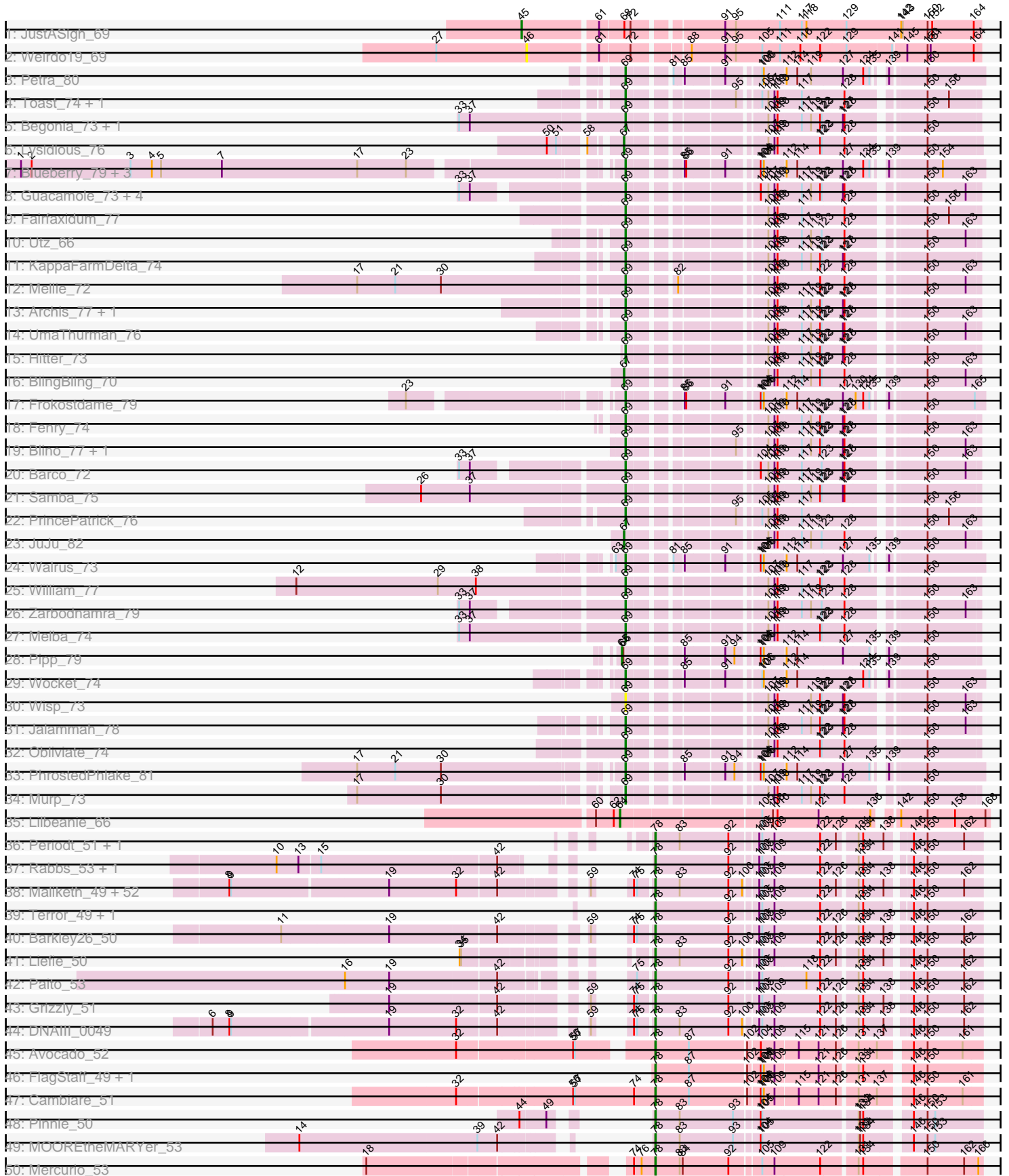
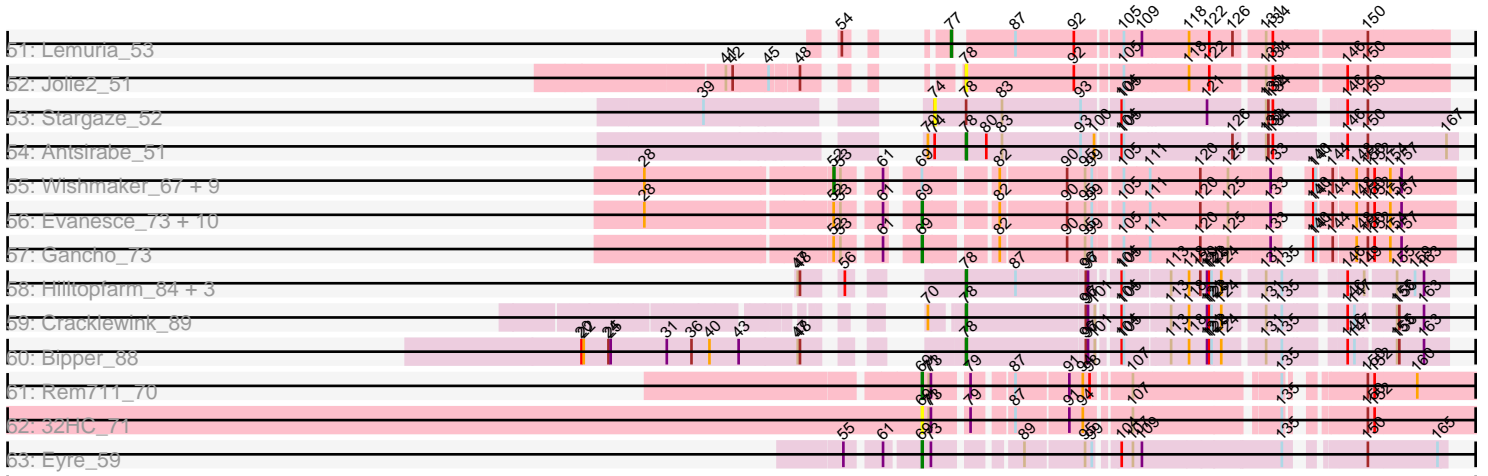


Pham 224352



Pham 224352



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 224352 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224352 has 152 members, 12 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 : Blueberry_79, Gambino_82, Azula_80, MissRona_80
- Track 8 : Guacamole_73, Delian_78, MintFen_75, JasperJr_73, CaptainKirk2_75
- Track 9 : Fairfaxidum_77
- Track 10 : Utz_66
- Track 11 : KappaFarmDelta_74
- Track 12 : Mellie_72
- Track 13 : Archis_77, ZiggyZoo_76
- Track 14 : UmaThurman_76
- Track 15 : Hitter_73
- Track 16 : BlingBling_70
- Track 17 : Frokostdame_79
- Track 18 : Fenry_74
- Track 19 : Blino_77, CarolAnn_76
- Track 20 : Barco_72
- Track 21 : Samba_75
- Track 22 : PrincePatrick_76
- Track 23 : JuJu_82
- Track 24 : Walrus_73
- Track 25 : William_77
- 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 : PhrostedPhlake_81
- Track 34 : Murp_73
- Track 35 : Lilbeanie_66
- Track 36 : Periodt_51, Jolene_51
- Track 37 : Rabbs_53, Sneeze_52

- Track 38 : Maliketh_49, Avrafan_51, Sizemore_51, Frosty24_51, Olga_51, Zombie_50, TinaBug_49, Phish_50, Wendigo_49, Hotshotbaby7_51, BPs_51, Kareem_51, BruceB_51, Aroostook_51, Hope_51, Plagueis_51, JorRay_51, Gideon_52, Cedasite_51, Cherrybomb426_51, Annihilator_51, Phreak_51, Mowgli_51, Renaissance_51, Remy19_51, Darionha_51, Crespo_50, ShaboiShabazz_50, CLED96_51, GoldenAsh_50, Gomashi_50, AzulaCat_49, Camri_51, PinkYoshi_51, BQuat_51, ZoMa_49, Jane_51, Peeb_50, CassieYates_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 39 : Terror_49, Taheera_49
- Track 40 : Barkley26_50
- Track 41 : Liefie_50
- Track 42 : Paito_53
- Track 43 : Grizzly_51
- Track 44 : DNAIII_0049
- Track 45 : Avocado_52
- Track 46 : FlagStaff_49, Pace1224_50
- Track 47 : Cambiare_51
- Track 48 : Pinnie_50
- Track 49 : MOOREtheMARYer_53
- Track 50 : Mercurio_53
- Track 51 : Lemuria_53
- Track 52 : Jolie2_51
- Track 53 : Stargaze_52
- Track 54 : Antsirabe_51
- Track 55 : Wishmaker_67, Luna22_67, Luke_71, Giles_67, Hadrien_71, Dewey_67, Hail_67, Gravallia_68, Daegal_76, Forge_67
- Track 56 : Evanesce_73, Amymech_74, Ein37_74, Webster2_74, OBUpride_73, Amochick_75, LilHazelNut_74, Kinbote_72, Ubuntu_74, DeepSoil15_74, HH92_73
- Track 57 : Gancho_73
- Track 58 : Hilltopfarm_84, Faiyaz_83, AuntGwenStacy_83, Typha_83
- Track 59 : Cracklewink_89
- Track 60 : Bipper_88
- Track 61 : Rem711_70
- Track 62 : 32HC_71
- Track 63 : Eyre_59

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

The start number called the most often in the published annotations is 78, it was called in 71 of the 140 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angel_51, Annihilator_51, Antsirabe_51, Aroostook_51, AuntGwenStacy_83, Avocado_52, Avrafan_51, AzulaCat_49, BPs_51, BQuat_51, Barkley26_50, Bipper_88, BruceB_51, CLED96_51, Cambiare_51, Camri_51, CassieYates_51, Cedasite_51, Chance64_51, Cherrybomb426_51, Coleslaw_51, Cracklewink_89, Crespo_50, DMoney_50, DNAIII_0049, Darionha_51, ECartman_49, Faiyaz_83, FlagStaff_49, Frosty24_51, Gideon_52, GoldenAsh_50, Gomashi_50, Grizzly_51,

Halo_51, Hilltopfarm_84, Hope_51, Hotshotbaby7_51, Jane_51, Jolene_51, Jolie2_51, Jonghyun_49, JorRay_51, Kareem_51, Kasen3_51, Liefie_50, LouisV14_53, MOOREtheMARYer_53, Maliketh_49, Marmie_51, Mercurio_53, Mowgli_51, OctaviousRex_50, Olga_51, Pace1224_50, Paito_53, Peeb_50, Periodt_51, Phish_50, Phreak_51, PinkYoshi_51, Pinnie_50, Plagueis_51, Rabbs_53, Remy19_51, Renaissance_51, Schiebel_51, ShaboiShabazz_50, Sizemore_51, Sneeze_52, Sweets_50, Taheera_49, Terror_49, TinaBug_49, TomBrady_51, Typha_83, Wendigo_49, ZoMa_49, Zombie_50,

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

- Stargaze_52,

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

- 32HC_71, Amochick_75, Amymech_74, Archis_77, Azula_80, Barco_72, Begonia_73, BlingBling_70, Blino_77, Blueberry_79, CaptainKirk2_75, CarolAnn_76, Daegal_76, DeepSoil15_74, Delian_78, Dewey_67, Ein37_74, Evanesce_73, Eyre_59, Fairfaxidum_77, Fenry_74, Forge_67, Frokostdame_79, Gambino_82, Gancho_73, Giles_67, Gravaillia_68, Guacamole_73, HH92_73, Hadrien_71, Hail_67, Hitter_73, Jalammah_78, JasperJr_73, JuJu_82, JustASigh_69, KappaFarmDelta_74, Kinbote_72, Lemuria_53, LilHazelNut_74, Lilbeanie_66, Luke_71, Luna22_67, Lysidious_76, Malachai_73, Melba_74, Mellie_72, MintFen_75, MissRona_80, Murp_73, OBUpride_73, Obliviate_74, PCoral7_74, Petra_80, PhrostedPhlake_81, Pipp_79, PrincePatrick_76, Rem711_70, Samba_75, Toast_74, Ubuntu_74, UmaThurman_76, Utz_66, Walrus_73, Webster2_74, Weirido19_69, William_77, Wishmaker_67, Wisp_73, Wocket_74, Zarbodnamra_79, ZiggyZoo_76,

Summary by start number:

Start 45:

- Found in 2 of 152 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 50.0% of time when present
- Phage (with cluster) where this start called: JustASigh_69 (AH),

Start 46:

- Found in 1 of 152 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weirido19_69 (AH),

Start 52:

- Found in 22 of 152 (14.5%) of genes in pham
- Manual Annotations of this start: 10 of 140
- Called 45.5% 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 64:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_66 (DE5),

Start 65:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_79 (CV),

Start 67:

- Found in 3 of 152 (2.0%) of genes in pham
- Manual Annotations of this start: 3 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlingBling_70 (CV), JuJu_82 (CV), Lysidious_76 (CV),

Start 69:

- Found in 64 of 152 (42.1%) of genes in pham
- Manual Annotations of this start: 52 of 140
- Called 84.4% of time when present
- Phage (with cluster) where this start called: 32HC_71 (Z), Amochick_75 (Q), Amymech_74 (Q), Archis_77 (CV), Azula_80 (CV), Barco_72 (CV), Begonia_73 (CV), Blino_77 (CV), Blueberry_79 (CV), CaptainKirk2_75 (CV), CarolAnn_76 (CV), DeepSoil15_74 (Q), Delian_78 (CV), Ein37_74 (Q), Evanesce_73 (Q), Eyre_59 (singleton), Fairfaxidum_77 (CV), Ferry_74 (CV), Frokostdame_79 (CV), Gambino_82 (CV), Gancho_73 (Q), Guacamole_73 (CV), HH92_73 (Q), Hitter_73 (CV), Jalammah_78 (CV), JasperJr_73 (CV), KappaFarmDelta_74 (CV), Kinbote_72 (Q), LilHazelNut_74 (Q), Malachai_73 (CV), Melba_74 (CV), Mellie_72 (CV), MintFen_75 (CV), MissRona_80 (CV), Murp_73 (CV), OBUpride_73 (Q), Obliviate_74 (CV), PCoral7_74 (CV), Petra_80 (CV), PhrostedPhlake_81 (CV), PrincePatrick_76 (CV), Rem711_70 (Z), Samba_75 (CV), Toast_74 (CV), Ubuntu_74 (Q), UmaThurman_76 (CV), Utz_66 (CV), Walrus_73 (CV), Webster2_74 (Q), William_77 (CV), Wisp_73 (CV), Wocket_74 (CV), Zarbodnamra_79 (CV), ZiggyZoo_76 (CV),

Start 74:

- Found in 60 of 152 (39.5%) of genes in pham
- No Manual Annotations of this start.
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Stargaze_52 (G5),

Start 77:

- Found in 1 of 152 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lemuria_53 (G4),

Start 78:

- Found in 80 of 152 (52.6%) of genes in pham
- Manual Annotations of this start: 71 of 140
- Called 98.8% of time when present
- Phage (with cluster) where this start called: Angel_51 (G1), Annihilator_51 (G1), Antsirabe_51 (G5), Aroostook_51 (G1), AuntGwenStacy_83 (Y), Avocado_52 (G2), Avrafan_51 (G1), AzulaCat_49 (G1), BPs_51 (G1), BQuat_51 (G1), Barkley26_50 (G1), Bipper_88 (Y), BruceB_51 (G1), CLÉD96_51 (G1), Cambiare_51 (G2), Camri_51 (G1), CassieYates_51 (G1), Cedasite_51 (G1), Chance64_51 (G1),

Cherrybomb426_51 (G1), Coleslaw_51 (G1), Cracklewink_89 (Y), Crespo_50 (G1), DMoney_50 (G1), DNAIII_0049 (G1), Darionha_51 (G1), ECartman_49 (G1), Faiyaz_83 (Y), FlagStaff_49 (G2), Frosty24_51 (G1), Gideon_52 (G1), GoldenAsh_50 (G1), Gomashi_50 (G1), Grizzly_51 (G1), Halo_51 (G1), Hilltopfarm_84 (Y), Hope_51 (G1), Hotshotbaby7_51 (G1), Jane_51 (G1), Jolene_51 (G1), Jolie2_51 (G4), Jonghyun_49 (G1), JorRay_51 (G1), Kareem_51 (G1), Kasen3_51 (G1), Liefie_50 (G1), LouisV14_53 (G1), MOOREtheMARYer_53 (G3), Maliketh_49 (G1), Marmie_51 (G1), Mercurio_53 (G4), Mowgli_51 (G1), OctaviousRex_50 (G1), Olga_51 (G1), Pace1224_50 (G2), Paito_53 (G1), Peeb_50 (G1), Periodt_51 (G1), Phish_50 (G1), Phreak_51 (G1), PinkYoshi_51 (G1), Pinnie_50 (G3), Plagueis_51 (G1), Rabbs_53 (G1), Remy19_51 (G1), Renaissance_51 (G1), Schiebel_51 (G1), ShaboiShabazz_50 (G1), Sizemore_51 (G1), Sneeze_52 (G1), Sweets_50 (G1), Taheera_49 (G1), Terror_49 (G1), TinaBug_49 (G1), TomBrady_51 (G1), Typha_83 (Y), Wendigo_49 (G1), ZoMa_49 (G1), Zombie_50 (G1),

Summary by clusters:

There are 12 clusters represented in this pham: G5, G4, G3, G2, G1, AH, singleton, DE5, Q, Y, Z, CV,

Info for manual annotations of cluster AH:

- Start number 45 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster CV:

- Start number 65 was manually annotated 1 time for cluster CV.
- Start number 67 was manually annotated 3 times for cluster CV.
- Start number 69 was manually annotated 38 times for cluster CV.

Info for manual annotations of cluster DE5:

- Start number 64 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster G1:

- Start number 78 was manually annotated 60 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 78 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 78 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 77 was manually annotated 1 time for cluster G4.
- Start number 78 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 78 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster Q:

- Start number 52 was manually annotated 10 times for cluster Q.
- Start number 69 was manually annotated 12 times for cluster Q.

Info for manual annotations of cluster Y:

- Start number 78 was manually annotated 4 times for cluster Y.

Info for manual annotations of cluster Z:

•Start number 69 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_71 Start: 43501, Stop: 44121, Start Num: 69

Candidate Starts for 32HC_71:

(Start: 69 @43501 has 52 MA's), (71, 43510), (73, 43513), (79, 43552), (87, 43591), (91, 43657), (94, 43675), (107, 43726), (135, 43900), (150, 43969), (152, 43978),

Gene: Amochick_75 Start: 48792, Stop: 49403, Start Num: 69

Candidate Starts for Amochick_75:

(28, 48474), (Start: 52 @48711 has 10 MA's), (53, 48720), (61, 48762), (Start: 69 @48792 has 52 MA's), (82, 48873), (90, 48957), (95, 48981), (99, 48990), (105, 49020), (111, 49053), (120, 49119), (125, 49155), (133, 49209), (140, 49233), (141, 49236), (144, 49251), (148, 49278), (150, 49293), (152, 49302), (154, 49320), (157, 49335),

Gene: Amymech_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Amymech_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Angel_51 Start: 36899, Stop: 37489, Start Num: 78

Candidate Starts for Angel_51:

(8, 36227), (9, 36230), (19, 36521), (32, 36650), (42, 36722), (59, 36845), (74, 36866), (75, 36872), (Start: 78 @36899 has 71 MA's), (83, 36947), (92, 37043), (100, 37070), (103, 37091), (105, 37097), (109, 37121), (122, 37208), (126, 37238), (131, 37271), (134, 37280), (138, 37319), (146, 37358), (150, 37385), (162, 37454),

Gene: Annihilator_51 Start: 36905, Stop: 37495, Start Num: 78

Candidate Starts for Annihilator_51:

(8, 36233), (9, 36236), (19, 36527), (32, 36656), (42, 36728), (59, 36851), (74, 36872), (75, 36878), (Start: 78 @36905 has 71 MA's), (83, 36953), (92, 37049), (100, 37076), (103, 37097), (105, 37103), (109, 37127), (122, 37214), (126, 37244), (131, 37277), (134, 37286), (138, 37325), (146, 37364), (150, 37391), (162, 37460),

Gene: Antsirabe_51 Start: 38179, Stop: 38778, Start Num: 78

Candidate Starts for Antsirabe_51:

(70, 38131), (74, 38140), (Start: 78 @38179 has 71 MA's), (80, 38206), (83, 38227), (93, 38332), (100, 38350), (104, 38374), (105, 38377), (126, 38518), (131, 38551), (132, 38554), (134, 38560), (146, 38635), (150, 38662), (167, 38764),

Gene: Archis_77 Start: 45860, Stop: 46450, Start Num: 69

Candidate Starts for Archis_77:

(Start: 69 @45860 has 52 MA's), (107, 46082), (109, 46094), (110, 46100), (117, 46145), (119, 46163), (122, 46181), (123, 46184), (127, 46223), (128, 46226), (150, 46352),

Gene: Aroostook_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Aroostook_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: AuntGwenStacy_83 Start: 54897, Stop: 55466, Start Num: 78

Candidate Starts for AuntGwenStacy_83:

(47, 54768), (48, 54771), (56, 54807), (Start: 78 @54897 has 71 MA's), (87, 54963), (96, 55053), (97, 55056), (104, 55086), (105, 55089), (113, 55146), (118, 55170), (120, 55185), (121, 55194), (122, 55197), (123, 55200), (124, 55212), (131, 55260), (135, 55281), (146, 55347), (149, 55368), (155, 55401), (159, 55422), (163, 55434),

Gene: Avocado_52 Start: 39158, Stop: 39742, Start Num: 78

Candidate Starts for Avocado_52:

(32, 38822), (56, 39035), (57, 39038), (Start: 78 @39158 has 71 MA's), (87, 39224), (102, 39332), (104, 39353), (109, 39380), (115, 39422), (121, 39461), (126, 39494), (131, 39527), (137, 39563), (146, 39611), (150, 39638), (161, 39704),

Gene: Avrafan_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Avrafan_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Azula_80 Start: 50046, Stop: 50630, Start Num: 69

Candidate Starts for Azula_80:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (7, 49341), (17, 49608), (23, 49704), (Start: 69 @50046 has 52 MA's), (85, 50127), (86, 50130), (91, 50199), (104, 50250), (105, 50253), (106, 50256), (112, 50295), (114, 50316), (127, 50403), (134, 50442), (135, 50454), (139, 50463), (150, 50523), (154, 50550),

Gene: AzulaCat_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for AzulaCat_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: BPs_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for BPs_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: BQuat_51 Start: 37351, Stop: 37941, Start Num: 78

Candidate Starts for BQuat_51:

(8, 36679), (9, 36682), (19, 36973), (32, 37102), (42, 37174), (59, 37297), (74, 37318), (75, 37324), (Start: 78 @37351 has 71 MA's), (83, 37399), (92, 37495), (100, 37522), (103, 37543), (105, 37549), (109, 37573), (122, 37660), (126, 37690), (131, 37723), (134, 37732), (138, 37771), (146, 37810), (150, 37837), (162, 37906),

Gene: Barco_72 Start: 45671, Stop: 46261, Start Num: 69

Candidate Starts for Barco_72:

(33, 45398), (37, 45419), (Start: 69 @45671 has 52 MA's), (104, 45878), (107, 45893), (109, 45905), (110, 45911), (117, 45956), (123, 45995), (127, 46034), (128, 46037), (150, 46163), (163, 46235),

Gene: Barkley26_50 Start: 36819, Stop: 37409, Start Num: 78

Candidate Starts for Barkley26_50:

(11, 36237), (19, 36438), (42, 36639), (59, 36765), (74, 36786), (75, 36792), (Start: 78 @36819 has 71 MA's), (92, 36963), (103, 37011), (105, 37017), (109, 37041), (122, 37128), (126, 37158), (131, 37191), (134, 37200), (138, 37239), (146, 37278), (150, 37305), (162, 37374),

Gene: Begonia_73 Start: 48471, Stop: 49061, Start Num: 69

Candidate Starts for Begonia_73:

(33, 48171), (37, 48192), (Start: 69 @48471 has 52 MA's), (107, 48693), (109, 48705), (110, 48711), (117, 48756), (119, 48774), (122, 48792), (123, 48795), (127, 48834), (128, 48837), (150, 48963),

Gene: Bipper_88 Start: 56814, Stop: 57383, Start Num: 78

Candidate Starts for Bipper_88:

(20, 56400), (22, 56403), (24, 56436), (25, 56439), (31, 56514), (36, 56547), (40, 56571), (43, 56610), (47, 56688), (48, 56691), (Start: 78 @56814 has 71 MA's), (96, 56970), (97, 56973), (101, 56982), (104, 57003), (105, 57006), (113, 57063), (118, 57087), (121, 57111), (122, 57114), (123, 57117), (124, 57129), (131, 57177), (135, 57198), (146, 57264), (147, 57273), (155, 57318), (156, 57321), (163, 57351),

Gene: BlingBling_70 Start: 45443, Stop: 46036, Start Num: 67

Candidate Starts for BlingBling_70:

(Start: 67 @45443 has 3 MA's), (107, 45668), (109, 45680), (110, 45686), (117, 45731), (119, 45749), (122, 45767), (123, 45770), (128, 45812), (150, 45938), (163, 46010),

Gene: Blino_77 Start: 51275, Stop: 51865, Start Num: 69

Candidate Starts for Blino_77:

(Start: 69 @51275 has 52 MA's), (95, 51452), (107, 51497), (109, 51509), (110, 51515), (117, 51560), (119, 51578), (122, 51596), (123, 51599), (127, 51638), (128, 51641), (150, 51767), (163, 51839),

Gene: Blueberry_79 Start: 50046, Stop: 50630, Start Num: 69

Candidate Starts for Blueberry_79:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (7, 49341), (17, 49608), (23, 49704), (Start: 69 @50046 has 52 MA's), (85, 50127), (86, 50130), (91, 50199), (104, 50250), (105, 50253), (106, 50256), (112, 50295), (114, 50316), (127, 50403), (134, 50442), (135, 50454), (139, 50463), (150, 50523), (154, 50550),

Gene: BruceB_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for BruceB_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: CLED96_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for CLED96_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),

(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Cambiare_51 Start: 38958, Stop: 39542, Start Num: 78

Candidate Starts for Cambiare_51:

(32, 38583), (56, 38796), (57, 38799), (74, 38916), (Start: 78 @38958 has 71 MA's), (87, 39024), (102, 39132), (104, 39153), (105, 39156), (106, 39159), (109, 39180), (115, 39222), (121, 39261), (126, 39294), (131, 39327), (137, 39363), (146, 39411), (150, 39438), (161, 39504),

Gene: Camri_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Camri_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: CaptainKirk2_75 Start: 45228, Stop: 45818, Start Num: 69

Candidate Starts for CaptainKirk2_75:

(33, 44955), (37, 44976), (Start: 69 @45228 has 52 MA's), (104, 45435), (107, 45450), (109, 45462),
(110, 45468), (117, 45513), (119, 45531), (122, 45549), (123, 45552), (127, 45591), (128, 45594),
(150, 45720), (163, 45792),

Gene: CarolAnn_76 Start: 51274, Stop: 51864, Start Num: 69

Candidate Starts for CarolAnn_76:

(Start: 69 @51274 has 52 MA's), (95, 51451), (107, 51496), (109, 51508), (110, 51514), (117, 51559),
(119, 51577), (122, 51595), (123, 51598), (127, 51637), (128, 51640), (150, 51766), (163, 51838),

Gene: CassieYates_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for CassieYates_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Cedasite_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Cedasite_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Chance64_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Chance64_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Cherrybomb426_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Cherrybomb426_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),

(150, 37400), (162, 37469),

Gene: Coleslaw_51 Start: 37351, Stop: 37941, Start Num: 78

Candidate Starts for Coleslaw_51:

(8, 36679), (9, 36682), (19, 36973), (32, 37102), (42, 37174), (59, 37297), (74, 37318), (75, 37324), (Start: 78 @37351 has 71 MA's), (83, 37399), (92, 37495), (100, 37522), (103, 37543), (105, 37549), (109, 37573), (122, 37660), (126, 37690), (131, 37723), (134, 37732), (138, 37771), (146, 37810), (150, 37837), (162, 37906),

Gene: Cracklewink_89 Start: 56009, Stop: 56578, Start Num: 78

Candidate Starts for Cracklewink_89:

(70, 55973), (Start: 78 @56009 has 71 MA's), (96, 56165), (97, 56168), (101, 56177), (104, 56198), (105, 56201), (113, 56258), (118, 56282), (121, 56306), (122, 56309), (123, 56312), (124, 56324), (131, 56372), (135, 56393), (146, 56459), (147, 56468), (155, 56513), (156, 56516), (163, 56546),

Gene: Crespo_50 Start: 36915, Stop: 37505, Start Num: 78

Candidate Starts for Crespo_50:

(8, 36243), (9, 36246), (19, 36537), (32, 36666), (42, 36738), (59, 36861), (74, 36882), (75, 36888), (Start: 78 @36915 has 71 MA's), (83, 36963), (92, 37059), (100, 37086), (103, 37107), (105, 37113), (109, 37137), (122, 37224), (126, 37254), (131, 37287), (134, 37296), (138, 37335), (146, 37374), (150, 37401), (162, 37470),

Gene: DMoney_50 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for DMoney_50:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: DNAIII_0049 Start: 35449, Stop: 36039, Start Num: 78

Candidate Starts for DNAIII_0049:

(6, 34744), (8, 34777), (9, 34780), (19, 35071), (32, 35200), (42, 35272), (59, 35395), (74, 35416), (75, 35422), (Start: 78 @35449 has 71 MA's), (83, 35497), (92, 35593), (100, 35620), (103, 35641), (105, 35647), (109, 35671), (122, 35758), (126, 35788), (131, 35821), (134, 35830), (138, 35869), (146, 35908), (150, 35935), (162, 36004),

Gene: Daegal_76 Start: 49270, Stop: 49962, Start Num: 52

Candidate Starts for Daegal_76:

(28, 49033), (Start: 52 @49270 has 10 MA's), (53, 49279), (61, 49321), (Start: 69 @49351 has 52 MA's), (82, 49432), (90, 49516), (95, 49540), (99, 49549), (105, 49579), (111, 49612), (120, 49678), (125, 49714), (133, 49768), (140, 49792), (141, 49795), (144, 49810), (148, 49837), (150, 49852), (152, 49861), (154, 49879), (157, 49894),

Gene: Darionha_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Darionha_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: DeepSoil15_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for DeepSoil15_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Delian_78 Start: 45226, Stop: 45816, Start Num: 69

Candidate Starts for Delian_78:

(33, 44953), (37, 44974), (Start: 69 @45226 has 52 MA's), (104, 45433), (107, 45448), (109, 45460), (110, 45466), (117, 45511), (119, 45529), (122, 45547), (123, 45550), (127, 45589), (128, 45592), (150, 45718), (163, 45790),

Gene: Dewey_67 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Dewey_67:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: ECartman_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for ECartman_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Ein37_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Ein37_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Evanesce_73 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Evanesce_73:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Eyre_59 Start: 38628, Stop: 39218, Start Num: 69

Candidate Starts for Eyre_59:

(55, 38547), (61, 38586), (Start: 69 @38628 has 52 MA's), (73, 38640), (89, 38730), (95, 38805), (99, 38814), (104, 38835), (107, 38850), (109, 38862), (135, 39042), (150, 39117), (165, 39207),

Gene: Fairfaxidum_77 Start: 47701, Stop: 48291, Start Num: 69

Candidate Starts for Fairfaxidum_77:

(Start: 69 @47701 has 52 MA's), (107, 47923), (109, 47935), (110, 47941), (117, 47986), (128, 48067), (150, 48193), (156, 48232),

Gene: Faiyaz_83 Start: 54903, Stop: 55472, Start Num: 78

Candidate Starts for Faiyaz_83:

(47, 54774), (48, 54777), (56, 54813), (Start: 78 @54903 has 71 MA's), (87, 54969), (96, 55059), (97, 55062), (104, 55092), (105, 55095), (113, 55152), (118, 55176), (120, 55191), (121, 55200), (122,

55203), (123, 55206), (124, 55218), (131, 55266), (135, 55287), (146, 55353), (149, 55374), (155, 55407), (159, 55428), (163, 55440),

Gene: Fenry_74 Start: 47299, Stop: 47889, Start Num: 69

Candidate Starts for Fenry_74:

(Start: 69 @47299 has 52 MA's), (107, 47521), (109, 47533), (110, 47539), (117, 47584), (119, 47602), (122, 47620), (123, 47623), (127, 47662), (128, 47665), (150, 47791),

Gene: FlagStaff_49 Start: 37465, Stop: 38049, Start Num: 78

Candidate Starts for FlagStaff_49:

(Start: 78 @37465 has 71 MA's), (87, 37531), (102, 37639), (104, 37660), (105, 37663), (106, 37666), (109, 37687), (121, 37768), (126, 37801), (131, 37834), (134, 37843), (146, 37918), (150, 37945),

Gene: Forge_67 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Forge_67:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Frokostdame_79 Start: 49511, Stop: 50095, Start Num: 69

Candidate Starts for Frokostdame_79:

(23, 49172), (Start: 69 @49511 has 52 MA's), (85, 49592), (86, 49595), (91, 49664), (104, 49715), (105, 49718), (106, 49721), (112, 49760), (114, 49781), (127, 49868), (130, 49892), (134, 49907), (135, 49919), (139, 49928), (150, 49988), (165, 50078),

Gene: Frosty24_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Frosty24_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Gambino_82 Start: 50046, Stop: 50630, Start Num: 69

Candidate Starts for Gambino_82:

(1, 48945), (2, 48966), (3, 49161), (4, 49203), (5, 49221), (7, 49341), (17, 49608), (23, 49704), (Start: 69 @50046 has 52 MA's), (85, 50127), (86, 50130), (91, 50199), (104, 50250), (105, 50253), (106, 50256), (112, 50295), (114, 50316), (127, 50403), (134, 50442), (135, 50454), (139, 50463), (150, 50523), (154, 50550),

Gene: Gancho_73 Start: 48020, Stop: 48631, Start Num: 69

Candidate Starts for Gancho_73:

(Start: 52 @47939 has 10 MA's), (53, 47948), (61, 47990), (Start: 69 @48020 has 52 MA's), (82, 48101), (90, 48185), (95, 48209), (99, 48218), (105, 48248), (111, 48281), (120, 48347), (125, 48383), (133, 48437), (140, 48461), (141, 48464), (144, 48479), (148, 48506), (150, 48521), (152, 48530), (154, 48548), (157, 48563),

Gene: Gideon_52 Start: 37361, Stop: 37951, Start Num: 78

Candidate Starts for Gideon_52:

(8, 36689), (9, 36692), (19, 36983), (32, 37112), (42, 37184), (59, 37307), (74, 37328), (75, 37334), (Start: 78 @37361 has 71 MA's), (83, 37409), (92, 37505), (100, 37532), (103, 37553), (105, 37559), (109, 37583), (122, 37670), (126, 37700), (131, 37733), (134, 37742), (138, 37781), (146, 37820), (150, 37847), (162, 37916),

Gene: Giles_67 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Giles_67:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: GoldenAsh_50 Start: 36899, Stop: 37489, Start Num: 78

Candidate Starts for GoldenAsh_50:

(8, 36227), (9, 36230), (19, 36521), (32, 36650), (42, 36722), (59, 36845), (74, 36866), (75, 36872), (Start: 78 @36899 has 71 MA's), (83, 36947), (92, 37043), (100, 37070), (103, 37091), (105, 37097), (109, 37121), (122, 37208), (126, 37238), (131, 37271), (134, 37280), (138, 37319), (146, 37358), (150, 37385), (162, 37454),

Gene: Gomashi_50 Start: 36915, Stop: 37505, Start Num: 78

Candidate Starts for Gomashi_50:

(8, 36243), (9, 36246), (19, 36537), (32, 36666), (42, 36738), (59, 36861), (74, 36882), (75, 36888), (Start: 78 @36915 has 71 MA's), (83, 36963), (92, 37059), (100, 37086), (103, 37107), (105, 37113), (109, 37137), (122, 37224), (126, 37254), (131, 37287), (134, 37296), (138, 37335), (146, 37374), (150, 37401), (162, 37470),

Gene: Gravaillia_68 Start: 48220, Stop: 48912, Start Num: 52

Candidate Starts for Gravaillia_68:

(28, 47983), (Start: 52 @48220 has 10 MA's), (53, 48229), (61, 48271), (Start: 69 @48301 has 52 MA's), (82, 48382), (90, 48466), (95, 48490), (99, 48499), (105, 48529), (111, 48562), (120, 48628), (125, 48664), (133, 48718), (140, 48742), (141, 48745), (144, 48760), (148, 48787), (150, 48802), (152, 48811), (154, 48829), (157, 48844),

Gene: Grizzly_51 Start: 36986, Stop: 37576, Start Num: 78

Candidate Starts for Grizzly_51:

(19, 36608), (42, 36809), (59, 36932), (74, 36953), (75, 36959), (Start: 78 @36986 has 71 MA's), (92, 37130), (103, 37178), (105, 37184), (109, 37208), (122, 37295), (126, 37325), (131, 37358), (134, 37367), (138, 37406), (146, 37445), (150, 37472), (162, 37541),

Gene: Guacamole_73 Start: 46646, Stop: 47236, Start Num: 69

Candidate Starts for Guacamole_73:

(33, 46373), (37, 46394), (Start: 69 @46646 has 52 MA's), (104, 46853), (107, 46868), (109, 46880), (110, 46886), (117, 46931), (119, 46949), (122, 46967), (123, 46970), (127, 47009), (128, 47012), (150, 47138), (163, 47210),

Gene: HH92_73 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for HH92_73:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Hadrien_71 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Hadrien_71:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746),

(152, 48755), (154, 48773), (157, 48788),

Gene: Hail_67 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Hail_67:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Halo_51 Start: 36909, Stop: 37499, Start Num: 78

Candidate Starts for Halo_51:

(8, 36237), (9, 36240), (19, 36531), (32, 36660), (42, 36732), (59, 36855), (74, 36876), (75, 36882), (Start: 78 @36909 has 71 MA's), (83, 36957), (92, 37053), (100, 37080), (103, 37101), (105, 37107), (109, 37131), (122, 37218), (126, 37248), (131, 37281), (134, 37290), (138, 37329), (146, 37368), (150, 37395), (162, 37464),

Gene: Hilltopfarm_84 Start: 54597, Stop: 55166, Start Num: 78

Candidate Starts for Hilltopfarm_84:

(47, 54468), (48, 54471), (56, 54507), (Start: 78 @54597 has 71 MA's), (87, 54663), (96, 54753), (97, 54756), (104, 54786), (105, 54789), (113, 54846), (118, 54870), (120, 54885), (121, 54894), (122, 54897), (123, 54900), (124, 54912), (131, 54960), (135, 54981), (146, 55047), (149, 55068), (155, 55101), (159, 55122), (163, 55134),

Gene: Hitter_73 Start: 44905, Stop: 45495, Start Num: 69

Candidate Starts for Hitter_73:

(Start: 69 @44905 has 52 MA's), (107, 45127), (109, 45139), (110, 45145), (117, 45190), (119, 45208), (122, 45226), (123, 45229), (127, 45268), (128, 45271), (150, 45397),

Gene: Hope_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Hope_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Hotshotbaby7_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Hotshotbaby7_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Jalammah_78 Start: 48811, Stop: 49401, Start Num: 69

Candidate Starts for Jalammah_78:

(Start: 69 @48811 has 52 MA's), (107, 49033), (109, 49045), (110, 49051), (117, 49096), (119, 49114), (122, 49132), (123, 49135), (127, 49174), (128, 49177), (150, 49303), (163, 49375),

Gene: Jane_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Jane_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: JasperJr_73 Start: 46646, Stop: 47236, Start Num: 69

Candidate Starts for JasperJr_73:

(33, 46373), (37, 46394), (Start: 69 @46646 has 52 MA's), (104, 46853), (107, 46868), (109, 46880), (110, 46886), (117, 46931), (119, 46949), (122, 46967), (123, 46970), (127, 47009), (128, 47012), (150, 47138), (163, 47210),

Gene: Jolene_51 Start: 37076, Stop: 37666, Start Num: 78

Candidate Starts for Jolene_51:

(Start: 78 @37076 has 71 MA's), (83, 37124), (92, 37220), (103, 37268), (105, 37274), (109, 37298), (122, 37385), (126, 37415), (131, 37448), (134, 37457), (138, 37496), (146, 37535), (150, 37562), (162, 37631),

Gene: Jolie2_51 Start: 38020, Stop: 38622, Start Num: 78

Candidate Starts for Jolie2_51:

(41, 37849), (42, 37858), (Start: 45 @37903 has 1 MA's), (48, 37936), (Start: 78 @38020 has 71 MA's), (92, 38164), (105, 38218), (118, 38302), (122, 38329), (131, 38392), (134, 38401), (146, 38491), (150, 38518),

Gene: Jonghyun_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Jonghyun_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: JorRay_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for JorRay_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: JuJu_82 Start: 50269, Stop: 50862, Start Num: 67

Candidate Starts for JuJu_82:

(Start: 67 @50269 has 3 MA's), (107, 50494), (109, 50506), (110, 50512), (117, 50557), (119, 50575), (123, 50596), (128, 50638), (150, 50764), (163, 50836),

Gene: JustASigh_69 Start: 44678, Stop: 45514, Start Num: 45

Candidate Starts for JustASigh_69:

(Start: 45 @44678 has 1 MA's), (61, 44810), (68, 44855), (72, 44867), (91, 45023), (95, 45044), (111, 45128), (117, 45170), (118, 45179), (129, 45257), (142, 45365), (143, 45368), (150, 45416), (152, 45425), (164, 45503),

Gene: KappaFarmDelta_74 Start: 46258, Stop: 46848, Start Num: 69

Candidate Starts for KappaFarmDelta_74:

(Start: 69 @46258 has 52 MA's), (107, 46480), (109, 46492), (110, 46498), (117, 46543), (119, 46561), (122, 46579), (123, 46582), (127, 46621), (128, 46624), (150, 46750),

Gene: Kareem_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Kareem_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),

(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Kasen3_51 Start: 36900, Stop: 37490, Start Num: 78

Candidate Starts for Kasen3_51:

(8, 36228), (9, 36231), (19, 36522), (32, 36651), (42, 36723), (59, 36846), (74, 36867), (75, 36873),
(Start: 78 @36900 has 71 MA's), (83, 36948), (92, 37044), (100, 37071), (103, 37092), (105, 37098),
(109, 37122), (122, 37209), (126, 37239), (131, 37272), (134, 37281), (138, 37320), (146, 37359),
(150, 37386), (162, 37455),

Gene: Kinbote_72 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Kinbote_72:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52
MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572),
(125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746),
(152, 48755), (154, 48773), (157, 48788),

Gene: Lemuria_53 Start: 39211, Stop: 39813, Start Num: 77

Candidate Starts for Lemuria_53:

(54, 39169), (Start: 77 @39211 has 1 MA's), (87, 39277), (92, 39355), (105, 39409), (109, 39433),
(118, 39493), (122, 39520), (126, 39550), (131, 39583), (134, 39592), (150, 39709),

Gene: Liefie_50 Start: 37020, Stop: 37610, Start Num: 78

Candidate Starts for Liefie_50:

(34, 36801), (35, 36804), (Start: 78 @37020 has 71 MA's), (83, 37068), (92, 37164), (100, 37191),
(103, 37212), (105, 37218), (109, 37242), (122, 37329), (126, 37359), (131, 37392), (134, 37401),
(138, 37440), (146, 37479), (150, 37506), (162, 37575),

Gene: LilHazelnut_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for LilHazelnut_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52
MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572),
(125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746),
(152, 48755), (154, 48773), (157, 48788),

Gene: Lilbeanie_66 Start: 45819, Stop: 46490, Start Num: 64

Candidate Starts for Lilbeanie_66:

(60, 45774), (62, 45807), (Start: 64 @45819 has 1 MA's), (105, 46077), (108, 46098), (110, 46107),
(121, 46188), (136, 46287), (142, 46317), (150, 46368), (158, 46422), (168, 46482),

Gene: LouisV14_53 Start: 39179, Stop: 39769, Start Num: 78

Candidate Starts for LouisV14_53:

(8, 38507), (9, 38510), (19, 38801), (32, 38930), (42, 39002), (59, 39125), (74, 39146), (75, 39152),
(Start: 78 @39179 has 71 MA's), (83, 39227), (92, 39323), (100, 39350), (103, 39371), (105, 39377),
(109, 39401), (122, 39488), (126, 39518), (131, 39551), (134, 39560), (138, 39599), (146, 39638),
(150, 39665), (162, 39734),

Gene: Luke_71 Start: 48119, Stop: 48811, Start Num: 52

Candidate Starts for Luke_71:

(28, 47882), (Start: 52 @48119 has 10 MA's), (53, 48128), (61, 48170), (Start: 69 @48200 has 52
MA's), (82, 48281), (90, 48365), (95, 48389), (99, 48398), (105, 48428), (111, 48461), (120, 48527),
(125, 48563), (133, 48617), (140, 48641), (141, 48644), (144, 48659), (148, 48686), (150, 48701),
(152, 48710), (154, 48728), (157, 48743),

Gene: Luna22_67 Start: 48148, Stop: 48840, Start Num: 52

Candidate Starts for Luna22_67:

(28, 47911), (Start: 52 @48148 has 10 MA's), (53, 48157), (61, 48199), (Start: 69 @48229 has 52 MA's), (82, 48310), (90, 48394), (95, 48418), (99, 48427), (105, 48457), (111, 48490), (120, 48556), (125, 48592), (133, 48646), (140, 48670), (141, 48673), (144, 48688), (148, 48715), (150, 48730), (152, 48739), (154, 48757), (157, 48772),

Gene: Lysidious_76 Start: 47074, Stop: 47670, Start Num: 67

Candidate Starts for Lysidious_76:

(50, 46966), (51, 46984), (58, 47026), (Start: 67 @47074 has 3 MA's), (107, 47299), (109, 47311), (110, 47317), (122, 47398), (123, 47401), (128, 47443), (150, 47569),

Gene: MOOREtheMARYer_53 Start: 38622, Stop: 39209, Start Num: 78

Candidate Starts for MOOREtheMARYer_53:

(14, 38118), (39, 38466), (42, 38505), (Start: 78 @38622 has 71 MA's), (83, 38670), (93, 38775), (104, 38817), (105, 38820), (131, 38994), (132, 38997), (134, 39003), (146, 39078), (150, 39105), (153, 39120),

Gene: Malachai_73 Start: 48471, Stop: 49061, Start Num: 69

Candidate Starts for Malachai_73:

(33, 48171), (37, 48192), (Start: 69 @48471 has 52 MA's), (107, 48693), (109, 48705), (110, 48711), (117, 48756), (119, 48774), (122, 48792), (123, 48795), (127, 48834), (128, 48837), (150, 48963),

Gene: Maliketh_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Maliketh_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Marmie_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Marmie_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Melba_74 Start: 45340, Stop: 45930, Start Num: 69

Candidate Starts for Melba_74:

(33, 45037), (37, 45058), (Start: 69 @45340 has 52 MA's), (107, 45562), (109, 45574), (110, 45580), (122, 45661), (123, 45664), (128, 45706), (150, 45832),

Gene: Mellie_72 Start: 45623, Stop: 46213, Start Num: 69

Candidate Starts for Mellie_72:

(17, 45134), (21, 45209), (30, 45299), (Start: 69 @45623 has 52 MA's), (82, 45698), (107, 45845), (109, 45857), (110, 45863), (122, 45944), (128, 45989), (150, 46115), (163, 46187),

Gene: Mercurio_53 Start: 39622, Stop: 40209, Start Num: 78

Candidate Starts for Mercurio_53:

(18, 39133), (74, 39583), (76, 39598), (Start: 78 @39622 has 71 MA's), (83, 39670), (84, 39676), (92, 39766), (105, 39820), (109, 39841), (122, 39928), (131, 39991), (134, 40000), (150, 40105), (162, 40174), (166, 40201),

Gene: MintFen_75 Start: 45842, Stop: 46432, Start Num: 69

Candidate Starts for MintFen_75:

(33, 45569), (37, 45590), (Start: 69 @45842 has 52 MA's), (104, 46049), (107, 46064), (109, 46076), (110, 46082), (117, 46127), (119, 46145), (122, 46163), (123, 46166), (127, 46205), (128, 46208), (150, 46334), (163, 46406),

Gene: MissRona_80 Start: 50047, Stop: 50631, Start Num: 69

Candidate Starts for MissRona_80:

(1, 48946), (2, 48967), (3, 49162), (4, 49204), (5, 49222), (7, 49342), (17, 49609), (23, 49705), (Start: 69 @50047 has 52 MA's), (85, 50128), (86, 50131), (91, 50200), (104, 50251), (105, 50254), (106, 50257), (112, 50296), (114, 50317), (127, 50404), (134, 50443), (135, 50455), (139, 50464), (150, 50524), (154, 50551),

Gene: Mowgli_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Mowgli_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Murp_73 Start: 48722, Stop: 49312, Start Num: 69

Candidate Starts for Murp_73:

(17, 48254), (30, 48419), (Start: 69 @48722 has 52 MA's), (107, 48944), (109, 48956), (110, 48962), (117, 49007), (119, 49025), (122, 49043), (123, 49046), (128, 49088), (150, 49214),

Gene: OBUpride_73 Start: 48289, Stop: 48900, Start Num: 69

Candidate Starts for OBUpride_73:

(28, 47971), (Start: 52 @48208 has 10 MA's), (53, 48217), (61, 48259), (Start: 69 @48289 has 52 MA's), (82, 48370), (90, 48454), (95, 48478), (99, 48487), (105, 48517), (111, 48550), (120, 48616), (125, 48652), (133, 48706), (140, 48730), (141, 48733), (144, 48748), (148, 48775), (150, 48790), (152, 48799), (154, 48817), (157, 48832),

Gene: Obliviate_74 Start: 45891, Stop: 46481, Start Num: 69

Candidate Starts for Obliviate_74:

(Start: 69 @45891 has 52 MA's), (107, 46113), (109, 46125), (110, 46131), (122, 46212), (123, 46215), (128, 46257), (150, 46383),

Gene: OctaviousRex_50 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for OctaviousRex_50:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Olga_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Olga_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: PCoral7_74 Start: 46525, Stop: 47115, Start Num: 69

Candidate Starts for PCoral7_74:

(Start: 69 @46525 has 52 MA's), (95, 46702), (105, 46735), (107, 46747), (109, 46759), (110, 46765), (117, 46810), (128, 46891), (150, 47017), (156, 47056),

Gene: Pace1224_50 Start: 37494, Stop: 38078, Start Num: 78

Candidate Starts for Pace1224_50:

(Start: 78 @37494 has 71 MA's), (87, 37560), (102, 37668), (104, 37689), (105, 37692), (106, 37695), (109, 37716), (121, 37797), (126, 37830), (131, 37863), (134, 37872), (146, 37947), (150, 37974),

Gene: Paito_53 Start: 37596, Stop: 38186, Start Num: 78

Candidate Starts for Paito_53:

(16, 37146), (19, 37230), (42, 37431), (75, 37569), (Start: 78 @37596 has 71 MA's), (92, 37740), (103, 37788), (105, 37794), (118, 37878), (122, 37905), (131, 37968), (134, 37977), (146, 38055), (150, 38082), (162, 38151),

Gene: Peeb_50 Start: 36905, Stop: 37495, Start Num: 78

Candidate Starts for Peeb_50:

(8, 36233), (9, 36236), (19, 36527), (32, 36656), (42, 36728), (59, 36851), (74, 36872), (75, 36878), (Start: 78 @36905 has 71 MA's), (83, 36953), (92, 37049), (100, 37076), (103, 37097), (105, 37103), (109, 37127), (122, 37214), (126, 37244), (131, 37277), (134, 37286), (138, 37325), (146, 37364), (150, 37391), (162, 37460),

Gene: Periodt_51 Start: 37067, Stop: 37657, Start Num: 78

Candidate Starts for Periodt_51:

(Start: 78 @37067 has 71 MA's), (83, 37115), (92, 37211), (103, 37259), (105, 37265), (109, 37289), (122, 37376), (126, 37406), (131, 37439), (134, 37448), (138, 37487), (146, 37526), (150, 37553), (162, 37622),

Gene: Petra_80 Start: 48158, Stop: 48742, Start Num: 69

Candidate Starts for Petra_80:

(Start: 69 @48158 has 52 MA's), (81, 48224), (85, 48239), (91, 48311), (105, 48365), (106, 48368), (112, 48407), (114, 48428), (119, 48455), (127, 48515), (134, 48554), (135, 48566), (139, 48575), (150, 48635),

Gene: Phish_50 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Phish_50:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Phreak_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Phreak_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: PhrostedPhlake_81 Start: 48308, Stop: 48892, Start Num: 69

Candidate Starts for PhrostedPhlake_81:

(17, 47840), (21, 47915), (30, 48005), (Start: 69 @48308 has 52 MA's), (85, 48389), (91, 48461), (94, 48479), (104, 48512), (105, 48515), (106, 48518), (112, 48557), (114, 48578), (127, 48665), (135, 48716), (139, 48725), (150, 48785),

Gene: PinkYoshi_51 Start: 36905, Stop: 37495, Start Num: 78

Candidate Starts for PinkYoshi_51:

(8, 36233), (9, 36236), (19, 36527), (32, 36656), (42, 36728), (59, 36851), (74, 36872), (75, 36878), (Start: 78 @36905 has 71 MA's), (83, 36953), (92, 37049), (100, 37076), (103, 37097), (105, 37103), (109, 37127), (122, 37214), (126, 37244), (131, 37277), (134, 37286), (138, 37325), (146, 37364), (150, 37391), (162, 37460),

Gene: Pinnie_50 Start: 38254, Stop: 38841, Start Num: 78

Candidate Starts for Pinnie_50:

(44, 38170), (49, 38215), (Start: 78 @38254 has 71 MA's), (83, 38302), (93, 38407), (104, 38449), (105, 38452), (131, 38626), (132, 38629), (134, 38635), (146, 38710), (150, 38737), (153, 38752),

Gene: Pipp_79 Start: 47870, Stop: 48448, Start Num: 65

Candidate Starts for Pipp_79:

(Start: 65 @47870 has 1 MA's), (66, 47873), (85, 47954), (91, 48026), (94, 48044), (104, 48077), (105, 48080), (106, 48083), (112, 48122), (114, 48143), (127, 48230), (135, 48281), (139, 48290), (150, 48350),

Gene: Plagueis_51 Start: 36734, Stop: 37324, Start Num: 78

Candidate Starts for Plagueis_51:

(8, 36062), (9, 36065), (19, 36356), (32, 36485), (42, 36557), (59, 36680), (74, 36701), (75, 36707), (Start: 78 @36734 has 71 MA's), (83, 36782), (92, 36878), (100, 36905), (103, 36926), (105, 36932), (109, 36956), (122, 37043), (126, 37073), (131, 37106), (134, 37115), (138, 37154), (146, 37193), (150, 37220), (162, 37289),

Gene: PrincePatrick_76 Start: 45859, Stop: 46449, Start Num: 69

Candidate Starts for PrincePatrick_76:

(Start: 69 @45859 has 52 MA's), (95, 46036), (105, 46069), (107, 46081), (109, 46093), (110, 46099), (117, 46144), (150, 46351), (156, 46390),

Gene: Rabbs_53 Start: 37053, Stop: 37640, Start Num: 78

Candidate Starts for Rabbs_53:

(10, 36564), (13, 36606), (15, 36642), (42, 36975), (Start: 78 @37053 has 71 MA's), (92, 37197), (103, 37245), (105, 37251), (109, 37275), (122, 37362), (131, 37425), (134, 37434), (146, 37509), (150, 37536),

Gene: Rem711_70 Start: 43454, Stop: 44074, Start Num: 69

Candidate Starts for Rem711_70:

(Start: 69 @43454 has 52 MA's), (71, 43463), (73, 43466), (79, 43505), (87, 43544), (91, 43610), (94, 43628), (98, 43637), (107, 43679), (135, 43853), (150, 43922), (152, 43931), (160, 43985),

Gene: Remy19_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Remy19_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: Renaissance_51 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Renaissance_51:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),

(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Samba_75 Start: 48756, Stop: 49346, Start Num: 69

Candidate Starts for Samba_75:

(26, 48378), (37, 48474), (Start: 69 @48756 has 52 MA's), (107, 48978), (109, 48990), (110, 48996),
(117, 49041), (119, 49059), (122, 49077), (123, 49080), (127, 49119), (128, 49122), (150, 49248),

Gene: Schiebel_51 Start: 36899, Stop: 37489, Start Num: 78

Candidate Starts for Schiebel_51:

(8, 36227), (9, 36230), (19, 36521), (32, 36650), (42, 36722), (59, 36845), (74, 36866), (75, 36872),
(Start: 78 @36899 has 71 MA's), (83, 36947), (92, 37043), (100, 37070), (103, 37091), (105, 37097),
(109, 37121), (122, 37208), (126, 37238), (131, 37271), (134, 37280), (138, 37319), (146, 37358),
(150, 37385), (162, 37454),

Gene: ShaboiShabazz_50 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for ShaboiShabazz_50:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Sizemore_51 Start: 36900, Stop: 37490, Start Num: 78

Candidate Starts for Sizemore_51:

(8, 36228), (9, 36231), (19, 36522), (32, 36651), (42, 36723), (59, 36846), (74, 36867), (75, 36873),
(Start: 78 @36900 has 71 MA's), (83, 36948), (92, 37044), (100, 37071), (103, 37092), (105, 37098),
(109, 37122), (122, 37209), (126, 37239), (131, 37272), (134, 37281), (138, 37320), (146, 37359),
(150, 37386), (162, 37455),

Gene: Sneeze_52 Start: 37052, Stop: 37639, Start Num: 78

Candidate Starts for Sneeze_52:

(10, 36563), (13, 36605), (15, 36641), (42, 36974), (Start: 78 @37052 has 71 MA's), (92, 37196), (103,
37244), (105, 37250), (109, 37274), (122, 37361), (131, 37424), (134, 37433), (146, 37508), (150,
37535),

Gene: Stargaze_52 Start: 38406, Stop: 39032, Start Num: 74

Candidate Starts for Stargaze_52:

(39, 38190), (74, 38406), (Start: 78 @38445 has 71 MA's), (83, 38493), (93, 38598), (104, 38640),
(105, 38643), (121, 38751), (131, 38817), (132, 38820), (134, 38826), (146, 38901), (150, 38928),

Gene: Sweets_50 Start: 36909, Stop: 37499, Start Num: 78

Candidate Starts for Sweets_50:

(8, 36237), (9, 36240), (19, 36531), (32, 36660), (42, 36732), (59, 36855), (74, 36876), (75, 36882),
(Start: 78 @36909 has 71 MA's), (83, 36957), (92, 37053), (100, 37080), (103, 37101), (105, 37107),
(109, 37131), (122, 37218), (126, 37248), (131, 37281), (134, 37290), (138, 37329), (146, 37368),
(150, 37395), (162, 37464),

Gene: Taheera_49 Start: 36701, Stop: 37288, Start Num: 78

Candidate Starts for Taheera_49:

(Start: 78 @36701 has 71 MA's), (92, 36845), (103, 36893), (105, 36899), (109, 36923), (122, 37010),
(131, 37073), (134, 37082), (146, 37157), (150, 37184),

Gene: Terror_49 Start: 36701, Stop: 37288, Start Num: 78

Candidate Starts for Terror_49:

(Start: 78 @36701 has 71 MA's), (92, 36845), (103, 36893), (105, 36899), (109, 36923), (122, 37010), (131, 37073), (134, 37082), (146, 37157), (150, 37184),

Gene: TinaBug_49 Start: 36909, Stop: 37499, Start Num: 78

Candidate Starts for TinaBug_49:

(8, 36237), (9, 36240), (19, 36531), (32, 36660), (42, 36732), (59, 36855), (74, 36876), (75, 36882), (Start: 78 @36909 has 71 MA's), (83, 36957), (92, 37053), (100, 37080), (103, 37101), (105, 37107), (109, 37131), (122, 37218), (126, 37248), (131, 37281), (134, 37290), (138, 37329), (146, 37368), (150, 37395), (162, 37464),

Gene: Toast_74 Start: 46525, Stop: 47115, Start Num: 69

Candidate Starts for Toast_74:

(Start: 69 @46525 has 52 MA's), (95, 46702), (105, 46735), (107, 46747), (109, 46759), (110, 46765), (117, 46810), (128, 46891), (150, 47017), (156, 47056),

Gene: TomBrady_51 Start: 36915, Stop: 37505, Start Num: 78

Candidate Starts for TomBrady_51:

(8, 36243), (9, 36246), (19, 36537), (32, 36666), (42, 36738), (59, 36861), (74, 36882), (75, 36888), (Start: 78 @36915 has 71 MA's), (83, 36963), (92, 37059), (100, 37086), (103, 37107), (105, 37113), (109, 37137), (122, 37224), (126, 37254), (131, 37287), (134, 37296), (138, 37335), (146, 37374), (150, 37401), (162, 37470),

Gene: Typha_83 Start: 54897, Stop: 55466, Start Num: 78

Candidate Starts for Typha_83:

(47, 54768), (48, 54771), (56, 54807), (Start: 78 @54897 has 71 MA's), (87, 54963), (96, 55053), (97, 55056), (104, 55086), (105, 55089), (113, 55146), (118, 55170), (120, 55185), (121, 55194), (122, 55197), (123, 55200), (124, 55212), (131, 55260), (135, 55281), (146, 55347), (149, 55368), (155, 55401), (159, 55422), (163, 55434),

Gene: Ubuntu_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Ubuntu_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: UmaThurman_76 Start: 46447, Stop: 47037, Start Num: 69

Candidate Starts for UmaThurman_76:

(Start: 69 @46447 has 52 MA's), (107, 46669), (109, 46681), (110, 46687), (117, 46732), (119, 46750), (122, 46768), (123, 46771), (127, 46810), (128, 46813), (150, 46939), (163, 47011),

Gene: Utz_66 Start: 46364, Stop: 46954, Start Num: 69

Candidate Starts for Utz_66:

(Start: 69 @46364 has 52 MA's), (107, 46586), (109, 46598), (110, 46604), (117, 46649), (119, 46667), (123, 46688), (128, 46730), (150, 46856), (163, 46928),

Gene: Walrus_73 Start: 47019, Stop: 47603, Start Num: 69

Candidate Starts for Walrus_73:

(63, 47004), (Start: 69 @47019 has 52 MA's), (81, 47085), (85, 47100), (91, 47172), (104, 47223), (105, 47226), (106, 47229), (112, 47268), (114, 47289), (127, 47376), (135, 47427), (139, 47436), (150, 47496),

Gene: Webster2_74 Start: 48245, Stop: 48856, Start Num: 69

Candidate Starts for Webster2_74:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

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

Candidate Starts for Weirido19_69:

(27, 44290), (46, 44467), (61, 44593), (72, 44650), (88, 44746), (91, 44812), (95, 44833), (105, 44884), (111, 44917), (116, 44956), (122, 44995), (129, 45046), (141, 45130), (145, 45154), (150, 45193), (151, 45199), (164, 45280),

Gene: Wendigo_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Wendigo_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887), (Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112), (109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373), (150, 37400), (162, 37469),

Gene: William_77 Start: 47824, Stop: 48414, Start Num: 69

Candidate Starts for William_77:

(12, 47206), (29, 47485), (38, 47560), (Start: 69 @47824 has 52 MA's), (107, 48046), (109, 48058), (110, 48064), (117, 48109), (122, 48145), (123, 48148), (128, 48190), (150, 48316),

Gene: Wishmaker_67 Start: 48164, Stop: 48856, Start Num: 52

Candidate Starts for Wishmaker_67:

(28, 47927), (Start: 52 @48164 has 10 MA's), (53, 48173), (61, 48215), (Start: 69 @48245 has 52 MA's), (82, 48326), (90, 48410), (95, 48434), (99, 48443), (105, 48473), (111, 48506), (120, 48572), (125, 48608), (133, 48662), (140, 48686), (141, 48689), (144, 48704), (148, 48731), (150, 48746), (152, 48755), (154, 48773), (157, 48788),

Gene: Wisp_73 Start: 46479, Stop: 47069, Start Num: 69

Candidate Starts for Wisp_73:

(Start: 69 @46479 has 52 MA's), (107, 46701), (109, 46713), (110, 46719), (119, 46782), (122, 46800), (123, 46803), (127, 46842), (128, 46845), (150, 46971), (163, 47043),

Gene: Wocket_74 Start: 46904, Stop: 47488, Start Num: 69

Candidate Starts for Wocket_74:

(Start: 69 @46904 has 52 MA's), (85, 46985), (91, 47057), (105, 47111), (106, 47114), (112, 47153), (114, 47174), (134, 47300), (135, 47312), (139, 47321), (150, 47381),

Gene: Zarbodnamra_79 Start: 46838, Stop: 47428, Start Num: 69

Candidate Starts for Zarbodnamra_79:

(33, 46565), (37, 46586), (Start: 69 @46838 has 52 MA's), (107, 47060), (109, 47072), (110, 47078), (117, 47123), (119, 47141), (123, 47162), (128, 47204), (150, 47330), (163, 47402),

Gene: ZiggyZoo_76 Start: 48324, Stop: 48914, Start Num: 69

Candidate Starts for ZiggyZoo_76:

(Start: 69 @48324 has 52 MA's), (107, 48546), (109, 48558), (110, 48564), (117, 48609), (119, 48627), (122, 48645), (123, 48648), (127, 48687), (128, 48690), (150, 48816),

Gene: ZoMa_49 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for ZoMa_49:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),

Gene: Zombie_50 Start: 36914, Stop: 37504, Start Num: 78

Candidate Starts for Zombie_50:

(8, 36242), (9, 36245), (19, 36536), (32, 36665), (42, 36737), (59, 36860), (74, 36881), (75, 36887),
(Start: 78 @36914 has 71 MA's), (83, 36962), (92, 37058), (100, 37085), (103, 37106), (105, 37112),
(109, 37136), (122, 37223), (126, 37253), (131, 37286), (134, 37295), (138, 37334), (146, 37373),
(150, 37400), (162, 37469),