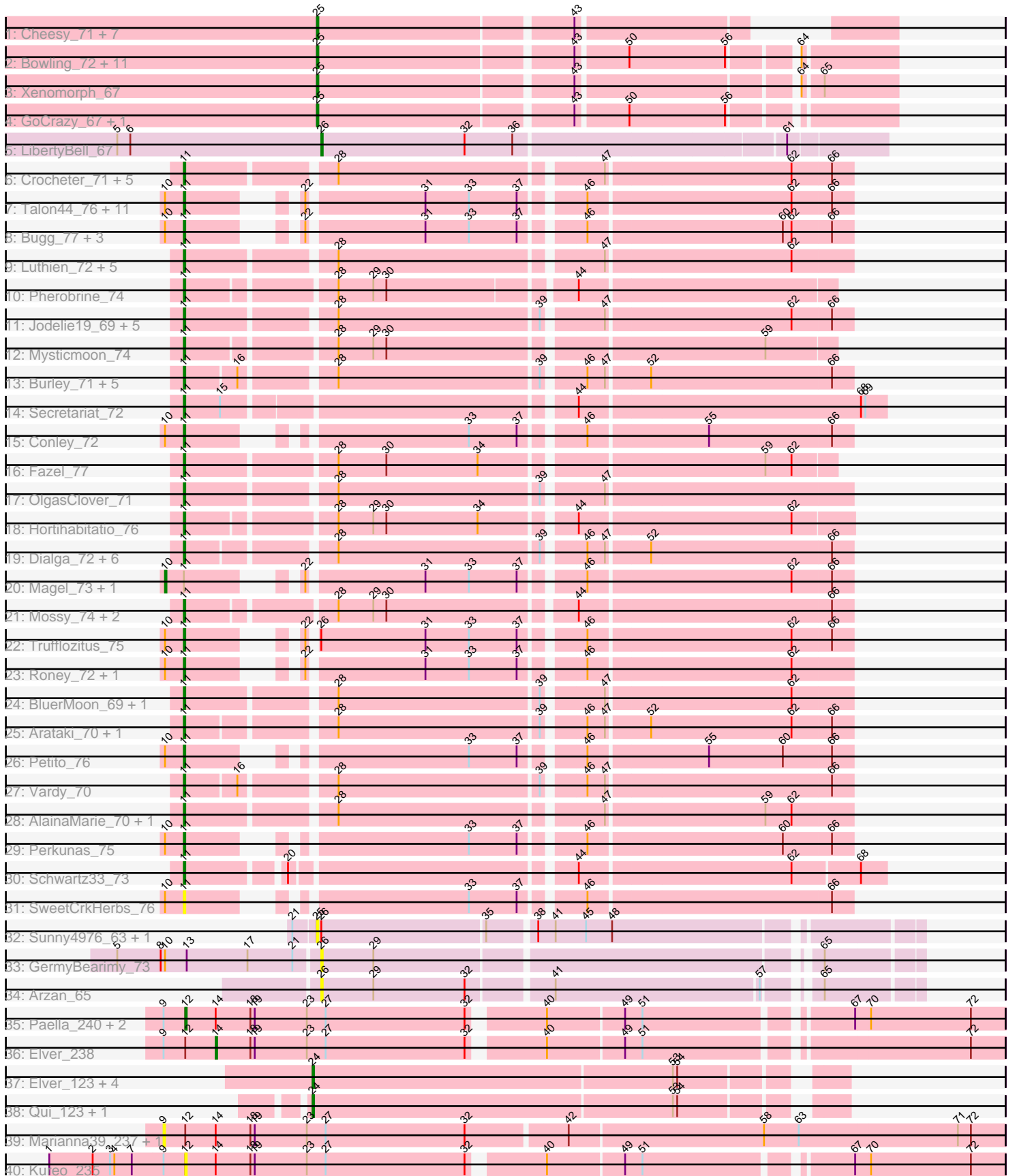


Pham 311391



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 311391 Report

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

Pham number 311391 has 115 members, 29 are drafts.

Phages represented in each track:

- Track 1 : Cheesy_71, Kardesai_70, Nason_70, Elsa_70, Tribby_74, Mooshroom_71, Correa_69, Arcadia_70
- Track 2 : Bowling_72, Dynamite_70, YoshiYama_72, JEGGS_69, Mudcat_66, NapoleonB_71, Heisenberger_69, Circum_72, Benllo_68, BenitoAntonio_69, Stardom_70, Hankly_70
- Track 3 : Xenomorph_67
- Track 4 : GoCrazy_67, KeaneyLin_66
- Track 5 : LibertyBell_67
- Track 6 : Crocheter_71, PestoPenguin_76, Aloe25_74, ShaggyRogers_71, BetterYeti_71, Gusicorn_72
- Track 7 : Talon44_76, ChickyNuggy_77, Kerry_71, Avazak_75, Captrips_73, Capybara_72, NoPickles_73, JulesRay_74, Tanis_72, Gravy_71, Football_76, Tairn4Wing_76
- Track 8 : Bugg_77, Dancer_74, Artorias_74, FortCran_74
- Track 9 : Luthien_72, Glintora_72, Nithya_71, Chikenjars_69, Rickmore_68, Citrus_70
- Track 10 : Pherobrine_74
- Track 11 : Jodelie19_69, Figliar_69, Aflac_70, MajinBuu_71, Tonaltzin_74, TenaciousP_71
- Track 12 : Mysticmoon_74
- Track 13 : Burley_71, Eddiemania_73, Runhaar_71, Madvan_71, Nadmeg_72, Kenosha_70
- Track 14 : Secretariat_72
- Track 15 : Conley_72
- Track 16 : Fazel_77
- Track 17 : OlgasClover_71
- Track 18 : Hortihabitatio_76
- Track 19 : Dialga_72, CWormy_70, Untouchable_73, Zeph_73, ArtetaBall_70, Phepper_72, Hydrus_73
- Track 20 : Magel_73, Gill_72
- Track 21 : Mossy_74, Blanky_71, OhMyWard_70
- Track 22 : Trufflozitus_75
- Track 23 : Roney_72, Odesza_71
- Track 24 : BluerMoon_69, Duffington_70
- Track 25 : Arataki_70, Demure_69
- Track 26 : Petito_76
- Track 27 : Vardy_70

- Track 28 : AlainaMarie_70, EndAve_72
- Track 29 : Perkunas_75
- Track 30 : Schwartz33_73
- Track 31 : SweetCrkHerbs_76
- Track 32 : Sunny4976_63, Jazzy4900_64
- Track 33 : GermyBearimy_73
- Track 34 : Arzan_65
- Track 35 : Paella_240, JeNeSaisPas_231, Qui_239
- Track 36 : Elver_238
- Track 37 : Elver_123, Gandionco_120, Marianna39_121, JeNeSaisPas_118, Kureo_121
- Track 38 : Qui_123, Paella_123
- Track 39 : Marianna39_237, Gandionco_237
- Track 40 : Kureo_235

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

The start number called the most often in the published annotations is 11, it was called in 56 of the 86 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aflac_70, AlainaMarie_70, Aloe25_74, Arataki_70, ArtetaBall_70, Artorias_74, Avazak_75, BetterYeti_71, Blanky_71, BluerMoon_69, Bugg_77, Burley_71, CWormy_70, Captrips_73, Copybara_72, ChickyNugget_77, Chickenjars_69, Citrus_70, Conley_72, Crocheter_71, Dancer_74, Demure_69, Dialga_72, Duffington_70, Eddiemania_73, EndAve_72, Fazel_77, Figliar_69, Football_76, FortCran_74, Glintora_72, Gravy_71, Gusicorn_72, Hortihabitatio_76, Hydrus_73, Jodelie19_69, JulesRay_74, Kenosha_70, Kerry_71, Luthien_72, Madvan_71, MajinBuu_71, Mossy_74, Mysticmoon_74, Nadmeg_72, Nithya_71, NoPickles_73, Odesza_71, OhMyWard_70, OlgasClover_71, Perkunas_75, PestoPenguin_76, Petite_76, Phepper_72, Pherobrine_74, Rickmore_68, Roney_72, Runhaar_71, Schwartz33_73, Secretariat_72, ShaggyRogers_71, SweetCrkHerbs_76, Tairn4Wing_76, Talon44_76, Tanis_72, TenaciousP_71, Tonaltzin_74, Trufflozitus_75, Untouchable_73, Vardy_70, Zeph_73,

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

- Gill_72, Magel_73,

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

- Arcadia_70, Arzan_65, BenitoAntonio_69, Benllo_68, Bowling_72, Cheesy_71, Circum_72, Correa_69, Dynamite_70, Elsa_70, Elver_123, Elver_238, Gandionco_120, Gandionco_237, GermyBearimy_73, GoCrazy_67, Hankly_70, Heisenberger_69, JEGGS_69, Jazzy4900_64, JeNeSaisPas_118, JeNeSaisPas_231, Kardesai_70, KeaneyLin_66, Kureo_121, Kureo_235, LibertyBell_67, Marianna39_121, Marianna39_237, Mooshroom_71, Mudcat_66, NapoleonB_71, Nason_70, Paella_123, Paella_240, Qui_123, Qui_239, Stardom_70, Sunny4976_63, Tribby_74, Xenomorph_67, YoshiYama_72,

Summary by start number:

Start 9:

- Found in 7 of 115 (6.1%) of genes in pham
- No Manual Annotations of this start.
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Gandionco_237 (FK), Marianna39_237 (FK),

Start 10:

- Found in 26 of 115 (22.6%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Gill_72 (DJ), Magel_73 (DJ),

Start 11:

- Found in 73 of 115 (63.5%) of genes in pham
- Manual Annotations of this start: 56 of 86
- Called 97.3% of time when present
- Phage (with cluster) where this start called: Aflac_70 (DJ), AlainaMarie_70 (DJ), Aloe25_74 (DJ), Arataki_70 (DJ), ArtetaBall_70 (DJ), Artorias_74 (DJ), Avazak_75 (DJ), BetterYeti_71 (DJ), Blanky_71 (DJ), BluerMoon_69 (DJ), Bugg_77 (DJ), Burley_71 (DJ), CWormy_70 (DJ), Captrips_73 (DJ), Capybara_72 (DJ), ChickyNuggy_77 (DJ), Chikenjars_69 (DJ), Citrus_70 (DJ), Conley_72 (DJ), Crocheter_71 (DJ), Dancer_74 (DJ), Demure_69 (DJ), Dialga_72 (DJ), Duffington_70 (DJ), Eddiemania_73 (DJ), EndAve_72 (DJ), Fazel_77 (DJ), Figliar_69 (DJ), Football_76 (DJ), FortCran_74 (DJ), Glintora_72 (DJ), Gravy_71 (DJ), Gusicorn_72 (DJ), Hortihabitatio_76 (DJ), Hydrus_73 (DJ), Jodelie19_69 (DJ), JulesRay_74 (DJ), Kenosha_70 (DJ), Kerry_71 (DJ), Luthien_72 (DJ), Madvan_71 (DJ), MajinBuu_71 (DJ), Mossy_74 (DJ), Mysticmoon_74 (DJ), Nadmeg_72 (DJ), Nithya_71 (DJ), NoPickles_73 (DJ), Odesza_71 (DJ), OhMyWard_70 (DJ), OlgasClover_71 (DJ), Perunas_75 (DJ), PestoPenguin_76 (DJ), Petite_76 (DJ), Phepper_72 (DJ), Pherobrine_74 (DJ), Rickmore_68 (DJ), Roney_72 (DJ), Runhaar_71 (DJ), Schwartz33_73 (DJ), Secretariat_72 (DJ), ShaggyRogers_71 (DJ), SweetCrkHerbs_76 (DJ), Tairn4Wing_76 (DJ), Talon44_76 (DJ), Tanis_72 (DJ), TenaciousP_71 (DJ), Tonaltzin_74 (DJ), Trufflozitus_75 (DJ), Untouchable_73 (DJ), Vardy_70 (DJ), Zeph_73 (DJ),

Start 12:

- Found in 7 of 115 (6.1%) of genes in pham
- Manual Annotations of this start: 2 of 86
- Called 57.1% of time when present
- Phage (with cluster) where this start called: JeNeSaisPas_231 (FK), Kureo_235 (FK), Paella_240 (FK), Qui_239 (FK),

Start 14:

- Found in 7 of 115 (6.1%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Elver_238 (FK),

Start 24:

- Found in 7 of 115 (6.1%) of genes in pham
- Manual Annotations of this start: 3 of 86
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Elver_123 (FK), Gandionco_120 (FK), JeNeSaisPas_118 (FK), Kureo_121 (FK), Marianna39_121 (FK), Paella_123 (FK), Qui_123 (FK),

Start 25:

- Found in 25 of 115 (21.7%) of genes in pham
- Manual Annotations of this start: 21 of 86
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_70 (AM), BenitoAntonio_69 (AM), Benllo_68 (AM), Bowling_72 (AM), Cheesy_71 (AM), Circum_72 (AM), Correa_69 (AM), Dynamite_70 (AM), Elsa_70 (AM), GoCrazy_67 (AM), Hankly_70 (AM), Heisenberger_69 (AM), JEGGS_69 (AM), Jazzy4900_64 (FI), Kardesai_70 (AM), KeaneyLin_66 (AM), Mooshroom_71 (AM), Mudcat_66 (AM), NapoleonB_71 (AM), Nason_70 (AM), Stardom_70 (AM), Sunny4976_63 (FI), Tribby_74 (AM), Xenomorph_67 (AM), YoshiYama_72 (AM),

Start 26:

- Found in 6 of 115 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 86
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Arzan_65 (FI), GermyBearimy_73 (FI), LibertyBell_67 (BI3),

Summary by clusters:

There are 5 clusters represented in this pham: AM, FK, DJ, BI3, FI,

Info for manual annotations of cluster AM:

- Start number 25 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster BI3:

- Start number 26 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster DJ:

- Start number 10 was manually annotated 2 times for cluster DJ.
- Start number 11 was manually annotated 56 times for cluster DJ.

Info for manual annotations of cluster FK:

- Start number 12 was manually annotated 2 times for cluster FK.
- Start number 14 was manually annotated 1 time for cluster FK.
- Start number 24 was manually annotated 3 times for cluster FK.

Gene Information:

Gene: Aflac_70 Start: 49866, Stop: 50294, Start Num: 11

Candidate Starts for Aflac_70:

(Start: 11 @49866 has 56 MA's), (28, 49959), (39, 50094), (47, 50130), (62, 50253), (66, 50280),

Gene: AlainaMarie_70 Start: 49907, Stop: 50335, Start Num: 11

Candidate Starts for AlainaMarie_70:

(Start: 11 @49907 has 56 MA's), (28, 50000), (47, 50171), (59, 50276), (62, 50294),

Gene: Aloe25_74 Start: 49709, Stop: 50137, Start Num: 11

Candidate Starts for Aloe25_74:

(Start: 11 @49709 has 56 MA's), (28, 49802), (47, 49973), (62, 50096), (66, 50123),

Gene: Arataki_70 Start: 49339, Stop: 49764, Start Num: 11

Candidate Starts for Arataki_70:

(Start: 11 @49339 has 56 MA's), (28, 49429), (39, 49564), (46, 49588), (47, 49600), (52, 49627), (62, 49723), (66, 49750),

Gene: Arcadia_70 Start: 43764, Stop: 44090, Start Num: 25

Candidate Starts for Arcadia_70:

(Start: 25 @43764 has 21 MA's), (43, 43932),

Gene: ArtetaBall_70 Start: 49902, Stop: 50327, Start Num: 11

Candidate Starts for ArtetaBall_70:

(Start: 11 @49902 has 56 MA's), (28, 49992), (39, 50127), (46, 50151), (47, 50163), (52, 50190), (66, 50313),

Gene: Artorias_74 Start: 49927, Stop: 50325, Start Num: 11

Candidate Starts for Artorias_74:

(Start: 10 @49915 has 2 MA's), (Start: 11 @49927 has 56 MA's), (22, 49975), (31, 50050), (33, 50080), (37, 50113), (46, 50149), (60, 50278), (62, 50284), (66, 50311),

Gene: Arzan_65 Start: 43421, Stop: 43801, Start Num: 26

Candidate Starts for Arzan_65:

(Start: 26 @43421 has 1 MA's), (29, 43457), (32, 43520), (41, 43574), (57, 43712), (65, 43739),

Gene: Avazak_75 Start: 50609, Stop: 51007, Start Num: 11

Candidate Starts for Avazak_75:

(Start: 10 @50597 has 2 MA's), (Start: 11 @50609 has 56 MA's), (22, 50657), (31, 50732), (33, 50762), (37, 50795), (46, 50831), (62, 50966), (66, 50993),

Gene: BenitoAntonio_69 Start: 43369, Stop: 43737, Start Num: 25

Candidate Starts for BenitoAntonio_69:

(Start: 25 @43369 has 21 MA's), (43, 43537), (50, 43570), (56, 43636), (64, 43675),

Gene: Benllo_68 Start: 44047, Stop: 44415, Start Num: 25

Candidate Starts for Benllo_68:

(Start: 25 @44047 has 21 MA's), (43, 44215), (50, 44248), (56, 44314), (64, 44353),

Gene: BetterYeti_71 Start: 49708, Stop: 50136, Start Num: 11

Candidate Starts for BetterYeti_71:

(Start: 11 @49708 has 56 MA's), (28, 49801), (47, 49972), (62, 50095), (66, 50122),

Gene: Blanky_71 Start: 51188, Stop: 51616, Start Num: 11

Candidate Starts for Blanky_71:

(Start: 11 @51188 has 56 MA's), (28, 51281), (29, 51305), (30, 51314), (44, 51434), (66, 51602),

Gene: BluerMoon_69 Start: 49818, Stop: 50246, Start Num: 11

Candidate Starts for BluerMoon_69:

(Start: 11 @49818 has 56 MA's), (28, 49911), (39, 50046), (47, 50082), (62, 50205),

Gene: Bowling_72 Start: 44323, Stop: 44691, Start Num: 25

Candidate Starts for Bowling_72:

(Start: 25 @44323 has 21 MA's), (43, 44491), (50, 44524), (56, 44590), (64, 44629),

Gene: Bugg_77 Start: 49972, Stop: 50370, Start Num: 11

Candidate Starts for Bugg_77:

(Start: 10 @49960 has 2 MA's), (Start: 11 @49972 has 56 MA's), (22, 50020), (31, 50095), (33, 50125), (37, 50158), (46, 50194), (60, 50323), (62, 50329), (66, 50356),

Gene: Burley_71 Start: 49358, Stop: 49783, Start Num: 11

Candidate Starts for Burley_71:

(Start: 11 @49358 has 56 MA's), (16, 49391), (28, 49448), (39, 49583), (46, 49607), (47, 49619), (52, 49646), (66, 49769),

Gene: CWormy_70 Start: 49316, Stop: 49741, Start Num: 11

Candidate Starts for CWormy_70:

(Start: 11 @49316 has 56 MA's), (28, 49406), (39, 49541), (46, 49565), (47, 49577), (52, 49604), (66, 49727),

Gene: Captrips_73 Start: 49757, Stop: 50155, Start Num: 11

Candidate Starts for Captrips_73:

(Start: 10 @49745 has 2 MA's), (Start: 11 @49757 has 56 MA's), (22, 49805), (31, 49880), (33, 49910), (37, 49943), (46, 49979), (62, 50114), (66, 50141),

Gene: Capybara_72 Start: 49596, Stop: 49994, Start Num: 11

Candidate Starts for Capybara_72:

(Start: 10 @49584 has 2 MA's), (Start: 11 @49596 has 56 MA's), (22, 49644), (31, 49719), (33, 49749), (37, 49782), (46, 49818), (62, 49953), (66, 49980),

Gene: Cheesy_71 Start: 43557, Stop: 43883, Start Num: 25

Candidate Starts for Cheesy_71:

(Start: 25 @43557 has 21 MA's), (43, 43725),

Gene: ChickyNuggy_77 Start: 50351, Stop: 50749, Start Num: 11

Candidate Starts for ChickyNuggy_77:

(Start: 10 @50339 has 2 MA's), (Start: 11 @50351 has 56 MA's), (22, 50399), (31, 50474), (33, 50504), (37, 50537), (46, 50573), (62, 50708), (66, 50735),

Gene: Chikenjars_69 Start: 49939, Stop: 50367, Start Num: 11

Candidate Starts for Chikenjars_69:

(Start: 11 @49939 has 56 MA's), (28, 50032), (47, 50203), (62, 50326),

Gene: Circum_72 Start: 44137, Stop: 44505, Start Num: 25

Candidate Starts for Circum_72:

(Start: 25 @44137 has 21 MA's), (43, 44305), (50, 44338), (56, 44404), (64, 44443),

Gene: Citrus_70 Start: 50200, Stop: 50628, Start Num: 11

Candidate Starts for Citrus_70:

(Start: 11 @50200 has 56 MA's), (28, 50293), (47, 50464), (62, 50587),

Gene: Conley_72 Start: 50234, Stop: 50632, Start Num: 11

Candidate Starts for Conley_72:

(Start: 10 @50222 has 2 MA's), (Start: 11 @50234 has 56 MA's), (33, 50387), (37, 50420), (46, 50456), (55, 50534), (66, 50618),

Gene: Correa_69 Start: 43131, Stop: 43457, Start Num: 25

Candidate Starts for Correa_69:

(Start: 25 @43131 has 21 MA's), (43, 43299),

Gene: Crocheter_71 Start: 49802, Stop: 50230, Start Num: 11

Candidate Starts for Crocheter_71:

(Start: 11 @49802 has 56 MA's), (28, 49895), (47, 50066), (62, 50189), (66, 50216),

Gene: Dancer_74 Start: 49664, Stop: 50062, Start Num: 11

Candidate Starts for Dancer_74:

(Start: 10 @49652 has 2 MA's), (Start: 11 @49664 has 56 MA's), (22, 49712), (31, 49787), (33, 49817), (37, 49850), (46, 49886), (60, 50015), (62, 50021), (66, 50048),

Gene: Demure_69 Start: 49339, Stop: 49764, Start Num: 11

Candidate Starts for Demure_69:

(Start: 11 @49339 has 56 MA's), (28, 49429), (39, 49564), (46, 49588), (47, 49600), (52, 49627), (62, 49723), (66, 49750),

Gene: Dialga_72 Start: 49921, Stop: 50346, Start Num: 11

Candidate Starts for Dialga_72:

(Start: 11 @49921 has 56 MA's), (28, 50011), (39, 50146), (46, 50170), (47, 50182), (52, 50209), (66, 50332),

Gene: Duffington_70 Start: 49872, Stop: 50300, Start Num: 11

Candidate Starts for Duffington_70:

(Start: 11 @49872 has 56 MA's), (28, 49965), (39, 50100), (47, 50136), (62, 50259),

Gene: Dynamite_70 Start: 43580, Stop: 43948, Start Num: 25

Candidate Starts for Dynamite_70:

(Start: 25 @43580 has 21 MA's), (43, 43748), (50, 43781), (56, 43847), (64, 43886),

Gene: Eddiemania_73 Start: 50547, Stop: 50972, Start Num: 11

Candidate Starts for Eddiemania_73:

(Start: 11 @50547 has 56 MA's), (16, 50580), (28, 50637), (39, 50772), (46, 50796), (47, 50808), (52, 50835), (66, 50958),

Gene: Elsa_70 Start: 43764, Stop: 44090, Start Num: 25

Candidate Starts for Elsa_70:

(Start: 25 @43764 has 21 MA's), (43, 43932),

Gene: Elver_238 Start: 106621, Stop: 107130, Start Num: 14

Candidate Starts for Elver_238:

(9, 106585), (Start: 12 @106600 has 2 MA's), (Start: 14 @106621 has 1 MA's), (18, 106645), (19, 106648), (23, 106684), (27, 106696), (32, 106792), (40, 106837), (49, 106888), (51, 106900), (72, 107107),

Gene: Elver_123 Start: 67170, Stop: 67514, Start Num: 24

Candidate Starts for Elver_123:

(Start: 24 @67170 has 3 MA's), (53, 67416), (54, 67419),

Gene: EndAve_72 Start: 50094, Stop: 50522, Start Num: 11
Candidate Starts for EndAve_72:
(Start: 11 @50094 has 56 MA's), (28, 50187), (47, 50358), (59, 50463), (62, 50481),

Gene: Fazel_77 Start: 50881, Stop: 51300, Start Num: 11
Candidate Starts for Fazel_77:
(Start: 11 @50881 has 56 MA's), (28, 50977), (30, 51010), (34, 51073), (59, 51253), (62, 51271),

Gene: Figliar_69 Start: 49935, Stop: 50363, Start Num: 11
Candidate Starts for Figliar_69:
(Start: 11 @49935 has 56 MA's), (28, 50028), (39, 50163), (47, 50199), (62, 50322), (66, 50349),

Gene: Football_76 Start: 49555, Stop: 49953, Start Num: 11
Candidate Starts for Football_76:
(Start: 10 @49543 has 2 MA's), (Start: 11 @49555 has 56 MA's), (22, 49603), (31, 49678), (33, 49708),
(37, 49741), (46, 49777), (62, 49912), (66, 49939),

Gene: FortCran_74 Start: 49927, Stop: 50325, Start Num: 11
Candidate Starts for FortCran_74:
(Start: 10 @49915 has 2 MA's), (Start: 11 @49927 has 56 MA's), (22, 49975), (31, 50050), (33, 50080),
(37, 50113), (46, 50149), (60, 50278), (62, 50284), (66, 50311),

Gene: Gandionco_120 Start: 65982, Stop: 66326, Start Num: 24
Candidate Starts for Gandionco_120:
(Start: 24 @65982 has 3 MA's), (53, 66228), (54, 66231),

Gene: Gandionco_237 Start: 105943, Stop: 106512, Start Num: 9
Candidate Starts for Gandionco_237:
(9, 105943), (Start: 12 @105958 has 2 MA's), (Start: 14 @105979 has 1 MA's), (18, 106003), (19,
106006), (23, 106042), (27, 106054), (32, 106150), (42, 106216), (58, 106348), (63, 106372), (71,
106480), (72, 106489),

Gene: GermyBearimy_73 Start: 44988, Stop: 45371, Start Num: 26
Candidate Starts for GermyBearimy_73:
(5, 44853), (8, 44883), (Start: 10 @44886 has 2 MA's), (13, 44901), (17, 44943), (21, 44973), (Start: 26
@44988 has 1 MA's), (29, 45024), (65, 45309),

Gene: Gill_72 Start: 49596, Stop: 50006, Start Num: 10
Candidate Starts for Gill_72:
(Start: 10 @49596 has 2 MA's), (Start: 11 @49608 has 56 MA's), (22, 49656), (31, 49731), (33, 49761),
(37, 49794), (46, 49830), (62, 49965), (66, 49992),

Gene: Glintora_72 Start: 50527, Stop: 50955, Start Num: 11
Candidate Starts for Glintora_72:
(Start: 11 @50527 has 56 MA's), (28, 50620), (47, 50791), (62, 50914),

Gene: GoCrazy_67 Start: 43024, Stop: 43392, Start Num: 25
Candidate Starts for GoCrazy_67:
(Start: 25 @43024 has 21 MA's), (43, 43192), (50, 43225), (56, 43291),

Gene: Gravy_71 Start: 49286, Stop: 49684, Start Num: 11
Candidate Starts for Gravy_71:

(Start: 10 @49274 has 2 MA's), (Start: 11 @49286 has 56 MA's), (22, 49334), (31, 49409), (33, 49439), (37, 49472), (46, 49508), (62, 49643), (66, 49670),

Gene: Gusicorn_72 Start: 49709, Stop: 50137, Start Num: 11

Candidate Starts for Gusicorn_72:

(Start: 11 @49709 has 56 MA's), (28, 49802), (47, 49973), (62, 50096), (66, 50123),

Gene: Hankly_70 Start: 43218, Stop: 43586, Start Num: 25

Candidate Starts for Hankly_70:

(Start: 25 @43218 has 21 MA's), (43, 43386), (50, 43419), (56, 43485), (64, 43524),

Gene: Heisenberger_69 Start: 42986, Stop: 43354, Start Num: 25

Candidate Starts for Heisenberger_69:

(Start: 25 @42986 has 21 MA's), (43, 43154), (50, 43187), (56, 43253), (64, 43292),

Gene: Hortihabitatio_76 Start: 51089, Stop: 51517, Start Num: 11

Candidate Starts for Hortihabitatio_76:

(Start: 11 @51089 has 56 MA's), (28, 51182), (29, 51206), (30, 51215), (34, 51278), (44, 51335), (62, 51476),

Gene: Hydrus_73 Start: 50523, Stop: 50948, Start Num: 11

Candidate Starts for Hydrus_73:

(Start: 11 @50523 has 56 MA's), (28, 50613), (39, 50748), (46, 50772), (47, 50784), (52, 50811), (66, 50934),

Gene: JEGGS_69 Start: 43065, Stop: 43433, Start Num: 25

Candidate Starts for JEGGS_69:

(Start: 25 @43065 has 21 MA's), (43, 43233), (50, 43266), (56, 43332), (64, 43371),

Gene: Jazzy4900_64 Start: 44190, Stop: 44579, Start Num: 25

Candidate Starts for Jazzy4900_64:

(21, 44175), (Start: 25 @44190 has 21 MA's), (Start: 26 @44193 has 1 MA's), (35, 44304), (38, 44334), (41, 44346), (45, 44367), (48, 44385),

Gene: JeNeSaisPas_231 Start: 106357, Stop: 106887, Start Num: 12

Candidate Starts for JeNeSaisPas_231:

(9, 106342), (Start: 12 @106357 has 2 MA's), (Start: 14 @106378 has 1 MA's), (18, 106402), (19, 106405), (23, 106441), (27, 106453), (32, 106549), (40, 106594), (49, 106645), (51, 106657), (67, 106786), (70, 106795), (72, 106864),

Gene: JeNeSaisPas_118 Start: 66584, Stop: 66928, Start Num: 24

Candidate Starts for JeNeSaisPas_118:

(Start: 24 @66584 has 3 MA's), (53, 66830), (54, 66833),

Gene: Jodelie19_69 Start: 51102, Stop: 51530, Start Num: 11

Candidate Starts for Jodelie19_69:

(Start: 11 @51102 has 56 MA's), (28, 51195), (39, 51330), (47, 51366), (62, 51489), (66, 51516),

Gene: JulesRay_74 Start: 50276, Stop: 50674, Start Num: 11

Candidate Starts for JulesRay_74:

(Start: 10 @50264 has 2 MA's), (Start: 11 @50276 has 56 MA's), (22, 50324), (31, 50399), (33, 50429), (37, 50462), (46, 50498), (62, 50633), (66, 50660),

Gene: Kardesai_70 Start: 43374, Stop: 43706, Start Num: 25

Candidate Starts for Kardesai_70:

(Start: 25 @43374 has 21 MA's), (43, 43542),

Gene: KeaneyLin_66 Start: 43024, Stop: 43392, Start Num: 25

Candidate Starts for KeaneyLin_66:

(Start: 25 @43024 has 21 MA's), (43, 43192), (50, 43225), (56, 43291),

Gene: Kenosha_70 Start: 49949, Stop: 50374, Start Num: 11

Candidate Starts for Kenosha_70:

(Start: 11 @49949 has 56 MA's), (16, 49982), (28, 50039), (39, 50174), (46, 50198), (47, 50210), (52, 50237), (66, 50360),

Gene: Kerry_71 Start: 49349, Stop: 49747, Start Num: 11

Candidate Starts for Kerry_71:

(Start: 10 @49337 has 2 MA's), (Start: 11 @49349 has 56 MA's), (22, 49397), (31, 49472), (33, 49502), (37, 49535), (46, 49571), (62, 49706), (66, 49733),

Gene: Kureo_235 Start: 104935, Stop: 105465, Start Num: 12

Candidate Starts for Kureo_235:

(1, 104842), (2, 104872), (3, 104884), (4, 104887), (7, 104899), (9, 104920), (Start: 12 @104935 has 2 MA's), (Start: 14 @104956 has 1 MA's), (18, 104980), (19, 104983), (23, 105019), (27, 105031), (32, 105127), (40, 105172), (49, 105223), (51, 105235), (67, 105364), (70, 105373), (72, 105442),

Gene: Kureo_121 Start: 66178, Stop: 66522, Start Num: 24

Candidate Starts for Kureo_121:

(Start: 24 @66178 has 3 MA's), (53, 66424), (54, 66427),

Gene: LibertyBell_67 Start: 43991, Stop: 44365, Start Num: 26

Candidate Starts for LibertyBell_67:

(5, 43850), (6, 43859), (Start: 26 @43991 has 1 MA's), (32, 44090), (36, 44123), (61, 44300),

Gene: Luthien_72 Start: 50089, Stop: 50517, Start Num: 11

Candidate Starts for Luthien_72:

(Start: 11 @50089 has 56 MA's), (28, 50182), (47, 50353), (62, 50476),

Gene: Madvan_71 Start: 49411, Stop: 49836, Start Num: 11

Candidate Starts for Madvan_71:

(Start: 11 @49411 has 56 MA's), (16, 49444), (28, 49501), (39, 49636), (46, 49660), (47, 49672), (52, 49699), (66, 49822),

Gene: Magel_73 Start: 49511, Stop: 49921, Start Num: 10

Candidate Starts for Magel_73:

(Start: 10 @49511 has 2 MA's), (Start: 11 @49523 has 56 MA's), (22, 49571), (31, 49646), (33, 49676), (37, 49709), (46, 49745), (62, 49880), (66, 49907),

Gene: MajinBuu_71 Start: 50317, Stop: 50745, Start Num: 11

Candidate Starts for MajinBuu_71:

(Start: 11 @50317 has 56 MA's), (28, 50410), (39, 50545), (47, 50581), (62, 50704), (66, 50731),

Gene: Marianna39_121 Start: 66593, Stop: 66937, Start Num: 24

Candidate Starts for Marianna39_121:

(Start: 24 @66593 has 3 MA's), (53, 66839), (54, 66842),

Gene: Marianna39_237 Start: 106546, Stop: 107115, Start Num: 9

Candidate Starts for Marianna39_237:

(9, 106546), (Start: 12 @106561 has 2 MA's), (Start: 14 @106582 has 1 MA's), (18, 106606), (19, 106609), (23, 106645), (27, 106657), (32, 106753), (42, 106819), (58, 106951), (63, 106975), (71, 107083), (72, 107092),

Gene: Mooshroom_71 Start: 43374, Stop: 43706, Start Num: 25

Candidate Starts for Mooshroom_71:

(Start: 25 @43374 has 21 MA's), (43, 43542),

Gene: Mossy_74 Start: 51400, Stop: 51828, Start Num: 11

Candidate Starts for Mossy_74:

(Start: 11 @51400 has 56 MA's), (28, 51493), (29, 51517), (30, 51526), (44, 51646), (66, 51814),

Gene: Mudcat_66 Start: 44423, Stop: 44791, Start Num: 25

Candidate Starts for Mudcat_66:

(Start: 25 @44423 has 21 MA's), (43, 44591), (50, 44624), (56, 44690), (64, 44729),

Gene: Mysticmoon_74 Start: 51102, Stop: 51518, Start Num: 11

Candidate Starts for Mysticmoon_74:

(Start: 11 @51102 has 56 MA's), (28, 51195), (29, 51219), (30, 51228), (59, 51471),

Gene: Nadmeg_72 Start: 50640, Stop: 51065, Start Num: 11

Candidate Starts for Nadmeg_72:

(Start: 11 @50640 has 56 MA's), (16, 50673), (28, 50730), (39, 50865), (46, 50889), (47, 50901), (52, 50928), (66, 51051),

Gene: NapoleonB_71 Start: 43580, Stop: 43948, Start Num: 25

Candidate Starts for NapoleonB_71:

(Start: 25 @43580 has 21 MA's), (43, 43748), (50, 43781), (56, 43847), (64, 43886),

Gene: Nason_70 Start: 43764, Stop: 44090, Start Num: 25

Candidate Starts for Nason_70:

(Start: 25 @43764 has 21 MA's), (43, 43932),

Gene: Nithya_71 Start: 49795, Stop: 50223, Start Num: 11

Candidate Starts for Nithya_71:

(Start: 11 @49795 has 56 MA's), (28, 49888), (47, 50059), (62, 50182),

Gene: NoPickles_73 Start: 49443, Stop: 49841, Start Num: 11

Candidate Starts for NoPickles_73:

(Start: 10 @49431 has 2 MA's), (Start: 11 @49443 has 56 MA's), (22, 49491), (31, 49566), (33, 49596), (37, 49629), (46, 49665), (62, 49800), (66, 49827),

Gene: Odesza_71 Start: 49467, Stop: 49865, Start Num: 11

Candidate Starts for Odesza_71:

(Start: 10 @49455 has 2 MA's), (Start: 11 @49467 has 56 MA's), (22, 49515), (31, 49590), (33, 49620), (37, 49653), (46, 49689), (62, 49824),

Gene: OhMyWard_70 Start: 51159, Stop: 51587, Start Num: 11

Candidate Starts for OhMyWard_70:

(Start: 11 @51159 has 56 MA's), (28, 51252), (29, 51276), (30, 51285), (44, 51405), (66, 51573),

Gene: OlgasClover_71 Start: 50444, Stop: 50872, Start Num: 11
Candidate Starts for OlgasClover_71:
(Start: 11 @50444 has 56 MA's), (28, 50537), (39, 50672), (47, 50708),

Gene: Paella_240 Start: 107737, Stop: 108267, Start Num: 12
Candidate Starts for Paella_240:
(9, 107722), (Start: 12 @107737 has 2 MA's), (Start: 14 @107758 has 1 MA's), (18, 107782), (19, 107785), (23, 107821), (27, 107833), (32, 107929), (40, 107974), (49, 108025), (51, 108037), (67, 108166), (70, 108175), (72, 108244),

Gene: Paella_123 Start: 67733, Stop: 68077, Start Num: 24
Candidate Starts for Paella_123:
(Start: 24 @67733 has 3 MA's), (53, 67979), (54, 67982),

Gene: Perkunas_75 Start: 49660, Stop: 50058, Start Num: 11
Candidate Starts for Perkunas_75:
(Start: 10 @49648 has 2 MA's), (Start: 11 @49660 has 56 MA's), (33, 49813), (37, 49846), (46, 49882), (60, 50011), (66, 50044),

Gene: PestoPenguin_76 Start: 49709, Stop: 50137, Start Num: 11
Candidate Starts for PestoPenguin_76:
(Start: 11 @49709 has 56 MA's), (28, 49802), (47, 49973), (62, 50096), (66, 50123),

Gene: Petite_76 Start: 51180, Stop: 51578, Start Num: 11
Candidate Starts for Petite_76:
(Start: 10 @51168 has 2 MA's), (Start: 11 @51180 has 56 MA's), (33, 51333), (37, 51366), (46, 51402), (55, 51480), (60, 51531), (66, 51564),

Gene: Phepper_72 Start: 49653, Stop: 50078, Start Num: 11
Candidate Starts for Phepper_72:
(Start: 11 @49653 has 56 MA's), (28, 49743), (39, 49878), (46, 49902), (47, 49914), (52, 49941), (66, 50064),

Gene: Pherobrine_74 Start: 51157, Stop: 51573, Start Num: 11
Candidate Starts for Pherobrine_74:
(Start: 11 @51157 has 56 MA's), (28, 51250), (29, 51274), (30, 51283), (44, 51403),

Gene: Qui_123 Start: 67733, Stop: 68077, Start Num: 24
Candidate Starts for Qui_123:
(Start: 24 @67733 has 3 MA's), (53, 67979), (54, 67982),

Gene: Qui_239 Start: 107725, Stop: 108255, Start Num: 12
Candidate Starts for Qui_239:
(9, 107710), (Start: 12 @107725 has 2 MA's), (Start: 14 @107746 has 1 MA's), (18, 107770), (19, 107773), (23, 107809), (27, 107821), (32, 107917), (40, 107962), (49, 108013), (51, 108025), (67, 108154), (70, 108163), (72, 108232),

Gene: Rickmore_68 Start: 48311, Stop: 48739, Start Num: 11
Candidate Starts for Rickmore_68:
(Start: 11 @48311 has 56 MA's), (28, 48404), (47, 48575), (62, 48698),

Gene: Roney_72 Start: 49633, Stop: 50031, Start Num: 11

Candidate Starts for Roney_72:

(Start: 10 @49621 has 2 MA's), (Start: 11 @49633 has 56 MA's), (22, 49681), (31, 49756), (33, 49786), (37, 49819), (46, 49855), (62, 49990),

Gene: Runhaar_71 Start: 49462, Stop: 49887, Start Num: 11

Candidate Starts for Runhaar_71:

(Start: 11 @49462 has 56 MA's), (16, 49495), (28, 49552), (39, 49687), (46, 49711), (47, 49723), (52, 49750), (66, 49873),

Gene: Schwartz33_73 Start: 49999, Stop: 50442, Start Num: 11

Candidate Starts for Schwartz33_73:

(Start: 11 @49999 has 56 MA's), (20, 50059), (44, 50239), (62, 50380), (68, 50425),

Gene: Secretariat_72 Start: 49337, Stop: 49789, Start Num: 11

Candidate Starts for Secretariat_72:

(Start: 11 @49337 has 56 MA's), (15, 49361), (44, 49583), (68, 49772), (69, 49775),

Gene: ShaggyRogers_71 Start: 49443, Stop: 49871, Start Num: 11

Candidate Starts for ShaggyRogers_71:

(Start: 11 @49443 has 56 MA's), (28, 49536), (47, 49707), (62, 49830), (66, 49857),

Gene: Stardom_70 Start: 42931, Stop: 43299, Start Num: 25

Candidate Starts for Stardom_70:

(Start: 25 @42931 has 21 MA's), (43, 43099), (50, 43132), (56, 43198), (64, 43237),

Gene: Sunny4976_63 Start: 44190, Stop: 44579, Start Num: 25

Candidate Starts for Sunny4976_63:

(21, 44175), (Start: 25 @44190 has 21 MA's), (Start: 26 @44193 has 1 MA's), (35, 44304), (38, 44334), (41, 44346), (45, 44367), (48, 44385),

Gene: SweetCrkHerbs_76 Start: 49672, Stop: 50070, Start Num: 11

Candidate Starts for SweetCrkHerbs_76:

(Start: 10 @49660 has 2 MA's), (Start: 11 @49672 has 56 MA's), (33, 49825), (37, 49858), (46, 49894), (66, 50056),

Gene: Tairn4Wing_76 Start: 49765, Stop: 50163, Start Num: 11

Candidate Starts for Tairn4Wing_76:

(Start: 10 @49753 has 2 MA's), (Start: 11 @49765 has 56 MA's), (22, 49813), (31, 49888), (33, 49918), (37, 49951), (46, 49987), (62, 50122), (66, 50149),

Gene: Talon44_76 Start: 50395, Stop: 50793, Start Num: 11

Candidate Starts for Talon44_76:

(Start: 10 @50383 has 2 MA's), (Start: 11 @50395 has 56 MA's), (22, 50443), (31, 50518), (33, 50548), (37, 50581), (46, 50617), (62, 50752), (66, 50779),

Gene: Tanis_72 Start: 49453, Stop: 49851, Start Num: 11

Candidate Starts for Tanis_72:

(Start: 10 @49441 has 2 MA's), (Start: 11 @49453 has 56 MA's), (22, 49501), (31, 49576), (33, 49606), (37, 49639), (46, 49675), (62, 49810), (66, 49837),

Gene: TenaciousP_71 Start: 51064, Stop: 51492, Start Num: 11

Candidate Starts for TenaciousP_71:

(Start: 11 @51064 has 56 MA's), (28, 51157), (39, 51292), (47, 51328), (62, 51451), (66, 51478),

Gene: Tonaltzin_74 Start: 49634, Stop: 50062, Start Num: 11

Candidate Starts for Tonaltzin_74:

(Start: 11 @49634 has 56 MA's), (28, 49727), (39, 49862), (47, 49898), (62, 50021), (66, 50048),

Gene: Tribby_74 Start: 44517, Stop: 44843, Start Num: 25

Candidate Starts for Tribby_74:

(Start: 25 @44517 has 21 MA's), (43, 44685),

Gene: Trufflozitus_75 Start: 50280, Stop: 50678, Start Num: 11

Candidate Starts for Trufflozitus_75:

(Start: 10 @50268 has 2 MA's), (Start: 11 @50280 has 56 MA's), (22, 50328), (Start: 26 @50331 has 1 MA's), (31, 50403), (33, 50433), (37, 50466), (46, 50502), (62, 50637), (66, 50664),

Gene: Untouchable_73 Start: 50650, Stop: 51075, Start Num: 11

Candidate Starts for Untouchable_73:

(Start: 11 @50650 has 56 MA's), (28, 50740), (39, 50875), (46, 50899), (47, 50911), (52, 50938), (66, 51061),

Gene: Vardy_70 Start: 49352, Stop: 49777, Start Num: 11

Candidate Starts for Vardy_70:

(Start: 11 @49352 has 56 MA's), (16, 49385), (28, 49442), (39, 49577), (46, 49601), (47, 49613), (66, 49763),

Gene: Xenomorph_67 Start: 44001, Stop: 44369, Start Num: 25

Candidate Starts for Xenomorph_67:

(Start: 25 @44001 has 21 MA's), (43, 44169), (64, 44307), (65, 44319),

Gene: YoshiYama_72 Start: 44577, Stop: 44945, Start Num: 25

Candidate Starts for YoshiYama_72:

(Start: 25 @44577 has 21 MA's), (43, 44745), (50, 44778), (56, 44844), (64, 44883),

Gene: Zeph_73 Start: 50490, Stop: 50915, Start Num: 11

Candidate Starts for Zeph_73:

(Start: 11 @50490 has 56 MA's), (28, 50580), (39, 50715), (46, 50739), (47, 50751), (52, 50778), (66, 50901),