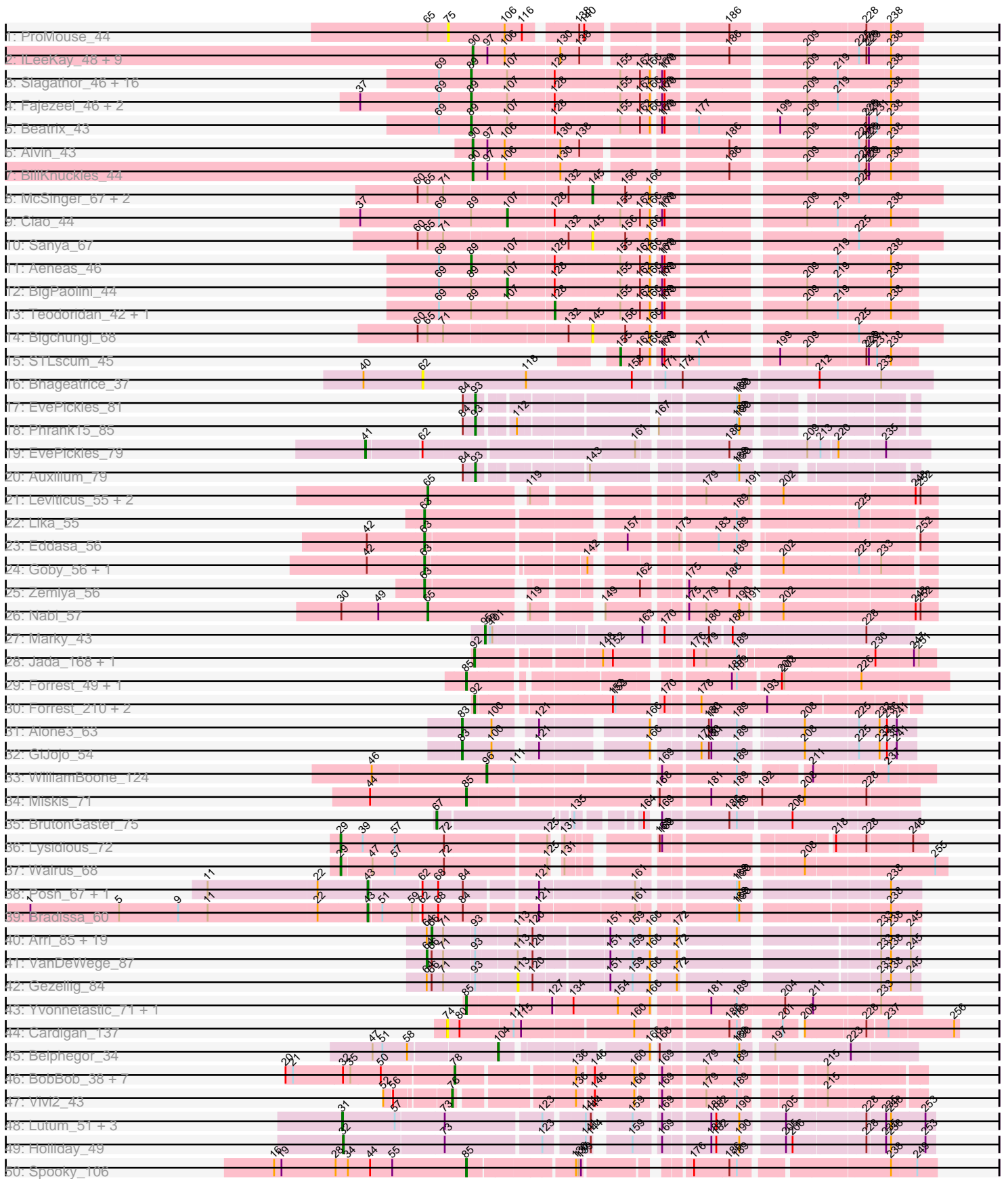
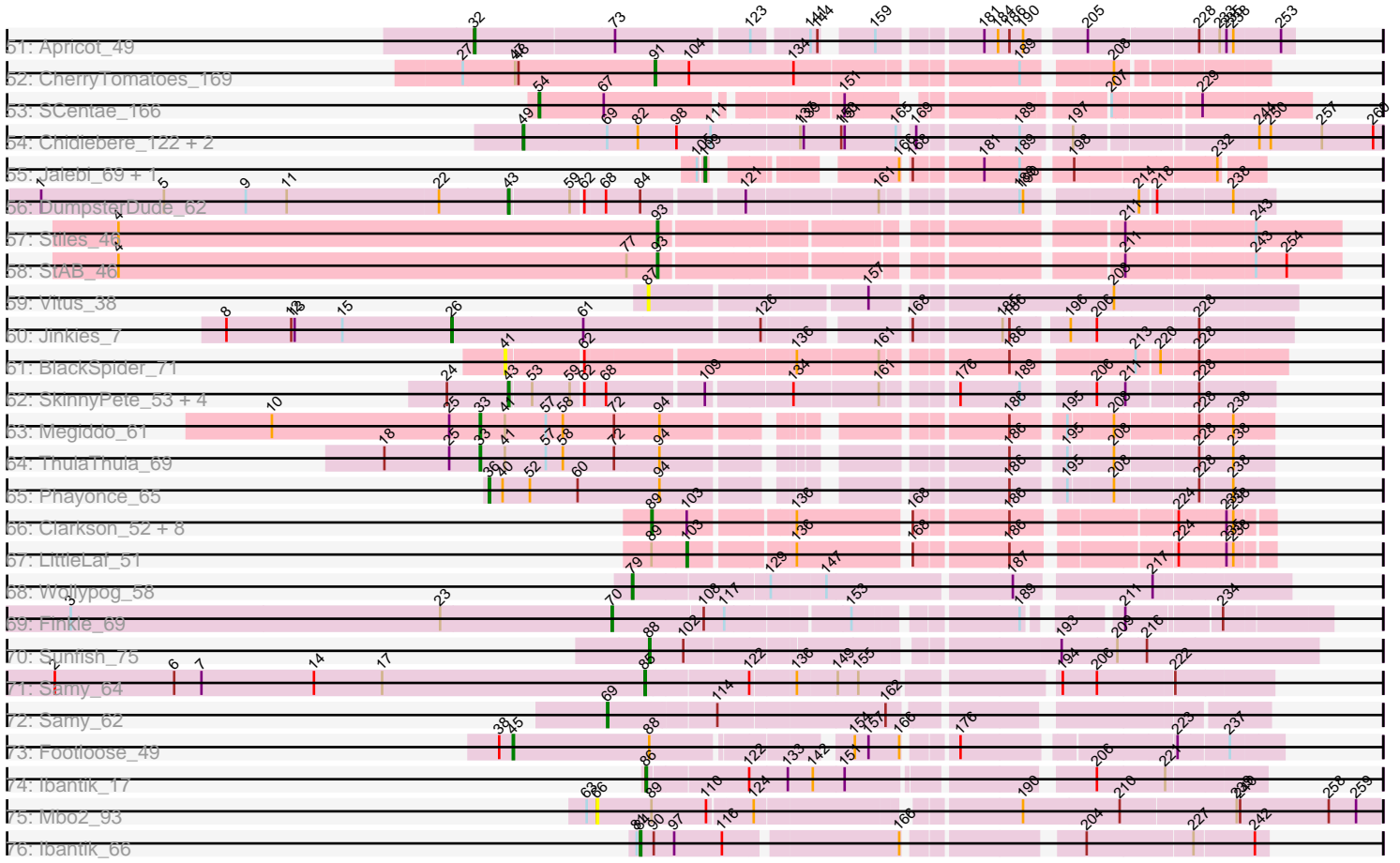


Pham 224342



Pham 224342



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 224342 Report

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

Pham number 224342 has 159 members, 17 are drafts.

Phages represented in each track:

- Track 1 : ProMouse_44
- Track 2 : ILeeKay_48, Fushigi_42, Trouble_45, BluSpix_41, IgnatiusPatJac_43, Ajay_44, Seanderson_46, Kykar_44, Marco3_46, Petruccio_44
- Track 3 : Slagathor_46, Naira_45, Bones_44, Marge_44, StrongArm_43, Eyeball_45, Bexan_42, Licorice_47, Dexes_44, TheloniousMonk_45, Fenn_45, Niza_46, Rajelicia_45, Arcanine_45, Ruotula_47, Sagefire_47, Smairt_46
- Track 4 : Fajezeel_46, Greg_46, Pippin_46
- Track 5 : Beatrix_43
- Track 6 : Alvin_43
- Track 7 : BillKnuckles_44
- Track 8 : McSinger_67, GMonster_68, PascalRango_68
- Track 9 : Ciao_44
- Track 10 : Sanya_67
- Track 11 : Aeneas_46
- Track 12 : BigPaolini_44
- Track 13 : Teodoridan_42, Ringer_45
- Track 14 : Bigchung_68
- Track 15 : STLscum_45
- Track 16 : Bhageatrice_37
- Track 17 : EvePickles_81
- Track 18 : Phrank15_85
- Track 19 : EvePickles_79
- Track 20 : Auxilium_79
- Track 21 : Leviticus_55, Esperer_55, Hydra_56
- Track 22 : Lika_55
- Track 23 : Eddasa_56
- Track 24 : Goby_56, Toma_56
- Track 25 : Zemlya_56
- Track 26 : Nabi_57
- Track 27 : Marky_43
- Track 28 : Jada_168, Forrest_171
- Track 29 : Forrest_49, Jada_47
- Track 30 : Forrest_210, Phredrick_212, Emma1919_210
- Track 31 : Alone3_63
- Track 32 : GiJojo_54
- Track 33 : WilliamBoone_124
- Track 34 : Miskis_71

- Track 35 : BrutonGaster_75
- Track 36 : Lysidious_72
- Track 37 : Walrus_68
- Track 38 : Posh_67, Wrigley_69
- Track 39 : Bradissa_60
- Track 40 : Arri_85, PullumCavea_83, SmokingBunny_86, Twister6_84, Wizard_80, Fireball_88, PinkCoffee_86, TillyBobJoe_83, Salvador_85, CherryCola_85, RogerDodger_88, Savbucketdawg_80, Evamon_85, Phlop_82, KimmyK_83, Valary_86, Togo_85, Egi03_84, Portcullis_85, Shinji_84
- Track 41 : VanDeWege_87
- Track 42 : Gezellig_84
- Track 43 : Yvonnetastic_71, JonJames_73
- Track 44 : Cardigan_137
- Track 45 : Belphegor_34
- Track 46 : BobBob_38, Charming_41, Nordenberg_35, Tangent_41, Love_44, Brandonk123_42, Paries_43, Rofo_41
- Track 47 : Vivi2_43
- Track 48 : Lutum_51, Kenna_50, BENtherdunthat_51, Getalong_54
- Track 49 : Holliday_49
- Track 50 : Spooky_106
- Track 51 : Apricot_49
- Track 52 : CherryTomatoes_169
- Track 53 : SCentae_166
- Track 54 : Chidiebere_122, Kabocha_123, Schomber_120
- Track 55 : Jalebi_69, Sampudon_70
- Track 56 : DumpsterDude_62
- Track 57 : Stiles_46
- Track 58 : StAB_46
- Track 59 : Vitus_38
- Track 60 : Jinkies_7
- Track 61 : BlackSpider_71
- Track 62 : SkinnyPete_53, DocMcStuffins_74, Misha28_72, Awesomesauce_74, TootsiePop_72
- Track 63 : Megiddo_61
- Track 64 : ThulaThula_69
- Track 65 : Phayonce_65
- Track 66 : Clarkson_52, Pringar_51, Blackbeetle_51, Huphlepuff_53, VasuNzinga_51, Raela_51, Beelzebub_55, Poise_51, Lilbit_52
- Track 67 : LittleLaf_51
- Track 68 : Wollypog_58
- Track 69 : Finkle_69
- Track 70 : Sunfish_75
- Track 71 : Sammy_64
- Track 72 : Sammy_62
- Track 73 : Footloose_49
- Track 74 : Ibantik_17
- Track 75 : Mbo2_93
- Track 76 : Ibantik_66

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

The start number called the most often in the published annotations is 89, it was called in 30 of the 142 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aeneas_46, Arcanine_45, Beatrix_43, Beelzebub_55, Bexan_42, Blackbeetle_51, Bones_44, Clarkson_52, Dexes_44, Eyeball_45, Fajezeel_46, Fenn_45, Greg_46, Huphlepuuff_53, Licorice_47, Lilbit_52, Marge_44, Naira_45, Niza_46, Pippin_46, Poise_51, Pringar_51, Raela_51, Rajelicia_45, Ruotula_47, Sagefire_47, Slagathor_46, Smairt_46, StrongArm_43, TheloniousMonk_45, VasuNzinga_51,

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

- BigPaolini_44, Ciao_44, LittleLaf_51, Mbo2_93, Ringer_45, Teodoridan_42,

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

- Ajay_44, Alone3_63, Alvin_43, Apricot_49, Arri_85, Auxilium_79, Awesomesauce_74, BENtherdunthat_51, Belphegor_34, Bhageatrice_37, Bigchungi_68, BillKnuckles_44, BlackSpider_71, BluSpix_41, BobBob_38, Bradissa_60, Brandonk123_42, BrutonGaster_75, Cardigan_137, Charming_41, CherryCola_85, CherryTomatoes_169, Chidiebere_122, DocMcStuffins_74, DumpsterDude_62, Eddasa_56, Egi03_84, Emma1919_210, Esperer_55, Evamon_85, EvePickles_79, EvePickles_81, Finkle_69, Fireball_88, Footloose_49, Forrest_171, Forrest_210, Forrest_49, Fushigi_42, GMonster_68, Getalong_54, Gezellig_84, GiJojo_54, Goby_56, Holliday_49, Hydra_56, ILeeKay_48, Ibantik_17, Ibantik_66, IgnatiusPatJac_43, Jada_168, Jada_47, Jalebi_69, Jinkies_7, JonJames_73, Kabocha_123, Kenna_50, KimmyK_83, Kykar_44, Leviticus_55, Lika_55, Love_44, Lutum_51, Lysidious_72, Marco3_46, Marky_43, McSinger_67, Megiddo_61, Misha28_72, Miskis_71, Nabi_57, Nordenberg_35, Paries_43, PascalRango_68, Petruccio_44, Phayonce_65, Phlop_82, Phrank15_85, Phredrick_212, PinkCoffee_86, Portcullis_85, Posh_67, ProMouse_44, PullumCavea_83, Rofo_41, RogerDodger_88, SCentae_166, STLscum_45, Salvador_85, Sampudon_70, Samy_62, Samy_64, Sanya_67, Savbucketdawg_80, Schomber_120, Seanderson_46, Shinji_84, SkinnyPete_53, SmokingBunny_86, Spooky_106, StAB_46, Stiles_46, Sunfish_75, Tangent_41, ThulaThula_69, TillyBobJoe_83, Togo_85, Toma_56, TootsiePop_72, Trouble_45, Twister6_84, Valary_86, VanDeWege_87, Vitus_38, Vivi2_43, Walrus_68, WilliamBoone_124, Wizard_80, Wollypog_58, Wrigley_69, Yvonnetastic_71, Zemlya_56,

Summary by start number:

Start 26:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jinkies_7 (FL),

Start 29:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lysidious_72 (CV), Walrus_68 (CV),

Start 31:

- Found in 4 of 159 (2.5%) of genes in pham
- Manual Annotations of this start: 4 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BENtherdunthat_51 (DN1), Getalong_54 (DN1), Kenna_50 (DN1), Lutum_51 (DN1),

Start 32:

- Found in 10 of 159 (6.3%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Apricot_49 (DN3), Holliday_49 (DN1),

Start 33:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megiddo_61 (P1), ThulaThula_69 (P5),

Start 36:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phayonce_65 (P5),

Start 41:

- Found in 4 of 159 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BlackSpider_71 (FN), EvePickles_79 (AY),

Start 43:

- Found in 9 of 159 (5.7%) of genes in pham
- Manual Annotations of this start: 9 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Awesomesauce_74 (F1), Bradissa_60 (CY1), DocMcStuffins_74 (F1), DumpsterDude_62 (DW), Misha28_72 (F1), Posh_67 (CY), SkinnyPete_53 (N), TootsiePop_72 (F1), Wrigley_69 (CY),

Start 45:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose_49 (singleton),

Start 49:

- Found in 4 of 159 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 142
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Chidiebere_122 (DQ), Kabocha_123 (DQ), Schomber_120 (DQ),

Start 54:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SCentae_166 (DO),

Start 62:

- Found in 12 of 159 (7.5%) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Bhageatrice_37 (AY),

Start 63:

- Found in 6 of 159 (3.8%) of genes in pham
- Manual Annotations of this start: 5 of 142
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Eddasa_56 (BD1), Goby_56 (BD1), Lika_55 (BD1), Toma_56 (BD1), Zemlya_56 (BD1),

Start 64:

- Found in 22 of 159 (13.8%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 4.5% of time when present
- Phage (with cluster) where this start called: VanDeWege_87 (DC1),

Start 65:

- Found in 10 of 159 (6.3%) of genes in pham
- Manual Annotations of this start: 4 of 142
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Esperer_55 (BD1), Hydra_56 (BD1), Leviticus_55 (BD1), Nabi_57 (BD1),

Start 66:

- Found in 23 of 159 (14.5%) of genes in pham
- Manual Annotations of this start: 17 of 142
- Called 91.3% of time when present
- Phage (with cluster) where this start called: Arri_85 (DC1), CherryCola_85 (DC1), Egi03_84 (DC1), Evamon_85 (DC1), Fireball_88 (DC1), KimmyK_83 (DC1), Mbo2_93 (singleton), Phlop_82 (DC1), PinkCoffee_86 (DC1), Portcullis_85 (DC1), PullumCavea_83 (DC1), RogerDodger_88 (DC1), Salvador_85 (DC1), Savbucketdawg_80 (DC1), Shinji_84 (DC1), SmokingBunny_86 (DC1), TillyBobJoe_83 (DC1), Togo_85 (DC1), Twister6_84 (DC1), Valary_86 (DC1), Wizard_80 (DC1),

Start 67:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BrutonGaster_75 (CQ2),

Start 69:

- Found in 30 of 159 (18.9%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 3.3% of time when present

- Phage (with cluster) where this start called: Samy_62 (singleton),

Start 70:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finkle_69 (singleton),

Start 74:

- Found in 1 of 159 (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: Cardigan_137 (DD),

Start 75:

- Found in 1 of 159 (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: ProMouse_44 (A1),

Start 76:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Vivi2_43 (DE1),

Start 78:

- Found in 8 of 159 (5.0%) of genes in pham
- Manual Annotations of this start: 8 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobBob_38 (DE1), Brandonk123_42 (DE1), Charming_41 (DE1), Love_44 (DE1), Nordenberg_35 (DE1), Paries_43 (DE1), Rofo_41 (DE1), Tangent_41 (DE1),

Start 79:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wollypog_58 (singleton),

Start 83:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alone3_63 (BS), GiJojo_54 (BS),

Start 84:

- Found in 8 of 159 (5.0%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Ibantik_66 (singleton),

Start 85:

- Found in 7 of 159 (4.4%) of genes in pham
- Manual Annotations of this start: 7 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Forrest_49 (BK1), Jada_47 (BK1), JonJames_73 (DD), Miskis_71 (CQ1), Samy_64 (singleton), Spooky_106 (DN2), Yvonnestic_71 (DD),

Start 86:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik_17 (singleton),

Start 87:

- Found in 1 of 159 (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: Vitus_38 (FL),

Start 88:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sunfish_75 (singleton),

Start 89:

- Found in 37 of 159 (23.3%) of genes in pham
- Manual Annotations of this start: 30 of 142
- Called 83.8% of time when present
- Phage (with cluster) where this start called: Aeneas_46 (A1), Arcanine_45 (A1), Beatrix_43 (A1), Beelzebub_55 (S), Bexan_42 (A1), Blackbeetle_51 (S), Bones_44 (A1), Clarkson_52 (S), Dexes_44 (A1), Eyeball_45 (A1), Fajezeel_46 (A1), Fenn_45 (A1), Greg_46 (A1), Huphlepuuff_53 (S), Licorice_47 (A1), Lilbit_52 (S), Marge_44 (A1), Naira_45 (A1), Niza_46 (A1), Pippin_46 (A1), Poise_51 (S), Pringar_51 (S), Raela_51 (S), Rajelicia_45 (A1), Ruotula_47 (A1), Sagefire_47 (A1), Slagathor_46 (A1), Smairt_46 (A1), StrongArm_43 (A1), TheloniousMonk_45 (A1), VasuNzinga_51 (S),

Start 90:

- Found in 13 of 159 (8.2%) of genes in pham
- Manual Annotations of this start: 11 of 142
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Ajay_44 (A1), Alvin_43 (A1), BillKnuckles_44 (A1), BluSpix_41 (A1), Fushigi_42 (A1), ILeeKay_48 (A1), IgnatiusPatJac_43 (A1), Kykar_44 (A1), Marco3_46 (A1), Petruccio_44 (A1), Seanderson_46 (A1), Trouble_45 (A1),

Start 91:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_169 (DO),

Start 92:

- Found in 5 of 159 (3.1%) of genes in pham
- Manual Annotations of this start: 5 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Emma1919_210 (BK1), Forrest_171 (BK1), Forrest_210 (BK1), Jada_168 (BK1), Phredrick_212 (BK1),

Start 93:

- Found in 27 of 159 (17.0%) of genes in pham
- Manual Annotations of this start: 5 of 142
- Called 18.5% of time when present
- Phage (with cluster) where this start called: Auxilium_79 (AY), EvePickles_81 (AY), Phrank15_85 (AY), StAB_46 (EP), Stiles_46 (EP),

Start 95:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marky_43 (BH),

Start 96:

- Found in 1 of 159 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: WilliamBoone_124 (CQ1),

Start 103:

- Found in 10 of 159 (6.3%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 10.0% of time when present
- Phage (with cluster) where this start called: LittleLaf_51 (S),

Start 104:

- Found in 2 of 159 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Belphegor_34 (DE),

Start 107:

- Found in 26 of 159 (16.4%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 7.7% of time when present
- Phage (with cluster) where this start called: BigPaolini_44 (A1), Ciao_44 (A1),

Start 109:

- Found in 7 of 159 (4.4%) of genes in pham
- Manual Annotations of this start: 2 of 142
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Jalebi_69 (DV), Sampudon_70 (DV),

Start 113:

- Found in 22 of 159 (13.8%) of genes in pham
- No Manual Annotations of this start.

- Called 4.5% of time when present
- Phage (with cluster) where this start called: Gezellig_84 (DC1),

Start 128:

- Found in 26 of 159 (16.4%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Ringer_45 (A1), Teodoridan_42 (A1),

Start 145:

- Found in 5 of 159 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bigchunggi_68 (A1), GMonster_68 (A1), McSinger_67 (A1), PascalRango_68 (A1), Sanya_67 (A1),

Start 155:

- Found in 28 of 159 (17.6%) of genes in pham
- Manual Annotations of this start: 1 of 142
- Called 3.6% of time when present
- Phage (with cluster) where this start called: STLscum_45 (A1),

Summary by clusters:

There are 31 clusters represented in this pham: DO, singleton, DD, DE, BH, BS, DV, DW, FL, FN, DQ, EP, A1, BD1, DN3, DN2, DN1, CQ1, CY1, P1, P5, N, CY, BK1, CQ2, AY, CV, DC1, F1, DE1, S,

Info for manual annotations of cluster A1:

- Start number 89 was manually annotated 22 times for cluster A1.
- Start number 90 was manually annotated 11 times for cluster A1.
- Start number 107 was manually annotated 2 times for cluster A1.
- Start number 128 was manually annotated 1 time for cluster A1.
- Start number 145 was manually annotated 1 time for cluster A1.
- Start number 155 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AY:

- Start number 41 was manually annotated 1 time for cluster AY.
- Start number 93 was manually annotated 3 times for cluster AY.

Info for manual annotations of cluster BD1:

- Start number 63 was manually annotated 5 times for cluster BD1.
- Start number 65 was manually annotated 4 times for cluster BD1.

Info for manual annotations of cluster BH:

- Start number 95 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster BK1:

- Start number 85 was manually annotated 2 times for cluster BK1.
- Start number 92 was manually annotated 5 times for cluster BK1.

Info for manual annotations of cluster BS:

- Start number 83 was manually annotated 2 times for cluster BS.

Info for manual annotations of cluster CQ1:

- Start number 85 was manually annotated 1 time for cluster CQ1.
- Start number 96 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 67 was manually annotated 1 time for cluster CQ2.

Info for manual annotations of cluster CV:

- Start number 29 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CY:

- Start number 43 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 43 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DC1:

- Start number 64 was manually annotated 1 time for cluster DC1.
- Start number 66 was manually annotated 17 times for cluster DC1.

Info for manual annotations of cluster DD:

- Start number 85 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DE:

- Start number 104 was manually annotated 1 time for cluster DE.

Info for manual annotations of cluster DE1:

- Start number 76 was manually annotated 1 time for cluster DE1.
- Start number 78 was manually annotated 8 times for cluster DE1.

Info for manual annotations of cluster DN1:

- Start number 31 was manually annotated 4 times for cluster DN1.
- Start number 32 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 85 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 32 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DO:

- Start number 54 was manually annotated 1 time for cluster DO.
- Start number 91 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DQ:

- Start number 49 was manually annotated 3 times for cluster DQ.

Info for manual annotations of cluster DV:

- Start number 109 was manually annotated 2 times for cluster DV.

Info for manual annotations of cluster DW:

- Start number 43 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster EP:

- Start number 93 was manually annotated 2 times for cluster EP.

Info for manual annotations of cluster F1:

- Start number 43 was manually annotated 4 times for cluster F1.

Info for manual annotations of cluster FL:

- Start number 26 was manually annotated 1 time for cluster FL.

Info for manual annotations of cluster N:

- Start number 43 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 33 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P5:

- Start number 33 was manually annotated 1 time for cluster P5.
- Start number 36 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster S:

- Start number 89 was manually annotated 8 times for cluster S.
- Start number 103 was manually annotated 1 time for cluster S.

Gene Information:

Gene: Aeneas_46 Start: 33206, Stop: 32721, Start Num: 89

Candidate Starts for Aeneas_46:

(Start: 69 @33245 has 1 MA's), (Start: 89 @33206 has 30 MA's), (Start: 107 @33164 has 2 MA's), (Start: 128 @33110 has 1 MA's), (Start: 155 @33035 has 1 MA's), (162, 33011), (166, 32999), (169, 32993), (170, 32990), (219, 32807), (238, 32750),

Gene: Ajay_44 Start: 32810, Stop: 32334, Start Num: 90

Candidate Starts for Ajay_44:

(Start: 90 @32810 has 11 MA's), (97, 32792), (106, 32771), (130, 32708), (138, 32687), (186, 32534), (209, 32456), (225, 32399), (228, 32390), (229, 32387), (238, 32363),

Gene: Alone3_63 Start: 21624, Stop: 22094, Start Num: 83

Candidate Starts for Alone3_63:

(Start: 83 @21624 has 2 MA's), (100, 21660), (121, 21702), (166, 21816), (180, 21870), (181, 21873), (189, 21903), (208, 21969), (225, 22029), (232, 22053), (236, 22062), (241, 22074),

Gene: Alvin_43 Start: 33331, Stop: 32855, Start Num: 90

Candidate Starts for Alvin_43:

(Start: 90 @33331 has 11 MA's), (97, 33313), (106, 33292), (130, 33229), (138, 33208), (186, 33055), (209, 32977), (225, 32920), (228, 32911), (229, 32908), (238, 32884),

Gene: Apricot_49 Start: 33085, Stop: 32453, Start Num: 32

Candidate Starts for Apricot_49:

(Start: 32 @33085 has 2 MA's), (73, 32965), (123, 32854), (141, 32812), (144, 32806), (159, 32773), (181, 32695), (184, 32683), (186, 32674), (190, 32662), (205, 32617), (228, 32530), (233, 32515), (235, 32509), (238, 32503), (253, 32464),

Gene: Arcanine_45 Start: 32773, Stop: 32288, Start Num: 89

Candidate Starts for Arcanine_45:

(Start: 69 @32812 has 1 MA's), (Start: 89 @32773 has 30 MA's), (Start: 107 @32731 has 2 MA's), (Start: 128 @32677 has 1 MA's), (Start: 155 @32602 has 1 MA's), (162, 32578), (166, 32566), (169, 32560), (170, 32557), (209, 32410), (219, 32374), (238, 32317),

Gene: Arri_85 Start: 56022, Stop: 55507, Start Num: 66

Candidate Starts for Arri_85:

(Start: 64 @56028 has 1 MA's), (Start: 66 @56022 has 17 MA's), (71, 56010), (Start: 93 @55974 has 5 MA's), (113, 55929), (120, 55914), (151, 55836), (159, 55809), (166, 55788), (172, 55764), (233, 55554), (238, 55542), (245, 55518),

Gene: Auxilium_79 Start: 44205, Stop: 44636, Start Num: 93

Candidate Starts for Auxilium_79:

(Start: 84 @44190 has 1 MA's), (Start: 93 @44205 has 5 MA's), (143, 44313), (189, 44466), (190, 44469),

Gene: Awesomesauce_74 Start: 45209, Stop: 45796, Start Num: 43

Candidate Starts for Awesomesauce_74:

(24, 45155), (Start: 43 @45209 has 9 MA's), (53, 45227), (59, 45260), (62, 45269), (68, 45284), (Start: 109 @45365 has 2 MA's), (134, 45431), (161, 45503), (176, 45554), (189, 45605), (206, 45656), (211, 45680), (228, 45737),

Gene: BENtherdunthat_51 Start: 33462, Stop: 32830, Start Num: 31

Candidate Starts for BENtherdunthat_51:

(Start: 31 @33462 has 4 MA's), (57, 33399), (73, 33342), (123, 33231), (141, 33189), (144, 33183), (159, 33150), (169, 33123), (181, 33072), (182, 33066), (190, 33039), (205, 32994), (228, 32907), (235, 32886), (238, 32880), (253, 32841),

Gene: Beatrix_43 Start: 34176, Stop: 33691, Start Num: 89

Candidate Starts for Beatrix_43:

(Start: 69 @34215 has 1 MA's), (Start: 89 @34176 has 30 MA's), (Start: 107 @34134 has 2 MA's), (Start: 128 @34080 has 1 MA's), (Start: 155 @34005 has 1 MA's), (162, 33981), (166, 33969), (169, 33963), (170, 33960), (177, 33927), (199, 33846), (209, 33813), (228, 33747), (229, 33744), (231, 33735), (238, 33720),

Gene: Beelzebub_55 Start: 29418, Stop: 29891, Start Num: 89

Candidate Starts for Beelzebub_55:

(Start: 89 @29418 has 30 MA's), (Start: 103 @29448 has 1 MA's), (136, 29529), (168, 29619), (186, 29694), (224, 29817), (235, 29856), (238, 29862),

Gene: Belphegor_34 Start: 32088, Stop: 31654, Start Num: 104

Candidate Starts for Belphegor_34:

(47, 32232), (51, 32220), (58, 32190), (Start: 104 @32088 has 1 MA's), (166, 31938), (168, 31935), (189, 31851), (190, 31848), (197, 31815), (223, 31728),

Gene: Bexan_42 Start: 33854, Stop: 33369, Start Num: 89

Candidate Starts for Bexan_42:

(Start: 69 @33893 has 1 MA's), (Start: 89 @33854 has 30 MA's), (Start: 107 @33812 has 2 MA's), (Start: 128 @33758 has 1 MA's), (Start: 155 @33683 has 1 MA's), (162, 33659), (166, 33647), (169, 33641), (170, 33638), (209, 33491), (219, 33455), (238, 33398),

Gene: Bhageatrice_37 Start: 26729, Stop: 27340, Start Num: 62

Candidate Starts for Bhageatrice_37:

(40, 26657), (62, 26729), (118, 26855), (158, 26984), (171, 27020), (174, 27041), (212, 27203), (233, 27278),

Gene: BigPaolini_44 Start: 31801, Stop: 31358, Start Num: 107

Candidate Starts for BigPaolini_44:

(Start: 69 @31882 has 1 MA's), (Start: 89 @31843 has 30 MA's), (Start: 107 @31801 has 2 MA's), (Start: 128 @31747 has 1 MA's), (Start: 155 @31672 has 1 MA's), (162, 31648), (166, 31636), (169, 31630), (170, 31627), (209, 31480), (219, 31444), (238, 31387),

Gene: Bigchungji_68 Start: 44395, Stop: 44015, Start Num: 145

Candidate Starts for Bigchungji_68:

(60, 44593), (Start: 65 @44581 has 4 MA's), (71, 44563), (132, 44422), (Start: 145 @44395 has 1 MA's), (156, 44356), (166, 44326), (225, 44113),

Gene: BillKnuckles_44 Start: 33515, Stop: 33039, Start Num: 90

Candidate Starts for BillKnuckles_44:

(Start: 90 @33515 has 11 MA's), (97, 33497), (106, 33476), (130, 33413), (186, 33239), (209, 33161), (225, 33104), (228, 33095), (229, 33092), (238, 33068),

Gene: BlackSpider_71 Start: 42752, Stop: 43360, Start Num: 41

Candidate Starts for BlackSpider_71:

(Start: 41 @42752 has 1 MA's), (62, 42815), (136, 42986), (161, 43055), (186, 43148), (213, 43241), (220, 43259), (228, 43289),

Gene: Blackbeetle_51 Start: 28464, Stop: 28937, Start Num: 89

Candidate Starts for Blackbeetle_51:

(Start: 89 @28464 has 30 MA's), (Start: 103 @28494 has 1 MA's), (136, 28575), (168, 28665), (186, 28740), (224, 28863), (235, 28902), (238, 28908),

Gene: BluSpix_41 Start: 28937, Stop: 28461, Start Num: 90

Candidate Starts for BluSpix_41:

(Start: 90 @28937 has 11 MA's), (97, 28919), (106, 28898), (130, 28835), (138, 28814), (186, 28661), (209, 28583), (225, 28526), (228, 28517), (229, 28514), (238, 28490),

Gene: BobBob_38 Start: 35578, Stop: 35108, Start Num: 78

Candidate Starts for BobBob_38:

(20, 35776), (21, 35767), (Start: 32 @35707 has 2 MA's), (35, 35698), (50, 35662), (Start: 78 @35578 has 8 MA's), (136, 35452), (146, 35434), (160, 35389), (169, 35371), (179, 35326), (189, 35290), (215, 35212),

Gene: Bones_44 Start: 33339, Stop: 32854, Start Num: 89

Candidate Starts for Bones_44:

(Start: 69 @33378 has 1 MA's), (Start: 89 @33339 has 30 MA's), (Start: 107 @33297 has 2 MA's), (Start: 128 @33243 has 1 MA's), (Start: 155 @33168 has 1 MA's), (162, 33144), (166, 33132), (169, 33126), (170, 33123), (209, 32976), (219, 32940), (238, 32883),

Gene: Bradissa_60 Start: 44116, Stop: 44703, Start Num: 43

Candidate Starts for Bradissa_60:

(1, 43708), (5, 43816), (9, 43888), (11, 43924), (22, 44056), (Start: 43 @44116 has 9 MA's), (51, 44131), (59, 44167), (62, 44176), (68, 44191), (Start: 84 @44221 has 1 MA's), (121, 44302), (161, 44410), (189, 44512), (190, 44515), (238, 44671),

Gene: Brandonk123_42 Start: 36713, Stop: 36243, Start Num: 78

Candidate Starts for Brandonk123_42:

(20, 36911), (21, 36902), (Start: 32 @36842 has 2 MA's), (35, 36833), (50, 36797), (Start: 78 @36713 has 8 MA's), (136, 36587), (146, 36569), (160, 36524), (169, 36506), (179, 36461), (189, 36425), (215, 36347),

Gene: BrutonGaster_75 Start: 52573, Stop: 53064, Start Num: 67

Candidate Starts for BrutonGaster_75:

(Start: 67 @52573 has 1 MA's), (135, 52717), (164, 52774), (169, 52780), (186, 52852), (189, 52861), (206, 52921),

Gene: Cardigan_137 Start: 77101, Stop: 77631, Start Num: 74

Candidate Starts for Cardigan_137:

(74, 77101), (80, 77116), (111, 77179), (115, 77188), (160, 77311), (186, 77404), (189, 77413), (201, 77446), (208, 77464), (228, 77530), (237, 77551), (256, 77626),

Gene: Charming_41 Start: 36214, Stop: 35744, Start Num: 78

Candidate Starts for Charming_41:

(20, 36412), (21, 36403), (Start: 32 @36343 has 2 MA's), (35, 36334), (50, 36298), (Start: 78 @36214 has 8 MA's), (136, 36088), (146, 36070), (160, 36025), (169, 36007), (179, 35962), (189, 35926), (215, 35848),

Gene: CherryCola_85 Start: 56435, Stop: 55920, Start Num: 66

Candidate Starts for CherryCola_85:

(Start: 64 @56441 has 1 MA's), (Start: 66 @56435 has 17 MA's), (71, 56423), (Start: 93 @56387 has 5 MA's), (113, 56342), (120, 56327), (151, 56249), (159, 56222), (166, 56201), (172, 56177), (233, 55967), (238, 55955), (245, 55931),

Gene: CherryTomatoes_169 Start: 123046, Stop: 122573, Start Num: 91

Candidate Starts for CherryTomatoes_169:

(27, 123214), (47, 123169), (48, 123166), (Start: 91 @123046 has 1 MA's), (Start: 104 @123016 has 1 MA's), (134, 122929), (189, 122755), (208, 122689),

Gene: Chidiebere_122 Start: 85918, Stop: 86616, Start Num: 49

Candidate Starts for Chidiebere_122:

(Start: 49 @85918 has 3 MA's), (Start: 69 @85990 has 1 MA's), (82, 86017), (98, 86050), (111, 86080), (137, 86152), (139, 86155), (150, 86188), (151, 86191), (165, 86236), (169, 86245), (189, 86326), (197, 86365), (244, 86509), (250, 86518), (257, 86563), (260, 86608),

Gene: Ciao_44 Start: 32944, Stop: 32501, Start Num: 107

Candidate Starts for Ciao_44:

(37, 33121), (Start: 69 @33025 has 1 MA's), (Start: 89 @32986 has 30 MA's), (Start: 107 @32944 has 2 MA's), (Start: 128 @32890 has 1 MA's), (Start: 155 @32815 has 1 MA's), (162, 32791), (166, 32779), (169, 32773), (170, 32770), (209, 32623), (219, 32587), (238, 32530),

Gene: Clarkson_52 Start: 29146, Stop: 29619, Start Num: 89

Candidate Starts for Clarkson_52:

(Start: 89 @29146 has 30 MA's), (Start: 103 @29176 has 1 MA's), (136, 29257), (168, 29347), (186, 29422), (224, 29545), (235, 29584), (238, 29590),

Gene: Dexes_44 Start: 33602, Stop: 33117, Start Num: 89

Candidate Starts for Dexes_44:

(Start: 69 @33641 has 1 MA's), (Start: 89 @33602 has 30 MA's), (Start: 107 @33560 has 2 MA's), (Start: 128 @33506 has 1 MA's), (Start: 155 @33431 has 1 MA's), (162, 33407), (166, 33395), (169, 33389), (170, 33386), (209, 33239), (219, 33203), (238, 33146),

Gene: DocMcStuffins_74 Start: 46126, Stop: 46713, Start Num: 43

Candidate Starts for DocMcStuffins_74:

(24, 46072), (Start: 43 @46126 has 9 MA's), (53, 46144), (59, 46177), (62, 46186), (68, 46201), (Start: 109 @46282 has 2 MA's), (134, 46348), (161, 46420), (176, 46471), (189, 46522), (206, 46573), (211, 46597), (228, 46654),

Gene: DumpsterDude_62 Start: 46219, Stop: 46806, Start Num: 43

Candidate Starts for DumpsterDude_62:

(1, 45811), (5, 45919), (9, 45991), (11, 46027), (22, 46159), (Start: 43 @46219 has 9 MA's), (59, 46270), (62, 46279), (68, 46294), (Start: 84 @46324 has 1 MA's), (121, 46405), (161, 46513), (189, 46615), (190, 46618), (214, 46702), (218, 46714), (238, 46774),

Gene: Eddasa_56 Start: 41265, Stop: 40723, Start Num: 63

Candidate Starts for Eddasa_56:

(42, 41334), (Start: 63 @41265 has 5 MA's), (157, 41046), (173, 40995), (183, 40953), (189, 40932), (252, 40743),

Gene: Egi03_84 Start: 55457, Stop: 54942, Start Num: 66

Candidate Starts for Egi03_84:

(Start: 64 @55463 has 1 MA's), (Start: 66 @55457 has 17 MA's), (71, 55445), (Start: 93 @55409 has 5 MA's), (113, 55364), (120, 55349), (151, 55271), (159, 55244), (166, 55223), (172, 55199), (233, 54989), (238, 54977), (245, 54953),

Gene: Emma1919_210 Start: 103175, Stop: 103651, Start Num: 92

Candidate Starts for Emma1919_210:

(Start: 92 @103175 has 5 MA's), (152, 103319), (153, 103322), (170, 103370), (178, 103406), (193, 103484),

Gene: Esperer_55 Start: 40815, Stop: 40285, Start Num: 65

Candidate Starts for Esperer_55:

(Start: 65 @40815 has 4 MA's), (119, 40707), (179, 40539), (191, 40488), (202, 40458), (248, 40311), (252, 40305),

Gene: Evamon_85 Start: 55834, Stop: 55319, Start Num: 66

Candidate Starts for Evamon_85:

(Start: 64 @55840 has 1 MA's), (Start: 66 @55834 has 17 MA's), (71, 55822), (Start: 93 @55786 has 5 MA's), (113, 55741), (120, 55726), (151, 55648), (159, 55621), (166, 55600), (172, 55576), (233, 55366), (238, 55354), (245, 55330),

Gene: EvePickles_81 Start: 47374, Stop: 47805, Start Num: 93

Candidate Starts for EvePickles_81:

(Start: 84 @47359 has 1 MA's), (Start: 93 @47374 has 5 MA's), (189, 47635), (190, 47638),

Gene: EvePickles_79 Start: 46090, Stop: 46698, Start Num: 41

Candidate Starts for EvePickles_79:

(Start: 41 @46090 has 1 MA's), (62, 46153), (161, 46393), (186, 46486), (209, 46564), (213, 46579), (220, 46597), (235, 46648),

Gene: Eyeball_45 Start: 33249, Stop: 32764, Start Num: 89

Candidate Starts for Eyeball_45:

(Start: 69 @33288 has 1 MA's), (Start: 89 @33249 has 30 MA's), (Start: 107 @33207 has 2 MA's), (Start: 128 @33153 has 1 MA's), (Start: 155 @33078 has 1 MA's), (162, 33054), (166, 33042), (169, 33036), (170, 33033), (209, 32886), (219, 32850), (238, 32793),

Gene: Fajezeel_46 Start: 33359, Stop: 32874, Start Num: 89

Candidate Starts for Fajezeel_46:

(37, 33494), (Start: 69 @33398 has 1 MA's), (Start: 89 @33359 has 30 MA's), (Start: 107 @33317 has 2 MA's), (Start: 128 @33263 has 1 MA's), (Start: 155 @33188 has 1 MA's), (162, 33164), (166, 33152), (169, 33146), (170, 33143), (209, 32996), (219, 32960), (238, 32903),

Gene: Fenn_45 Start: 34680, Stop: 34195, Start Num: 89

Candidate Starts for Fenn_45:

(Start: 69 @34719 has 1 MA's), (Start: 89 @34680 has 30 MA's), (Start: 107 @34638 has 2 MA's), (Start: 128 @34584 has 1 MA's), (Start: 155 @34509 has 1 MA's), (162, 34485), (166, 34473), (169, 34467), (170, 34464), (209, 34317), (219, 34281), (238, 34224),

Gene: Finkle_69 Start: 42637, Stop: 43176, Start Num: 70

Candidate Starts for Finkle_69:

(3, 42163), (23, 42487), (Start: 70 @42637 has 1 MA's), (108, 42715), (117, 42733), (153, 42832), (189, 42955), (211, 43015), (234, 43087),

Gene: Fireball_88 Start: 56296, Stop: 55781, Start Num: 66

Candidate Starts for Fireball_88:

(Start: 64 @56302 has 1 MA's), (Start: 66 @56296 has 17 MA's), (71, 56284), (Start: 93 @56248 has 5 MA's), (113, 56203), (120, 56188), (151, 56110), (159, 56083), (166, 56062), (172, 56038), (233, 55828), (238, 55816), (245, 55792),

Gene: Footloose_49 Start: 28880, Stop: 29479, Start Num: 45

Candidate Starts for Footloose_49:

(38, 28868), (Start: 45 @28880 has 1 MA's), (Start: 88 @29000 has 1 MA's), (154, 29150), (157, 29162), (166, 29189), (176, 29225), (223, 29393), (237, 29435),

Gene: Forrest_49 Start: 41931, Stop: 42446, Start Num: 85

Candidate Starts for Forrest_49:

(Start: 85 @41931 has 7 MA's), (187, 42195), (189, 42201), (200, 42249), (203, 42252), (226, 42342),

Gene: Forrest_210 Start: 104141, Stop: 104617, Start Num: 92

Candidate Starts for Forrest_210:

(Start: 92 @104141 has 5 MA's), (152, 104285), (153, 104288), (170, 104336), (178, 104372), (193, 104450),

Gene: Forrest_171 Start: 88900, Stop: 89394, Start Num: 92

Candidate Starts for Forrest_171:

(Start: 92 @88900 has 5 MA's), (148, 89029), (152, 89041), (176, 89119), (179, 89134), (189, 89170), (230, 89323), (247, 89368), (251, 89374),

Gene: Fushigi_42 Start: 30914, Stop: 30438, Start Num: 90

Candidate Starts for Fushigi_42:

(Start: 90 @30914 has 11 MA's), (97, 30896), (106, 30875), (130, 30812), (138, 30791), (186, 30638), (209, 30560), (225, 30503), (228, 30494), (229, 30491), (238, 30467),

Gene: GMonster_68 Start: 44686, Stop: 44306, Start Num: 145

Candidate Starts for GMonster_68:

(60, 44884), (Start: 65 @44872 has 4 MA's), (71, 44854), (132, 44713), (Start: 145 @44686 has 1 MA's), (156, 44647), (166, 44617), (225, 44404),

Gene: Getalong_54 Start: 36463, Stop: 35831, Start Num: 31

Candidate Starts for Getalong_54:

(Start: 31 @36463 has 4 MA's), (57, 36400), (73, 36343), (123, 36232), (141, 36190), (144, 36184), (159, 36151), (169, 36124), (181, 36073), (182, 36067), (190, 36040), (205, 35995), (228, 35908), (235, 35887), (238, 35881), (253, 35842),

Gene: Gezellig_84 Start: 55587, Stop: 55165, Start Num: 113

Candidate Starts for Gezellig_84:

(Start: 64 @55686 has 1 MA's), (Start: 66 @55680 has 17 MA's), (71, 55668), (Start: 93 @55632 has 5 MA's), (113, 55587), (120, 55572), (151, 55494), (159, 55467), (166, 55446), (172, 55422), (233, 55212), (238, 55200), (245, 55176),

Gene: GiJojo_54 Start: 20818, Stop: 21288, Start Num: 83

Candidate Starts for GiJojo_54:

(Start: 83 @20818 has 2 MA's), (100, 20854), (121, 20896), (166, 21010), (178, 21055), (180, 21064), (181, 21067), (189, 21097), (208, 21163), (225, 21223), (232, 21247), (236, 21256), (241, 21268),

Gene: Goby_56 Start: 42305, Stop: 41778, Start Num: 63

Candidate Starts for Goby_56:

(42, 42374), (Start: 63 @42305 has 5 MA's), (142, 42131), (189, 41987), (202, 41942), (225, 41858), (233, 41834),

Gene: Greg_46 Start: 33359, Stop: 32874, Start Num: 89

Candidate Starts for Greg_46:

(37, 33494), (Start: 69 @33398 has 1 MA's), (Start: 89 @33359 has 30 MA's), (Start: 107 @33317 has 2 MA's), (Start: 128 @33263 has 1 MA's), (Start: 155 @33188 has 1 MA's), (162, 33164), (166, 33152), (169, 33146), (170, 33143), (209, 32996), (219, 32960), (238, 32903),

Gene: Holliday_49 Start: 33694, Stop: 33062, Start Num: 32

Candidate Starts for Holliday_49:

(Start: 32 @33694 has 2 MA's), (73, 33574), (123, 33463), (141, 33421), (144, 33415), (159, 33382), (169, 33355), (181, 33304), (182, 33298), (190, 33271), (205, 33226), (206, 33220), (228, 33139), (235, 33118), (238, 33112), (253, 33073),

Gene: Huphlebuff_53 Start: 28951, Stop: 29424, Start Num: 89

Candidate Starts for Huphlebuff_53:

(Start: 89 @28951 has 30 MA's), (Start: 103 @28981 has 1 MA's), (136, 29062), (168, 29152), (186, 29227), (224, 29350), (235, 29389), (238, 29395),

Gene: Hydra_56 Start: 41651, Stop: 41121, Start Num: 65

Candidate Starts for Hydra_56:

(Start: 65 @41651 has 4 MA's), (119, 41543), (179, 41375), (191, 41324), (202, 41294), (248, 41147), (252, 41141),

Gene: ILeeKay_48 Start: 33858, Stop: 33382, Start Num: 90

Candidate Starts for ILeeKay_48:

(Start: 90 @33858 has 11 MA's), (97, 33840), (106, 33819), (130, 33756), (138, 33735), (186, 33582), (209, 33504), (225, 33447), (228, 33438), (229, 33435), (238, 33411),

Gene: Ibantik_17 Start: 6683, Stop: 6195, Start Num: 86

Candidate Starts for Ibantik_17:

(Start: 86 @6683 has 1 MA's), (122, 6599), (133, 6566), (142, 6548), (151, 6521), (206, 6335), (221, 6278),

Gene: Ibantik_66 Start: 28032, Stop: 28526, Start Num: 84

Candidate Starts for Ibantik_66:

(81, 28029), (Start: 84 @28032 has 1 MA's), (Start: 90 @28044 has 11 MA's), (97, 28062), (116, 28104), (166, 28245), (204, 28374), (227, 28464), (242, 28515),

Gene: IgnatiusPatJac_43 Start: 32882, Stop: 32406, Start Num: 90

Candidate Starts for IgnatiusPatJac_43:

(Start: 90 @32882 has 11 MA's), (97, 32864), (106, 32843), (130, 32780), (138, 32759), (186, 32606), (209, 32528), (225, 32471), (228, 32462), (229, 32459), (238, 32435),

Gene: Jada_168 Start: 87596, Stop: 88090, Start Num: 92

Candidate Starts for Jada_168:

(Start: 92 @87596 has 5 MA's), (148, 87725), (152, 87737), (176, 87815), (179, 87830), (189, 87866), (230, 88019), (247, 88064), (251, 88070),

Gene: Jada_47 Start: 41113, Stop: 41628, Start Num: 85

Candidate Starts for Jada_47:

(Start: 85 @41113 has 7 MA's), (187, 41377), (189, 41383), (200, 41431), (203, 41434), (226, 41524),

Gene: Jalebi_69 Start: 49016, Stop: 49408, Start Num: 109

Candidate Starts for Jalebi_69:

(105, 49013), (Start: 109 @49016 has 2 MA's), (166, 49139), (168, 49142), (181, 49196), (189, 49226), (198, 49262), (232, 49376),

Gene: Jinkies_7 Start: 5796, Stop: 6461, Start Num: 26

Candidate Starts for Jinkies_7:

(8, 5598), (12, 5655), (13, 5658), (15, 5700), (Start: 26 @5796 has 1 MA's), (61, 5910), (126, 6057), (168, 6165), (185, 6234), (186, 6240), (196, 6279), (206, 6300), (228, 6384),

Gene: JonJames_73 Start: 49905, Stop: 50405, Start Num: 85

Candidate Starts for JonJames_73:

(Start: 85 @49905 has 7 MA's), (127, 49998), (134, 50019), (154, 50073), (166, 50112), (181, 50169), (189, 50199), (204, 50253), (211, 50286), (233, 50361),

Gene: Kabocha_123 Start: 86731, Stop: 87429, Start Num: 49

Candidate Starts for Kabocha_123:

(Start: 49 @86731 has 3 MA's), (Start: 69 @86803 has 1 MA's), (82, 86830), (98, 86863), (111, 86893), (137, 86965), (139, 86968), (150, 87001), (151, 87004), (165, 87049), (169, 87058), (189, 87139), (197, 87178), (244, 87322), (250, 87331), (257, 87376), (260, 87421),

Gene: Kenna_50 Start: 34206, Stop: 33574, Start Num: 31

Candidate Starts for Kenna_50:

(Start: 31 @34206 has 4 MA's), (57, 34143), (73, 34086), (123, 33975), (141, 33933), (144, 33927), (159, 33894), (169, 33867), (181, 33816), (182, 33810), (190, 33783), (205, 33738), (228, 33651), (235, 33630), (238, 33624), (253, 33585),

Gene: KimmyK_83 Start: 56127, Stop: 55612, Start Num: 66

Candidate Starts for KimmyK_83:

(Start: 64 @56133 has 1 MA's), (Start: 66 @56127 has 17 MA's), (71, 56115), (Start: 93 @56079 has 5 MA's), (113, 56034), (120, 56019), (151, 55941), (159, 55914), (166, 55893), (172, 55869), (233, 55659), (238, 55647), (245, 55623),

Gene: Kykar_44 Start: 32934, Stop: 32458, Start Num: 90

Candidate Starts for Kykar_44:

(Start: 90 @32934 has 11 MA's), (97, 32916), (106, 32895), (130, 32832), (138, 32811), (186, 32658), (209, 32580), (225, 32523), (228, 32514), (229, 32511), (238, 32487),

Gene: Leviticus_55 Start: 41002, Stop: 40472, Start Num: 65

Candidate Starts for Leviticus_55:

(Start: 65 @41002 has 4 MA's), (119, 40894), (179, 40726), (191, 40675), (202, 40645), (248, 40498), (252, 40492),

Gene: Licorice_47 Start: 34445, Stop: 33960, Start Num: 89

Candidate Starts for Licorice_47:

(Start: 69 @34484 has 1 MA's), (Start: 89 @34445 has 30 MA's), (Start: 107 @34403 has 2 MA's), (Start: 128 @34349 has 1 MA's), (Start: 155 @34274 has 1 MA's), (162, 34250), (166, 34238), (169, 34232), (170, 34229), (209, 34082), (219, 34046), (238, 33989),

Gene: Lika_55 Start: 42316, Stop: 41774, Start Num: 63

Candidate Starts for Lika_55:

(Start: 63 @42316 has 5 MA's), (189, 41986), (225, 41857),

Gene: Lilbit_52 Start: 29147, Stop: 29620, Start Num: 89

Candidate Starts for Lilbit_52:

(Start: 89 @29147 has 30 MA's), (Start: 103 @29177 has 1 MA's), (136, 29258), (168, 29348), (186, 29423), (224, 29546), (235, 29585), (238, 29591),

Gene: LittleLaf_51 Start: 28906, Stop: 29349, Start Num: 103

Candidate Starts for LittleLaf_51:

(Start: 89 @28876 has 30 MA's), (Start: 103 @28906 has 1 MA's), (136, 28987), (168, 29077), (186, 29152), (224, 29275), (235, 29314), (238, 29320),

Gene: Love_44 Start: 37647, Stop: 37177, Start Num: 78

Candidate Starts for Love_44:

(20, 37845), (21, 37836), (Start: 32 @37776 has 2 MA's), (35, 37767), (50, 37731), (Start: 78 @37647 has 8 MA's), (136, 37521), (146, 37503), (160, 37458), (169, 37440), (179, 37395), (189, 37359), (215, 37281),

Gene: Lutum_51 Start: 34206, Stop: 33574, Start Num: 31

Candidate Starts for Lutum_51:

(Start: 31 @34206 has 4 MA's), (57, 34143), (73, 34086), (123, 33975), (141, 33933), (144, 33927), (159, 33894), (169, 33867), (181, 33816), (182, 33810), (190, 33783), (205, 33738), (228, 33651), (235, 33630), (238, 33624), (253, 33585),

Gene: Lysidious_72 Start: 45013, Stop: 45621, Start Num: 29

Candidate Starts for Lysidious_72:

(Start: 29 @45013 has 2 MA's), (39, 45040), (57, 45079), (72, 45139), (125, 45256), (131, 45262), (168, 45343), (169, 45346), (218, 45520), (228, 45553), (246, 45604),

Gene: Marco3_46 Start: 33679, Stop: 33203, Start Num: 90

Candidate Starts for Marco3_46:

(Start: 90 @33679 has 11 MA's), (97, 33661), (106, 33640), (130, 33577), (138, 33556), (186, 33403), (209, 33325), (225, 33268), (228, 33259), (229, 33256), (238, 33232),

Gene: Marge_44 Start: 33477, Stop: 32992, Start Num: 89

Candidate Starts for Marge_44:

(Start: 69 @33516 has 1 MA's), (Start: 89 @33477 has 30 MA's), (Start: 107 @33435 has 2 MA's), (Start: 128 @33381 has 1 MA's), (Start: 155 @33306 has 1 MA's), (162, 33282), (166, 33270), (169, 33264), (170, 33261), (209, 33114), (219, 33078), (238, 33021),

Gene: Marky_43 Start: 31173, Stop: 31622, Start Num: 95

Candidate Starts for Marky_43:

(Start: 95 @31173 has 1 MA's), (99, 31179), (101, 31182), (163, 31344), (170, 31359), (180, 31404), (188, 31428), (228, 31572),

Gene: Mbo2_93 Start: 66190, Stop: 65546, Start Num: 66

Candidate Starts for Mbo2_93:

(Start: 63 @66199 has 5 MA's), (Start: 66 @66190 has 17 MA's), (Start: 89 @66142 has 30 MA's), (110, 66094), (124, 66058), (190, 65854), (210, 65770), (239, 65671), (240, 65668), (258, 65590), (259, 65566),

Gene: McSinger_67 Start: 43336, Stop: 42956, Start Num: 145

Candidate Starts for McSinger_67:

(60, 43534), (Start: 65 @43522 has 4 MA's), (71, 43504), (132, 43363), (Start: 145 @43336 has 1 MA's), (156, 43297), (166, 43267), (225, 43054),

Gene: Megiddo_61 Start: 41199, Stop: 41795, Start Num: 33

Candidate Starts for Megiddo_61:

(10, 41016), (25, 41172), (Start: 33 @41199 has 2 MA's), (Start: 41 @41220 has 1 MA's), (57, 41256), (58, 41271), (72, 41316), (94, 41355), (186, 41595), (195, 41634), (208, 41670), (228, 41736), (238, 41763),

Gene: Misha28_72 Start: 45214, Stop: 45801, Start Num: 43

Candidate Starts for Misha28_72:

(24, 45160), (Start: 43 @45214 has 9 MA's), (53, 45232), (59, 45265), (62, 45274), (68, 45289), (Start: 109 @45370 has 2 MA's), (134, 45436), (161, 45508), (176, 45559), (189, 45610), (206, 45661), (211, 45685), (228, 45742),

Gene: Miskis_71 Start: 47774, Stop: 48271, Start Num: 85

Candidate Starts for Miskis_71:

(44, 47657), (Start: 85 @47774 has 7 MA's), (168, 47984), (181, 48038), (189, 48068), (192, 48095), (208, 48146), (228, 48215),

Gene: Nabi_57 Start: 42255, Stop: 41725, Start Num: 65

Candidate Starts for Nabi_57:

(30, 42360), (Start: 49 @42315 has 3 MA's), (Start: 65 @42255 has 4 MA's), (119, 42147), (149, 42084), (175, 42000), (179, 41979), (190, 41940), (191, 41928), (202, 41898), (248, 41751), (252, 41745),

Gene: Naira_45 Start: 34727, Stop: 34242, Start Num: 89

Candidate Starts for Naira_45:

(Start: 69 @34766 has 1 MA's), (Start: 89 @34727 has 30 MA's), (Start: 107 @34685 has 2 MA's), (Start: 128 @34631 has 1 MA's), (Start: 155 @34556 has 1 MA's), (162, 34532), (166, 34520), (169, 34514), (170, 34511), (209, 34364), (219, 34328), (238, 34271),

Gene: Niza_46 Start: 34104, Stop: 33619, Start Num: 89

Candidate Starts for Niza_46:

(Start: 69 @34143 has 1 MA's), (Start: 89 @34104 has 30 MA's), (Start: 107 @34062 has 2 MA's), (Start: 128 @34008 has 1 MA's), (Start: 155 @33933 has 1 MA's), (162, 33909), (166, 33897), (169, 33891), (170, 33888), (209, 33741), (219, 33705), (238, 33648),

Gene: Nordenberg_35 Start: 35840, Stop: 35370, Start Num: 78

Candidate Starts for Nordenberg_35:

(20, 36038), (21, 36029), (Start: 32 @35969 has 2 MA's), (35, 35960), (50, 35924), (Start: 78 @35840 has 8 MA's), (136, 35714), (146, 35696), (160, 35651), (169, 35633), (179, 35588), (189, 35552), (215, 35474),

Gene: Paries_43 Start: 37309, Stop: 36839, Start Num: 78

Candidate Starts for Paries_43:

(20, 37507), (21, 37498), (Start: 32 @37438 has 2 MA's), (35, 37429), (50, 37393), (Start: 78 @37309 has 8 MA's), (136, 37183), (146, 37165), (160, 37120), (169, 37102), (179, 37057), (189, 37021), (215, 36943),

Gene: PascalRango_68 Start: 44439, Stop: 44059, Start Num: 145

Candidate Starts for PascalRango_68:

(60, 44637), (Start: 65 @44625 has 4 MA's), (71, 44607), (132, 44466), (Start: 145 @44439 has 1 MA's), (156, 44400), (166, 44370), (225, 44157),

Gene: Petruccio_44 Start: 32947, Stop: 32471, Start Num: 90

Candidate Starts for Petruccio_44:

(Start: 90 @32947 has 11 MA's), (97, 32929), (106, 32908), (130, 32845), (138, 32824), (186, 32671), (209, 32593), (225, 32536), (228, 32527), (229, 32524), (238, 32500),

Gene: Phayonce_65 Start: 43286, Stop: 43876, Start Num: 36

Candidate Starts for Phayonce_65:

(Start: 36 @43286 has 1 MA's), (40, 43298), (52, 43322), (60, 43364), (94, 43436), (186, 43676), (195, 43715), (208, 43751), (228, 43817), (238, 43844),

Gene: Phlop_82 Start: 55730, Stop: 55215, Start Num: 66

Candidate Starts for Phlop_82:

(Start: 64 @55736 has 1 MA's), (Start: 66 @55730 has 17 MA's), (71, 55718), (Start: 93 @55682 has 5 MA's), (113, 55637), (120, 55622), (151, 55544), (159, 55517), (166, 55496), (172, 55472), (233, 55262), (238, 55250), (245, 55226),

Gene: Phrank15_85 Start: 46952, Stop: 47386, Start Num: 93

Candidate Starts for Phrank15_85:

(Start: 84 @46937 has 1 MA's), (Start: 93 @46952 has 5 MA's), (112, 46988), (167, 47129), (189, 47213), (190, 47216),

Gene: Phredrick_212 Start: 102971, Stop: 103447, Start Num: 92

Candidate Starts for Phredrick_212:

(Start: 92 @102971 has 5 MA's), (152, 103115), (153, 103118), (170, 103166), (178, 103202), (193, 103280),

Gene: PinkCoffee_86 Start: 55594, Stop: 55079, Start Num: 66

Candidate Starts for PinkCoffee_86:

(Start: 64 @55600 has 1 MA's), (Start: 66 @55594 has 17 MA's), (71, 55582), (Start: 93 @55546 has 5 MA's), (113, 55501), (120, 55486), (151, 55408), (159, 55381), (166, 55360), (172, 55336), (233, 55126), (238, 55114), (245, 55090),

Gene: Pippin_46 Start: 33403, Stop: 32918, Start Num: 89

Candidate Starts for Pippin_46:

(37, 33538), (Start: 69 @33442 has 1 MA's), (Start: 89 @33403 has 30 MA's), (Start: 107 @33361 has 2 MA's), (Start: 128 @33307 has 1 MA's), (Start: 155 @33232 has 1 MA's), (162, 33208), (166, 33196), (169, 33190), (170, 33187), (209, 33040), (219, 33004), (238, 32947),

Gene: Poise_51 Start: 28464, Stop: 28937, Start Num: 89

Candidate Starts for Poise_51:

(Start: 89 @28464 has 30 MA's), (Start: 103 @28494 has 1 MA's), (136, 28575), (168, 28665), (186, 28740), (224, 28863), (235, 28902), (238, 28908),

Gene: Portcullis_85 Start: 55736, Stop: 55221, Start Num: 66

Candidate Starts for Portcullis_85:

(Start: 64 @55742 has 1 MA's), (Start: 66 @55736 has 17 MA's), (71, 55724), (Start: 93 @55688 has 5 MA's), (113, 55643), (120, 55628), (151, 55550), (159, 55523), (166, 55502), (172, 55478), (233, 55268), (238, 55256), (245, 55232),

Gene: Posh_67 Start: 45892, Stop: 46479, Start Num: 43

Candidate Starts for Posh_67:

(11, 45700), (22, 45832), (Start: 43 @45892 has 9 MA's), (62, 45952), (68, 45967), (Start: 84 @45997 has 1 MA's), (121, 46078), (161, 46186), (189, 46288), (190, 46291), (238, 46447),

Gene: Pringar_51 Start: 28752, Stop: 29225, Start Num: 89

Candidate Starts for Pringar_51:

(Start: 89 @28752 has 30 MA's), (Start: 103 @28782 has 1 MA's), (136, 28863), (168, 28953), (186, 29028), (224, 29151), (235, 29190), (238, 29196),

Gene: ProMouse_44 Start: 33305, Stop: 32802, Start Num: 75

Candidate Starts for ProMouse_44:

(Start: 65 @33329 has 4 MA's), (75, 33305), (106, 33236), (116, 33215), (138, 33164), (140, 33158), (186, 33011), (228, 32867), (238, 32840),

Gene: PullumCavea_83 Start: 55907, Stop: 55392, Start Num: 66

Candidate Starts for PullumCavea_83:

(Start: 64 @55913 has 1 MA's), (Start: 66 @55907 has 17 MA's), (71, 55895), (Start: 93 @55859 has 5 MA's), (113, 55814), (120, 55799), (151, 55721), (159, 55694), (166, 55673), (172, 55649), (233, 55439), (238, 55427), (245, 55403),

Gene: Raela_51 Start: 29019, Stop: 29492, Start Num: 89

Candidate Starts for Raela_51:

(Start: 89 @29019 has 30 MA's), (Start: 103 @29049 has 1 MA's), (136, 29130), (168, 29220), (186, 29295), (224, 29418), (235, 29457), (238, 29463),

Gene: Rajelicia_45 Start: 33435, Stop: 32950, Start Num: 89

Candidate Starts for Rajelicia_45:

(Start: 69 @33474 has 1 MA's), (Start: 89 @33435 has 30 MA's), (Start: 107 @33393 has 2 MA's), (Start: 128 @33339 has 1 MA's), (Start: 155 @33264 has 1 MA's), (162, 33240), (166, 33228), (169, 33222), (170, 33219), (209, 33072), (219, 33036), (238, 32979),

Gene: Ringer_45 Start: 33671, Stop: 33282, Start Num: 128

Candidate Starts for Ringer_45:

(Start: 69 @33806 has 1 MA's), (Start: 89 @33767 has 30 MA's), (Start: 107 @33725 has 2 MA's), (Start: 128 @33671 has 1 MA's), (Start: 155 @33596 has 1 MA's), (162, 33572), (166, 33560), (169, 33554), (170, 33551), (209, 33404), (219, 33368), (238, 33311),

Gene: Rofo_41 Start: 36635, Stop: 36165, Start Num: 78

Candidate Starts for Rofo_41:

(20, 36833), (21, 36824), (Start: 32 @36764 has 2 MA's), (35, 36755), (50, 36719), (Start: 78 @36635 has 8 MA's), (136, 36509), (146, 36491), (160, 36446), (169, 36428), (179, 36383), (189, 36347), (215, 36269),

Gene: RogerDodger_88 Start: 56495, Stop: 55980, Start Num: 66

Candidate Starts for RogerDodger_88:

(Start: 64 @56501 has 1 MA's), (Start: 66 @56495 has 17 MA's), (71, 56483), (Start: 93 @56447 has 5 MA's), (113, 56402), (120, 56387), (151, 56309), (159, 56282), (166, 56261), (172, 56237), (233, 56027), (238, 56015), (245, 55991),

Gene: Ruotula_47 Start: 34572, Stop: 34078, Start Num: 89

Candidate Starts for Ruotula_47:

(Start: 69 @34611 has 1 MA's), (Start: 89 @34572 has 30 MA's), (Start: 107 @34530 has 2 MA's), (Start: 128 @34476 has 1 MA's), (Start: 155 @34401 has 1 MA's), (162, 34377), (166, 34365), (169, 34359), (170, 34356), (209, 34200), (219, 34164), (238, 34107),

Gene: SCentae_166 Start: 121636, Stop: 122217, Start Num: 54

Candidate Starts for SCentae_166:

(Start: 54 @121636 has 1 MA's), (Start: 67 @121693 has 1 MA's), (151, 121873), (207, 122059), (229, 122125),

Gene: STLscum_45 Start: 33801, Stop: 33487, Start Num: 155

Candidate Starts for STLscum_45:

(Start: 155 @33801 has 1 MA's), (162, 33777), (166, 33765), (169, 33759), (170, 33756), (177, 33723), (199, 33642), (209, 33609), (228, 33543), (229, 33540), (231, 33531), (238, 33516),

Gene: Sagefire_47 Start: 34321, Stop: 33836, Start Num: 89

Candidate Starts for Sagefire_47:

(Start: 69 @34360 has 1 MA's), (Start: 89 @34321 has 30 MA's), (Start: 107 @34279 has 2 MA's), (Start: 128 @34225 has 1 MA's), (Start: 155 @34150 has 1 MA's), (162, 34126), (166, 34114), (169, 34108), (170, 34105), (209, 33958), (219, 33922), (238, 33865),

Gene: Salvador_85 Start: 55832, Stop: 55317, Start Num: 66

Candidate Starts for Salvador_85:

(Start: 64 @55838 has 1 MA's), (Start: 66 @55832 has 17 MA's), (71, 55820), (Start: 93 @55784 has 5 MA's), (113, 55739), (120, 55724), (151, 55646), (159, 55619), (166, 55598), (172, 55574), (233, 55364), (238, 55352), (245, 55328),

Gene: Sampudon_70 Start: 49016, Stop: 49408, Start Num: 109

Candidate Starts for Sampudon_70:

(105, 49013), (Start: 109 @49016 has 2 MA's), (166, 49139), (168, 49142), (181, 49196), (189, 49226), (198, 49262), (232, 49376),

Gene: Samy_64 Start: 40970, Stop: 41473, Start Num: 85

Candidate Starts for Samy_64:

(2, 40451), (6, 40556), (7, 40580), (14, 40679), (17, 40739), (Start: 85 @40970 has 7 MA's), (122, 41057), (136, 41093), (149, 41126), (Start: 155 @41144 has 1 MA's), (194, 41297), (206, 41327), (222, 41390),

Gene: Samy_62 Start: 37969, Stop: 38490, Start Num: 69

Candidate Starts for Samy_62:

(Start: 69 @37969 has 1 MA's), (114, 38059), (162, 38200),

Gene: Sanya_67 Start: 45283, Stop: 44903, Start Num: 145

Candidate Starts for Sanya_67:

(60, 45481), (Start: 65 @45469 has 4 MA's), (71, 45451), (132, 45310), (Start: 145 @45283 has 1 MA's), (156, 45244), (166, 45214), (225, 45001),

Gene: Savbucketdawg_80 Start: 55174, Stop: 54659, Start Num: 66

Candidate Starts for Savbucketdawg_80:

(Start: 64 @55180 has 1 MA's), (Start: 66 @55174 has 17 MA's), (71, 55162), (Start: 93 @55126 has 5 MA's), (113, 55081), (120, 55066), (151, 54988), (159, 54961), (166, 54940), (172, 54916), (233, 54706), (238, 54694), (245, 54670),

Gene: Schomber_120 Start: 85119, Stop: 85817, Start Num: 49

Candidate Starts for Schomber_120:

(Start: 49 @85119 has 3 MA's), (Start: 69 @85191 has 1 MA's), (82, 85218), (98, 85251), (111, 85281), (137, 85353), (139, 85356), (150, 85389), (151, 85392), (165, 85437), (169, 85446), (189, 85527), (197, 85566), (244, 85710), (250, 85719), (257, 85764), (260, 85809),

Gene: Seanderson_46 Start: 33923, Stop: 33447, Start Num: 90

Candidate Starts for Seanderson_46:

(Start: 90 @33923 has 11 MA's), (97, 33905), (106, 33884), (130, 33821), (138, 33800), (186, 33647), (209, 33569), (225, 33512), (228, 33503), (229, 33500), (238, 33476),

Gene: Shinji_84 Start: 55913, Stop: 55398, Start Num: 66

Candidate Starts for Shinji_84:

(Start: 64 @55919 has 1 MA's), (Start: 66 @55913 has 17 MA's), (71, 55901), (Start: 93 @55865 has 5 MA's), (113, 55820), (120, 55805), (151, 55727), (159, 55700), (166, 55679), (172, 55655), (233, 55445), (238, 55433), (245, 55409),

Gene: SkinnyPete_53 Start: 35995, Stop: 36582, Start Num: 43

Candidate Starts for SkinnyPete_53:

(24, 35941), (Start: 43 @35995 has 9 MA's), (53, 36013), (59, 36046), (62, 36055), (68, 36070), (Start: 109 @36151 has 2 MA's), (134, 36217), (161, 36289), (176, 36340), (189, 36391), (206, 36442), (211, 36466), (228, 36523),

Gene: Slagathor_46 Start: 33360, Stop: 32875, Start Num: 89

Candidate Starts for Slagathor_46:

(Start: 69 @33399 has 1 MA's), (Start: 89 @33360 has 30 MA's), (Start: 107 @33318 has 2 MA's), (Start: 128 @33264 has 1 MA's), (Start: 155 @33189 has 1 MA's), (162, 33165), (166, 33153), (169, 33147), (170, 33144), (209, 32997), (219, 32961), (238, 32904),

Gene: Smairt_46 Start: 33659, Stop: 33174, Start Num: 89

Candidate Starts for Smairt_46:

(Start: 69 @33698 has 1 MA's), (Start: 89 @33659 has 30 MA's), (Start: 107 @33617 has 2 MA's), (Start: 128 @33563 has 1 MA's), (Start: 155 @33488 has 1 MA's), (162, 33464), (166, 33452), (169, 33446), (170, 33443), (209, 33296), (219, 33260), (238, 33203),

Gene: SmokingBunny_86 Start: 56828, Stop: 56313, Start Num: 66

Candidate Starts for SmokingBunny_86:

(Start: 64 @56834 has 1 MA's), (Start: 66 @56828 has 17 MA's), (71, 56816), (Start: 93 @56780 has 5 MA's), (113, 56735), (120, 56720), (151, 56642), (159, 56615), (166, 56594), (172, 56570), (233, 56360), (238, 56348), (245, 56324),

Gene: Spooky_106 Start: 55742, Stop: 56233, Start Num: 85

Candidate Starts for Spooky_106:

(16, 55508), (19, 55517), (28, 55583), (34, 55598), (44, 55625), (55, 55652), (Start: 85 @55742 has 7 MA's), (136, 55859), (137, 55862), (139, 55865), (176, 55967), (186, 56009), (189, 56018), (238, 56180), (249, 56210),

Gene: StAB_46 Start: 35820, Stop: 36344, Start Num: 93

Candidate Starts for StAB_46:

(4, 35346), (77, 35793), (Start: 93 @35820 has 5 MA's), (211, 36168), (243, 36270), (254, 36297),

Gene: Stiles_46 Start: 35275, Stop: 35799, Start Num: 93

Candidate Starts for Stiles_46:

(4, 34801), (Start: 93 @35275 has 5 MA's), (211, 35623), (243, 35725),

Gene: StrongArm_43 Start: 33982, Stop: 33497, Start Num: 89

Candidate Starts for StrongArm_43:

(Start: 69 @34021 has 1 MA's), (Start: 89 @33982 has 30 MA's), (Start: 107 @33940 has 2 MA's), (Start: 128 @33886 has 1 MA's), (Start: 155 @33811 has 1 MA's), (162, 33787), (166, 33775), (169, 33769), (170, 33766), (209, 33619), (219, 33583), (238, 33526),

Gene: Sunfish_75 Start: 46858, Stop: 46316, Start Num: 88

Candidate Starts for Sunfish_75:

(Start: 88 @46858 has 1 MA's), (102, 46828), (193, 46537), (209, 46489), (216, 46465),

Gene: Tangent_41 Start: 36226, Stop: 35756, Start Num: 78

Candidate Starts for Tangent_41:

(20, 36424), (21, 36415), (Start: 32 @36355 has 2 MA's), (35, 36346), (50, 36310), (Start: 78 @36226 has 8 MA's), (136, 36100), (146, 36082), (160, 36037), (169, 36019), (179, 35974), (189, 35938), (215, 35860),

Gene: Teodoridan_42 Start: 32338, Stop: 31949, Start Num: 128

Candidate Starts for Teodoridan_42:

(Start: 69 @32473 has 1 MA's), (Start: 89 @32434 has 30 MA's), (Start: 107 @32392 has 2 MA's), (Start: 128 @32338 has 1 MA's), (Start: 155 @32263 has 1 MA's), (162, 32239), (166, 32227), (169, 32221), (170, 32218), (209, 32071), (219, 32035), (238, 31978),

Gene: TheloniousMonk_45 Start: 34368, Stop: 33883, Start Num: 89

Candidate Starts for TheloniousMonk_45:

(Start: 69 @34407 has 1 MA's), (Start: 89 @34368 has 30 MA's), (Start: 107 @34326 has 2 MA's), (Start: 128 @34272 has 1 MA's), (Start: 155 @34197 has 1 MA's), (162, 34173), (166, 34161), (169, 34155), (170, 34152), (209, 34005), (219, 33969), (238, 33912),

Gene: ThulaThula_69 Start: 44706, Stop: 45302, Start Num: 33

Candidate Starts for ThulaThula_69:

(18, 44622), (25, 44679), (Start: 33 @44706 has 2 MA's), (Start: 41 @44727 has 1 MA's), (57, 44763), (58, 44778), (72, 44823), (94, 44862), (186, 45102), (195, 45141), (208, 45177), (228, 45243), (238, 45270),

Gene: TillyBobJoe_83 Start: 55714, Stop: 55199, Start Num: 66

Candidate Starts for TillyBobJoe_83:

(Start: 64 @55720 has 1 MA's), (Start: 66 @55714 has 17 MA's), (71, 55702), (Start: 93 @55666 has 5 MA's), (113, 55621), (120, 55606), (151, 55528), (159, 55501), (166, 55480), (172, 55456), (233, 55246), (238, 55234), (245, 55210),

Gene: Togo_85 Start: 56828, Stop: 56313, Start Num: 66

Candidate Starts for Togo_85:

(Start: 64 @56834 has 1 MA's), (Start: 66 @56828 has 17 MA's), (71, 56816), (Start: 93 @56780 has 5 MA's), (113, 56735), (120, 56720), (151, 56642), (159, 56615), (166, 56594), (172, 56570), (233, 56360), (238, 56348), (245, 56324),

Gene: Toma_56 Start: 42308, Stop: 41778, Start Num: 63

Candidate Starts for Toma_56:

(42, 42377), (Start: 63 @42308 has 5 MA's), (142, 42131), (189, 41987), (202, 41942), (225, 41858), (233, 41834),

Gene: TootsiePop_72 Start: 45214, Stop: 45801, Start Num: 43

Candidate Starts for TootsiePop_72:

(24, 45160), (Start: 43 @45214 has 9 MA's), (53, 45232), (59, 45265), (62, 45274), (68, 45289), (Start: 109 @45370 has 2 MA's), (134, 45436), (161, 45508), (176, 45559), (189, 45610), (206, 45661), (211, 45685), (228, 45742),

Gene: Trouble_45 Start: 34048, Stop: 33572, Start Num: 90

Candidate Starts for Trouble_45:

(Start: 90 @34048 has 11 MA's), (97, 34030), (106, 34009), (130, 33946), (138, 33925), (186, 33772), (209, 33694), (225, 33637), (228, 33628), (229, 33625), (238, 33601),

Gene: Twister6_84 Start: 55177, Stop: 54662, Start Num: 66

Candidate Starts for Twister6_84:

(Start: 64 @55183 has 1 MA's), (Start: 66 @55177 has 17 MA's), (71, 55165), (Start: 93 @55129 has 5 MA's), (113, 55084), (120, 55069), (151, 54991), (159, 54964), (166, 54943), (172, 54919), (233, 54709), (238, 54697), (245, 54673),

Gene: Valary_86 Start: 56820, Stop: 56305, Start Num: 66

Candidate Starts for Valary_86:

(Start: 64 @56826 has 1 MA's), (Start: 66 @56820 has 17 MA's), (71, 56808), (Start: 93 @56772 has 5 MA's), (113, 56727), (120, 56712), (151, 56634), (159, 56607), (166, 56586), (172, 56562), (233, 56352), (238, 56340), (245, 56316),

Gene: VanDeWege_87 Start: 56351, Stop: 55830, Start Num: 64

Candidate Starts for VanDeWege_87:

(Start: 64 @56351 has 1 MA's), (Start: 66 @56345 has 17 MA's), (71, 56333), (Start: 93 @56297 has 5 MA's), (113, 56252), (120, 56237), (151, 56159), (159, 56132), (166, 56111), (172, 56087), (233, 55877), (238, 55865), (245, 55841),

Gene: VasuNzinga_51 Start: 28326, Stop: 28799, Start Num: 89

Candidate Starts for VasuNzinga_51:

(Start: 89 @28326 has 30 MA's), (Start: 103 @28356 has 1 MA's), (136, 28437), (168, 28527), (186, 28602), (224, 28725), (235, 28764), (238, 28770),

Gene: Vitus_38 Start: 31088, Stop: 31606, Start Num: 87

Candidate Starts for Vitus_38:

(87, 31088), (157, 31262), (208, 31457),

Gene: Vivi2_43 Start: 37381, Stop: 36914, Start Num: 76

Candidate Starts for Vivi2_43:

(52, 37450), (56, 37441), (Start: 76 @37381 has 1 MA's), (136, 37258), (146, 37240), (160, 37195), (169, 37177), (179, 37132), (189, 37096), (215, 37018),

Gene: Walrus_68 Start: 43422, Stop: 44057, Start Num: 29

Candidate Starts for Walrus_68:

(Start: 29 @43422 has 2 MA's), (47, 43458), (57, 43485), (72, 43545), (125, 43662), (131, 43668), (208, 43899), (255, 44043),

Gene: WilliamBoone_124 Start: 68689, Stop: 69156, Start Num: 96

Candidate Starts for WilliamBoone_124:

(46, 68554), (Start: 96 @68689 has 1 MA's), (111, 68722), (169, 68878), (189, 68962), (211, 69028), (237, 69106),

Gene: Wizard_80 Start: 55680, Stop: 55165, Start Num: 66

Candidate Starts for Wizard_80:

(Start: 64 @55686 has 1 MA's), (Start: 66 @55680 has 17 MA's), (71, 55668), (Start: 93 @55632 has 5 MA's), (113, 55587), (120, 55572), (151, 55494), (159, 55467), (166, 55446), (172, 55422), (233, 55212), (238, 55200), (245, 55176),

Gene: Wollypog_58 Start: 43704, Stop: 44234, Start Num: 79

Candidate Starts for Wollypog_58:

(Start: 79 @43704 has 1 MA's), (129, 43818), (147, 43863), (187, 44016), (217, 44124),

Gene: Wrigley_69 Start: 45475, Stop: 46062, Start Num: 43

Candidate Starts for Wrigley_69:

(11, 45283), (22, 45415), (Start: 43 @45475 has 9 MA's), (62, 45535), (68, 45550), (Start: 84 @45580 has 1 MA's), (121, 45661), (161, 45769), (189, 45871), (190, 45874), (238, 46030),

Gene: Yvonnetastic_71 Start: 47446, Stop: 47946, Start Num: 85

Candidate Starts for Yvonnetastic_71:

(Start: 85 @47446 has 7 MA's), (127, 47539), (134, 47560), (154, 47614), (166, 47653), (181, 47710), (189, 47740), (204, 47794), (211, 47827), (233, 47902),

Gene: Zemlya_56 Start: 42043, Stop: 41525, Start Num: 63

Candidate Starts for Zemlya_56:

(Start: 63 @42043 has 5 MA's), (162, 41836), (175, 41794), (186, 41746),