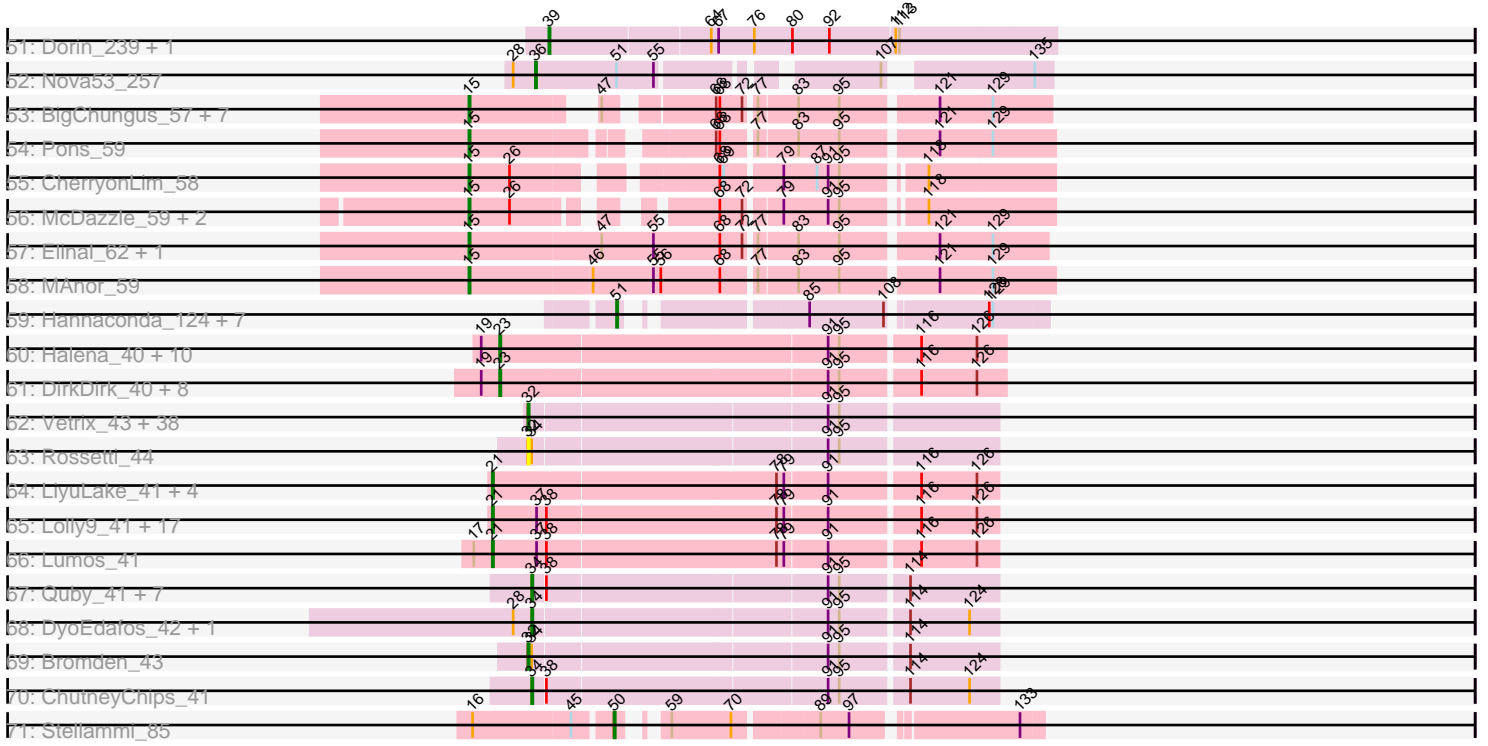


Pham 311211



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 311211 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311211 has 233 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Boohoo_48, Anaysia_48, LastResort_47, Soups_48, ShayRa_49, KatherineG_49, Looper_48, ReMo_47, Nebulosus_47
- Track 2 : DekHockey33_48
- Track 3 : KatherineG_75
- Track 4 : DekHockey33_76, Rosalind_73, ShayRa_75, Switzerland_74, Soups_75
- Track 5 : Switzerland_48, Oofda_48, Epsocamisio_47, Waits_48, JSwag_47, Rosalind_47
- Track 6 : LogiBear_67
- Track 7 : Epsocamisio_71, JSwag_74, Nebulosus_72, MinecraftSteve_75
- Track 8 : Battleship_77
- Track 9 : Warrior24_49
- Track 10 : Elle_44
- Track 11 : Remus_48, Strosahl_48
- Track 12 : Anon_43
- Track 13 : MinecraftSteve_49
- Track 14 : Ravana_49
- Track 15 : Battleship_49
- Track 16 : EagleEye_71, Lucyedi_70, PainterBoy_69
- Track 17 : Conspiracy_39, Jovo_39, Milcery_40, Discoknowium_38, Midas2_39, Lev2_39, Twigg_40, AgentM_38, Aragog_38, Dublin_38, Zolita_40, Coog_39, Tiger_38, Ghoulboy_41, Phlorence_38, PickleBack_39, Theia_37, ForGetIt_39, Archetta_39, SydNat_41
- Track 18 : Cuco_39
- Track 19 : HuhtaEnerson15_40, Florence4_39, LittleCherry_40, Florence1_38, Bonamassa_40, Swirley_42, Micasa_41
- Track 20 : Bluefalcon_38, MarysWell_38
- Track 21 : UnionJack_40
- Track 22 : PetterN_43, Chadwick_43
- Track 23 : Prinashe11_40, George_39
- Track 24 : Tarynearal_38
- Track 25 : Jabiru_40, Airmid_40
- Track 26 : Scorpia_43
- Track 27 : Naca_41
- Track 28 : Benedict_42
- Track 29 : EITiger69_41
- Track 30 : Polyphemus_70, SuperAwesome_68
- Track 31 : Blinn1_72

- Track 32 : JewelBug_68
- Track 33 : Roary_44, Smeadley_44, Groundhog_42, Astro_43, Danforth_43, Caitlin_43, Expelliarmus_43
- Track 34 : Stephig9_44
- Track 35 : Phillis_45
- Track 36 : Peregrin_188
- Track 37 : Grayson_191
- Track 38 : CurlyFries_66
- Track 39 : CurlyFries_65
- Track 40 : SFuller_74
- Track 41 : Jflix2_76
- Track 42 : Madraxi_80
- Track 43 : RegnumDei_62
- Track 44 : RegnumDei_63
- Track 45 : RegnumDei_61
- Track 46 : REQ1_28
- Track 47 : Shagrat_64
- Track 48 : Shagrat_65
- Track 49 : Shagrat_66
- Track 50 : REQ1_45
- Track 51 : Dorin_239, Francesca_240
- Track 52 : Nova53_257
- Track 53 : BigChungus_57, SummitAcademy_57, Yucky_60, Feastonyeet_57, Vine_60, PotPie_57, CocoaPuff_57, Balloona_56
- Track 54 : Pons_59
- Track 55 : CherryonLim_58
- Track 56 : McDazzle_59, ElJefes_59, SheckWes_61
- Track 57 : Elinal_62, KayGee_60
- Track 58 : MAnor_59
- Track 59 : Hannaconda_124, Odette_135, HokkenD_123, Yeet_125, Gonephishing_125, Rearden_129, Courthouse_126, Superphikiman_128
- Track 60 : Halena_40, CicholasNage_41, Calm_41, Silverleaf_40, Zaria_41, Wyatt2_41, AvadaKedavra_41, Acquire49_41, Tyson_40, MAckerman_41, Rose5_40
- Track 61 : DirkDirk_40, Wamburgrxpress_41, JoeDirt_40, OhShagHennessy_40, Appletree2_40, Enceladus_40, LeBron_41, Poochiewood_40, UPIE_41
- Track 62 : Vetrax_43, GuuelaD_43, Lewan_43, Kahlid_43, Hafay_43, Winky_43, DrSeegs_43, Crossroads_43, Loadrie_43, Finemlucis_43, Breezona_43, Sarshaun_43, Claus_43, BobsGarage_43, SoJulia_44, Bazzle_43, Nicholasp3_43, Gabriela_43, Itos_42, Lynnae_43, BigCheese_43, DHan_44, ZhongYanYuan_41, Gardann_43, Netyap_43, Wilder_43, MkaliMitinis3_43, Rumpelstiltskin_43, OverPar_43, Archie_43, Underpass_43, Soap141_43, Faith1_43, Wigglewiggle_43, Miley16_43, Zakai_43, LilDestine_43, DanBing_42, Baoshan_42
- Track 63 : Rossetti_44
- Track 64 : LiyuLake_41, Krypton555_41, Whirlwind_42, Ellson_41, BourbonZero_40
- Track 65 : Lolly9_41, MsGreen_41, Jobypre_41, MiniLon_41, Clautastrophe_41, Kingsolomon_41, Bellis_41, Snenia_41, Finnry_41, TriFive_41, DuncansLeg_41, KirDoubleO7_39, Jubie_41, Red305_41, Nicholas_41, MiniMac_41, Moostard_41, Samty_41
- Track 66 : Lumos_41
- Track 67 : Quby_41, Douzhi_40, Chaser_40, PYPDinur_40, BrainDrainer_41, Sheng711_41, FarmResident_41, Douge_40
- Track 68 : DyoEdafos_42, Kropertea_41
- Track 69 : Bromden_43

- Track 70 : ChutneyChips_41
- Track 71 : Stellammi_85

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

The start number called the most often in the published annotations is 40, it was called in 67 of the 197 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM_38, Airmid_40, Anaysia_48, Anon_43, Aragog_38, Archetta_39, Battleship_49, Benedict_42, Bluefalcon_38, Bonamassa_40, Boohoo_48, Chadwick_43, Conspiracy_39, Coog_39, Cuco_39, Discoknowium_38, Dublin_38, EagleEye_71, ElTiger69_41, Elle_44, Epsocamisio_47, Florence1_38, Florence4_39, ForGetIt_39, George_39, Ghouboy_41, HuhtaEnerson15_40, JSwag_47, Jabiru_40, JewelBug_68, Jovo_39, KatherineG_49, LastResort_47, Lev2_39, LittleCherry_40, Looper_48, Lucyedi_70, MarysWell_38, Micasa_41, Midas2_39, Milcery_40, MinecraftSteve_49, Naca_41, Nebulosus_47, Oofda_48, PainterBoy_69, PetterN_43, Phlorence_38, PickleBack_39, Polyphemus_70, Prinasse11_40, Ravana_49, ReMo_47, Remus_48, Rosalind_47, Scorpia_43, ShayRa_49, Soups_48, Strosahl_48, SuperAwesome_68, Swirley_42, Switzerland_48, SydNat_41, Tarynearal_38, Theia_37, Tiger_38, Twigg_40, UnionJack_40, Waits_48, Warrior24_49, Zolita_40,

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

- DekHockey33_48,

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

- Acquire49_41, Appletree2_40, Archie_43, Astro_43, AvadaKedavra_41, Balloona_56, Baoshan_42, Battleship_77, Bazzle_43, Bellis_41, BigCheese_43, BigChungus_57, Blinn1_72, BobsGarage_43, BourbonZero_40, BrainDrainer_41, Breezona_43, Bromden_43, Caitlin_43, Calm_41, Chaser_40, CherryonLim_58, ChutneyChips_41, CicholasNage_41, Claus_43, Clautastrophe_41, CocoaPuff_57, Courthouse_126, Crossroads_43, CurlyFries_65, CurlyFries_66, DHan_44, DanBing_42, Danforth_43, DekHockey33_76, DirkDirk_40, Dorin_239, Douge_40, Douzhi_40, DrSeegs_43, DuncansLeg_41, DyoEdafos_42, ElJefes_59, Elinal_62, Ellson_41, Enceladus_40, Epsocamisio_71, Expelliarmus_43, Faith1_43, FarmResident_41, Feastonyeet_57, Finemlucis_43, Finnry_41, Francesca_240, Gabriela_43, Gardann_43, Gonephishing_125, Grayson_191, Groundhog_42, GuuelaD_43, Hafay_43, Halena_40, Hannaconda_124, HokkenD_123, Itos_42, JSwag_74, Jflix2_76, Jobypre_41, JoeDirt_40, Jubie_41, Kahlid_43, KatherineG_75, KayGee_60, Kingsolomon_41, KirDoubleO7_39, Kropertea_41, Krypton555_41, LeBron_41, Lewan_43, LilDestine_43, LiyuLake_41, Loadrie_43, LogiBear_67, Lolly9_41, Lumos_41, Lynnae_43, MAckerman_41, MAnor_59, Madraxi_80, McDazzle_59, Miley16_43, MinecraftSteve_75, MiniLon_41, MiniMac_41, MkaliMitinis3_43, Moostard_41, MsGreen_41, Nebulosus_72, Netyap_43, Nicholas_41, Nicholasp3_43, Nova53_257, Odette_135, OhShagHennessey_40, OverPar_43, PYPDinur_40, Peregrin_188, Phillis_45, Pons_59, Pochiewood_40, PotPie_57, Quby_41, REQ1_28, REQ1_45, Rearden_129, Red305_41, RegnumDei_61, RegnumDei_62, RegnumDei_63, Roary_44, Rosalind_73, Rose5_40, Rossetti_44, Rumpelstiltskin_43, SFuller_74, Samty_41, Sarshaun_43,

Shagrat_64, Shagrat_65, Shagrat_66, ShayRa_75, SheckWes_61, Sheng711_41, Silverleaf_40, Smeadley_44, Snenia_41, SoJulia_44, Soap141_43, Soups_75, Stellammi_85, Stephig9_44, SummitAcademy_57, Superphikiman_128, Switzerland_74, TriFive_41, Tyson_40, UPIE_41, Underpass_43, Vetrrix_43, Vine_60, Wamburgxpress_41, Whirlwind_42, Wigglewiggle_43, Wilder_43, Winky_43, Wyatt2_41, Yeet_125, Yucky_60, Zakai_43, Zaria_41, ZhongYanYuan_41,

Summary by start number:

Start 15:

- Found in 16 of 233 (6.9%) of genes in pham
- Manual Annotations of this start: 12 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Balloona_56 (CT), BigChungus_57 (CT), CherryonLim_58 (CT), CocoaPuff_57 (CT), ElJefes_59 (CT), Elinal_62 (CT), Feastonyeet_57 (CT), KayGee_60 (CT), MAnor_59 (CT), McDazzle_59 (CT), Pons_59 (CT), PotPie_57 (CT), SheckWes_61 (CT), SummitAcademy_57 (CT), Vine_60 (CT), Yucky_60 (CT),

Start 18:

- Found in 12 of 233 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 197
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Battleship_77 (A15),

Start 21:

- Found in 26 of 233 (11.2%) of genes in pham
- Manual Annotations of this start: 20 of 197
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Bellis_41 (L3), BourbonZero_40 (L3), Clautastrophe_41 (L3), CurlyFries_66 (CF), DuncansLeg_41 (L3), Ellson_41 (L3), Finrny_41 (L3), Jobypre_41 (L3), Jubie_41 (L3), Kingsolomon_41 (L3), KirDoubleO7_39 (L3), Krypton555_41 (L3), LiyuLake_41 (L3), Lolly9_41 (L3), Lumos_41 (L3), MiniLon_41 (L3), MiniMac_41 (L3), Moostard_41 (L3), MsGreen_41 (L3), Nicholas_41 (L3), Red305_41 (L3), Samty_41 (L3), Snenia_41 (L3), TriFive_41 (L3), Whirlwind_42 (L3),

Start 23:

- Found in 24 of 233 (10.3%) of genes in pham
- Manual Annotations of this start: 22 of 197
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Acquire49_41 (L1), Appletree2_40 (L1), AvadaKedavra_41 (L1), Calm_41 (L1), CicholasNage_41 (L1), CurlyFries_65 (CF), DirkDirk_40 (L1), Enceladus_40 (L1), Halena_40 (L1), JoeDirt_40 (L1), LeBron_41 (L1), MAckerman_41 (L1), OhShagHennessy_40 (L1), Poochiewood_40 (L1), RegnumDei_61 (CF), Rose5_40 (L1), Shagrat_64 (CF), Silverleaf_40 (L1), Tyson_40 (L1), UPIE_41 (L1), Wamburgxpress_41 (L1), Wyatt2_41 (L1), Zaria_41 (L1),

Start 25:

- Found in 4 of 233 (1.7%) of genes in pham
- Manual Annotations of this start: 3 of 197
- Called 75.0% of time when present

- Phage (with cluster) where this start called: RegnumDei_62 (CF), RegnumDei_63 (CF), Shagrat_65 (CF),

Start 27:

- Found in 3 of 233 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jflix2_76 (CF), Madraxi_80 (CF), SFuller_74 (CF),

Start 28:

- Found in 15 of 233 (6.4%) of genes in pham
- Manual Annotations of this start: 10 of 197
- Called 66.7% of time when present
- Phage (with cluster) where this start called: DekHockey33_76 (A15), Epsocamisio_71 (A15), JSwag_74 (A15), KatherineG_75 (A15), MinecraftSteve_75 (A15), Nebulosus_72 (A15), Rosalind_73 (A15), ShayRa_75 (A15), Soups_75 (A15), Switzerland_74 (A15),

Start 30:

- Found in 1 of 233 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ1_28 (CF),

Start 31:

- Found in 1 of 233 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ1_45 (CF),

Start 32:

- Found in 52 of 233 (22.3%) of genes in pham
- Manual Annotations of this start: 32 of 197
- Called 78.8% of time when present
- Phage (with cluster) where this start called: Archie_43 (L2), Baoshan_42 (L2), Bazzle_43 (L2), BigCheese_43 (L2), BobsGarage_43 (L2), Breezona_43 (L2), Bromden_43 (L4), Claus_43 (L2), Crossroads_43 (L2), DHan_44 (L2), DanBing_42 (L2), DrSeegs_43 (L2), Faith1_43 (L2), Finemlucis_43 (L2), Gabriela_43 (L2), Gardann_43 (L2), GuuelaD_43 (L2), Hafay_43 (L2), Itos_42 (L2), Kahlid_43 (L2), Lewan_43 (L2), LilDestine_43 (L2), Loadrie_43 (L2), Lynnae_43 (L2), Miley16_43 (L2), MkaliMitinis3_43 (L2), Netyap_43 (L2), Nicholasp3_43 (L2), OverPar_43 (L2), Rossetti_44 (L2), Rumpelstiltskin_43 (L2), Sarshaun_43 (L2), SoJulia_44 (L2), Soap141_43 (L2), Underpass_43 (L2), Vetrix_43 (L2), Wigglewiggles_43 (L2), Wilder_43 (L2), Winky_43 (L2), Zakai_43 (L2), ZhongYanYuan_41 (L2),

Start 34:

- Found in 13 of 233 (5.6%) of genes in pham
- Manual Annotations of this start: 5 of 197
- Called 84.6% of time when present
- Phage (with cluster) where this start called: BrainDrainer_41 (L4), Chaser_40 (L4), ChutneyChips_41 (L4), Douge_40 (L4), Douzhi_40 (L4), DyoEdafos_42 (L4), FarmResident_41 (L4), Kropertea_41 (L4), PYPDinur_40 (L4), Quby_41 (L4),

Sheng711_41 (L4),

Start 36:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nova53_257 (CG),

Start 38:

- Found in 29 of 233 (12.4%) of genes in pham
- Manual Annotations of this start: 1 of 197
- Called 3.4% of time when present
- Phage (with cluster) where this start called: Blinn1_72 (A6),

Start 39:

- Found in 13 of 233 (5.6%) of genes in pham
- Manual Annotations of this start: 3 of 197
- Called 23.1% of time when present
- Phage (with cluster) where this start called: DekHockey33_48 (A15), Dorin_239 (CG), Francesca_240 (CG),

Start 40:

- Found in 72 of 233 (30.9%) of genes in pham
- Manual Annotations of this start: 67 of 197
- Called 98.6% of time when present
- Phage (with cluster) where this start called: AgentM_38 (A5), Airmid_40 (A5), Anaysia_48 (A15), Anon_43 (A15), Aragog_38 (A5), Archetta_39 (A5), Battleship_49 (A15), Benedict_42 (A5), Bluefalcon_38 (A5), Bonamassa_40 (A5), Boohoo_48 (A15), Chadwick_43 (A5), Conspiracy_39 (A5), Coog_39 (A5), Cuco_39 (A5), Discoknowium_38 (A5), Dublin_38 (A5), EagleEye_71 (A16), EITiger69_41 (A5), Elle_44 (A15), Epsocamisio_47 (A15), Florence1_38 (A5), Florence4_39 (A5), ForGetIt_39 (A5), George_39 (A5), Ghoulboy_41 (A5), HuhtaEnerson15_40 (A5), JSwag_47 (A15), Jabiru_40 (A5), JewelBug_68 (A6), Jovo_39 (A5), KatherineG_49 (A15), LastResort_47 (A15), Lev2_39 (A5), LittleCherry_40 (A5), Looper_48 (A15), Lucyedi_70 (A16), MarysWell_38 (A5), Micasa_41 (A5), Midas2_39 (A5), Milcery_40 (A5), MinecraftSteve_49 (A15), Naca_41 (A5), Nebulosus_47 (A15), Oofda_48 (A15), PainterBoy_69 (A16), PetterN_43 (A5), Phlorence_38 (A5), PickleBack_39 (A5), Polyphemos_70 (A6), Prinash11_40 (A5), Ravana_49 (A15), ReMo_47 (A15), Remus_48 (A15), Rosalind_47 (A15), Scorpia_43 (A5), ShayRa_49 (A15), Soups_48 (A15), Strosahl_48 (A15), SuperAwesome_68 (A6), Swirley_42 (A5), Switzerland_48 (A15), SydNat_41 (A5), Tarynearal_38 (A5), Theia_37 (A5), Tiger_38 (A5), Twigg_40 (A5), UnionJack_40 (A5), Waits_48 (A15), Warrior24_49 (A15), Zolita_40 (A5),

Start 41:

- Found in 1 of 233 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LogiBear_67 (A15),

Start 44:

- Found in 9 of 233 (3.9%) of genes in pham
- Manual Annotations of this start: 9 of 197
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Astro_43 (A8), Caitlin_43 (A8), Danforth_43 (A8), Expelliarmus_43 (A8), Groundhog_42 (A8), Phillis_45 (A8), Roary_44 (A8), Smeadley_44 (A8), Stephig9_44 (A8),

Start 50:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stellammi_85 (UNK),

Start 51:

- Found in 51 of 233 (21.9%) of genes in pham
- Manual Annotations of this start: 5 of 197
- Called 15.7% of time when present
- Phage (with cluster) where this start called: Courthouse_126 (J), Gonephishing_125 (J), Hannaconda_124 (J), HokkenD_123 (J), Odette_135 (J), Rearden_129 (J), Superphikiman_128 (J), Yeet_125 (J),

Start 54:

- Found in 13 of 233 (5.6%) of genes in pham
- Manual Annotations of this start: 2 of 197
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Grayson_191 (CB), Peregrin_188 (CB),

Start 136:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 197
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shagrat_66 (CF),

Summary by clusters:

There are 15 clusters represented in this pham: A15, J, CB, L1, CG, CF, L4, A16, A5, L3, A8, L2, UNK, A6, CT,

Info for manual annotations of cluster A15:

- Start number 18 was manually annotated 1 time for cluster A15.
- Start number 28 was manually annotated 10 times for cluster A15.
- Start number 39 was manually annotated 1 time for cluster A15.
- Start number 40 was manually annotated 22 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 40 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A5:

- Start number 40 was manually annotated 39 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 38 was manually annotated 1 time for cluster A6.
- Start number 40 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A8:

- Start number 44 was manually annotated 9 times for cluster A8.

Info for manual annotations of cluster CB:

- Start number 54 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster CF:

- Start number 21 was manually annotated 1 time for cluster CF.
- Start number 23 was manually annotated 3 times for cluster CF.
- Start number 25 was manually annotated 3 times for cluster CF.
- Start number 27 was manually annotated 2 times for cluster CF.
- Start number 136 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CG:

- Start number 36 was manually annotated 1 time for cluster CG.
- Start number 39 was manually annotated 2 times for cluster CG.

Info for manual annotations of cluster CT:

- Start number 15 was manually annotated 12 times for cluster CT.

Info for manual annotations of cluster J:

- Start number 51 was manually annotated 5 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 23 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 32 was manually annotated 31 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 21 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 32 was manually annotated 1 time for cluster L4.
- Start number 34 was manually annotated 5 times for cluster L4.

Info for manual annotations of cluster UNK:

- Start number 50 was manually annotated 1 time for cluster UNK.

Gene Information:

Gene: Acquire49_41 Start: 33548, Stop: 33943, Start Num: 23

Candidate Starts for Acquire49_41:

(19, 33533), (Start: 23 @33548 has 22 MA's), (91, 33806), (95, 33815), (116, 33875), (126, 33920),

Gene: AgentM_38 Start: 30504, Stop: 30118, Start Num: 40

Candidate Starts for AgentM_38:

(Start: 40 @30504 has 67 MA's), (Start: 51 @30456 has 5 MA's), (52, 30453), (65, 30378), (85, 30312), (89, 30303), (107, 30255), (121, 30207), (129, 30168),

Gene: Airmid_40 Start: 30562, Stop: 30173, Start Num: 40

Candidate Starts for Airmid_40:

(Start: 40 @30562 has 67 MA's), (Start: 51 @30514 has 5 MA's), (52, 30511), (65, 30436), (89, 30361), (90, 30358), (107, 30313), (111, 30304), (129, 30223),

Gene: Anaysia_48 Start: 30327, Stop: 29968, Start Num: 40

Candidate Starts for Anaysia_48:

(Start: 39 @30330 has 3 MA's), (Start: 40 @30327 has 67 MA's), (63, 30219), (131, 30003),

Gene: Anon_43 Start: 29368, Stop: 29009, Start Num: 40

Candidate Starts for Anon_43:

(Start: 40 @29368 has 67 MA's), (74, 29230),

Gene: Appletree2_40 Start: 33475, Stop: 33870, Start Num: 23

Candidate Starts for Appletree2_40:

(19, 33460), (Start: 23 @33475 has 22 MA's), (91, 33733), (95, 33742), (116, 33802), (126, 33847),

Gene: Aragog_38 Start: 30534, Stop: 30148, Start Num: 40

Candidate Starts for Aragog_38:

(Start: 40 @30534 has 67 MA's), (Start: 51 @30486 has 5 MA's), (52, 30483), (65, 30408), (85, 30342), (89, 30333), (107, 30285), (121, 30237), (129, 30198),

Gene: Archetta_39 Start: 31064, Stop: 30678, Start Num: 40

Candidate Starts for Archetta_39:

(Start: 40 @31064 has 67 MA's), (Start: 51 @31016 has 5 MA's), (52, 31013), (65, 30938), (85, 30872), (89, 30863), (107, 30815), (121, 30767), (129, 30728),

Gene: Archie_43 Start: 35110, Stop: 35472, Start Num: 32

Candidate Starts for Archie_43:

(Start: 32 @35110 has 32 MA's), (91, 35341), (95, 35350),

Gene: Astro_43 Start: 30852, Stop: 30550, Start Num: 44

Candidate Starts for Astro_43:

(Start: 44 @30852 has 9 MA's), (63, 30741), (69, 30732), (101, 30639), (120, 30588), (123, 30567),

Gene: AvadaKedavra_41 Start: 33557, Stop: 33952, Start Num: 23

Candidate Starts for AvadaKedavra_41:

(19, 33542), (Start: 23 @33557 has 22 MA's), (91, 33815), (95, 33824), (116, 33884), (126, 33929),

Gene: Balloona_56 Start: 41140, Stop: 40739, Start Num: 15

Candidate Starts for Balloona_56:

(Start: 15 @41140 has 12 MA's), (47, 41062), (66, 40990), (68, 40987), (72, 40969), (77, 40963), (83, 40933), (95, 40900), (121, 40828), (129, 40786),

Gene: Baoshan_42 Start: 34767, Stop: 35129, Start Num: 32

Candidate Starts for Baoshan_42:

(Start: 32 @34767 has 32 MA's), (91, 34998), (95, 35007),

Gene: Battleship_77 Start: 41490, Stop: 41044, Start Num: 18

Candidate Starts for Battleship_77:

(Start: 18 @41490 has 1 MA's), (Start: 28 @41460 has 10 MA's), (Start: 32 @41448 has 32 MA's), (Start: 54 @41358 has 2 MA's), (60, 41331), (109, 41175), (129, 41094),

Gene: Battleship_49 Start: 30296, Stop: 29937, Start Num: 40

Candidate Starts for Battleship_49:

(2, 30701), (4, 30617), (5, 30614), (Start: 40 @30296 has 67 MA's), (63, 30188), (131, 29972),

Gene: Bazzle_43 Start: 35142, Stop: 35504, Start Num: 32

Candidate Starts for Bazzle_43:

(Start: 32 @35142 has 32 MA's), (91, 35373), (95, 35382),

Gene: Bellis_41 Start: 35165, Stop: 35560, Start Num: 21

Candidate Starts for Bellis_41:

(Start: 21 @35165 has 20 MA's), (37, 35201), (Start: 38 @35207 has 1 MA's), (78, 35390), (79, 35396), (91, 35429), (116, 35498), (126, 35543),

Gene: Benedict_42 Start: 30735, Stop: 30355, Start Num: 40

Candidate Starts for Benedict_42:

(Start: 40 @30735 has 67 MA's), (Start: 51 @30687 has 5 MA's), (52, 30684), (55, 30657), (65, 30609), (85, 30543), (89, 30534), (103, 30495), (107, 30486), (110, 30480), (116, 30459), (129, 30405), (135, 30372),

Gene: BigCheese_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for BigCheese_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: BigChungus_57 Start: 40681, Stop: 40280, Start Num: 15

Candidate Starts for BigChungus_57:

(Start: 15 @40681 has 12 MA's), (47, 40603), (66, 40531), (68, 40528), (72, 40510), (77, 40504), (83, 40474), (95, 40441), (121, 40369), (129, 40327),

Gene: Blinn1_72 Start: 40389, Stop: 39991, Start Num: 38

Candidate Starts for Blinn1_72:

(13, 40491), (20, 40434), (22, 40428), (Start: 28 @40416 has 10 MA's), (Start: 38 @40389 has 1 MA's), (68, 40251), (102, 40137), (115, 40095),

Gene: Bluefalcon_38 Start: 31022, Stop: 30636, Start Num: 40

Candidate Starts for Bluefalcon_38:

(Start: 40 @31022 has 67 MA's), (Start: 51 @30974 has 5 MA's), (55, 30944), (68, 30893), (85, 30821), (89, 30812), (93, 30800), (129, 30686),

Gene: BobsGarage_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for BobsGarage_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: Bonamassa_40 Start: 31053, Stop: 30667, Start Num: 40

Candidate Starts for Bonamassa_40:

(Start: 40 @31053 has 67 MA's), (Start: 51 @31005 has 5 MA's), (65, 30927), (85, 30861), (89, 30852), (107, 30804), (121, 30756), (129, 30717),

Gene: Boohoo_48 Start: 30327, Stop: 29968, Start Num: 40

Candidate Starts for Boohoo_48:

(Start: 39 @30330 has 3 MA's), (Start: 40 @30327 has 67 MA's), (63, 30219), (131, 30003),

Gene: BourbonZero_40 Start: 35147, Stop: 35542, Start Num: 21

Candidate Starts for BourbonZero_40:

(Start: 21 @35147 has 20 MA's), (78, 35372), (79, 35378), (91, 35411), (116, 35480), (126, 35525),

Gene: BrainDrainer_41 Start: 33839, Stop: 34198, Start Num: 34
Candidate Starts for BrainDrainer_41:
(Start: 34 @33839 has 5 MA's), (Start: 38 @33848 has 1 MA's), (91, 34067), (95, 34076), (114, 34127),

Gene: Breezona_43 Start: 34906, Stop: 35268, Start Num: 32
Candidate Starts for Breezona_43:
(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: Bromden_43 Start: 34662, Stop: 35024, Start Num: 32
Candidate Starts for Bromden_43:
(Start: 32 @34662 has 32 MA's), (Start: 34 @34665 has 5 MA's), (91, 34893), (95, 34902), (114, 34953),

Gene: Caitlin_43 Start: 30845, Stop: 30543, Start Num: 44
Candidate Starts for Caitlin_43:
(Start: 44 @30845 has 9 MA's), (63, 30734), (69, 30725), (101, 30632), (120, 30581), (123, 30560),

Gene: Calm_41 Start: 33563, Stop: 33958, Start Num: 23
Candidate Starts for Calm_41:
(19, 33548), (Start: 23 @33563 has 22 MA's), (91, 33821), (95, 33830), (116, 33890), (126, 33935),

Gene: Chadwick_43 Start: 30715, Stop: 30335, Start Num: 40
Candidate Starts for Chadwick_43:
(Start: 40 @30715 has 67 MA's), (Start: 51 @30667 has 5 MA's), (52, 30664), (55, 30637), (65, 30589), (85, 30523), (103, 30475), (107, 30466), (110, 30460), (116, 30439), (129, 30385), (135, 30352),

Gene: Chaser_40 Start: 33656, Stop: 34015, Start Num: 34
Candidate Starts for Chaser_40:
(Start: 34 @33656 has 5 MA's), (Start: 38 @33665 has 1 MA's), (91, 33884), (95, 33893), (114, 33944),

Gene: CherryonLim_58 Start: 42157, Stop: 41738, Start Num: 15
Candidate Starts for CherryonLim_58:
(Start: 15 @42157 has 12 MA's), (26, 42124), (68, 41986), (69, 41983), (79, 41941), (87, 41914), (91, 41905), (95, 41896), (118, 41839),

Gene: ChutneyChips_41 Start: 33836, Stop: 34195, Start Num: 34
Candidate Starts for ChutneyChips_41:
(Start: 34 @33836 has 5 MA's), (Start: 38 @33845 has 1 MA's), (91, 34064), (95, 34073), (114, 34124), (124, 34172),

Gene: CicholasNage_41 Start: 33584, Stop: 33979, Start Num: 23
Candidate Starts for CicholasNage_41:
(19, 33569), (Start: 23 @33584 has 22 MA's), (91, 33842), (95, 33851), (116, 33911), (126, 33956),

Gene: Claus_43 Start: 34925, Stop: 35287, Start Num: 32
Candidate Starts for Claus_43:
(Start: 32 @34925 has 32 MA's), (91, 35156), (95, 35165),

Gene: Clautastrophe_41 Start: 35163, Stop: 35558, Start Num: 21
Candidate Starts for Clautastrophe_41:
(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394), (91, 35427), (116, 35496), (126, 35541),

Gene: CocoaPuff_57 Start: 40686, Stop: 40285, Start Num: 15

Candidate Starts for CocoaPuff_57:

(Start: 15 @40686 has 12 MA's), (47, 40608), (66, 40536), (68, 40533), (72, 40515), (77, 40509), (83, 40479), (95, 40446), (121, 40374), (129, 40332),

Gene: Conspiracy_39 Start: 30746, Stop: 30360, Start Num: 40

Candidate Starts for Conspiracy_39:

(Start: 40 @30746 has 67 MA's), (Start: 51 @30698 has 5 MA's), (52, 30695), (65, 30620), (85, 30554), (89, 30545), (107, 30497), (121, 30449), (129, 30410),

Gene: Coog_39 Start: 30844, Stop: 30458, Start Num: 40

Candidate Starts for Coog_39:

(Start: 40 @30844 has 67 MA's), (Start: 51 @30796 has 5 MA's), (52, 30793), (65, 30718), (85, 30652), (89, 30643), (107, 30595), (121, 30547), (129, 30508),

Gene: Courthouse_126 Start: 68736, Stop: 69029, Start Num: 51

Candidate Starts for Courthouse_126:

(Start: 51 @68736 has 5 MA's), (85, 68853), (108, 68913), (128, 68985), (129, 68988),

Gene: Crossroads_43 Start: 34908, Stop: 35270, Start Num: 32

Candidate Starts for Crossroads_43:

(Start: 32 @34908 has 32 MA's), (91, 35139), (95, 35148),

Gene: Cuco_39 Start: 30800, Stop: 30411, Start Num: 40

Candidate Starts for Cuco_39:

(Start: 40 @30800 has 67 MA's), (Start: 51 @30752 has 5 MA's), (52, 30749), (65, 30674), (85, 30608), (89, 30599), (90, 30596), (107, 30551), (111, 30542), (129, 30461),

Gene: CurlyFries_66 Start: 39792, Stop: 40115, Start Num: 21

Candidate Starts for CurlyFries_66:

(Start: 21 @39792 has 20 MA's), (Start: 25 @39801 has 3 MA's), (125, 40065), (129, 40080), (132, 40092),

Gene: CurlyFries_65 Start: 39422, Stop: 39799, Start Num: 23

Candidate Starts for CurlyFries_65:

(Start: 23 @39422 has 22 MA's), (48, 39494), (65, 39551), (79, 39596), (129, 39746),

Gene: DHan_44 Start: 34866, Stop: 35228, Start Num: 32

Candidate Starts for DHan_44:

(Start: 32 @34866 has 32 MA's), (91, 35097), (95, 35106),

Gene: DanBing_42 Start: 34758, Stop: 35120, Start Num: 32

Candidate Starts for DanBing_42:

(Start: 32 @34758 has 32 MA's), (91, 34989), (95, 34998),

Gene: Danforth_43 Start: 30881, Stop: 30579, Start Num: 44

Candidate Starts for Danforth_43:

(Start: 44 @30881 has 9 MA's), (63, 30770), (69, 30761), (101, 30668), (120, 30617), (123, 30596),

Gene: DekHockey33_48 Start: 30545, Stop: 30183, Start Num: 39

Candidate Starts for DekHockey33_48:

(Start: 39 @30545 has 3 MA's), (Start: 40 @30542 has 67 MA's), (63, 30434), (131, 30218),

Gene: DekHockey33_76 Start: 41545, Stop: 41129, Start Num: 28
Candidate Starts for DekHockey33_76:
(Start: 18 @41575 has 1 MA's), (Start: 28 @41545 has 10 MA's), (Start: 32 @41533 has 32 MA's),
(Start: 54 @41443 has 2 MA's), (60, 41416), (109, 41260), (129, 41179),

Gene: DirkDirk_40 Start: 33535, Stop: 33930, Start Num: 23
Candidate Starts for DirkDirk_40:
(19, 33520), (Start: 23 @33535 has 22 MA's), (91, 33793), (95, 33802), (116, 33862), (126, 33907),

Gene: Discoknowium_38 Start: 30543, Stop: 30157, Start Num: 40
Candidate Starts for Discoknowium_38:
(Start: 40 @30543 has 67 MA's), (Start: 51 @30495 has 5 MA's), (52, 30492), (65, 30417), (85, 30351),
(89, 30342), (107, 30294), (121, 30246), (129, 30207),

Gene: Dorin_239 Start: 122573, Stop: 122971, Start Num: 39
Candidate Starts for Dorin_239:
(Start: 39 @122573 has 3 MA's), (64, 122699), (67, 122705), (76, 122732), (80, 122762), (92, 122792),
(112, 122843), (113, 122846),

Gene: Douge_40 Start: 33594, Stop: 33953, Start Num: 34
Candidate Starts for Douge_40:
(Start: 34 @33594 has 5 MA's), (Start: 38 @33603 has 1 MA's), (91, 33822), (95, 33831), (114, 33882),

Gene: Douzhi_40 Start: 33700, Stop: 34059, Start Num: 34
Candidate Starts for Douzhi_40:
(Start: 34 @33700 has 5 MA's), (Start: 38 @33709 has 1 MA's), (91, 33928), (95, 33937), (114, 33988),

Gene: DrSeegs_43 Start: 34906, Stop: 35268, Start Num: 32
Candidate Starts for DrSeegs_43:
(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: Dublin_38 Start: 30565, Stop: 30179, Start Num: 40
Candidate Starts for Dublin_38:
(Start: 40 @30565 has 67 MA's), (Start: 51 @30517 has 5 MA's), (52, 30514), (65, 30439), (85, 30373),
(89, 30364), (107, 30316), (121, 30268), (129, 30229),

Gene: DuncansLeg_41 Start: 35184, Stop: 35579, Start Num: 21
Candidate Starts for DuncansLeg_41:
(Start: 21 @35184 has 20 MA's), (37, 35220), (Start: 38 @35226 has 1 MA's), (78, 35409), (79, 35415),
(91, 35448), (116, 35517), (126, 35562),

Gene: DyoEdafos_42 Start: 33916, Stop: 34275, Start Num: 34
Candidate Starts for DyoEdafos_42:
(Start: 28 @33901 has 10 MA's), (Start: 34 @33916 has 5 MA's), (91, 34144), (95, 34153), (114,
34204), (124, 34252),

Gene: EagleEye_71 Start: 41731, Stop: 41372, Start Num: 40
Candidate Starts for EagleEye_71:
(9, 41836), (10, 41833), (12, 41830), (Start: 40 @41731 has 67 MA's), (49, 41689), (55, 41656), (98,
41506), (117, 41461), (119, 41458), (134, 41383),

Gene: ElJefes_59 Start: 41219, Stop: 40824, Start Num: 15
Candidate Starts for ElJefes_59:

(Start: 15 @41219 has 12 MA's), (26, 41186), (68, 41069), (72, 41051), (79, 41027), (91, 40991), (95, 40982), (118, 40925),

Gene: EITiger69_41 Start: 30732, Stop: 30352, Start Num: 40

Candidate Starts for EITiger69_41:

(Start: 40 @30732 has 67 MA's), (Start: 51 @30684 has 5 MA's), (52, 30681), (65, 30606), (85, 30540), (103, 30492), (107, 30483), (110, 30477), (116, 30456), (129, 30402), (135, 30369),

Gene: Elinal_62 Start: 41462, Stop: 41016, Start Num: 15

Candidate Starts for Elinal_62:

(Start: 15 @41462 has 12 MA's), (47, 41357), (55, 41315), (68, 41261), (72, 41243), (77, 41237), (83, 41207), (95, 41174), (121, 41102), (129, 41060),

Gene: Elle_44 Start: 28787, Stop: 28425, Start Num: 40

Candidate Starts for Elle_44:

(3, 29156), (Start: 40 @28787 has 67 MA's), (60, 28697), (65, 28673), (74, 28649), (76, 28646), (85, 28607), (131, 28460),

Gene: Ellson_41 Start: 35160, Stop: 35555, Start Num: 21

Candidate Starts for Ellson_41:

(Start: 21 @35160 has 20 MA's), (78, 35385), (79, 35391), (91, 35424), (116, 35493), (126, 35538),

Gene: Enceladus_40 Start: 33518, Stop: 33913, Start Num: 23

Candidate Starts for Enceladus_40:

(19, 33503), (Start: 23 @33518 has 22 MA's), (91, 33776), (95, 33785), (116, 33845), (126, 33890),

Gene: Epsocamisio_71 Start: 40692, Stop: 40276, Start Num: 28

Candidate Starts for Epsocamisio_71:

(Start: 18 @40722 has 1 MA's), (Start: 28 @40692 has 10 MA's), (Start: 32 @40680 has 32 MA's), (Start: 54 @40590 has 2 MA's), (60, 40563), (109, 40407), (129, 40326),

Gene: Epsocamisio_47 Start: 30101, Stop: 29742, Start Num: 40

Candidate Starts for Epsocamisio_47:

(2, 30503), (4, 30419), (Start: 40 @30101 has 67 MA's), (63, 29993), (131, 29777),

Gene: Expelliarmus_43 Start: 30910, Stop: 30608, Start Num: 44

Candidate Starts for Expelliarmus_43:

(Start: 44 @30910 has 9 MA's), (63, 30799), (69, 30790), (101, 30697), (120, 30646), (123, 30625),

Gene: Faith1_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for Faith1_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: FarmResident_41 Start: 33638, Stop: 33997, Start Num: 34

Candidate Starts for FarmResident_41:

(Start: 34 @33638 has 5 MA's), (Start: 38 @33647 has 1 MA's), (91, 33866), (95, 33875), (114, 33926),

Gene: Feastonyeet_57 Start: 40681, Stop: 40280, Start Num: 15

Candidate Starts for Feastonyeet_57:

(Start: 15 @40681 has 12 MA's), (47, 40603), (66, 40531), (68, 40528), (72, 40510), (77, 40504), (83, 40474), (95, 40441), (121, 40369), (129, 40327),

Gene: Finemlucis_43 Start: 35182, Stop: 35544, Start Num: 32

Candidate Starts for Finemlucis_43:
(Start: 32 @35182 has 32 MA's), (91, 35413), (95, 35422),

Gene: Finnry_41 Start: 35166, Stop: 35561, Start Num: 21
Candidate Starts for Finnry_41:
(Start: 21 @35166 has 20 MA's), (37, 35202), (Start: 38 @35208 has 1 MA's), (78, 35391), (79, 35397),
(91, 35430), (116, 35499), (126, 35544),

Gene: Florence1_38 Start: 30418, Stop: 30032, Start Num: 40
Candidate Starts for Florence1_38:
(Start: 40 @30418 has 67 MA's), (Start: 51 @30370 has 5 MA's), (65, 30292), (85, 30226), (89, 30217),
(107, 30169), (121, 30121), (129, 30082),

Gene: Florence4_39 Start: 30418, Stop: 30032, Start Num: 40
Candidate Starts for Florence4_39:
(Start: 40 @30418 has 67 MA's), (Start: 51 @30370 has 5 MA's), (65, 30292), (85, 30226), (89, 30217),
(107, 30169), (121, 30121), (129, 30082),

Gene: ForGetIt_39 Start: 30771, Stop: 30385, Start Num: 40
Candidate Starts for ForGetIt_39:
(Start: 40 @30771 has 67 MA's), (Start: 51 @30723 has 5 MA's), (52, 30720), (65, 30645), (85, 30579),
(89, 30570), (107, 30522), (121, 30474), (129, 30435),

Gene: Francesca_240 Start: 123216, Stop: 123614, Start Num: 39
Candidate Starts for Francesca_240:
(Start: 39 @123216 has 3 MA's), (64, 123342), (67, 123348), (76, 123375), (80, 123405), (92, 123435),
(112, 123486), (113, 123489),

Gene: Gabriela_43 Start: 35168, Stop: 35530, Start Num: 32
Candidate Starts for Gabriela_43:
(Start: 32 @35168 has 32 MA's), (91, 35399), (95, 35408),

Gene: Gardann_43 Start: 34907, Stop: 35269, Start Num: 32
Candidate Starts for Gardann_43:
(Start: 32 @34907 has 32 MA's), (91, 35138), (95, 35147),

Gene: George_39 Start: 30995, Stop: 30609, Start Num: 40
Candidate Starts for George_39:
(Start: 40 @30995 has 67 MA's), (Start: 51 @30947 has 5 MA's), (52, 30944), (65, 30869), (85, 30803),
(89, 30794), (106, 30749), (107, 30746), (121, 30698), (129, 30659),

Gene: Ghoulboy_41 Start: 31508, Stop: 31122, Start Num: 40
Candidate Starts for Ghoulboy_41:
(Start: 40 @31508 has 67 MA's), (Start: 51 @31460 has 5 MA's), (52, 31457), (65, 31382), (85, 31316),
(89, 31307), (107, 31259), (121, 31211), (129, 31172),

Gene: Gonephishing_125 Start: 68379, Stop: 68672, Start Num: 51
Candidate Starts for Gonephishing_125:
(Start: 51 @68379 has 5 MA's), (85, 68496), (108, 68556), (128, 68628), (129, 68631),

Gene: Grayson_191 Start: 99709, Stop: 100023, Start Num: 54
Candidate Starts for Grayson_191:
(Start: 54 @99709 has 2 MA's), (58, 99727), (68, 99769), (80, 99823), (118, 99925), (130, 99979),

Gene: Groundhog_42 Start: 30817, Stop: 30515, Start Num: 44
Candidate Starts for Groundhog_42:
(Start: 44 @30817 has 9 MA's), (63, 30706), (69, 30697), (101, 30604), (120, 30553), (123, 30532),

Gene: GuuelaD_43 Start: 34945, Stop: 35307, Start Num: 32
Candidate Starts for GuuelaD_43:
(Start: 32 @34945 has 32 MA's), (91, 35176), (95, 35185),

Gene: Hafay_43 Start: 34940, Stop: 35302, Start Num: 32
Candidate Starts for Hafay_43:
(Start: 32 @34940 has 32 MA's), (91, 35171), (95, 35180),

Gene: Halena_40 Start: 33559, Stop: 33954, Start Num: 23
Candidate Starts for Halena_40:
(19, 33544), (Start: 23 @33559 has 22 MA's), (91, 33817), (95, 33826), (116, 33886), (126, 33931),

Gene: Hannaconda_124 Start: 69032, Stop: 69325, Start Num: 51
Candidate Starts for Hannaconda_124:
(Start: 51 @69032 has 5 MA's), (85, 69149), (108, 69209), (128, 69281), (129, 69284),

Gene: HokkenD_123 Start: 71913, Stop: 72206, Start Num: 51
Candidate Starts for HokkenD_123:
(Start: 51 @71913 has 5 MA's), (85, 72030), (108, 72090), (128, 72162), (129, 72165),

Gene: HuhtaEnerson15_40 Start: 30986, Stop: 30600, Start Num: 40
Candidate Starts for HuhtaEnerson15_40:
(Start: 40 @30986 has 67 MA's), (Start: 51 @30938 has 5 MA's), (65, 30860), (85, 30794), (89, 30785),
(107, 30737), (121, 30689), (129, 30650),

Gene: Itos_42 Start: 33812, Stop: 34174, Start Num: 32
Candidate Starts for Itos_42:
(Start: 32 @33812 has 32 MA's), (91, 34043), (95, 34052),

Gene: JSwag_74 Start: 40977, Stop: 40561, Start Num: 28
Candidate Starts for JSwag_74:
(Start: 18 @41007 has 1 MA's), (Start: 28 @40977 has 10 MA's), (Start: 32 @40965 has 32 MA's),
(Start: 54 @40875 has 2 MA's), (60, 40848), (109, 40692), (129, 40611),

Gene: JSwag_47 Start: 30039, Stop: 29680, Start Num: 40
Candidate Starts for JSwag_47:
(2, 30441), (4, 30357), (Start: 40 @30039 has 67 MA's), (63, 29931), (131, 29715),

Gene: Jabiru_40 Start: 30604, Stop: 30215, Start Num: 40
Candidate Starts for Jabiru_40:
(Start: 40 @30604 has 67 MA's), (Start: 51 @30556 has 5 MA's), (52, 30553), (65, 30478), (89, 30403),
(90, 30400), (107, 30355), (111, 30346), (129, 30265),

Gene: JewelBug_68 Start: 40312, Stop: 39956, Start Num: 40
Candidate Starts for JewelBug_68:
(14, 40390), (Start: 40 @40312 has 67 MA's), (72, 40168), (89, 40111), (119, 40042), (120, 40036),
(124, 40015), (131, 39988), (134, 39967),

Gene: Jflix2_76 Start: 46571, Stop: 46909, Start Num: 27
Candidate Starts for Jflix2_76:
(Start: 27 @46571 has 2 MA's), (53, 46643), (96, 46766), (104, 46784), (122, 46826), (131, 46874),

Gene: Jobypre_41 Start: 35163, Stop: 35558, Start Num: 21
Candidate Starts for Jobypre_41:
(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394),
(91, 35427), (116, 35496), (126, 35541),

Gene: JoeDirt_40 Start: 33516, Stop: 33911, Start Num: 23
Candidate Starts for JoeDirt_40:
(19, 33501), (Start: 23 @33516 has 22 MA's), (91, 33774), (95, 33783), (116, 33843), (126, 33888),

Gene: Jovo_39 Start: 31027, Stop: 30641, Start Num: 40
Candidate Starts for Jovo_39:
(Start: 40 @31027 has 67 MA's), (Start: 51 @30979 has 5 MA's), (52, 30976), (65, 30901), (85, 30835),
(89, 30826), (107, 30778), (121, 30730), (129, 30691),

Gene: Jubie_41 Start: 35164, Stop: 35559, Start Num: 21
Candidate Starts for Jubie_41:
(Start: 21 @35164 has 20 MA's), (37, 35200), (Start: 38 @35206 has 1 MA's), (78, 35389), (79, 35395),
(91, 35428), (116, 35497), (126, 35542),

Gene: Kahlid_43 Start: 34912, Stop: 35274, Start Num: 32
Candidate Starts for Kahlid_43:
(Start: 32 @34912 has 32 MA's), (91, 35143), (95, 35152),

Gene: KatherineG_75 Start: 41450, Stop: 41034, Start Num: 28
Candidate Starts for KatherineG_75:
(7, 41561), (Start: 18 @41480 has 1 MA's), (Start: 28 @41450 has 10 MA's), (Start: 32 @41438 has 32
MA's), (Start: 54 @41348 has 2 MA's), (60, 41321), (109, 41165), (129, 41084),

Gene: KatherineG_49 Start: 30542, Stop: 30183, Start Num: 40
Candidate Starts for KatherineG_49:
(Start: 39 @30545 has 3 MA's), (Start: 40 @30542 has 67 MA's), (63, 30434), (131, 30218),

Gene: KayGee_60 Start: 41462, Stop: 41016, Start Num: 15
Candidate Starts for KayGee_60:
(Start: 15 @41462 has 12 MA's), (47, 41357), (55, 41315), (68, 41261), (72, 41243), (77, 41237), (83,
41207), (95, 41174), (121, 41102), (129, 41060),

Gene: Kingsolomon_41 Start: 35163, Stop: 35558, Start Num: 21
Candidate Starts for Kingsolomon_41:
(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394),
(91, 35427), (116, 35496), (126, 35541),

Gene: KirDoubleO7_39 Start: 35188, Stop: 35583, Start Num: 21
Candidate Starts for KirDoubleO7_39:
(Start: 21 @35188 has 20 MA's), (37, 35224), (Start: 38 @35230 has 1 MA's), (78, 35413), (79, 35419),
(91, 35452), (116, 35521), (126, 35566),

Gene: Kropertea_41 Start: 33739, Stop: 34098, Start Num: 34
Candidate Starts for Kropertea_41:

(Start: 28 @33724 has 10 MA's), (Start: 34 @33739 has 5 MA's), (91, 33967), (95, 33976), (114, 34027), (124, 34075),

Gene: Krypton555_41 Start: 35080, Stop: 35475, Start Num: 21

Candidate Starts for Krypton555_41:

(Start: 21 @35080 has 20 MA's), (78, 35305), (79, 35311), (91, 35344), (116, 35413), (126, 35458),

Gene: LastResort_47 Start: 30103, Stop: 29744, Start Num: 40

Candidate Starts for LastResort_47:

(Start: 39 @30106 has 3 MA's), (Start: 40 @30103 has 67 MA's), (63, 29995), (131, 29779),

Gene: LeBron_41 Start: 33560, Stop: 33955, Start Num: 23

Candidate Starts for LeBron_41:

(19, 33545), (Start: 23 @33560 has 22 MA's), (91, 33818), (95, 33827), (116, 33887), (126, 33932),

Gene: Lev2_39 Start: 30659, Stop: 30273, Start Num: 40

Candidate Starts for Lev2_39:

(Start: 40 @30659 has 67 MA's), (Start: 51 @30611 has 5 MA's), (52, 30608), (65, 30533), (85, 30467), (89, 30458), (107, 30410), (121, 30362), (129, 30323),

Gene: Lewan_43 Start: 34899, Stop: 35261, Start Num: 32

Candidate Starts for Lewan_43:

(Start: 32 @34899 has 32 MA's), (91, 35130), (95, 35139),

Gene: LilDestine_43 Start: 34904, Stop: 35266, Start Num: 32

Candidate Starts for LilDestine_43:

(Start: 32 @34904 has 32 MA's), (91, 35135), (95, 35144),

Gene: LittleCherry_40 Start: 30996, Stop: 30610, Start Num: 40

Candidate Starts for LittleCherry_40:

(Start: 40 @30996 has 67 MA's), (Start: 51 @30948 has 5 MA's), (65, 30870), (85, 30804), (89, 30795), (107, 30747), (121, 30699), (129, 30660),

Gene: LiyuLake_41 Start: 35150, Stop: 35545, Start Num: 21

Candidate Starts for LiyuLake_41:

(Start: 21 @35150 has 20 MA's), (78, 35375), (79, 35381), (91, 35414), (116, 35483), (126, 35528),

Gene: Loadrie_43 Start: 34938, Stop: 35300, Start Num: 32

Candidate Starts for Loadrie_43:

(Start: 32 @34938 has 32 MA's), (91, 35169), (95, 35178),

Gene: LogiBear_67 Start: 40220, Stop: 39849, Start Num: 41

Candidate Starts for LogiBear_67:

(Start: 39 @40226 has 3 MA's), (41, 40220), (60, 40124), (71, 40085), (75, 40073), (96, 40004), (99, 39998), (121, 39929), (133, 39866),

Gene: Lolly9_41 Start: 34974, Stop: 35369, Start Num: 21

Candidate Starts for Lolly9_41:

(Start: 21 @34974 has 20 MA's), (37, 35010), (Start: 38 @35016 has 1 MA's), (78, 35199), (79, 35205), (91, 35238), (116, 35307), (126, 35352),

Gene: Looper_48 Start: 30080, Stop: 29721, Start Num: 40

Candidate Starts for Looper_48:

(Start: 39 @30083 has 3 MA's), (Start: 40 @30080 has 67 MA's), (63, 29972), (131, 29756),

Gene: Lucyedi_70 Start: 41927, Stop: 41568, Start Num: 40

Candidate Starts for Lucyedi_70:

(9, 42032), (10, 42029), (12, 42026), (Start: 40 @41927 has 67 MA's), (49, 41885), (55, 41852), (98, 41702), (117, 41657), (119, 41654), (134, 41579),

Gene: Lumos_41 Start: 35160, Stop: 35555, Start Num: 21

Candidate Starts for Lumos_41:

(17, 35145), (Start: 21 @35160 has 20 MA's), (37, 35196), (Start: 38 @35202 has 1 MA's), (78, 35385), (79, 35391), (91, 35424), (116, 35493), (126, 35538),

Gene: Lynnae_43 Start: 34895, Stop: 35257, Start Num: 32

Candidate Starts for Lynnae_43:

(Start: 32 @34895 has 32 MA's), (91, 35126), (95, 35135),

Gene: MAckerman_41 Start: 33553, Stop: 33948, Start Num: 23

Candidate Starts for MAckerman_41:

(19, 33538), (Start: 23 @33553 has 22 MA's), (91, 33811), (95, 33820), (116, 33880), (126, 33925),

Gene: MAnor_59 Start: 41593, Stop: 41144, Start Num: 15

Candidate Starts for MAnor_59:

(Start: 15 @41593 has 12 MA's), (46, 41497), (55, 41449), (56, 41443), (68, 41395), (77, 41371), (83, 41341), (95, 41308), (121, 41236), (129, 41194),

Gene: Madraxi_80 Start: 49350, Stop: 49697, Start Num: 27

Candidate Starts for Madraxi_80:

(11, 49296), (Start: 27 @49350 has 2 MA's), (53, 49431), (82, 49518), (96, 49554), (104, 49572), (122, 49614), (131, 49662),

Gene: MarysWell_38 Start: 30859, Stop: 30467, Start Num: 40

Candidate Starts for MarysWell_38:

(Start: 40 @30859 has 67 MA's), (Start: 51 @30811 has 5 MA's), (55, 30781), (68, 30730), (85, 30658), (89, 30649), (93, 30637), (129, 30517),

Gene: McDazzle_59 Start: 41213, Stop: 40818, Start Num: 15

Candidate Starts for McDazzle_59:

(Start: 15 @41213 has 12 MA's), (26, 41180), (68, 41063), (72, 41045), (79, 41021), (91, 40985), (95, 40976), (118, 40919),

Gene: Micasa_41 Start: 31126, Stop: 30740, Start Num: 40

Candidate Starts for Micasa_41:

(Start: 40 @31126 has 67 MA's), (Start: 51 @31078 has 5 MA's), (65, 31000), (85, 30934), (89, 30925), (107, 30877), (121, 30829), (129, 30790),

Gene: Midas2_39 Start: 30844, Stop: 30458, Start Num: 40

Candidate Starts for Midas2_39:

(Start: 40 @30844 has 67 MA's), (Start: 51 @30796 has 5 MA's), (52, 30793), (65, 30718), (85, 30652), (89, 30643), (107, 30595), (121, 30547), (129, 30508),

Gene: Milcery_40 Start: 30963, Stop: 30577, Start Num: 40

Candidate Starts for Milcery_40:

(Start: 40 @30963 has 67 MA's), (Start: 51 @30915 has 5 MA's), (52, 30912), (65, 30837), (85, 30771), (89, 30762), (107, 30714), (121, 30666), (129, 30627),

Gene: Miley16_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for Miley16_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: MinecraftSteve_75 Start: 41265, Stop: 40849, Start Num: 28

Candidate Starts for MinecraftSteve_75:

(Start: 18 @41295 has 1 MA's), (Start: 28 @41265 has 10 MA's), (Start: 32 @41253 has 32 MA's), (Start: 54 @41163 has 2 MA's), (60, 41136), (109, 40980), (129, 40899),

Gene: MinecraftSteve_49 Start: 30303, Stop: 29944, Start Num: 40

Candidate Starts for MinecraftSteve_49:

(2, 30705), (4, 30621), (Start: 40 @30303 has 67 MA's), (63, 30195), (102, 30078), (131, 29979),

Gene: MiniLon_41 Start: 34975, Stop: 35370, Start Num: 21

Candidate Starts for MiniLon_41:

(Start: 21 @34975 has 20 MA's), (37, 35011), (Start: 38 @35017 has 1 MA's), (78, 35200), (79, 35206), (91, 35239), (116, 35308), (126, 35353),

Gene: MiniMac_41 Start: 34972, Stop: 35367, Start Num: 21

Candidate Starts for MiniMac_41:

(Start: 21 @34972 has 20 MA's), (37, 35008), (Start: 38 @35014 has 1 MA's), (78, 35197), (79, 35203), (91, 35236), (116, 35305), (126, 35350),

Gene: MkaliMitinis3_43 Start: 34908, Stop: 35270, Start Num: 32

Candidate Starts for MkaliMitinis3_43:

(Start: 32 @34908 has 32 MA's), (91, 35139), (95, 35148),

Gene: Moostard_41 Start: 35165, Stop: 35560, Start Num: 21

Candidate Starts for Moostard_41:

(Start: 21 @35165 has 20 MA's), (37, 35201), (Start: 38 @35207 has 1 MA's), (78, 35390), (79, 35396), (91, 35429), (116, 35498), (126, 35543),

Gene: MsGreen_41 Start: 35163, Stop: 35558, Start Num: 21

Candidate Starts for MsGreen_41:

(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394), (91, 35427), (116, 35496), (126, 35541),

Gene: Naca_41 Start: 31274, Stop: 30894, Start Num: 40

Candidate Starts for Naca_41:

(Start: 40 @31274 has 67 MA's), (Start: 51 @31226 has 5 MA's), (52, 31223), (65, 31148), (85, 31082), (89, 31073), (103, 31034), (107, 31025), (116, 30998), (129, 30944), (135, 30911),

Gene: Nebulosus_72 Start: 40929, Stop: 40513, Start Num: 28

Candidate Starts for Nebulosus_72:

(Start: 18 @40959 has 1 MA's), (Start: 28 @40929 has 10 MA's), (Start: 32 @40917 has 32 MA's), (Start: 54 @40827 has 2 MA's), (60, 40800), (109, 40644), (129, 40563),

Gene: Nebulosus_47 Start: 30099, Stop: 29740, Start Num: 40

Candidate Starts for Nebulosus_47:

(Start: 39 @30102 has 3 MA's), (Start: 40 @30099 has 67 MA's), (63, 29991), (131, 29775),

Gene: Netyap_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for Netyap_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: Nicholas_41 Start: 35163, Stop: 35558, Start Num: 21

Candidate Starts for Nicholas_41:

(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394), (91, 35427), (116, 35496), (126, 35541),

Gene: Nicholasp3_43 Start: 34907, Stop: 35269, Start Num: 32

Candidate Starts for Nicholasp3_43:

(Start: 32 @34907 has 32 MA's), (91, 35138), (95, 35147),

Gene: Nova53_257 Start: 128188, Stop: 128547, Start Num: 36

Candidate Starts for Nova53_257:

(Start: 28 @128170 has 10 MA's), (Start: 36 @128188 has 1 MA's), (Start: 51 @128254 has 5 MA's), (55, 128284), (107, 128434), (135, 128533),

Gene: Odette_135 Start: 73830, Stop: 74123, Start Num: 51

Candidate Starts for Odette_135:

(Start: 51 @73830 has 5 MA's), (85, 73947), (108, 74007), (128, 74079), (129, 74082),

Gene: OhShagHennessy_40 Start: 33506, Stop: 33901, Start Num: 23

Candidate Starts for OhShagHennessy_40:

(19, 33491), (Start: 23 @33506 has 22 MA's), (91, 33764), (95, 33773), (116, 33833), (126, 33878),

Gene: Oofda_48 Start: 30194, Stop: 29835, Start Num: 40

Candidate Starts for Oofda_48:

(2, 30596), (4, 30512), (Start: 40 @30194 has 67 MA's), (63, 30086), (131, 29870),

Gene: OverPar_43 Start: 34938, Stop: 35300, Start Num: 32

Candidate Starts for OverPar_43:

(Start: 32 @34938 has 32 MA's), (91, 35169), (95, 35178),

Gene: PYPDinur_40 Start: 33700, Stop: 34059, Start Num: 34

Candidate Starts for PYPDinur_40:

(Start: 34 @33700 has 5 MA's), (Start: 38 @33709 has 1 MA's), (91, 33928), (95, 33937), (114, 33988),

Gene: PainterBoy_69 Start: 41636, Stop: 41277, Start Num: 40

Candidate Starts for PainterBoy_69:

(9, 41741), (10, 41738), (12, 41735), (Start: 40 @41636 has 67 MA's), (49, 41594), (55, 41561), (98, 41411), (117, 41366), (119, 41363), (134, 41288),

Gene: Peregrin_188 Start: 100106, Stop: 100420, Start Num: 54

Candidate Starts for Peregrin_188:

(Start: 54 @100106 has 2 MA's), (58, 100124), (68, 100166), (80, 100220), (118, 100322), (130, 100376),

Gene: PetterN_43 Start: 30715, Stop: 30335, Start Num: 40

Candidate Starts for PetterN_43:

(Start: 40 @30715 has 67 MA's), (Start: 51 @30667 has 5 MA's), (52, 30664), (55, 30637), (65, 30589), (85, 30523), (103, 30475), (107, 30466), (110, 30460), (116, 30439), (129, 30385), (135, 30352),

Gene: Phillis_45 Start: 31235, Stop: 30933, Start Num: 44

Candidate Starts for Phillis_45:

(Start: 44 @31235 has 9 MA's), (63, 31124), (69, 31115), (86, 31055), (101, 31022), (120, 30971), (123, 30950),

Gene: Phlorence_38 Start: 30534, Stop: 30148, Start Num: 40

Candidate Starts for Phlorence_38:

(Start: 40 @30534 has 67 MA's), (Start: 51 @30486 has 5 MA's), (52, 30483), (65, 30408), (85, 30342), (89, 30333), (107, 30285), (121, 30237), (129, 30198),

Gene: PickleBack_39 Start: 30660, Stop: 30274, Start Num: 40

Candidate Starts for PickleBack_39:

(Start: 40 @30660 has 67 MA's), (Start: 51 @30612 has 5 MA's), (52, 30609), (65, 30534), (85, 30468), (89, 30459), (107, 30411), (121, 30363), (129, 30324),

Gene: Polyphemus_70 Start: 40393, Stop: 40037, Start Num: 40

Candidate Starts for Polyphemus_70:

(14, 40471), (Start: 40 @40393 has 67 MA's), (72, 40249), (89, 40192), (119, 40123), (124, 40096), (131, 40069), (134, 40048),

Gene: Pons_59 Start: 41198, Stop: 40776, Start Num: 15

Candidate Starts for Pons_59:

(Start: 15 @41198 has 12 MA's), (66, 41030), (68, 41027), (77, 41003), (83, 40973), (95, 40940), (121, 40868), (129, 40826),

Gene: Poochiewood_40 Start: 33534, Stop: 33929, Start Num: 23

Candidate Starts for Poochiewood_40:

(19, 33519), (Start: 23 @33534 has 22 MA's), (91, 33792), (95, 33801), (116, 33861), (126, 33906),

Gene: PotPie_57 Start: 41716, Stop: 41315, Start Num: 15

Candidate Starts for PotPie_57:

(Start: 15 @41716 has 12 MA's), (47, 41638), (66, 41566), (68, 41563), (72, 41545), (77, 41539), (83, 41509), (95, 41476), (121, 41404), (129, 41362),

Gene: Prin Ashe11_40 Start: 30826, Stop: 30440, Start Num: 40

Candidate Starts for Prin Ashe11_40:

(Start: 40 @30826 has 67 MA's), (Start: 51 @30778 has 5 MA's), (52, 30775), (65, 30700), (85, 30634), (89, 30625), (106, 30580), (107, 30577), (121, 30529), (129, 30490),

Gene: Quby_41 Start: 33594, Stop: 33953, Start Num: 34

Candidate Starts for Quby_41:

(Start: 34 @33594 has 5 MA's), (Start: 38 @33603 has 1 MA's), (91, 33822), (95, 33831), (114, 33882),

Gene: REQ1_28 Start: 11269, Stop: 11631, Start Num: 30

Candidate Starts for REQ1_28:

(24, 11257), (30, 11269), (121, 11554), (129, 11596),

Gene: REQ1_45 Start: 18020, Stop: 18358, Start Num: 31

Candidate Starts for REQ1_45:

(Start: 18 @17999 has 1 MA's), (31, 18020), (53, 18092), (108, 18242), (126, 18302), (127, 18305), (129, 18314),

Gene: Ravana_49 Start: 30731, Stop: 30372, Start Num: 40

Candidate Starts for Ravana_49:

(Start: 40 @30731 has 67 MA's), (131, 30407),

Gene: ReMo_47 Start: 30100, Stop: 29741, Start Num: 40

Candidate Starts for ReMo_47:

(Start: 39 @30103 has 3 MA's), (Start: 40 @30100 has 67 MA's), (63, 29992), (131, 29776),

Gene: Rearden_129 Start: 69937, Stop: 70230, Start Num: 51

Candidate Starts for Rearden_129:

(Start: 51 @69937 has 5 MA's), (85, 70054), (108, 70114), (128, 70186), (129, 70189),

Gene: Red305_41 Start: 35163, Stop: 35558, Start Num: 21

Candidate Starts for Red305_41:

(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394), (91, 35427), (116, 35496), (126, 35541),

Gene: RegnumDei_62 Start: 40266, Stop: 40643, Start Num: 25

Candidate Starts for RegnumDei_62:

(6, 40029), (8, 40176), (Start: 25 @40266 has 3 MA's), (43, 40311), (48, 40338), (79, 40440), (129, 40590),

Gene: RegnumDei_63 Start: 40645, Stop: 40995, Start Num: 25

Candidate Starts for RegnumDei_63:

(Start: 21 @40636 has 20 MA's), (Start: 25 @40645 has 3 MA's), (70, 40783), (129, 40960), (132, 40972),

Gene: RegnumDei_61 Start: 39892, Stop: 40269, Start Num: 23

Candidate Starts for RegnumDei_61:

(Start: 23 @39892 has 22 MA's), (42, 39934), (79, 40078), (84, 40093), (121, 40168), (129, 40210),

Gene: Remus_48 Start: 30019, Stop: 29660, Start Num: 40

Candidate Starts for Remus_48:

(1, 30424), (2, 30421), (4, 30337), (Start: 40 @30019 has 67 MA's), (63, 29911), (131, 29695),

Gene: Roary_44 Start: 30866, Stop: 30564, Start Num: 44

Candidate Starts for Roary_44:

(Start: 44 @30866 has 9 MA's), (63, 30755), (69, 30746), (101, 30653), (120, 30602), (123, 30581),

Gene: Rosalind_73 Start: 41184, Stop: 40768, Start Num: 28

Candidate Starts for Rosalind_73:

(Start: 18 @41214 has 1 MA's), (Start: 28 @41184 has 10 MA's), (Start: 32 @41172 has 32 MA's), (Start: 54 @41082 has 2 MA's), (60, 41055), (109, 40899), (129, 40818),

Gene: Rosalind_47 Start: 30222, Stop: 29863, Start Num: 40

Candidate Starts for Rosalind_47:

(2, 30624), (4, 30540), (Start: 40 @30222 has 67 MA's), (63, 30114), (131, 29898),

Gene: Rose5_40 Start: 33548, Stop: 33943, Start Num: 23

Candidate Starts for Rose5_40:

(19, 33533), (Start: 23 @33548 has 22 MA's), (91, 33806), (95, 33815), (116, 33875), (126, 33920),

Gene: Rossetti_44 Start: 35454, Stop: 35816, Start Num: 32

Candidate Starts for Rossetti_44:

(Start: 32 @35454 has 32 MA's), (Start: 34 @35457 has 5 MA's), (91, 35685), (95, 35694),

Gene: Rumpelstiltskin_43 Start: 35173, Stop: 35535, Start Num: 32

Candidate Starts for Rumpelstiltskin_43:

(Start: 32 @35173 has 32 MA's), (91, 35404), (95, 35413),

Gene: SFuller_74 Start: 46761, Stop: 47108, Start Num: 27

Candidate Starts for SFuller_74:

(Start: 27 @46761 has 2 MA's), (33, 46776), (53, 46839), (96, 46965), (104, 46983), (122, 47025), (131, 47073),

Gene: Samty_41 Start: 35164, Stop: 35559, Start Num: 21

Candidate Starts for Samty_41:

(Start: 21 @35164 has 20 MA's), (37, 35200), (Start: 38 @35206 has 1 MA's), (78, 35389), (79, 35395), (91, 35428), (116, 35497), (126, 35542),

Gene: Sarshaun_43 Start: 34940, Stop: 35302, Start Num: 32

Candidate Starts for Sarshaun_43:

(Start: 32 @34940 has 32 MA's), (91, 35171), (95, 35180),

Gene: Scorpia_43 Start: 30792, Stop: 30412, Start Num: 40

Candidate Starts for Scorpia_43:

(Start: 40 @30792 has 67 MA's), (Start: 51 @30744 has 5 MA's), (52, 30741), (65, 30666), (85, 30600), (103, 30552), (107, 30543), (116, 30516), (129, 30462), (135, 30429),

Gene: Shagrat_64 Start: 40165, Stop: 40536, Start Num: 23

Candidate Starts for Shagrat_64:

(Start: 23 @40165 has 22 MA's), (42, 40207), (59, 40276), (79, 40351), (105, 40414), (121, 40441), (123, 40462), (129, 40483), (131, 40492),

Gene: Shagrat_65 Start: 40539, Stop: 40913, Start Num: 25

Candidate Starts for Shagrat_65:

(Start: 23 @40536 has 22 MA's), (Start: 25 @40539 has 3 MA's), (48, 40611), (63, 40662), (65, 40668), (79, 40713), (88, 40740), (100, 40770), (129, 40860),

Gene: Shagrat_66 Start: 40915, Stop: 41250, Start Num: 136

Candidate Starts for Shagrat_66:

(29, 40549), (35, 40564), (57, 40630), (62, 40654), (73, 40693), (81, 40720), (94, 40756), (Start: 136 @40915 has 1 MA's), (137, 41023), (138, 41101), (139, 41104), (140, 41197), (141, 41212), (142, 41224),

Gene: ShayRa_75 Start: 41213, Stop: 40797, Start Num: 28

Candidate Starts for ShayRa_75:

(Start: 18 @41243 has 1 MA's), (Start: 28 @41213 has 10 MA's), (Start: 32 @41201 has 32 MA's), (Start: 54 @41111 has 2 MA's), (60, 41084), (109, 40928), (129, 40847),

Gene: ShayRa_49 Start: 30304, Stop: 29945, Start Num: 40

Candidate Starts for ShayRa_49:

(Start: 39 @30307 has 3 MA's), (Start: 40 @30304 has 67 MA's), (63, 30196), (131, 29980),

Gene: SheckWes_61 Start: 40759, Stop: 40364, Start Num: 15

Candidate Starts for SheckWes_61:

(Start: 15 @40759 has 12 MA's), (26, 40726), (68, 40609), (72, 40591), (79, 40567), (91, 40531), (95, 40522), (118, 40465),

Gene: Sheng711_41 Start: 33700, Stop: 34059, Start Num: 34

Candidate Starts for Sheng711_41:

(Start: 34 @33700 has 5 MA's), (Start: 38 @33709 has 1 MA's), (91, 33928), (95, 33937), (114, 33988),

Gene: Silverleaf_40 Start: 33548, Stop: 33943, Start Num: 23

Candidate Starts for Silverleaf_40:

(19, 33533), (Start: 23 @33548 has 22 MA's), (91, 33806), (95, 33815), (116, 33875), (126, 33920),

Gene: Smeadley_44 Start: 31032, Stop: 30730, Start Num: 44

Candidate Starts for Smeadley_44:

(Start: 44 @31032 has 9 MA's), (63, 30921), (69, 30912), (101, 30819), (120, 30768), (123, 30747),

Gene: Snenia_41 Start: 35164, Stop: 35559, Start Num: 21

Candidate Starts for Snenia_41:

(Start: 21 @35164 has 20 MA's), (37, 35200), (Start: 38 @35206 has 1 MA's), (78, 35389), (79, 35395), (91, 35428), (116, 35497), (126, 35542),

Gene: SoJulia_44 Start: 35166, Stop: 35528, Start Num: 32

Candidate Starts for SoJulia_44:

(Start: 32 @35166 has 32 MA's), (91, 35397), (95, 35406),

Gene: Soap141_43 Start: 34940, Stop: 35302, Start Num: 32

Candidate Starts for Soap141_43:

(Start: 32 @34940 has 32 MA's), (91, 35171), (95, 35180),

Gene: Soups_48 Start: 30303, Stop: 29944, Start Num: 40

Candidate Starts for Soups_48:

(Start: 39 @30306 has 3 MA's), (Start: 40 @30303 has 67 MA's), (63, 30195), (131, 29979),

Gene: Soups_75 Start: 41477, Stop: 41061, Start Num: 28

Candidate Starts for Soups_75:

(Start: 18 @41507 has 1 MA's), (Start: 28 @41477 has 10 MA's), (Start: 32 @41465 has 32 MA's), (Start: 54 @41375 has 2 MA's), (60, 41348), (109, 41192), (129, 41111),

Gene: Stellammi_85 Start: 44564, Stop: 44845, Start Num: 50

Candidate Starts for Stellammi_85:

(16, 44459), (45, 44537), (Start: 50 @44564 has 1 MA's), (59, 44582), (70, 44630), (89, 44690), (97, 44711), (133, 44828),

Gene: Stephig9_44 Start: 30891, Stop: 30589, Start Num: 44

Candidate Starts for Stephig9_44:

(Start: 44 @30891 has 9 MA's), (63, 30780), (69, 30771), (101, 30678), (120, 30627), (123, 30606),

Gene: Strosahl_48 Start: 30019, Stop: 29660, Start Num: 40

Candidate Starts for Strosahl_48:

(1, 30424), (2, 30421), (4, 30337), (Start: 40 @30019 has 67 MA's), (63, 29911), (131, 29695),

Gene: SummitAcademy_57 Start: 40859, Stop: 40458, Start Num: 15

Candidate Starts for SummitAcademy_57:

(Start: 15 @40859 has 12 MA's), (47, 40781), (66, 40709), (68, 40706), (72, 40688), (77, 40682), (83, 40652), (95, 40619), (121, 40547), (129, 40505),

Gene: SuperAwesome_68 Start: 40045, Stop: 39689, Start Num: 40

Candidate Starts for SuperAwesome_68:

(14, 40123), (Start: 40 @40045 has 67 MA's), (72, 39901), (89, 39844), (119, 39775), (124, 39748), (131, 39721), (134, 39700),

Gene: Superphikiman_128 Start: 69018, Stop: 69311, Start Num: 51

Candidate Starts for Superphikiman_128:

(Start: 51 @69018 has 5 MA's), (85, 69135), (108, 69195), (128, 69267), (129, 69270),

Gene: Swirley_42 Start: 31327, Stop: 30941, Start Num: 40

Candidate Starts for Swirley_42:

(Start: 40 @31327 has 67 MA's), (Start: 51 @31279 has 5 MA's), (65, 31201), (85, 31135), (89, 31126), (107, 31078), (121, 31030), (129, 30991),

Gene: Switzerland_48 Start: 30402, Stop: 30043, Start Num: 40

Candidate Starts for Switzerland_48:

(2, 30804), (4, 30720), (Start: 40 @30402 has 67 MA's), (63, 30294), (131, 30078),

Gene: Switzerland_74 Start: 41352, Stop: 40936, Start Num: 28

Candidate Starts for Switzerland_74:

(Start: 18 @41382 has 1 MA's), (Start: 28 @41352 has 10 MA's), (Start: 32 @41340 has 32 MA's), (Start: 54 @41250 has 2 MA's), (60, 41223), (109, 41067), (129, 40986),

Gene: SydNat_41 Start: 31517, Stop: 31131, Start Num: 40

Candidate Starts for SydNat_41:

(Start: 40 @31517 has 67 MA's), (Start: 51 @31469 has 5 MA's), (52, 31466), (65, 31391), (85, 31325), (89, 31316), (107, 31268), (121, 31220), (129, 31181),

Gene: Tarynearal_38 Start: 30769, Stop: 30383, Start Num: 40

Candidate Starts for Tarynearal_38:

(Start: 40 @30769 has 67 MA's), (Start: 51 @30721 has 5 MA's), (65, 30643), (85, 30577), (89, 30568), (106, 30523), (107, 30520), (121, 30472), (129, 30433),

Gene: Theia_37 Start: 30792, Stop: 30406, Start Num: 40

Candidate Starts for Theia_37:

(Start: 40 @30792 has 67 MA's), (Start: 51 @30744 has 5 MA's), (52, 30741), (65, 30666), (85, 30600), (89, 30591), (107, 30543), (121, 30495), (129, 30456),

Gene: Tiger_38 Start: 30325, Stop: 29939, Start Num: 40

Candidate Starts for Tiger_38:

(Start: 40 @30325 has 67 MA's), (Start: 51 @30277 has 5 MA's), (52, 30274), (65, 30199), (85, 30133), (89, 30124), (107, 30076), (121, 30028), (129, 29989),

Gene: TriFive_41 Start: 35163, Stop: 35558, Start Num: 21

Candidate Starts for TriFive_41:

(Start: 21 @35163 has 20 MA's), (37, 35199), (Start: 38 @35205 has 1 MA's), (78, 35388), (79, 35394), (91, 35427), (116, 35496), (126, 35541),

Gene: Twigg_40 Start: 30966, Stop: 30580, Start Num: 40

Candidate Starts for Twigg_40:

(Start: 40 @30966 has 67 MA's), (Start: 51 @30918 has 5 MA's), (52, 30915), (65, 30840), (85, 30774), (89, 30765), (107, 30717), (121, 30669), (129, 30630),

Gene: Tyson_40 Start: 33549, Stop: 33944, Start Num: 23

Candidate Starts for Tyson_40:

(19, 33534), (Start: 23 @33549 has 22 MA's), (91, 33807), (95, 33816), (116, 33876), (126, 33921),

Gene: UPIE_41 Start: 33532, Stop: 33927, Start Num: 23

Candidate Starts for UPIE_41:

(19, 33517), (Start: 23 @33532 has 22 MA's), (91, 33790), (95, 33799), (116, 33859), (126, 33904),

Gene: Underpass_43 Start: 34907, Stop: 35269, Start Num: 32

Candidate Starts for Underpass_43:

(Start: 32 @34907 has 32 MA's), (91, 35138), (95, 35147),

Gene: UnionJack_40 Start: 30292, Stop: 29903, Start Num: 40

Candidate Starts for UnionJack_40:

(Start: 40 @30292 has 67 MA's), (Start: 51 @30244 has 5 MA's), (52, 30241), (65, 30166), (89, 30091), (107, 30043), (111, 30034), (129, 29953),

Gene: Vetrix_43 Start: 34913, Stop: 35275, Start Num: 32

Candidate Starts for Vetrix_43:

(Start: 32 @34913 has 32 MA's), (91, 35144), (95, 35153),

Gene: Vine_60 Start: 41482, Stop: 41081, Start Num: 15

Candidate Starts for Vine_60:

(Start: 15 @41482 has 12 MA's), (47, 41404), (66, 41332), (68, 41329), (72, 41311), (77, 41305), (83, 41275), (95, 41242), (121, 41170), (129, 41128),

Gene: Waits_48 Start: 30191, Stop: 29832, Start Num: 40

Candidate Starts for Waits_48:

(2, 30593), (4, 30509), (Start: 40 @30191 has 67 MA's), (63, 30083), (131, 29867),

Gene: Wamburgexpress_41 Start: 33547, Stop: 33942, Start Num: 23

Candidate Starts for Wamburgexpress_41:

(19, 33532), (Start: 23 @33547 has 22 MA's), (91, 33805), (95, 33814), (116, 33874), (126, 33919),

Gene: Warrior24_49 Start: 30398, Stop: 30039, Start Num: 40

Candidate Starts for Warrior24_49:

(2, 30803), (4, 30719), (5, 30716), (Start: 40 @30398 has 67 MA's), (60, 30308), (61, 30299), (74, 30260), (131, 30074),

Gene: Whirlwind_42 Start: 34922, Stop: 35317, Start Num: 21

Candidate Starts for Whirlwind_42:

(Start: 21 @34922 has 20 MA's), (78, 35147), (79, 35153), (91, 35186), (116, 35255), (126, 35300),

Gene: Wigglewobble_43 Start: 34939, Stop: 35301, Start Num: 32

Candidate Starts for Wigglewobble_43:

(Start: 32 @34939 has 32 MA's), (91, 35170), (95, 35179),

Gene: Wilder_43 Start: 34912, Stop: 35274, Start Num: 32

Candidate Starts for Wilder_43:

(Start: 32 @34912 has 32 MA's), (91, 35143), (95, 35152),

Gene: Winky_43 Start: 34906, Stop: 35268, Start Num: 32

Candidate Starts for Winky_43:

(Start: 32 @34906 has 32 MA's), (91, 35137), (95, 35146),

Gene: Wyatt2_41 Start: 33548, Stop: 33943, Start Num: 23

Candidate Starts for Wyatt2_41:

(19, 33533), (Start: 23 @33548 has 22 MA's), (91, 33806), (95, 33815), (116, 33875), (126, 33920),

Gene: Yeet_125 Start: 71942, Stop: 72235, Start Num: 51

Candidate Starts for Yeet_125:

(Start: 51 @71942 has 5 MA's), (85, 72059), (108, 72119), (128, 72191), (129, 72194),

Gene: Yucky_60 Start: 41274, Stop: 40873, Start Num: 15

Candidate Starts for Yucky_60:

(Start: 15 @41274 has 12 MA's), (47, 41196), (66, 41124), (68, 41121), (72, 41103), (77, 41097), (83, 41067), (95, 41034), (121, 40962), (129, 40920),

Gene: Zakai_43 Start: 35164, Stop: 35526, Start Num: 32

Candidate Starts for Zakai_43:

(Start: 32 @35164 has 32 MA's), (91, 35395), (95, 35404),

Gene: Zaria_41 Start: 33563, Stop: 33958, Start Num: 23

Candidate Starts for Zaria_41:

(19, 33548), (Start: 23 @33563 has 22 MA's), (91, 33821), (95, 33830), (116, 33890), (126, 33935),

Gene: ZhongYanYuan_41 Start: 34767, Stop: 35129, Start Num: 32

Candidate Starts for ZhongYanYuan_41:

(Start: 32 @34767 has 32 MA's), (91, 34998), (95, 35007),

Gene: Zolita_40 Start: 31521, Stop: 31135, Start Num: 40

Candidate Starts for Zolita_40:

(Start: 40 @31521 has 67 MA's), (Start: 51 @31473 has 5 MA's), (52, 31470), (65, 31395), (85, 31329), (89, 31320), (107, 31272), (121, 31224), (129, 31185),