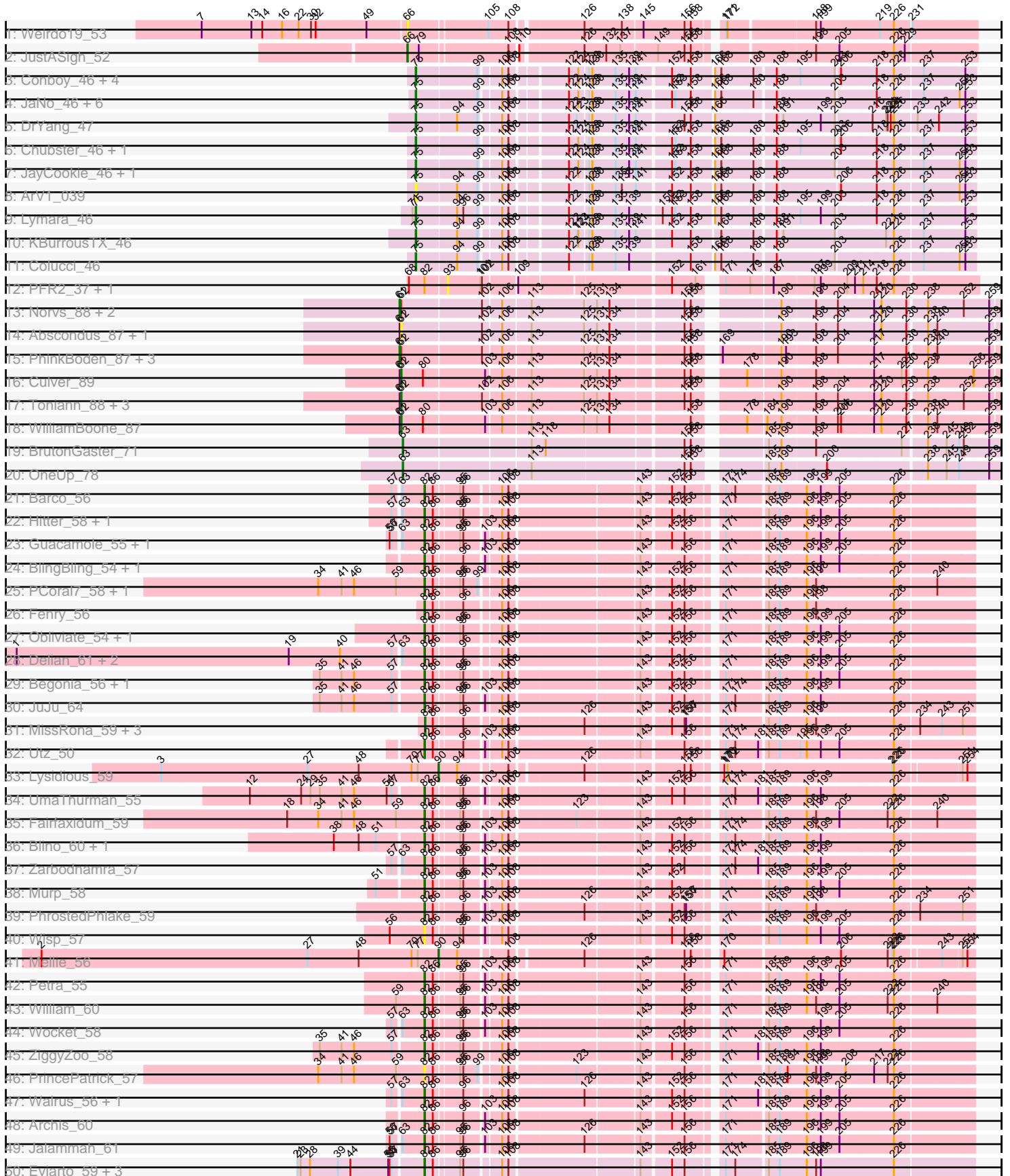
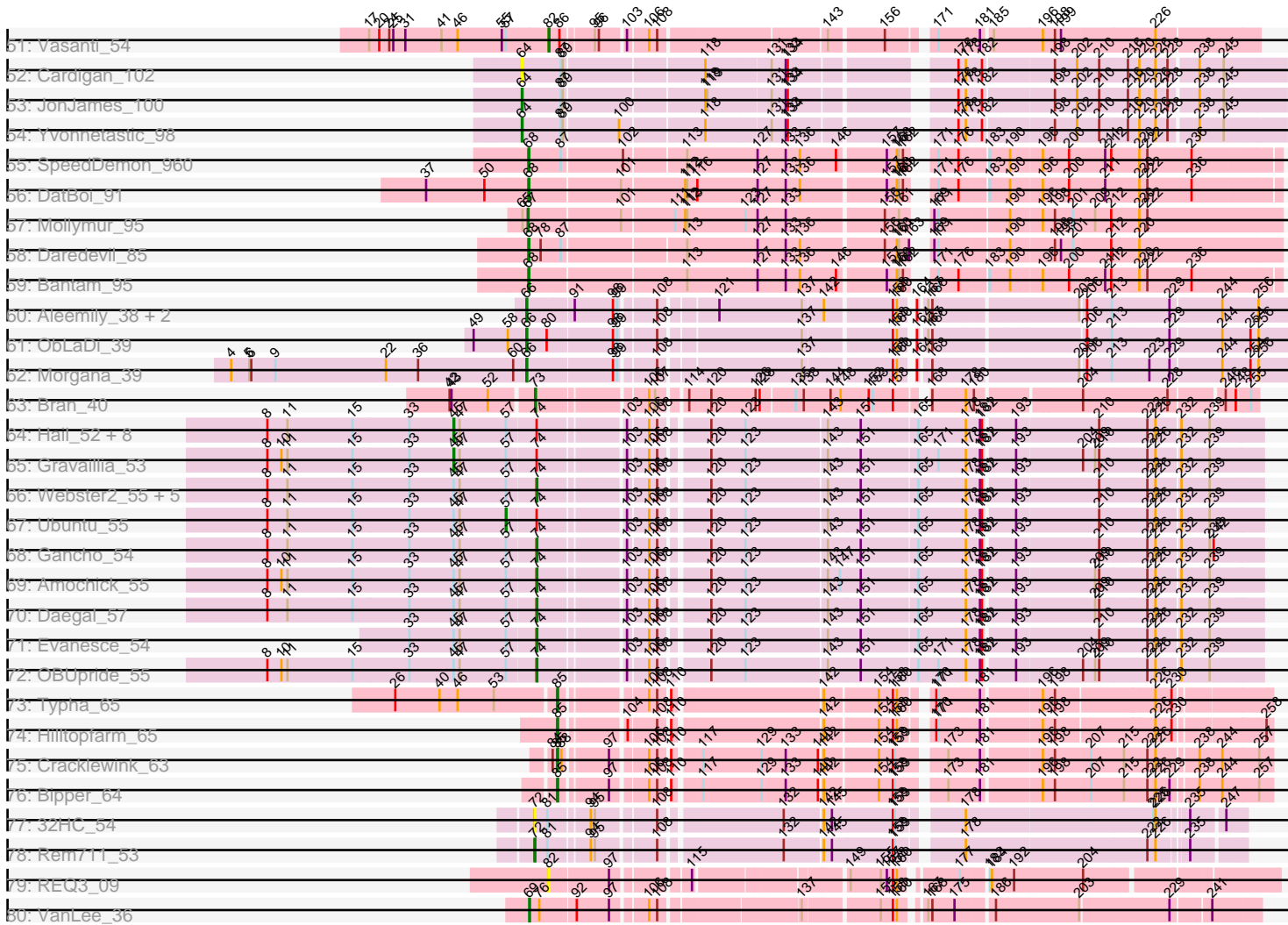


Pham 163431



Pham 163431



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 163431 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163431 has 133 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, Tophat_46, Kabreeze_46, HumptyDumpty_46, Mordred_46, RosiePosie_46, Chipper1996_460
- 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 : Norvs_88, Smoothie_89, ClubL_87
- Track 14 : Abscondus_87, Dusty_84
- Track 15 : PhinkBoden_87, Cucurbita_89, Bachita_89, Engineer_89
- Track 16 : Culver_89
- Track 17 : Toniann_88, Aphelion_87, Lozinak_88, Miskis_84
- Track 18 : WilliamBoone_87
- Track 19 : BrutonGaster_71
- Track 20 : OneUp_78
- Track 21 : Barco_56
- Track 22 : Hitter_58, Samba_57
- Track 23 : Guacamole_55, JasperJr_55
- Track 24 : BlingBling_54, Melba_56
- Track 25 : PCoral7_58, Toast_58
- Track 26 : Fenry_56
- Track 27 : Obliviate_54, KappaFarmDelta_59
- Track 28 : Delian_61, MintFen_58, CaptainKirk2_58
- Track 29 : Begonia_56, Malachai_56
- Track 30 : JuJu_64
- Track 31 : MissRona_59, Blueberry_58, Gambino_61, Azula_59
- Track 32 : Utz_50
- Track 33 : Lysidious_59
- Track 34 : UmaThurman_55
- Track 35 : Fairfaxidum_59
- Track 36 : Blino_60, CarolAnn_59

- Track 37 : Zarbodnamra_57
- Track 38 : Murp_58
- Track 39 : PhrostedPhlake_59
- Track 40 : Wisp_57
- Track 41 : Mellie_56
- Track 42 : Petra_55
- Track 43 : William_60
- Track 44 : Wocket_58
- Track 45 : ZiggyZoo_58
- Track 46 : PrincePatrick_57
- Track 47 : Walrus_56, Pipp_60
- Track 48 : Archis_60
- Track 49 : Jalammah_61
- Track 50 : Eviarto_59, BatStarr_58, Nymphadora_59, TimTam_59
- Track 51 : Vasanti_54
- Track 52 : Cardigan_102
- Track 53 : JonJames_100
- Track 54 : Yvonnetastic_98
- Track 55 : SpeedDemon_960
- Track 56 : DatBoi_91
- Track 57 : Mollymur_95
- Track 58 : Daredevil_85
- Track 59 : Bantam_95
- Track 60 : Aleemily_38, ModicumRichard_39, Cafasso_39
- Track 61 : ObLaDi_39
- Track 62 : Morgana_39
- Track 63 : Bran_40
- Track 64 : Hail_52, Luke_54, Hadrien_54, Wishmaker_52, Giles_52, Forge_52, Luna22_52, Kinbote_54, Dewey_52
- Track 65 : Gravaillia_53
- Track 66 : Webster2_55, LilHazelnut_55, Ein37_55, Amymech_55, DeepSoil15_55, HH92_54
- Track 67 : Ubuntu_55
- Track 68 : Gancho_54
- Track 69 : Amochick_55
- Track 70 : Daegal_57
- Track 71 : Evanesce_54
- Track 72 : OBUpride_55
- Track 73 : Typha_65
- Track 74 : Hilltopfarm_65
- Track 75 : Cracklewink_63
- Track 76 : Bipper_64
- Track 77 : 32HC_54
- Track 78 : Rem711_53
- Track 79 : REQ3_09
- Track 80 : VanLee_36

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

The start number called the most often in the published annotations is 82, it was called in 39 of the 118 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis_60, Barco_56, BatStarr_58, Begonia_56, BlingBling_54, Blino_60, CaptainKirk2_58, CarolAnn_59, Delian_61, Eviarto_59, Fairfaxidum_59, Fenry_56, Guacamole_55, Hitter_58, Jalammah_61, JasperJr_55, JuJu_64, KappaFarmDelta_59, Malachai_56, Melba_56, MintFen_58, Murp_58, Nymphadora_59, Obliviate_54, PCoral7_58, Petra_55, PhrostedPhlake_59, Pipp_60, PrincePatrick_57, REQ3_09, Samba_57, TimTam_59, Toast_58, UmaThurman_55, Utz_50, Vasanti_54, Walrus_56, William_60, Wisp_57, Wocket_58, Zarbodnamra_57, ZiggyZoo_58,

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

- PFR1_35, PFR2_37,

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

- 32HC_54, Abscondus_87, Aleemily_38, Amochick_55, Amymech_55, Aphelion_87, ArV1_039, Azula_59, Bachita_89, Bantam_95, Bipper_64, Blueberry_58, Bran_40, BrutonGaster_71, Cafasso_39, Cardigan_102, Chipper1996_460, Chocolat_46, Chubster_46, ClubL_87, Colucci_46, Conboy_46, Cracklewink_63, Cucurbita_89, Culver_89, Daegal_57, Daredevil_85, DatBoi_91, DeepSoil15_55, Dewey_52, DrYang_47, Dusty_84, EdgarPoe_46, Ein37_55, Engineer_89, Evanesce_54, Forge_52, Gambino_61, Gancho_54, Giles_52, Gravallia_53, HH92_54, Hadrien_54, Hail_52, Hilltopfarm_65, HumptyDumpty_46, JaNo_46, JayCookie_46, JonJames_100, JustASigh_52, KBurroustX_46, Kabreeze_46, Kinbote_54, LilHazelNut_55, Linus_46, Lozinak_88, Luke_54, Luna22_52, Lymara_46, Lysidious_59, Mellie_56, Miskis_84, MissRona_59, ModicumRichard_39, Mollymur_95, Mordred_46, Morgana_39, MoyaNatalis_46, Norvs_88, OBUpride_55, ObLaDi_39, OneUp_78, PhinkBoden_87, PrincessTrina_46, Rem711_53, RosiePosie_46, Scavito_46, Smoothie_89, SpeedDemon_960, Toniann_88, Tophat_46, Typha_65, Ubuntu_55, VanLee_36, Webster2_55, Weirdo19_53, WilliamBoone_87, Wishmaker_52, Yvonnestic_98,

Summary by start number:

Start 45:

- Found in 22 of 133 (16.5%) of genes in pham
- Manual Annotations of this start: 10 of 118
- Called 45.5% 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 57:

- Found in 45 of 133 (33.8%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Ubuntu_55 (Q),

Start 61:

- Found in 15 of 133 (11.3%) of genes in pham
- Manual Annotations of this start: 7 of 118

- Called 46.7% of time when present
- Phage (with cluster) where this start called: Bachita_89 (CQ1), ClubL_87 (CQ1), Cucurbita_89 (CQ1), Engineer_89 (CQ1), Norvs_88 (CQ), PhinkBoden_87 (CQ1), Smoothie_89 (CQ1),

Start 62:

- Found in 15 of 133 (11.3%) of genes in pham
- Manual Annotations of this start: 5 of 118
- Called 53.3% of time when present
- Phage (with cluster) where this start called: Abscondus_87 (CQ), Aphelion_87 (CQ1), Culver_89 (CQ1), Dusty_84 (CQ), Lozinak_88 (CQ1), Miskis_84 (CQ), Toniann_88 (CQ1), WilliamBoone_87 (CQ1),

Start 63:

- Found in 15 of 133 (11.3%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 13.3% of time when present
- Phage (with cluster) where this start called: BrutonGaster_71 (CQ2), OneUp_78 (CQ2),

Start 64:

- Found in 3 of 133 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cardigan_102 (DD), JonJames_100 (DD), Yvonnetastic_98 (DD),

Start 66:

- Found in 7 of 133 (5.3%) of genes in pham
- Manual Annotations of this start: 5 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_38 (DZ), Cafasso_39 (DZ), JustASigh_52 (AH), ModicumRichard_39 (DZ), Morgana_39 (DZ), ObLaDi_39 (DZ), Weirido19_53 (AH),

Start 67:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mollymur_95 (DL),

Start 68:

- Found in 6 of 133 (4.5%) of genes in pham
- Manual Annotations of this start: 4 of 118
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bantam_95 (DL), Daredevil_85 (DL), DatBoi_91 (DL), SpeedDemon_960 (DL),

Start 69:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VanLee_36 (singleton),

Start 72:

- Found in 2 of 133 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_54 (Z), Rem711_53 (Z),

Start 73:

- Found in 1 of 133 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bran_40 (EP),

Start 74:

- Found in 22 of 133 (16.5%) of genes in pham
- Manual Annotations of this start: 11 of 118
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Amochick_55 (Q), Amymech_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 75:

- Found in 21 of 133 (15.8%) of genes in pham
- Manual Annotations of this start: 18 of 118
- 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 82:

- Found in 44 of 133 (33.1%) of genes in pham
- Manual Annotations of this start: 39 of 118
- Called 95.5% of time when present
- Phage (with cluster) where this start called: Archis_60 (CV), Barco_56 (CV), BatStarr_58 (CZ1), Begonia_56 (CV), BlingBling_54 (CV), Blino_60 (CV), CaptainKirk2_58 (CV), CarolAnn_59 (CV), Delian_61 (CV), Eviarto_59 (CZ1), Fairfaxidum_59 (CV), Fenry_56 (CV), Guacamole_55 (CV), Hitter_58 (CV), Jalammah_61 (CV), JasperJr_55 (CV), JuJu_64 (CV), KappaFarmDelta_59 (CV), Malachai_56 (CV), Melba_56 (CV), MintFen_58 (CV), Murp_58 (CV), Nymphadora_59 (CZ1), Obliviate_54 (CV), PCoral7_58 (CV), Petra_55 (CV), PhrostedPhlake_59 (CV), Pipp_60 (CV), PrincePatrick_57 (CV), REQ3_09 (singleton), Samba_57 (CV), TimTam_59 (CZ1), Toast_58 (CV), UmaThurman_55 (CV), Utz_50 (CV), Vasanti_54 (CZ2), Walrus_56 (CV), William_60 (CV), Wisp_57 (CV), Wocket_58 (CV), Zarbodnamra_57 (CV), ZiggyZoo_58 (CV),

Start 83:

- Found in 4 of 133 (3.0%) of genes in pham
- Manual Annotations of this start: 4 of 118
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Azula_59 (CV), Blueberry_58 (CV), Gambino_61 (CV), MissRona_59 (CV),

Start 85:

- Found in 4 of 133 (3.0%) of genes in pham
- Manual Annotations of this start: 4 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper_64 (Y), Cracklewink_63 (Y), Hilltopfarm_65 (Y), Typha_65 (Y),

Start 90:

- Found in 2 of 133 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lysidious_59 (CV), Mellie_56 (CV),

Start 93:

- Found in 2 of 133 (1.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PFR1_35 (BX), PFR2_37 (BX),

Summary by clusters:

There are 17 clusters represented in this pham: DL, CQ1, CZ2, AH, DD, CZ1, singleton, EP, Q, AR, DZ, Y, CQ2, CQ, Z, BX, CV,

Info for manual annotations of cluster AH:

- Start number 66 was manually annotated 1 time for cluster AH.

Info for manual annotations of cluster AR:

- Start number 75 was manually annotated 18 times for cluster AR.

Info for manual annotations of cluster CQ:

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

Info for manual annotations of cluster CQ1:

- Start number 61 was manually annotated 6 times for cluster CQ1.
- Start number 62 was manually annotated 5 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 63 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CV:

- Start number 82 was manually annotated 34 times for cluster CV.
- Start number 83 was manually annotated 4 times for cluster CV.
- Start number 90 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CZ1:

- Start number 82 was manually annotated 4 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 82 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster DD:

- Start number 64 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DL:

- Start number 67 was manually annotated 1 time for cluster DL.
- Start number 68 was manually annotated 4 times for cluster DL.

Info for manual annotations of cluster DZ:

- Start number 66 was manually annotated 4 times for cluster DZ.

Info for manual annotations of cluster EP:

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

Info for manual annotations of cluster Q:

- Start number 45 was manually annotated 10 times for cluster Q.
- Start number 57 was manually annotated 1 time for cluster Q.
- Start number 74 was manually annotated 11 times for cluster Q.

Info for manual annotations of cluster Y:

- Start number 85 was manually annotated 4 times for cluster Y.

Info for manual annotations of cluster Z:

- Start number 72 was manually annotated 1 time for cluster Z.

Gene Information:

Gene: 32HC_54 Start: 36687, Stop: 37607, Start Num: 72

Candidate Starts for 32HC_54:

(Start: 72 @36687 has 1 MA's), (81, 36705), (94, 36756), (95, 36762), (108, 36837), (132, 37002), (142, 37050), (145, 37062), (158, 37152), (159, 37155), (178, 37233), (225, 37500), (226, 37503), (235, 37539), (247, 37581),

Gene: Abscondus_87 Start: 53597, Stop: 54637, Start Num: 62

Candidate Starts for Abscondus_87:

(Start: 61 @53594 has 7 MA's), (Start: 62 @53597 has 5 MA's), (102, 53744), (106, 53777), (113, 53828), (125, 53927), (131, 53948), (134, 53972), (156, 54101), (158, 54113), (190, 54239), (198, 54302), (204, 54341), (217, 54410), (220, 54422), (230, 54470), (238, 54503), (240, 54521), (259, 54620),

Gene: Aleemily_38 Start: 31779, Stop: 32792, Start Num: 66

Candidate Starts for Aleemily_38:

(Start: 66 @31779 has 5 MA's), (91, 31842), (98, 31899), (99, 31905), (108, 31950), (121, 32022), (137, 32142), (142, 32169), (158, 32262), (160, 32268), (164, 32283), (167, 32292), (168, 32298), (203, 32496), (206, 32502), (213, 32538), (229, 32622), (244, 32694), (256, 32748),

Gene: Amochick_55 Start: 38924, Stop: 39895, Start Num: 74

Candidate Starts for Amochick_55:

(8, 38531), (10, 38552), (11, 38561), (15, 38654), (33, 38738), (Start: 45 @38804 has 10 MA's), (47, 38813), (Start: 57 @38882 has 1 MA's), (Start: 74 @38924 has 11 MA's), (103, 39035), (106, 39062),

(108, 39074), (120, 39131), (123, 39182), (143, 39293), (147, 39311), (151, 39341), (165, 39422), (178, 39488), (181, 39506), (182, 39509), (193, 39551), (209, 39659), (210, 39665), (222, 39734), (226, 39746), (232, 39779), (239, 39818),

Gene: Amymech_55 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for Amymech_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Aphelion_87 Start: 54219, Stop: 55259, Start Num: 62

Candidate Starts for Aphelion_87:

(Start: 61 @54216 has 7 MA's), (Start: 62 @54219 has 5 MA's), (102, 54366), (106, 54399), (113, 54450), (125, 54549), (131, 54570), (134, 54594), (156, 54723), (158, 54735), (190, 54861), (198, 54924), (204, 54963), (217, 55032), (220, 55044), (230, 55092), (238, 55125), (252, 55194), (259, 55242),

Gene: ArV1_039 Start: 34906, Stop: 35859, Start Num: 75

Candidate Starts for ArV1_039:

(Start: 75 @34906 has 18 MA's), (94, 34981), (99, 35017), (106, 35050), (108, 35062), (122, 35155), (129, 35185), (130, 35191), (135, 35236), (138, 35245), (141, 35269), (152, 35329), (158, 35365), (166, 35404), (168, 35416), (180, 35473), (188, 35506), (206, 35620), (218, 35686), (226, 35719), (237, 35770), (250, 35833), (253, 35842),

Gene: Archis_60 Start: 37454, Stop: 38383, Start Num: 82

Candidate Starts for Archis_60:

(Start: 82 @37454 has 39 MA's), (86, 37469), (96, 37514), (103, 37547), (106, 37574), (108, 37586), (143, 37811), (152, 37862), (156, 37886), (171, 37940), (185, 38006), (189, 38027), (196, 38078), (199, 38105), (205, 38135), (226, 38237),

Gene: Azula_59 Start: 39736, Stop: 40665, Start Num: 83

Candidate Starts for Azula_59:

(Start: 83 @39736 has 4 MA's), (86, 39751), (96, 39796), (106, 39856), (108, 39868), (126, 40003), (143, 40093), (152, 40144), (156, 40168), (157, 40171), (171, 40222), (185, 40288), (189, 40309), (196, 40360), (198, 40378), (226, 40519), (234, 40564), (243, 40603), (251, 40642),

Gene: Bachita_89 Start: 54642, Stop: 55685, Start Num: 61

Candidate Starts for Bachita_89:

(Start: 61 @54642 has 7 MA's), (Start: 62 @54645 has 5 MA's), (102, 54792), (106, 54825), (113, 54876), (125, 54975), (131, 54996), (134, 55020), (156, 55149), (158, 55161), (169, 55191), (190, 55287), (193, 55296), (198, 55350), (204, 55389), (217, 55458), (230, 55518), (238, 55551), (240, 55569), (259, 55668),

Gene: Bantam_95 Start: 64152, Stop: 63124, Start Num: 68

Candidate Starts for Bantam_95:

(Start: 68 @64152 has 4 MA's), (113, 63930), (127, 63825), (133, 63783), (136, 63762), (146, 63708), (157, 63642), (160, 63627), (161, 63624), (162, 63618), (171, 63597), (176, 63570), (183, 63534), (190, 63507), (196, 63462), (200, 63423), (211, 63372), (212, 63363), (220, 63324), (222, 63312), (236, 63246),

Gene: Barco_56 Start: 37010, Stop: 37939, Start Num: 82

Candidate Starts for Barco_56:

(Start: 57 @36959 has 1 MA's), (Start: 63 @36971 has 2 MA's), (Start: 82 @37010 has 39 MA's), (86, 37025), (95, 37067), (96, 37070), (106, 37130), (108, 37142), (143, 37367), (152, 37418), (156, 37442), (171, 37496), (174, 37514), (185, 37562), (189, 37583), (196, 37634), (199, 37661), (205, 37691), (226, 37793),

Gene: BatStarr_58 Start: 41291, Stop: 42220, Start Num: 82

Candidate Starts for BatStarr_58:

(21, 41057), (23, 41063), (28, 41081), (39, 41135), (44, 41159), (55, 41231), (56, 41234), (Start: 57 @41237 has 1 MA's), (Start: 82 @41291 has 39 MA's), (86, 41306), (95, 41348), (96, 41351), (106, 41411), (108, 41423), (143, 41648), (152, 41699), (156, 41723), (171, 41777), (174, 41795), (185, 41843), (189, 41864), (196, 41915), (198, 41933), (199, 41942), (226, 42074),

Gene: Begonia_56 Start: 39249, Stop: 40178, Start Num: 82

Candidate Starts for Begonia_56:

(35, 39057), (41, 39099), (46, 39123), (Start: 57 @39195 has 1 MA's), (Start: 82 @39249 has 39 MA's), (86, 39264), (95, 39306), (96, 39309), (106, 39369), (108, 39381), (143, 39606), (152, 39657), (156, 39681), (171, 39735), (185, 39801), (189, 39822), (196, 39873), (199, 39900), (205, 39930), (226, 40032),

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

Candidate Starts for Bipper_64:

(Start: 85 @44977 has 4 MA's), (97, 45037), (106, 45082), (108, 45094), (110, 45106), (117, 45139), (129, 45226), (133, 45262), (140, 45304), (142, 45307), (154, 45379), (158, 45400), (159, 45403), (173, 45463), (181, 45502), (196, 45583), (198, 45601), (207, 45652), (215, 45700), (222, 45733), (226, 45745), (229, 45766), (238, 45799), (244, 45832), (257, 45886),

Gene: BlingBling_54 Start: 37467, Stop: 38396, Start Num: 82

Candidate Starts for BlingBling_54:

(Start: 82 @37467 has 39 MA's), (86, 37482), (96, 37527), (103, 37560), (106, 37587), (108, 37599), (143, 37824), (156, 37899), (171, 37953), (185, 38019), (189, 38040), (196, 38091), (199, 38118), (205, 38148), (226, 38250),

Gene: Blino_60 Start: 42431, Stop: 43360, Start Num: 82

Candidate Starts for Blino_60:

(38, 42269), (48, 42317), (51, 42350), (Start: 82 @42431 has 39 MA's), (86, 42446), (95, 42488), (96, 42491), (103, 42524), (106, 42551), (108, 42563), (143, 42788), (152, 42839), (156, 42863), (171, 42917), (174, 42935), (185, 42983), (189, 43004), (196, 43055), (199, 43082), (226, 43214),

Gene: Blueberry_58 Start: 39736, Stop: 40665, Start Num: 83

Candidate Starts for Blueberry_58:

(Start: 83 @39736 has 4 MA's), (86, 39751), (96, 39796), (106, 39856), (108, 39868), (126, 40003), (143, 40093), (152, 40144), (156, 40168), (157, 40171), (171, 40222), (185, 40288), (189, 40309), (196, 40360), (198, 40378), (226, 40519), (234, 40564), (243, 40603), (251, 40642),

Gene: Bran_40 Start: 30480, Stop: 31427, Start Num: 73

Candidate Starts for Bran_40:

(42, 30363), (43, 30366), (52, 30420), (Start: 73 @30480 has 1 MA's), (106, 30621), (107, 30630), (114, 30663), (120, 30693), (126, 30759), (128, 30765), (135, 30813), (138, 30822), (144, 30861), (148, 30876), (152, 30918), (153, 30924), (158, 30954), (168, 30987), (178, 31032), (180, 31041), (204, 31185), (228, 31311), (246, 31383), (248, 31398), (255, 31416),

Gene: BrutonGaster_71 Start: 49921, Stop: 50958, Start Num: 63

Candidate Starts for BrutonGaster_71:

(Start: 63 @49921 has 2 MA's), (113, 50146), (118, 50173), (156, 50416), (158, 50428), (185, 50533), (190, 50554), (198, 50617), (227, 50776), (238, 50818), (245, 50854), (249, 50878), (252, 50887), (259, 50935),

Gene: Cafasso_39 Start: 32353, Stop: 33366, Start Num: 66

Candidate Starts for Cafasso_39:

(Start: 66 @32353 has 5 MA's), (91, 32416), (98, 32473), (99, 32479), (108, 32524), (121, 32596), (137, 32716), (142, 32743), (158, 32836), (160, 32842), (164, 32857), (167, 32866), (168, 32872), (203, 33070), (206, 33076), (213, 33112), (229, 33196), (244, 33268), (256, 33322),

Gene: CaptainKirk2_58 Start: 37249, Stop: 38178, Start Num: 82

Candidate Starts for CaptainKirk2_58:

(1, 36475), (19, 37000), (40, 37099), (Start: 57 @37198 has 1 MA's), (Start: 63 @37210 has 2 MA's), (Start: 82 @37249 has 39 MA's), (86, 37264), (96, 37309), (106, 37369), (108, 37381), (143, 37606), (152, 37657), (156, 37681), (171, 37735), (185, 37801), (189, 37822), (196, 37873), (199, 37900), (205, 37930), (226, 38032),

Gene: Cardigan_102 Start: 59943, Stop: 60962, Start Num: 64

Candidate Starts for Cardigan_102:

(Start: 64 @59943 has 2 MA's), (87, 59997), (89, 60000), (118, 60195), (131, 60288), (133, 60309), (134, 60312), (176, 60513), (178, 60522), (182, 60543), (198, 60639), (202, 60672), (210, 60702), (216, 60744), (220, 60759), (226, 60783), (228, 60801), (238, 60837), (245, 60873),

Gene: CarolAnn_59 Start: 42430, Stop: 43359, Start Num: 82

Candidate Starts for CarolAnn_59:

(38, 42268), (48, 42316), (51, 42349), (Start: 82 @42430 has 39 MA's), (86, 42445), (95, 42487), (96, 42490), (103, 42523), (106, 42550), (108, 42562), (143, 42787), (152, 42838), (156, 42862), (171, 42916), (174, 42934), (185, 42982), (189, 43003), (196, 43054), (199, 43081), (226, 43213),

Gene: Chipper1996_460 Start: 36472, Stop: 37425, Start Num: 75

Candidate Starts for Chipper1996_460:

(Start: 75 @36472 has 18 MA's), (99, 36583), (106, 36616), (108, 36628), (122, 36721), (124, 36739), (129, 36751), (130, 36757), (135, 36802), (139, 36823), (141, 36835), (152, 36895), (153, 36901), (158, 36931), (166, 36970), (168, 36982), (180, 37039), (188, 37072), (203, 37180), (218, 37252), (226, 37285), (237, 37336), (250, 37399), (253, 37408),

Gene: Chocolat_46 Start: 36464, Stop: 37417, Start Num: 75

Candidate Starts for Chocolat_46:

(Start: 75 @36464 has 18 MA's), (99, 36575), (106, 36608), (108, 36620), (122, 36713), (124, 36731), (129, 36743), (130, 36749), (135, 36794), (139, 36815), (141, 36827), (152, 36887), (158, 36923), (166, 36962), (168, 36974), (180, 37031), (188, 37064), (195, 37106), (203, 37172), (206, 37178), (218, 37244), (226, 37277), (237, 37328), (253, 37400),

Gene: Chubster_46 Start: 36384, Stop: 37337, Start Num: 75

Candidate Starts for Chubster_46:

(Start: 75 @36384 has 18 MA's), (99, 36495), (106, 36528), (108, 36540), (122, 36633), (124, 36651), (129, 36663), (130, 36669), (135, 36714), (139, 36735), (141, 36747), (152, 36807), (153, 36813), (158, 36843), (166, 36882), (168, 36894), (180, 36951), (188, 36984), (195, 37026), (203, 37092), (206, 37098), (218, 37164), (226, 37197), (237, 37248), (253, 37320),

Gene: ClubL_87 Start: 53329, Stop: 54372, Start Num: 61

Candidate Starts for ClubL_87:

(Start: 61 @53329 has 7 MA's), (Start: 62 @53332 has 5 MA's), (102, 53479), (106, 53512), (113, 53563), (125, 53662), (131, 53683), (134, 53707), (156, 53836), (158, 53848), (190, 53974), (198, 54037), (204, 54076), (217, 54145), (220, 54157), (230, 54205), (238, 54238), (252, 54307), (259, 54355),

Gene: Colucci_46 Start: 36185, Stop: 37138, Start Num: 75

Candidate Starts for Colucci_46:

(Start: 75 @36185 has 18 MA's), (94, 36260), (99, 36296), (106, 36329), (108, 36341), (122, 36434), (129, 36464), (130, 36470), (135, 36515), (139, 36536), (158, 36644), (166, 36683), (168, 36695), (180, 36752), (188, 36785), (203, 36893), (226, 36998), (237, 37049), (250, 37112), (253, 37121),

Gene: Conboy_46 Start: 36612, Stop: 37565, Start Num: 75

Candidate Starts for Conboy_46:

(Start: 75 @36612 has 18 MA's), (99, 36723), (106, 36756), (108, 36768), (122, 36861), (124, 36879), (129, 36891), (130, 36897), (135, 36942), (139, 36963), (141, 36975), (152, 37035), (158, 37071), (166, 37110), (168, 37122), (180, 37179), (188, 37212), (195, 37254), (203, 37320), (206, 37326), (218, 37392), (226, 37425), (237, 37476), (253, 37548),

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

Candidate Starts for Cracklewink_63:

(84, 44005), (Start: 85 @44011 has 4 MA's), (88, 44017), (97, 44071), (106, 44116), (108, 44128), (110, 44140), (117, 44173), (129, 44260), (133, 44296), (140, 44338), (142, 44341), (154, 44413), (158, 44434), (159, 44437), (173, 44497), (181, 44536), (196, 44617), (198, 44635), (207, 44686), (215, 44734), (222, 44767), (226, 44779), (238, 44833), (244, 44866), (257, 44920),

Gene: Cucurbita_89 Start: 55149, Stop: 56192, Start Num: 61

Candidate Starts for Cucurbita_89:

(Start: 61 @55149 has 7 MA's), (Start: 62 @55152 has 5 MA's), (102, 55299), (106, 55332), (113, 55383), (125, 55482), (131, 55503), (134, 55527), (156, 55656), (158, 55668), (169, 55698), (190, 55794), (193, 55803), (198, 55857), (204, 55896), (217, 55965), (230, 56025), (238, 56058), (240, 56076), (259, 56175),

Gene: Culver_89 Start: 53256, Stop: 54293, Start Num: 62

Candidate Starts for Culver_89:

(Start: 61 @53253 has 7 MA's), (Start: 62 @53256 has 5 MA's), (80, 53298), (103, 53409), (106, 53436), (113, 53487), (125, 53586), (131, 53607), (134, 53631), (156, 53760), (158, 53772), (178, 53844), (190, 53898), (198, 53961), (217, 54069), (227, 54120), (230, 54129), (238, 54159), (256, 54246), (259, 54276),

Gene: Daegal_57 Start: 39484, Stop: 40455, Start Num: 74

Candidate Starts for Daegal_57:

(8, 39091), (11, 39121), (15, 39214), (33, 39298), (Start: 45 @39364 has 10 MA's), (47, 39373), (Start: 57 @39442 has 1 MA's), (Start: 74 @39484 has 11 MA's), (103, 39595), (106, 39622), (108, 39634), (120, 39691), (123, 39742), (143, 39853), (151, 39901), (165, 39982), (178, 40048), (181, 40066), (182, 40069), (193, 40111), (209, 40219), (210, 40225), (222, 40294), (226, 40306), (232, 40339), (239, 40378),

Gene: Daredevil_85 Start: 59811, Stop: 58786, Start Num: 68

Candidate Starts for Daredevil_85:

(Start: 68 @59811 has 4 MA's), (78, 59796), (87, 59769), (113, 59598), (127, 59496), (133, 59454), (136, 59433), (156, 59316), (160, 59298), (161, 59295), (163, 59280), (169, 59274), (171, 59268), (190, 59178), (198, 59115), (199, 59106), (201, 59088), (212, 59034), (220, 58995),

Gene: DatBoi_91 Start: 63297, Stop: 62272, Start Num: 68

Candidate Starts for DatBoi_91:

(37, 63447), (50, 63360), (Start: 68 @63297 has 4 MA's), (101, 63171), (112, 63081), (113, 63078), (116, 63063), (127, 62973), (133, 62931), (136, 62910), (157, 62790), (160, 62775), (161, 62772), (162, 62766), (171, 62745), (176, 62718), (183, 62682), (190, 62655), (196, 62610), (200, 62571), (211, 62520), (220, 62472), (222, 62460), (236, 62394),

Gene: DeepSoil15_55 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for DeepSoil15_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Delian_61 Start: 37247, Stop: 38176, Start Num: 82

Candidate Starts for Delian_61:

(1, 36473), (19, 36998), (40, 37097), (Start: 57 @37196 has 1 MA's), (Start: 63 @37208 has 2 MA's), (Start: 82 @37247 has 39 MA's), (86, 37262), (96, 37307), (106, 37367), (108, 37379), (143, 37604), (152, 37655), (156, 37679), (171, 37733), (185, 37799), (189, 37820), (196, 37871), (199, 37898), (205, 37928), (226, 38030),

Gene: Dewey_52 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Dewey_52:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: DrYang_47 Start: 38532, Stop: 39488, Start Num: 75

Candidate Starts for DrYang_47:

(Start: 75 @38532 has 18 MA's), (94, 38607), (99, 38643), (106, 38676), (108, 38688), (122, 38781), (123, 38796), (129, 38811), (130, 38817), (135, 38862), (139, 38883), (141, 38895), (156, 38979), (158, 38991), (166, 39030), (188, 39132), (191, 39141), (199, 39213), (203, 39240), (216, 39306), (221, 39330), (222, 39333), (224, 39339), (226, 39345), (233, 39384), (242, 39423), (253, 39468),

Gene: Dusty_84 Start: 52844, Stop: 53884, Start Num: 62

Candidate Starts for Dusty_84:

(Start: 61 @52841 has 7 MA's), (Start: 62 @52844 has 5 MA's), (102, 52991), (106, 53024), (113, 53075), (125, 53174), (131, 53195), (134, 53219), (156, 53348), (158, 53360), (190, 53486), (198, 53549), (204, 53588), (217, 53657), (220, 53669), (230, 53717), (238, 53750), (240, 53768), (259, 53867),

Gene: EdgarPoe_46 Start: 36612, Stop: 37565, Start Num: 75

Candidate Starts for EdgarPoe_46:

(Start: 75 @36612 has 18 MA's), (99, 36723), (106, 36756), (108, 36768), (122, 36861), (124, 36879), (129, 36891), (130, 36897), (135, 36942), (139, 36963), (141, 36975), (152, 37035), (158, 37071), (166, 37110), (168, 37122), (180, 37179), (188, 37212), (195, 37254), (203, 37320), (206, 37326), (218, 37392), (226, 37425), (237, 37476), (253, 37548),

Gene: Ein37_55 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for Ein37_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050),

(120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Engineer_89 Start: 54615, Stop: 55658, Start Num: 61

Candidate Starts for Engineer_89:

(Start: 61 @54615 has 7 MA's), (Start: 62 @54618 has 5 MA's), (102, 54765), (106, 54798), (113, 54849), (125, 54948), (131, 54969), (134, 54993), (156, 55122), (158, 55134), (169, 55164), (190, 55260), (193, 55269), (198, 55323), (204, 55362), (217, 55431), (230, 55491), (238, 55524), (240, 55542), (259, 55641),

Gene: Evanesce_54 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for Evanesce_54:

(33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Eviarto_59 Start: 41266, Stop: 42195, Start Num: 82

Candidate Starts for Eviarto_59:

(21, 41032), (23, 41038), (28, 41056), (39, 41110), (44, 41134), (55, 41206), (56, 41209), (Start: 57 @41212 has 1 MA's), (Start: 82 @41266 has 39 MA's), (86, 41281), (95, 41323), (96, 41326), (106, 41386), (108, 41398), (143, 41623), (152, 41674), (156, 41698), (171, 41752), (174, 41770), (185, 41818), (189, 41839), (196, 41890), (198, 41908), (199, 41917), (226, 42049),

Gene: Fairfaxidum_59 Start: 39599, Stop: 40528, Start Num: 82

Candidate Starts for Fairfaxidum_59:

(18, 39335), (34, 39395), (41, 39440), (46, 39464), (59, 39545), (Start: 82 @39599 has 39 MA's), (86, 39614), (95, 39656), (96, 39659), (106, 39719), (108, 39731), (123, 39851), (143, 39956), (171, 40085), (185, 40151), (189, 40172), (196, 40223), (198, 40241), (205, 40280), (222, 40370), (226, 40382), (240, 40460),

Gene: Fenry_56 Start: 38757, Stop: 39686, Start Num: 82

Candidate Starts for Fenry_56:

(Start: 82 @38757 has 39 MA's), (86, 38772), (96, 38817), (106, 38877), (108, 38889), (143, 39114), (152, 39165), (156, 39189), (171, 39243), (185, 39309), (189, 39330), (196, 39381), (198, 39399), (226, 39540),

Gene: Forge_52 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Forge_52:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Gambino_61 Start: 39736, Stop: 40665, Start Num: 83

Candidate Starts for Gambino_61:

(Start: 83 @39736 has 4 MA's), (86, 39751), (96, 39796), (106, 39856), (108, 39868), (126, 40003), (143, 40093), (152, 40144), (156, 40168), (157, 40171), (171, 40222), (185, 40288), (189, 40309), (196, 40360), (198, 40378), (226, 40519), (234, 40564), (243, 40603), (251, 40642),

Gene: Gancho_54 Start: 38623, Stop: 39594, Start Num: 74

Candidate Starts for Gancho_54:

(8, 38230), (11, 38260), (15, 38353), (33, 38437), (Start: 45 @38503 has 10 MA's), (47, 38512), (Start: 57 @38581 has 1 MA's), (Start: 74 @38623 has 11 MA's), (103, 38734), (106, 38761), (108, 38773), (120, 38830), (123, 38881), (143, 38992), (151, 39040), (165, 39121), (178, 39187), (181, 39205), (182, 39208), (193, 39250), (210, 39364), (222, 39433), (226, 39445), (232, 39478), (239, 39517), (242, 39523),

Gene: Giles_52 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Giles_52:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Gravaillia_53 Start: 38794, Stop: 39885, Start Num: 45

Candidate Starts for Gravaillia_53:

(8, 38521), (10, 38542), (11, 38551), (15, 38644), (33, 38728), (Start: 45 @38794 has 10 MA's), (47, 38803), (Start: 57 @38872 has 1 MA's), (Start: 74 @38914 has 11 MA's), (103, 39025), (106, 39052), (108, 39064), (120, 39121), (123, 39172), (143, 39283), (151, 39331), (165, 39412), (171, 39442), (178, 39478), (181, 39496), (182, 39499), (193, 39541), (204, 39631), (209, 39649), (210, 39655), (222, 39724), (226, 39736), (232, 39769), (239, 39808),

Gene: Guacamole_55 Start: 37476, Stop: 38405, Start Num: 82

Candidate Starts for Guacamole_55:

(56, 37422), (Start: 57 @37425 has 1 MA's), (Start: 63 @37437 has 2 MA's), (Start: 82 @37476 has 39 MA's), (86, 37491), (95, 37533), (96, 37536), (103, 37569), (106, 37596), (108, 37608), (143, 37833), (152, 37884), (156, 37908), (171, 37962), (185, 38028), (189, 38049), (196, 38100), (199, 38127), (205, 38157), (226, 38259),

Gene: HH92_54 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for HH92_54:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Hadrien_54 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Hadrien_54:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Hail_52 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Hail_52:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

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

Candidate Starts for Hilltopfarm_65:

(Start: 85 @45250 has 4 MA's), (104, 45328), (108, 45367), (110, 45379), (142, 45580), (154, 45652), (158, 45673), (160, 45679), (170, 45712), (171, 45715), (181, 45769), (196, 45850), (198, 45868),

(226, 46009), (230, 46033), (258, 46156),

Gene: Hitter_58 Start: 37052, Stop: 37981, Start Num: 82

Candidate Starts for Hitter_58:

(Start: 57 @37001 has 1 MA's), (Start: 63 @37013 has 2 MA's), (Start: 82 @37052 has 39 MA's), (86, 37067), (95, 37109), (96, 37112), (106, 37172), (108, 37184), (143, 37409), (152, 37460), (156, 37484), (171, 37538), (185, 37604), (189, 37625), (196, 37676), (199, 37703), (205, 37733), (226, 37835),

Gene: HumptyDumpty_46 Start: 36470, Stop: 37423, Start Num: 75

Candidate Starts for HumptyDumpty_46:

(Start: 75 @36470 has 18 MA's), (99, 36581), (106, 36614), (108, 36626), (122, 36719), (124, 36737), (129, 36749), (130, 36755), (135, 36800), (139, 36821), (141, 36833), (152, 36893), (153, 36899), (158, 36929), (166, 36968), (168, 36980), (180, 37037), (188, 37070), (203, 37178), (218, 37250), (226, 37283), (237, 37334), (250, 37397), (253, 37406),

Gene: JaNo_46 Start: 36470, Stop: 37423, Start Num: 75

Candidate Starts for JaNo_46:

(Start: 75 @36470 has 18 MA's), (99, 36581), (106, 36614), (108, 36626), (122, 36719), (124, 36737), (129, 36749), (130, 36755), (135, 36800), (139, 36821), (141, 36833), (152, 36893), (153, 36899), (158, 36929), (166, 36968), (168, 36980), (180, 37037), (188, 37070), (203, 37178), (218, 37250), (226, 37283), (237, 37334), (250, 37397), (253, 37406),

Gene: Jalammah_61 Start: 40055, Stop: 40984, Start Num: 82

Candidate Starts for Jalammah_61:

(56, 40001), (Start: 57 @40004 has 1 MA's), (Start: 63 @40016 has 2 MA's), (Start: 82 @40055 has 39 MA's), (86, 40070), (95, 40112), (96, 40115), (103, 40148), (106, 40175), (108, 40187), (126, 40322), (143, 40412), (156, 40487), (171, 40541), (185, 40607), (189, 40628), (196, 40679), (199, 40706), (205, 40736), (226, 40838),

Gene: JasperJr_55 Start: 37476, Stop: 38405, Start Num: 82

Candidate Starts for JasperJr_55:

(56, 37422), (Start: 57 @37425 has 1 MA's), (Start: 63 @37437 has 2 MA's), (Start: 82 @37476 has 39 MA's), (86, 37491), (95, 37533), (96, 37536), (103, 37569), (106, 37596), (108, 37608), (143, 37833), (152, 37884), (156, 37908), (171, 37962), (185, 38028), (189, 38049), (196, 38100), (199, 38127), (205, 38157), (226, 38259),

Gene: JayCookie_46 Start: 36606, Stop: 37559, Start Num: 75

Candidate Starts for JayCookie_46:

(Start: 75 @36606 has 18 MA's), (99, 36717), (106, 36750), (108, 36762), (122, 36855), (124, 36873), (129, 36885), (130, 36891), (135, 36936), (139, 36957), (141, 36969), (152, 37029), (153, 37035), (158, 37065), (166, 37104), (168, 37116), (180, 37173), (188, 37206), (203, 37314), (218, 37386), (226, 37419), (237, 37470), (250, 37533), (253, 37542),

Gene: JonJames_100 Start: 60136, Stop: 61155, Start Num: 64

Candidate Starts for JonJames_100:

(Start: 64 @60136 has 2 MA's), (87, 60190), (89, 60193), (118, 60388), (119, 60391), (131, 60481), (133, 60502), (134, 60505), (176, 60706), (178, 60715), (182, 60736), (198, 60832), (202, 60865), (210, 60895), (216, 60937), (220, 60952), (226, 60976), (228, 60994), (238, 61030), (245, 61066),

Gene: JuJu_64 Start: 41181, Stop: 42110, Start Num: 82

Candidate Starts for JuJu_64:

(35, 40989), (41, 41031), (46, 41055), (Start: 57 @41127 has 1 MA's), (Start: 82 @41181 has 39 MA's), (86, 41196), (95, 41238), (96, 41241), (103, 41274), (106, 41301), (108, 41313), (143, 41538), (152, 41589), (156, 41613), (171, 41667), (174, 41685), (185, 41733), (189, 41754), (196, 41805), (199, 41832), (226, 41964),

Gene: JustASigh_52 Start: 36846, Stop: 37820, Start Num: 66

Candidate Starts for JustASigh_52:

(Start: 66 @36846 has 5 MA's), (79, 36867), (108, 37020), (110, 37032), (126, 37143), (132, 37185), (137, 37209), (149, 37272), (156, 37323), (158, 37335), (198, 37530), (205, 37572), (226, 37674), (229, 37695),

Gene: KBurrousTX_46 Start: 37722, Stop: 38675, Start Num: 75

Candidate Starts for KBurrousTX_46:

(Start: 75 @37722 has 18 MA's), (94, 37797), (99, 37833), (106, 37866), (108, 37878), (122, 37971), (123, 37986), (124, 37989), (129, 38001), (130, 38007), (135, 38052), (139, 38073), (141, 38085), (152, 38145), (158, 38181), (168, 38232), (180, 38289), (188, 38322), (191, 38331), (203, 38430), (221, 38520), (226, 38535), (237, 38586), (253, 38658),

Gene: Kabreeze_46 Start: 36470, Stop: 37423, Start Num: 75

Candidate Starts for Kabreeze_46:

(Start: 75 @36470 has 18 MA's), (99, 36581), (106, 36614), (108, 36626), (122, 36719), (124, 36737), (129, 36749), (130, 36755), (135, 36800), (139, 36821), (141, 36833), (152, 36893), (153, 36899), (158, 36929), (166, 36968), (168, 36980), (180, 37037), (188, 37070), (203, 37178), (218, 37250), (226, 37283), (237, 37334), (250, 37397), (253, 37406),

Gene: KappaFarmDelta_59 Start: 37409, Stop: 38338, Start Num: 82

Candidate Starts for KappaFarmDelta_59:

(Start: 82 @37409 has 39 MA's), (86, 37424), (95, 37466), (96, 37469), (106, 37529), (108, 37541), (143, 37766), (152, 37817), (156, 37841), (171, 37895), (185, 37961), (189, 37982), (196, 38033), (199, 38060), (205, 38090), (226, 38192),

Gene: Kinbote_54 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Kinbote_54:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: LilHazelnut_55 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for LilHazelnut_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Linus_46 Start: 36603, Stop: 37556, Start Num: 75

Candidate Starts for Linus_46:

(Start: 75 @36603 has 18 MA's), (99, 36714), (106, 36747), (108, 36759), (122, 36852), (124, 36870), (129, 36882), (130, 36888), (135, 36933), (139, 36954), (141, 36966), (152, 37026), (158, 37062), (166, 37101), (168, 37113), (180, 37170), (188, 37203), (195, 37245), (203, 37311), (206, 37317), (218, 37383), (226, 37416), (237, 37467), (253, 37539),

Gene: Lozinak_88 Start: 54455, Stop: 55495, Start Num: 62

Candidate Starts for Lozinak_88:

(Start: 61 @54452 has 7 MA's), (Start: 62 @54455 has 5 MA's), (102, 54602), (106, 54635), (113, 54686), (125, 54785), (131, 54806), (134, 54830), (156, 54959), (158, 54971), (190, 55097), (198, 55160), (204, 55199), (217, 55268), (220, 55280), (230, 55328), (238, 55361), (252, 55430), (259, 55478),

Gene: Luke_54 Start: 38735, Stop: 39826, Start Num: 45

Candidate Starts for Luke_54:

(8, 38462), (11, 38492), (15, 38585), (33, 38669), (Start: 45 @38735 has 10 MA's), (47, 38744), (Start: 57 @38813 has 1 MA's), (Start: 74 @38855 has 11 MA's), (103, 38966), (106, 38993), (108, 39005), (120, 39062), (123, 39113), (143, 39224), (151, 39272), (165, 39353), (178, 39419), (181, 39437), (182, 39440), (193, 39482), (210, 39596), (222, 39665), (226, 39677), (232, 39710), (239, 39749),

Gene: Luna22_52 Start: 38764, Stop: 39855, Start Num: 45

Candidate Starts for Luna22_52:

(8, 38491), (11, 38521), (15, 38614), (33, 38698), (Start: 45 @38764 has 10 MA's), (47, 38773), (Start: 57 @38842 has 1 MA's), (Start: 74 @38884 has 11 MA's), (103, 38995), (106, 39022), (108, 39034), (120, 39091), (123, 39142), (143, 39253), (151, 39301), (165, 39382), (178, 39448), (181, 39466), (182, 39469), (193, 39511), (210, 39625), (222, 39694), (226, 39706), (232, 39739), (239, 39778),

Gene: Lymara_46 Start: 36430, Stop: 37383, Start Num: 75

Candidate Starts for Lymara_46:

(71, 36424), (Start: 75 @36430 has 18 MA's), (94, 36505), (96, 36514), (99, 36541), (106, 36574), (108, 36586), (122, 36679), (129, 36709), (130, 36715), (135, 36760), (139, 36781), (150, 36835), (152, 36853), (153, 36859), (158, 36889), (166, 36928), (168, 36940), (180, 36997), (188, 37030), (195, 37072), (199, 37111), (203, 37138), (218, 37210), (226, 37243), (237, 37294), (253, 37366),

Gene: Lysidious_59 Start: 39422, Stop: 40312, Start Num: 90

Candidate Starts for Lysidious_59:

(3, 38894), (27, 39173), (48, 39272), (70, 39371), (77, 39383), (Start: 90 @39422 has 2 MA's), (94, 39458), (108, 39539), (126, 39662), (156, 39827), (158, 39839), (170, 39878), (171, 39881), (172, 39884), (225, 40175), (226, 40178), (251, 40289), (254, 40298),

Gene: Malachai_56 Start: 39249, Stop: 40178, Start Num: 82

Candidate Starts for Malachai_56:

(35, 39057), (41, 39099), (46, 39123), (Start: 57 @39195 has 1 MA's), (Start: 82 @39249 has 39 MA's), (86, 39264), (95, 39306), (96, 39309), (106, 39369), (108, 39381), (143, 39606), (152, 39657), (156, 39681), (171, 39735), (185, 39801), (189, 39822), (196, 39873), (199, 39900), (205, 39930), (226, 40032),

Gene: Melba_56 Start: 37292, Stop: 38221, Start Num: 82

Candidate Starts for Melba_56:

(Start: 82 @37292 has 39 MA's), (86, 37307), (96, 37352), (103, 37385), (106, 37412), (108, 37424), (143, 37649), (156, 37724), (171, 37778), (185, 37844), (189, 37865), (196, 37916), (199, 37943), (205, 37973), (226, 38075),

Gene: Mellie_56 Start: 37432, Stop: 38322, Start Num: 90

Candidate Starts for Mellie_56:

(2, 36670), (27, 37183), (48, 37282), (70, 37381), (77, 37393), (Start: 90 @37432 has 2 MA's), (94, 37468), (108, 37549), (126, 37672), (156, 37837), (158, 37849), (170, 37888), (206, 38089), (222, 38176), (225, 38185), (226, 38188), (243, 38266), (251, 38299), (254, 38308),

Gene: MintFen_58 Start: 37863, Stop: 38792, Start Num: 82

Candidate Starts for MintFen_58:

(1, 37089), (19, 37614), (40, 37713), (Start: 57 @37812 has 1 MA's), (Start: 63 @37824 has 2 MA's), (Start: 82 @37863 has 39 MA's), (86, 37878), (96, 37923), (106, 37983), (108, 37995), (143, 38220), (152, 38271), (156, 38295), (171, 38349), (185, 38415), (189, 38436), (196, 38487), (199, 38514), (205, 38544), (226, 38646),

Gene: Miskis_84 Start: 52360, Stop: 53400, Start Num: 62

Candidate Starts for Miskis_84:

(Start: 61 @52357 has 7 MA's), (Start: 62 @52360 has 5 MA's), (102, 52507), (106, 52540), (113, 52591), (125, 52690), (131, 52711), (134, 52735), (156, 52864), (158, 52876), (190, 53002), (198, 53065), (204, 53104), (217, 53173), (220, 53185), (230, 53233), (238, 53266), (252, 53335), (259, 53383),

Gene: MissRona_59 Start: 39737, Stop: 40666, Start Num: 83

Candidate Starts for MissRona_59:

(Start: 83 @39737 has 4 MA's), (86, 39752), (96, 39797), (106, 39857), (108, 39869), (126, 40004), (143, 40094), (152, 40145), (156, 40169), (157, 40172), (171, 40223), (185, 40289), (189, 40310), (196, 40361), (198, 40379), (226, 40520), (234, 40565), (243, 40604), (251, 40643),

Gene: ModicumRichard_39 Start: 32352, Stop: 33365, Start Num: 66

Candidate Starts for ModicumRichard_39:

(Start: 66 @32352 has 5 MA's), (91, 32415), (98, 32472), (99, 32478), (108, 32523), (121, 32595), (137, 32715), (142, 32742), (158, 32835), (160, 32841), (164, 32856), (167, 32865), (168, 32871), (203, 33069), (206, 33075), (213, 33111), (229, 33195), (244, 33267), (256, 33321),

Gene: Mollymur_95 Start: 64969, Stop: 63935, Start Num: 67

Candidate Starts for Mollymur_95:

(65, 64975), (Start: 67 @64969 has 1 MA's), (101, 64843), (111, 64768), (112, 64753), (113, 64750), (123, 64663), (127, 64645), (133, 64603), (156, 64465), (161, 64444), (169, 64423), (171, 64417), (190, 64327), (196, 64282), (198, 64264), (201, 64237), (209, 64207), (212, 64183), (220, 64144), (222, 64132),

Gene: Mordred_46 Start: 36470, Stop: 37423, Start Num: 75

Candidate Starts for Mordred_46:

(Start: 75 @36470 has 18 MA's), (99, 36581), (106, 36614), (108, 36626), (122, 36719), (124, 36737), (129, 36749), (130, 36755), (135, 36800), (139, 36821), (141, 36833), (152, 36893), (153, 36899), (158, 36929), (166, 36968), (168, 36980), (180, 37037), (188, 37070), (203, 37178), (218, 37250), (226, 37283), (237, 37334), (250, 37397), (253, 37406),

Gene: Morgana_39 Start: 32303, Stop: 33316, Start Num: 66

Candidate Starts for Morgana_39:

(4, 31865), (5, 31892), (6, 31895), (9, 31931), (22, 32096), (36, 32144), (60, 32285), (Start: 66 @32303 has 5 MA's), (98, 32423), (99, 32429), (108, 32474), (137, 32666), (158, 32786), (160, 32792), (164, 32807), (168, 32822), (203, 33020), (206, 33026), (213, 33062), (223, 33116), (229, 33146), (244, 33218), (254, 33260), (256, 33272),

Gene: MoyaNatalis_46 Start: 36463, Stop: 37416, Start Num: 75

Candidate Starts for MoyaNatalis_46:

(Start: 75 @36463 has 18 MA's), (99, 36574), (106, 36607), (108, 36619), (122, 36712), (124, 36730), (129, 36742), (130, 36748), (135, 36793), (139, 36814), (141, 36826), (152, 36886), (153, 36892), (158, 36922), (166, 36961), (168, 36973), (180, 37030), (188, 37063), (195, 37105), (203, 37171), (206, 37177), (218, 37243), (226, 37276), (237, 37327), (253, 37399),

Gene: Murp_58 Start: 40682, Stop: 41611, Start Num: 82

Candidate Starts for Murp_58:

(51, 40601), (Start: 82 @40682 has 39 MA's), (86, 40697), (95, 40739), (96, 40742), (103, 40775), (106, 40802), (108, 40814), (143, 41039), (152, 41090), (171, 41168), (185, 41234), (189, 41255), (196, 41306), (199, 41333), (205, 41363), (226, 41465),

Gene: Norvs_88 Start: 53861, Stop: 54904, Start Num: 61

Candidate Starts for Norvs_88:

(Start: 61 @53861 has 7 MA's), (Start: 62 @53864 has 5 MA's), (102, 54011), (106, 54044), (113, 54095), (125, 54194), (131, 54215), (134, 54239), (156, 54368), (158, 54380), (190, 54506), (198, 54569), (204, 54608), (217, 54677), (220, 54689), (230, 54737), (238, 54770), (252, 54839), (259, 54887),

Gene: Nymphadora_59 Start: 41290, Stop: 42219, Start Num: 82

Candidate Starts for Nymphadora_59:

(21, 41056), (23, 41062), (28, 41080), (39, 41134), (44, 41158), (55, 41230), (56, 41233), (Start: 57 @41236 has 1 MA's), (Start: 82 @41290 has 39 MA's), (86, 41305), (95, 41347), (96, 41350), (106, 41410), (108, 41422), (143, 41647), (152, 41698), (156, 41722), (171, 41776), (174, 41794), (185, 41842), (189, 41863), (196, 41914), (198, 41932), (199, 41941), (226, 42073),

Gene: OBUpride_55 Start: 38914, Stop: 39885, Start Num: 74

Candidate Starts for OBUpride_55:

(8, 38521), (10, 38542), (11, 38551), (15, 38644), (33, 38728), (Start: 45 @38794 has 10 MA's), (47, 38803), (Start: 57 @38872 has 1 MA's), (Start: 74 @38914 has 11 MA's), (103, 39025), (106, 39052), (108, 39064), (120, 39121), (123, 39172), (143, 39283), (151, 39331), (165, 39412), (171, 39442), (178, 39478), (181, 39496), (182, 39499), (193, 39541), (204, 39631), (209, 39649), (210, 39655), (222, 39724), (226, 39736), (232, 39769), (239, 39808),

Gene: ObLaDi_39 Start: 32337, Stop: 33350, Start Num: 66

Candidate Starts for ObLaDi_39:

(49, 32259), (58, 32310), (Start: 66 @32337 has 5 MA's), (80, 32364), (98, 32457), (99, 32463), (108, 32508), (137, 32700), (158, 32820), (160, 32826), (164, 32841), (167, 32850), (168, 32856), (206, 33060), (213, 33096), (229, 33180), (244, 33252), (254, 33294), (256, 33306),

Gene: Obliviate_54 Start: 35860, Stop: 36789, Start Num: 82

Candidate Starts for Obliviate_54:

(Start: 82 @35860 has 39 MA's), (86, 35875), (95, 35917), (96, 35920), (106, 35980), (108, 35992), (143, 36217), (152, 36268), (156, 36292), (171, 36346), (185, 36412), (189, 36433), (196, 36484), (199, 36511), (205, 36541), (226, 36643),

Gene: OneUp_78 Start: 51739, Stop: 52776, Start Num: 63

Candidate Starts for OneUp_78:

(Start: 63 @51739 has 2 MA's), (113, 51964), (156, 52234), (158, 52246), (185, 52351), (190, 52372), (200, 52456), (238, 52636), (245, 52672), (249, 52696), (259, 52753),

Gene: PCoral7_58 Start: 39007, Stop: 39936, Start Num: 82

Candidate Starts for PCoral7_58:

(34, 38803), (41, 38848), (46, 38872), (59, 38953), (Start: 82 @39007 has 39 MA's), (86, 39022), (95, 39064), (96, 39067), (99, 39094), (106, 39127), (108, 39139), (143, 39364), (152, 39415), (156, 39439), (171, 39493), (185, 39559), (189, 39580), (196, 39631), (198, 39649), (226, 39790), (240, 39868),

Gene: PFR1_35 Start: 26634, Stop: 27539, Start Num: 93

Candidate Starts for PFR1_35:

(Start: 68 @26565 has 4 MA's), (Start: 82 @26595 has 39 MA's), (93, 26634), (101, 26697), (102, 26700), (109, 26757), (152, 27015), (161, 27060), (171, 27087), (179, 27129), (187, 27168), (197, 27243), (199, 27255), (209, 27300), (211, 27315), (214, 27330), (218, 27354), (226, 27387),

Gene: PFR2_37 Start: 28203, Stop: 29108, Start Num: 93

Candidate Starts for PFR2_37:

(Start: 68 @28134 has 4 MA's), (Start: 82 @28164 has 39 MA's), (93, 28203), (101, 28266), (102, 28269), (109, 28326), (152, 28584), (161, 28629), (171, 28656), (179, 28698), (187, 28737), (197, 28812), (199, 28824), (209, 28869), (211, 28884), (214, 28899), (218, 28923), (226, 28956),

Gene: Petra_55 Start: 36512, Stop: 37441, Start Num: 82

Candidate Starts for Petra_55:

(Start: 82 @36512 has 39 MA's), (86, 36527), (95, 36569), (96, 36572), (103, 36605), (106, 36632), (108, 36644), (143, 36869), (156, 36944), (171, 36998), (185, 37064), (189, 37085), (196, 37136), (199, 37163), (205, 37193), (226, 37295),

Gene: PhinkBoden_87 Start: 54243, Stop: 55286, Start Num: 61

Candidate Starts for PhinkBoden_87:

(Start: 61 @54243 has 7 MA's), (Start: 62 @54246 has 5 MA's), (102, 54393), (106, 54426), (113, 54477), (125, 54576), (131, 54597), (134, 54621), (156, 54750), (158, 54762), (169, 54792), (190, 54888), (193, 54897), (198, 54951), (204, 54990), (217, 55059), (230, 55119), (238, 55152), (240, 55170), (259, 55269),

Gene: PhrostedPhlake_59 Start: 37294, Stop: 38223, Start Num: 82

Candidate Starts for PhrostedPhlake_59:

(Start: 82 @37294 has 39 MA's), (86, 37309), (96, 37354), (103, 37387), (106, 37414), (108, 37426), (126, 37561), (143, 37651), (152, 37702), (156, 37726), (157, 37729), (171, 37780), (185, 37846), (189, 37867), (196, 37918), (198, 37936), (226, 38077), (234, 38122), (251, 38200),

Gene: Pipp_60 Start: 38559, Stop: 39488, Start Num: 82

Candidate Starts for Pipp_60:

(Start: 57 @38508 has 1 MA's), (Start: 63 @38520 has 2 MA's), (Start: 82 @38559 has 39 MA's), (86, 38574), (96, 38619), (106, 38679), (108, 38691), (126, 38826), (143, 38916), (152, 38967), (156, 38991), (171, 39045), (181, 39099), (185, 39111), (189, 39132), (196, 39183), (199, 39210), (205, 39240), (226, 39342),

Gene: PrincePatrick_57 Start: 37356, Stop: 38285, Start Num: 82

Candidate Starts for PrincePatrick_57:

(34, 37152), (41, 37197), (46, 37221), (59, 37302), (Start: 82 @37356 has 39 MA's), (86, 37371), (95, 37413), (96, 37416), (99, 37443), (106, 37476), (108, 37488), (123, 37608), (143, 37713), (156, 37788), (171, 37842), (185, 37908), (189, 37929), (194, 37944), (196, 37980), (198, 37998), (199, 38007), (208, 38049), (217, 38103), (222, 38127), (226, 38139),

Gene: PrincessTrina_46 Start: 36606, Stop: 37559, Start Num: 75

Candidate Starts for PrincessTrina_46:

(Start: 75 @36606 has 18 MA's), (99, 36717), (106, 36750), (108, 36762), (122, 36855), (124, 36873), (129, 36885), (130, 36891), (135, 36936), (139, 36957), (141, 36969), (152, 37029), (158, 37065), (166, 37104), (168, 37116), (180, 37173), (188, 37206), (195, 37248), (203, 37314), (206, 37320), (218, 37386), (226, 37419), (237, 37470), (253, 37542),

Gene: REQ3_09 Start: 3808, Stop: 4743, Start Num: 82

Candidate Starts for REQ3_09:

(Start: 82 @3808 has 39 MA's), (97, 3889), (115, 3982), (149, 4180), (155, 4219), (157, 4228), (158, 4237), (160, 4243), (177, 4312), (183, 4345), (184, 4348), (192, 4381), (204, 4480),

Gene: Rem711_53 Start: 36671, Stop: 37591, Start Num: 72

Candidate Starts for Rem711_53:

(Start: 72 @36671 has 1 MA's), (81, 36689), (94, 36740), (95, 36746), (108, 36821), (132, 36986), (142, 37034), (145, 37046), (158, 37136), (159, 37139), (178, 37217), (222, 37475), (226, 37487), (235, 37523),

Gene: RosiePosie_46 Start: 36473, Stop: 37426, Start Num: 75

Candidate Starts for RosiePosie_46:

(Start: 75 @36473 has 18 MA's), (99, 36584), (106, 36617), (108, 36629), (122, 36722), (124, 36740), (129, 36752), (130, 36758), (135, 36803), (139, 36824), (141, 36836), (152, 36896), (153, 36902), (158, 36932), (166, 36971), (168, 36983), (180, 37040), (188, 37073), (203, 37181), (218, 37253), (226, 37286), (237, 37337), (250, 37400), (253, 37409),

Gene: Samba_57 Start: 40085, Stop: 41014, Start Num: 82

Candidate Starts for Samba_57:

(Start: 57 @40034 has 1 MA's), (Start: 63 @40046 has 2 MA's), (Start: 82 @40085 has 39 MA's), (86, 40100), (95, 40142), (96, 40145), (106, 40205), (108, 40217), (143, 40442), (152, 40493), (156, 40517), (171, 40571), (185, 40637), (189, 40658), (196, 40709), (199, 40736), (205, 40766), (226, 40868),

Gene: Scavito_46 Start: 36471, Stop: 37424, Start Num: 75

Candidate Starts for Scavito_46:

(Start: 75 @36471 has 18 MA's), (99, 36582), (106, 36615), (108, 36627), (122, 36720), (124, 36738), (129, 36750), (130, 36756), (135, 36801), (139, 36822), (141, 36834), (152, 36894), (153, 36900), (158, 36930), (166, 36969), (168, 36981), (180, 37038), (188, 37071), (203, 37179), (218, 37251), (226, 37284), (237, 37335), (250, 37398), (253, 37407),

Gene: Smoothie_89 Start: 54452, Stop: 55495, Start Num: 61

Candidate Starts for Smoothie_89:

(Start: 61 @54452 has 7 MA's), (Start: 62 @54455 has 5 MA's), (102, 54602), (106, 54635), (113, 54686), (125, 54785), (131, 54806), (134, 54830), (156, 54959), (158, 54971), (190, 55097), (198, 55160), (204, 55199), (217, 55268), (220, 55280), (230, 55328), (238, 55361), (252, 55430), (259, 55478),

Gene: SpeedDemon_960 Start: 66064, Stop: 65045, Start Num: 68

Candidate Starts for SpeedDemon_960:

(Start: 68 @66064 has 4 MA's), (87, 66022), (102, 65935), (113, 65851), (127, 65746), (133, 65704), (136, 65683), (146, 65629), (157, 65563), (160, 65548), (161, 65545), (162, 65539), (171, 65518), (176, 65491), (183, 65455), (190, 65428), (196, 65383), (200, 65344), (211, 65293), (212, 65284), (220, 65245), (222, 65233), (236, 65167),

Gene: TimTam_59 Start: 41290, Stop: 42219, Start Num: 82

Candidate Starts for TimTam_59:

(21, 41056), (23, 41062), (28, 41080), (39, 41134), (44, 41158), (55, 41230), (56, 41233), (Start: 57 @41236 has 1 MA's), (Start: 82 @41290 has 39 MA's), (86, 41305), (95, 41347), (96, 41350), (106, 41410), (108, 41422), (143, 41647), (152, 41698), (156, 41722), (171, 41776), (174, 41794), (185, 41842), (189, 41863), (196, 41914), (198, 41932), (199, 41941), (226, 42073),

Gene: Toast_58 Start: 39007, Stop: 39936, Start Num: 82

Candidate Starts for Toast_58:

(34, 38803), (41, 38848), (46, 38872), (59, 38953), (Start: 82 @39007 has 39 MA's), (86, 39022), (95, 39064), (96, 39067), (99, 39094), (106, 39127), (108, 39139), (143, 39364), (152, 39415), (156, 39439), (171, 39493), (185, 39559), (189, 39580), (196, 39631), (198, 39649), (226, 39790), (240, 39868),

Gene: Toniann_88 Start: 53807, Stop: 54847, Start Num: 62

Candidate Starts for Toniann_88:

(Start: 61 @53804 has 7 MA's), (Start: 62 @53807 has 5 MA's), (102, 53954), (106, 53987), (113, 54038), (125, 54137), (131, 54158), (134, 54182), (156, 54311), (158, 54323), (190, 54449), (198, 54512), (204, 54551), (217, 54620), (220, 54632), (230, 54680), (238, 54713), (252, 54782), (259, 54830),

Gene: Tophat_46 Start: 36472, Stop: 37425, Start Num: 75

Candidate Starts for Tophat_46:

(Start: 75 @36472 has 18 MA's), (99, 36583), (106, 36616), (108, 36628), (122, 36721), (124, 36739), (129, 36751), (130, 36757), (135, 36802), (139, 36823), (141, 36835), (152, 36895), (153, 36901), (158, 36931), (166, 36970), (168, 36982), (180, 37039), (188, 37072), (203, 37180), (218, 37252), (226, 37285), (237, 37336), (250, 37399), (253, 37408),

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

Candidate Starts for Typha_65:

(26, 45319), (40, 45385), (46, 45412), (53, 45466), (Start: 85 @45547 has 4 MA's), (106, 45652), (108, 45664), (110, 45676), (142, 45877), (154, 45949), (158, 45970), (160, 45976), (170, 46009), (171, 46012), (181, 46066), (196, 46147), (198, 46165), (226, 46306), (230, 46330),

Gene: Ubuntu_55 Start: 38858, Stop: 39871, Start Num: 57

Candidate Starts for Ubuntu_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: UmaThurman_55 Start: 38004, Stop: 38933, Start Num: 82

Candidate Starts for UmaThurman_55:

(12, 37677), (24, 37776), (29, 37794), (35, 37812), (41, 37854), (46, 37878), (54, 37941), (Start: 57 @37950 has 1 MA's), (Start: 82 @38004 has 39 MA's), (86, 38019), (95, 38061), (96, 38064), (103, 38097), (106, 38124), (108, 38136), (143, 38361), (152, 38412), (156, 38436), (171, 38490), (174, 38508), (181, 38544), (185, 38556), (189, 38577), (196, 38628), (199, 38655), (226, 38787),

Gene: Utz_50 Start: 37832, Stop: 38761, Start Num: 82

Candidate Starts for Utz_50:

(Start: 82 @37832 has 39 MA's), (86, 37847), (96, 37892), (103, 37925), (106, 37952), (108, 37964), (143, 38189), (156, 38264), (171, 38318), (174, 38336), (181, 38372), (185, 38384), (189, 38405), (195, 38444), (196, 38456), (199, 38483), (205, 38513), (226, 38615),

Gene: VanLee_36 Start: 29374, Stop: 30321, Start Num: 69

Candidate Starts for VanLee_36:

(Start: 69 @29374 has 1 MA's), (76, 29389), (92, 29437), (97, 29485), (106, 29530), (108, 29542), (137, 29725), (155, 29827), (158, 29845), (160, 29851), (167, 29875), (168, 29881), (175, 29914), (186, 29962), (203, 30079), (229, 30205), (241, 30253),

Gene: Vasanti_54 Start: 35775, Stop: 36704, Start Num: 82

Candidate Starts for Vasanti_54:

(17, 35514), (20, 35529), (24, 35544), (25, 35550), (31, 35568), (41, 35622), (46, 35646), (55, 35712), (Start: 57 @35718 has 1 MA's), (Start: 82 @35775 has 39 MA's), (86, 35790), (95, 35832), (96, 35835), (103, 35868), (106, 35895), (108, 35907), (143, 36132), (156, 36207), (171, 36261), (181, 36315), (185, 36327), (196, 36399), (198, 36417), (199, 36426), (226, 36558),

Gene: Walrus_56 Start: 37367, Stop: 38296, Start Num: 82

Candidate Starts for Walrus_56:

(Start: 57 @37316 has 1 MA's), (Start: 63 @37328 has 2 MA's), (Start: 82 @37367 has 39 MA's), (86, 37382), (96, 37427), (106, 37487), (108, 37499), (126, 37634), (143, 37724), (152, 37775), (156, 37799), (171, 37853), (181, 37907), (185, 37919), (189, 37940), (196, 37991), (199, 38018), (205, 38048), (226, 38150),

Gene: Webster2_55 Start: 38900, Stop: 39871, Start Num: 74

Candidate Starts for Webster2_55:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Weirido19_53 Start: 37220, Stop: 38188, Start Num: 66

Candidate Starts for Weirido19_53:

(7, 36836), (13, 36932), (14, 36953), (16, 36989), (22, 37019), (30, 37043), (32, 37052), (49, 37148), (Start: 66 @37220 has 5 MA's), (105, 37352), (108, 37391), (126, 37514), (138, 37583), (145, 37616), (156, 37694), (158, 37706), (171, 37748), (172, 37751), (198, 37901), (199, 37910), (219, 38018), (226, 38045), (231, 38075),

Gene: William_60 Start: 39682, Stop: 40611, Start Num: 82

Candidate Starts for William_60:

(59, 39628), (Start: 82 @39682 has 39 MA's), (86, 39697), (95, 39739), (96, 39742), (103, 39775), (106, 39802), (108, 39814), (143, 40039), (156, 40114), (171, 40168), (185, 40234), (189, 40255), (196, 40306), (198, 40324), (205, 40363), (222, 40453), (226, 40465), (240, 40543),

Gene: WilliamBoone_87 Start: 52559, Stop: 53599, Start Num: 62

Candidate Starts for WilliamBoone_87:

(Start: 61 @52556 has 7 MA's), (Start: 62 @52559 has 5 MA's), (80, 52601), (103, 52712), (106, 52739), (113, 52790), (125, 52889), (131, 52910), (134, 52934), (158, 53075), (178, 53147), (184, 53177), (190, 53201), (198, 53264), (204, 53303), (206, 53309), (217, 53372), (220, 53384), (230, 53432), (238, 53465), (240, 53483), (259, 53582),

Gene: Wishmaker_52 Start: 38780, Stop: 39871, Start Num: 45

Candidate Starts for Wishmaker_52:

(8, 38507), (11, 38537), (15, 38630), (33, 38714), (Start: 45 @38780 has 10 MA's), (47, 38789), (Start: 57 @38858 has 1 MA's), (Start: 74 @38900 has 11 MA's), (103, 39011), (106, 39038), (108, 39050), (120, 39107), (123, 39158), (143, 39269), (151, 39317), (165, 39398), (178, 39464), (181, 39482), (182, 39485), (193, 39527), (210, 39641), (222, 39710), (226, 39722), (232, 39755), (239, 39794),

Gene: Wisp_57 Start: 38275, Stop: 39204, Start Num: 82

Candidate Starts for Wisp_57:

(56, 38212), (Start: 82 @38275 has 39 MA's), (86, 38290), (95, 38332), (96, 38335), (103, 38368), (106, 38395), (108, 38407), (143, 38632), (152, 38683), (156, 38707), (171, 38761), (185, 38827), (189, 38848), (196, 38899), (199, 38926), (205, 38956), (226, 39058),

Gene: Wocket_58 Start: 37849, Stop: 38778, Start Num: 82

Candidate Starts for Wocket_58:

(Start: 57 @37798 has 1 MA's), (Start: 63 @37810 has 2 MA's), (Start: 82 @37849 has 39 MA's), (86, 37864), (95, 37906), (96, 37909), (103, 37942), (106, 37969), (108, 37981), (143, 38206), (156, 38281), (171, 38335), (185, 38401), (189, 38422), (199, 38500), (205, 38530), (226, 38632),

Gene: Yvonnetastic_98 Start: 57678, Stop: 58697, Start Num: 64

Candidate Starts for Yvonnetastic_98:

(Start: 64 @57678 has 2 MA's), (87, 57732), (89, 57735), (100, 57813), (118, 57930), (131, 58023), (133, 58044), (134, 58047), (176, 58248), (178, 58257), (182, 58278), (198, 58374), (202, 58407), (210, 58437), (216, 58479), (220, 58494), (226, 58518), (228, 58536), (238, 58572), (245, 58608),

Gene: Zarbodnamra_57 Start: 37271, Stop: 38200, Start Num: 82

Candidate Starts for Zarbodnamra_57:

(Start: 57 @37220 has 1 MA's), (Start: 63 @37232 has 2 MA's), (Start: 82 @37271 has 39 MA's), (86, 37286), (95, 37328), (96, 37331), (103, 37364), (106, 37391), (108, 37403), (143, 37628), (152, 37679), (156, 37703), (171, 37757), (174, 37775), (181, 37811), (185, 37823), (189, 37844), (196, 37895), (199, 37922), (226, 38054),

Gene: ZiggyZoo_58 Start: 39325, Stop: 40254, Start Num: 82

Candidate Starts for ZiggyZoo_58:

(35, 39133), (41, 39175), (46, 39199), (Start: 57 @39271 has 1 MA's), (Start: 82 @39325 has 39 MA's), (86, 39340), (95, 39382), (96, 39385), (106, 39445), (108, 39457), (143, 39682), (152, 39733), (156, 39757), (171, 39811), (181, 39865), (185, 39877), (189, 39898), (196, 39949), (199, 39976), (226, 40108),