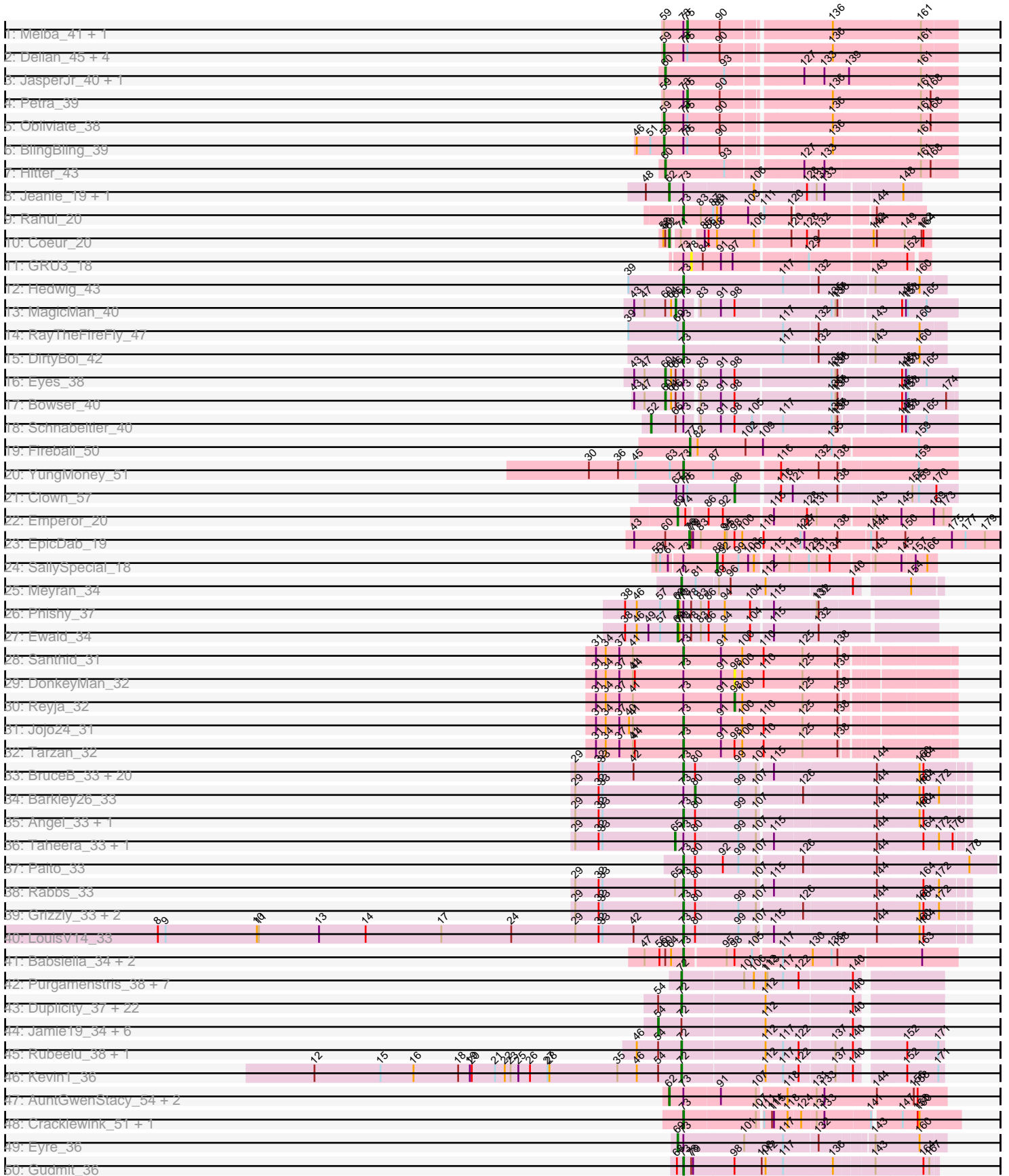
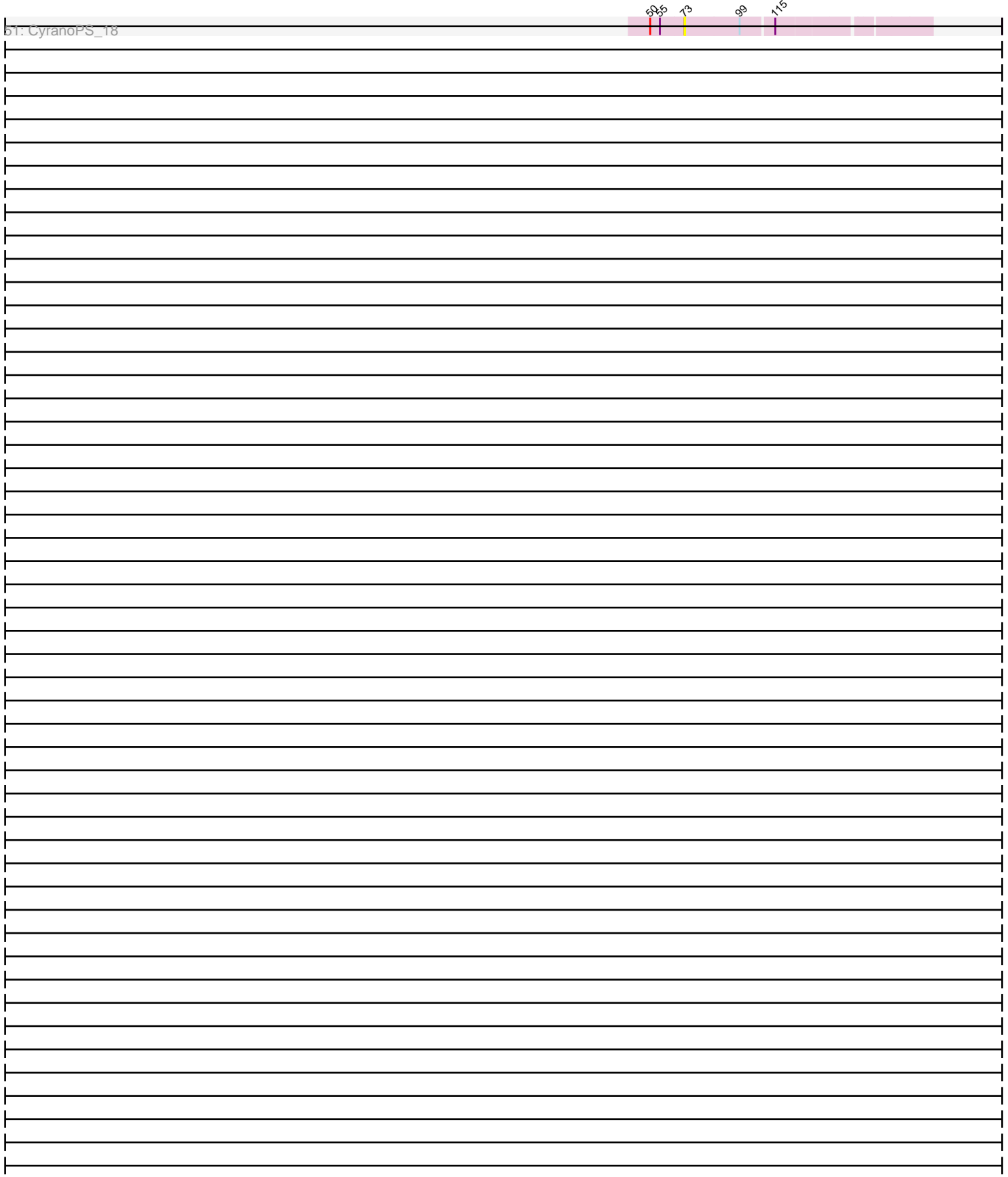


Zoomed Pham 215968



Zoomed Pham 215968



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 215968 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215968 has 123 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Melba_41, Barco_40
- Track 2 : Delian_45, CaptainKirk2_42, Zarbodnamra_41, Archis_45, MintFen_42
- Track 3 : JasperJr_40, Guacamole_40
- Track 4 : Petra_39
- Track 5 : Obliviate_38
- Track 6 : BlingBling_39
- Track 7 : Hitter_43
- Track 8 : Jeanie_19, McGonagall_19
- Track 9 : Rahul_20
- Track 10 : Coeur_20
- Track 11 : GRU3_18
- Track 12 : Hedwig_43
- Track 13 : MagicMan_40
- Track 14 : RayTheFireFly_47
- Track 15 : DirtyBoi_42
- Track 16 : Eyes_38
- Track 17 : Bowser_40
- Track 18 : Schnabeltier_40
- Track 19 : Fireball_50
- Track 20 : YungMoney_51
- Track 21 : Clown_57
- Track 22 : Emperor_20
- Track 23 : EpicDab_19
- Track 24 : SallySpecial_18
- Track 25 : Meyran_34
- Track 26 : Phishy_37
- Track 27 : Ewald_34
- Track 28 : Santhid_31
- Track 29 : DonkeyMan_32
- Track 30 : Reyja_32
- Track 31 : Jojo24_31
- Track 32 : Tarzan_32
- Track 33 : BruceB_33, Sweets_33, Halo_33, Annihilator_33, BPs_33, ShaboiShabazz_33, Cherrybomb426_33, Aroostook_33, Mowgli_33, Jane_33, Hope_33, TomBrady_33, Chance64_33, Marmie_33, JorRay_33, Phreak_33, Periodt_33, Avrafan_33, Jonghyun_33, Hotshotbaby7_33, Olga_33
- Track 34 : Barkley26_33

- Track 35 : Angel_33, Plagueis_33
- Track 36 : Taheera_33, Terror_33
- Track 37 : Paito_33
- Track 38 : Rabbs_33
- Track 39 : Grizzly_33, Kasen3_33, Sizemore_33
- Track 40 : LouisV14_33
- Track 41 : Babsiella_34, Brujita_34, Island3_34
- Track 42 : Purgamenstris_38, Hanako_38, PhancyPhin_38, BabeRuth_39, Redi_38, Nenae_38, Raymond7_32, ShrimpFriedEgg_38
- Track 43 : Duplicity_37, Tapioca_38, Phloss_35, Phrann_38, Silvafighter_38, Parmesanjohn_37, Silvy_35, Charlie_35, Melville_39, Andies_34, Smurph_37, Panchino_33, Gex_37, Journey_35, Aggie_35, Magsby_37, SpongeBob_34, MichelleMyBell_35, Philonius_35, Carcharodon_37, Fulbright_36, Xerxes_37, Snekmaggedon_34
- Track 44 : Jamie19_34, Shweta_34, Chewbacca_38, Schnauzer_37, Pipsqueaks_37, SkinnyPete_32, Xeno_34
- Track 45 : Rubeelu_38, Butters_38
- Track 46 : Kevin1_36
- Track 47 : AuntGwenStacy_54, Typha_53, Hilltopfarm_53
- Track 48 : Cracklewink_51, Bipper_51
- Track 49 : Eyre_36
- Track 50 : Gudmit_36
- Track 51 : CyranoPS_18

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

The start number called the most often in the published annotations is 73, it was called in 43 of the 119 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angel_33, Annihilator_33, Aroostook_33, Avrafan_33, BPs_33, Babsiella_34, Bipper_51, BruceB_33, Brujita_34, Chance64_33, Cherrybomb426_33, Cracklewink_51, CyranoPS_18, DirtyBoi_42, Grizzly_33, Gudmit_36, Halo_33, Hedwig_43, Hope_33, Hotshotbaby7_33, Island3_34, Jane_33, Jojo24_31, Jonghyun_33, JorRay_33, Kasen3_33, LouisV14_33, Marmie_33, Mowgli_33, Olga_33, Paito_33, Periodt_33, Phreak_33, Plagueis_33, Rabbs_33, Rahul_20, RayTheFireFly_47, Santhid_31, ShaboiShabazz_33, Sizemore_33, Sweets_33, Tarzan_32, TomBrady_33, YungMoney_51,

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

- Archis_45, AuntGwenStacy_54, Barco_40, Barkley26_33, BlingBling_39, Bowser_40, CaptainKirk2_42, Clown_57, Delian_45, DonkeyMan_32, Ewald_34, Eyes_38, Eyre_36, GRU3_18, Hilltopfarm_53, Jeanie_19, MagicMan_40, McGonagall_19, Melba_41, MintFen_42, Obliviate_38, Petra_39, Phishy_37, Reyja_32, SallySpecial_18, Schnabeltier_40, Taheera_33, Terror_33, Typha_53, Zarbodnamra_41,

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

- Aggie_35, Andies_34, BabeRuth_39, Butters_38, Carcharodon_37, Charlie_35, Chewbacca_38, Coeur_20, Duplicity_37, Emperor_20, EpicDab_19, Fireball_50,

Fulbright_36, Gex_37, Guacamole_40, Hanako_38, Hitter_43, Jamie19_34, JasperJr_40, Journey_35, Kevin1_36, Magsby_37, Melville_39, Meyran_34, MichelleMyBell_35, Nенаe_38, Panchino_33, Parmesanjohn_37, PhancyPhin_38, Philonius_35, Phloss_35, Phrann_38, Pipsqueaks_37, Purgamenstris_38, Raymond7_32, Redi_38, Rubeelu_38, Schnauzer_37, ShrimpFriedEgg_38, Shweta_34, Silvafighter_38, Silvy_35, SkinnyPete_32, Smurph_37, Snekmaggedon_34, SpongeBob_34, Tapioca_38, Xeno_34, Xerxes_37,

Summary by start number:

Start 52:

- Found in 1 of 123 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Schnabeltier_40 (DB),

Start 54:

- Found in 33 of 123 (26.8%) of genes in pham
- Manual Annotations of this start: 7 of 119
- Called 21.2% of time when present
- Phage (with cluster) where this start called: Chewbacca_38 (N), Jamie19_34 (N), Pipsqueaks_37 (N), Schnauzer_37 (N), Shweta_34 (N), SkinnyPete_32 (N), Xeno_34 (N),

Start 59:

- Found in 10 of 123 (8.1%) of genes in pham
- Manual Annotations of this start: 7 of 119
- Called 70.0% of time when present
- Phage (with cluster) where this start called: Archis_45 (CV), BlingBling_39 (CV), CaptainKirk2_42 (CV), Delian_45 (CV), MintFen_42 (CV), Obliviate_38 (CV), Zarbodnamra_41 (CV),

Start 60:

- Found in 11 of 123 (8.9%) of genes in pham
- Manual Annotations of this start: 5 of 119
- Called 45.5% of time when present
- Phage (with cluster) where this start called: Bowser_40 (DB), Eyes_38 (DB), Guacamole_40 (CV), Hitter_43 (CV), JasperJr_40 (CV),

Start 62:

- Found in 6 of 123 (4.9%) of genes in pham
- Manual Annotations of this start: 5 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_54 (Y), Coeur_20 (CW2), Hilltopfarm_53 (Y), Jeanie_19 (CW1), McGonagall_19 (CW1), Typha_53 (Y),

Start 65:

- Found in 3 of 123 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 119
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Taheera_33 (G1), Terror_33 (G1),

Start 66:

- Found in 4 of 123 (3.3%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 25.0% of time when present
- Phage (with cluster) where this start called: MagicMan_40 (DB),

Start 69:

- Found in 5 of 123 (4.1%) of genes in pham
- Manual Annotations of this start: 4 of 119
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Emperor_20 (DM), Ewald_34 (DT), Eyre_36 (singleton), Phishy_37 (DT),

Start 72:

- Found in 42 of 123 (34.1%) of genes in pham
- Manual Annotations of this start: 35 of 119
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Aggie_35 (N), Andies_34 (N), BabeRuth_39 (N), Butters_38 (N), Carcharodon_37 (N), Charlie_35 (N), Duplicity_37 (N), Fulbright_36 (N), Gex_37 (N), Hanako_38 (N), Journey_35 (N), Kevin1_36 (N), Magsby_37 (N), Melville_39 (N), Meyran_34 (DT), MichelleMyBell_35 (N), Nenae_38 (N), Panchino_33 (N), ParmesanJohn_37 (N), PhancyPhin_38 (N), Philonius_35 (N), Phloss_35 (N), Phrann_38 (N), Purgamenstris_38 (N), Raymond7_32 (N), Redi_38 (N), Rubeelu_38 (N), ShrimpFriedEgg_38 (N), Silvafighter_38 (N), Silvy_35 (N), Smurph_37 (N), Snekmaggedon_34 (N), SpongeBob_34 (N), Tapioca_38 (N), Xerxes_37 (N),

Start 73:

- Found in 74 of 123 (60.2%) of genes in pham
- Manual Annotations of this start: 43 of 119
- Called 59.5% of time when present
- Phage (with cluster) where this start called: Angel_33 (G1), Annihilator_33 (G1), Aroostook_33 (G1), Avrafan_33 (G1), BPs_33 (G1), Babsiella_34 (I1), Bipper_51 (Y), BruceB_33 (G1), Brujita_34 (I1), Chance64_33 (G1), Cherrybomb426_33 (G1), Cracklewink_51 (Y), Cyranops_18 (singleton), DirtyBoi_42 (DB), Grizzly_33 (G1), Gudmit_36 (singleton), Halo_33 (G1), Hedwig_43 (DB), Hope_33 (G1), Hotshotbaby7_33 (G1), Island3_34 (I1), Jane_33 (G1), Jojo24_31 (DY), Jonghyun_33 (G1), JorRay_33 (G1), Kasen3_33 (G1), LouisV14_33 (G1), Marmie_33 (G1), Mowgli_33 (G1), Olga_33 (G1), Paito_33 (G1), Periodt_33 (G1), Phreak_33 (G1), Plagueis_33 (G1), Rabbs_33 (G1), Rahul_20 (CW2), RayTheFireFly_47 (DB), Santhid_31 (DY), ShaboiShabazz_33 (G1), Sizemore_33 (G1), Sweets_33 (G1), Tarzan_32 (DY), TomBrady_33 (G1), YungMoney_51 (DC1),

Start 75:

- Found in 11 of 123 (8.9%) of genes in pham
- Manual Annotations of this start: 3 of 119
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Barco_40 (CV), Melba_41 (CV), Petra_39 (CV),

Start 76:

- Found in 1 of 123 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 100.0% of time when present

- Phage (with cluster) where this start called: EpicDab_19 (DM),

Start 77:

- Found in 1 of 123 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fireball_50 (DC1),

Start 78:

- Found in 5 of 123 (4.1%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: GRU3_18 (CW2),

Start 80:

- Found in 32 of 123 (26.0%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Barkley26_33 (G1),

Start 88:

- Found in 3 of 123 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 119
- Called 33.3% of time when present
- Phage (with cluster) where this start called: SallySpecial_18 (DM),

Start 98:

- Found in 13 of 123 (10.6%) of genes in pham
- Manual Annotations of this start: 2 of 119
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Clown_57 (DC2), DonkeyMan_32 (DY), Reyja_32 (DY),

Summary by clusters:

There are 14 clusters represented in this pham: singleton, DM, G1, CW1, CW2, DB, N, I1, DY, Y, DT, DC2, CV, DC1,

Info for manual annotations of cluster CV:

- Start number 59 was manually annotated 7 times for cluster CV.
- Start number 60 was manually annotated 3 times for cluster CV.
- Start number 75 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster CW1:

- Start number 62 was manually annotated 2 times for cluster CW1.

Info for manual annotations of cluster CW2:

- Start number 62 was manually annotated 1 time for cluster CW2.
- Start number 73 was manually annotated 1 time for cluster CW2.

Info for manual annotations of cluster DB:

- Start number 52 was manually annotated 1 time for cluster DB.
- Start number 60 was manually annotated 2 times for cluster DB.

- Start number 66 was manually annotated 1 time for cluster DB.
- Start number 73 was manually annotated 3 times for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 73 was manually annotated 1 time for cluster DC1.
- Start number 77 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 98 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DM:

- Start number 69 was manually annotated 1 time for cluster DM.
- Start number 76 was manually annotated 1 time for cluster DM.
- Start number 88 was manually annotated 1 time for cluster DM.

Info for manual annotations of cluster DT:

- Start number 69 was manually annotated 2 times for cluster DT.
- Start number 72 was manually annotated 1 time for cluster DT.

Info for manual annotations of cluster DY:

- Start number 73 was manually annotated 3 times for cluster DY.
- Start number 98 was manually annotated 1 time for cluster DY.

Info for manual annotations of cluster G1:

- Start number 65 was manually annotated 2 times for cluster G1.
- Start number 73 was manually annotated 29 times for cluster G1.
- Start number 80 was manually annotated 1 time for cluster G1.

Info for manual annotations of cluster I1:

- Start number 73 was manually annotated 3 times for cluster I1.

Info for manual annotations of cluster N:

- Start number 54 was manually annotated 7 times for cluster N.
- Start number 72 was manually annotated 34 times for cluster N.

Info for manual annotations of cluster Y:

- Start number 62 was manually annotated 2 times for cluster Y.
- Start number 73 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: Aggie_35 Start: 27766, Stop: 27395, Start Num: 72

Candidate Starts for Aggie_35:

(Start: 54 @27802 has 7 MA's), (Start: 72 @27766 has 35 MA's), (112, 27640), (140, 27517),

Gene: Andies_34 Start: 28284, Stop: 27913, Start Num: 72

Candidate Starts for Andies_34:

(Start: 54 @28320 has 7 MA's), (Start: 72 @28284 has 35 MA's), (112, 28158), (140, 28035),

Gene: Angel_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Angel_33:

(29, 29489), (32, 29453), (33, 29447), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (144, 29048), (160, 28985), (164, 28979),

Gene: Annihilator_33 Start: 29315, Stop: 28905, Start Num: 73

Candidate Starts for Annihilator_33:

(29, 29480), (32, 29444), (33, 29438), (42, 29390), (Start: 73 @29315 has 43 MA's), (Start: 80 @29297 has 1 MA's), (99, 29234), (107, 29207), (115, 29186), (144, 29039), (160, 28976), (164, 28970),

Gene: Archis_45 Start: 33058, Stop: 32636, Start Num: 59

Candidate Starts for Archis_45:

(Start: 59 @33058 has 7 MA's), (Start: 73 @33028 has 43 MA's), (Start: 75 @33022 has 3 MA's), (90, 32974), (136, 32821), (161, 32689),

Gene: Aroostook_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Aroostook_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: AuntGwenStacy_54 Start: 41198, Stop: 40797, Start Num: 62

Candidate Starts for AuntGwenStacy_54:

(Start: 62 @41198 has 5 MA's), (Start: 73 @41177 has 43 MA's), (91, 41123), (107, 41069), (118, 41027), (131, 40988), (133, 40976), (144, 40901), (156, 40847), (158, 40841),

Gene: Avrafan_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Avrafan_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: BPs_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for BPs_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: BabeRuth_39 Start: 29411, Stop: 29040, Start Num: 72

Candidate Starts for BabeRuth_39:

(Start: 72 @29411 has 35 MA's), (101, 29318), (106, 29303), (112, 29285), (113, 29282), (117, 29258), (122, 29234), (140, 29162),

Gene: Babsiella_34 Start: 28570, Stop: 28175, Start Num: 73

Candidate Starts for Babsiella_34:

(47, 28627), (56, 28606), (Start: 60 @28597 has 5 MA's), (64, 28588), (Start: 73 @28570 has 43 MA's), (95, 28510), (Start: 98 @28498 has 2 MA's), (105, 28471), (117, 28429), (130, 28384), (135, 28357), (138, 28348), (163, 28228),

Gene: Barco_40 Start: 32072, Stop: 31686, Start Num: 75

Candidate Starts for Barco_40:

(Start: 59 @32108 has 7 MA's), (Start: 73 @32078 has 43 MA's), (Start: 75 @32072 has 3 MA's), (90, 32024), (136, 31871), (161, 31739),

Gene: Barkley26_33 Start: 29328, Stop: 28936, Start Num: 80

Candidate Starts for Barkley26_33:

(29, 29511), (32, 29475), (33, 29469), (Start: 73 @29346 has 43 MA's), (Start: 80 @29328 has 1 MA's), (99, 29265), (107, 29238), (126, 29175), (144, 29070), (160, 29007), (164, 29001), (172, 28977),

Gene: Bipper_51 Start: 39965, Stop: 39576, Start Num: 73

Candidate Starts for Bipper_51:

(Start: 73 @39965 has 43 MA's), (107, 39857), (111, 39851), (114, 39839), (115, 39836), (118, 39815), (124, 39797), (131, 39776), (133, 39764), (141, 39701), (147, 39662), (158, 39641), (160, 39638),

Gene: BlingBling_39 Start: 33071, Stop: 32649, Start Num: 59

Candidate Starts for BlingBling_39:

(46, 33113), (51, 33092), (Start: 59 @33071 has 7 MA's), (Start: 73 @33041 has 43 MA's), (Start: 75 @33035 has 3 MA's), (90, 32987), (136, 32834), (161, 32702),

Gene: Bowser_40 Start: 32553, Stop: 32140, Start Num: 60

Candidate Starts for Bowser_40:

(43, 32598), (47, 32583), (Start: 60 @32553 has 5 MA's), (64, 32544), (Start: 66 @32538 has 1 MA's), (Start: 73 @32526 has 43 MA's), (83, 32508), (91, 32478), (Start: 98 @32457 has 2 MA's), (135, 32316), (137, 32310), (138, 32307), (146, 32220), (151, 32214), (153, 32211), (174, 32154),

Gene: BruceB_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for BruceB_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Brujita_34 Start: 29468, Stop: 29082, Start Num: 73

Candidate Starts for Brujita_34:

(47, 29525), (56, 29504), (Start: 60 @29495 has 5 MA's), (64, 29486), (Start: 73 @29468 has 43 MA's), (95, 29408), (Start: 98 @29396 has 2 MA's), (105, 29369), (117, 29327), (130, 29282), (135, 29255), (138, 29246), (163, 29126),

Gene: Butters_38 Start: 29838, Stop: 29467, Start Num: 72

Candidate Starts for Butters_38:

(46, 29907), (Start: 54 @29874 has 7 MA's), (Start: 72 @29838 has 35 MA's), (112, 29712), (117, 29685), (122, 29661), (137, 29610), (140, 29589), (152, 29523), (171, 29475),

Gene: CaptainKirk2_42 Start: 32356, Stop: 31934, Start Num: 59

Candidate Starts for CaptainKirk2_42:

(Start: 59 @32356 has 7 MA's), (Start: 73 @32326 has 43 MA's), (Start: 75 @32320 has 3 MA's), (90, 32272), (136, 32119), (161, 31987),

Gene: Carcharodon_37 Start: 29095, Stop: 28724, Start Num: 72

Candidate Starts for Carcharodon_37:

(Start: 54 @29131 has 7 MA's), (Start: 72 @29095 has 35 MA's), (112, 28969), (140, 28846),

Gene: Chance64_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Chance64_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Charlie_35 Start: 27786, Stop: 27415, Start Num: 72

Candidate Starts for Charlie_35:

(Start: 54 @27822 has 7 MA's), (Start: 72 @27786 has 35 MA's), (112, 27660), (140, 27537),

Gene: Cherrybomb426_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Cherrybomb426_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Chewbacca_38 Start: 29131, Stop: 28724, Start Num: 54

Candidate Starts for Chewbacca_38:

(Start: 54 @29131 has 7 MA's), (Start: 72 @29095 has 35 MA's), (112, 28969), (140, 28846),

Gene: Clown_57 Start: 43040, Stop: 42723, Start Num: 98

Candidate Starts for Clown_57:

(67, 43127), (Start: 73 @43118 has 43 MA's), (Start: 75 @43112 has 3 MA's), (Start: 98 @43040 has 2 MA's), (116, 42977), (121, 42959), (138, 42893), (155, 42788), (159, 42779), (170, 42755),

Gene: Coeur_20 Start: 14347, Stop: 13994, Start Num: 62

Candidate Starts for Coeur_20:

(58, 14356), (Start: 60 @14353 has 5 MA's), (Start: 62 @14347 has 5 MA's), (71, 14338), (85, 14311), (86, 14305), (Start: 88 @14293 has 1 MA's), (106, 14236), (120, 14185), (128, 14164), (132, 14149), (142, 14074), (144, 14071), (149, 14029), (162, 14008), (164, 14005),

Gene: Cracklewink_51 Start: 39958, Stop: 39569, Start Num: 73

Candidate Starts for Cracklewink_51:

(Start: 73 @39958 has 43 MA's), (107, 39850), (111, 39844), (114, 39832), (115, 39829), (118, 39808), (124, 39790), (131, 39769), (133, 39757), (141, 39694), (147, 39655), (158, 39634), (160, 39631),

Gene: CyranoPS_18 Start: 12709, Stop: 12362, Start Num: 73

Candidate Starts for CyranoPS_18:

(50, 12760), (55, 12745), (Start: 73 @12709 has 43 MA's), (99, 12625), (115, 12577),

Gene: Delian_45 Start: 32354, Stop: 31932, Start Num: 59

Candidate Starts for Delian_45:

(Start: 59 @32354 has 7 MA's), (Start: 73 @32324 has 43 MA's), (Start: 75 @32318 has 3 MA's), (90, 32270), (136, 32117), (161, 31985),

Gene: DirtyBoi_42 Start: 31803, Stop: 31423, Start Num: 73

Candidate Starts for DirtyBoi_42:

(Start: 73 @31803 has 43 MA's), (117, 31650), (132, 31599), (143, 31527), (160, 31461),

Gene: DonkeyMan_32 Start: 27496, Stop: 27185, Start Num: 98

Candidate Starts for DonkeyMan_32:

(31, 27706), (34, 27691), (37, 27670), (41, 27649), (44, 27646), (Start: 73 @27574 has 43 MA's), (91, 27517), (Start: 98 @27496 has 2 MA's), (100, 27484), (110, 27451), (125, 27391), (138, 27340),

Gene: Duplicity_37 Start: 29104, Stop: 28733, Start Num: 72

Candidate Starts for Duplicity_37:

(Start: 54 @29140 has 7 MA's), (Start: 72 @29104 has 35 MA's), (112, 28978), (140, 28855),

Gene: Emperor_20 Start: 14847, Stop: 14473, Start Num: 69

Candidate Starts for Emperor_20:

(Start: 69 @14847 has 4 MA's), (74, 14838), (86, 14811), (92, 14790), (115, 14718), (128, 14670), (131, 14658), (143, 14583), (145, 14544), (169, 14499), (173, 14484),

Gene: EpicDab_19 Start: 14735, Stop: 14277, Start Num: 76

Candidate Starts for EpicDab_19:

(43, 14819), (Start: 60 @14771 has 5 MA's), (Start: 76 @14735 has 1 MA's), (78, 14732), (79, 14729), (83, 14717), (94, 14681), (95, 14678), (Start: 98 @14666 has 2 MA's), (100, 14654), (110, 14627), (123, 14570), (127, 14564), (138, 14516), (141, 14471), (144, 14462), (150, 14420), (175, 14351), (177, 14330), (179, 14300),

Gene: Ewald_34 Start: 29912, Stop: 29541, Start Num: 69

Candidate Starts for Ewald_34:

(38, 29993), (46, 29975), (49, 29957), (57, 29939), (Start: 69 @29912 has 4 MA's), (70, 29909), (Start: 73 @29903 has 43 MA's), (78, 29891), (83, 29876), (86, 29867), (94, 29843), (104, 29804), (115, 29774), (132, 29708),

Gene: Eyes_38 Start: 32329, Stop: 31913, Start Num: 60

Candidate Starts for Eyes_38:

(43, 32374), (47, 32359), (Start: 60 @32329 has 5 MA's), (64, 32320), (Start: 66 @32314 has 1 MA's), (Start: 73 @32302 has 43 MA's), (83, 32284), (91, 32254), (Start: 98 @32233 has 2 MA's), (135, 32092), (137, 32086), (138, 32083), (146, 31996), (151, 31990), (153, 31987), (165, 31960),

Gene: Eyre_36 Start: 27990, Stop: 27601, Start Num: 69

Candidate Starts for Eyre_36:

(Start: 69 @27990 has 4 MA's), (Start: 73 @27981 has 43 MA's), (101, 27888), (117, 27828), (132, 27777), (143, 27705), (160, 27639),

Gene: Fireball_50 Start: 40315, Stop: 39920, Start Num: 77

Candidate Starts for Fireball_50:

(Start: 77 @40315 has 1 MA's), (82, 40303), (102, 40231), (109, 40204), (135, 40102), (159, 39979),

Gene: Fulbright_36 Start: 28184, Stop: 27813, Start Num: 72

Candidate Starts for Fulbright_36:

(Start: 54 @28220 has 7 MA's), (Start: 72 @28184 has 35 MA's), (112, 28058), (140, 27935),

Gene: GRU3_18 Start: 14485, Stop: 14162, Start Num: 78

Candidate Starts for GRU3_18:

(Start: 73 @14497 has 43 MA's), (78, 14485), (84, 14467), (91, 14440), (97, 14422), (129, 14314), (152, 14188),

Gene: Gex_37 Start: 29111, Stop: 28740, Start Num: 72

Candidate Starts for Gex_37:

(Start: 54 @29147 has 7 MA's), (Start: 72 @29111 has 35 MA's), (112, 28985), (140, 28862),

Gene: Grizzly_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Grizzly_33:

(29, 29489), (32, 29453), (33, 29447), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (126, 29153), (144, 29048), (160, 28985), (164, 28979), (172, 28955),

Gene: Guacamole_40 Start: 32920, Stop: 32501, Start Num: 60

Candidate Starts for Guacamole_40:

(Start: 60 @32920 has 5 MA's), (93, 32830), (127, 32725), (133, 32695), (139, 32662), (161, 32554),

Gene: Gudmit_36 Start: 27005, Stop: 26628, Start Num: 73

Candidate Starts for Gudmit_36:

(68, 27014), (Start: 73 @27005 has 43 MA's), (78, 26993), (79, 26990), (Start: 98 @26927 has 2 MA's), (108, 26885), (112, 26879), (117, 26852), (136, 26777), (143, 26720), (164, 26648), (167, 26639),

Gene: Halo_33 Start: 29319, Stop: 28909, Start Num: 73

Candidate Starts for Halo_33:

(29, 29484), (32, 29448), (33, 29442), (42, 29394), (Start: 73 @29319 has 43 MA's), (Start: 80 @29301 has 1 MA's), (99, 29238), (107, 29211), (115, 29190), (144, 29043), (160, 28980), (164, 28974),

Gene: Hanako_38 Start: 29410, Stop: 29039, Start Num: 72

Candidate Starts for Hanako_38:

(Start: 72 @29410 has 35 MA's), (101, 29317), (106, 29302), (112, 29284), (113, 29281), (117, 29257), (122, 29233), (140, 29161),

Gene: Hedwig_43 Start: 32226, Stop: 31846, Start Num: 73

Candidate Starts for Hedwig_43:

(39, 32310), (Start: 73 @32226 has 43 MA's), (117, 32073), (132, 32022), (143, 31950), (160, 31884),

Gene: Hilltopfarm_53 Start: 40885, Stop: 40484, Start Num: 62

Candidate Starts for Hilltopfarm_53:

(Start: 62 @40885 has 5 MA's), (Start: 73 @40864 has 43 MA's), (91, 40810), (107, 40756), (118, 40714), (131, 40675), (133, 40663), (144, 40588), (156, 40534), (158, 40528),

Gene: Hitter_43 Start: 32564, Stop: 32145, Start Num: 60

Candidate Starts for Hitter_43:

(Start: 60 @32564 has 5 MA's), (93, 32474), (127, 32369), (133, 32339), (161, 32198), (168, 32183),

Gene: Hope_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Hope_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Hotshotbaby7_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Hotshotbaby7_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Island3_34 Start: 29468, Stop: 29082, Start Num: 73

Candidate Starts for Island3_34:

(47, 29525), (56, 29504), (Start: 60 @29495 has 5 MA's), (64, 29486), (Start: 73 @29468 has 43 MA's), (95, 29408), (Start: 98 @29396 has 2 MA's), (105, 29369), (117, 29327), (130, 29282), (135, 29255), (138, 29246), (163, 29126),

Gene: Jamie19_34 Start: 28201, Stop: 27794, Start Num: 54

Candidate Starts for Jamie19_34:

(Start: 54 @28201 has 7 MA's), (Start: 72 @28165 has 35 MA's), (112, 28039), (140, 27916),

Gene: Jane_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Jane_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: JasperJr_40 Start: 32920, Stop: 32501, Start Num: 60

Candidate Starts for JasperJr_40:

(Start: 60 @32920 has 5 MA's), (93, 32830), (127, 32725), (133, 32695), (139, 32662), (161, 32554),

Gene: Jeanie_19 Start: 13938, Stop: 13588, Start Num: 62

Candidate Starts for Jeanie_19:

(48, 13974), (Start: 62 @13938 has 5 MA's), (Start: 73 @13917 has 43 MA's), (106, 13812), (128, 13740), (131, 13728), (133, 13716), (148, 13611),

Gene: Jojo24_31 Start: 26167, Stop: 25778, Start Num: 73

Candidate Starts for Jojo24_31:

(31, 26299), (34, 26284), (37, 26263), (40, 26248), (41, 26242), (Start: 73 @26167 has 43 MA's), (91, 26110), (100, 26077), (110, 26044), (125, 25984), (138, 25933),

Gene: Jonghyun_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Jonghyun_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: JorRay_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for JorRay_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Journey_35 Start: 27786, Stop: 27415, Start Num: 72

Candidate Starts for Journey_35:

(Start: 54 @27822 has 7 MA's), (Start: 72 @27786 has 35 MA's), (112, 27660), (140, 27537),

Gene: Kasen3_33 Start: 29325, Stop: 28915, Start Num: 73

Candidate Starts for Kasen3_33:

(29, 29490), (32, 29454), (33, 29448), (Start: 73 @29325 has 43 MA's), (Start: 80 @29307 has 1 MA's), (99, 29244), (107, 29217), (126, 29154), (144, 29049), (160, 28986), (164, 28980), (172, 28956),

Gene: Kevin1_36 Start: 29017, Stop: 28646, Start Num: 72

Candidate Starts for Kevin1_36:

(12, 29584), (15, 29482), (16, 29431), (18, 29362), (19, 29344), (20, 29341), (21, 29305), (22, 29290), (23, 29281), (25, 29269), (26, 29251), (27, 29224), (28, 29221), (35, 29116), (46, 29086), (Start: 54 @29053 has 7 MA's), (Start: 72 @29017 has 35 MA's), (112, 28891), (117, 28864), (122, 28840), (137, 28789), (140, 28768), (152, 28702), (171, 28654),

Gene: LouisV14_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for LouisV14_33:

(1, 30914), (2, 30821), (3, 30602), (4, 30569), (5, 30500), (6, 30452), (7, 30383), (8, 30134), (9, 30122), (10, 29981), (11, 29978), (13, 29885), (14, 29813), (17, 29696), (24, 29588), (29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: MagicMan_40 Start: 32861, Stop: 32460, Start Num: 66

Candidate Starts for MagicMan_40:

(43, 32921), (47, 32906), (Start: 60 @32876 has 5 MA's), (64, 32867), (Start: 66 @32861 has 1 MA's), (Start: 73 @32849 has 43 MA's), (83, 32831), (91, 32801), (Start: 98 @32780 has 2 MA's), (135, 32639), (137, 32633), (138, 32630), (146, 32543), (151, 32537), (153, 32534), (165, 32507),

Gene: Magsby_37 Start: 29112, Stop: 28741, Start Num: 72

Candidate Starts for Magsby_37:

(Start: 54 @29148 has 7 MA's), (Start: 72 @29112 has 35 MA's), (112, 28986), (140, 28863),

Gene: Marmie_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Marmie_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: McGonagall_19 Start: 13938, Stop: 13588, Start Num: 62

Candidate Starts for McGonagall_19:

(48, 13974), (Start: 62 @13938 has 5 MA's), (Start: 73 @13917 has 43 MA's), (106, 13812), (128, 13740), (131, 13728), (133, 13716), (148, 13611),

Gene: Melba_41 Start: 32860, Stop: 32474, Start Num: 75

Candidate Starts for Melba_41:

(Start: 59 @32896 has 7 MA's), (Start: 73 @32866 has 43 MA's), (Start: 75 @32860 has 3 MA's), (90, 32812), (136, 32659), (161, 32527),

Gene: Melville_39 Start: 29096, Stop: 28725, Start Num: 72

Candidate Starts for Melville_39:

(Start: 54 @29132 has 7 MA's), (Start: 72 @29096 has 35 MA's), (112, 28970), (140, 28847),

Gene: Meyran_34 Start: 30905, Stop: 30549, Start Num: 72

Candidate Starts for Meyran_34:

(Start: 72 @30905 has 35 MA's), (81, 30887), (89, 30857), (96, 30839), (112, 30785), (140, 30662), (154, 30593),

Gene: MichelleMyBell_35 Start: 28103, Stop: 27732, Start Num: 72

Candidate Starts for MichelleMyBell_35:

(Start: 54 @28139 has 7 MA's), (Start: 72 @28103 has 35 MA's), (112, 27977), (140, 27854),

Gene: MintFen_42 Start: 32970, Stop: 32548, Start Num: 59

Candidate Starts for MintFen_42:

(Start: 59 @32970 has 7 MA's), (Start: 73 @32940 has 43 MA's), (Start: 75 @32934 has 3 MA's), (90, 32886), (136, 32733), (161, 32601),

Gene: Mowgli_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Mowgli_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Nenae_38 Start: 29413, Stop: 29042, Start Num: 72

Candidate Starts for Nenae_38:

(Start: 72 @29413 has 35 MA's), (101, 29320), (106, 29305), (112, 29287), (113, 29284), (117, 29260), (122, 29236), (140, 29164),

Gene: Obliviate_38 Start: 31257, Stop: 30835, Start Num: 59

Candidate Starts for Obliviate_38:

(Start: 59 @31257 has 7 MA's), (Start: 73 @31227 has 43 MA's), (Start: 75 @31221 has 3 MA's), (90, 31173), (136, 31020), (161, 30888), (168, 30873),

Gene: Olga_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Olga_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Paito_33 Start: 29505, Stop: 29047, Start Num: 73

Candidate Starts for Paito_33:

(Start: 73 @29505 has 43 MA's), (Start: 80 @29487 has 1 MA's), (92, 29448), (99, 29424), (107, 29397), (126, 29334), (144, 29229), (178, 29088),

Gene: Panchino_33 Start: 29511, Stop: 29140, Start Num: 72

Candidate Starts for Panchino_33:

(Start: 54 @29547 has 7 MA's), (Start: 72 @29511 has 35 MA's), (112, 29385), (140, 29262),

Gene: Parmesanjohn_37 Start: 29115, Stop: 28744, Start Num: 72

Candidate Starts for Parmesanjohn_37:

(Start: 54 @29151 has 7 MA's), (Start: 72 @29115 has 35 MA's), (112, 28989), (140, 28866),

Gene: Periodt_33 Start: 29315, Stop: 28905, Start Num: 73

Candidate Starts for Periodt_33:

(29, 29480), (32, 29444), (33, 29438), (42, 29390), (Start: 73 @29315 has 43 MA's), (Start: 80 @29297 has 1 MA's), (99, 29234), (107, 29207), (115, 29186), (144, 29039), (160, 28976), (164, 28970),

Gene: Petra_39 Start: 31580, Stop: 31194, Start Num: 75

Candidate Starts for Petra_39:

(Start: 59 @31616 has 7 MA's), (Start: 73 @31586 has 43 MA's), (Start: 75 @31580 has 3 MA's), (90, 31532), (136, 31379), (161, 31247), (168, 31232),

Gene: PhancyPhin_38 Start: 29407, Stop: 29036, Start Num: 72

Candidate Starts for PhancyPhin_38:

(Start: 72 @29407 has 35 MA's), (101, 29314), (106, 29299), (112, 29281), (113, 29278), (117, 29254), (122, 29230), (140, 29158),

Gene: Philonius_35 Start: 27777, Stop: 27406, Start Num: 72

Candidate Starts for Philonius_35:

(Start: 54 @27813 has 7 MA's), (Start: 72 @27777 has 35 MA's), (112, 27651), (140, 27528),

Gene: Phishy_37 Start: 31530, Stop: 31159, Start Num: 69

Candidate Starts for Phishy_37:

(38, 31611), (46, 31593), (57, 31557), (Start: 69 @31530 has 4 MA's), (70, 31527), (Start: 73 @31521 has 43 MA's), (78, 31509), (83, 31494), (86, 31485), (94, 31461), (104, 31422), (115, 31392), (131, 31329), (132, 31326),

Gene: Phloss_35 Start: 28522, Stop: 28151, Start Num: 72

Candidate Starts for Phloss_35:

(Start: 54 @28558 has 7 MA's), (Start: 72 @28522 has 35 MA's), (112, 28396), (140, 28273),

Gene: Phrann_38 Start: 30191, Stop: 29820, Start Num: 72

Candidate Starts for Phrann_38:

(Start: 54 @30227 has 7 MA's), (Start: 72 @30191 has 35 MA's), (112, 30065), (140, 29942),

Gene: Phreak_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for Phreak_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: Pipsqueaks_37 Start: 29128, Stop: 28721, Start Num: 54

Candidate Starts for Pipsqueaks_37:

(Start: 54 @29128 has 7 MA's), (Start: 72 @29092 has 35 MA's), (112, 28966), (140, 28843),

Gene: Plagueis_33 Start: 29159, Stop: 28749, Start Num: 73

Candidate Starts for Plagueis_33:

(29, 29324), (32, 29288), (33, 29282), (Start: 73 @29159 has 43 MA's), (Start: 80 @29141 has 1 MA's), (99, 29078), (107, 29051), (144, 28883), (160, 28820), (164, 28814),

Gene: Purgamenstris_38 Start: 29411, Stop: 29040, Start Num: 72

Candidate Starts for Purgamenstris_38:

(Start: 72 @29411 has 35 MA's), (101, 29318), (106, 29303), (112, 29285), (113, 29282), (117, 29258), (122, 29234), (140, 29162),

Gene: Rabbs_33 Start: 29407, Stop: 28997, Start Num: 73

Candidate Starts for Rabbs_33:

(29, 29572), (32, 29536), (33, 29530), (Start: 65 @29419 has 2 MA's), (Start: 73 @29407 has 43 MA's), (Start: 80 @29389 has 1 MA's), (107, 29299), (115, 29278), (144, 29131), (164, 29062), (172, 29038),

Gene: Rahul_20 Start: 14354, Stop: 14019, Start Num: 73

Candidate Starts for Rahul_20:

(Start: 73 @14354 has 43 MA's), (83, 14327), (87, 14309), (Start: 88 @14303 has 1 MA's), (91, 14297), (103, 14255), (111, 14237), (120, 14195), (144, 14090),

Gene: RayTheFireFly_47 Start: 33400, Stop: 33020, Start Num: 73

Candidate Starts for RayTheFireFly_47:

(39, 33484), (Start: 69 @33409 has 4 MA's), (Start: 73 @33400 has 43 MA's), (117, 33247), (132, 33196), (143, 33124), (160, 33058),

Gene: Raymond7_32 Start: 29223, Stop: 28852, Start Num: 72

Candidate Starts for Raymond7_32:

(Start: 72 @29223 has 35 MA's), (101, 29130), (106, 29115), (112, 29097), (113, 29094), (117, 29070), (122, 29046), (140, 28974),

Gene: Redi_38 Start: 29410, Stop: 29039, Start Num: 72

Candidate Starts for Redi_38:

(Start: 72 @29410 has 35 MA's), (101, 29317), (106, 29302), (112, 29284), (113, 29281), (117, 29257), (122, 29233), (140, 29161),

Gene: Reyja_32 Start: 26445, Stop: 26137, Start Num: 98

Candidate Starts for Reyja_32:

(31, 26655), (34, 26640), (37, 26619), (41, 26598), (Start: 73 @26523 has 43 MA's), (91, 26466), (Start: 98 @26445 has 2 MA's), (100, 26433), (125, 26340), (138, 26289),

Gene: Rubeelu_38 Start: 29838, Stop: 29467, Start Num: 72

Candidate Starts for Rubeelu_38:

(46, 29907), (Start: 54 @29874 has 7 MA's), (Start: 72 @29838 has 35 MA's), (112, 29712), (117, 29685), (122, 29661), (137, 29610), (140, 29589), (152, 29523), (171, 29475),

Gene: SallySpecial_18 Start: 14300, Stop: 13995, Start Num: 88

Candidate Starts for SallySpecial_18:

(53, 14387), (57, 14381), (61, 14369), (Start: 73 @14351 has 43 MA's), (Start: 88 @14300 has 1 MA's), (92, 14291), (99, 14267), (103, 14252), (106, 14243), (115, 14219), (119, 14195), (129, 14168), (131, 14159), (134, 14141), (143, 14084), (145, 14045), (157, 14027), (166, 14009),

Gene: Santhid_31 Start: 24886, Stop: 24497, Start Num: 73

Candidate Starts for Santhid_31:

(31, 25018), (34, 25003), (37, 24982), (41, 24961), (Start: 73 @24886 has 43 MA's), (91, 24829), (100, 24796), (110, 24763), (125, 24703), (138, 24652),

Gene: Schnabeltier_40 Start: 32529, Stop: 32092, Start Num: 52

Candidate Starts for Schnabeltier_40:

(Start: 52 @32529 has 1 MA's), (Start: 66 @32493 has 1 MA's), (Start: 73 @32481 has 43 MA's), (83, 32463), (91, 32433), (Start: 98 @32412 has 2 MA's), (105, 32385), (117, 32343), (135, 32271), (137, 32265), (138, 32262), (146, 32175), (151, 32169), (153, 32166), (165, 32139),

Gene: Schnauzer_37 Start: 29151, Stop: 28744, Start Num: 54

Candidate Starts for Schnauzer_37:

(Start: 54 @29151 has 7 MA's), (Start: 72 @29115 has 35 MA's), (112, 28989), (140, 28866),

Gene: ShaboiShabazz_33 Start: 29324, Stop: 28914, Start Num: 73

Candidate Starts for ShaboiShabazz_33:

(29, 29489), (32, 29453), (33, 29447), (42, 29399), (Start: 73 @29324 has 43 MA's), (Start: 80 @29306 has 1 MA's), (99, 29243), (107, 29216), (115, 29195), (144, 29048), (160, 28985), (164, 28979),

Gene: ShrimpFriedEgg_38 Start: 29410, Stop: 29039, Start Num: 72

Candidate Starts for ShrimpFriedEgg_38:

(Start: 72 @29410 has 35 MA's), (101, 29317), (106, 29302), (112, 29284), (113, 29281), (117, 29257), (122, 29233), (140, 29161),

Gene: Shweta_34 Start: 28331, Stop: 27924, Start Num: 54

Candidate Starts for Shweta_34:

(Start: 54 @28331 has 7 MA's), (Start: 72 @28295 has 35 MA's), (112, 28169), (140, 28046),

Gene: Silvafighter_38 Start: 29088, Stop: 28717, Start Num: 72

Candidate Starts for Silvafighter_38:

(Start: 54 @29124 has 7 MA's), (Start: 72 @29088 has 35 MA's), (112, 28962), (140, 28839),

Gene: Silvy_35 Start: 27766, Stop: 27395, Start Num: 72

Candidate Starts for Silvy_35:

(Start: 54 @27802 has 7 MA's), (Start: 72 @27766 has 35 MA's), (112, 27640), (140, 27517),

Gene: Sizemore_33 Start: 29325, Stop: 28915, Start Num: 73

Candidate Starts for Sizemore_33:

(29, 29490), (32, 29454), (33, 29448), (Start: 73 @29325 has 43 MA's), (Start: 80 @29307 has 1 MA's), (99, 29244), (107, 29217), (126, 29154), (144, 29049), (160, 28986), (164, 28980), (172, 28956),

Gene: SkinnyPete_32 Start: 26862, Stop: 26455, Start Num: 54

Candidate Starts for SkinnyPete_32:

(Start: 54 @26862 has 7 MA's), (Start: 72 @26826 has 35 MA's), (112, 26700), (140, 26577),

Gene: Smurph_37 Start: 29115, Stop: 28744, Start Num: 72

Candidate Starts for Smurph_37:

(Start: 54 @29151 has 7 MA's), (Start: 72 @29115 has 35 MA's), (112, 28989), (140, 28866),

Gene: Snekmaggedon_34 Start: 28165, Stop: 27794, Start Num: 72

Candidate Starts for Snekmaggedon_34:

(Start: 54 @28201 has 7 MA's), (Start: 72 @28165 has 35 MA's), (112, 28039), (140, 27916),

Gene: SpongeBob_34 Start: 28165, Stop: 27794, Start Num: 72
Candidate Starts for SpongeBob_34:
(Start: 54 @28201 has 7 MA's), (Start: 72 @28165 has 35 MA's), (112, 28039), (140, 27916),

Gene: Sweets_33 Start: 29319, Stop: 28909, Start Num: 73
Candidate Starts for Sweets_33:
(29, 29484), (32, 29448), (33, 29442), (42, 29394), (Start: 73 @29319 has 43 MA's), (Start: 80 @29301 has 1 MA's), (99, 29238), (107, 29211), (115, 29190), (144, 29043), (160, 28980), (164, 28974),

Gene: Taheera_33 Start: 29454, Stop: 29032, Start Num: 65
Candidate Starts for Taheera_33:
(29, 29607), (32, 29571), (33, 29565), (Start: 65 @29454 has 2 MA's), (Start: 73 @29442 has 43 MA's), (Start: 80 @29424 has 1 MA's), (99, 29361), (107, 29334), (115, 29313), (144, 29166), (164, 29097), (172, 29073), (176, 29052),

Gene: Tapioca_38 Start: 29081, Stop: 28710, Start Num: 72
Candidate Starts for Tapioca_38:
(Start: 54 @29117 has 7 MA's), (Start: 72 @29081 has 35 MA's), (112, 28955), (140, 28832),

Gene: Tarzan_32 Start: 26056, Stop: 25667, Start Num: 73
Candidate Starts for Tarzan_32:
(31, 26188), (34, 26173), (37, 26152), (41, 26131), (44, 26128), (Start: 73 @26056 has 43 MA's), (91, 25999), (Start: 98 @25978 has 2 MA's), (100, 25966), (110, 25933), (125, 25873), (138, 25822),

Gene: Terror_33 Start: 29454, Stop: 29032, Start Num: 65
Candidate Starts for Terror_33:
(29, 29607), (32, 29571), (33, 29565), (Start: 65 @29454 has 2 MA's), (Start: 73 @29442 has 43 MA's), (Start: 80 @29424 has 1 MA's), (99, 29361), (107, 29334), (115, 29313), (144, 29166), (164, 29097), (172, 29073), (176, 29052),

Gene: TomBrady_33 Start: 29325, Stop: 28915, Start Num: 73
Candidate Starts for TomBrady_33:
(29, 29490), (32, 29454), (33, 29448), (42, 29400), (Start: 73 @29325 has 43 MA's), (Start: 80 @29307 has 1 MA's), (99, 29244), (107, 29217), (115, 29196), (144, 29049), (160, 28986), (164, 28980),

Gene: Typha_53 Start: 41198, Stop: 40797, Start Num: 62
Candidate Starts for Typha_53:
(Start: 62 @41198 has 5 MA's), (Start: 73 @41177 has 43 MA's), (91, 41123), (107, 41069), (118, 41027), (131, 40988), (133, 40976), (144, 40901), (156, 40847), (158, 40841),

Gene: Xeno_34 Start: 27588, Stop: 27181, Start Num: 54
Candidate Starts for Xeno_34:
(Start: 54 @27588 has 7 MA's), (Start: 72 @27552 has 35 MA's), (112, 27426), (140, 27303),

Gene: Xerxes_37 Start: 29112, Stop: 28741, Start Num: 72
Candidate Starts for Xerxes_37:
(Start: 54 @29148 has 7 MA's), (Start: 72 @29112 has 35 MA's), (112, 28986), (140, 28863),

Gene: YungMoney_51 Start: 42233, Stop: 41832, Start Num: 73
Candidate Starts for YungMoney_51:
(30, 42377), (36, 42332), (45, 42305), (63, 42254), (Start: 73 @42233 has 43 MA's), (87, 42188), (116, 42092), (132, 42035), (138, 42008), (159, 41891),

Gene: Zarbodnamra_41 Start: 32378, Stop: 31956, Start Num: 59

Candidate Starts for Zarbodnamra_41:

(Start: 59 @32378 has 7 MA's), (Start: 73 @32348 has 43 MA's), (Start: 75 @32342 has 3 MA's), (90, 32294), (136, 32141), (161, 32009),