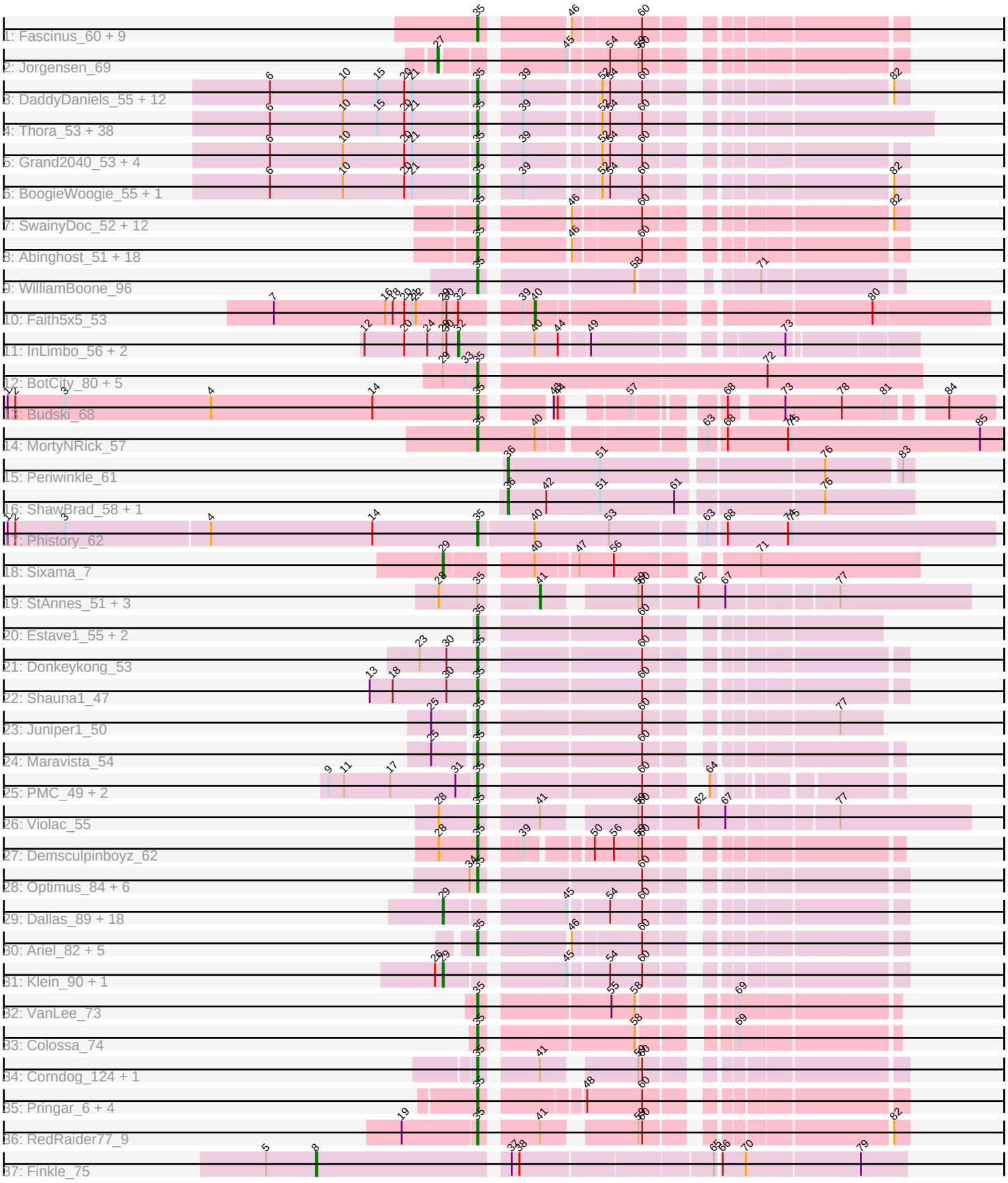
Pham 347295


1: Fascinus_60 + 9
2: Jorgensen_69
3: DaddyDaniels_55 + 12
4: Thora_53 + 38
5: Grand2040_53 + 4
6: BoogieWoogie_55 + 1
7: SwainyDoc_52 + 12
8: Abinghost_51 + 18
9: WilliamBoone_96
10: Faith5x5_53
11: InLimbo_56 + 2
12: BotCity_80 + 5
13: Budski_68
14: MortyNRick_57
15: Periwinkle_61
16: ShawBrad_58 + 1
17: Phistory_62
18: Sixama_7
19: StAnnes_51 + 3
20: Estave1_55 + 2
21: Donkeykong_53
22: Shauna1_47
23: Juniper1_50
24: Maravista_54
25: PMC_49 + 2
26: Violac_55
27: Demsculpinboyz_62
28: Optimus_84 + 6
29: Dallas_89 + 18
30: Ariel_82 + 5
31: Klein_90 + 1
32: VanLee_73
33: Colossa_74
34: Corndog_124 + 1
35: Pringar_6 + 4
36: RedRaider77_9
37: Finkle_75

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 347295 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347295 has 181 members, 6 are drafts.

Phages represented in each track:
• Track 1 : Fascinus_60, Blue_65, Makemake_71, Raid_64, CactusRose_66, Maroc7_64, Graduation_70, Paraselene_66, Bigfoot_58, Carlyle_66
• Track 2 : Jorgensen_69
• Track 3 : DaddyDaniels_55, HighStump_55, Childish_53, Soile_54, HenryJackson_53, Brilliant_55, Iridessa_54, Kahve_53, Longacauda_54, Craff_56, Legolas_55, Nicole21_54, Orwigg_53
• Track 4 : Thora_53, Lasso_53, Squid_53, Daffy_53, Haleema_52, Fozzie_52, CamL_53, Morgushi_53, Mosaic_52, Samaymay_53, QueenBeane_53, Sophia_52, Mana_52, Solosis_52, Timmi_52, LeeLot_53, MitKao_53, Puhltonio_53, Maru_53, Serendipity_53, Xavier_52, Rimu_54, MrPhizzler_55, Cosmolli16_54, SassyCat97_52, TomBombadil_53, TallGrassMM_53, Khan1_53, Potter_52, Held_53, Vortex_53, Hertubise_53, Surely_53, Chorkpop_53, Banjo_52, Oosterbaan_53, Zelda_53, Cannibal_53, Kwadwo_52
• Track 5 : Grand2040_53, LeiMonet_55, Mesh1_54, Giraffe_54, Lumine_54
• Track 6 : BoogieWoogie_55, Fringe_57
• Track 7 : SwainyDoc_52, Chentzyk_52, Kronus_51, Obutu_52, Phayeta_53, Mortcellus_51, Casbah_51, Ben11_51, Gervas_52, Rita1961_52, Mulaychimus_52, TinyTerror_52, MmasiCarm_52
• Track 8 : Abinghost_51, Audrey_51, Glubnar_52, Halfpint_50, Nozo_51, Daisy_51, Athena_52, Neos5_51, Kamiyu_51, ChaChing_51, OrangeOswald_51, Akoma_51, Philly_50, Baloo_51, SynergyX_51, Corofin_51, Phlyer_51, GlenHope_52, Chandler_51
• Track 9 : WilliamBoone_96
• Track 10 : Faith5x5_53
• Track 11 : InLimbo_56, Morkie_59, PhorbesPhlower_55
• Track 12 : BotCity_80, Asapag_74, Ecliptus_80, BENtherdunthat_78, Birdsong_73, Frickyeah_80
• Track 13 : Budski_68
• Track 14 : MortyNRick_57
• Track 15 : Periwinkle_61
• Track 16 : ShawBrad_58, ODay_59
• Track 17 : Phistory_62
• Track 18 : Sixama_7
• Track 19 : StAnnes_51, Medindi_50, Filuzino_50, IMpilo_49
• Track 20 : Estave1_55, Eish_57, DoRead_54
• Track 21 : Donkeykong_53
• Track 22 : Shauna1_47

• Track 23 : Juniper1_50
• Track 24 : Maravista_54
• Track 25 : PMC_49, Rockne_53, Boomer_57
• Track 26 : Violac_55
• Track 27 : Demsculpinboyz_62
• Track 28 : Optimus_84, BAKA_91, Mova_66, EricMillard_83, Minerva_89, MadMen_50, Madiba_63
• Track 29 : Dallas_89, Halley_91, Bombitas_78, Dove_75, Zelink_87, JuicyJay_87, DmpstrDiver_90, Odette_88, Schatzie_85, ThreeRngTarjay_87, Constella_75, Hughesyang_90, Beem_90, HokkenD_79, Phoebus_92, Kalah2_84, Yeet_83, Bagrid_89, NihilNomen_91
• Track 30 : Ariel_82, Squint_83, Lucky2013_80, Porcelain_82, Courthouse_78, MiaZeal_83
• Track 31 : Klein_90, Wanda_94
• Track 32 : VanLee_73
• Track 33 : Colossa_74
• Track 34 : Corndog_124, Smooch_99
• Track 35 : Pringar_6, Lilbit_7, VasuNzinga_8, Clarkson_7, Beelzebub_8
• Track 36 : RedRaider77_9
• Track 37 : Finkle_75

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

The start number called the most often in the published annotations is 35, it was called in 145 of the 175 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abinghost_51, Akoma_51, Ariel_82, Asapag_74, Athena_52, Audrey_51, BAKA_91, BENtherdunthat_78, Baloo_51, Banjo_52, Beelzebub_8, Ben11_51, Bigfoot_58, Birdsong_73, Blue_65, BoogieWoogie_55, Boomer_57, BotCity_80, Brilliant_55, Budski_68, CactusRose_66, CamL_53, Cannibal_53, Carlyle_66, Casbah_51, ChaChing_51, Chandler_51, Chentzyk_52, Childish_53, Chorkpop_53, Clarkson_7, Colossa_74, Corndog_124, Corofin_51, Cosmolli16_54, Courthouse_78, Craff_56, DaddyDaniels_55, Daffy_53, Daisy_51, Demsculpinboyz_62, DoRead_54, Donkeykong_53, Ecliptus_80, Eish_57, EricMillard_83, Estave1_55, Fascinus_60, Fozzie_52, Frickyeah_80, Fringe_57, Gervas_52, Giraffe_54, GlenHope_52, Glubnar_52, Graduation_70, Grand2040_53, Haleema_52, Halfpint_50, Held_53, HenryJackson_53, Hertubise_53, HighStump_55, Iridessa_54, Juniper1_50, Kahve_53, Kamiyu_51, Khan1_53, Kronus_51, Kwadwo_52, Lasso_53, LeeLot_53, Legolas_55, LeiMonet_55, Lilbit_7, Longacauda_54, Lucky2013_80, Lumine_54, MadMen_50, Madiba_63, Makemake_71, Mana_52, Maravista_54, Maroc7_64, Maru_53, Mesh1_54, MiaZeal_83, Minerva_89, MitKao_53, MmasiCarm_52, Morgushi_53, Mortcellus_51, MortyNRick_57, Mosaic_52, Mova_66, MrPhizzler_55, Mulaychimus_52, Neos5_51, Nicole21_54, Nozo_51, Obutu_52, Oosterbaan_53, Optimus_84, OrangeOswald_51, Orwigg_53, PMC_49, Paraselene_66, Phayeta_53, Philly_50, Phistory_62, Phlyer_51, Porcelain_82, Potter_52, Pringar_6, Puhltonio_53, QueenBeane_53, Raid_64, RedRaider77_9, Rimu_54, Rita1961_52, Rockne_53, Samaymay_53, SassyCat97_52, Serendipity_53, Shauna1_47, Smooch_99, Soile_54, Solosis_52, Sophia_52, Squid_53, Squint_83, Surely_53, SwainyDoc_52, SynergyX_51, TallGrassMM_53, Thora_53, Timmi_52, TinyTerror_52,

TomBombadil_53, VanLee_73, VasuNzinga_8, Violac_55, Vortex_53, WilliamBoone_96, Xavier_52, Zelda_53,

Genes that have the "Most Annotated" start but do not call it:
• Filuzino_50, IMpilo_49, Medindi_50, StAnnes_51,

Genes that do not have the "Most Annotated" start:
• Bagrid_89, Beem_90, Bombitas_78, Constella_75, Dallas_89, DmpstrDiver_90, Dove_75, Faith5x5_53, Finkle_75, Halley_91, HokkenD_79, Hughesyang_90, InLimbo_56, Jorgensen_69, JuicyJay_87, Kalah2_84, Klein_90, Morkie_59, NihilNomen_91, ODay_59, Odette_88, Periwinkle_61, Phoebus_92, PhorbesPhlower_55, Schatzie_85, ShawBrad_58, Sixama_7, ThreeRngTarjay_87, Wanda_94, Yeet_83, Zelink_87,

Summary by start number:

Start 8:
• Found in 1 of 181 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 175
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finkle_75 (singleton),

Start 27:
• Found in 1 of 181 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 175
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jorgensen_69 (A1),

Start 29:
• Found in 32 of 181 (17.7%) of genes in pham
• Manual Annotations of this start: 20 of 175
• Called 68.8% of time when present
• Phage (with cluster) where this start called: Bagrid_89 (J), Beem_90 (J), Bombitas_78 (J), Constella_75 (J), Dallas_89 (J), DmpstrDiver_90 (J), Dove_75 (J), Halley_91 (J), HokkenD_79 (J), Hughesyang_90 (J), JuicyJay_87 (J), Kalah2_84 (J), Klein_90 (J), NihilNomen_91 (J), Odette_88 (J), Phoebus_92 (J), Schatzie_85 (J), Sixama_7 (DS), ThreeRngTarjay_87 (J), Wanda_94 (J), Yeet_83 (J), Zelink_87 (J),

Start 32:
• Found in 4 of 181 (2.2%) of genes in pham
• Manual Annotations of this start: 2 of 175
• Called 75.0% of time when present
• Phage (with cluster) where this start called: InLimbo_56 (DH), Morkie_59 (DH), PhorbesPhlower_55 (DH),

Start 35:
• Found in 150 of 181 (82.9%) of genes in pham
• Manual Annotations of this start: 145 of 175
• Called 97.3% of time when present
• Phage (with cluster) where this start called: Abinghost_51 (B3), Akoma_51 (B3), Ariel_82 (J), Asapag_74 (DN1), Athena_52 (B3), Audrey_51 (B3), BAKA_91 (J), BENtherdunthat_78 (DN1), Baloo_51 (B3), Banjo_52 (B1), Beelzebub_8 (S), Ben11_51 (B3), Bigfoot_58 (A1), Birdsong_73 (DN), Blue_65 (A1), BoogieWoogie_55

(B1), Boomer_57 (F1), BotCity_80 (DN), Brilliant_55 (B1), Budski_68 (DN), CactusRose_66 (A1), CamL_53 (B1), Cannibal_53 (B1), Carlyle_66 (A1), Casbah_51 (B3), ChaChing_51 (B3), Chandler_51 (B3), Chentzyk_52 (B3), Childish_53 (B1), Chorkpop_53 (B1), Clarkson_7 (S), Colossa_74 (KA), Corndog_124 (O), Corofin_51 (B3), Cosmolli16_54 (B1), Courthouse_78 (J), Craff_56 (B1), DaddyDaniels_55 (B1), Daffy_53 (B1), Daisy_51 (B3), Demsculpinboyz_62 (F2), DoRead_54 (F1), Donkeykong_53 (F1), Ecliptus_80 (DN), Eish_57 (F1), EricMillard_83 (J), Estave1_55 (F1), Fascinus_60 (A1), Fozzie_52 (B1), Frickyeah_80 (DN1), Fringe_57 (B1), Gervas_52 (B3), Giraffe_54 (B1), GlenHope_52 (B3), Glubnar_52 (B3), Graduation_70 (A1), Grand2040_53 (B1), Haleema_52 (B1), Halfpint_50 (B3), Held_53 (B1), HenryJackson_53 (B1), Hertubise_53 (B1), HighStump_55 (B1), Iridessa_54 (B1), Juniper1_50 (F1), Kahve_53 (B1), Kamiyu_51 (B3), Khan1_53 (B1), Kronus_51 (B3), Kwadwo_52 (B1), Lasso_53 (B1), LeeLot_53 (B1), Legolas_55 (B1), LeiMonet_55 (B1), Lilbit_7 (S), Longacauda_54 (B1), Lucky2013_80 (J), Lumine_54 (B1), MadMen_50 (F1), Madiba_63 (F1), Makemake_71 (A1), Mana_52 (B1), Maravista_54 (F1), Maroc7_64 (A1), Maru_53 (B1), Mesh1_54 (B1), MiaZeal_83 (J), Minerva_89 (J), MitKao_53 (B1), MmasiCarm_52 (B3), Morgushi_53 (B1), Mortcellus_51 (B3), MortyNRick_57 (DN), Mosaic_52 (B1), Mova_66 (F1), MrPhizzler_55 (B1), Mulaychimus_52 (B3), Neos5_51 (B3), Nicole21_54 (B1), Nozo_51 (B3), Obutu_52 (B3), Oosterbaan_53 (B1), Optimus_84 (J), OrangeOswald_51 (B3), Orwigg_53 (B1), PMC_49 (F1), Paraselene_66 (A1), Phayeta_53 (B3), Philly_50 (B3), Phistory_62 (DN1), Phlyer_51 (B3), Porcelain_82 (J), Potter_52 (B1), Pringar_6 (S), Puhltonio_53 (B1), QueenBeane_53 (B1), Raid_64 (A1), RedRaider77_9 (S), Rimu_54 (B1), Rita1961_52 (B3), Rockne_53 (F1), Samaymay_53 (B1), SassyCat97_52 (B1), Serendipity_53 (B1), Shauna1_47 (F1), Smooch_99 (O), Soile_54 (B1), Solosis_52 (B1), Sophia_52 (B1), Squid_53 (B1), Squint_83 (J), Surely_53 (B1), SwainyDoc_52 (B3), SynergyX_51 (B3), TallGrassMM_53 (B1), Thora_53 (B1), Timmi_52 (B1), TinyTerror_52 (B3), TomBombadil_53 (B1), VanLee_73 (KA), VasuNzinga_8 (S), Violac_55 (F1), Vortex_53 (B1), WilliamBoone_96 (CQ1), Xavier_52 (B1), Zelda_53 (B1),

Start 36:
• Found in 3 of 181 (1.7%) of genes in pham
• Manual Annotations of this start: 3 of 175
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ODay_59 (DN), Periwinkle_61 (DN1), ShawBrad_58 (DN1),

Start 40:
• Found in 7 of 181 (3.9%) of genes in pham
• Manual Annotations of this start: 1 of 175
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Faith5x5_53 (CZ6),

Start 41:
• Found in 8 of 181 (4.4%) of genes in pham
• Manual Annotations of this start: 2 of 175
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Filuzino_50 (F1), IMpilo_49 (F1), Medindi_50 (F1), StAnnes_51 (F1),

Summary by clusters:

There are 16 clusters represented in this pham: DN, F1, singleton, DH, J, CZ6, F2, O, DS, A1, S, DN1, B1, B3, CQ1, KA,

Info for manual annotations of cluster A1:
•Start number 27 was manually annotated 1 time for cluster A1.
•Start number 35 was manually annotated 10 times for cluster A1.

Info for manual annotations of cluster B1:
•Start number 35 was manually annotated 59 times for cluster B1.

Info for manual annotations of cluster B3:
•Start number 35 was manually annotated 32 times for cluster B3.

Info for manual annotations of cluster CQ1:
•Start number 35 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CZ6:
•Start number 40 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DH:
•Start number 32 was manually annotated 2 times for cluster DH.

Info for manual annotations of cluster DN:
•Start number 35 was manually annotated 5 times for cluster DN.
•Start number 36 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 35 was manually annotated 3 times for cluster DN1.
•Start number 36 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DS:
•Start number 29 was manually annotated 1 time for cluster DS.

Info for manual annotations of cluster F1:
•Start number 35 was manually annotated 14 times for cluster F1.
•Start number 41 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 35 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:
•Start number 29 was manually annotated 19 times for cluster J.
•Start number 35 was manually annotated 10 times for cluster J.

Info for manual annotations of cluster KA:
•Start number 35 was manually annotated 2 times for cluster KA.

Info for manual annotations of cluster O:
•Start number 35 was manually annotated 2 times for cluster O.

Info for manual annotations of cluster S:
•Start number 35 was manually annotated 6 times for cluster S.

Gene Information:

Gene: Abinghost_51 Start: 45404, Stop: 45135, Start Num: 35
Candidate Starts for Abinghost_51:
(Start: 35 @45404 has 145 MA's), (46, 45350), (60, 45302),

Gene: Akoma_51 Start: 45415, Stop: 45146, Start Num: 35
Candidate Starts for Akoma_51:
(Start: 35 @45415 has 145 MA's), (46, 45361), (60, 45313),

Gene: Ariel_82 Start: 49253, Stop: 48984, Start Num: 35
Candidate Starts for Ariel_82:
(Start: 35 @49253 has 145 MA's), (46, 49199), (60, 49151),

Gene: Asapag_74 Start: 43606, Stop: 43938, Start Num: 35
Candidate Starts for Asapag_74:
(Start: 29 @43579 has 20 MA's), (33, 43597), (Start: 35 @43606 has 145 MA's), (72, 43819),

Gene: Athena_52 Start: 46162, Stop: 45893, Start Num: 35
Candidate Starts for Athena_52:
(Start: 35 @46162 has 145 MA's), (46, 46108), (60, 46060),

Gene: Audrey_51 Start: 45410, Stop: 45141, Start Num: 35
Candidate Starts for Audrey_51:
(Start: 35 @45410 has 145 MA's), (46, 45356), (60, 45308),

Gene: BAKA_91 Start: 56921, Stop: 57199, Start Num: 35
Candidate Starts for BAKA_91:
(34, 56915), (Start: 35 @56921 has 145 MA's), (60, 57032),

Gene: BENtherdunthat_78 Start: 44652, Stop: 44984, Start Num: 35
Candidate Starts for BENtherdunthat_78:
(Start: 29 @44625 has 20 MA's), (33, 44643), (Start: 35 @44652 has 145 MA's), (72, 44865),

Gene: Bagrid_89 Start: 55770, Stop: 56066, Start Num: 29
Candidate Starts for Bagrid_89:
(Start: 29 @55770 has 20 MA's), (45, 55848), (54, 55875), (60, 55899),

Gene: Baloo_51 Start: 45413, Stop: 45144, Start Num: 35
Candidate Starts for Baloo_51:
(Start: 35 @45413 has 145 MA's), (46, 45359), (60, 45311),

Gene: Banjo_52 Start: 47062, Stop: 46769, Start Num: 35
Candidate Starts for Banjo_52:
(6, 47221), (10, 47164), (15, 47137), (20, 47116), (21, 47110), (Start: 35 @47062 has 145 MA's), (39, 47038), (52, 46990), (54, 46984), (60, 46960),

Gene: Beelzebub_8 Start: 2535, Stop: 2807, Start Num: 35
Candidate Starts for Beelzebub_8:
(Start: 35 @2535 has 145 MA's), (48, 2598), (60, 2640),

Gene: Beem_90 Start: 56631, Stop: 56927, Start Num: 29
Candidate Starts for Beem_90:
(Start: 29 @56631 has 20 MA's), (45, 56709), (54, 56736), (60, 56760),

Gene: Ben11_51 Start: 45695, Stop: 45426, Start Num: 35
Candidate Starts for Ben11_51:
(Start: 35 @45695 has 145 MA's), (46, 45641), (60, 45593), (82, 45437),

Gene: Bigfoot_58 Start: 41545, Stop: 41276, Start Num: 35
Candidate Starts for Bigfoot_58:
(Start: 35 @41545 has 145 MA's), (46, 41491), (60, 41443),

Gene: Birdsong_73 Start: 43342, Stop: 43674, Start Num: 35
Candidate Starts for Birdsong_73:
(Start: 29 @43315 has 20 MA's), (33, 43333), (Start: 35 @43342 has 145 MA's), (72, 43555),

Gene: Blue_65 Start: 43245, Stop: 42976, Start Num: 35
Candidate Starts for Blue_65:
(Start: 35 @43245 has 145 MA's), (46, 43191), (60, 43143),

Gene: Bombitas_78 Start: 53794, Stop: 54090, Start Num: 29
Candidate Starts for Bombitas_78:
(Start: 29 @53794 has 20 MA's), (45, 53872), (54, 53899), (60, 53923),

Gene: BoogieWoogie_55 Start: 47637, Stop: 47368, Start Num: 35
Candidate Starts for BoogieWoogie_55:
(6, 47796), (10, 47739), (20, 47691), (21, 47685), (Start: 35 @47637 has 145 MA's), (39, 47613), (52, 47565), (54, 47559), (60, 47535), (82, 47379),

Gene: Boomer_57 Start: 38978, Stop: 39235, Start Num: 35
Candidate Starts for Boomer_57:
(9, 38864), (11, 38876), (17, 38912), (31, 38963), (Start: 35 @38978 has 145 MA's), (60, 39089), (64, 39119),

Gene: BotCity_80 Start: 46160, Stop: 46492, Start Num: 35
Candidate Starts for BotCity_80:
(Start: 29 @46133 has 20 MA's), (33, 46151), (Start: 35 @46160 has 145 MA's), (72, 46373),

Gene: Brilliant_55 Start: 47604, Stop: 47335, Start Num: 35
Candidate Starts for Brilliant_55:
(6, 47763), (10, 47706), (15, 47679), (20, 47658), (21, 47652), (Start: 35 @47604 has 145 MA's), (39, 47580), (52, 47532), (54, 47526), (60, 47502), (82, 47346),

Gene: Budski_68 Start: 41006, Stop: 41320, Start Num: 35
Candidate Starts for Budski_68:
(1, 40640), (2, 40646), (3, 40685), (4, 40799), (14, 40925), (Start: 35 @41006 has 145 MA's), (43, 41048), (44, 41051), (57, 41087), (68, 41138), (73, 41174), (78, 41216), (81, 41249), (84, 41285),

Gene: CactusRose_66 Start: 42565, Stop: 42296, Start Num: 35
Candidate Starts for CactusRose_66:
(Start: 35 @42565 has 145 MA's), (46, 42511), (60, 42463),

Gene: CamL_53 Start: 47369, Stop: 47076, Start Num: 35

Candidate Starts for CamL_53:
(6, 47528), (10, 47471), (15, 47444), (20, 47423), (21, 47417), (Start: 35 @47369 has 145 MA's), (39, 47345), (52, 47297), (54, 47291), (60, 47267),

Gene: Cannibal_53 Start: 47352, Stop: 47059, Start Num: 35
Candidate Starts for Cannibal_53:
(6, 47511), (10, 47454), (15, 47427), (20, 47406), (21, 47400), (Start: 35 @47352 has 145 MA's), (39, 47328), (52, 47280), (54, 47274), (60, 47250),

Gene: Carlyle_66 Start: 41351, Stop: 41082, Start Num: 35
Candidate Starts for Carlyle_66:
(Start: 35 @41351 has 145 MA's), (46, 41297), (60, 41249),

Gene: Casbah_51 Start: 45725, Stop: 45456, Start Num: 35
Candidate Starts for Casbah_51:
(Start: 35 @45725 has 145 MA's), (46, 45671), (60, 45623), (82, 45467),

Gene: ChaChing_51 Start: 45427, Stop: 45158, Start Num: 35
Candidate Starts for ChaChing_51:
(Start: 35 @45427 has 145 MA's), (46, 45373), (60, 45325),

Gene: Chandler_51 Start: 46194, Stop: 45925, Start Num: 35
Candidate Starts for Chandler_51:
(Start: 35 @46194 has 145 MA's), (46, 46140), (60, 46092),

Gene: Chentzyk_52 Start: 46237, Stop: 45968, Start Num: 35
Candidate Starts for Chentzyk_52:
(Start: 35 @46237 has 145 MA's), (46, 46183), (60, 46135), (82, 45979),

Gene: Childish_53 Start: 47631, Stop: 47362, Start Num: 35
Candidate Starts for Childish_53:
(6, 47790), (10, 47733), (15, 47706), (20, 47685), (21, 47679), (Start: 35 @47631 has 145 MA's), (39, 47607), (52, 47559), (54, 47553), (60, 47529), (82, 47373),

Gene: Chorkpop_53 Start: 47108, Stop: 46815, Start Num: 35
Candidate Starts for Chorkpop_53:
(6, 47267), (10, 47210), (15, 47183), (20, 47162), (21, 47156), (Start: 35 @47108 has 145 MA's), (39, 47084), (52, 47036), (54, 47030), (60, 47006),

Gene: Clarkson_7 Start: 2311, Stop: 2583, Start Num: 35
Candidate Starts for Clarkson_7:
(Start: 35 @2311 has 145 MA's), (48, 2374), (60, 2416),

Gene: Colossa_74 Start: 44073, Stop: 44345, Start Num: 35
Candidate Starts for Colossa_74:
(Start: 35 @44073 has 145 MA's), (58, 44178), (69, 44232),

Gene: Constella_75 Start: 50768, Stop: 51064, Start Num: 29
Candidate Starts for Constella_75:
(Start: 29 @50768 has 20 MA's), (45, 50846), (54, 50873), (60, 50897),

Gene: Corndog_124 Start: 60770, Stop: 60504, Start Num: 35
Candidate Starts for Corndog_124:

(Start: 35 @60770 has 145 MA's), (Start: 41 @60734 has 2 MA's), (59, 60674), (60, 60671),

Gene: Corofin_51 Start: 45437, Stop: 45168, Start Num: 35
Candidate Starts for Corofin_51:
(Start: 35 @45437 has 145 MA's), (46, 45383), (60, 45335),

Gene: Cosmolli16_54 Start: 47811, Stop: 47542, Start Num: 35
Candidate Starts for Cosmolli16_54:
(6, 47970), (10, 47913), (15, 47886), (20, 47865), (21, 47859), (Start: 35 @47811 has 145 MA's), (39, 47787), (52, 47739), (54, 47733), (60, 47709),

Gene: Courthouse_78 Start: 48853, Stop: 48584, Start Num: 35
Candidate Starts for Courthouse_78:
(Start: 35 @48853 has 145 MA's), (46, 48799), (60, 48751),

Gene: Craff_56 Start: 48056, Stop: 47787, Start Num: 35
Candidate Starts for Craff_56:
(6, 48215), (10, 48158), (15, 48131), (20, 48110), (21, 48104), (Start: 35 @48056 has 145 MA's), (39, 48032), (52, 47984), (54, 47978), (60, 47954), (82, 47798),

Gene: DaddyDaniels_55 Start: 47588, Stop: 47319, Start Num: 35
Candidate Starts for DaddyDaniels_55:
(6, 47747), (10, 47690), (15, 47663), (20, 47642), (21, 47636), (Start: 35 @47588 has 145 MA's), (39, 47564), (52, 47516), (54, 47510), (60, 47486), (82, 47330),

Gene: Daffy_53 Start: 47094, Stop: 46801, Start Num: 35
Candidate Starts for Daffy_53:
(6, 47253), (10, 47196), (15, 47169), (20, 47148), (21, 47142), (Start: 35 @47094 has 145 MA's), (39, 47070), (52, 47022), (54, 47016), (60, 46992),

Gene: Daisy_51 Start: 45439, Stop: 45170, Start Num: 35
Candidate Starts for Daisy_51:
(Start: 35 @45439 has 145 MA's), (46, 45385), (60, 45337),

Gene: Dallas_89 Start: 55552, Stop: 55848, Start Num: 29
Candidate Starts for Dallas_89:
(Start: 29 @55552 has 20 MA's), (45, 55630), (54, 55657), (60, 55681),

Gene: Demsculpinboyz_62 Start: 36874, Stop: 37140, Start Num: 35
Candidate Starts for Demsculpinboyz_62:
(28, 36844), (Start: 35 @36874 has 145 MA's), (39, 36898), (50, 36940), (56, 36955), (59, 36973), (60, 36976),

Gene: DmpstrDiver_90 Start: 55966, Stop: 56262, Start Num: 29
Candidate Starts for DmpstrDiver_90:
(Start: 29 @55966 has 20 MA's), (45, 56044), (54, 56071), (60, 56095),

Gene: DoRead_54 Start: 36172, Stop: 36447, Start Num: 35
Candidate Starts for DoRead_54:
(Start: 35 @36172 has 145 MA's), (60, 36283),

Gene: Donkeykong_53 Start: 39067, Stop: 39345, Start Num: 35
Candidate Starts for Donkeykong_53:

(23, 39022), (30, 39043), (Start: 35 @39067 has 145 MA's), (60, 39178),

Gene: Dove_75 Start: 52060, Stop: 52356, Start Num: 29
Candidate Starts for Dove_75:
(Start: 29 @52060 has 20 MA's), (45, 52138), (54, 52165), (60, 52189),

Gene: Ecliptus_80 Start: 46255, Stop: 46587, Start Num: 35
Candidate Starts for Ecliptus_80:
(Start: 29 @46228 has 20 MA's), (33, 46246), (Start: 35 @46255 has 145 MA's), (72, 46468),

Gene: Eish_57 Start: 38353, Stop: 38628, Start Num: 35
Candidate Starts for Eish_57:
(Start: 35 @38353 has 145 MA's), (60, 38464),

Gene: EricMillard_83 Start: 55716, Stop: 55994, Start Num: 35
Candidate Starts for EricMillard_83:
(34, 55710), (Start: 35 @55716 has 145 MA's), (60, 55827),

Gene: Estave1_55 Start: 37717, Stop: 37980, Start Num: 35
Candidate Starts for Estave1_55:
(Start: 35 @37717 has 145 MA's), (60, 37828),

Gene: Faith5x5_53 Start: 34268, Stop: 34585, Start Num: 40
Candidate Starts for Faith5x5_53:
(7, 34076), (16, 34163), (18, 34169), (20, 34178), (21, 34184), (22, 34187), (Start: 29 @34208 has 20 MA's), (30, 34211), (Start: 32 @34220 has 2 MA's), (39, 34259), (Start: 40 @34268 has 1 MA's), (80, 34496),

Gene: Fascinus_60 Start: 42059, Stop: 41790, Start Num: 35
Candidate Starts for Fascinus_60:
(Start: 35 @42059 has 145 MA's), (46, 42005), (60, 41957),

Gene: Filuzino_50 Start: 36021, Stop: 36323, Start Num: 41
Candidate Starts for Filuzino_50:
(28, 35955), (Start: 35 @35985 has 145 MA's), (Start: 41 @36021 has 2 MA's), (59, 36081), (60, 36084), (62, 36123), (67, 36144), (77, 36222),

Gene: Finkle_75 Start: 44664, Stop: 45092, Start Num: 8
Candidate Starts for Finkle_75:
(5, 44625), (Start: 8 @44664 has 1 MA's), (37, 44805), (38, 44811), (65, 44952), (66, 44955), (70, 44973), (79, 45057),

Gene: Fozzie_52 Start: 47398, Stop: 47105, Start Num: 35
Candidate Starts for Fozzie_52:
(6, 47557), (10, 47500), (15, 47473), (20, 47452), (21, 47446), (Start: 35 @47398 has 145 MA's), (39, 47374), (52, 47326), (54, 47320), (60, 47296),

Gene: Frickyeah_80 Start: 44783, Stop: 45115, Start Num: 35
Candidate Starts for Frickyeah_80:
(Start: 29 @44756 has 20 MA's), (33, 44774), (Start: 35 @44783 has 145 MA's), (72, 44996),

Gene: Fringe_57 Start: 48533, Stop: 48264, Start Num: 35
Candidate Starts for Fringe_57:

(6, 48692), (10, 48635), (20, 48587), (21, 48581), (Start: 35 @48533 has 145 MA's), (39, 48509), (52, 48461), (54, 48455), (60, 48431), (82, 48275),

Gene: Gervas_52 Start: 45854, Stop: 45585, Start Num: 35
Candidate Starts for Gervas_52:
(Start: 35 @45854 has 145 MA's), (46, 45800), (60, 45752), (82, 45596),

Gene: Giraffe_54 Start: 47592, Stop: 47323, Start Num: 35
Candidate Starts for Giraffe_54:
(6, 47751), (10, 47694), (20, 47646), (21, 47640), (Start: 35 @47592 has 145 MA's), (39, 47568), (52, 47520), (54, 47514), (60, 47490),

Gene: GlenHope_52 Start: 45405, Stop: 45136, Start Num: 35
Candidate Starts for GlenHope_52:
(Start: 35 @45405 has 145 MA's), (46, 45351), (60, 45303),

Gene: Glubnar_52 Start: 45405, Stop: 45136, Start Num: 35
Candidate Starts for Glubnar_52:
(Start: 35 @45405 has 145 MA's), (46, 45351), (60, 45303),

Gene: Graduation_70 Start: 43891, Stop: 43622, Start Num: 35
Candidate Starts for Graduation_70:
(Start: 35 @43891 has 145 MA's), (46, 43837), (60, 43789),

Gene: Grand2040_53 Start: 47586, Stop: 47317, Start Num: 35
Candidate Starts for Grand2040_53:
(6, 47745), (10, 47688), (20, 47640), (21, 47634), (Start: 35 @47586 has 145 MA's), (39, 47562), (52, 47514), (54, 47508), (60, 47484),

Gene: Haleema_52 Start: 47090, Stop: 46797, Start Num: 35
Candidate Starts for Haleema_52:
(6, 47249), (10, 47192), (15, 47165), (20, 47144), (21, 47138), (Start: 35 @47090 has 145 MA's), (39, 47066), (52, 47018), (54, 47012), (60, 46988),

Gene: Halfpint_50 Start: 45230, Stop: 44961, Start Num: 35
Candidate Starts for Halfpint_50:
(Start: 35 @45230 has 145 MA's), (46, 45176), (60, 45128),

Gene: Halley_91 Start: 56631, Stop: 56927, Start Num: 29
Candidate Starts for Halley_91:
(Start: 29 @56631 has 20 MA's), (45, 56709), (54, 56736), (60, 56760),

Gene: Held_53 Start: 47095, Stop: 46802, Start Num: 35
Candidate Starts for Held_53:
(6, 47254), (10, 47197), (15, 47170), (20, 47149), (21, 47143), (Start: 35 @47095 has 145 MA's), (39, 47071), (52, 47023), (54, 47017), (60, 46993),

Gene: HenryJackson_53 Start: 47620, Stop: 47351, Start Num: 35
Candidate Starts for HenryJackson_53:
(6, 47779), (10, 47722), (15, 47695), (20, 47674), (21, 47668), (Start: 35 @47620 has 145 MA's), (39, 47596), (52, 47548), (54, 47542), (60, 47518), (82, 47362),

Gene: Hertubise_53 Start: 47387, Stop: 47094, Start Num: 35

Candidate Starts for Hertubise_53:
(6, 47546), (10, 47489), (15, 47462), (20, 47441), (21, 47435), (Start: 35 @47387 has 145 MA's), (39, 47363), (52, 47315), (54, 47309), (60, 47285),

Gene: HighStump_55 Start: 48156, Stop: 47887, Start Num: 35
Candidate Starts for HighStump_55:
(6, 48315), (10, 48258), (15, 48231), (20, 48210), (21, 48204), (Start: 35 @48156 has 145 MA's), (39, 48132), (52, 48084), (54, 48078), (60, 48054), (82, 47898),

Gene: HokkenD_79 Start: 54900, Stop: 55196, Start Num: 29
Candidate Starts for HokkenD_79:
(Start: 29 @54900 has 20 MA's), (45, 54978), (54, 55005), (60, 55029),

Gene: Hughesyang_90 Start: 56589, Stop: 56885, Start Num: 29
Candidate Starts for Hughesyang_90:
(Start: 29 @56589 has 20 MA's), (45, 56667), (54, 56694), (60, 56718),

Gene: IMpilo_49 Start: 35464, Stop: 35766, Start Num: 41
Candidate Starts for IMpilo_49:
(28, 35398), (Start: 35 @35428 has 145 MA's), (Start: 41 @35464 has 2 MA's), (59, 35524), (60, 35527), (62, 35566), (67, 35587), (77, 35665),

Gene: InLimbo_56 Start: 35600, Stop: 35902, Start Num: 32
Candidate Starts for InLimbo_56:
(12, 35528), (20, 35558), (24, 35576), (Start: 29 @35588 has 20 MA's), (30, 35591), (Start: 32 @35600 has 2 MA's), (Start: 40 @35648 has 1 MA's), (44, 35666), (49, 35687), (73, 35810),

Gene: Iridessa_54 Start: 47600, Stop: 47331, Start Num: 35
Candidate Starts for Iridessa_54:
(6, 47759), (10, 47702), (15, 47675), (20, 47654), (21, 47648), (Start: 35 @47600 has 145 MA's), (39, 47576), (52, 47528), (54, 47522), (60, 47498), (82, 47342),

Gene: Jorgensen_69 Start: 42799, Stop: 42503, Start Num: 27
Candidate Starts for Jorgensen_69:
(Start: 27 @42799 has 1 MA's), (45, 42721), (54, 42694), (59, 42673), (60, 42670),

Gene: JuicyJay_87 Start: 57765, Stop: 58061, Start Num: 29
Candidate Starts for JuicyJay_87:
(Start: 29 @57765 has 20 MA's), (45, 57843), (54, 57870), (60, 57894),

Gene: Juniper1_50 Start: 36588, Stop: 36851, Start Num: 35
Candidate Starts for Juniper1_50:
(25, 36558), (Start: 35 @36588 has 145 MA's), (60, 36699), (77, 36819),

Gene: Kahve_53 Start: 47617, Stop: 47348, Start Num: 35
Candidate Starts for Kahve_53:
(6, 47776), (10, 47719), (15, 47692), (20, 47671), (21, 47665), (Start: 35 @47617 has 145 MA's), (39, 47593), (52, 47545), (54, 47539), (60, 47515), (82, 47359),

Gene: Kalah2_84 Start: 55924, Stop: 56220, Start Num: 29
Candidate Starts for Kalah2_84:
(Start: 29 @55924 has 20 MA's), (45, 56002), (54, 56029), (60, 56053),

Gene: Kamiyu_51 Start: 45383, Stop: 45114, Start Num: 35
Candidate Starts for Kamiyu_51:
(Start: 35 @45383 has 145 MA's), (46, 45329), (60, 45281),

Gene: Khan1_53 Start: 47573, Stop: 47304, Start Num: 35
Candidate Starts for Khan1_53:
(6, 47732), (10, 47675), (15, 47648), (20, 47627), (21, 47621), (Start: 35 @47573 has 145 MA's), (39, 47549), (52, 47501), (54, 47495), (60, 47471),

Gene: Klein_90 Start: 55600, Stop: 55896, Start Num: 29
Candidate Starts for Klein_90:
(26, 55594), (Start: 29 @55600 has 20 MA's), (45, 55678), (54, 55705), (60, 55729),

Gene: Kronus_51 Start: 46457, Stop: 46188, Start Num: 35
Candidate Starts for Kronus_51:
(Start: 35 @46457 has 145 MA's), (46, 46403), (60, 46355), (82, 46199),

Gene: Kwadwo_52 Start: 47069, Stop: 46776, Start Num: 35
Candidate Starts for Kwadwo_52:
(6, 47228), (10, 47171), (15, 47144), (20, 47123), (21, 47117), (Start: 35 @47069 has 145 MA's), (39, 47045), (52, 46997), (54, 46991), (60, 46967),

Gene: Lasso_53 Start: 47344, Stop: 47051, Start Num: 35
Candidate Starts for Lasso_53:
(6, 47503), (10, 47446), (15, 47419), (20, 47398), (21, 47392), (Start: 35 @47344 has 145 MA's), (39, 47320), (52, 47272), (54, 47266), (60, 47242),

Gene: LeeLot_53 Start: 47396, Stop: 47103, Start Num: 35
Candidate Starts for LeeLot_53:
(6, 47555), (10, 47498), (15, 47471), (20, 47450), (21, 47444), (Start: 35 @47396 has 145 MA's), (39, 47372), (52, 47324), (54, 47318), (60, 47294),

Gene: Legolas_55 Start: 48053, Stop: 47784, Start Num: 35
Candidate Starts for Legolas_55:
(6, 48212), (10, 48155), (15, 48128), (20, 48107), (21, 48101), (Start: 35 @48053 has 145 MA's), (39, 48029), (52, 47981), (54, 47975), (60, 47951), (82, 47795),

Gene: LeiMonet_55 Start: 47572, Stop: 47303, Start Num: 35
Candidate Starts for LeiMonet_55:
(6, 47731), (10, 47674), (20, 47626), (21, 47620), (Start: 35 @47572 has 145 MA's), (39, 47548), (52, 47500), (54, 47494), (60, 47470),

Gene: Lilbit_7 Start: 2312, Stop: 2584, Start Num: 35
Candidate Starts for Lilbit_7:
(Start: 35 @2312 has 145 MA's), (48, 2375), (60, 2417),

Gene: Longacauda_54 Start: 48016, Stop: 47747, Start Num: 35
Candidate Starts for Longacauda_54:
(6, 48175), (10, 48118), (15, 48091), (20, 48070), (21, 48064), (Start: 35 @48016 has 145 MA's), (39, 47992), (52, 47944), (54, 47938), (60, 47914), (82, 47758),

Gene: Lucky2013_80 Start: 49269, Stop: 49000, Start Num: 35
Candidate Starts for Lucky2013_80:

(Start: 35 @49269 has 145 MA's), (46, 49215), (60, 49167),

Gene: Lumine_54 Start: 47804, Stop: 47535, Start Num: 35
Candidate Starts for Lumine_54:
(6, 47963), (10, 47906), (20, 47858), (21, 47852), (Start: 35 @47804 has 145 MA's), (39, 47780), (52, 47732), (54, 47726), (60, 47702),

Gene: MadMen_50 Start: 36869, Stop: 37144, Start Num: 35
Candidate Starts for MadMen_50:
(34, 36863), (Start: 35 @36869 has 145 MA's), (60, 36980),

Gene: Madiba_63 Start: 40537, Stop: 40815, Start Num: 35
Candidate Starts for Madiba_63:
(34, 40531), (Start: 35 @40537 has 145 MA's), (60, 40648),

Gene: Makemake_71 Start: 44586, Stop: 44317, Start Num: 35
Candidate Starts for Makemake_71:
(Start: 35 @44586 has 145 MA's), (46, 44532), (60, 44484),

Gene: Mana_52 Start: 47084, Stop: 46791, Start Num: 35
Candidate Starts for Mana_52:
(6, 47243), (10, 47186), (15, 47159), (20, 47138), (21, 47132), (Start: 35 @47084 has 145 MA's), (39, 47060), (52, 47012), (54, 47006), (60, 46982),

Gene: Maravista_54 Start: 38807, Stop: 39082, Start Num: 35
Candidate Starts for Maravista_54:
(25, 38777), (Start: 35 @38807 has 145 MA's), (60, 38918),

Gene: Maroc7_64 Start: 43049, Stop: 42780, Start Num: 35
Candidate Starts for Maroc7_64:
(Start: 35 @43049 has 145 MA's), (46, 42995), (60, 42947),

Gene: Maru_53 Start: 47523, Stop: 47254, Start Num: 35
Candidate Starts for Maru_53:
(6, 47682), (10, 47625), (15, 47598), (20, 47577), (21, 47571), (Start: 35 @47523 has 145 MA's), (39, 47499), (52, 47451), (54, 47445), (60, 47421),

Gene: Medindi_50 Start: 35302, Stop: 35604, Start Num: 41
Candidate Starts for Medindi_50:
(28, 35236), (Start: 35 @35266 has 145 MA's), (Start: 41 @35302 has 2 MA's), (59, 35362), (60, 35365), (62, 35404), (67, 35425), (77, 35503),

Gene: Mesh1_54 Start: 47616, Stop: 47323, Start Num: 35
Candidate Starts for Mesh1_54:
(6, 47775), (10, 47718), (20, 47670), (21, 47664), (Start: 35 @47616 has 145 MA's), (39, 47592), (52, 47544), (54, 47538), (60, 47514),

Gene: MiaZeal_83 Start: 49925, Stop: 49656, Start Num: 35
Candidate Starts for MiaZeal_83:
(Start: 35 @49925 has 145 MA's), (46, 49871), (60, 49823),

Gene: Minerva_89 Start: 56566, Stop: 56844, Start Num: 35
Candidate Starts for Minerva_89:

(34, 56560), (Start: 35 @56566 has 145 MA's), (60, 56677),

Gene: MitKao_53 Start: 47094, Stop: 46801, Start Num: 35
Candidate Starts for MitKao_53:
(6, 47253), (10, 47196), (15, 47169), (20, 47148), (21, 47142), (Start: 35 @47094 has 145 MA's), (39, 47070), (52, 47022), (54, 47016), (60, 46992),

Gene: MmasiCarm_52 Start: 45904, Stop: 45635, Start Num: 35
Candidate Starts for MmasiCarm_52:
(Start: 35 @45904 has 145 MA's), (46, 45850), (60, 45802), (82, 45646),

Gene: Morgushi_53 Start: 47083, Stop: 46790, Start Num: 35
Candidate Starts for Morgushi_53:
(6, 47242), (10, 47185), (15, 47158), (20, 47137), (21, 47131), (Start: 35 @47083 has 145 MA's), (39, 47059), (52, 47011), (54, 47005), (60, 46981),

Gene: Morkie_59 Start: 36074, Stop: 36376, Start Num: 32
Candidate Starts for Morkie_59:
(12, 36002), (20, 36032), (24, 36050), (Start: 29 @36062 has 20 MA's), (30, 36065), (Start: 32 @36074 has 2 MA's), (Start: 40 @36122 has 1 MA's), (44, 36140), (49, 36161), (73, 36284),

Gene: Mortcellus_51 Start: 46511, Stop: 46242, Start Num: 35
Candidate Starts for Mortcellus_51:
(Start: 35 @46511 has 145 MA's), (46, 46457), (60, 46409), (82, 46253),

Gene: MortyNRick_57 Start: 40191, Stop: 40568, Start Num: 35
Candidate Starts for MortyNRick_57:
(Start: 35 @40191 has 145 MA's), (Start: 40 @40236 has 1 MA's), (63, 40344), (68, 40356), (74, 40401), (75, 40404), (85, 40551),

Gene: Mosaic_52 Start: 47088, Stop: 46795, Start Num: 35
Candidate Starts for Mosaic_52:
(6, 47247), (10, 47190), (15, 47163), (20, 47142), (21, 47136), (Start: 35 @47088 has 145 MA's), (39, 47064), (52, 47016), (54, 47010), (60, 46986),

Gene: Mova_66 Start: 41041, Stop: 41319, Start Num: 35
Candidate Starts for Mova_66:
(34, 41035), (Start: 35 @41041 has 145 MA's), (60, 41152),

Gene: MrPhizzler_55 Start: 47550, Stop: 47281, Start Num: 35
Candidate Starts for MrPhizzler_55:
(6, 47709), (10, 47652), (15, 47625), (20, 47604), (21, 47598), (Start: 35 @47550 has 145 MA's), (39, 47526), (52, 47478), (54, 47472), (60, 47448),

Gene: Mulaychimus_52 Start: 45840, Stop: 45571, Start Num: 35
Candidate Starts for Mulaychimus_52:
(Start: 35 @45840 has 145 MA's), (46, 45786), (60, 45738), (82, 45582),

Gene: Neos5_51 Start: 46209, Stop: 45940, Start Num: 35
Candidate Starts for Neos5_51:
(Start: 35 @46209 has 145 MA's), (46, 46155), (60, 46107),

Gene: Nicole21_54 Start: 47889, Stop: 47620, Start Num: 35

Candidate Starts for Nicole21_54:
(6, 48048), (10, 47991), (15, 47964), (20, 47943), (21, 47937), (Start: 35 @47889 has 145 MA's), (39, 47865), (52, 47817), (54, 47811), (60, 47787), (82, 47631),

Gene: NihilNomen_91 Start: 56718, Stop: 57014, Start Num: 29
Candidate Starts for NihilNomen_91:
(Start: 29 @56718 has 20 MA's), (45, 56796), (54, 56823), (60, 56847),

Gene: Nozo_51 Start: 46173, Stop: 45904, Start Num: 35
Candidate Starts for Nozo_51:
(Start: 35 @46173 has 145 MA's), (46, 46119), (60, 46071),

Gene: ODay_59 Start: 38000, Stop: 38302, Start Num: 36
Candidate Starts for ODay_59:
(Start: 36 @38000 has 3 MA's), (42, 38030), (51, 38072), (61, 38129), (76, 38234),

Gene: Obutu_52 Start: 45859, Stop: 45590, Start Num: 35
Candidate Starts for Obutu_52:
(Start: 35 @45859 has 145 MA's), (46, 45805), (60, 45757), (82, 45601),

Gene: Odette_88 Start: 55760, Stop: 56056, Start Num: 29
Candidate Starts for Odette_88:
(Start: 29 @55760 has 20 MA's), (45, 55838), (54, 55865), (60, 55889),

Gene: Oosterbaan_53 Start: 47374, Stop: 47081, Start Num: 35
Candidate Starts for Oosterbaan_53:
(6, 47533), (10, 47476), (15, 47449), (20, 47428), (21, 47422), (Start: 35 @47374 has 145 MA's), (39, 47350), (52, 47302), (54, 47296), (60, 47272),

Gene: Optimus_84 Start: 55270, Stop: 55548, Start Num: 35
Candidate Starts for Optimus_84:
(34, 55264), (Start: 35 @55270 has 145 MA's), (60, 55381),

Gene: OrangeOswald_51 Start: 45414, Stop: 45145, Start Num: 35
Candidate Starts for OrangeOswald_51:
(Start: 35 @45414 has 145 MA's), (46, 45360), (60, 45312),

Gene: Orwigg_53 Start: 47574, Stop: 47305, Start Num: 35
Candidate Starts for Orwigg_53:
(6, 47733), (10, 47676), (15, 47649), (20, 47628), (21, 47622), (Start: 35 @47574 has 145 MA's), (39, 47550), (52, 47502), (54, 47496), (60, 47472), (82, 47316),

Gene: PMC_49 Start: 37214, Stop: 37471, Start Num: 35
Candidate Starts for PMC_49:
(9, 37100), (11, 37112), (17, 37148), (31, 37199), (Start: 35 @37214 has 145 MA's), (60, 37325), (64, 37355),

Gene: Paraselene_66 Start: 43378, Stop: 43109, Start Num: 35
Candidate Starts for Paraselene_66:
(Start: 35 @43378 has 145 MA's), (46, 43324), (60, 43276),

Gene: Periwinkle_61 Start: 37796, Stop: 38092, Start Num: 36
Candidate Starts for Periwinkle_61:

(Start: 36 @37796 has 3 MA's), (51, 37868), (76, 38030), (83, 38084),

Gene: Phayeta_53 Start: 45741, Stop: 45472, Start Num: 35
Candidate Starts for Phayeta_53:
(Start: 35 @45741 has 145 MA's), (46, 45687), (60, 45639), (82, 45483),

Gene: Philly_50 Start: 45265, Stop: 44996, Start Num: 35
Candidate Starts for Philly_50:
(Start: 35 @45265 has 145 MA's), (46, 45211), (60, 45163),

Gene: Phistory_62 Start: 38511, Stop: 38888, Start Num: 35
Candidate Starts for Phistory_62:
(1, 38148), (2, 38154), (3, 38193), (4, 38304), (14, 38430), (Start: 35 @38511 has 145 MA's), (Start: 40 @38553 has 1 MA's), (53, 38610), (63, 38670), (68, 38682), (74, 38727), (75, 38730),

Gene: Phlyer_51 Start: 46154, Stop: 45885, Start Num: 35
Candidate Starts for Phlyer_51:
(Start: 35 @46154 has 145 MA's), (46, 46100), (60, 46052),

Gene: Phoebus_92 Start: 57900, Stop: 58196, Start Num: 29
Candidate Starts for Phoebus_92:
(Start: 29 @57900 has 20 MA's), (45, 57978), (54, 58005), (60, 58029),

Gene: PhorbesPhlower_55 Start: 35141, Stop: 35443, Start Num: 32
Candidate Starts for PhorbesPhlower_55:
(12, 35069), (20, 35099), (24, 35117), (Start: 29 @35129 has 20 MA's), (30, 35132), (Start: 32 @35141 has 2 MA's), (Start: 40 @35189 has 1 MA's), (44, 35207), (49, 35228), (73, 35351),

Gene: Porcelain_82 Start: 49925, Stop: 49656, Start Num: 35
Candidate Starts for Porcelain_82:
(Start: 35 @49925 has 145 MA's), (46, 49871), (60, 49823),

Gene: Potter_52 Start: 47105, Stop: 46812, Start Num: 35
Candidate Starts for Potter_52:
(6, 47264), (10, 47207), (15, 47180), (20, 47159), (21, 47153), (Start: 35 @47105 has 145 MA's), (39, 47081), (52, 47033), (54, 47027), (60, 47003),

Gene: Pringar_6 Start: 1866, Stop: 2138, Start Num: 35
Candidate Starts for Pringar_6:
(Start: 35 @1866 has 145 MA's), (48, 1929), (60, 1971),

Gene: Puhltonio_53 Start: 47379, Stop: 47086, Start Num: 35
Candidate Starts for Puhltonio_53:
(6, 47538), (10, 47481), (15, 47454), (20, 47433), (21, 47427), (Start: 35 @47379 has 145 MA's), (39, 47355), (52, 47307), (54, 47301), (60, 47277),

Gene: QueenBeane_53 Start: 47369, Stop: 47076, Start Num: 35
Candidate Starts for QueenBeane_53:
(6, 47528), (10, 47471), (15, 47444), (20, 47423), (21, 47417), (Start: 35 @47369 has 145 MA's), (39, 47345), (52, 47297), (54, 47291), (60, 47267),

Gene: Raid_64 Start: 42642, Stop: 42373, Start Num: 35
Candidate Starts for Raid_64:

(Start: 35 @42642 has 145 MA's), (46, 42588), (60, 42540),

Gene: RedRaider77_9 Start: 2886, Stop: 3152, Start Num: 35
Candidate Starts for RedRaider77_9:
(19, 2829), (Start: 35 @2886 has 145 MA's), (Start: 41 @2922 has 2 MA's), (59, 2982), (60, 2985), (82, 3141),

Gene: Rimu_54 Start: 47570, Stop: 47301, Start Num: 35
Candidate Starts for Rimu_54:
(6, 47729), (10, 47672), (15, 47645), (20, 47624), (21, 47618), (Start: 35 @47570 has 145 MA's), (39, 47546), (52, 47498), (54, 47492), (60, 47468),

Gene: Rita1961_52 Start: 45860, Stop: 45591, Start Num: 35
Candidate Starts for Rita1961_52:
(Start: 35 @45860 has 145 MA's), (46, 45806), (60, 45758), (82, 45602),

Gene: Rockne_53 Start: 37214, Stop: 37471, Start Num: 35
Candidate Starts for Rockne_53:
(9, 37100), (11, 37112), (17, 37148), (31, 37199), (Start: 35 @37214 has 145 MA's), (60, 37325), (64, 37355),

Gene: Samaymay_53 Start: 47369, Stop: 47076, Start Num: 35
Candidate Starts for Samaymay_53:
(6, 47528), (10, 47471), (15, 47444), (20, 47423), (21, 47417), (Start: 35 @47369 has 145 MA's), (39, 47345), (52, 47297), (54, 47291), (60, 47267),

Gene: SassyCat97_52 Start: 47096, Stop: 46803, Start Num: 35
Candidate Starts for SassyCat97_52:
(6, 47255), (10, 47198), (15, 47171), (20, 47150), (21, 47144), (Start: 35 @47096 has 145 MA's), (39, 47072), (52, 47024), (54, 47018), (60, 46994),

Gene: Schatzie_85 Start: 55507, Stop: 55803, Start Num: 29
Candidate Starts for Schatzie_85:
(Start: 29 @55507 has 20 MA's), (45, 55585), (54, 55612), (60, 55636),

Gene: Serendipity_53 Start: 47393, Stop: 47100, Start Num: 35
Candidate Starts for Serendipity_53:
(6, 47552), (10, 47495), (15, 47468), (20, 47447), (21, 47441), (Start: 35 @47393 has 145 MA's), (39, 47369), (52, 47321), (54, 47315), (60, 47291),

Gene: Shauna1_47 Start: 36503, Stop: 36781, Start Num: 35
Candidate Starts for Shauna1_47:
(13, 36419), (18, 36437), (30, 36479), (Start: 35 @36503 has 145 MA's), (60, 36614),

Gene: ShawBrad_58 Start: 36376, Stop: 36678, Start Num: 36
Candidate Starts for ShawBrad_58:
(Start: 36 @36376 has 3 MA's), (42, 36406), (51, 36448), (61, 36505), (76, 36610),

Gene: Sixama_7 Start: 2706, Stop: 2383, Start Num: 29
Candidate Starts for Sixama_7:
(Start: 29 @2706 has 20 MA's), (Start: 40 @2649 has 1 MA's), (47, 2619), (56, 2592), (71, 2502),

Gene: Smooch_99 Start: 62468, Stop: 62202, Start Num: 35

Candidate Starts for Smooch_99:
(Start: 35 @62468 has 145 MA's), (Start: 41 @62432 has 2 MA's), (59, 62372), (60, 62369),

Gene: Soile_54 Start: 47617, Stop: 47348, Start Num: 35
Candidate Starts for Soile_54:
(6, 47776), (10, 47719), (15, 47692), (20, 47671), (21, 47665), (Start: 35 @47617 has 145 MA's), (39, 47593), (52, 47545), (54, 47539), (60, 47515), (82, 47359),

Gene: Solosis_52 Start: 47090, Stop: 46797, Start Num: 35
Candidate Starts for Solosis_52:
(6, 47249), (10, 47192), (15, 47165), (20, 47144), (21, 47138), (Start: 35 @47090 has 145 MA's), (39, 47066), (52, 47018), (54, 47012), (60, 46988),

Gene: Sophia_52 Start: 47084, Stop: 46791, Start Num: 35
Candidate Starts for Sophia_52:
(6, 47243), (10, 47186), (15, 47159), (20, 47138), (21, 47132), (Start: 35 @47084 has 145 MA's), (39, 47060), (52, 47012), (54, 47006), (60, 46982),

Gene: Squid_53 Start: 47096, Stop: 46803, Start Num: 35
Candidate Starts for Squid_53:
(6, 47255), (10, 47198), (15, 47171), (20, 47150), (21, 47144), (Start: 35 @47096 has 145 MA's), (39, 47072), (52, 47024), (54, 47018), (60, 46994),

Gene: Squint_83 Start: 50044, Stop: 49775, Start Num: 35
Candidate Starts for Squint_83:
(Start: 35 @50044 has 145 MA's), (46, 49990), (60, 49942),

Gene: StAnnes_51 Start: 37319, Stop: 37621, Start Num: 41
Candidate Starts for StAnnes_51:
(28, 37253), (Start: 35 @37283 has 145 MA's), (Start: 41 @37319 has 2 MA's), (59, 37379), (60, 37382), (62, 37421), (67, 37442), (77, 37520),

Gene: Surely_53 Start: 47386, Stop: 47093, Start Num: 35
Candidate Starts for Surely_53:
(6, 47545), (10, 47488), (15, 47461), (20, 47440), (21, 47434), (Start: 35 @47386 has 145 MA's), (39, 47362), (52, 47314), (54, 47308), (60, 47284),

Gene: SwainyDoc_52 Start: 45872, Stop: 45603, Start Num: 35
Candidate Starts for SwainyDoc_52:
(Start: 35 @45872 has 145 MA's), (46, 45818), (60, 45770), (82, 45614),

Gene: SynergyX_51 Start: 45415, Stop: 45146, Start Num: 35
Candidate Starts for SynergyX_51:
(Start: 35 @45415 has 145 MA's), (46, 45361), (60, 45313),

Gene: TallGrassMM_53 Start: 47000, Stop: 46707, Start Num: 35
Candidate Starts for TallGrassMM_53:
(6, 47159), (10, 47102), (15, 47075), (20, 47054), (21, 47048), (Start: 35 @47000 has 145 MA's), (39, 46976), (52, 46928), (54, 46922), (60, 46898),

Gene: Thora_53 Start: 47382, Stop: 47089, Start Num: 35
Candidate Starts for Thora_53:

(6, 47541), (10, 47484), (15, 47457), (20, 47436), (21, 47430), (Start: 35 @47382 has 145 MA's), (39, 47358), (52, 47310), (54, 47304), (60, 47280),

Gene: ThreeRngTarjay_87 Start: 56792, Stop: 57088, Start Num: 29
Candidate Starts for ThreeRngTarjay_87:
(Start: 29 @56792 has 20 MA's), (45, 56870), (54, 56897), (60, 56921),

Gene: Timmi_52 Start: 47085, Stop: 46792, Start Num: 35
Candidate Starts for Timmi_52:
(6, 47244), (10, 47187), (15, 47160), (20, 47139), (21, 47133), (Start: 35 @47085 has 145 MA's), (39, 47061), (52, 47013), (54, 47007), (60, 46983),

Gene: TinyTerror_52 Start: 45907, Stop: 45638, Start Num: 35
Candidate Starts for TinyTerror_52:
(Start: 35 @45907 has 145 MA's), (46, 45853), (60, 45805), (82, 45649),

Gene: TomBombadil_53 Start: 47370, Stop: 47077, Start Num: 35
Candidate Starts for TomBombadil_53:
(6, 47529), (10, 47472), (15, 47445), (20, 47424), (21, 47418), (Start: 35 @47370 has 145 MA's), (39, 47346), (52, 47298), (54, 47292), (60, 47268),

Gene: VanLee_73 Start: 43882, Stop: 44154, Start Num: 35
Candidate Starts for VanLee_73:
(Start: 35 @43882 has 145 MA's), (55, 43969), (58, 43987), (69, 44041),

Gene: VasuNzinga_8 Start: 2535, Stop: 2807, Start Num: 35
Candidate Starts for VasuNzinga_8:
(Start: 35 @2535 has 145 MA's), (48, 2598), (60, 2640),

Gene: Violac_55 Start: 38665, Stop: 39003, Start Num: 35
Candidate Starts for Violac_55:
(28, 38635), (Start: 35 @38665 has 145 MA's), (Start: 41 @38701 has 2 MA's), (59, 38761), (60, 38764), (62, 38803), (67, 38824), (77, 38902),

Gene: Vortex_53 Start: 47080, Stop: 46787, Start Num: 35
Candidate Starts for Vortex_53:
(6, 47239), (10, 47182), (15, 47155), (20, 47134), (21, 47128), (Start: 35 @47080 has 145 MA's), (39, 47056), (52, 47008), (54, 47002), (60, 46978),

Gene: Wanda_94 Start: 55909, Stop: 56205, Start Num: 29
Candidate Starts for Wanda_94:
(26, 55903), (Start: 29 @55909 has 20 MA's), (45, 55987), (54, 56014), (60, 56038),

Gene: WilliamBoone_96 Start: 57383, Stop: 57652, Start Num: 35
Candidate Starts for WilliamBoone_96:
(Start: 35 @57383 has 145 MA's), (58, 57488), (71, 57554),

Gene: Xavier_52 Start: 47087, Stop: 46794, Start Num: 35
Candidate Starts for Xavier_52:
(6, 47246), (10, 47189), (15, 47162), (20, 47141), (21, 47135), (Start: 35 @47087 has 145 MA's), (39, 47063), (52, 47015), (54, 47009), (60, 46985),

Gene: Yeet_83 Start: 55009, Stop: 55305, Start Num: 29

Candidate Starts for Yeet_83:
(Start: 29 @55009 has 20 MA's), (45, 55087), (54, 55114), (60, 55138),

Gene: Zelda_53 Start: 47424, Stop: 47131, Start Num: 35
Candidate Starts for Zelda_53:
(6, 47583), (10, 47526), (15, 47499), (20, 47478), (21, 47472), (Start: 35 @47424 has 145 MA's), (39, 47400), (52, 47352), (54, 47346), (60, 47322),

Gene: Zelink_87 Start: 57104, Stop: 57400, Start Num: 29
Candidate Starts for Zelink_87:
(Start: 29 @57104 has 20 MA's), (45, 57182), (54, 57209), (60, 57233),