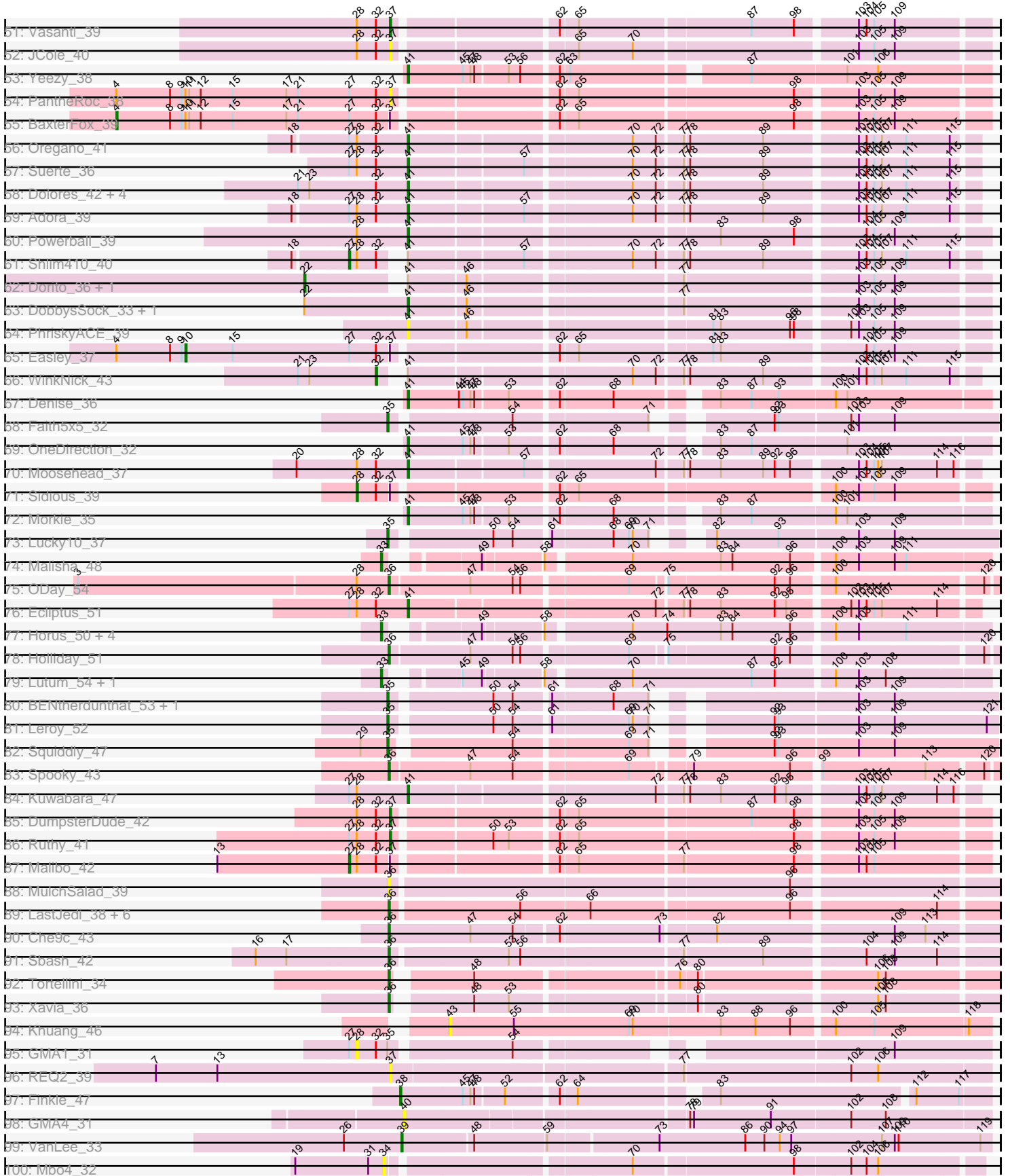


Pham 171244



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 171244 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171244 has 167 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Mao1_45
- Track 2 : Sejanus_44
- Track 3 : Dori_46
- Track 4 : Mask_47
- Track 5 : PCoral7_40
- Track 6 : JuJu_43
- Track 7 : Blino_43, CarolAnn_42
- Track 8 : Jalammah_44
- Track 9 : MissRona_40
- Track 10 : Fairfaxidum_41
- Track 11 : Wisp_37
- Track 12 : Murp_41
- Track 13 : KappaFarmDelta_42, Wocket_41
- Track 14 : Malachai_40, Begonia_40
- Track 15 : Lysidious_40
- Track 16 : Utz_35
- Track 17 : Mellie_39
- Track 18 : Samba_40
- Track 19 : ZiggyZoo_40
- Track 20 : Blueberry_39, Azula_40
- Track 21 : Frokostdame_41
- Track 22 : Gambino_42
- Track 23 : PrincePatrick_40
- Track 24 : William_42
- Track 25 : Toast_40
- Track 26 : LonelyBoi_42
- Track 27 : Posh_45
- Track 28 : Jablanski_41, Pytheas_41
- Track 29 : BeeGee_44
- Track 30 : Wrigley_45
- Track 31 : Cashline_40
- Track 32 : Floral_38, Pollux_40
- Track 33 : Marteena_38, EMSquaredA_39
- Track 34 : Angelique_41
- Track 35 : Confidence_41
- Track 36 : BritBrat_39
- Track 37 : Lton_36

- Track 38 : Bunnybear_36, Maridalia_44
- Track 39 : Pepperoni_33
- Track 40 : ThankyouJordi_40
- Track 41 : AlumE_43, Pickett_36, Manasvini_43, SoilAssassin_38, BoyNamedSue_43, Kita_44, Polly_40, EdnaMode_37, LordFarquaad_40, Attis_38, Eudoria_43, Zirinka_40, Zameen_43, Trumpet_43, Lilas_40, Yeet412_38, Suscepit_43, EnalisNailo_37, Tayonia_43, Bradissa_38, Neobush_43, Antonio_43, Bialota_41
- Track 42 : Hugley_38, Herod_41, Eviarto_41, Nymphadora_41, TimTam_41
- Track 43 : Madeline_38, Ohgeesy_41
- Track 44 : Hyzer_48
- Track 45 : BatStarr_41
- Track 46 : Bosnia_43
- Track 47 : WelcomeAyanna_40
- Track 48 : Agueybana_40
- Track 49 : TuertoX_41, Ebert_43, Sahara_40, Savage_41, Lamberg_37, Whiteclaw_41, Clap_41, Haley23_41, Gizermo_41, Mocha12_41, Cynthia_41, Bjanes7_38
- Track 50 : Sproutie_41, GemG_41, Matteo_34, Nettuno_37
- Track 51 : Vasanti_39
- Track 52 : JCole_40
- Track 53 : Yeezy_38
- Track 54 : PantheRoc_38
- Track 55 : BaxterFox_39
- Track 56 : Oregano_41
- Track 57 : Suerte_36
- Track 58 : Dolores_42, Sekhmet_42, MichaelScott_42, Clark_41, Samman98_42
- Track 59 : Adora_39
- Track 60 : Powerball_39
- Track 61 : Shlim410_40
- Track 62 : Dorito_36, Mcklovin_38
- Track 63 : DobbysSock_33, Thimann_38
- Track 64 : PhriskyACE_39
- Track 65 : Easley_37
- Track 66 : WinkNick_43
- Track 67 : Denise_36
- Track 68 : Faith5x5_32
- Track 69 : OneDirection_32
- Track 70 : Moosehead_37
- Track 71 : Sidious_39
- Track 72 : Morkie_35
- Track 73 : Lucky10_37
- Track 74 : Malisha_48
- Track 75 : ODay_54
- Track 76 : Ecliptus_51
- Track 77 : Horus_50, Asapag_49, Birdsong_49, LitninMcQueen_45, Phabuloso_50
- Track 78 : Holliday_51
- Track 79 : Lutum_54, Kenna_53
- Track 80 : BENtherdunthat_53, Budski_51
- Track 81 : Leroy_52
- Track 82 : Squiddly_47
- Track 83 : Spooky_43
- Track 84 : Kuwabara_47

- Track 85 : DumpsterDude_42
- Track 86 : Ruthy_41
- Track 87 : Malibo_42
- Track 88 : MulchSalad_39
- Track 89 : LastJedi_38, Zizzle_48, Donkeykong_43, Brocalys_40, Pippy_42, Squirty_37, Clifton_39
- Track 90 : Che9c_43
- Track 91 : Sbash_42
- Track 92 : Tortellini_34
- Track 93 : Xavia_36
- Track 94 : Khuang_46
- Track 95 : GMA1_31
- Track 96 : REQ2_39
- Track 97 : Finkle_47
- Track 98 : GMA4_31
- Track 99 : VanLee_33
- Track 100 : Mbo4_32

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

The start number called the most often in the published annotations is 41, it was called in 59 of the 154 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora_39, AlumE_43, Antonio_43, Attis_38, Begonia_40, Bialota_41, BoyNamedSue_43, Bradissa_38, Bunnybear_36, Clark_41, Denise_36, DobbysSock_33, Dolores_42, Ecliptus_51, EdnaMode_37, EnalisNailo_37, Eudoria_43, Eviarto_41, Frokostdame_41, Herod_41, Hugley_38, Hyzer_48, Jallahmah_44, Kita_44, Kuwabara_47, Lilas_40, LordFarquaad_40, Lton_36, Lysidious_40, Malachai_40, Manasvini_43, Maridalia_44, Mellie_39, MichaelScott_42, MissRona_40, Moosehead_37, Morkie_35, Neobush_43, Nymphadora_41, OneDirection_32, Oregano_41, Pepperoni_33, PhriskyACE_39, Pickett_36, Polly_40, Posh_45, Powerball_39, Samba_40, Samman98_42, Sekhmet_42, SoilAssassin_38, Suerte_36, Suscepit_43, Tayonia_43, Thimann_38, TimTam_41, Trumpet_43, Utz_35, Yeet412_38, Yeezy_38, Zameen_43, ZiggyZoo_40, Zirinka_40,

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

- Azula_40, BatStarr_41, Blueberry_39, Dorito_36, Gambino_42, KappaFarmDelta_42, Mcklovin_38, Shlim410_40, WinkNick_43, Wisp_37, Wocket_41,

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

- Agueybana_40, Angelique_41, Asapag_49, BENtherdunthat_53, BaxterFox_39, BeeGee_44, Birdsong_49, Bjaness7_38, Blino_43, Bosnia_43, BritBrat_39, Brocalys_40, Budski_51, CarolAnn_42, Cashline_40, Che9c_43, Clap_41, Clifton_39, Confidence_41, Cynthia_41, Donkeykong_43, Dori_46, DumpsterDude_42, EMSquaredA_39, Easley_37, Ebert_43, Fairfaxidum_41, Faith5x5_32, Finkle_47, Floral_38, GMA1_31, GMA4_31, GemG_41, Gizermo_41, Haley23_41, Holliday_51, Horus_50, JCole_40, Jablanski_41, JuJu_43, Kenna_53, Khuang_46, Lamberg_37,

LastJedi_38, Leroy_52, LitninMcQueen_45, LonelyBoi_42, Lucky10_37, Lutum_54, Madeline_38, Malibo_42, Malisha_48, Mao1_45, Marteena_38, Mask_47, Matteo_34, Mbo4_32, Mocha12_41, MulchSalad_39, Murp_41, Nettuno_37, ODay_54, Ohgeesy_41, PCoral7_40, PantheRoc_38, Phabuloso_50, Pippy_42, Pollux_40, PrincePatrick_40, Pytheas_41, REQ2_39, Ruthy_41, Sahara_40, Savage_41, Sbash_42, Sejanus_44, Sidious_39, Spooky_43, Sproutie_41, Squiddly_47, Squirry_37, ThankyouJordi_40, Toast_40, Tortellini_34, TuertoX_41, VanLee_33, Vasanti_39, WelcomeAyanna_40, Whiteclaw_41, William_42, Wrigley_45, Xavia_36, Zizzle_48,

Summary by start number:

Start 4:

- Found in 3 of 167 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BaxterFox_39 (CZ3),

Start 10:

- Found in 3 of 167 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Easley_37 (CZ4),

Start 22:

- Found in 4 of 167 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 154
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dorito_36 (CZ4), Mcklovin_38 (CZ4),

Start 23:

- Found in 12 of 167 (7.2%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 8.3% of time when present
- Phage (with cluster) where this start called: BatStarr_41 (CZ1),

Start 27:

- Found in 43 of 167 (25.7%) of genes in pham
- Manual Annotations of this start: 7 of 154
- Called 16.3% of time when present
- Phage (with cluster) where this start called: Azula_40 (CV), Blueberry_39 (CV), KappaFarmDelta_42 (CV), Malibo_42 (DW), Shlim410_40 (CZ4), ThankyouJordi_40 (CZ1), Wocket_41 (CV),

Start 28:

- Found in 60 of 167 (35.9%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Confidence_41 (CY1), GMA1_31 (singleton), Gambino_42 (CV), Sidious_39 (CZ7),

Start 30:

- Found in 2 of 167 (1.2%) of genes in pham

- Manual Annotations of this start: 1 of 154
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Toast_40 (CV),

Start 32:

- Found in 75 of 167 (44.9%) of genes in pham
- Manual Annotations of this start: 6 of 154
- Called 8.0% of time when present
- Phage (with cluster) where this start called: BeeGee_44 (CY), GemG_41 (CZ2), Matteo_34 (CZ2), Nettuno_37 (CZ2), Sproutie_41 (CZ2), WinkNick_43 (CZ4),

Start 33:

- Found in 9 of 167 (5.4%) of genes in pham
- Manual Annotations of this start: 9 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Asapag_49 (DN1), Birdsong_49 (DN), Horus_50 (DN1), Kenna_53 (DN1), LitninMcQueen_45 (DN1), Lutum_54 (DN1), Malisha_48 (DN), Phabuloso_50 (DN1), Wrigley_45 (CY),

Start 34:

- Found in 1 of 167 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo4_32 (singleton),

Start 35:

- Found in 9 of 167 (5.4%) of genes in pham
- Manual Annotations of this start: 8 of 154
- Called 88.9% of time when present
- Phage (with cluster) where this start called: BENtherdunthat_53 (DN1), BritBrat_39 (CY2), Budski_51 (DN), Faith5x5_32 (CZ6), Leroy_52 (DN1), LonelyBoi_42 (CY), Lucky10_37 (DH), Squiddly_47 (DN2),

Start 36:

- Found in 21 of 167 (12.6%) of genes in pham
- Manual Annotations of this start: 19 of 154
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Brocalys_40 (F1), Cashline_40 (CY), Che9c_43 (I2), Clifton_39 (F1), Donkeykong_43 (F1), Dori_46 (AD), Holliday_51 (DN1), LastJedi_38 (F1), Mao1_45 (AD), Mask_47 (AD), MulchSalad_39 (F), ODay_54 (DN), Pippy_42 (F1), Sbash_42 (I2), Sejanus_44 (AD), Spooky_43 (DN2), Squirry_37 (F3), Tortellini_34 (P2), Xavia_36 (P3), Zizzle_48 (F1),

Start 37:

- Found in 51 of 167 (30.5%) of genes in pham
- Manual Annotations of this start: 35 of 154
- Called 76.5% of time when present
- Phage (with cluster) where this start called: Agueybana_40 (CZ1), Angelique_41 (CY1), Bjaner7_38 (CZ2), Blino_43 (CV), Bosnia_43 (CZ1), CarolAnn_42 (CV), Clap_41 (CZ2), Cynthia_41 (CZ2), DumpsterDude_42 (DW), EMSquaredA_39 (CY1), Ebert_43 (CZ2), Fairfaxidum_41 (CV), Floral_38 (CY1), Gizermo_41 (CZ2), Haley23_41 (CZ2), JCole_40 (CZ2), Jablanski_41 (CY), JuJu_43 (CV), Lamberg_37 (CZ2), Madeline_38 (CZ1), Marteena_38 (CY1), Mocha12_41 (CZ2), Murp_41 (CV),

Ohgeesy_41 (CZ), PCoral7_40 (CV), PantheRoc_38 (CZ3), Pollux_40 (CY1), PrincePatrick_40 (CV), Pytheas_41 (CY), REQ2_39 (singleton), Ruthy_41 (DW), Sahara_40 (CZ2), Savage_41 (CZ2), TuertoX_41 (CZ2), Vasanti_39 (CZ2), WelcomeAyanna_40 (CZ1), Whiteclaw_41 (CZ2), William_42 (CV), Wisp_37 (CV),

Start 38:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_47 (singleton),

Start 39:

- Found in 1 of 167 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VanLee_33 (singleton),

Start 40:

- Found in 1 of 167 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4_31 (singleton),

Start 41:

- Found in 74 of 167 (44.3%) of genes in pham
- Manual Annotations of this start: 59 of 154
- Called 85.1% of time when present
- Phage (with cluster) where this start called: Adora_39 (CZ4), AlumE_43 (CZ1), Antonio_43 (CZ1), Attis_38 (CZ2), Begonia_40 (CV), Bialota_41 (CZ1), BoyNamedSue_43 (CZ1), Bradissa_38 (CY1), Bunnybear_36 (CZ), Clark_41 (CZ4), Denise_36 (CZ5), DobbysSock_33 (CZ4), Dolores_42 (CZ4), Ecliptus_51 (DN), EdnaMode_37 (CZ2), EnalisNailo_37 (CY1), Eudoria_43 (CZ1), Eviarto_41 (CZ1), Frokostdame_41 (CV), Herod_41 (CZ1), Hugley_38 (CZ1), Hyzer_48 (CZ1), Jalammah_44 (CV), Kita_44 (CZ1), Kuwabara_47 (DN4), Lilas_40 (CY1), LordFarquaad_40 (CZ2), Lton_36 (CZ), Lysidious_40 (CV), Malachai_40 (CV), Manasvini_43 (CZ1), Maridalia_44 (CZ1), Mellie_39 (CV), MichaelScott_42 (CZ4), MissRona_40 (CV), Moosehead_37 (CZ6), Morkie_35 (DH), Neobush_43 (CZ1), Nymphadora_41 (CZ1), OneDirection_32 (CZ6), Oregano_41 (CZ4), Pepperoni_33 (CZ), PhriskyACE_39 (CZ4), Pickett_36 (CZ2), Polly_40 (CZ1), Posh_45 (CY), Powerball_39 (CZ4), Samba_40 (CV), Samman98_42 (CZ4), Sekhmet_42 (CZ4), SoilAssassin_38 (CZ2), Suerte_36 (CZ4), Suscepit_43 (CZ1), Tayonia_43 (CZ1), Thimann_38 (CZ4), TimTam_41 (CZ1), Trumpet_43 (CZ1), Utz_35 (CV), Yeet412_38 (CZ2), Yeezy_38 (CZ3), Zameen_43 (CZ1), ZiggyZoo_40 (CV), Zirinka_40 (CZ1),

Start 43:

- Found in 1 of 167 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Khuang_46 (UNK),

Summary by clusters:

There are 27 clusters represented in this pham: DN, singleton, DH, P3, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, CZ5, DW, I2, DN4, DN1, DN2, P2, CY2, CY1, AD, F, CZ, CY, UNK, CV, F1, F3,

Info for manual annotations of cluster AD:

- Start number 36 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster CV:

- Start number 27 was manually annotated 4 times for cluster CV.
- Start number 28 was manually annotated 1 time for cluster CV.
- Start number 30 was manually annotated 1 time for cluster CV.
- Start number 37 was manually annotated 8 times for cluster CV.
- Start number 41 was manually annotated 10 times for cluster CV.

Info for manual annotations of cluster CY:

- Start number 32 was manually annotated 1 time for cluster CY.
- Start number 33 was manually annotated 1 time for cluster CY.
- Start number 35 was manually annotated 1 time for cluster CY.
- Start number 36 was manually annotated 1 time for cluster CY.
- Start number 37 was manually annotated 2 times for cluster CY.
- Start number 41 was manually annotated 1 time for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 28 was manually annotated 1 time for cluster CY1.
- Start number 37 was manually annotated 5 times for cluster CY1.
- Start number 41 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 35 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ:

- Start number 37 was manually annotated 1 time for cluster CZ.
- Start number 41 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 23 was manually annotated 1 time for cluster CZ1.
- Start number 27 was manually annotated 1 time for cluster CZ1.
- Start number 37 was manually annotated 4 times for cluster CZ1.
- Start number 41 was manually annotated 19 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 32 was manually annotated 4 times for cluster CZ2.
- Start number 37 was manually annotated 13 times for cluster CZ2.
- Start number 41 was manually annotated 6 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 4 was manually annotated 1 time for cluster CZ3.
- Start number 41 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 10 was manually annotated 1 time for cluster CZ4.
- Start number 22 was manually annotated 2 times for cluster CZ4.
- Start number 27 was manually annotated 1 time for cluster CZ4.

- Start number 32 was manually annotated 1 time for cluster CZ4.
- Start number 41 was manually annotated 11 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 41 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 35 was manually annotated 1 time for cluster CZ6.
- Start number 41 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 28 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DH:

- Start number 35 was manually annotated 1 time for cluster DH.
- Start number 41 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 33 was manually annotated 2 times for cluster DN.
- Start number 35 was manually annotated 1 time for cluster DN.
- Start number 36 was manually annotated 1 time for cluster DN.
- Start number 41 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 33 was manually annotated 6 times for cluster DN1.
- Start number 35 was manually annotated 2 times for cluster DN1.
- Start number 36 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 35 was manually annotated 1 time for cluster DN2.
- Start number 36 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN4:

- Start number 41 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DW:

- Start number 27 was manually annotated 1 time for cluster DW.
- Start number 37 was manually annotated 2 times for cluster DW.

Info for manual annotations of cluster F1:

- Start number 36 was manually annotated 6 times for cluster F1.

Info for manual annotations of cluster F3:

- Start number 36 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster I2:

- Start number 36 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster P2:

- Start number 36 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 36 was manually annotated 1 time for cluster P3.

Gene Information:

Gene: Adora_39 Start: 32929, Stop: 32522, Start Num: 41

Candidate Starts for Adora_39:

(18, 32998), (Start: 27 @32959 has 7 MA's), (Start: 28 @32953 has 3 MA's), (Start: 32 @32938 has 6 MA's), (Start: 41 @32929 has 59 MA's), (57, 32845), (70, 32770), (72, 32752), (77, 32734), (78, 32731), (89, 32674), (103, 32608), (104, 32602), (105, 32596), (107, 32590), (111, 32572), (115, 32539),

Gene: Agueybana_40 Start: 32094, Stop: 31669, Start Num: 37

Candidate Starts for Agueybana_40:

(14, 32217), (Start: 27 @32124 has 7 MA's), (Start: 32 @32103 has 6 MA's), (Start: 37 @32094 has 35 MA's), (65, 31968), (103, 31764), (105, 31752),

Gene: AlumE_43 Start: 33874, Stop: 33458, Start Num: 41

Candidate Starts for AlumE_43:

(Start: 41 @33874 has 59 MA's), (45, 33832), (47, 33826), (48, 33823), (53, 33799), (56, 33790), (62, 33766), (87, 33637), (101, 33565), (106, 33541),

Gene: Angelique_41 Start: 32667, Stop: 32242, Start Num: 37

Candidate Starts for Angelique_41:

(Start: 27 @32697 has 7 MA's), (Start: 32 @32676 has 6 MA's), (Start: 37 @32667 has 35 MA's), (62, 32553), (65, 32541), (93, 32391), (98, 32379), (103, 32337), (105, 32325),

Gene: Antonio_43 Start: 33147, Stop: 32731, Start Num: 41

Candidate Starts for Antonio_43:

(Start: 41 @33147 has 59 MA's), (45, 33105), (47, 33099), (48, 33096), (53, 33072), (56, 33063), (62, 33039), (87, 32910), (101, 32838), (106, 32814),

Gene: Asapag_49 Start: 34231, Stop: 33809, Start Num: 33

Candidate Starts for Asapag_49:

(Start: 33 @34231 has 9 MA's), (49, 34177), (58, 34135), (70, 34075), (74, 34048), (83, 34006), (84, 33997), (96, 33952), (100, 33925), (103, 33907), (111, 33871),

Gene: Attis_38 Start: 30280, Stop: 29864, Start Num: 41

Candidate Starts for Attis_38:

(Start: 41 @30280 has 59 MA's), (45, 30238), (47, 30232), (48, 30229), (53, 30205), (56, 30196), (62, 30172), (87, 30043), (101, 29971), (106, 29947),

Gene: Azula_40 Start: 32407, Stop: 31970, Start Num: 27

Candidate Starts for Azula_40:

(Start: 27 @32407 has 7 MA's), (Start: 28 @32401 has 3 MA's), (Start: 32 @32386 has 6 MA's), (Start: 41 @32377 has 59 MA's), (57, 32293), (72, 32200), (77, 32182), (83, 32155), (103, 32056), (104, 32050), (105, 32044), (114, 31996),

Gene: BENtherdunthat_53 Start: 34239, Stop: 33820, Start Num: 35

Candidate Starts for BENtherdunthat_53:

(Start: 35 @34239 has 8 MA's), (50, 34167), (54, 34152), (61, 34128), (68, 34083), (71, 34056), (103, 33927), (109, 33900),

Gene: BatStarr_41 Start: 33776, Stop: 33300, Start Num: 23

Candidate Starts for BatStarr_41:

(Start: 23 @33776 has 1 MA's), (Start: 27 @33746 has 7 MA's), (Start: 32 @33725 has 6 MA's), (Start: 41 @33716 has 59 MA's), (81, 33500), (83, 33494), (98, 33437), (105, 33383), (107, 33377),

Gene: BaxterFox_39 Start: 32252, Stop: 31617, Start Num: 4

Candidate Starts for BaxterFox_39:

(Start: 4 @32252 has 1 MA's), (8, 32210), (9, 32201), (Start: 10 @32198 has 1 MA's), (11, 32195), (12, 32186), (15, 32162), (17, 32120), (21, 32111), (Start: 27 @32072 has 7 MA's), (Start: 32 @32051 has 6 MA's), (Start: 37 @32042 has 35 MA's), (62, 31928), (65, 31916), (98, 31754), (103, 31712), (105, 31700), (109, 31685),

Gene: BeeGee_44 Start: 33574, Stop: 33140, Start Num: 32

Candidate Starts for BeeGee_44:

(Start: 27 @33595 has 7 MA's), (Start: 32 @33574 has 6 MA's), (Start: 37 @33565 has 35 MA's), (62, 33451), (65, 33439), (81, 33340), (98, 33277), (103, 33235), (104, 33229), (105, 33223), (109, 33208),

Gene: Begonia_40 Start: 33887, Stop: 33471, Start Num: 41

Candidate Starts for Begonia_40:

(Start: 27 @33917 has 7 MA's), (Start: 28 @33911 has 3 MA's), (Start: 32 @33896 has 6 MA's), (Start: 41 @33887 has 59 MA's), (50, 33827), (61, 33788), (69, 33731), (77, 33692), (98, 33608), (105, 33554), (107, 33548), (109, 33539),

Gene: Bialota_41 Start: 33899, Stop: 33483, Start Num: 41

Candidate Starts for Bialota_41:

(Start: 41 @33899 has 59 MA's), (45, 33857), (47, 33851), (48, 33848), (53, 33824), (56, 33815), (62, 33791), (87, 33662), (101, 33590), (106, 33566),

Gene: Birdsong_49 Start: 34452, Stop: 34030, Start Num: 33

Candidate Starts for Birdsong_49:

(Start: 33 @34452 has 9 MA's), (49, 34398), (58, 34356), (70, 34296), (74, 34269), (83, 34227), (84, 34218), (96, 34173), (100, 34146), (103, 34128), (111, 34092),

Gene: Bjaner7_38 Start: 30276, Stop: 29851, Start Num: 37

Candidate Starts for Bjaner7_38:

(Start: 28 @30300 has 3 MA's), (Start: 32 @30285 has 6 MA's), (Start: 37 @30276 has 35 MA's), (65, 30150), (98, 29988), (103, 29946), (105, 29934), (109, 29919),

Gene: Blino_43 Start: 35401, Stop: 34976, Start Num: 37

Candidate Starts for Blino_43:

(Start: 27 @35431 has 7 MA's), (Start: 28 @35425 has 3 MA's), (Start: 32 @35410 has 6 MA's), (Start: 37 @35401 has 35 MA's), (53, 35320), (62, 35287), (65, 35275), (77, 35197), (98, 35113), (105, 35059),

Gene: Blueberry_39 Start: 32407, Stop: 31970, Start Num: 27

Candidate Starts for Blueberry_39:

(Start: 27 @32407 has 7 MA's), (Start: 28 @32401 has 3 MA's), (Start: 32 @32386 has 6 MA's), (Start: 41 @32377 has 59 MA's), (57, 32293), (72, 32200), (77, 32182), (83, 32155), (103, 32056), (104, 32050), (105, 32044), (114, 31996),

Gene: Bosnia_43 Start: 35655, Stop: 35230, Start Num: 37

Candidate Starts for Bosnia_43:

(Start: 27 @35685 has 7 MA's), (Start: 28 @35679 has 3 MA's), (Start: 32 @35664 has 6 MA's), (Start: 37 @35655 has 35 MA's), (62, 35541), (65, 35529), (98, 35367), (103, 35325), (105, 35313),

Gene: BoyNamedSue_43 Start: 33874, Stop: 33458, Start Num: 41

Candidate Starts for BoyNamedSue_43:

(Start: 41 @33874 has 59 MA's), (45, 33832), (47, 33826), (48, 33823), (53, 33799), (56, 33790), (62, 33766), (87, 33637), (101, 33565), (106, 33541),

Gene: Bradissa_38 Start: 33185, Stop: 32769, Start Num: 41

Candidate Starts for Bradissa_38:

(Start: 41 @33185 has 59 MA's), (45, 33143), (47, 33137), (48, 33134), (53, 33110), (56, 33101), (62, 33077), (87, 32948), (101, 32876), (106, 32852),

Gene: BritBrat_39 Start: 33527, Stop: 33108, Start Num: 35

Candidate Starts for BritBrat_39:

(Start: 35 @33527 has 8 MA's), (42, 33491), (54, 33440), (69, 33359), (71, 33344), (87, 33296), (93, 33275), (103, 33215), (109, 33188),

Gene: Brocalys_40 Start: 29944, Stop: 29501, Start Num: 36

Candidate Starts for Brocalys_40:

(Start: 36 @29944 has 19 MA's), (56, 29848), (66, 29797), (96, 29647), (114, 29542),

Gene: Budski_51 Start: 35130, Stop: 34711, Start Num: 35

Candidate Starts for Budski_51:

(Start: 35 @35130 has 8 MA's), (50, 35058), (54, 35043), (61, 35019), (68, 34974), (71, 34947), (103, 34818), (109, 34791),

Gene: Bunnybear_36 Start: 31549, Stop: 31133, Start Num: 41

Candidate Starts for Bunnybear_36:

(Start: 41 @31549 has 59 MA's), (45, 31507), (47, 31501), (48, 31498), (53, 31474), (56, 31465), (62, 31441), (87, 31312), (101, 31240),

Gene: CarolAnn_42 Start: 35400, Stop: 34975, Start Num: 37

Candidate Starts for CarolAnn_42:

(Start: 27 @35430 has 7 MA's), (Start: 28 @35424 has 3 MA's), (Start: 32 @35409 has 6 MA's), (Start: 37 @35400 has 35 MA's), (53, 35319), (62, 35286), (65, 35274), (77, 35196), (98, 35112), (105, 35058),

Gene: Cashline_40 Start: 33855, Stop: 33421, Start Num: 36

Candidate Starts for Cashline_40:

(1, 34128), (2, 34122), (6, 34044), (29, 33876), (Start: 36 @33855 has 19 MA's), (47, 33795), (54, 33762), (69, 33681), (75, 33657), (92, 33576), (96, 33564), (102, 33525), (106, 33504), (108, 33498), (109, 33492), (120, 33429),

Gene: Che9c_43 Start: 34201, Stop: 33758, Start Num: 36

Candidate Starts for Che9c_43:

(Start: 36 @34201 has 19 MA's), (47, 34138), (54, 34105), (62, 34075), (73, 34000), (82, 33961), (109, 33832), (113, 33808),

Gene: Clap_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Clap_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Clark_41 Start: 30731, Stop: 30324, Start Num: 41

Candidate Starts for Clark_41:

(21, 30800), (Start: 23 @30791 has 1 MA's), (Start: 32 @30740 has 6 MA's), (Start: 41 @30731 has 59 MA's), (70, 30572), (72, 30554), (77, 30536), (78, 30533), (89, 30476), (103, 30410), (104, 30404), (105, 30398), (107, 30392), (111, 30374), (115, 30341),

Gene: Clifton_39 Start: 30295, Stop: 29852, Start Num: 36

Candidate Starts for Clifton_39:

(Start: 36 @30295 has 19 MA's), (56, 30199), (66, 30148), (96, 29998), (114, 29893),

Gene: Confidence_41 Start: 31704, Stop: 31246, Start Num: 28

Candidate Starts for Confidence_41:

(Start: 28 @31704 has 3 MA's), (Start: 36 @31680 has 19 MA's), (47, 31620), (54, 31587), (69, 31506), (79, 31464), (92, 31401), (96, 31389), (108, 31323), (120, 31254),

Gene: Cynthia_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Cynthia_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Denise_36 Start: 28917, Stop: 28501, Start Num: 41

Candidate Starts for Denise_36:

(Start: 41 @28917 has 59 MA's), (44, 28878), (45, 28875), (47, 28869), (48, 28866), (53, 28842), (62, 28809), (68, 28770), (83, 28704), (87, 28680), (93, 28659), (100, 28617), (101, 28608),

Gene: DobbysSock_33 Start: 29249, Stop: 28833, Start Num: 41

Candidate Starts for DobbysSock_33:

(Start: 22 @29312 has 2 MA's), (Start: 41 @29249 has 59 MA's), (46, 29207), (77, 29054), (103, 28928), (105, 28916), (109, 28901),

Gene: Dolores_42 Start: 31603, Stop: 31196, Start Num: 41

Candidate Starts for Dolores_42:

(21, 31672), (Start: 23 @31663 has 1 MA's), (Start: 32 @31612 has 6 MA's), (Start: 41 @31603 has 59 MA's), (70, 31444), (72, 31426), (77, 31408), (78, 31405), (89, 31348), (103, 31282), (104, 31276), (105, 31270), (107, 31264), (111, 31246), (115, 31213),

Gene: Donkeykong_43 Start: 34315, Stop: 33872, Start Num: 36

Candidate Starts for Donkeykong_43:

(Start: 36 @34315 has 19 MA's), (56, 34219), (66, 34168), (96, 34018), (114, 33913),

Gene: Dori_46 Start: 42481, Stop: 42059, Start Num: 36

Candidate Starts for Dori_46:

(25, 42517), (Start: 36 @42481 has 19 MA's), (48, 42430), (53, 42403), (108, 42139),

Gene: Dorito_36 Start: 28956, Stop: 28477, Start Num: 22

Candidate Starts for Dorito_36:

(Start: 22 @28956 has 2 MA's), (Start: 41 @28893 has 59 MA's), (46, 28851), (77, 28698), (103, 28572), (105, 28560), (109, 28545),

Gene: DumpsterDude_42 Start: 35820, Stop: 35395, Start Num: 37

Candidate Starts for DumpsterDude_42:

(Start: 28 @35844 has 3 MA's), (Start: 32 @35829 has 6 MA's), (Start: 37 @35820 has 35 MA's), (62, 35706), (65, 35694), (87, 35565), (98, 35532), (103, 35490), (105, 35478), (109, 35463),

Gene: EMSquaredA_39 Start: 31766, Stop: 31341, Start Num: 37

Candidate Starts for EMSquaredA_39:

(Start: 37 @31766 has 35 MA's), (65, 31640), (102, 31442), (103, 31436), (105, 31424),

Gene: Easley_37 Start: 29189, Stop: 28608, Start Num: 10

Candidate Starts for Easley_37:

(Start: 4 @29243 has 1 MA's), (8, 29201), (9, 29192), (Start: 10 @29189 has 1 MA's), (15, 29153), (Start: 27 @29063 has 7 MA's), (Start: 32 @29042 has 6 MA's), (Start: 37 @29033 has 35 MA's), (62, 28919), (65, 28907), (81, 28808), (83, 28802), (104, 28697), (105, 28691), (109, 28676),

Gene: Ebert_43 Start: 30379, Stop: 29954, Start Num: 37

Candidate Starts for Ebert_43:

(Start: 28 @30403 has 3 MA's), (Start: 32 @30388 has 6 MA's), (Start: 37 @30379 has 35 MA's), (65, 30253), (98, 30091), (103, 30049), (105, 30037), (109, 30022),

Gene: Ecliptus_51 Start: 35343, Stop: 34936, Start Num: 41

Candidate Starts for Ecliptus_51:

(Start: 27 @35373 has 7 MA's), (Start: 28 @35367 has 3 MA's), (Start: 32 @35352 has 6 MA's), (Start: 41 @35343 has 59 MA's), (72, 35166), (77, 35148), (78, 35145), (83, 35121), (92, 35079), (95, 35070), (102, 35028), (103, 35022), (104, 35016), (105, 35010), (107, 35004), (114, 34962),

Gene: EdnaMode_37 Start: 28968, Stop: 28552, Start Num: 41

Candidate Starts for EdnaMode_37:

(Start: 41 @28968 has 59 MA's), (45, 28926), (47, 28920), (48, 28917), (53, 28893), (56, 28884), (62, 28860), (87, 28731), (101, 28659), (106, 28635),

Gene: EnalisNailo_37 Start: 32719, Stop: 32303, Start Num: 41

Candidate Starts for EnalisNailo_37:

(Start: 41 @32719 has 59 MA's), (45, 32677), (47, 32671), (48, 32668), (53, 32644), (56, 32635), (62, 32611), (87, 32482), (101, 32410), (106, 32386),

Gene: Eudoria_43 Start: 33147, Stop: 32731, Start Num: 41

Candidate Starts for Eudoria_43:

(Start: 41 @33147 has 59 MA's), (45, 33105), (47, 33099), (48, 33096), (53, 33072), (56, 33063), (62, 33039), (87, 32910), (101, 32838), (106, 32814),

Gene: Eviarto_41 Start: 33692, Stop: 33276, Start Num: 41

Candidate Starts for Eviarto_41:

(Start: 23 @33752 has 1 MA's), (Start: 27 @33722 has 7 MA's), (Start: 32 @33701 has 6 MA's), (Start: 41 @33692 has 59 MA's), (81, 33476), (83, 33470), (98, 33413), (105, 33359), (107, 33353),

Gene: Fairfaxidum_41 Start: 32795, Stop: 32370, Start Num: 37

Candidate Starts for Fairfaxidum_41:

(Start: 27 @32825 has 7 MA's), (Start: 32 @32804 has 6 MA's), (Start: 37 @32795 has 35 MA's), (65, 32669), (77, 32591), (98, 32507), (103, 32465), (105, 32453), (109, 32438),

Gene: Faith5x5_32 Start: 26770, Stop: 26351, Start Num: 35

Candidate Starts for Faith5x5_32:

(Start: 35 @26770 has 8 MA's), (54, 26683), (71, 26587), (92, 26521), (93, 26518), (102, 26464), (103, 26458), (109, 26431),

Gene: Finkle_47 Start: 33372, Stop: 32953, Start Num: 38

Candidate Starts for Finkle_47:

(Start: 38 @33372 has 1 MA's), (45, 33324), (47, 33318), (48, 33315), (52, 33294), (62, 33258), (64, 33246), (83, 33153), (112, 33009), (117, 32976),

Gene: Floral_38 Start: 33839, Stop: 33414, Start Num: 37

Candidate Starts for Floral_38:

(Start: 28 @33863 has 3 MA's), (Start: 32 @33848 has 6 MA's), (Start: 37 @33839 has 35 MA's), (53, 33758), (65, 33713), (98, 33551), (103, 33509), (105, 33497), (109, 33482),

Gene: Frokostdame_41 Start: 32700, Stop: 32293, Start Num: 41

Candidate Starts for Frokostdame_41:

(Start: 27 @32730 has 7 MA's), (Start: 28 @32724 has 3 MA's), (Start: 32 @32709 has 6 MA's), (Start: 41 @32700 has 59 MA's), (77, 32505), (83, 32478), (103, 32379), (104, 32373), (105, 32367),

Gene: GMA1_31 Start: 24915, Stop: 24478, Start Num: 28

Candidate Starts for GMA1_31:

(Start: 27 @24921 has 7 MA's), (Start: 28 @24915 has 3 MA's), (Start: 32 @24900 has 6 MA's), (Start: 35 @24891 has 8 MA's), (54, 24804), (109, 24552),

Gene: GMA4_31 Start: 27079, Stop: 26645, Start Num: 40

Candidate Starts for GMA4_31:

(40, 27079), (78, 26872), (79, 26869), (91, 26809), (102, 26749), (108, 26722),

Gene: Gambino_42 Start: 32401, Stop: 31970, Start Num: 28

Candidate Starts for Gambino_42:

(Start: 27 @32407 has 7 MA's), (Start: 28 @32401 has 3 MA's), (Start: 32 @32386 has 6 MA's), (Start: 41 @32377 has 59 MA's), (57, 32293), (72, 32200), (77, 32182), (83, 32155), (103, 32056), (104, 32050), (105, 32044), (114, 31996),

Gene: GemG_41 Start: 30464, Stop: 30030, Start Num: 32

Candidate Starts for GemG_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Gizermo_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Gizermo_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Haley23_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Haley23_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Herod_41 Start: 33716, Stop: 33300, Start Num: 41

Candidate Starts for Herod_41:

(Start: 23 @33776 has 1 MA's), (Start: 27 @33746 has 7 MA's), (Start: 32 @33725 has 6 MA's), (Start: 41 @33716 has 59 MA's), (81, 33500), (83, 33494), (98, 33437), (105, 33383), (107, 33377),

Gene: Holliday_51 Start: 34485, Stop: 34051, Start Num: 36

Candidate Starts for Holliday_51:

(Start: 36 @34485 has 19 MA's), (47, 34425), (54, 34392), (56, 34386), (69, 34311), (75, 34287), (92, 34206), (96, 34194), (120, 34059),

Gene: Horus_50 Start: 34860, Stop: 34438, Start Num: 33

Candidate Starts for Horus_50:

(Start: 33 @34860 has 9 MA's), (49, 34806), (58, 34764), (70, 34704), (74, 34677), (83, 34635), (84, 34626), (96, 34581), (100, 34554), (103, 34536), (111, 34500),

Gene: Hugley_38 Start: 33715, Stop: 33299, Start Num: 41

Candidate Starts for Hugley_38:

(Start: 23 @33775 has 1 MA's), (Start: 27 @33745 has 7 MA's), (Start: 32 @33724 has 6 MA's), (Start: 41 @33715 has 59 MA's), (81, 33499), (83, 33493), (98, 33436), (105, 33382), (107, 33376),

Gene: Hyzer_48 Start: 36153, Stop: 35734, Start Num: 41

Candidate Starts for Hyzer_48:

(Start: 41 @36153 has 59 MA's), (45, 36111), (47, 36105), (48, 36102), (50, 36090), (56, 36069), (60, 36051), (62, 36042), (67, 36009), (87, 35913), (101, 35841),

Gene: JCole_40 Start: 29723, Stop: 29298, Start Num: 37

Candidate Starts for JCole_40:

(Start: 28 @29747 has 3 MA's), (Start: 32 @29732 has 6 MA's), (Start: 37 @29723 has 35 MA's), (65, 29597), (70, 29555), (103, 29393), (105, 29381), (109, 29366),

Gene: Jablanski_41 Start: 33024, Stop: 32599, Start Num: 37

Candidate Starts for Jablanski_41:

(Start: 27 @33054 has 7 MA's), (Start: 28 @33048 has 3 MA's), (Start: 32 @33033 has 6 MA's), (Start: 37 @33024 has 35 MA's), (65, 32898), (98, 32736), (102, 32700), (103, 32694), (105, 32682), (109, 32667),

Gene: Jalammah_44 Start: 34077, Stop: 33670, Start Num: 41

Candidate Starts for Jalammah_44:

(24, 34134), (Start: 27 @34107 has 7 MA's), (Start: 28 @34101 has 3 MA's), (Start: 32 @34086 has 6 MA's), (Start: 41 @34077 has 59 MA's), (45, 34038), (57, 33993), (72, 33900), (77, 33882), (83, 33855), (103, 33756), (104, 33750), (105, 33744), (114, 33696),

Gene: JuJu_43 Start: 33227, Stop: 32802, Start Num: 37

Candidate Starts for JuJu_43:

(Start: 37 @33227 has 35 MA's), (65, 33101), (70, 33059), (77, 33023), (81, 33002), (98, 32939), (103, 32897), (105, 32885), (109, 32870),

Gene: KappaFarmDelta_42 Start: 31734, Stop: 31297, Start Num: 27

Candidate Starts for KappaFarmDelta_42:

(Start: 27 @31734 has 7 MA's), (Start: 28 @31728 has 3 MA's), (Start: 32 @31713 has 6 MA's), (Start: 41 @31704 has 59 MA's), (57, 31620), (70, 31545), (83, 31482), (92, 31440), (103, 31383), (105, 31371), (114, 31323),

Gene: Kenna_53 Start: 35132, Stop: 34710, Start Num: 33

Candidate Starts for Kenna_53:

(Start: 33 @35132 has 9 MA's), (45, 35093), (49, 35078), (58, 35036), (70, 34976), (87, 34883), (92, 34865), (100, 34826), (103, 34808), (108, 34787),

Gene: Khuang_46 Start: 28987, Stop: 28583, Start Num: 43

Candidate Starts for Khuang_46:

(43, 28987), (55, 28939), (69, 28849), (70, 28846), (83, 28780), (88, 28753), (96, 28726), (100, 28699), (105, 28669), (118, 28600),

Gene: Kita_44 Start: 33156, Stop: 32740, Start Num: 41

Candidate Starts for Kita_44:

(Start: 41 @33156 has 59 MA's), (45, 33114), (47, 33108), (48, 33105), (53, 33081), (56, 33072), (62, 33048), (87, 32919), (101, 32847), (106, 32823),

Gene: Kuwabara_47 Start: 33695, Stop: 33288, Start Num: 41

Candidate Starts for Kuwabara_47:

(Start: 27 @33725 has 7 MA's), (Start: 28 @33719 has 3 MA's), (Start: 41 @33695 has 59 MA's), (72, 33518), (77, 33500), (78, 33497), (83, 33473), (92, 33431), (95, 33422), (103, 33374), (104, 33368), (105, 33362), (107, 33356), (114, 33314), (116, 33302),

Gene: Lamberg_37 Start: 28964, Stop: 28539, Start Num: 37

Candidate Starts for Lamberg_37:

(Start: 28 @28988 has 3 MA's), (Start: 32 @28973 has 6 MA's), (Start: 37 @28964 has 35 MA's), (65, 28838), (98, 28676), (103, 28634), (105, 28622), (109, 28607),

Gene: LastJedi_38 Start: 30338, Stop: 29895, Start Num: 36

Candidate Starts for LastJedi_38:

(Start: 36 @30338 has 19 MA's), (56, 30242), (66, 30191), (96, 30041), (114, 29936),

Gene: Leroy_52 Start: 35141, Stop: 34722, Start Num: 35

Candidate Starts for Leroy_52:

(Start: 35 @35141 has 8 MA's), (50, 35069), (54, 35054), (61, 35030), (69, 34973), (70, 34970), (71, 34958), (92, 34892), (93, 34889), (103, 34829), (109, 34802), (121, 34730),

Gene: Lilas_40 Start: 34430, Stop: 34014, Start Num: 41

Candidate Starts for Lilas_40:

(Start: 41 @34430 has 59 MA's), (45, 34388), (47, 34382), (48, 34379), (53, 34355), (56, 34346), (62, 34322), (87, 34193), (101, 34121), (106, 34097),

Gene: LitninMcQueen_45 Start: 33001, Stop: 32579, Start Num: 33

Candidate Starts for LitninMcQueen_45:

(Start: 33 @33001 has 9 MA's), (49, 32947), (58, 32905), (70, 32845), (74, 32818), (83, 32776), (84, 32767), (96, 32722), (100, 32695), (103, 32677), (111, 32641),

Gene: LonelyBoi_42 Start: 35097, Stop: 34678, Start Num: 35

Candidate Starts for LonelyBoi_42:

(Start: 35 @35097 has 8 MA's), (50, 35025), (54, 35010), (61, 34986), (70, 34926), (71, 34914), (103, 34785), (109, 34758),

Gene: LordFarquaad_40 Start: 30261, Stop: 29845, Start Num: 41

Candidate Starts for LordFarquaad_40:

(Start: 41 @30261 has 59 MA's), (45, 30219), (47, 30213), (48, 30210), (53, 30186), (56, 30177), (62, 30153), (87, 30024), (101, 29952), (106, 29928),

Gene: Lton_36 Start: 26921, Stop: 26505, Start Num: 41

Candidate Starts for Lton_36:

(Start: 41 @26921 has 59 MA's), (47, 26873), (48, 26870), (53, 26846), (62, 26813), (83, 26708), (87, 26684), (93, 26663), (100, 26621), (101, 26612),

Gene: Lucky10_37 Start: 29939, Stop: 29520, Start Num: 35

Candidate Starts for Lucky10_37:

(Start: 35 @29939 has 8 MA's), (50, 29867), (54, 29852), (61, 29828), (68, 29783), (69, 29771), (70, 29768), (71, 29756), (82, 29735), (93, 29687), (103, 29627), (109, 29600),

Gene: Lutum_54 Start: 35132, Stop: 34710, Start Num: 33

Candidate Starts for Lutum_54:

(Start: 33 @35132 has 9 MA's), (45, 35093), (49, 35078), (58, 35036), (70, 34976), (87, 34883), (92, 34865), (100, 34826), (103, 34808), (108, 34787),

Gene: Lysidious_40 Start: 32794, Stop: 32387, Start Num: 41

Candidate Starts for Lysidious_40:

(Start: 27 @32824 has 7 MA's), (Start: 28 @32818 has 3 MA's), (Start: 32 @32803 has 6 MA's), (Start: 41 @32794 has 59 MA's), (57, 32710), (70, 32635), (92, 32530), (103, 32473), (105, 32461), (114, 32413),

Gene: Madeline_38 Start: 32781, Stop: 32359, Start Num: 37

Candidate Starts for Madeline_38:

(Start: 28 @32805 has 3 MA's), (Start: 32 @32790 has 6 MA's), (Start: 37 @32781 has 35 MA's), (53, 32700), (62, 32667), (65, 32655), (83, 32550), (98, 32493), (103, 32451), (105, 32439), (109, 32424), (119, 32364),

Gene: Malachai_40 Start: 33887, Stop: 33471, Start Num: 41

Candidate Starts for Malachai_40:

(Start: 27 @33917 has 7 MA's), (Start: 28 @33911 has 3 MA's), (Start: 32 @33896 has 6 MA's), (Start: 41 @33887 has 59 MA's), (50, 33827), (61, 33788), (69, 33731), (77, 33692), (98, 33608), (105, 33554), (107, 33548), (109, 33539),

Gene: Malibo_42 Start: 33467, Stop: 33012, Start Num: 27

Candidate Starts for Malibo_42:

(13, 33569), (Start: 27 @33467 has 7 MA's), (Start: 28 @33461 has 3 MA's), (Start: 32 @33446 has 6 MA's), (Start: 37 @33437 has 35 MA's), (62, 33323), (65, 33311), (77, 33233), (98, 33149), (103, 33107), (104, 33101), (105, 33095),

Gene: Malisha_48 Start: 33889, Stop: 33467, Start Num: 33

Candidate Starts for Malisha_48:

(Start: 33 @33889 has 9 MA's), (49, 33835), (58, 33793), (70, 33733), (83, 33664), (84, 33655), (96, 33610), (100, 33583), (103, 33565), (109, 33538), (111, 33529),

Gene: Manasvini_43 Start: 33148, Stop: 32732, Start Num: 41

Candidate Starts for Manasvini_43:

(Start: 41 @33148 has 59 MA's), (45, 33106), (47, 33100), (48, 33097), (53, 33073), (56, 33064), (62, 33040), (87, 32911), (101, 32839), (106, 32815),

Gene: Mao1_45 Start: 40715, Stop: 40293, Start Num: 36

Candidate Starts for Mao1_45:

(Start: 36 @40715 has 19 MA's), (48, 40664), (53, 40637), (80, 40508), (106, 40379), (108, 40373), (109, 40367),

Gene: Maridalia_44 Start: 33295, Stop: 32879, Start Num: 41

Candidate Starts for Maridalia_44:

(Start: 41 @33295 has 59 MA's), (45, 33253), (47, 33247), (48, 33244), (53, 33220), (56, 33211), (62, 33187), (87, 33058), (101, 32986),

Gene: Marteena_38 Start: 31766, Stop: 31341, Start Num: 37

Candidate Starts for Marteena_38:

(Start: 37 @31766 has 35 MA's), (65, 31640), (102, 31442), (103, 31436), (105, 31424),

Gene: Mask_47 Start: 43714, Stop: 43292, Start Num: 36

Candidate Starts for Mask_47:

(Start: 36 @43714 has 19 MA's), (48, 43663), (53, 43636), (70, 43549), (76, 43519), (80, 43507), (108, 43372),

Gene: Matteo_34 Start: 28015, Stop: 27581, Start Num: 32

Candidate Starts for Matteo_34:

(Start: 28 @28030 has 3 MA's), (Start: 32 @28015 has 6 MA's), (Start: 37 @28006 has 35 MA's), (65, 27880), (98, 27718), (103, 27676), (105, 27664), (109, 27649),

Gene: Mbo4_32 Start: 30257, Stop: 29826, Start Num: 34

Candidate Starts for Mbo4_32:

(19, 30326), (31, 30269), (34, 30257), (70, 30083), (98, 29963), (102, 29921), (104, 29909), (106, 29900),

Gene: Mcklovin_38 Start: 35728, Stop: 35249, Start Num: 22

Candidate Starts for Mcklovin_38:

(Start: 22 @35728 has 2 MA's), (Start: 41 @35665 has 59 MA's), (46, 35623), (77, 35470), (103, 35344), (105, 35332), (109, 35317),

Gene: Mellie_39 Start: 31603, Stop: 31187, Start Num: 41

Candidate Starts for Mellie_39:

(Start: 28 @31627 has 3 MA's), (Start: 32 @31612 has 6 MA's), (Start: 41 @31603 has 59 MA's), (50, 31543), (61, 31504), (69, 31447), (81, 31387), (98, 31324), (105, 31270), (109, 31255),

Gene: MichaelScott_42 Start: 32207, Stop: 31800, Start Num: 41

Candidate Starts for MichaelScott_42:

(21, 32276), (Start: 23 @32267 has 1 MA's), (Start: 32 @32216 has 6 MA's), (Start: 41 @32207 has 59 MA's), (70, 32048), (72, 32030), (77, 32012), (78, 32009), (89, 31952), (103, 31886), (104, 31880), (105, 31874), (107, 31868), (111, 31850), (115, 31817),

Gene: MissRona_40 Start: 32378, Stop: 31971, Start Num: 41

Candidate Starts for MissRona_40:

(Start: 27 @32408 has 7 MA's), (Start: 28 @32402 has 3 MA's), (Start: 32 @32387 has 6 MA's), (Start: 41 @32378 has 59 MA's), (57, 32294), (72, 32201), (77, 32183), (83, 32156), (103, 32057), (104, 32051), (105, 32045), (114, 31997),

Gene: Mocha12_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Mocha12_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Moosehead_37 Start: 27045, Stop: 26638, Start Num: 41

Candidate Starts for Moosehead_37:

(20, 27114), (Start: 28 @27069 has 3 MA's), (Start: 32 @27054 has 6 MA's), (Start: 41 @27045 has 59 MA's), (57, 26961), (72, 26868), (77, 26850), (78, 26847), (83, 26823), (89, 26790), (92, 26781), (96, 26769), (103, 26724), (104, 26718), (105, 26712), (106, 26709), (107, 26706), (114, 26664), (116, 26652),

Gene: Morkie_35 Start: 27876, Stop: 27460, Start Num: 41

Candidate Starts for Morkie_35:

(Start: 41 @27876 has 59 MA's), (45, 27834), (47, 27828), (48, 27825), (53, 27801), (62, 27768), (68, 27729), (83, 27663), (87, 27639), (100, 27576), (101, 27567),

Gene: MulchSalad_39 Start: 30079, Stop: 29636, Start Num: 36

Candidate Starts for MulchSalad_39:

(Start: 36 @30079 has 19 MA's), (96, 29782),

Gene: Murp_41 Start: 34198, Stop: 33773, Start Num: 37

Candidate Starts for Murp_41:

(Start: 27 @34228 has 7 MA's), (Start: 37 @34198 has 35 MA's), (53, 34117), (62, 34084), (65, 34072), (77, 33994), (87, 33943), (98, 33910), (105, 33856), (109, 33841),

Gene: Neobush_43 Start: 33141, Stop: 32725, Start Num: 41

Candidate Starts for Neobush_43:

(Start: 41 @33141 has 59 MA's), (45, 33099), (47, 33093), (48, 33090), (53, 33066), (56, 33057), (62, 33033), (87, 32904), (101, 32832), (106, 32808),

Gene: Nettuno_37 Start: 28973, Stop: 28539, Start Num: 32

Candidate Starts for Nettuno_37:

(Start: 28 @28988 has 3 MA's), (Start: 32 @28973 has 6 MA's), (Start: 37 @28964 has 35 MA's), (65, 28838), (98, 28676), (103, 28634), (105, 28622), (109, 28607),

Gene: Nymphadora_41 Start: 33716, Stop: 33300, Start Num: 41

Candidate Starts for Nymphadora_41:

(Start: 23 @33776 has 1 MA's), (Start: 27 @33746 has 7 MA's), (Start: 32 @33725 has 6 MA's), (Start: 41 @33716 has 59 MA's), (81, 33500), (83, 33494), (98, 33437), (105, 33383), (107, 33377),

Gene: ODay_54 Start: 35640, Stop: 35206, Start Num: 36

Candidate Starts for ODay_54:

(3, 35877), (Start: 28 @35664 has 3 MA's), (Start: 36 @35640 has 19 MA's), (47, 35580), (54, 35547), (56, 35541), (69, 35466), (75, 35442), (92, 35361), (96, 35349), (100, 35322), (120, 35214),

Gene: Ohgeesy_41 Start: 33576, Stop: 33154, Start Num: 37

Candidate Starts for Ohgeesy_41:

(Start: 28 @33600 has 3 MA's), (Start: 32 @33585 has 6 MA's), (Start: 37 @33576 has 35 MA's), (53, 33495), (62, 33462), (65, 33450), (83, 33345), (98, 33288), (103, 33246), (105, 33234), (109, 33219), (119, 33159),

Gene: OneDirection_32 Start: 26498, Stop: 26082, Start Num: 41

Candidate Starts for OneDirection_32:

(Start: 41 @26498 has 59 MA's), (45, 26456), (47, 26450), (48, 26447), (53, 26423), (62, 26390), (68, 26351), (83, 26285), (87, 26261), (101, 26189),

Gene: Oregano_41 Start: 30919, Stop: 30512, Start Num: 41

Candidate Starts for Oregano_41:

(18, 30988), (Start: 27 @30949 has 7 MA's), (Start: 28 @30943 has 3 MA's), (Start: 32 @30928 has 6 MA's), (Start: 41 @30919 has 59 MA's), (70, 30760), (72, 30742), (77, 30724), (78, 30721), (89, 30664), (103, 30598), (104, 30592), (105, 30586), (107, 30580), (111, 30562), (115, 30529),

Gene: PCoral7_40 Start: 32596, Stop: 32171, Start Num: 37

Candidate Starts for PCoral7_40:

(5, 32800), (Start: 30 @32617 has 1 MA's), (Start: 37 @32596 has 35 MA's), (62, 32482), (65, 32470), (102, 32272), (103, 32266), (105, 32254),

Gene: PantheRoc_38 Start: 31017, Stop: 30592, Start Num: 37

Candidate Starts for PantheRoc_38:

(Start: 4 @31227 has 1 MA's), (8, 31185), (9, 31176), (Start: 10 @31173 has 1 MA's), (11, 31170), (12, 31161), (15, 31137), (17, 31095), (21, 31086), (Start: 27 @31047 has 7 MA's), (Start: 32 @31026 has 6 MA's), (Start: 37 @31017 has 35 MA's), (62, 30903), (65, 30891), (98, 30729), (103, 30687), (105, 30675), (109, 30660),

Gene: Pepperoni_33 Start: 27643, Stop: 27227, Start Num: 41

Candidate Starts for Pepperoni_33:

(Start: 41 @27643 has 59 MA's), (44, 27604), (45, 27601), (47, 27595), (48, 27592), (53, 27568), (62, 27535), (68, 27496), (83, 27430), (87, 27406), (101, 27334),

Gene: Phabuloso_50 Start: 34086, Stop: 33664, Start Num: 33

Candidate Starts for Phabuloso_50:

(Start: 33 @34086 has 9 MA's), (49, 34032), (58, 33990), (70, 33930), (74, 33903), (83, 33861), (84, 33852), (96, 33807), (100, 33780), (103, 33762), (111, 33726),

Gene: PhriskyACE_39 Start: 31628, Stop: 31212, Start Num: 41

Candidate Starts for PhriskyACE_39:

(Start: 41 @31628 has 59 MA's), (46, 31586), (81, 31412), (83, 31406), (96, 31352), (98, 31349), (102, 31313), (103, 31307), (105, 31295), (109, 31280),

Gene: Pickett_36 Start: 27444, Stop: 27028, Start Num: 41

Candidate Starts for Pickett_36:

(Start: 41 @27444 has 59 MA's), (45, 27402), (47, 27396), (48, 27393), (53, 27369), (56, 27360), (62, 27336), (87, 27207), (101, 27135), (106, 27111),

Gene: Pippy_42 Start: 31901, Stop: 31458, Start Num: 36

Candidate Starts for Pippy_42:

(Start: 36 @31901 has 19 MA's), (56, 31805), (66, 31754), (96, 31604), (114, 31499),

Gene: Pollux_40 Start: 33839, Stop: 33414, Start Num: 37

Candidate Starts for Pollux_40:

(Start: 28 @33863 has 3 MA's), (Start: 32 @33848 has 6 MA's), (Start: 37 @33839 has 35 MA's), (53, 33758), (65, 33713), (98, 33551), (103, 33509), (105, 33497), (109, 33482),

Gene: Polly_40 Start: 32590, Stop: 32174, Start Num: 41

Candidate Starts for Polly_40:

(Start: 41 @32590 has 59 MA's), (45, 32548), (47, 32542), (48, 32539), (53, 32515), (56, 32506), (62, 32482), (87, 32353), (101, 32281), (106, 32257),

Gene: Posh_45 Start: 34831, Stop: 34415, Start Num: 41

Candidate Starts for Posh_45:

(Start: 41 @34831 has 59 MA's), (45, 34789), (47, 34783), (48, 34780), (53, 34756), (56, 34747), (62, 34723), (85, 34600), (87, 34594), (101, 34522), (106, 34498),

Gene: Powerball_39 Start: 31217, Stop: 30801, Start Num: 41

Candidate Starts for Powerball_39:

(Start: 28 @31241 has 3 MA's), (Start: 41 @31217 has 59 MA's), (83, 30995), (98, 30938), (104, 30890), (105, 30884), (109, 30869),

Gene: PrincePatrick_40 Start: 31419, Stop: 30994, Start Num: 37

Candidate Starts for PrincePatrick_40:

(Start: 27 @31449 has 7 MA's), (Start: 28 @31443 has 3 MA's), (Start: 32 @31428 has 6 MA's), (Start: 37 @31419 has 35 MA's), (62, 31305), (65, 31293), (81, 31194), (98, 31131), (103, 31089), (105, 31077),

Gene: Pytheas_41 Start: 33023, Stop: 32598, Start Num: 37

Candidate Starts for Pytheas_41:

(Start: 27 @33053 has 7 MA's), (Start: 28 @33047 has 3 MA's), (Start: 32 @33032 has 6 MA's), (Start: 37 @33023 has 35 MA's), (65, 32897), (98, 32735), (102, 32699), (103, 32693), (105, 32681), (109, 32666),

Gene: REQ2_39 Start: 31992, Stop: 31546, Start Num: 37

Candidate Starts for REQ2_39:

(7, 32175), (13, 32127), (Start: 37 @31992 has 35 MA's), (77, 31776), (102, 31650), (106, 31629),

Gene: Ruthy_41 Start: 33805, Stop: 33380, Start Num: 37

Candidate Starts for Ruthy_41:

(Start: 27 @33835 has 7 MA's), (Start: 28 @33829 has 3 MA's), (Start: 32 @33814 has 6 MA's), (Start: 37 @33805 has 35 MA's), (50, 33736), (53, 33724), (62, 33691), (65, 33679), (98, 33517), (103, 33475), (105, 33463), (109, 33448),

Gene: Sahara_40 Start: 30202, Stop: 29777, Start Num: 37

Candidate Starts for Sahara_40:

(Start: 28 @30226 has 3 MA's), (Start: 32 @30211 has 6 MA's), (Start: 37 @30202 has 35 MA's), (65, 30076), (98, 29914), (103, 29872), (105, 29860), (109, 29845),

Gene: Samba_40 Start: 33996, Stop: 33580, Start Num: 41

Candidate Starts for Samba_40:

(Start: 28 @34020 has 3 MA's), (Start: 32 @34005 has 6 MA's), (Start: 41 @33996 has 59 MA's), (50, 33936), (61, 33897), (77, 33801), (78, 33798), (83, 33774), (98, 33717), (103, 33675), (105, 33663), (109, 33648),

Gene: Samman98_42 Start: 30834, Stop: 30427, Start Num: 41

Candidate Starts for Samman98_42:

(21, 30903), (Start: 23 @30894 has 1 MA's), (Start: 32 @30843 has 6 MA's), (Start: 41 @30834 has 59 MA's), (70, 30675), (72, 30657), (77, 30639), (78, 30636), (89, 30579), (103, 30513), (104, 30507), (105, 30501), (107, 30495), (111, 30477), (115, 30444),

Gene: Savage_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Savage_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Sbash_42 Start: 35113, Stop: 34670, Start Num: 36

Candidate Starts for Sbash_42:

(16, 35215), (17, 35191), (Start: 36 @35113 has 19 MA's), (53, 35026), (56, 35017), (77, 34897), (89, 34837), (104, 34765), (109, 34744), (114, 34711),

Gene: Sejanus_44 Start: 41143, Stop: 40700, Start Num: 36

Candidate Starts for Sejanus_44:

(16, 41245), (Start: 36 @41143 has 19 MA's), (54, 41047), (56, 41041), (70, 40963), (73, 40942), (109, 40774), (113, 40750), (119, 40714),

Gene: Sekhmet_42 Start: 31734, Stop: 31327, Start Num: 41

Candidate Starts for Sekhmet_42:

(21, 31803), (Start: 23 @31794 has 1 MA's), (Start: 32 @31743 has 6 MA's), (Start: 41 @31734 has 59 MA's), (70, 31575), (72, 31557), (77, 31539), (78, 31536), (89, 31479), (103, 31413), (104, 31407), (105, 31401), (107, 31395), (111, 31377), (115, 31344),

Gene: Shlim410_40 Start: 34314, Stop: 33877, Start Num: 27

Candidate Starts for Shlim410_40:

(18, 34353), (Start: 27 @34314 has 7 MA's), (Start: 28 @34308 has 3 MA's), (Start: 32 @34293 has 6 MA's), (Start: 41 @34284 has 59 MA's), (57, 34200), (70, 34125), (72, 34107), (77, 34089), (78, 34086), (89, 34029), (103, 33963), (104, 33957), (105, 33951), (107, 33945), (111, 33927), (115, 33894),

Gene: Sidious_39 Start: 32458, Stop: 32009, Start Num: 28

Candidate Starts for Sidious_39:

(Start: 28 @32458 has 3 MA's), (Start: 32 @32443 has 6 MA's), (Start: 37 @32434 has 35 MA's), (62, 32320), (65, 32308), (100, 32122), (103, 32104), (105, 32092), (109, 32077),

Gene: SoilAssassin_38 Start: 30279, Stop: 29863, Start Num: 41

Candidate Starts for SoilAssassin_38:

(Start: 41 @30279 has 59 MA's), (45, 30237), (47, 30231), (48, 30228), (53, 30204), (56, 30195), (62, 30171), (87, 30042), (101, 29970), (106, 29946),

Gene: Spooky_43 Start: 32309, Stop: 31875, Start Num: 36

Candidate Starts for Spooky_43:

(Start: 36 @32309 has 19 MA's), (47, 32249), (54, 32216), (69, 32135), (79, 32093), (96, 32018), (99, 32000), (113, 31922), (120, 31883),

Gene: Sproutie_41 Start: 30464, Stop: 30030, Start Num: 32

Candidate Starts for Sproutie_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Squiddly_47 Start: 34769, Stop: 34353, Start Num: 35

Candidate Starts for Squiddly_47:

(29, 34790), (Start: 35 @34769 has 8 MA's), (54, 34685), (69, 34604), (71, 34589), (92, 34523), (93, 34520), (103, 34460), (109, 34433),

Gene: Squirty_37 Start: 31074, Stop: 30631, Start Num: 36

Candidate Starts for Squirty_37:

(Start: 36 @31074 has 19 MA's), (56, 30978), (66, 30927), (96, 30777), (114, 30672),

Gene: Suerte_36 Start: 30205, Stop: 29798, Start Num: 41

Candidate Starts for Suerte_36:

(Start: 27 @30235 has 7 MA's), (Start: 28 @30229 has 3 MA's), (Start: 32 @30214 has 6 MA's), (Start: 41 @30205 has 59 MA's), (57, 30121), (70, 30046), (72, 30028), (77, 30010), (78, 30007), (89, 29950), (103, 29884), (104, 29878), (105, 29872), (107, 29866), (111, 29848), (115, 29815),

Gene: Susceptit_43 Start: 33148, Stop: 32732, Start Num: 41

Candidate Starts for Susceptit_43:

(Start: 41 @33148 has 59 MA's), (45, 33106), (47, 33100), (48, 33097), (53, 33073), (56, 33064), (62, 33040), (87, 32911), (101, 32839), (106, 32815),

Gene: Tayonia_43 Start: 33147, Stop: 32731, Start Num: 41

Candidate Starts for Tayonia_43:

(Start: 41 @33147 has 59 MA's), (45, 33105), (47, 33099), (48, 33096), (53, 33072), (56, 33063), (62, 33039), (87, 32910), (101, 32838), (106, 32814),

Gene: ThankyouJordi_40 Start: 33282, Stop: 32827, Start Num: 27

Candidate Starts for ThankyouJordi_40:

(Start: 27 @33282 has 7 MA's), (Start: 28 @33276 has 3 MA's), (Start: 32 @33261 has 6 MA's), (Start: 37 @33252 has 35 MA's), (65, 33126), (98, 32964), (103, 32922), (105, 32910), (109, 32895),

Gene: Thimann_38 Start: 29775, Stop: 29359, Start Num: 41

Candidate Starts for Thimann_38:

(Start: 22 @29838 has 2 MA's), (Start: 41 @29775 has 59 MA's), (46, 29733), (77, 29580), (103, 29454), (105, 29442), (109, 29427),

Gene: TimTam_41 Start: 33716, Stop: 33300, Start Num: 41

Candidate Starts for TimTam_41:

(Start: 23 @33776 has 1 MA's), (Start: 27 @33746 has 7 MA's), (Start: 32 @33725 has 6 MA's), (Start: 41 @33716 has 59 MA's), (81, 33500), (83, 33494), (98, 33437), (105, 33383), (107, 33377),

Gene: Toast_40 Start: 32617, Stop: 32171, Start Num: 30

Candidate Starts for Toast_40:

(5, 32800), (Start: 30 @32617 has 1 MA's), (Start: 37 @32596 has 35 MA's), (62, 32482), (65, 32470), (102, 32272), (103, 32266), (105, 32254),

Gene: Tortellini_34 Start: 31506, Stop: 31084, Start Num: 36

Candidate Starts for Tortellini_34:

(Start: 36 @31506 has 19 MA's), (48, 31455), (76, 31311), (80, 31299), (106, 31170), (108, 31164),

Gene: Trumpet_43 Start: 33148, Stop: 32732, Start Num: 41

Candidate Starts for Trumpet_43:

(Start: 41 @33148 has 59 MA's), (45, 33106), (47, 33100), (48, 33097), (53, 33073), (56, 33064), (62, 33040), (87, 32911), (101, 32839), (106, 32815),

Gene: TuertoX_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for TuertoX_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: Utz_35 Start: 32686, Stop: 32270, Start Num: 41

Candidate Starts for Utz_35:

(Start: 27 @32716 has 7 MA's), (Start: 28 @32710 has 3 MA's), (Start: 32 @32695 has 6 MA's), (Start: 41 @32686 has 59 MA's), (50, 32626), (61, 32587), (77, 32491), (78, 32488), (81, 32470), (83, 32464), (98, 32407), (103, 32365), (105, 32353), (109, 32338),

Gene: VanLee_33 Start: 28369, Stop: 27926, Start Num: 39

Candidate Starts for VanLee_33:

(26, 28414), (Start: 39 @28369 has 1 MA's), (48, 28315), (59, 28261), (73, 28180), (86, 28114), (90, 28099), (94, 28087), (97, 28078), (107, 28009), (109, 28000), (110, 27997), (119, 27934),

Gene: Vasanti_39 Start: 29720, Stop: 29295, Start Num: 37

Candidate Starts for Vasanti_39:

(Start: 28 @29744 has 3 MA's), (Start: 32 @29729 has 6 MA's), (Start: 37 @29720 has 35 MA's), (62, 29606), (65, 29594), (87, 29465), (98, 29432), (103, 29390), (104, 29384), (105, 29378), (109, 29363),

Gene: WelcomeAyanna_40 Start: 33399, Stop: 32974, Start Num: 37

Candidate Starts for WelcomeAyanna_40:

(Start: 27 @33429 has 7 MA's), (Start: 28 @33423 has 3 MA's), (Start: 32 @33408 has 6 MA's), (Start: 37 @33399 has 35 MA's), (65, 33273), (98, 33111), (103, 33069), (105, 33057), (109, 33042),

Gene: Whiteclaw_41 Start: 30455, Stop: 30030, Start Num: 37

Candidate Starts for Whiteclaw_41:

(Start: 28 @30479 has 3 MA's), (Start: 32 @30464 has 6 MA's), (Start: 37 @30455 has 35 MA's), (65, 30329), (98, 30167), (103, 30125), (105, 30113), (109, 30098),

Gene: William_42 Start: 33105, Stop: 32680, Start Num: 37

Candidate Starts for William_42:

(15, 33222), (Start: 28 @33129 has 3 MA's), (Start: 32 @33114 has 6 MA's), (Start: 37 @33105 has 35 MA's), (62, 32991), (65, 32979), (87, 32850), (98, 32817), (103, 32775), (105, 32763), (109, 32748),

Gene: WinkNick_43 Start: 31535, Stop: 31119, Start Num: 32

Candidate Starts for WinkNick_43:

(21, 31595), (Start: 23 @31586 has 1 MA's), (Start: 32 @31535 has 6 MA's), (Start: 41 @31526 has 59 MA's), (70, 31367), (72, 31349), (77, 31331), (78, 31328), (89, 31271), (103, 31205), (104, 31199), (105, 31193), (107, 31187), (111, 31169), (115, 31136),

Gene: Wisp_37 Start: 31135, Stop: 30710, Start Num: 37

Candidate Starts for Wisp_37:

(Start: 37 @31135 has 35 MA's), (Start: 41 @31129 has 59 MA's), (51, 31060), (62, 31021), (65, 31009), (83, 30904), (98, 30847), (105, 30793), (109, 30778),

Gene: Wocket_41 Start: 31899, Stop: 31462, Start Num: 27

Candidate Starts for Wocket_41:

(Start: 27 @31899 has 7 MA's), (Start: 28 @31893 has 3 MA's), (Start: 32 @31878 has 6 MA's), (Start: 41 @31869 has 59 MA's), (57, 31785), (70, 31710), (83, 31647), (92, 31605), (103, 31548), (105, 31536), (114, 31488),

Gene: Wrigley_45 Start: 33632, Stop: 33210, Start Num: 33

Candidate Starts for Wrigley_45:

(Start: 33 @33632 has 9 MA's), (49, 33578), (58, 33536), (70, 33476), (84, 33398), (96, 33353), (100, 33326), (103, 33308), (111, 33272),

Gene: Xavia_36 Start: 32193, Stop: 31771, Start Num: 36

Candidate Starts for Xavia_36:

(Start: 36 @32193 has 19 MA's), (48, 32142), (53, 32115), (80, 31986), (106, 31857), (108, 31851),

Gene: Yeet412_38 Start: 30280, Stop: 29864, Start Num: 41

Candidate Starts for Yeet412_38:

(Start: 41 @30280 has 59 MA's), (45, 30238), (47, 30232), (48, 30229), (53, 30205), (56, 30196), (62, 30172), (87, 30043), (101, 29971), (106, 29947),

Gene: Yeezy_38 Start: 30822, Stop: 30406, Start Num: 41

Candidate Starts for Yeezy_38:

(Start: 41 @30822 has 59 MA's), (45, 30780), (47, 30774), (48, 30771), (53, 30747), (56, 30738), (62, 30714), (63, 30708), (87, 30585), (101, 30513), (106, 30489),

Gene: Zameen_43 Start: 33147, Stop: 32731, Start Num: 41

Candidate Starts for Zameen_43:

(Start: 41 @33147 has 59 MA's), (45, 33105), (47, 33099), (48, 33096), (53, 33072), (56, 33063), (62, 33039), (87, 32910), (101, 32838), (106, 32814),

Gene: ZiggyZoo_40 Start: 32348, Stop: 31929, Start Num: 41

Candidate Starts for ZiggyZoo_40:

(Start: 37 @32354 has 35 MA's), (Start: 41 @32348 has 59 MA's), (62, 32240), (65, 32228), (77, 32150), (98, 32066), (105, 32012),

Gene: Zirinka_40 Start: 33887, Stop: 33471, Start Num: 41

Candidate Starts for Zirinka_40:

(Start: 41 @33887 has 59 MA's), (45, 33845), (47, 33839), (48, 33836), (53, 33812), (56, 33803), (62, 33779), (87, 33650), (101, 33578), (106, 33554),

Gene: Zizzle_48 Start: 34743, Stop: 34300, Start Num: 36

Candidate Starts for Zizzle_48:

(Start: 36 @34743 has 19 MA's), (56, 34647), (66, 34596), (96, 34446), (114, 34341),