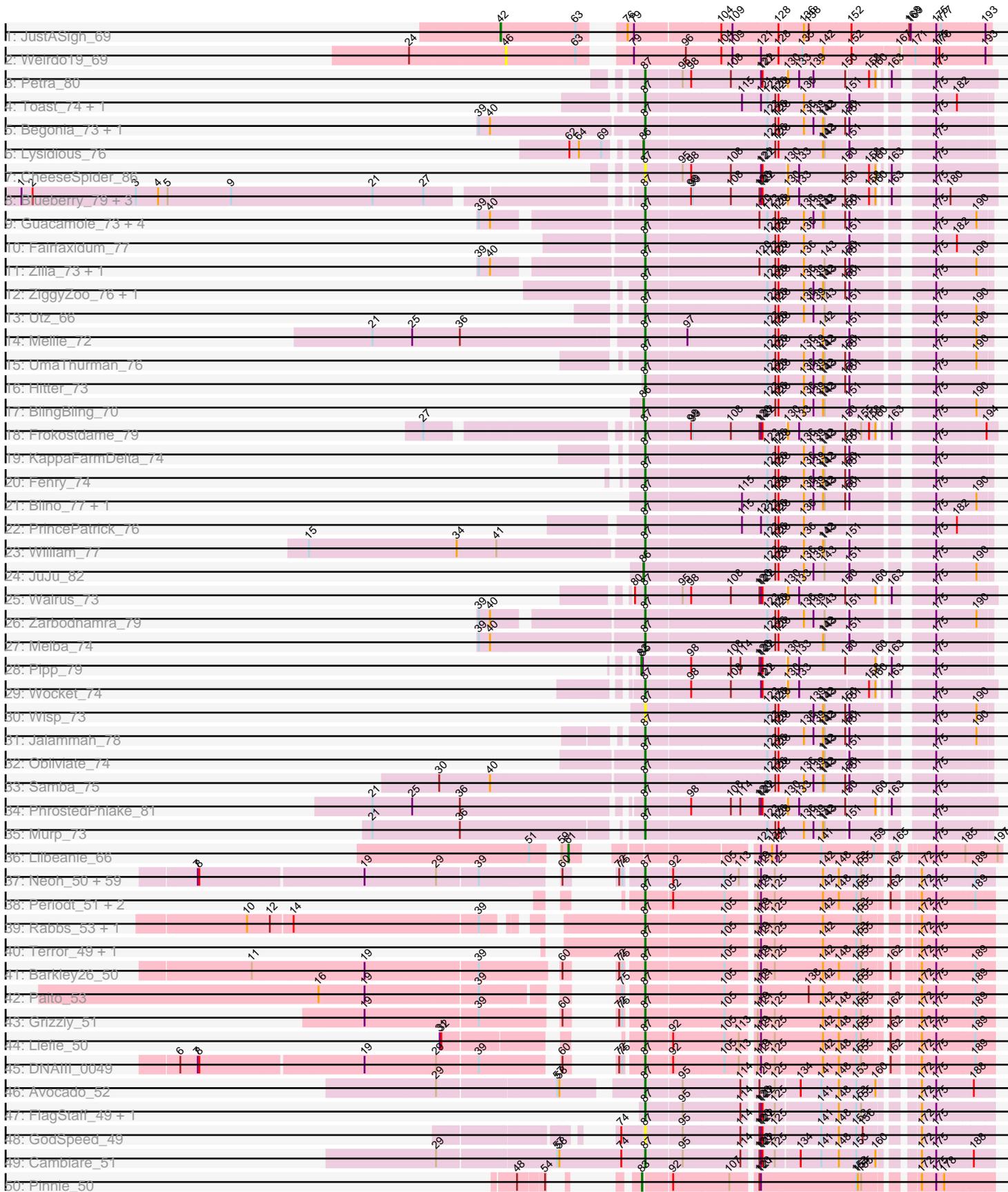
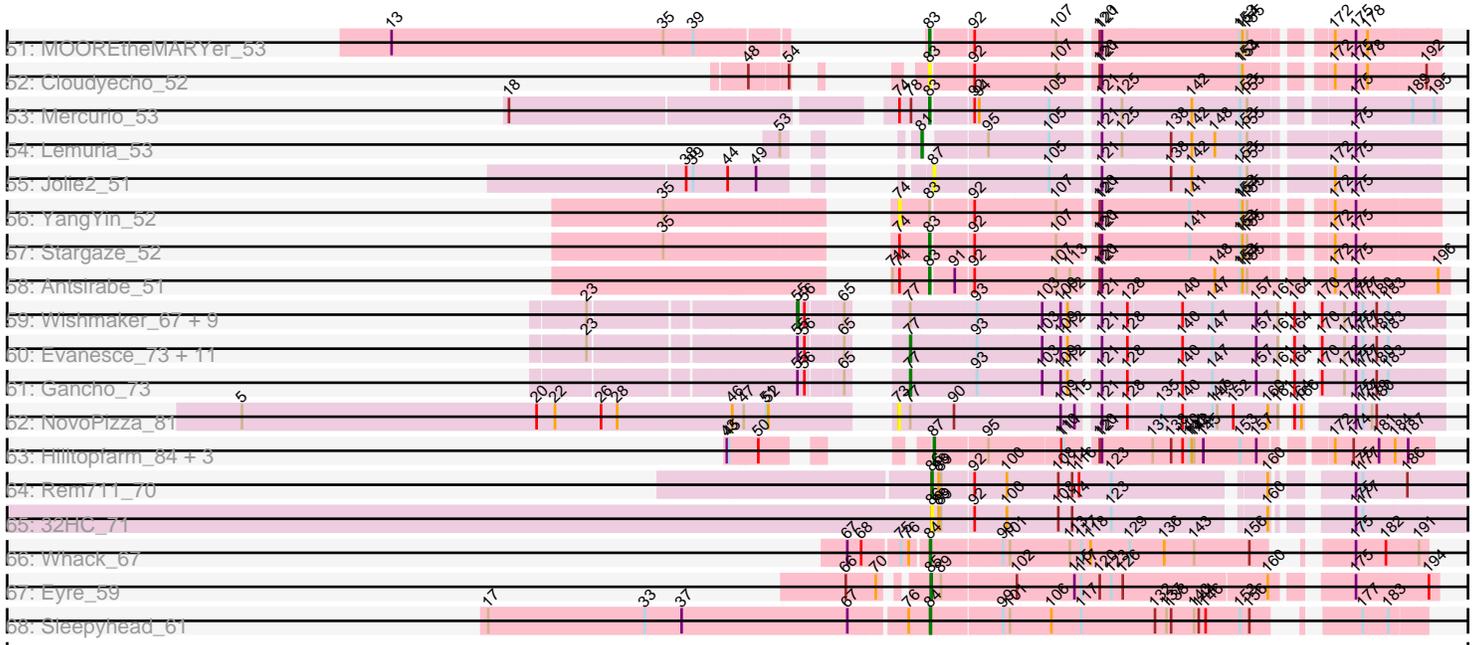


Pham 283540



Pham 283540



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 283540 Report

This analysis was run 02/23/26 on database version 636.

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

Pham number 283540 has 167 members, 23 are drafts.

Phages represented in each track:

- Track 1 : JustASigh_69
- Track 2 : Weirido19_69
- Track 3 : Petra_80
- Track 4 : Toast_74, PCoral7_74
- Track 5 : Begonia_73, Malachai_73
- Track 6 : Lysidious_76
- Track 7 : CheeseSpider_86
- Track 8 : Blueberry_79, Gambino_82, Azula_80, MissRona_80
- Track 9 : Guacamole_73, Delian_78, MintFen_75, JasperJr_73, CaptainKirk2_75
- Track 10 : Fairfaxidum_77
- Track 11 : Zilla_73, Barco_72
- Track 12 : ZiggyZoo_76, Archis_77
- Track 13 : Utz_66
- Track 14 : Mellie_72
- Track 15 : UmaThurman_76
- Track 16 : Hitter_73
- Track 17 : BlingBling_70
- Track 18 : Frokostdame_79
- Track 19 : KappaFarmDelta_74
- Track 20 : Fenry_74
- Track 21 : Blino_77, CarolAnn_76
- Track 22 : PrincePatrick_76
- Track 23 : William_77
- Track 24 : JuJu_82
- Track 25 : Walrus_73
- Track 26 : Zarbodnamra_79
- Track 27 : Melba_74
- Track 28 : Pipp_79
- Track 29 : Wocket_74
- Track 30 : Wisp_73
- Track 31 : Jalammah_78
- Track 32 : Obliviate_74
- Track 33 : Samba_75

- Track 34 : PhrostedPhlake_81
- Track 35 : Murp_73
- Track 36 : Lilbeanie_66
- Track 37 : Neoh_50, Maliketh_49, Avrafan_51, Sizemore_51, Frosty24_51, Olga_51, Phloodle_49, Zombie_50, Phish_50, Wendigo_49, Hotshotbaby7_51, Hope_51, BPs_51, Kareem_51, DingDing_49, BruceB_51, TinaBug_51, Aroostook_51, Plagueis_51, JorRay_51, Gideon_52, Cedasite_51, Cherrybomb426_51, Annihilator_51, Phreak_51, Mowgli_51, Renaissance_51, Ruriko_49, Remy19_51, Darionha_51, Crespo_50, Jeilious_50, ShaboiShabazz_50, AizenPogi_50, CLED96_51, GoldenAsh_50, Gomashi_50, Camri_51, Richarlison_49, PinkYoshi_51, BQuat_51, ZoMa_49, Jane_51, Peeb_50, CassieYates_51, AzulaCat_51, TomBrady_51, Coleslaw_51, OctaviousRex_50, Angel_51, Sweets_50, Kasen3_51, DMoney_50, ECartman_49, Schiebel_51, Halo_51, Marmie_51, Jonghyun_49, Chance64_51, LouisV14_53
- Track 38 : Periodt_51, Jolene_51, Rattrick_51
- Track 39 : Rabbs_53, Sneeze_52
- Track 40 : Terror_49, Taheera_49
- Track 41 : Barkley26_50
- Track 42 : Paito_53
- Track 43 : Grizzly_51
- Track 44 : Liefie_50
- Track 45 : DNAlll_0049
- Track 46 : Avocado_52
- Track 47 : FlagStaff_49, Pace1224_50
- Track 48 : GodSpeed_49
- Track 49 : Cambiare_51
- Track 50 : Pinnie_50
- Track 51 : MOOREtheMARYer_53
- Track 52 : Cloudyecho_52
- Track 53 : Mercurio_53
- Track 54 : Lemuria_53
- Track 55 : Jolie2_51
- Track 56 : YangYin_52
- Track 57 : Stargaze_52
- Track 58 : Antsirabe_51
- Track 59 : Wishmaker_67, Luna22_67, Luke_71, Daegal_76, Giles_67, Hadrien_71, Dewey_67, Hail_67, Gravaillia_68, Forge_67
- Track 60 : Evanesce_73, Amymech_74, Ein37_74, Webster2_74, OBUpride_73, Amochick_75, LilHazelnut_74, Kinbote_72, Ubuntu_74, DeepSoil15_74, HH92_73, BloominB_74
- Track 61 : Gancho_73
- Track 62 : NovoPizza_81
- Track 63 : Hilltopfarm_84, Faiyaz_85, AuntGwenStacy_83, Typha_83
- Track 64 : Rem711_70
- Track 65 : 32HC_71
- Track 66 : Whack_67
- Track 67 : Eyre_59
- Track 68 : Sleepyhead_61

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

The start number called the most often in the published annotations is 87, it was called in 106 of the 144 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AizenPogi_50, Angel_51, Annihilator_51, Archis_77, Aroostook_51, AuntGwenStacy_83, Avocado_52, Avrafan_51, AzulaCat_51, Azula_80, BPs_51, BQuat_51, Barco_72, Barkley26_50, Begonia_73, Blino_77, Blueberry_79, BruceB_51, CLED96_51, Cambiare_51, Camri_51, CaptainKirk2_75, CarolAnn_76, CassieYates_51, Cedasite_51, Chance64_51, CheeseSpider_86, Cherrybomb426_51, Coleslaw_51, Crespo_50, DMoney_50, DNAll_0049, Darionha_51, Delian_78, DingDing_49, ECartman_49, Fairfaxidum_77, Faiyaz_85, Ferry_74, FlagStaff_49, Frokostdame_79, Frosty24_51, Gambino_82, Gideon_52, GodSpeed_49, GoldenAsh_50, Gomashi_50, Grizzly_51, Guacamole_73, Halo_51, Hilltopfarm_84, Hitter_73, Hope_51, Hotshotbaby7_51, Jalammah_78, Jane_51, JasperJr_73, Jeilious_50, Jolene_51, Jolie2_51, Jonghyun_49, JorRay_51, KappaFarmDelta_74, Kareem_51, Kasen3_51, Liefie_50, LouisV14_53, Malachai_73, Maliketh_49, Marmie_51, Melba_74, Mellie_72, MintFen_75, MissRona_80, Mowgli_51, Murp_73, Neoh_50, Obliviate_74, OctaviousRex_50, Olga_51, PCoral7_74, Pace1224_50, Paito_53, Peeb_50, Periodt_51, Petra_80, Phish_50, Phloodle_49, Phreak_51, PhrostedPhlake_81, PinkYoshi_51, Plagueis_51, PrincePatrick_76, Rabbs_53, Rattrick_51, Remy19_51, Renaissance_51, Richarlison_49, Ruriko_49, Samba_75, Schiebel_51, ShaboiShabazz_50, Sizemore_51, Sneeze_52, Sweets_50, Taheera_49, Terror_49, TinaBug_51, Toast_74, TomBrady_51, Typha_83, UmaThurman_76, Utz_66, Walrus_73, Wendigo_49, William_77, Wisp_73, Wocket_74, Zarbodnamra_79, ZiggyZoo_76, Zilla_73, ZoMa_49, Zombie_50,

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

-

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

- 32HC_71, Amochick_75, Amymech_74, Antsirabe_51, BlingBling_70, BloominB_74, Cloudyecho_52, Daegal_76, DeepSoil15_74, Dewey_67, Ein37_74, Evanesce_73, Eyre_59, Forge_67, Gancho_73, Giles_67, Gravallia_68, HH92_73, Hadrien_71, Hail_67, JuJu_82, JustASigh_69, Kinbote_72, Lemuria_53, LilHazelnut_74, Lilbeanie_66, Luke_71, Luna22_67, Lysidious_76, MOOREtheMARYer_53, Mercurio_53, NovoPizza_81, OBUpride_73, Pinnie_50, Pipp_79, Rem711_70, Sleepyhead_61, Stargaze_52, Ubuntu_74, Webster2_74, Weirido19_69, Whack_67, Wishmaker_67, YangYin_52,

Summary by start number:

Start 42:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_69 (AH),

Start 46:

- Found in 2 of 167 (1.2%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Weirido19_69 (AH),

Start 55:

- Found in 23 of 167 (13.8%) of genes in pham
- Manual Annotations of this start: 10 of 144
- Called 43.5% of time when present
- Phage (with cluster) where this start called: Daegal_76 (Q), Dewey_67 (Q), Forge_67 (Q), Giles_67 (Q), Gravaillia_68 (Q), Hadrien_71 (Q), Hail_67 (Q), Luke_71 (Q), Luna22_67 (Q), Wishmaker_67 (Q),

Start 61:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_66 (DE5),

Start 73:

- Found in 1 of 167 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NovoPizza_81 (Q),

Start 74:

- Found in 6 of 167 (3.6%) of genes in pham
- No Manual Annotations of this start.
- Called 16.7% of time when present
- Phage (with cluster) where this start called: YangYin_52 (G5),

Start 77:

- Found in 24 of 167 (14.4%) of genes in pham
- Manual Annotations of this start: 12 of 144
- Called 54.2% of time when present
- Phage (with cluster) where this start called: Amochick_75 (Q), Amymech_74 (Q), BloominB_74 (Q), DeepSoil15_74 (Q), Ein37_74 (Q), Evanesce_73 (Q), Gancho_73 (Q), HH92_73 (Q), Kinbote_72 (Q), LilHazelNut_74 (Q), OBUpride_73 (Q), Ubuntu_74 (Q), Webster2_74 (Q),

Start 81:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lemuria_53 (G4),

Start 82:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_79 (CV),

Start 83:

- Found in 7 of 167 (4.2%) of genes in pham
- Manual Annotations of this start: 5 of 144
- Called 85.7% of time when present

- Phage (with cluster) where this start called: Antsirabe_51 (G5), Cloudeyecho_52 (G3), MOOREtheMARYer_53 (G3), Mercurio_53 (G4), Pinnie_50 (G3), Stargaze_52 (G5),

Start 84:

- Found in 2 of 167 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sleepyhead_61 (singleton), Whack_67 (singleton),

Start 85:

- Found in 2 of 167 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 144
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Eyre_59 (singleton),

Start 86:

- Found in 5 of 167 (3.0%) of genes in pham
- Manual Annotations of this start: 4 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_71 (Z), BlingBling_70 (CV), JuJu_82 (CV), Lysidious_76 (CV), Rem711_70 (Z),

Start 87:

- Found in 123 of 167 (73.7%) of genes in pham
- Manual Annotations of this start: 106 of 144
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AizenPogi_50 (G1), Angel_51 (G1), Annihilator_51 (G1), Archis_77 (CV), Aroostook_51 (G1), AuntGwenStacy_83 (Y), Avocado_52 (G2), Avrafan_51 (G1), AzulaCat_51 (G1), Azula_80 (CV), BPs_51 (G1), BQuat_51 (G1), Barco_72 (CV), Barkley26_50 (G1), Begonia_73 (CV), Blino_77 (CV), Blueberry_79 (CV), BruceB_51 (G1), CLED96_51 (G1), Cambiare_51 (G2), Camri_51 (G1), CaptainKirk2_75 (CV), CarolAnn_76 (CV), CassieYates_51 (G1), Cedasite_51 (G1), Chance64_51 (G1), CheeseSpider_86 (CV), Cherrybomb426_51 (G1), Coleslaw_51 (G1), Crespo_50 (G1), DMoney_50 (G1), DNAllI_0049 (G1), Darionha_51 (G1), Delian_78 (CV), DingDing_49 (G1), ECartman_49 (G1), Fairfaxidum_77 (CV), Faiyaz_85 (Y), Fenry_74 (CV), FlagStaff_49 (G2), Frokostdame_79 (CV), Frosty24_51 (G1), Gambino_82 (CV), Gideon_52 (G1), GodSpeed_49 (G2), GoldenAsh_50 (G1), Gomashi_50 (G1), Grizzly_51 (G1), Guacamole_73 (CV), Halo_51 (G1), Hilltopfarm_84 (Y), Hitter_73 (CV), Hope_51 (G1), Hotshotbaby7_51 (G1), Jalammah_78 (CV), Jane_51 (G1), JasperJr_73 (CV), Jeilious_50 (G), Jolene_51 (G1), Jolie2_51 (G4), Jonghyun_49 (G1), JorRay_51 (G1), KappaFarmDelta_74 (CV), Kareem_51 (G1), Kasen3_51 (G1), Liefie_50 (G1), LouisV14_53 (G1), Malachai_73 (CV), Maliketh_49 (G1), Marmie_51 (G1), Melba_74 (CV), Mellie_72 (CV), MintFen_75 (CV), MissRona_80 (CV), Mowgli_51 (G1), Murp_73 (CV), Neoh_50 (G), Obliviate_74 (CV), OctaviousRex_50 (G1), Olga_51 (G1), PCoral7_74 (CV), Pace1224_50 (G2), Paito_53 (G1), Peeb_50 (G1), Periodt_51 (G1), Petra_80 (CV), Phish_50 (G1), Phloodle_49 (G1), Phreak_51 (G1), PhrostedPhlake_81 (CV), PinkYoshi_51 (G1), Plagueis_51 (G1), PrincePatrick_76 (CV), Rabbs_53 (G1), Rattrick_51 (G1), Remy19_51 (G1), Renaissance_51 (G1), Richarlison_49 (G1), Ruriko_49 (G1), Samba_75 (CV), Schiebel_51 (G1), ShaboiShabazz_50 (G1), Sizemore_51 (G1), Sneeze_52 (G1), Sweets_50 (G1),

Taheera_49 (G1), Terror_49 (G1), TinaBug_51 (G1), Toast_74 (CV), TomBrady_51 (G1), Typha_83 (Y), UmaThurman_76 (CV), Utz_66 (CV), Walrus_73 (CV), Wendigo_49 (G1), William_77 (CV), Wisp_73 (CV), Wocket_74 (CV), Zarbodnamra_79 (CV), ZiggyZoo_76 (CV), Zilla_73 (CV), ZoMa_49 (G1), Zombie_50 (G1),

Summary by clusters:

There are 13 clusters represented in this pham: G5, G4, G3, G1, G, AH, singleton, DE5, Q, Y, Z, CV, G2,

Info for manual annotations of cluster AH:

- Start number 42 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster CV:

- Start number 82 was manually annotated 1 time for cluster CV.
- Start number 86 was manually annotated 3 times for cluster CV.
- Start number 87 was manually annotated 38 times for cluster CV.

Info for manual annotations of cluster DE5:

- Start number 61 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster G1:

- Start number 87 was manually annotated 62 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 87 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 83 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 81 was manually annotated 1 time for cluster G4.
- Start number 83 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 83 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster Q:

- Start number 55 was manually annotated 10 times for cluster Q.
- Start number 77 was manually annotated 12 times for cluster Q.

Info for manual annotations of cluster Y:

- Start number 87 was manually annotated 3 times for cluster Y.

Info for manual annotations of cluster Z:

- Start number 86 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_71 Start: 43501, Stop: 44121, Start Num: 86

Candidate Starts for 32HC_71:

(Start: 86 @43501 has 4 MA's), (88, 43510), (89, 43513), (92, 43552), (100, 43591), (108, 43657), (114, 43675), (123, 43726), (160, 43900), (175, 43969), (177, 43978),

Gene: AizenPogi_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for AizenPogi_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Amochick_75 Start: 48792, Stop: 49403, Start Num: 77

Candidate Starts for Amochick_75:

(23, 48474), (Start: 55 @48711 has 10 MA's), (56, 48720), (65, 48762), (Start: 77 @48792 has 12 MA's), (93, 48873), (103, 48957), (109, 48981), (112, 48990), (121, 49020), (128, 49053), (140, 49119), (147, 49155), (157, 49209), (161, 49233), (164, 49236), (170, 49251), (173, 49278), (175, 49293), (177, 49302), (180, 49320), (183, 49335),

Gene: Amymech_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Amymech_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Angel_51 Start: 36899, Stop: 37489, Start Num: 87

Candidate Starts for Angel_51:

(7, 36227), (8, 36230), (19, 36521), (29, 36650), (39, 36722), (60, 36845), (72, 36866), (75, 36872), (Start: 87 @36899 has 106 MA's), (92, 36947), (105, 37043), (113, 37070), (119, 37091), (121, 37097), (125, 37121), (142, 37208), (148, 37238), (153, 37271), (155, 37280), (162, 37319), (172, 37358), (175, 37385), (189, 37454),

Gene: Annihilator_51 Start: 36905, Stop: 37495, Start Num: 87

Candidate Starts for Annihilator_51:

(7, 36233), (8, 36236), (19, 36527), (29, 36656), (39, 36728), (60, 36851), (72, 36872), (75, 36878), (Start: 87 @36905 has 106 MA's), (92, 36953), (105, 37049), (113, 37076), (119, 37097), (121, 37103), (125, 37127), (142, 37214), (148, 37244), (153, 37277), (155, 37286), (162, 37325), (172, 37364), (175, 37391), (189, 37460),

Gene: Antsirabe_51 Start: 38179, Stop: 38778, Start Num: 83

Candidate Starts for Antsirabe_51:

(71, 38131), (74, 38140), (Start: 83 @38179 has 5 MA's), (91, 38206), (92, 38227), (107, 38332), (113, 38350), (120, 38374), (121, 38377), (148, 38518), (153, 38551), (154, 38554), (155, 38560), (172, 38635), (175, 38662), (196, 38764),

Gene: Archis_77 Start: 45860, Stop: 46450, Start Num: 87

Candidate Starts for Archis_77:

(Start: 87 @45860 has 106 MA's), (123, 46082), (126, 46094), (128, 46100), (136, 46145), (139, 46163), (142, 46181), (143, 46184), (150, 46223), (151, 46226), (175, 46352),

Gene: Aroostook_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Aroostook_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: AuntGwenStacy_83 Start: 54897, Stop: 55466, Start Num: 87

Candidate Starts for AuntGwenStacy_83:

(43, 54768), (45, 54771), (50, 54807), (Start: 87 @54897 has 106 MA's), (95, 54963), (110, 55053), (111, 55056), (120, 55086), (121, 55089), (131, 55146), (138, 55170), (140, 55185), (141, 55194), (142, 55197), (143, 55200), (145, 55212), (153, 55260), (157, 55281), (172, 55347), (174, 55368), (181, 55401), (184, 55422), (187, 55434),

Gene: Avocado_52 Start: 39158, Stop: 39742, Start Num: 87

Candidate Starts for Avocado_52:

(29, 38822), (57, 39035), (58, 39038), (Start: 87 @39158 has 106 MA's), (95, 39224), (114, 39332), (120, 39353), (125, 39380), (134, 39422), (141, 39461), (148, 39494), (153, 39527), (160, 39563), (172, 39611), (175, 39638), (188, 39704),

Gene: Avrafan_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Avrafan_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Azula_80 Start: 50046, Stop: 50630, Start Num: 87

Candidate Starts for Azula_80:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (9, 49341), (21, 49608), (27, 49704), (Start: 87 @50046 has 106 MA's), (98, 50127), (99, 50130), (108, 50199), (120, 50250), (121, 50253), (122, 50256), (130, 50295), (133, 50316), (150, 50403), (158, 50442), (160, 50454), (163, 50463), (175, 50523), (180, 50550),

Gene: AzulaCat_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for AzulaCat_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: BPs_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for BPs_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: BQuat_51 Start: 37351, Stop: 37941, Start Num: 87

Candidate Starts for BQuat_51:

(7, 36679), (8, 36682), (19, 36973), (29, 37102), (39, 37174), (60, 37297), (72, 37318), (75, 37324), (Start: 87 @37351 has 106 MA's), (92, 37399), (105, 37495), (113, 37522), (119, 37543), (121, 37549), (125, 37573), (142, 37660), (148, 37690), (153, 37723), (155, 37732), (162, 37771), (172, 37810), (175, 37837), (189, 37906),

Gene: Barco_72 Start: 45671, Stop: 46261, Start Num: 87

Candidate Starts for Barco_72:

(39, 45398), (40, 45419), (Start: 87 @45671 has 106 MA's), (120, 45878), (123, 45893), (126, 45905), (128, 45911), (136, 45956), (143, 45995), (150, 46034), (151, 46037), (175, 46163), (190, 46235),

Gene: Barkley26_50 Start: 36819, Stop: 37409, Start Num: 87

Candidate Starts for Barkley26_50:

(11, 36237), (19, 36438), (39, 36639), (60, 36765), (72, 36786), (75, 36792), (Start: 87 @36819 has 106 MA's), (105, 36963), (119, 37011), (121, 37017), (125, 37041), (142, 37128), (148, 37158), (153, 37191), (155, 37200), (162, 37239), (172, 37278), (175, 37305), (189, 37374),

Gene: Begonia_73 Start: 48471, Stop: 49061, Start Num: 87

Candidate Starts for Begonia_73:

(39, 48171), (40, 48192), (Start: 87 @48471 has 106 MA's), (123, 48693), (126, 48705), (128, 48711), (136, 48756), (139, 48774), (142, 48792), (143, 48795), (150, 48834), (151, 48837), (175, 48963),

Gene: BlingBling_70 Start: 45443, Stop: 46036, Start Num: 86

Candidate Starts for BlingBling_70:

(Start: 86 @45443 has 4 MA's), (123, 45668), (126, 45680), (128, 45686), (136, 45731), (139, 45749), (142, 45767), (143, 45770), (151, 45812), (175, 45938), (190, 46010),

Gene: Blino_77 Start: 51275, Stop: 51865, Start Num: 87

Candidate Starts for Blino_77:

(Start: 87 @51275 has 106 MA's), (115, 51452), (123, 51497), (126, 51509), (128, 51515), (136, 51560), (139, 51578), (142, 51596), (143, 51599), (150, 51638), (151, 51641), (175, 51767), (190, 51839),

Gene: BloominB_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for BloominB_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Blueberry_79 Start: 50046, Stop: 50630, Start Num: 87

Candidate Starts for Blueberry_79:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (9, 49341), (21, 49608), (27, 49704), (Start: 87 @50046 has 106 MA's), (98, 50127), (99, 50130), (108, 50199), (120, 50250), (121, 50253), (122, 50256), (130, 50295), (133, 50316), (150, 50403), (158, 50442), (160, 50454), (163, 50463), (175, 50523), (180, 50550),

Gene: BruceB_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for BruceB_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: CLED96_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for CLED96_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),

(175, 37400), (189, 37469),

Gene: Cambiare_51 Start: 38958, Stop: 39542, Start Num: 87

Candidate Starts for Cambiare_51:

(29, 38583), (57, 38796), (58, 38799), (74, 38916), (Start: 87 @38958 has 106 MA's), (95, 39024), (114, 39132), (120, 39153), (121, 39156), (122, 39159), (125, 39180), (134, 39222), (141, 39261), (148, 39294), (153, 39327), (160, 39363), (172, 39411), (175, 39438), (188, 39504),

Gene: Camri_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Camri_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: CaptainKirk2_75 Start: 45228, Stop: 45818, Start Num: 87

Candidate Starts for CaptainKirk2_75:

(39, 44955), (40, 44976), (Start: 87 @45228 has 106 MA's), (120, 45435), (123, 45450), (126, 45462), (128, 45468), (136, 45513), (139, 45531), (142, 45549), (143, 45552), (150, 45591), (151, 45594), (175, 45720), (190, 45792),

Gene: CarolAnn_76 Start: 51274, Stop: 51864, Start Num: 87

Candidate Starts for CarolAnn_76:

(Start: 87 @51274 has 106 MA's), (115, 51451), (123, 51496), (126, 51508), (128, 51514), (136, 51559), (139, 51577), (142, 51595), (143, 51598), (150, 51637), (151, 51640), (175, 51766), (190, 51838),

Gene: CassieYates_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for CassieYates_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Cedasite_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Cedasite_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Chance64_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Chance64_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: CheeseSpider_86 Start: 49892, Stop: 50476, Start Num: 87

Candidate Starts for CheeseSpider_86:

(Start: 87 @49892 has 106 MA's), (95, 49958), (98, 49973), (108, 50045), (121, 50099), (122, 50102), (130, 50141), (133, 50162), (150, 50249), (158, 50288), (160, 50300), (163, 50309), (175, 50369),

Gene: Cherrybomb426_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Cherrybomb426_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Cloudyecho_52 Start: 38916, Stop: 39503, Start Num: 83

Candidate Starts for Cloudyecho_52:

(48, 38832), (54, 38877), (Start: 83 @38916 has 5 MA's), (92, 38964), (107, 39069), (120, 39111), (121, 39114), (153, 39288), (154, 39291), (172, 39372), (175, 39399), (178, 39414), (192, 39486),

Gene: Coleslaw_51 Start: 37351, Stop: 37941, Start Num: 87

Candidate Starts for Coleslaw_51:

(7, 36679), (8, 36682), (19, 36973), (29, 37102), (39, 37174), (60, 37297), (72, 37318), (75, 37324), (Start: 87 @37351 has 106 MA's), (92, 37399), (105, 37495), (113, 37522), (119, 37543), (121, 37549), (125, 37573), (142, 37660), (148, 37690), (153, 37723), (155, 37732), (162, 37771), (172, 37810), (175, 37837), (189, 37906),

Gene: Crespo_50 Start: 36915, Stop: 37505, Start Num: 87

Candidate Starts for Crespo_50:

(7, 36243), (8, 36246), (19, 36537), (29, 36666), (39, 36738), (60, 36861), (72, 36882), (75, 36888), (Start: 87 @36915 has 106 MA's), (92, 36963), (105, 37059), (113, 37086), (119, 37107), (121, 37113), (125, 37137), (142, 37224), (148, 37254), (153, 37287), (155, 37296), (162, 37335), (172, 37374), (175, 37401), (189, 37470),

Gene: DMoney_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for DMoney_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: DNAlll_0049 Start: 35449, Stop: 36039, Start Num: 87

Candidate Starts for DNAlll_0049:

(6, 34744), (7, 34777), (8, 34780), (19, 35071), (29, 35200), (39, 35272), (60, 35395), (72, 35416), (75, 35422), (Start: 87 @35449 has 106 MA's), (92, 35497), (105, 35593), (113, 35620), (119, 35641), (121, 35647), (125, 35671), (142, 35758), (148, 35788), (153, 35821), (155, 35830), (162, 35869), (172, 35908), (175, 35935), (189, 36004),

Gene: Daegal_76 Start: 49270, Stop: 49962, Start Num: 55

Candidate Starts for Daegal_76:

(23, 49033), (Start: 55 @49270 has 10 MA's), (56, 49279), (65, 49321), (Start: 77 @49351 has 12 MA's), (93, 49432), (103, 49516), (109, 49540), (112, 49549), (121, 49579), (128, 49612), (140, 49678), (147, 49714), (157, 49768), (161, 49792), (164, 49795), (170, 49810), (173, 49837), (175, 49852), (177, 49861), (180, 49879), (183, 49894),

Gene: Darionha_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Darionha_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: DeepSoil15_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for DeepSoil15_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Delian_78 Start: 45226, Stop: 45816, Start Num: 87

Candidate Starts for Delian_78:

(39, 44953), (40, 44974), (Start: 87 @45226 has 106 MA's), (120, 45433), (123, 45448), (126, 45460), (128, 45466), (136, 45511), (139, 45529), (142, 45547), (143, 45550), (150, 45589), (151, 45592), (175, 45718), (190, 45790),

Gene: Dewey_67 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Dewey_67:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: DingDing_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for DingDing_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: ECartman_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for ECartman_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Ein37_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Ein37_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Evanesce_73 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Evanesce_73:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Eyre_59 Start: 38628, Stop: 39218, Start Num: 85

Candidate Starts for Eyre_59:

(66, 38547), (70, 38586), (Start: 85 @38628 has 1 MA's), (89, 38640), (102, 38730), (115, 38805), (117, 38814), (120, 38835), (123, 38850), (126, 38862), (160, 39042), (175, 39117), (194, 39207),

Gene: Fairfaxidum_77 Start: 47701, Stop: 48291, Start Num: 87

Candidate Starts for Fairfaxidum_77:

(Start: 87 @47701 has 106 MA's), (123, 47923), (126, 47935), (128, 47941), (136, 47986), (151, 48067), (175, 48193), (182, 48232),

Gene: Faiyaz_85 Start: 54903, Stop: 55472, Start Num: 87

Candidate Starts for Faiyaz_85:

(43, 54774), (45, 54777), (50, 54813), (Start: 87 @54903 has 106 MA's), (95, 54969), (110, 55059), (111, 55062), (120, 55092), (121, 55095), (131, 55152), (138, 55176), (140, 55191), (141, 55200), (142, 55203), (143, 55206), (145, 55218), (153, 55266), (157, 55287), (172, 55353), (174, 55374), (181, 55407), (184, 55428), (187, 55440),

Gene: Fenry_74 Start: 47299, Stop: 47889, Start Num: 87

Candidate Starts for Fenry_74:

(Start: 87 @47299 has 106 MA's), (123, 47521), (126, 47533), (128, 47539), (136, 47584), (139, 47602), (142, 47620), (143, 47623), (150, 47662), (151, 47665), (175, 47791),

Gene: FlagStaff_49 Start: 37465, Stop: 38049, Start Num: 87

Candidate Starts for FlagStaff_49:

(Start: 87 @37465 has 106 MA's), (95, 37531), (114, 37639), (120, 37660), (121, 37663), (122, 37666), (125, 37687), (141, 37768), (148, 37801), (153, 37834), (155, 37843), (172, 37918), (175, 37945),

Gene: Forge_67 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Forge_67:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Frokostdame_79 Start: 49511, Stop: 50095, Start Num: 87

Candidate Starts for Frokostdame_79:

(27, 49172), (Start: 87 @49511 has 106 MA's), (98, 49592), (99, 49595), (108, 49664), (120, 49715), (121, 49718), (122, 49721), (130, 49760), (133, 49781), (150, 49868), (155, 49892), (158, 49907), (160, 49919), (163, 49928), (175, 49988), (194, 50078),

Gene: Frosty24_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Frosty24_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Gambino_82 Start: 50046, Stop: 50630, Start Num: 87

Candidate Starts for Gambino_82:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (9, 49341), (21, 49608), (27, 49704), (Start: 87 @50046 has 106 MA's), (98, 50127), (99, 50130), (108, 50199), (120, 50250), (121, 50253), (122, 50256), (130, 50295), (133, 50316), (150, 50403), (158, 50442), (160, 50454), (163, 50463), (175, 50523), (180, 50550),

Gene: Gancho_73 Start: 48020, Stop: 48631, Start Num: 77

Candidate Starts for Gancho_73:

(Start: 55 @47939 has 10 MA's), (56, 47948), (65, 47990), (Start: 77 @48020 has 12 MA's), (93, 48101), (103, 48185), (109, 48209), (112, 48218), (121, 48248), (128, 48281), (140, 48347), (147, 48383), (157, 48437), (161, 48461), (164, 48464), (170, 48479), (173, 48506), (175, 48521), (177, 48530), (180, 48548), (183, 48563),

Gene: Gideon_52 Start: 37361, Stop: 37951, Start Num: 87

Candidate Starts for Gideon_52:

(7, 36689), (8, 36692), (19, 36983), (29, 37112), (39, 37184), (60, 37307), (72, 37328), (75, 37334), (Start: 87 @37361 has 106 MA's), (92, 37409), (105, 37505), (113, 37532), (119, 37553), (121, 37559), (125, 37583), (142, 37670), (148, 37700), (153, 37733), (155, 37742), (162, 37781), (172, 37820), (175, 37847), (189, 37916),

Gene: Giles_67 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Giles_67:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: GodSpeed_49 Start: 37283, Stop: 37867, Start Num: 87

Candidate Starts for GodSpeed_49:

(74, 37244), (Start: 87 @37283 has 106 MA's), (95, 37349), (114, 37457), (120, 37478), (121, 37481), (122, 37484), (125, 37505), (141, 37586), (148, 37619), (153, 37652), (156, 37664), (172, 37736), (175, 37763),

Gene: GoldenAsh_50 Start: 36899, Stop: 37489, Start Num: 87

Candidate Starts for GoldenAsh_50:

(7, 36227), (8, 36230), (19, 36521), (29, 36650), (39, 36722), (60, 36845), (72, 36866), (75, 36872), (Start: 87 @36899 has 106 MA's), (92, 36947), (105, 37043), (113, 37070), (119, 37091), (121, 37097), (125, 37121), (142, 37208), (148, 37238), (153, 37271), (155, 37280), (162, 37319), (172, 37358), (175, 37385), (189, 37454),

Gene: Gomashi_50 Start: 36915, Stop: 37505, Start Num: 87

Candidate Starts for Gomashi_50:

(7, 36243), (8, 36246), (19, 36537), (29, 36666), (39, 36738), (60, 36861), (72, 36882), (75, 36888), (Start: 87 @36915 has 106 MA's), (92, 36963), (105, 37059), (113, 37086), (119, 37107), (121, 37113), (125, 37137), (142, 37224), (148, 37254), (153, 37287), (155, 37296), (162, 37335), (172, 37374), (175, 37401), (189, 37470),

Gene: Gravaillia_68 Start: 48220, Stop: 48912, Start Num: 55

Candidate Starts for Gravaillia_68:

(23, 47983), (Start: 55 @48220 has 10 MA's), (56, 48229), (65, 48271), (Start: 77 @48301 has 12 MA's), (93, 48382), (103, 48466), (109, 48490), (112, 48499), (121, 48529), (128, 48562), (140, 48628), (147, 48664), (157, 48718), (161, 48742), (164, 48745), (170, 48760), (173, 48787), (175, 48802), (177, 48811), (180, 48829), (183, 48844),

Gene: Grizzly_51 Start: 36986, Stop: 37576, Start Num: 87

Candidate Starts for Grizzly_51:

(19, 36608), (39, 36809), (60, 36932), (72, 36953), (75, 36959), (Start: 87 @36986 has 106 MA's), (105, 37130), (119, 37178), (121, 37184), (125, 37208), (142, 37295), (148, 37325), (153, 37358), (155, 37367), (162, 37406), (172, 37445), (175, 37472), (189, 37541),

Gene: Guacamole_73 Start: 46646, Stop: 47236, Start Num: 87

Candidate Starts for Guacamole_73:

(39, 46373), (40, 46394), (Start: 87 @46646 has 106 MA's), (120, 46853), (123, 46868), (126, 46880), (128, 46886), (136, 46931), (139, 46949), (142, 46967), (143, 46970), (150, 47009), (151, 47012), (175, 47138), (190, 47210),

Gene: HH92_73 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for HH92_73:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Hadrien_71 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Hadrien_71:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Hail_67 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Hail_67:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Halo_51 Start: 36909, Stop: 37499, Start Num: 87

Candidate Starts for Halo_51:

(7, 36237), (8, 36240), (19, 36531), (29, 36660), (39, 36732), (60, 36855), (72, 36876), (75, 36882), (Start: 87 @36909 has 106 MA's), (92, 36957), (105, 37053), (113, 37080), (119, 37101), (121, 37107), (125, 37131), (142, 37218), (148, 37248), (153, 37281), (155, 37290), (162, 37329), (172, 37368), (175, 37395), (189, 37464),

Gene: Hilltopfarm_84 Start: 54597, Stop: 55166, Start Num: 87

Candidate Starts for Hilltopfarm_84:

(43, 54468), (45, 54471), (50, 54507), (Start: 87 @54597 has 106 MA's), (95, 54663), (110, 54753), (111, 54756), (120, 54786), (121, 54789), (131, 54846), (138, 54870), (140, 54885), (141, 54894), (142, 54897), (143, 54900), (145, 54912), (153, 54960), (157, 54981), (172, 55047), (174, 55068), (181, 55101), (184, 55122), (187, 55134),

Gene: Hitter_73 Start: 44905, Stop: 45495, Start Num: 87

Candidate Starts for Hitter_73:

(Start: 87 @44905 has 106 MA's), (123, 45127), (126, 45139), (128, 45145), (136, 45190), (139, 45208), (142, 45226), (143, 45229), (150, 45268), (151, 45271), (175, 45397),

Gene: Hope_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Hope_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Hotshotbaby7_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Hotshotbaby7_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),
(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),
(175, 37400), (189, 37469),

Gene: Jalammah_78 Start: 48811, Stop: 49401, Start Num: 87

Candidate Starts for Jalammah_78:

(Start: 87 @48811 has 106 MA's), (123, 49033), (126, 49045), (128, 49051), (136, 49096), (139,
49114), (142, 49132), (143, 49135), (150, 49174), (151, 49177), (175, 49303), (190, 49375),

Gene: Jane_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Jane_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),
(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),
(175, 37400), (189, 37469),

Gene: JasperJr_73 Start: 46646, Stop: 47236, Start Num: 87

Candidate Starts for JasperJr_73:

(39, 46373), (40, 46394), (Start: 87 @46646 has 106 MA's), (120, 46853), (123, 46868), (126, 46880),
(128, 46886), (136, 46931), (139, 46949), (142, 46967), (143, 46970), (150, 47009), (151, 47012),
(175, 47138), (190, 47210),

Gene: Jeilious_50 Start: 36913, Stop: 37503, Start Num: 87

Candidate Starts for Jeilious_50:

(7, 36241), (8, 36244), (19, 36535), (29, 36664), (39, 36736), (60, 36859), (72, 36880), (75, 36886),
(Start: 87 @36913 has 106 MA's), (92, 36961), (105, 37057), (113, 37084), (119, 37105), (121, 37111),
(125, 37135), (142, 37222), (148, 37252), (153, 37285), (155, 37294), (162, 37333), (172, 37372),
(175, 37399), (189, 37468),

Gene: Jolene_51 Start: 37076, Stop: 37666, Start Num: 87

Candidate Starts for Jolene_51:

(Start: 87 @37076 has 106 MA's), (92, 37124), (105, 37220), (119, 37268), (121, 37274), (125, 37298),
(142, 37385), (148, 37415), (153, 37448), (155, 37457), (162, 37496), (172, 37535), (175, 37562),
(189, 37631),

Gene: Jolie2_51 Start: 38020, Stop: 38622, Start Num: 87

Candidate Starts for Jolie2_51:

(38, 37849), (39, 37858), (44, 37903), (49, 37936), (Start: 87 @38020 has 106 MA's), (105, 38164),
(121, 38218), (138, 38302), (142, 38329), (153, 38392), (155, 38401), (172, 38491), (175, 38518),

Gene: Jonghyun_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Jonghyun_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),
(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),
(175, 37400), (189, 37469),

Gene: JorRay_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for JorRay_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),

(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: JuJu_82 Start: 50269, Stop: 50862, Start Num: 86

Candidate Starts for JuJu_82:

(Start: 86 @50269 has 4 MA's), (123, 50494), (126, 50506), (128, 50512), (136, 50557), (139, 50575), (143, 50596), (151, 50638), (175, 50764), (190, 50836),

Gene: JustASigh_69 Start: 44678, Stop: 45514, Start Num: 42

Candidate Starts for JustASigh_69:

(Start: 42 @44678 has 1 MA's), (63, 44810), (76, 44855), (79, 44867), (104, 45023), (109, 45044), (128, 45128), (136, 45170), (138, 45179), (152, 45257), (168, 45365), (169, 45368), (175, 45416), (177, 45425), (193, 45503),

Gene: KappaFarmDelta_74 Start: 46258, Stop: 46848, Start Num: 87

Candidate Starts for KappaFarmDelta_74:

(Start: 87 @46258 has 106 MA's), (123, 46480), (126, 46492), (128, 46498), (136, 46543), (139, 46561), (142, 46579), (143, 46582), (150, 46621), (151, 46624), (175, 46750),

Gene: Kareem_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Kareem_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Kasen3_51 Start: 36900, Stop: 37490, Start Num: 87

Candidate Starts for Kasen3_51:

(7, 36228), (8, 36231), (19, 36522), (29, 36651), (39, 36723), (60, 36846), (72, 36867), (75, 36873), (Start: 87 @36900 has 106 MA's), (92, 36948), (105, 37044), (113, 37071), (119, 37092), (121, 37098), (125, 37122), (142, 37209), (148, 37239), (153, 37272), (155, 37281), (162, 37320), (172, 37359), (175, 37386), (189, 37455),

Gene: Kinbote_72 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Kinbote_72:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Lemuria_53 Start: 39211, Stop: 39813, Start Num: 81

Candidate Starts for Lemuria_53:

(53, 39169), (Start: 81 @39211 has 1 MA's), (95, 39277), (105, 39355), (121, 39409), (125, 39433), (138, 39493), (142, 39520), (148, 39550), (153, 39583), (155, 39592), (175, 39709),

Gene: Liefie_50 Start: 37020, Stop: 37610, Start Num: 87

Candidate Starts for Liefie_50:

(31, 36801), (32, 36804), (Start: 87 @37020 has 106 MA's), (92, 37068), (105, 37164), (113, 37191), (119, 37212), (121, 37218), (125, 37242), (142, 37329), (148, 37359), (153, 37392), (155, 37401), (162, 37440), (172, 37479), (175, 37506), (189, 37575),

Gene: LilHazelNut_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for LilHazelNut_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Lilbeanie_66 Start: 45819, Stop: 46490, Start Num: 61

Candidate Starts for Lilbeanie_66:

(51, 45774), (59, 45807), (Start: 61 @45819 has 1 MA's), (121, 46077), (124, 46098), (127, 46107), (141, 46188), (159, 46287), (165, 46317), (175, 46368), (185, 46422), (197, 46482),

Gene: LouisV14_53 Start: 39179, Stop: 39769, Start Num: 87

Candidate Starts for LouisV14_53:

(7, 38507), (8, 38510), (19, 38801), (29, 38930), (39, 39002), (60, 39125), (72, 39146), (75, 39152), (Start: 87 @39179 has 106 MA's), (92, 39227), (105, 39323), (113, 39350), (119, 39371), (121, 39377), (125, 39401), (142, 39488), (148, 39518), (153, 39551), (155, 39560), (162, 39599), (172, 39638), (175, 39665), (189, 39734),

Gene: Luke_71 Start: 48119, Stop: 48811, Start Num: 55

Candidate Starts for Luke_71:

(23, 47882), (Start: 55 @48119 has 10 MA's), (56, 48128), (65, 48170), (Start: 77 @48200 has 12 MA's), (93, 48281), (103, 48365), (109, 48389), (112, 48398), (121, 48428), (128, 48461), (140, 48527), (147, 48563), (157, 48617), (161, 48641), (164, 48644), (170, 48659), (173, 48686), (175, 48701), (177, 48710), (180, 48728), (183, 48743),

Gene: Luna22_67 Start: 48148, Stop: 48840, Start Num: 55

Candidate Starts for Luna22_67:

(23, 47911), (Start: 55 @48148 has 10 MA's), (56, 48157), (65, 48199), (Start: 77 @48229 has 12 MA's), (93, 48310), (103, 48394), (109, 48418), (112, 48427), (121, 48457), (128, 48490), (140, 48556), (147, 48592), (157, 48646), (161, 48670), (164, 48673), (170, 48688), (173, 48715), (175, 48730), (177, 48739), (180, 48757), (183, 48772),

Gene: Lysidious_76 Start: 47074, Stop: 47670, Start Num: 86

Candidate Starts for Lysidious_76:

(62, 46966), (64, 46984), (69, 47026), (Start: 86 @47074 has 4 MA's), (123, 47299), (126, 47311), (128, 47317), (142, 47398), (143, 47401), (151, 47443), (175, 47569),

Gene: MOOREtheMARYer_53 Start: 38622, Stop: 39209, Start Num: 83

Candidate Starts for MOOREtheMARYer_53:

(13, 38118), (35, 38466), (39, 38505), (Start: 83 @38622 has 5 MA's), (92, 38670), (107, 38775), (120, 38817), (121, 38820), (153, 38994), (154, 38997), (155, 39003), (172, 39078), (175, 39105), (178, 39120),

Gene: Malachai_73 Start: 48471, Stop: 49061, Start Num: 87

Candidate Starts for Malachai_73:

(39, 48171), (40, 48192), (Start: 87 @48471 has 106 MA's), (123, 48693), (126, 48705), (128, 48711), (136, 48756), (139, 48774), (142, 48792), (143, 48795), (150, 48834), (151, 48837), (175, 48963),

Gene: Maliketh_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Maliketh_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Marmie_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Marmie_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Melba_74 Start: 45340, Stop: 45930, Start Num: 87

Candidate Starts for Melba_74:

(39, 45037), (40, 45058), (Start: 87 @45340 has 106 MA's), (123, 45562), (126, 45574), (128, 45580), (142, 45661), (143, 45664), (151, 45706), (175, 45832),

Gene: Mellie_72 Start: 45623, Stop: 46213, Start Num: 87

Candidate Starts for Mellie_72:

(21, 45134), (25, 45209), (36, 45299), (Start: 87 @45623 has 106 MA's), (97, 45698), (123, 45845), (126, 45857), (128, 45863), (142, 45944), (151, 45989), (175, 46115), (190, 46187),

Gene: Mercurio_53 Start: 39622, Stop: 40209, Start Num: 83

Candidate Starts for Mercurio_53:

(18, 39133), (74, 39583), (78, 39598), (Start: 83 @39622 has 5 MA's), (92, 39670), (94, 39676), (105, 39766), (121, 39820), (125, 39841), (142, 39928), (153, 39991), (155, 40000), (175, 40105), (189, 40174), (195, 40201),

Gene: MintFen_75 Start: 45842, Stop: 46432, Start Num: 87

Candidate Starts for MintFen_75:

(39, 45569), (40, 45590), (Start: 87 @45842 has 106 MA's), (120, 46049), (123, 46064), (126, 46076), (128, 46082), (136, 46127), (139, 46145), (142, 46163), (143, 46166), (150, 46205), (151, 46208), (175, 46334), (190, 46406),

Gene: MissRona_80 Start: 50047, Stop: 50631, Start Num: 87

Candidate Starts for MissRona_80:

(1, 48946), (2, 48967), (3, 49162), (4, 49204), (5, 49222), (9, 49342), (21, 49609), (27, 49705), (Start: 87 @50047 has 106 MA's), (98, 50128), (99, 50131), (108, 50200), (120, 50251), (121, 50254), (122, 50257), (130, 50296), (133, 50317), (150, 50404), (158, 50443), (160, 50455), (163, 50464), (175, 50524), (180, 50551),

Gene: Mowgli_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Mowgli_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Murp_73 Start: 48722, Stop: 49312, Start Num: 87

Candidate Starts for Murp_73:

(21, 48254), (36, 48419), (Start: 87 @48722 has 106 MA's), (123, 48944), (126, 48956), (128, 48962), (136, 49007), (139, 49025), (142, 49043), (143, 49046), (151, 49088), (175, 49214),

Gene: Neoh_50 Start: 37352, Stop: 37942, Start Num: 87

Candidate Starts for Neoh_50:

(7, 36680), (8, 36683), (19, 36974), (29, 37103), (39, 37175), (60, 37298), (72, 37319), (75, 37325), (Start: 87 @37352 has 106 MA's), (92, 37400), (105, 37496), (113, 37523), (119, 37544), (121, 37550),

(125, 37574), (142, 37661), (148, 37691), (153, 37724), (155, 37733), (162, 37772), (172, 37811), (175, 37838), (189, 37907),

Gene: NovoPizza_81 Start: 50384, Stop: 51010, Start Num: 73

Candidate Starts for NovoPizza_81:

(5, 49607), (20, 49991), (22, 50015), (26, 50075), (28, 50096), (46, 50231), (47, 50246), (51, 50273), (52, 50276), (73, 50384), (Start: 77 @50399 has 12 MA's), (90, 50453), (109, 50588), (115, 50606), (121, 50627), (128, 50660), (135, 50699), (140, 50726), (147, 50762), (149, 50768), (152, 50786), (160, 50831), (161, 50840), (164, 50843), (166, 50852), (175, 50900), (177, 50909), (179, 50921), (180, 50927),

Gene: OBUpride_73 Start: 48289, Stop: 48900, Start Num: 77

Candidate Starts for OBUpride_73:

(23, 47971), (Start: 55 @48208 has 10 MA's), (56, 48217), (65, 48259), (Start: 77 @48289 has 12 MA's), (93, 48370), (103, 48454), (109, 48478), (112, 48487), (121, 48517), (128, 48550), (140, 48616), (147, 48652), (157, 48706), (161, 48730), (164, 48733), (170, 48748), (173, 48775), (175, 48790), (177, 48799), (180, 48817), (183, 48832),

Gene: Obliviate_74 Start: 45891, Stop: 46481, Start Num: 87

Candidate Starts for Obliviate_74:

(Start: 87 @45891 has 106 MA's), (123, 46113), (126, 46125), (128, 46131), (142, 46212), (143, 46215), (151, 46257), (175, 46383),

Gene: OctaviousRex_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for OctaviousRex_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Olga_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Olga_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: PCoral7_74 Start: 46525, Stop: 47115, Start Num: 87

Candidate Starts for PCoral7_74:

(Start: 87 @46525 has 106 MA's), (115, 46702), (121, 46735), (123, 46747), (126, 46759), (128, 46765), (136, 46810), (151, 46891), (175, 47017), (182, 47056),

Gene: Pace1224_50 Start: 37494, Stop: 38078, Start Num: 87

Candidate Starts for Pace1224_50:

(Start: 87 @37494 has 106 MA's), (95, 37560), (114, 37668), (120, 37689), (121, 37692), (122, 37695), (125, 37716), (141, 37797), (148, 37830), (153, 37863), (155, 37872), (172, 37947), (175, 37974),

Gene: Paito_53 Start: 37596, Stop: 38186, Start Num: 87

Candidate Starts for Paito_53:

(16, 37146), (19, 37230), (39, 37431), (75, 37569), (Start: 87 @37596 has 106 MA's), (105, 37740), (119, 37788), (121, 37794), (138, 37878), (142, 37905), (153, 37968), (155, 37977), (172, 38055), (175, 38082), (189, 38151),

Gene: Peeb_50 Start: 36905, Stop: 37495, Start Num: 87

Candidate Starts for Peeb_50:

(7, 36233), (8, 36236), (19, 36527), (29, 36656), (39, 36728), (60, 36851), (72, 36872), (75, 36878),
(Start: 87 @36905 has 106 MA's), (92, 36953), (105, 37049), (113, 37076), (119, 37097), (121, 37103),
(125, 37127), (142, 37214), (148, 37244), (153, 37277), (155, 37286), (162, 37325), (172, 37364),
(175, 37391), (189, 37460),

Gene: Periodt_51 Start: 37067, Stop: 37657, Start Num: 87

Candidate Starts for Periodt_51:

(Start: 87 @37067 has 106 MA's), (92, 37115), (105, 37211), (119, 37259), (121, 37265), (125, 37289),
(142, 37376), (148, 37406), (153, 37439), (155, 37448), (162, 37487), (172, 37526), (175, 37553),
(189, 37622),

Gene: Petra_80 Start: 48158, Stop: 48742, Start Num: 87

Candidate Starts for Petra_80:

(Start: 87 @48158 has 106 MA's), (95, 48224), (98, 48239), (108, 48311), (121, 48365), (122, 48368),
(130, 48407), (133, 48428), (139, 48455), (150, 48515), (158, 48554), (160, 48566), (163, 48575),
(175, 48635),

Gene: Phish_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Phish_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),
(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),
(175, 37400), (189, 37469),

Gene: Phloodle_49 Start: 36929, Stop: 37519, Start Num: 87

Candidate Starts for Phloodle_49:

(7, 36257), (8, 36260), (19, 36551), (29, 36680), (39, 36752), (60, 36875), (72, 36896), (75, 36902),
(Start: 87 @36929 has 106 MA's), (92, 36977), (105, 37073), (113, 37100), (119, 37121), (121, 37127),
(125, 37151), (142, 37238), (148, 37268), (153, 37301), (155, 37310), (162, 37349), (172, 37388),
(175, 37415), (189, 37484),

Gene: Phreak_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Phreak_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887),
(Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112),
(125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373),
(175, 37400), (189, 37469),

Gene: PhrostedPhlake_81 Start: 48308, Stop: 48892, Start Num: 87

Candidate Starts for PhrostedPhlake_81:

(21, 47840), (25, 47915), (36, 48005), (Start: 87 @48308 has 106 MA's), (98, 48389), (108, 48461),
(114, 48479), (120, 48512), (121, 48515), (122, 48518), (130, 48557), (133, 48578), (150, 48665),
(160, 48716), (163, 48725), (175, 48785),

Gene: PinkYoshi_51 Start: 36905, Stop: 37495, Start Num: 87

Candidate Starts for PinkYoshi_51:

(7, 36233), (8, 36236), (19, 36527), (29, 36656), (39, 36728), (60, 36851), (72, 36872), (75, 36878),
(Start: 87 @36905 has 106 MA's), (92, 36953), (105, 37049), (113, 37076), (119, 37097), (121, 37103),
(125, 37127), (142, 37214), (148, 37244), (153, 37277), (155, 37286), (162, 37325), (172, 37364),
(175, 37391), (189, 37460),

Gene: Pinnie_50 Start: 38254, Stop: 38841, Start Num: 83

Candidate Starts for Pinnie_50:

(48, 38170), (54, 38215), (Start: 83 @38254 has 5 MA's), (92, 38302), (107, 38407), (120, 38449), (121, 38452), (153, 38626), (154, 38629), (155, 38635), (172, 38710), (175, 38737), (178, 38752),

Gene: Pipp_79 Start: 47870, Stop: 48448, Start Num: 82

Candidate Starts for Pipp_79:

(Start: 82 @47870 has 1 MA's), (Start: 85 @47873 has 1 MA's), (98, 47954), (108, 48026), (114, 48044), (120, 48077), (121, 48080), (122, 48083), (130, 48122), (133, 48143), (150, 48230), (160, 48281), (163, 48290), (175, 48350),

Gene: Plagueis_51 Start: 36734, Stop: 37324, Start Num: 87

Candidate Starts for Plagueis_51:

(7, 36062), (8, 36065), (19, 36356), (29, 36485), (39, 36557), (60, 36680), (72, 36701), (75, 36707), (Start: 87 @36734 has 106 MA's), (92, 36782), (105, 36878), (113, 36905), (119, 36926), (121, 36932), (125, 36956), (142, 37043), (148, 37073), (153, 37106), (155, 37115), (162, 37154), (172, 37193), (175, 37220), (189, 37289),

Gene: PrincePatrick_76 Start: 45859, Stop: 46449, Start Num: 87

Candidate Starts for PrincePatrick_76:

(Start: 87 @45859 has 106 MA's), (115, 46036), (121, 46069), (123, 46081), (126, 46093), (128, 46099), (136, 46144), (175, 46351), (182, 46390),

Gene: Rabbs_53 Start: 37053, Stop: 37640, Start Num: 87

Candidate Starts for Rabbs_53:

(10, 36564), (12, 36606), (14, 36642), (39, 36975), (Start: 87 @37053 has 106 MA's), (105, 37197), (119, 37245), (121, 37251), (125, 37275), (142, 37362), (153, 37425), (155, 37434), (172, 37509), (175, 37536),

Gene: Rattrick_51 Start: 37067, Stop: 37657, Start Num: 87

Candidate Starts for Rattrick_51:

(Start: 87 @37067 has 106 MA's), (92, 37115), (105, 37211), (119, 37259), (121, 37265), (125, 37289), (142, 37376), (148, 37406), (153, 37439), (155, 37448), (162, 37487), (172, 37526), (175, 37553), (189, 37622),

Gene: Rem711_70 Start: 43454, Stop: 44074, Start Num: 86

Candidate Starts for Rem711_70:

(Start: 86 @43454 has 4 MA's), (88, 43463), (89, 43466), (92, 43505), (100, 43544), (108, 43610), (114, 43628), (116, 43637), (123, 43679), (160, 43853), (175, 43922), (177, 43931), (186, 43985),

Gene: Remy19_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Remy19_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Renaissance_51 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Renaissance_51:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Richarlison_49 Start: 36899, Stop: 37489, Start Num: 87

Candidate Starts for Richarlison_49:

(7, 36227), (8, 36230), (19, 36521), (29, 36650), (39, 36722), (60, 36845), (72, 36866), (75, 36872), (Start: 87 @36899 has 106 MA's), (92, 36947), (105, 37043), (113, 37070), (119, 37091), (121, 37097), (125, 37121), (142, 37208), (148, 37238), (153, 37271), (155, 37280), (162, 37319), (172, 37358), (175, 37385), (189, 37454),

Gene: Ruriko_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Ruriko_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Samba_75 Start: 48756, Stop: 49346, Start Num: 87

Candidate Starts for Samba_75:

(30, 48378), (40, 48474), (Start: 87 @48756 has 106 MA's), (123, 48978), (126, 48990), (128, 48996), (136, 49041), (139, 49059), (142, 49077), (143, 49080), (150, 49119), (151, 49122), (175, 49248),

Gene: Schiebel_51 Start: 36899, Stop: 37489, Start Num: 87

Candidate Starts for Schiebel_51:

(7, 36227), (8, 36230), (19, 36521), (29, 36650), (39, 36722), (60, 36845), (72, 36866), (75, 36872), (Start: 87 @36899 has 106 MA's), (92, 36947), (105, 37043), (113, 37070), (119, 37091), (121, 37097), (125, 37121), (142, 37208), (148, 37238), (153, 37271), (155, 37280), (162, 37319), (172, 37358), (175, 37385), (189, 37454),

Gene: ShaboiShabazz_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for ShaboiShabazz_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Sizemore_51 Start: 36900, Stop: 37490, Start Num: 87

Candidate Starts for Sizemore_51:

(7, 36228), (8, 36231), (19, 36522), (29, 36651), (39, 36723), (60, 36846), (72, 36867), (75, 36873), (Start: 87 @36900 has 106 MA's), (92, 36948), (105, 37044), (113, 37071), (119, 37092), (121, 37098), (125, 37122), (142, 37209), (148, 37239), (153, 37272), (155, 37281), (162, 37320), (172, 37359), (175, 37386), (189, 37455),

Gene: Sleepyhead_61 Start: 40018, Stop: 40581, Start Num: 84

Candidate Starts for Sleepyhead_61:

(17, 39454), (33, 39658), (37, 39706), (67, 39922), (76, 39991), (Start: 84 @40018 has 2 MA's), (99, 40105), (101, 40114), (106, 40168), (117, 40207), (132, 40303), (137, 40318), (138, 40324), (143, 40354), (144, 40360), (146, 40369), (153, 40414), (156, 40426), (177, 40507), (183, 40537),

Gene: Sneeze_52 Start: 37052, Stop: 37639, Start Num: 87

Candidate Starts for Sneeze_52:

(10, 36563), (12, 36605), (14, 36641), (39, 36974), (Start: 87 @37052 has 106 MA's), (105, 37196), (119, 37244), (121, 37250), (125, 37274), (142, 37361), (153, 37424), (155, 37433), (172, 37508), (175, 37535),

Gene: Stargaze_52 Start: 38445, Stop: 39032, Start Num: 83

Candidate Starts for Stargaze_52:

(35, 38190), (74, 38406), (Start: 83 @38445 has 5 MA's), (92, 38493), (107, 38598), (120, 38640), (121, 38643), (141, 38751), (153, 38817), (154, 38820), (155, 38826), (172, 38901), (175, 38928),

Gene: Sweets_50 Start: 36909, Stop: 37499, Start Num: 87

Candidate Starts for Sweets_50:

(7, 36237), (8, 36240), (19, 36531), (29, 36660), (39, 36732), (60, 36855), (72, 36876), (75, 36882), (Start: 87 @36909 has 106 MA's), (92, 36957), (105, 37053), (113, 37080), (119, 37101), (121, 37107), (125, 37131), (142, 37218), (148, 37248), (153, 37281), (155, 37290), (162, 37329), (172, 37368), (175, 37395), (189, 37464),

Gene: Taheera_49 Start: 36701, Stop: 37288, Start Num: 87

Candidate Starts for Taheera_49:

(Start: 87 @36701 has 106 MA's), (105, 36845), (119, 36893), (121, 36899), (125, 36923), (142, 37010), (153, 37073), (155, 37082), (172, 37157), (175, 37184),

Gene: Terror_49 Start: 36701, Stop: 37288, Start Num: 87

Candidate Starts for Terror_49:

(Start: 87 @36701 has 106 MA's), (105, 36845), (119, 36893), (121, 36899), (125, 36923), (142, 37010), (153, 37073), (155, 37082), (172, 37157), (175, 37184),

Gene: TinaBug_51 Start: 36909, Stop: 37499, Start Num: 87

Candidate Starts for TinaBug_51:

(7, 36237), (8, 36240), (19, 36531), (29, 36660), (39, 36732), (60, 36855), (72, 36876), (75, 36882), (Start: 87 @36909 has 106 MA's), (92, 36957), (105, 37053), (113, 37080), (119, 37101), (121, 37107), (125, 37131), (142, 37218), (148, 37248), (153, 37281), (155, 37290), (162, 37329), (172, 37368), (175, 37395), (189, 37464),

Gene: Toast_74 Start: 46525, Stop: 47115, Start Num: 87

Candidate Starts for Toast_74:

(Start: 87 @46525 has 106 MA's), (115, 46702), (121, 46735), (123, 46747), (126, 46759), (128, 46765), (136, 46810), (151, 46891), (175, 47017), (182, 47056),

Gene: TomBrady_51 Start: 36915, Stop: 37505, Start Num: 87

Candidate Starts for TomBrady_51:

(7, 36243), (8, 36246), (19, 36537), (29, 36666), (39, 36738), (60, 36861), (72, 36882), (75, 36888), (Start: 87 @36915 has 106 MA's), (92, 36963), (105, 37059), (113, 37086), (119, 37107), (121, 37113), (125, 37137), (142, 37224), (148, 37254), (153, 37287), (155, 37296), (162, 37335), (172, 37374), (175, 37401), (189, 37470),

Gene: Typha_83 Start: 54897, Stop: 55466, Start Num: 87

Candidate Starts for Typha_83:

(43, 54768), (45, 54771), (50, 54807), (Start: 87 @54897 has 106 MA's), (95, 54963), (110, 55053), (111, 55056), (120, 55086), (121, 55089), (131, 55146), (138, 55170), (140, 55185), (141, 55194), (142, 55197), (143, 55200), (145, 55212), (153, 55260), (157, 55281), (172, 55347), (174, 55368), (181, 55401), (184, 55422), (187, 55434),

Gene: Ubuntu_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Ubuntu_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175,

48746), (177, 48755), (180, 48773), (183, 48788),

Gene: UmaThurman_76 Start: 46447, Stop: 47037, Start Num: 87

Candidate Starts for UmaThurman_76:

(Start: 87 @46447 has 106 MA's), (123, 46669), (126, 46681), (128, 46687), (136, 46732), (139, 46750), (142, 46768), (143, 46771), (150, 46810), (151, 46813), (175, 46939), (190, 47011),

Gene: Utz_66 Start: 46364, Stop: 46954, Start Num: 87

Candidate Starts for Utz_66:

(Start: 87 @46364 has 106 MA's), (123, 46586), (126, 46598), (128, 46604), (136, 46649), (139, 46667), (143, 46688), (151, 46730), (175, 46856), (190, 46928),

Gene: Walrus_73 Start: 47019, Stop: 47603, Start Num: 87

Candidate Starts for Walrus_73:

(80, 47004), (Start: 87 @47019 has 106 MA's), (95, 47085), (98, 47100), (108, 47172), (120, 47223), (121, 47226), (122, 47229), (130, 47268), (133, 47289), (150, 47376), (160, 47427), (163, 47436), (175, 47496),

Gene: Webster2_74 Start: 48245, Stop: 48856, Start Num: 77

Candidate Starts for Webster2_74:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140, 48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Weirido19_69 Start: 44467, Stop: 45291, Start Num: 46

Candidate Starts for Weirido19_69:

(24, 44290), (46, 44467), (63, 44593), (79, 44650), (96, 44746), (104, 44812), (109, 44833), (121, 44884), (128, 44917), (135, 44956), (142, 44995), (152, 45046), (167, 45130), (171, 45154), (175, 45193), (176, 45199), (193, 45280),

Gene: Wendigo_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Wendigo_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Whack_67 Start: 43772, Stop: 44335, Start Num: 84

Candidate Starts for Whack_67:

(67, 43679), (68, 43697), (75, 43742), (76, 43751), (Start: 84 @43772 has 2 MA's), (99, 43859), (101, 43868), (113, 43946), (117, 43961), (118, 43973), (129, 44024), (136, 44069), (143, 44108), (156, 44180), (175, 44249), (182, 44285), (191, 44324),

Gene: William_77 Start: 47824, Stop: 48414, Start Num: 87

Candidate Starts for William_77:

(15, 47206), (34, 47485), (41, 47560), (Start: 87 @47824 has 106 MA's), (123, 48046), (126, 48058), (128, 48064), (136, 48109), (142, 48145), (143, 48148), (151, 48190), (175, 48316),

Gene: Wishmaker_67 Start: 48164, Stop: 48856, Start Num: 55

Candidate Starts for Wishmaker_67:

(23, 47927), (Start: 55 @48164 has 10 MA's), (56, 48173), (65, 48215), (Start: 77 @48245 has 12 MA's), (93, 48326), (103, 48410), (109, 48434), (112, 48443), (121, 48473), (128, 48506), (140,

48572), (147, 48608), (157, 48662), (161, 48686), (164, 48689), (170, 48704), (173, 48731), (175, 48746), (177, 48755), (180, 48773), (183, 48788),

Gene: Wisp_73 Start: 46479, Stop: 47069, Start Num: 87

Candidate Starts for Wisp_73:

(Start: 87 @46479 has 106 MA's), (123, 46701), (126, 46713), (128, 46719), (139, 46782), (142, 46800), (143, 46803), (150, 46842), (151, 46845), (175, 46971), (190, 47043),

Gene: Wocket_74 Start: 46904, Stop: 47488, Start Num: 87

Candidate Starts for Wocket_74:

(Start: 87 @46904 has 106 MA's), (98, 46985), (108, 47057), (121, 47111), (122, 47114), (130, 47153), (133, 47174), (158, 47300), (160, 47312), (163, 47321), (175, 47381),

Gene: YangYin_52 Start: 38427, Stop: 39053, Start Num: 74

Candidate Starts for YangYin_52:

(35, 38211), (74, 38427), (Start: 83 @38466 has 5 MA's), (92, 38514), (107, 38619), (120, 38661), (121, 38664), (141, 38772), (153, 38838), (154, 38841), (155, 38847), (172, 38922), (175, 38949),

Gene: Zarbodnamra_79 Start: 46838, Stop: 47428, Start Num: 87

Candidate Starts for Zarbodnamra_79:

(39, 46565), (40, 46586), (Start: 87 @46838 has 106 MA's), (123, 47060), (126, 47072), (128, 47078), (136, 47123), (139, 47141), (143, 47162), (151, 47204), (175, 47330), (190, 47402),

Gene: ZiggyZoo_76 Start: 48324, Stop: 48914, Start Num: 87

Candidate Starts for ZiggyZoo_76:

(Start: 87 @48324 has 106 MA's), (123, 48546), (126, 48558), (128, 48564), (136, 48609), (139, 48627), (142, 48645), (143, 48648), (150, 48687), (151, 48690), (175, 48816),

Gene: Zilla_73 Start: 45688, Stop: 46278, Start Num: 87

Candidate Starts for Zilla_73:

(39, 45415), (40, 45436), (Start: 87 @45688 has 106 MA's), (120, 45895), (123, 45910), (126, 45922), (128, 45928), (136, 45973), (143, 46012), (150, 46051), (151, 46054), (175, 46180), (190, 46252),

Gene: ZoMa_49 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for ZoMa_49:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),

Gene: Zombie_50 Start: 36914, Stop: 37504, Start Num: 87

Candidate Starts for Zombie_50:

(7, 36242), (8, 36245), (19, 36536), (29, 36665), (39, 36737), (60, 36860), (72, 36881), (75, 36887), (Start: 87 @36914 has 106 MA's), (92, 36962), (105, 37058), (113, 37085), (119, 37106), (121, 37112), (125, 37136), (142, 37223), (148, 37253), (153, 37286), (155, 37295), (162, 37334), (172, 37373), (175, 37400), (189, 37469),