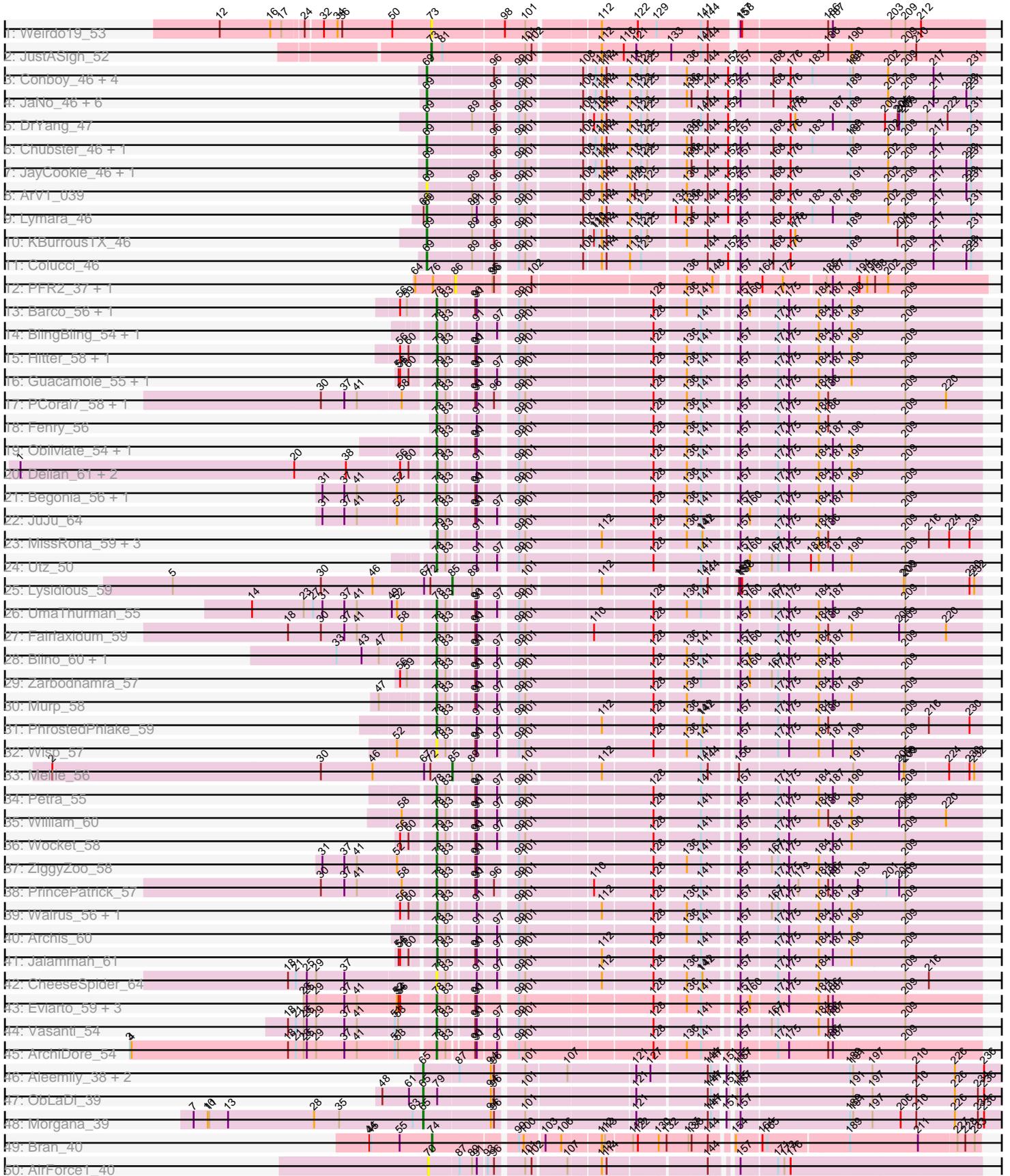
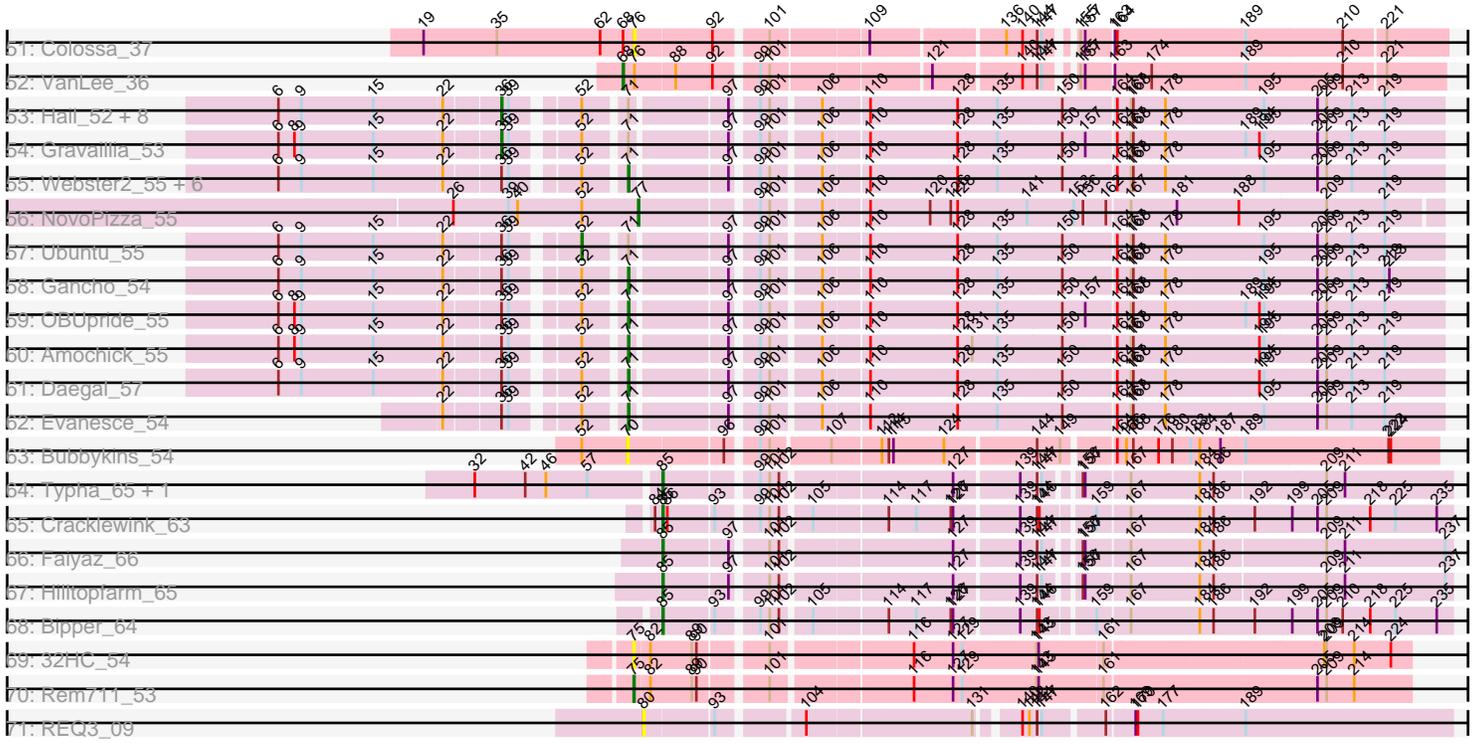


Pham 287728



Pham 287728



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 287728 Report

This analysis was run 03/28/26 on database version 641.

Pham number 287728 has 118 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Weirdo19_53
- Track 2 : JustASigh_52
- Track 3 : Conboy_46, Chocolat_46, EdgarPoe_46, PrincessTrina_46, Linus_46
- Track 4 : JaNo_46, Mordred_46, Chipper1996_460, Tophat_46, Kabreeze_46, RosiePosie_46, HumptyDumpty_46
- Track 5 : DrYang_47
- Track 6 : Chubster_46, MoyaNatalis_46
- Track 7 : JayCookie_46, Scavito_46
- Track 8 : ArV1_039
- Track 9 : Lymara_46
- Track 10 : KBurrousTX_46
- Track 11 : Colucci_46
- Track 12 : PFR2_37, PFR1_35
- Track 13 : Barco_56, Zilla_57
- Track 14 : BlingBling_54, Melba_56
- Track 15 : Hitter_58, Samba_57
- Track 16 : Guacamole_55, JasperJr_55
- Track 17 : PCoral7_58, Toast_58
- Track 18 : Fenry_56
- Track 19 : Obliviate_54, KappaFarmDelta_59
- Track 20 : Delian_61, MintFen_58, CaptainKirk2_58
- Track 21 : Begonia_56, Malachai_56
- Track 22 : JuJu_64
- Track 23 : MissRona_59, Gambino_61, Azula_59, Blueberry_58
- Track 24 : Utz_50
- Track 25 : Lysidious_59
- Track 26 : UmaThurman_55
- Track 27 : Fairfaxidum_59
- Track 28 : Blino_60, CarolAnn_59
- Track 29 : Zarbodnamra_57
- Track 30 : Murp_58
- Track 31 : PhrostedPhlake_59
- Track 32 : Wisp_57
- Track 33 : Mellie_56
- Track 34 : Petra_55
- Track 35 : William_60
- Track 36 : Wocket_58

- Track 37 : ZiggyZoo_58
- Track 38 : PrincePatrick_57
- Track 39 : Walrus_56, Pipp_60
- Track 40 : Archis_60
- Track 41 : Jalammah_61
- Track 42 : CheeseSpider_64
- Track 43 : Eviarto_59, BatStarr_58, Nymphadora_59, TimTam_59
- Track 44 : Vasanti_54
- Track 45 : ArchiDore_54
- Track 46 : Aleemily_38, ModicumRichard_39, Cafasso_39
- Track 47 : ObLaDi_39
- Track 48 : Morgana_39
- Track 49 : Bran_40
- Track 50 : AirForce1_40
- Track 51 : Colossa_37
- Track 52 : VanLee_36
- Track 53 : Hail_52, Luke_54, Hadrien_54, Wishmaker_52, Giles_52, Forge_52, Luna22_52, Kinbote_54, Dewey_52
- Track 54 : Gravallia_53
- Track 55 : Webster2_55, LilHazelNut_55, BloominB_55, Ein37_55, Amymech_55, DeepSoil15_55, HH92_54
- Track 56 : NovoPizza_55
- Track 57 : Ubuntu_55
- Track 58 : Gancho_54
- Track 59 : OBUpride_55
- Track 60 : Amochick_55
- Track 61 : Daegal_57
- Track 62 : Evanesce_54
- Track 63 : Bubbykins_54
- Track 64 : Typha_65, AuntGwenStacy_66
- Track 65 : Cracklewink_63
- Track 66 : Faiyaz_66
- Track 67 : Hilltopfarm_65
- Track 68 : Bipper_64
- Track 69 : 32HC_54
- Track 70 : Rem711_53
- Track 71 : REQ3_09

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 30 of the 103 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ArchiDore_54, Archis_60, Barco_56, BatStarr_58, Begonia_56, BlingBling_54, Blino_60, CarolAnn_59, CheeseSpider_64, Eviarto_59, Fairfaxidum_59, Fenry_56, JuJu_64, KappaFarmDelta_59, Malachai_56, Melba_56, Murp_58, Nymphadora_59, Obliviate_54, PCoral7_58, Petra_55, PhrostedPhlake_59, PrincePatrick_57, TimTam_59, Toast_58, UmaThurman_55, Utz_50, Vasanti_54, William_60, Wisp_57, Zarbodnamra_57, ZiggyZoo_58, Zilla_57,

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

-

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

- 32HC_54, AirForce1_40, Aleemily_38, Amochick_55, Amymech_55, ArV1_039, AuntGwenStacy_66, Azula_59, Bipper_64, BloominB_55, Blueberry_58, Bran_40, Bubbykins_54, Cafasso_39, CaptainKirk2_58, Chipper1996_460, Chocolat_46, Chubster_46, Colossa_37, Colucci_46, Conboy_46, Cracklewink_63, Daegal_57, DeepSoil15_55, Delian_61, Dewey_52, DrYang_47, EdgarPoe_46, Ein37_55, Evanesce_54, Faiyaz_66, Forge_52, Gambino_61, Gancho_54, Giles_52, Gravallia_53, Guacamole_55, HH92_54, Hadrien_54, Hail_52, Hilltopfarm_65, Hitter_58, HumptyDumpty_46, JaNo_46, Jalammah_61, JasperJr_55, JayCookie_46, JustASigh_52, KBurrousTX_46, Kabreeze_46, Kinbote_54, LilHazelNut_55, Linus_46, Luke_54, Luna22_52, Lymara_46, Lysidious_59, Mellie_56, MintFen_58, MissRona_59, ModicumRichard_39, Mordred_46, Morgana_39, MoyaNatalis_46, NovoPizza_55, OBUpride_55, ObLaDi_39, PFR1_35, PFR2_37, Pipp_60, PrincessTrina_46, REQ3_09, Rem711_53, RosiePosie_46, Samba_57, Scavito_46, Tophat_46, Typha_65, Ubuntu_55, VanLee_36, Walrus_56, Webster2_55, Weirdo19_53, Wishmaker_52, Wocket_58,

Summary by start number:

Start 36:

- Found in 24 of 118 (20.3%) of genes in pham
- Manual Annotations of this start: 10 of 103
- Called 41.7% of time when present
- Phage (with cluster) where this start called: Dewey_52 (Q), Forge_52 (Q), Giles_52 (Q), Gravallia_53 (Q), Hadrien_54 (Q), Hail_52 (Q), Kinbote_54 (Q), Luke_54 (Q), Luna22_52 (Q), Wishmaker_52 (Q),

Start 52:

- Found in 35 of 118 (29.7%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Ubuntu_55 (Q),

Start 65:

- Found in 5 of 118 (4.2%) of genes in pham
- Manual Annotations of this start: 5 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_38 (DZ), Cafasso_39 (DZ), ModicumRichard_39 (DZ), Morgana_39 (DZ), ObLaDi_39 (DZ),

Start 68:

- Found in 2 of 118 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 50.0% of time when present
- Phage (with cluster) where this start called: VanLee_36 (KA),

Start 69:

- Found in 21 of 118 (17.8%) of genes in pham
- Manual Annotations of this start: 19 of 103

- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV1_039 (AR), Chipper1996_460 (AR), Chocolat_46 (AR), Chubster_46 (AR), Colucci_46 (AR), Conboy_46 (AR), DrYang_47 (AR), EdgarPoe_46 (AR), HumptyDumpty_46 (AR), JaNo_46 (AR), JayCookie_46 (AR), KBurrousTX_46 (AR), Kabreeze_46 (AR), Linus_46 (AR), Lymara_46 (AR), Mordred_46 (AR), MoyaNatalis_46 (AR), PrincessTrina_46 (AR), RosiePosie_46 (AR), Scavito_46 (AR), Tophat_46 (AR),

Start 70:

- Found in 2 of 118 (1.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AirForce1_40 (FL), Bubbykins_54 (UNK),

Start 71:

- Found in 23 of 118 (19.5%) of genes in pham
- Manual Annotations of this start: 11 of 103
- Called 52.2% of time when present
- Phage (with cluster) where this start called: Amochick_55 (Q), Amymech_55 (Q), BloominB_55 (Q), Daegal_57 (Q), DeepSoil15_55 (Q), Ein37_55 (Q), Evanesce_54 (Q), Gancho_54 (Q), HH92_54 (Q), LilHazelNut_55 (Q), OBUpride_55 (Q), Webster2_55 (Q),

Start 73:

- Found in 2 of 118 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JustASigh_52 (AH), Weirido19_53 (AH),

Start 74:

- Found in 1 of 118 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bran_40 (EP),

Start 75:

- Found in 2 of 118 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_54 (Z), Rem711_53 (Z),

Start 76:

- Found in 4 of 118 (3.4%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Colossa_37 (KA),

Start 77:

- Found in 1 of 118 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NovoPizza_55 (Q),

Start 78:

- Found in 33 of 118 (28.0%) of genes in pham
- Manual Annotations of this start: 30 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_54 (DW), Archis_60 (CV), Barco_56 (CV), BatStarr_58 (CZ1), Begonia_56 (CV), BlingBling_54 (CV), Blino_60 (CV), CarolAnn_59 (CV), CheeseSpider_64 (CV), Eviarto_59 (CZ1), Fairfaxidum_59 (CV), Fenry_56 (CV), JuJu_64 (CV), KappaFarmDelta_59 (CV), Malachai_56 (CV), Melba_56 (CV), Murp_58 (CV), Nymphadora_59 (CZ1), Obliviate_54 (CV), PCoral7_58 (CV), Petra_55 (CV), PhrostedPhlake_59 (CV), PrincePatrick_57 (CV), TimTam_59 (CZ1), Toast_58 (CV), UmaThurman_55 (CV), Utz_50 (CV), Vasanti_54 (CZ2), William_60 (CV), Wisp_57 (CV), Zarbodnamra_57 (CV), ZiggyZoo_58 (CV), Zilla_57 (CV),

Start 79:

- Found in 16 of 118 (13.6%) of genes in pham
- Manual Annotations of this start: 15 of 103
- Called 93.8% of time when present
- Phage (with cluster) where this start called: Azula_59 (CV), Blueberry_58 (CV), CaptainKirk2_58 (CV), Delian_61 (CV), Gambino_61 (CV), Guacamole_55 (CV), Hitter_58 (CV), Jalammah_61 (CV), JasperJr_55 (CV), MintFen_58 (CV), MissRona_59 (CV), Pipp_60 (CV), Samba_57 (CV), Walrus_56 (CV), Wocket_58 (CV),

Start 80:

- Found in 1 of 118 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ3_09 (singleton),

Start 85:

- Found in 8 of 118 (6.8%) of genes in pham
- Manual Annotations of this start: 7 of 103
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_66 (Y), Bipper_64 (Y), Cracklewink_63 (Y), Faiyaz_66 (Y), Hilltopfarm_65 (Y), Lysidious_59 (CV), Mellie_56 (CV), Typha_65 (Y),

Start 86:

- Found in 3 of 118 (2.5%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: PFR1_35 (BX), PFR2_37 (BX),

Summary by clusters:

There are 16 clusters represented in this pham: singleton, Z, CZ2, AH, CZ1, KA, EP, Q, AR, DZ, Y, DW, UNK, FL, CV, BX,

Info for manual annotations of cluster AH:

- Start number 73 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster AR:

- Start number 69 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster CV:

- Start number 78 was manually annotated 24 times for cluster CV.
- Start number 79 was manually annotated 15 times for cluster CV.
- Start number 85 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CZ1:

- Start number 78 was manually annotated 4 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 78 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster DW:

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

Info for manual annotations of cluster DZ:

- Start number 65 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EP:

- Start number 74 was manually annotated 1 time for cluster EP.

Info for manual annotations of cluster KA:

- Start number 68 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster Q:

- Start number 36 was manually annotated 10 times for cluster Q.
- Start number 52 was manually annotated 1 time for cluster Q.
- Start number 71 was manually annotated 11 times for cluster Q.
- Start number 77 was manually annotated 1 time for cluster Q.

Info for manual annotations of cluster Y:

- Start number 85 was manually annotated 5 times for cluster Y.

Info for manual annotations of cluster Z:

- Start number 75 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_54 Start: 36687, Stop: 37607, Start Num: 75

Candidate Starts for 32HC_54:

(Start: 75 @36687 has 1 MA's), (82, 36705), (89, 36756), (90, 36762), (101, 36837), (116, 37002), (127, 37050), (129, 37062), (143, 37152), (145, 37155), (161, 37233), (208, 37500), (209, 37503), (214, 37539), (224, 37581),

Gene: AirForce1_40 Start: 30261, Stop: 31193, Start Num: 70

Candidate Starts for AirForce1_40:

(70, 30261), (87, 30315), (89, 30339), (91, 30348), (93, 30363), (96, 30375), (101, 30420), (102, 30432), (107, 30489), (112, 30543), (114, 30549), (144, 30714), (157, 30750), (171, 30816), (173, 30828), (176, 30840),

Gene: Aleemily_38 Start: 31779, Stop: 32792, Start Num: 65

Candidate Starts for Aleemily_38:

(Start: 65 @31779 has 5 MA's), (87, 31842), (94, 31899), (96, 31905), (101, 31950), (107, 32022), (121, 32142), (127, 32169), (144, 32262), (147, 32268), (151, 32283), (155, 32292), (157, 32298), (189, 32496), (191, 32502), (197, 32538), (210, 32622), (226, 32694), (236, 32748),

Gene: Amochick_55 Start: 38924, Stop: 39895, Start Num: 71

Candidate Starts for Amochick_55:

(6, 38531), (8, 38552), (9, 38561), (15, 38654), (22, 38738), (Start: 36 @38804 has 10 MA's), (39, 38813), (Start: 52 @38882 has 1 MA's), (Start: 71 @38924 has 11 MA's), (97, 39035), (99, 39062), (101, 39074), (106, 39131), (110, 39182), (128, 39293), (131, 39311), (135, 39341), (150, 39422), (164, 39488), (167, 39506), (168, 39509), (178, 39551), (194, 39659), (195, 39665), (205, 39734), (209, 39746), (213, 39779), (219, 39818),

Gene: Amymech_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for Amymech_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: ArV1_039 Start: 34906, Stop: 35859, Start Num: 69

Candidate Starts for ArV1_039:

(Start: 69 @34906 has 19 MA's), (89, 34981), (96, 35017), (99, 35050), (101, 35062), (108, 35155), (112, 35185), (114, 35191), (118, 35236), (120, 35245), (125, 35269), (136, 35329), (144, 35365), (152, 35404), (157, 35416), (168, 35473), (176, 35506), (191, 35620), (202, 35686), (209, 35719), (217, 35770), (229, 35833), (231, 35842),

Gene: ArchiDore_54 Start: 40092, Stop: 41021, Start Num: 78

Candidate Starts for ArchiDore_54:

(3, 39528), (4, 39531), (18, 39831), (21, 39846), (23, 39861), (25, 39867), (29, 39885), (37, 39939), (41, 39963), (51, 40029), (53, 40035), (Start: 78 @40092 has 30 MA's), (83, 40107), (90, 40149), (91, 40152), (97, 40185), (99, 40212), (101, 40224), (128, 40449), (136, 40500), (141, 40524), (157, 40578), (171, 40644), (175, 40665), (186, 40734), (187, 40743), (209, 40875),

Gene: Archis_60 Start: 37454, Stop: 38383, Start Num: 78

Candidate Starts for Archis_60:

(Start: 78 @37454 has 30 MA's), (83, 37469), (91, 37514), (97, 37547), (99, 37574), (101, 37586), (128, 37811), (136, 37862), (141, 37886), (157, 37940), (171, 38006), (175, 38027), (184, 38078), (187, 38105), (190, 38135), (209, 38237),

Gene: AuntGwenStacy_66 Start: 45547, Stop: 46461, Start Num: 85

Candidate Starts for AuntGwenStacy_66:

(32, 45319), (42, 45385), (46, 45412), (57, 45466), (Start: 85 @45547 has 7 MA's), (99, 45652), (101, 45664), (102, 45676), (127, 45877), (139, 45949), (144, 45970), (147, 45976), (156, 46009), (157, 46012), (167, 46066), (184, 46147), (186, 46165), (209, 46306), (211, 46330),

Gene: Azula_59 Start: 39736, Stop: 40665, Start Num: 79

Candidate Starts for Azula_59:

(Start: 79 @39736 has 15 MA's), (83, 39751), (91, 39796), (99, 39856), (101, 39868), (112, 40003), (128, 40093), (136, 40144), (141, 40168), (142, 40171), (157, 40222), (171, 40288), (175, 40309), (184, 40360), (186, 40378), (209, 40519), (216, 40564), (224, 40603), (230, 40642),

Gene: Barco_56 Start: 37010, Stop: 37939, Start Num: 78

Candidate Starts for Barco_56:

(56, 36959), (59, 36971), (Start: 78 @37010 has 30 MA's), (83, 37025), (90, 37067), (91, 37070), (99, 37130), (101, 37142), (128, 37367), (136, 37418), (141, 37442), (157, 37496), (160, 37514), (171, 37562), (175, 37583), (184, 37634), (187, 37661), (190, 37691), (209, 37793),

Gene: BatStarr_58 Start: 41291, Stop: 42220, Start Num: 78

Candidate Starts for BatStarr_58:

(23, 41057), (25, 41063), (29, 41081), (37, 41135), (41, 41159), (Start: 52 @41231 has 1 MA's), (54, 41234), (56, 41237), (Start: 78 @41291 has 30 MA's), (83, 41306), (90, 41348), (91, 41351), (99, 41411), (101, 41423), (128, 41648), (136, 41699), (141, 41723), (157, 41777), (160, 41795), (171, 41843), (175, 41864), (184, 41915), (186, 41933), (187, 41942), (209, 42074),

Gene: Begonia_56 Start: 39249, Stop: 40178, Start Num: 78

Candidate Starts for Begonia_56:

(31, 39057), (37, 39099), (41, 39123), (Start: 52 @39195 has 1 MA's), (Start: 78 @39249 has 30 MA's), (83, 39264), (90, 39306), (91, 39309), (99, 39369), (101, 39381), (128, 39606), (136, 39657), (141, 39681), (157, 39735), (171, 39801), (175, 39822), (184, 39873), (187, 39900), (190, 39930), (209, 40032),

Gene: Bipper_64 Start: 44977, Stop: 45906, Start Num: 85

Candidate Starts for Bipper_64:

(Start: 85 @44977 has 7 MA's), (93, 45037), (99, 45082), (101, 45094), (102, 45106), (105, 45139), (114, 45226), (117, 45262), (126, 45304), (127, 45307), (139, 45379), (144, 45400), (146, 45403), (159, 45463), (167, 45502), (184, 45583), (186, 45601), (192, 45652), (199, 45700), (205, 45733), (209, 45745), (210, 45766), (218, 45799), (225, 45832), (235, 45886),

Gene: BlingBling_54 Start: 37467, Stop: 38396, Start Num: 78

Candidate Starts for BlingBling_54:

(Start: 78 @37467 has 30 MA's), (83, 37482), (91, 37527), (97, 37560), (99, 37587), (101, 37599), (128, 37824), (141, 37899), (157, 37953), (171, 38019), (175, 38040), (184, 38091), (187, 38118), (190, 38148), (209, 38250),

Gene: Blino_60 Start: 42431, Stop: 43360, Start Num: 78

Candidate Starts for Blino_60:

(33, 42269), (43, 42317), (47, 42350), (Start: 78 @42431 has 30 MA's), (83, 42446), (90, 42488), (91, 42491), (97, 42524), (99, 42551), (101, 42563), (128, 42788), (136, 42839), (141, 42863), (157, 42917), (160, 42935), (171, 42983), (175, 43004), (184, 43055), (187, 43082), (209, 43214),

Gene: BloominB_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for BloominB_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Blueberry_58 Start: 39736, Stop: 40665, Start Num: 79

Candidate Starts for Blueberry_58:

(Start: 79 @39736 has 15 MA's), (83, 39751), (91, 39796), (99, 39856), (101, 39868), (112, 40003), (128, 40093), (136, 40144), (141, 40168), (142, 40171), (157, 40222), (171, 40288), (175, 40309), (184, 40360), (186, 40378), (209, 40519), (216, 40564), (224, 40603), (230, 40642),

Gene: Bran_40 Start: 30480, Stop: 31427, Start Num: 74

Candidate Starts for Bran_40:

(44, 30363), (45, 30366), (55, 30420), (Start: 74 @30480 has 1 MA's), (99, 30621), (100, 30630), (103, 30663), (106, 30693), (112, 30759), (113, 30765), (119, 30813), (122, 30822), (130, 30861), (132, 30876), (137, 30918), (138, 30924), (144, 30954), (154, 30987), (164, 31032), (165, 31041), (189, 31185), (211, 31311), (227, 31383), (228, 31398), (233, 31416),

Gene: Bubbykins_54 Start: 41419, Stop: 42384, Start Num: 70

Candidate Starts for Bubbykins_54:

(Start: 52 @41359 has 1 MA's), (70, 41419), (96, 41530), (99, 41563), (101, 41575), (107, 41647), (112, 41707), (114, 41713), (115, 41719), (124, 41785), (144, 41887), (149, 41917), (164, 41974), (166, 41986), (168, 41995), (176, 42028), (180, 42046), (183, 42070), (184, 42082), (187, 42109), (189, 42136), (222, 42319), (224, 42322),

Gene: Cafasso_39 Start: 32353, Stop: 33366, Start Num: 65

Candidate Starts for Cafasso_39:

(Start: 65 @32353 has 5 MA's), (87, 32416), (94, 32473), (96, 32479), (101, 32524), (107, 32596), (121, 32716), (127, 32743), (144, 32836), (147, 32842), (151, 32857), (155, 32866), (157, 32872), (189, 33070), (191, 33076), (197, 33112), (210, 33196), (226, 33268), (236, 33322),

Gene: CaptainKirk2_58 Start: 37249, Stop: 38178, Start Num: 79

Candidate Starts for CaptainKirk2_58:

(1, 36475), (20, 37000), (38, 37099), (56, 37198), (60, 37210), (Start: 79 @37249 has 15 MA's), (83, 37264), (91, 37309), (99, 37369), (101, 37381), (128, 37606), (136, 37657), (141, 37681), (157, 37735), (171, 37801), (175, 37822), (184, 37873), (187, 37900), (190, 37930), (209, 38032),

Gene: CarolAnn_59 Start: 42430, Stop: 43359, Start Num: 78

Candidate Starts for CarolAnn_59:

(33, 42268), (43, 42316), (47, 42349), (Start: 78 @42430 has 30 MA's), (83, 42445), (90, 42487), (91, 42490), (97, 42523), (99, 42550), (101, 42562), (128, 42787), (136, 42838), (141, 42862), (157, 42916), (160, 42934), (171, 42982), (175, 43003), (184, 43054), (187, 43081), (209, 43213),

Gene: CheeseSpider_64 Start: 38516, Stop: 39445, Start Num: 78

Candidate Starts for CheeseSpider_64:

(18, 38249), (21, 38264), (25, 38285), (29, 38303), (37, 38357), (Start: 78 @38516 has 30 MA's), (83, 38531), (91, 38576), (97, 38609), (99, 38636), (101, 38648), (112, 38783), (128, 38873), (136, 38924), (141, 38948), (142, 38951), (157, 39002), (171, 39068), (175, 39089), (184, 39140), (209, 39299), (216, 39344),

Gene: Chipper1996_460 Start: 36472, Stop: 37425, Start Num: 69

Candidate Starts for Chipper1996_460:

(Start: 69 @36472 has 19 MA's), (96, 36583), (99, 36616), (101, 36628), (108, 36721), (111, 36739), (112, 36751), (114, 36757), (118, 36802), (123, 36823), (125, 36835), (136, 36895), (138, 36901), (144, 36931), (152, 36970), (157, 36982), (168, 37039), (176, 37072), (189, 37180), (202, 37252), (209, 37285), (217, 37336), (229, 37399), (231, 37408),

Gene: Chocolat_46 Start: 36464, Stop: 37417, Start Num: 69

Candidate Starts for Chocolat_46:

(Start: 69 @36464 has 19 MA's), (96, 36575), (99, 36608), (101, 36620), (108, 36713), (111, 36731), (112, 36743), (114, 36749), (118, 36794), (123, 36815), (125, 36827), (136, 36887), (144, 36923), (152, 36962), (157, 36974), (168, 37031), (176, 37064), (183, 37106), (189, 37172), (191, 37178), (202, 37244), (209, 37277), (217, 37328), (231, 37400),

Gene: Chubster_46 Start: 36384, Stop: 37337, Start Num: 69

Candidate Starts for Chubster_46:

(Start: 69 @36384 has 19 MA's), (96, 36495), (99, 36528), (101, 36540), (108, 36633), (111, 36651), (112, 36663), (114, 36669), (118, 36714), (123, 36735), (125, 36747), (136, 36807), (138, 36813), (144, 36843), (152, 36882), (157, 36894), (168, 36951), (176, 36984), (183, 37026), (189, 37092), (191, 37098), (202, 37164), (209, 37197), (217, 37248), (231, 37320),

Gene: Colossa_37 Start: 29366, Stop: 30301, Start Num: 76

Candidate Starts for Colossa_37:

(19, 29090), (35, 29186), (62, 29321), (Start: 68 @29351 has 1 MA's), (76, 29366), (92, 29462), (101, 29519), (109, 29633), (136, 29786), (140, 29804), (144, 29822), (147, 29828), (155, 29852), (157, 29858), (163, 29891), (164, 29894), (189, 30056), (210, 30182), (221, 30230),

Gene: Colucci_46 Start: 36185, Stop: 37138, Start Num: 69

Candidate Starts for Colucci_46:

(Start: 69 @36185 has 19 MA's), (89, 36260), (96, 36296), (99, 36329), (101, 36341), (108, 36434), (112, 36464), (114, 36470), (118, 36515), (123, 36536), (144, 36644), (152, 36683), (157, 36695), (168, 36752), (176, 36785), (189, 36893), (209, 36998), (217, 37049), (229, 37112), (231, 37121),

Gene: Conboy_46 Start: 36612, Stop: 37565, Start Num: 69

Candidate Starts for Conboy_46:

(Start: 69 @36612 has 19 MA's), (96, 36723), (99, 36756), (101, 36768), (108, 36861), (111, 36879), (112, 36891), (114, 36897), (118, 36942), (123, 36963), (125, 36975), (136, 37035), (144, 37071), (152, 37110), (157, 37122), (168, 37179), (176, 37212), (183, 37254), (189, 37320), (191, 37326), (202, 37392), (209, 37425), (217, 37476), (231, 37548),

Gene: Cracklewink_63 Start: 44011, Stop: 44940, Start Num: 85

Candidate Starts for Cracklewink_63:

(84, 44005), (Start: 85 @44011 has 7 MA's), (86, 44017), (93, 44071), (99, 44116), (101, 44128), (102, 44140), (105, 44173), (114, 44260), (117, 44296), (126, 44338), (127, 44341), (139, 44413), (144, 44434), (146, 44437), (159, 44497), (167, 44536), (184, 44617), (186, 44635), (192, 44686), (199, 44734), (205, 44767), (209, 44779), (218, 44833), (225, 44866), (235, 44920),

Gene: Daegal_57 Start: 39484, Stop: 40455, Start Num: 71

Candidate Starts for Daegal_57:

(6, 39091), (9, 39121), (15, 39214), (22, 39298), (Start: 36 @39364 has 10 MA's), (39, 39373), (Start: 52 @39442 has 1 MA's), (Start: 71 @39484 has 11 MA's), (97, 39595), (99, 39622), (101, 39634), (106, 39691), (110, 39742), (128, 39853), (135, 39901), (150, 39982), (164, 40048), (167, 40066), (168, 40069), (178, 40111), (194, 40219), (195, 40225), (205, 40294), (209, 40306), (213, 40339), (219, 40378),

Gene: DeepSoil15_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for DeepSoil15_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Delian_61 Start: 37247, Stop: 38176, Start Num: 79

Candidate Starts for Delian_61:

(1, 36473), (20, 36998), (38, 37097), (56, 37196), (60, 37208), (Start: 79 @37247 has 15 MA's), (83, 37262), (91, 37307), (99, 37367), (101, 37379), (128, 37604), (136, 37655), (141, 37679), (157, 37733), (171, 37799), (175, 37820), (184, 37871), (187, 37898), (190, 37928), (209, 38030),

Gene: Dewey_52 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Dewey_52:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: DrYang_47 Start: 38532, Stop: 39488, Start Num: 69

Candidate Starts for DrYang_47:

(Start: 69 @38532 has 19 MA's), (89, 38607), (96, 38643), (99, 38676), (101, 38688), (108, 38781), (110, 38796), (112, 38811), (114, 38817), (118, 38862), (123, 38883), (125, 38895), (141, 38979), (144, 38991), (152, 39030), (176, 39132), (178, 39141), (187, 39213), (189, 39240), (200, 39306), (204, 39330), (205, 39333), (207, 39339), (209, 39345), (215, 39384), (222, 39423), (231, 39468),

Gene: EdgarPoe_46 Start: 36612, Stop: 37565, Start Num: 69

Candidate Starts for EdgarPoe_46:

(Start: 69 @36612 has 19 MA's), (96, 36723), (99, 36756), (101, 36768), (108, 36861), (111, 36879), (112, 36891), (114, 36897), (118, 36942), (123, 36963), (125, 36975), (136, 37035), (144, 37071), (152, 37110), (157, 37122), (168, 37179), (176, 37212), (183, 37254), (189, 37320), (191, 37326), (202, 37392), (209, 37425), (217, 37476), (231, 37548),

Gene: Ein37_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for Ein37_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Evanesce_54 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for Evanesce_54:

(22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Eviarto_59 Start: 41266, Stop: 42195, Start Num: 78

Candidate Starts for Eviarto_59:

(23, 41032), (25, 41038), (29, 41056), (37, 41110), (41, 41134), (Start: 52 @41206 has 1 MA's), (54, 41209), (56, 41212), (Start: 78 @41266 has 30 MA's), (83, 41281), (90, 41323), (91, 41326), (99, 41386), (101, 41398), (128, 41623), (136, 41674), (141, 41698), (157, 41752), (160, 41770), (171, 41818), (175, 41839), (184, 41890), (186, 41908), (187, 41917), (209, 42049),

Gene: Fairfaxidum_59 Start: 39599, Stop: 40528, Start Num: 78

Candidate Starts for Fairfaxidum_59:

(18, 39335), (30, 39395), (37, 39440), (41, 39464), (58, 39545), (Start: 78 @39599 has 30 MA's), (83, 39614), (90, 39656), (91, 39659), (99, 39719), (101, 39731), (110, 39851), (128, 39956), (157, 40085), (171, 40151), (175, 40172), (184, 40223), (186, 40241), (190, 40280), (205, 40370), (209, 40382),

(220, 40460),

Gene: Faiyaz_66 Start: 45550, Stop: 46464, Start Num: 85

Candidate Starts for Faiyaz_66:

(Start: 85 @45550 has 7 MA's), (97, 45628), (101, 45667), (102, 45679), (127, 45880), (139, 45952), (144, 45973), (147, 45979), (156, 46012), (157, 46015), (167, 46069), (184, 46150), (186, 46168), (209, 46309), (211, 46333), (237, 46456),

Gene: Fenry_56 Start: 38757, Stop: 39686, Start Num: 78

Candidate Starts for Fenry_56:

(Start: 78 @38757 has 30 MA's), (83, 38772), (91, 38817), (99, 38877), (101, 38889), (128, 39114), (136, 39165), (141, 39189), (157, 39243), (171, 39309), (175, 39330), (184, 39381), (186, 39399), (209, 39540),

Gene: Forge_52 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Forge_52:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Gambino_61 Start: 39736, Stop: 40665, Start Num: 79

Candidate Starts for Gambino_61:

(Start: 79 @39736 has 15 MA's), (83, 39751), (91, 39796), (99, 39856), (101, 39868), (112, 40003), (128, 40093), (136, 40144), (141, 40168), (142, 40171), (157, 40222), (171, 40288), (175, 40309), (184, 40360), (186, 40378), (209, 40519), (216, 40564), (224, 40603), (230, 40642),

Gene: Gancho_54 Start: 38623, Stop: 39594, Start Num: 71

Candidate Starts for Gancho_54:

(6, 38230), (9, 38260), (15, 38353), (22, 38437), (Start: 36 @38503 has 10 MA's), (39, 38512), (Start: 52 @38581 has 1 MA's), (Start: 71 @38623 has 11 MA's), (97, 38734), (99, 38761), (101, 38773), (106, 38830), (110, 38881), (128, 38992), (135, 39040), (150, 39121), (164, 39187), (167, 39205), (168, 39208), (178, 39250), (195, 39364), (205, 39433), (209, 39445), (213, 39478), (219, 39517), (223, 39523),

Gene: Giles_52 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Giles_52:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Gravaillia_53 Start: 38794, Stop: 39885, Start Num: 36

Candidate Starts for Gravaillia_53:

(6, 38521), (8, 38542), (9, 38551), (15, 38644), (22, 38728), (Start: 36 @38794 has 10 MA's), (39, 38803), (Start: 52 @38872 has 1 MA's), (Start: 71 @38914 has 11 MA's), (97, 39025), (99, 39052), (101, 39064), (106, 39121), (110, 39172), (128, 39283), (135, 39331), (150, 39412), (157, 39442), (164, 39478), (167, 39496), (168, 39499), (178, 39541), (189, 39631), (194, 39649), (195, 39655), (205, 39724), (209, 39736), (213, 39769), (219, 39808),

Gene: Guacamole_55 Start: 37476, Stop: 38405, Start Num: 79

Candidate Starts for Guacamole_55:

(54, 37422), (56, 37425), (60, 37437), (Start: 79 @37476 has 15 MA's), (83, 37491), (90, 37533), (91, 37536), (97, 37569), (99, 37596), (101, 37608), (128, 37833), (136, 37884), (141, 37908), (157, 37962), (171, 38028), (175, 38049), (184, 38100), (187, 38127), (190, 38157), (209, 38259),

Gene: HH92_54 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for HH92_54:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Hadrien_54 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Hadrien_54:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Hail_52 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Hail_52:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Hilltopfarm_65 Start: 45250, Stop: 46164, Start Num: 85

Candidate Starts for Hilltopfarm_65:

(Start: 85 @45250 has 7 MA's), (97, 45328), (101, 45367), (102, 45379), (127, 45580), (139, 45652), (144, 45673), (147, 45679), (156, 45712), (157, 45715), (167, 45769), (184, 45850), (186, 45868), (209, 46009), (211, 46033), (237, 46156),

Gene: Hitter_58 Start: 37052, Stop: 37981, Start Num: 79

Candidate Starts for Hitter_58:

(56, 37001), (60, 37013), (Start: 79 @37052 has 15 MA's), (83, 37067), (90, 37109), (91, 37112), (99, 37172), (101, 37184), (128, 37409), (136, 37460), (141, 37484), (157, 37538), (171, 37604), (175, 37625), (184, 37676), (187, 37703), (190, 37733), (209, 37835),

Gene: HumptyDumpty_46 Start: 36470, Stop: 37423, Start Num: 69

Candidate Starts for HumptyDumpty_46:

(Start: 69 @36470 has 19 MA's), (96, 36581), (99, 36614), (101, 36626), (108, 36719), (111, 36737), (112, 36749), (114, 36755), (118, 36800), (123, 36821), (125, 36833), (136, 36893), (138, 36899), (144, 36929), (152, 36968), (157, 36980), (168, 37037), (176, 37070), (189, 37178), (202, 37250), (209, 37283), (217, 37334), (229, 37397), (231, 37406),

Gene: JaNo_46 Start: 36470, Stop: 37423, Start Num: 69

Candidate Starts for JaNo_46:

(Start: 69 @36470 has 19 MA's), (96, 36581), (99, 36614), (101, 36626), (108, 36719), (111, 36737), (112, 36749), (114, 36755), (118, 36800), (123, 36821), (125, 36833), (136, 36893), (138, 36899), (144, 36929), (152, 36968), (157, 36980), (168, 37037), (176, 37070), (189, 37178), (202, 37250), (209, 37283), (217, 37334), (229, 37397), (231, 37406),

Gene: Jalammah_61 Start: 40055, Stop: 40984, Start Num: 79

Candidate Starts for Jalammah_61:

(54, 40001), (56, 40004), (60, 40016), (Start: 79 @40055 has 15 MA's), (83, 40070), (90, 40112), (91, 40115), (97, 40148), (99, 40175), (101, 40187), (112, 40322), (128, 40412), (141, 40487), (157, 40541), (171, 40607), (175, 40628), (184, 40679), (187, 40706), (190, 40736), (209, 40838),

Gene: JasperJr_55 Start: 37476, Stop: 38405, Start Num: 79

Candidate Starts for JasperJr_55:

(54, 37422), (56, 37425), (60, 37437), (Start: 79 @37476 has 15 MA's), (83, 37491), (90, 37533), (91, 37536), (97, 37569), (99, 37596), (101, 37608), (128, 37833), (136, 37884), (141, 37908), (157, 37962), (171, 38028), (175, 38049), (184, 38100), (187, 38127), (190, 38157), (209, 38259),

Gene: JayCookie_46 Start: 36606, Stop: 37559, Start Num: 69

Candidate Starts for JayCookie_46:

(Start: 69 @36606 has 19 MA's), (96, 36717), (99, 36750), (101, 36762), (108, 36855), (111, 36873), (112, 36885), (114, 36891), (118, 36936), (123, 36957), (125, 36969), (136, 37029), (138, 37035), (144, 37065), (152, 37104), (157, 37116), (168, 37173), (176, 37206), (189, 37314), (202, 37386), (209, 37419), (217, 37470), (229, 37533), (231, 37542),

Gene: JuJu_64 Start: 41181, Stop: 42110, Start Num: 78

Candidate Starts for JuJu_64:

(31, 40989), (37, 41031), (41, 41055), (Start: 52 @41127 has 1 MA's), (Start: 78 @41181 has 30 MA's), (83, 41196), (90, 41238), (91, 41241), (97, 41274), (99, 41301), (101, 41313), (128, 41538), (136, 41589), (141, 41613), (157, 41667), (160, 41685), (171, 41733), (175, 41754), (184, 41805), (187, 41832), (209, 41964),

Gene: JustASigh_52 Start: 36846, Stop: 37820, Start Num: 73

Candidate Starts for JustASigh_52:

(Start: 73 @36846 has 1 MA's), (81, 36867), (101, 37020), (102, 37032), (112, 37143), (116, 37185), (121, 37209), (133, 37272), (141, 37323), (144, 37335), (186, 37530), (190, 37572), (209, 37674), (210, 37695),

Gene: KBurrousTX_46 Start: 37722, Stop: 38675, Start Num: 69

Candidate Starts for KBurrousTX_46:

(Start: 69 @37722 has 19 MA's), (89, 37797), (96, 37833), (99, 37866), (101, 37878), (108, 37971), (110, 37986), (111, 37989), (112, 38001), (114, 38007), (118, 38052), (123, 38073), (125, 38085), (136, 38145), (144, 38181), (157, 38232), (168, 38289), (176, 38322), (178, 38331), (189, 38430), (204, 38520), (209, 38535), (217, 38586), (231, 38658),

Gene: Kabreeze_46 Start: 36470, Stop: 37423, Start Num: 69

Candidate Starts for Kabreeze_46:

(Start: 69 @36470 has 19 MA's), (96, 36581), (99, 36614), (101, 36626), (108, 36719), (111, 36737), (112, 36749), (114, 36755), (118, 36800), (123, 36821), (125, 36833), (136, 36893), (138, 36899), (144, 36929), (152, 36968), (157, 36980), (168, 37037), (176, 37070), (189, 37178), (202, 37250), (209, 37283), (217, 37334), (229, 37397), (231, 37406),

Gene: KappaFarmDelta_59 Start: 37409, Stop: 38338, Start Num: 78

Candidate Starts for KappaFarmDelta_59:

(Start: 78 @37409 has 30 MA's), (83, 37424), (90, 37466), (91, 37469), (99, 37529), (101, 37541), (128, 37766), (136, 37817), (141, 37841), (157, 37895), (171, 37961), (175, 37982), (184, 38033), (187, 38060), (190, 38090), (209, 38192),

Gene: Kinbote_54 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Kinbote_54:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: LilHazelnut_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for LilHazelnut_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Linus_46 Start: 36603, Stop: 37556, Start Num: 69

Candidate Starts for Linus_46:

(Start: 69 @36603 has 19 MA's), (96, 36714), (99, 36747), (101, 36759), (108, 36852), (111, 36870), (112, 36882), (114, 36888), (118, 36933), (123, 36954), (125, 36966), (136, 37026), (144, 37062), (152, 37101), (157, 37113), (168, 37170), (176, 37203), (183, 37245), (189, 37311), (191, 37317), (202, 37383), (209, 37416), (217, 37467), (231, 37539),

Gene: Luke_54 Start: 38735, Stop: 39826, Start Num: 36

Candidate Starts for Luke_54:

(6, 38462), (9, 38492), (15, 38585), (22, 38669), (Start: 36 @38735 has 10 MA's), (39, 38744), (Start: 52 @38813 has 1 MA's), (Start: 71 @38855 has 11 MA's), (97, 38966), (99, 38993), (101, 39005), (106, 39062), (110, 39113), (128, 39224), (135, 39272), (150, 39353), (164, 39419), (167, 39437), (168, 39440), (178, 39482), (195, 39596), (205, 39665), (209, 39677), (213, 39710), (219, 39749),

Gene: Luna22_52 Start: 38764, Stop: 39855, Start Num: 36

Candidate Starts for Luna22_52:

(6, 38491), (9, 38521), (15, 38614), (22, 38698), (Start: 36 @38764 has 10 MA's), (39, 38773), (Start: 52 @38842 has 1 MA's), (Start: 71 @38884 has 11 MA's), (97, 38995), (99, 39022), (101, 39034), (106, 39091), (110, 39142), (128, 39253), (135, 39301), (150, 39382), (164, 39448), (167, 39466), (168, 39469), (178, 39511), (195, 39625), (205, 39694), (209, 39706), (213, 39739), (219, 39778),

Gene: Lymara_46 Start: 36430, Stop: 37383, Start Num: 69

Candidate Starts for Lymara_46:

(66, 36424), (Start: 69 @36430 has 19 MA's), (89, 36505), (91, 36514), (96, 36541), (99, 36574), (101, 36586), (108, 36679), (112, 36709), (114, 36715), (118, 36760), (123, 36781), (134, 36835), (136, 36853), (138, 36859), (144, 36889), (152, 36928), (157, 36940), (168, 36997), (176, 37030), (183, 37072), (187, 37111), (189, 37138), (202, 37210), (209, 37243), (217, 37294), (231, 37366),

Gene: Lysidious_59 Start: 39422, Stop: 40312, Start Num: 85

Candidate Starts for Lysidious_59:

(5, 38894), (30, 39173), (46, 39272), (67, 39371), (72, 39383), (Start: 85 @39422 has 7 MA's), (89, 39458), (101, 39539), (112, 39662), (141, 39827), (144, 39839), (156, 39878), (157, 39881), (158, 39884), (208, 40175), (209, 40178), (230, 40289), (232, 40298),

Gene: Malachai_56 Start: 39249, Stop: 40178, Start Num: 78

Candidate Starts for Malachai_56:

(31, 39057), (37, 39099), (41, 39123), (Start: 52 @39195 has 1 MA's), (Start: 78 @39249 has 30 MA's), (83, 39264), (90, 39306), (91, 39309), (99, 39369), (101, 39381), (128, 39606), (136, 39657), (141, 39681), (157, 39735), (171, 39801), (175, 39822), (184, 39873), (187, 39900), (190, 39930), (209, 40032),

Gene: Melba_56 Start: 37292, Stop: 38221, Start Num: 78

Candidate Starts for Melba_56:

(Start: 78 @37292 has 30 MA's), (83, 37307), (91, 37352), (97, 37385), (99, 37412), (101, 37424), (128, 37649), (141, 37724), (157, 37778), (171, 37844), (175, 37865), (184, 37916), (187, 37943), (190, 37973), (209, 38075),

Gene: Mellie_56 Start: 37432, Stop: 38322, Start Num: 85

Candidate Starts for Mellie_56:

(2, 36670), (30, 37183), (46, 37282), (67, 37381), (72, 37393), (Start: 85 @37432 has 7 MA's), (89, 37468), (101, 37549), (112, 37672), (141, 37837), (144, 37849), (156, 37888), (191, 38089), (205, 38176), (208, 38185), (209, 38188), (224, 38266), (230, 38299), (232, 38308),

Gene: MintFen_58 Start: 37863, Stop: 38792, Start Num: 79

Candidate Starts for MintFen_58:

(1, 37089), (20, 37614), (38, 37713), (56, 37812), (60, 37824), (Start: 79 @37863 has 15 MA's), (83, 37878), (91, 37923), (99, 37983), (101, 37995), (128, 38220), (136, 38271), (141, 38295), (157, 38349), (171, 38415), (175, 38436), (184, 38487), (187, 38514), (190, 38544), (209, 38646),

Gene: MissRona_59 Start: 39737, Stop: 40666, Start Num: 79

Candidate Starts for MissRona_59:

(Start: 79 @39737 has 15 MA's), (83, 39752), (91, 39797), (99, 39857), (101, 39869), (112, 40004), (128, 40094), (136, 40145), (141, 40169), (142, 40172), (157, 40223), (171, 40289), (175, 40310), (184, 40361), (186, 40379), (209, 40520), (216, 40565), (224, 40604), (230, 40643),

Gene: ModicumRichard_39 Start: 32352, Stop: 33365, Start Num: 65

Candidate Starts for ModicumRichard_39:

(Start: 65 @32352 has 5 MA's), (87, 32415), (94, 32472), (96, 32478), (101, 32523), (107, 32595), (121, 32715), (127, 32742), (144, 32835), (147, 32841), (151, 32856), (155, 32865), (157, 32871), (189, 33069), (191, 33075), (197, 33111), (210, 33195), (226, 33267), (236, 33321),

Gene: Mordred_46 Start: 36470, Stop: 37423, Start Num: 69

Candidate Starts for Mordred_46:

(Start: 69 @36470 has 19 MA's), (96, 36581), (99, 36614), (101, 36626), (108, 36719), (111, 36737), (112, 36749), (114, 36755), (118, 36800), (123, 36821), (125, 36833), (136, 36893), (138, 36899), (144, 36929), (152, 36968), (157, 36980), (168, 37037), (176, 37070), (189, 37178), (202, 37250), (209, 37283), (217, 37334), (229, 37397), (231, 37406),

Gene: Morgana_39 Start: 32303, Stop: 33316, Start Num: 65

Candidate Starts for Morgana_39:

(7, 31865), (10, 31892), (11, 31895), (13, 31931), (28, 32096), (35, 32144), (63, 32285), (Start: 65 @32303 has 5 MA's), (94, 32423), (96, 32429), (101, 32474), (121, 32666), (144, 32786), (147, 32792), (151, 32807), (157, 32822), (189, 33020), (191, 33026), (197, 33062), (206, 33116), (210, 33146), (226, 33218), (234, 33260), (236, 33272),

Gene: MoyaNatalis_46 Start: 36463, Stop: 37416, Start Num: 69

Candidate Starts for MoyaNatalis_46:

(Start: 69 @36463 has 19 MA's), (96, 36574), (99, 36607), (101, 36619), (108, 36712), (111, 36730), (112, 36742), (114, 36748), (118, 36793), (123, 36814), (125, 36826), (136, 36886), (138, 36892), (144, 36922), (152, 36961), (157, 36973), (168, 37030), (176, 37063), (183, 37105), (189, 37171), (191, 37177), (202, 37243), (209, 37276), (217, 37327), (231, 37399),

Gene: Murp_58 Start: 40682, Stop: 41611, Start Num: 78

Candidate Starts for Murp_58:

(47, 40601), (Start: 78 @40682 has 30 MA's), (83, 40697), (90, 40739), (91, 40742), (97, 40775), (99, 40802), (101, 40814), (128, 41039), (136, 41090), (157, 41168), (171, 41234), (175, 41255), (184, 41306), (187, 41333), (190, 41363), (209, 41465),

Gene: NovoPizza_55 Start: 39554, Stop: 40510, Start Num: 77

Candidate Starts for NovoPizza_55:

(26, 39314), (39, 39386), (40, 39398), (Start: 52 @39482 has 1 MA's), (Start: 77 @39554 has 1 MA's), (99, 39686), (101, 39698), (106, 39755), (110, 39806), (120, 39884), (126, 39908), (128, 39917), (141, 40004), (153, 40061), (156, 40073), (162, 40103), (167, 40130), (181, 40187), (188, 40262), (209, 40373), (219, 40445),

Gene: Nymphadora_59 Start: 41290, Stop: 42219, Start Num: 78

Candidate Starts for Nymphadora_59:

(23, 41056), (25, 41062), (29, 41080), (37, 41134), (41, 41158), (Start: 52 @41230 has 1 MA's), (54, 41233), (56, 41236), (Start: 78 @41290 has 30 MA's), (83, 41305), (90, 41347), (91, 41350), (99, 41410), (101, 41422), (128, 41647), (136, 41698), (141, 41722), (157, 41776), (160, 41794), (171, 41842), (175, 41863), (184, 41914), (186, 41932), (187, 41941), (209, 42073),

Gene: OBUpride_55 Start: 38914, Stop: 39885, Start Num: 71

Candidate Starts for OBUpride_55:

(6, 38521), (8, 38542), (9, 38551), (15, 38644), (22, 38728), (Start: 36 @38794 has 10 MA's), (39, 38803), (Start: 52 @38872 has 1 MA's), (Start: 71 @38914 has 11 MA's), (97, 39025), (99, 39052), (101, 39064), (106, 39121), (110, 39172), (128, 39283), (135, 39331), (150, 39412), (157, 39442), (164, 39478), (167, 39496), (168, 39499), (178, 39541), (189, 39631), (194, 39649), (195, 39655), (205, 39724), (209, 39736), (213, 39769), (219, 39808),

Gene: ObLaDi_39 Start: 32337, Stop: 33350, Start Num: 65

Candidate Starts for ObLaDi_39:

(48, 32259), (61, 32310), (Start: 65 @32337 has 5 MA's), (Start: 79 @32364 has 15 MA's), (94, 32457), (96, 32463), (101, 32508), (121, 32700), (144, 32820), (147, 32826), (151, 32841), (155, 32850), (157, 32856), (191, 33060), (197, 33096), (210, 33180), (226, 33252), (234, 33294), (236, 33306),

Gene: Obliviate_54 Start: 35860, Stop: 36789, Start Num: 78

Candidate Starts for Obliviate_54:

(Start: 78 @35860 has 30 MA's), (83, 35875), (90, 35917), (91, 35920), (99, 35980), (101, 35992), (128, 36217), (136, 36268), (141, 36292), (157, 36346), (171, 36412), (175, 36433), (184, 36484), (187, 36511), (190, 36541), (209, 36643),

Gene: PCoral7_58 Start: 39007, Stop: 39936, Start Num: 78

Candidate Starts for PCoral7_58:

(30, 38803), (37, 38848), (41, 38872), (58, 38953), (Start: 78 @39007 has 30 MA's), (83, 39022), (90, 39064), (91, 39067), (96, 39094), (99, 39127), (101, 39139), (128, 39364), (136, 39415), (141, 39439), (157, 39493), (171, 39559), (175, 39580), (184, 39631), (186, 39649), (209, 39790), (220, 39868),

Gene: PFR1_35 Start: 26634, Stop: 27539, Start Num: 86

Candidate Starts for PFR1_35:

(64, 26565), (76, 26595), (86, 26634), (95, 26697), (96, 26700), (102, 26757), (136, 27015), (148, 27060), (157, 27087), (164, 27129), (172, 27168), (185, 27243), (187, 27255), (194, 27300), (196, 27315), (198, 27330), (202, 27354), (209, 27387),

Gene: PFR2_37 Start: 28203, Stop: 29108, Start Num: 86

Candidate Starts for PFR2_37:

(64, 28134), (76, 28164), (86, 28203), (95, 28266), (96, 28269), (102, 28326), (136, 28584), (148, 28629), (157, 28656), (164, 28698), (172, 28737), (185, 28812), (187, 28824), (194, 28869), (196, 28884), (198, 28899), (202, 28923), (209, 28956),

Gene: Petra_55 Start: 36512, Stop: 37441, Start Num: 78

Candidate Starts for Petra_55:

(Start: 78 @36512 has 30 MA's), (83, 36527), (90, 36569), (91, 36572), (97, 36605), (99, 36632), (101, 36644), (128, 36869), (141, 36944), (157, 36998), (171, 37064), (175, 37085), (184, 37136), (187, 37163), (190, 37193), (209, 37295),

Gene: PhrostedPhlake_59 Start: 37294, Stop: 38223, Start Num: 78

Candidate Starts for PhrostedPhlake_59:

(Start: 78 @37294 has 30 MA's), (83, 37309), (91, 37354), (97, 37387), (99, 37414), (101, 37426), (112, 37561), (128, 37651), (136, 37702), (141, 37726), (142, 37729), (157, 37780), (171, 37846), (175, 37867), (184, 37918), (186, 37936), (209, 38077), (216, 38122), (230, 38200),

Gene: Pipp_60 Start: 38559, Stop: 39488, Start Num: 79

Candidate Starts for Pipp_60:

(56, 38508), (60, 38520), (Start: 79 @38559 has 15 MA's), (83, 38574), (91, 38619), (99, 38679), (101, 38691), (112, 38826), (128, 38916), (136, 38967), (141, 38991), (157, 39045), (167, 39099), (171, 39111), (175, 39132), (184, 39183), (187, 39210), (190, 39240), (209, 39342),

Gene: PrincePatrick_57 Start: 37356, Stop: 38285, Start Num: 78

Candidate Starts for PrincePatrick_57:

(30, 37152), (37, 37197), (41, 37221), (58, 37302), (Start: 78 @37356 has 30 MA's), (83, 37371), (90, 37413), (91, 37416), (96, 37443), (99, 37476), (101, 37488), (110, 37608), (128, 37713), (141, 37788), (157, 37842), (171, 37908), (175, 37929), (179, 37944), (184, 37980), (186, 37998), (187, 38007), (193, 38049), (201, 38103), (205, 38127), (209, 38139),

Gene: PrincessTrina_46 Start: 36606, Stop: 37559, Start Num: 69

Candidate Starts for PrincessTrina_46:

(Start: 69 @36606 has 19 MA's), (96, 36717), (99, 36750), (101, 36762), (108, 36855), (111, 36873), (112, 36885), (114, 36891), (118, 36936), (123, 36957), (125, 36969), (136, 37029), (144, 37065), (152, 37104), (157, 37116), (168, 37173), (176, 37206), (183, 37248), (189, 37314), (191, 37320), (202, 37386), (209, 37419), (217, 37470), (231, 37542),

Gene: REQ3_09 Start: 3808, Stop: 4743, Start Num: 80

Candidate Starts for REQ3_09:

(80, 3808), (93, 3889), (104, 3982), (131, 4180), (140, 4219), (142, 4228), (144, 4237), (147, 4243), (162, 4312), (169, 4345), (170, 4348), (177, 4381), (189, 4480),

Gene: Rem711_53 Start: 36671, Stop: 37591, Start Num: 75

Candidate Starts for Rem711_53:

(Start: 75 @36671 has 1 MA's), (82, 36689), (89, 36740), (90, 36746), (101, 36821), (116, 36986), (127, 37034), (129, 37046), (143, 37136), (145, 37139), (161, 37217), (205, 37475), (209, 37487), (214, 37523),

Gene: RosiePosie_46 Start: 36473, Stop: 37426, Start Num: 69

Candidate Starts for RosiePosie_46:

(Start: 69 @36473 has 19 MA's), (96, 36584), (99, 36617), (101, 36629), (108, 36722), (111, 36740), (112, 36752), (114, 36758), (118, 36803), (123, 36824), (125, 36836), (136, 36896), (138, 36902), (144, 36932), (152, 36971), (157, 36983), (168, 37040), (176, 37073), (189, 37181), (202, 37253), (209, 37286), (217, 37337), (229, 37400), (231, 37409),

Gene: Samba_57 Start: 40085, Stop: 41014, Start Num: 79

Candidate Starts for Samba_57:

(56, 40034), (60, 40046), (Start: 79 @40085 has 15 MA's), (83, 40100), (90, 40142), (91, 40145), (99, 40205), (101, 40217), (128, 40442), (136, 40493), (141, 40517), (157, 40571), (171, 40637), (175, 40658), (184, 40709), (187, 40736), (190, 40766), (209, 40868),

Gene: Scavito_46 Start: 36471, Stop: 37424, Start Num: 69

Candidate Starts for Scavito_46:

(Start: 69 @36471 has 19 MA's), (96, 36582), (99, 36615), (101, 36627), (108, 36720), (111, 36738), (112, 36750), (114, 36756), (118, 36801), (123, 36822), (125, 36834), (136, 36894), (138, 36900), (144, 36930), (152, 36969), (157, 36981), (168, 37038), (176, 37071), (189, 37179), (202, 37251), (209, 37284), (217, 37335), (229, 37398), (231, 37407),

Gene: TimTam_59 Start: 41290, Stop: 42219, Start Num: 78

Candidate Starts for TimTam_59:

(23, 41056), (25, 41062), (29, 41080), (37, 41134), (41, 41158), (Start: 52 @41230 has 1 MA's), (54, 41233), (56, 41236), (Start: 78 @41290 has 30 MA's), (83, 41305), (90, 41347), (91, 41350), (99, 41410), (101, 41422), (128, 41647), (136, 41698), (141, 41722), (157, 41776), (160, 41794), (171, 41842), (175, 41863), (184, 41914), (186, 41932), (187, 41941), (209, 42073),

Gene: Toast_58 Start: 39007, Stop: 39936, Start Num: 78

Candidate Starts for Toast_58:

(30, 38803), (37, 38848), (41, 38872), (58, 38953), (Start: 78 @39007 has 30 MA's), (83, 39022), (90, 39064), (91, 39067), (96, 39094), (99, 39127), (101, 39139), (128, 39364), (136, 39415), (141, 39439), (157, 39493), (171, 39559), (175, 39580), (184, 39631), (186, 39649), (209, 39790), (220, 39868),

Gene: Tophat_46 Start: 36472, Stop: 37425, Start Num: 69

Candidate Starts for Tophat_46:

(Start: 69 @36472 has 19 MA's), (96, 36583), (99, 36616), (101, 36628), (108, 36721), (111, 36739), (112, 36751), (114, 36757), (118, 36802), (123, 36823), (125, 36835), (136, 36895), (138, 36901), (144, 36931), (152, 36970), (157, 36982), (168, 37039), (176, 37072), (189, 37180), (202, 37252), (209, 37285), (217, 37336), (229, 37399), (231, 37408),

Gene: Typha_65 Start: 45547, Stop: 46461, Start Num: 85

Candidate Starts for Typha_65:

(32, 45319), (42, 45385), (46, 45412), (57, 45466), (Start: 85 @45547 has 7 MA's), (99, 45652), (101, 45664), (102, 45676), (127, 45877), (139, 45949), (144, 45970), (147, 45976), (156, 46009), (157, 46012), (167, 46066), (184, 46147), (186, 46165), (209, 46306), (211, 46330),

Gene: Ubuntu_55 Start: 38858, Stop: 39871, Start Num: 52

Candidate Starts for Ubuntu_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: UmaThurman_55 Start: 38004, Stop: 38933, Start Num: 78

Candidate Starts for UmaThurman_55:

(14, 37677), (23, 37776), (27, 37794), (31, 37812), (37, 37854), (41, 37878), (49, 37941), (Start: 52 @37950 has 1 MA's), (Start: 78 @38004 has 30 MA's), (83, 38019), (90, 38061), (91, 38064), (97, 38097), (99, 38124), (101, 38136), (128, 38361), (136, 38412), (141, 38436), (157, 38490), (160, 38508), (167, 38544), (171, 38556), (175, 38577), (184, 38628), (187, 38655), (209, 38787),

Gene: Utz_50 Start: 37832, Stop: 38761, Start Num: 78

Candidate Starts for Utz_50:

(Start: 78 @37832 has 30 MA's), (83, 37847), (91, 37892), (97, 37925), (99, 37952), (101, 37964), (128, 38189), (141, 38264), (157, 38318), (160, 38336), (167, 38372), (171, 38384), (175, 38405), (182, 38444), (184, 38456), (187, 38483), (190, 38513), (209, 38615),

Gene: VanLee_36 Start: 29374, Stop: 30321, Start Num: 68

Candidate Starts for VanLee_36:

(Start: 68 @29374 has 1 MA's), (76, 29389), (88, 29437), (92, 29485), (99, 29530), (101, 29542), (121, 29725), (140, 29827), (144, 29845), (147, 29851), (155, 29875), (157, 29881), (163, 29914), (174, 29962), (189, 30079), (210, 30205), (221, 30253),

Gene: Vasanti_54 Start: 35775, Stop: 36704, Start Num: 78

Candidate Starts for Vasanti_54:

(18, 35514), (21, 35529), (23, 35544), (25, 35550), (29, 35568), (37, 35622), (41, 35646), (51, 35712), (53, 35718), (Start: 78 @35775 has 30 MA's), (83, 35790), (90, 35832), (91, 35835), (97, 35868), (99, 35895), (101, 35907), (128, 36132), (141, 36207), (157, 36261), (167, 36315), (171, 36327), (184, 36399), (186, 36417), (187, 36426), (209, 36558),

Gene: Walrus_56 Start: 37367, Stop: 38296, Start Num: 79

Candidate Starts for Walrus_56:

(56, 37316), (60, 37328), (Start: 79 @37367 has 15 MA's), (83, 37382), (91, 37427), (99, 37487), (101, 37499), (112, 37634), (128, 37724), (136, 37775), (141, 37799), (157, 37853), (167, 37907), (171, 37919), (175, 37940), (184, 37991), (187, 38018), (190, 38048), (209, 38150),

Gene: Webster2_55 Start: 38900, Stop: 39871, Start Num: 71

Candidate Starts for Webster2_55:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Weirido19_53 Start: 37220, Stop: 38188, Start Num: 73

Candidate Starts for Weirido19_53:

(12, 36836), (16, 36932), (17, 36953), (24, 36989), (32, 37019), (34, 37043), (Start: 36 @37052 has 10 MA's), (50, 37148), (Start: 73 @37220 has 1 MA's), (98, 37352), (101, 37391), (112, 37514), (122, 37583), (129, 37616), (141, 37694), (144, 37706), (157, 37748), (158, 37751), (186, 37901), (187, 37910), (203, 38018), (209, 38045), (212, 38075),

Gene: William_60 Start: 39682, Stop: 40611, Start Num: 78

Candidate Starts for William_60:

(58, 39628), (Start: 78 @39682 has 30 MA's), (83, 39697), (90, 39739), (91, 39742), (97, 39775), (99, 39802), (101, 39814), (128, 40039), (141, 40114), (157, 40168), (171, 40234), (175, 40255), (184, 40306), (186, 40324), (190, 40363), (205, 40453), (209, 40465), (220, 40543),

Gene: Wishmaker_52 Start: 38780, Stop: 39871, Start Num: 36

Candidate Starts for Wishmaker_52:

(6, 38507), (9, 38537), (15, 38630), (22, 38714), (Start: 36 @38780 has 10 MA's), (39, 38789), (Start: 52 @38858 has 1 MA's), (Start: 71 @38900 has 11 MA's), (97, 39011), (99, 39038), (101, 39050), (106, 39107), (110, 39158), (128, 39269), (135, 39317), (150, 39398), (164, 39464), (167, 39482), (168, 39485), (178, 39527), (195, 39641), (205, 39710), (209, 39722), (213, 39755), (219, 39794),

Gene: Wisp_57 Start: 38275, Stop: 39204, Start Num: 78

Candidate Starts for Wisp_57:

(Start: 52 @38212 has 1 MA's), (Start: 78 @38275 has 30 MA's), (83, 38290), (90, 38332), (91, 38335), (97, 38368), (99, 38395), (101, 38407), (128, 38632), (136, 38683), (141, 38707), (157, 38761), (171, 38827), (175, 38848), (184, 38899), (187, 38926), (190, 38956), (209, 39058),

Gene: Wocket_58 Start: 37849, Stop: 38778, Start Num: 79

Candidate Starts for Wocket_58:

(56, 37798), (60, 37810), (Start: 79 @37849 has 15 MA's), (83, 37864), (90, 37906), (91, 37909), (97, 37942), (99, 37969), (101, 37981), (128, 38206), (141, 38281), (157, 38335), (171, 38401), (175, 38422), (187, 38500), (190, 38530), (209, 38632),

Gene: Zarbodnamra_57 Start: 37271, Stop: 38200, Start Num: 78

Candidate Starts for Zarbodnamra_57:

(56, 37220), (59, 37232), (Start: 78 @37271 has 30 MA's), (83, 37286), (90, 37328), (91, 37331), (97, 37364), (99, 37391), (101, 37403), (128, 37628), (136, 37679), (141, 37703), (157, 37757), (160, 37775), (167, 37811), (171, 37823), (175, 37844), (184, 37895), (187, 37922), (209, 38054),

Gene: ZiggyZoo_58 Start: 39325, Stop: 40254, Start Num: 78

Candidate Starts for ZiggyZoo_58:

(31, 39133), (37, 39175), (41, 39199), (Start: 52 @39271 has 1 MA's), (Start: 78 @39325 has 30 MA's), (83, 39340), (90, 39382), (91, 39385), (99, 39445), (101, 39457), (128, 39682), (136, 39733), (141, 39757), (157, 39811), (167, 39865), (171, 39877), (175, 39898), (184, 39949), (187, 39976), (209, 40108),

Gene: Zilla_57 Start: 37027, Stop: 37956, Start Num: 78

Candidate Starts for Zilla_57:

(56, 36976), (59, 36988), (Start: 78 @37027 has 30 MA's), (83, 37042), (90, 37084), (91, 37087), (99, 37147), (101, 37159), (128, 37384), (136, 37435), (141, 37459), (157, 37513), (160, 37531), (171, 37579), (175, 37600), (184, 37651), (187, 37678), (190, 37708), (209, 37810),