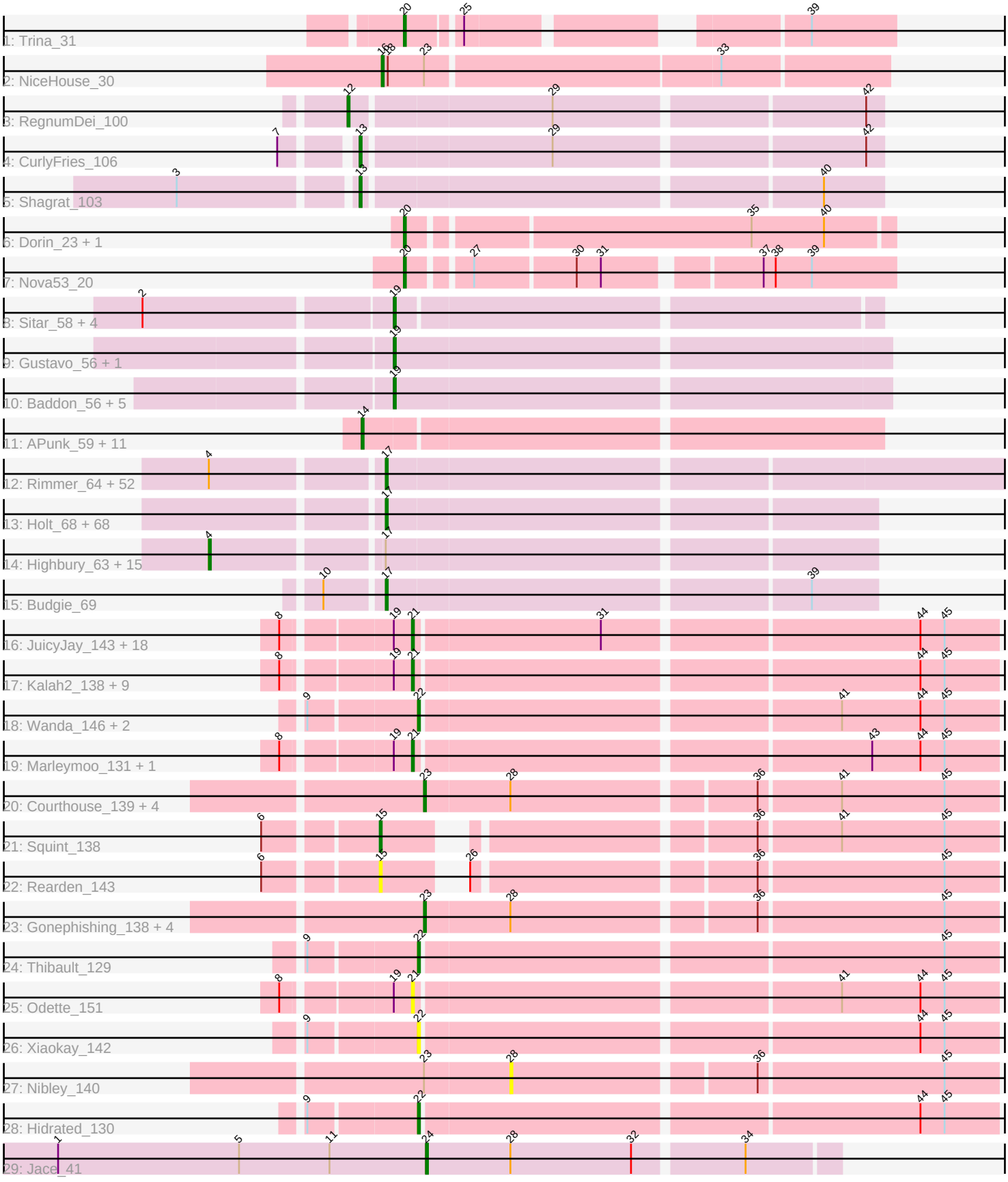
Pham 347242


1: Trina_31
2: NiceHouse_30
3: RegnumDei_100
4: CurlyFries_106
5: Shagrat_103
6: Dorin_23 + 1
7: Nova53_20
8: Sitar_58 + 4
9: Gustavo_56 + 1
10: Baddon_56 + 5
11: APunk_59 + 11
12: Rimmer_64 + 52
13: Holt_68 + 68
14: Highbury_63 + 15
15: Budgie_69
16: JuicyJay_143 + 18
17: Kalah2_138 + 9
18: Wanda_146 + 2
19: Marleymoo_131 + 1
20: Courthouse_139 + 4
21: Squint_138
22: Rearden_143
23: Gonephishing_138 + 4
24: Thibault_129
25: Odette_151
26: Xiaokay_142
27: Nibley_140
28: Hidrated_130
29: Jacel_41

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 347242 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347242 has 224 members, 18 are drafts.

Phages represented in each track:
• Track 1 : Trina_31
• Track 2 : NiceHouse_30
• Track 3 : RegnumDei_100
• Track 4 : CurlyFries_106
• Track 5 : Shagrat_103
• Track 6 : Dorin_23, Francesca_22
• Track 7 : Nova53_20
• Track 8 : Sitar_58, Barsten_58, Geodirt_57, Nordenberg_54, McCrothy_58
• Track 9 : Gustavo_56, Saronaya_56
• Track 10 : Baddon_56, Bibwit_57, Stichling_53, JKSyngboy_54, Kwobi_58, Tangerine_55
• Track 11 : APunk_59, Sampson_58, Zipp_59, Delrey21_58, BigHunkinEater_61, Tardus_60, DoctorFroggo_58, Verity_58, ViaConlectus_58, Natkenzie_58, Scioto_59, Abblin_58
• Track 12 : Rimmer_64, BaboJay_60, Phaux_65, YassJohnny_60, Quallification_64, Sassay_58, Amao_63, MadamMonkfish_64, Nala_65, SirDuracell_62, RiverMonster_63, Pat3_61, Lilac_65, Murica_66, Icee_64, Elph10_63, Buck_64, ChotaBhai_62, Youngblood_66, Bench_66, Cactus_66, Glexan_62, Kanye_60, PhatBacter_67, Willez_58, FairyPath_64, Flypotenuse_59, Hopey_63, Cookies_60, Misfit_64, Harella_63, Terminus_66, MPhalcon_64, Murphy_64, DrDrey_63, Balomoji_63, Command613_65, Myrale_63, Stark_64, Phrux_60, Policronamos_66, Bask21_63, Bruin_60, Cjw1_63, HanKaySha_63, HufflyPuff_66, Lilizi_64, Ukulele_59, FireRed_67, Daikon_65, TeamEdward_65, MISSy_64, ShereKhan_62
• Track 13 : Holt_68, OrionPax_62, Kimchi_67, NelitzaMV_61, Pumpkin_66, Henry_62, BilboSwaggins_62, StellaBean_62, Stank_67, Adnama_68, TeardropMSU_60, Mindy_63, Hoonter_66, Dumbo_63, Manda_64, BigBubba_64, TBrady12_67, GoldenSpark_67, IHOP_62, ShamWow_64, Bogg_63, Brewer_59, Easy2Say_65, AmericanBeauty_67, Teaspoon_65, Emmina_64, Porky_63, Kostya_64, SophKB_61, Toto_62, Eureka_62, CrystalP_63, 244_64, Elite2014_63, Thimble_64, GooberAzure_66, Thresher_66, Dusk_61, NoSleep_65, ChosenOne_64, Goldilocks_66, Gage_65, Goku_62, Pharsalus_61, Inca_61, BadStone_61, Gator_62, Asriel_63, Gemini_68, DoctorDiddles_62, Phaja_62, Tuco_65, JeTaime_63, Miniwave_59, Rakim_65, Traaww1_60, Moldemort_67, Tarkin_63, Paperbeatsrock_63, Simpliphy_63, Filch_65, Barbarian_63, ABCat_61, Lilpickle_63, Argent26_67, Wiggin_66, Ptowny_61, Xandras_63, StolenFromERC_66
• Track 14 : Highbury_63, xkcd_66, Czyszczon1_64, Marshmallow_61, Sotrice96_64, Contagion_59, StormChicken_65, Greep_67, Maxxinista_65, PaddyBaddy_63,

MollyToe_58, Tomaszewski_58, Mosby_59, NonchalantPear_64, Saints25_63, Nimrod_64
• Track 15 : Budgie_69
• Track 16 : JuicyJay_143, Optimus_138, Bagrid_148, ThreeRngTarjay_142, Halley_149, Duke13_143, BAKA_147, DmpstrDiver_148, Beem_149, Constella_141, Pound_139, EricMillard_139, Ejimix_140, Dallas_148, Klein_145, Schatzie_143, Hughesyang_146, Phoebus_147, Bombitas_135
• Track 17 : Kalah2_138, Porcelain_143, MiaZeal_146, Yeet_141, HokkenD_140, Dove_133, NihilNomen_149, Redno2_142, Lucky2013_139, KashFlow_146
• Track 18 : Wanda_146, Zelink_141, Minerva_146
• Track 19 : Marleymoo_131, Bobby_137
• Track 20 : Courthouse_139, Superphikiman_141, Ariel_143, Hannaconda_137, Omega_151
• Track 21 : Squint_138
• Track 22 : Rearden_143
• Track 23 : Gonephishing_138, BronnyJames_141, LittleE_147, Shaboozey_144, Nekros_142
• Track 24 : Thibault_129
• Track 25 : Odette_151
• Track 26 : Xiaokay_142
• Track 27 : Nibley_140
• Track 28 : Hidrated_130
• Track 29 : Jace_41

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

The start number called the most often in the published annotations is 17, it was called in 120 of the 206 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 244_64, ABCat_61, Adnama_68, Amao_63, AmericanBeauty_67, Argent26_67, Asriel_63, BaboJay_60, BadStone_61, Balomoji_63, Barbarian_63, Bask21_63, Bench_66, BigBubba_64, BilboSwaggins_62, Bogg_63, Brewer_59, Bruin_60, Buck_64, Budgie_69, Cactus_66, ChosenOne_64, ChotaBhai_62, Cjw1_63, Command613_65, Cookies_60, CrystalP_63, Daikon_65, DoctorDiddles_62, DrDrey_63, Dumbo_63, Dusk_61, Easy2Say_65, Elite2014_63, Elph10_63, Emmina_64, Eureka_62, FairyPath_64, Filch_65, FireRed_67, Flypotenuse_59, Gage_65, Gator_62, Gemini_68, Glexan_62, Goku_62, GoldenSpark_67, Goldilocks_66, GooberAzure_66, HanKaySha_63, Harella_63, Henry_62, Holt_68, Hoonter_66, Hopey_63, HufflyPuff_66, IHOP_62, Icee_64, Inca_61, JeTaime_63, Kanye_60, Kimchi_67, Kostya_64, Lilac_65, Lilizi_64, Lilpickle_63, MISSy_64, MPhalcon_64, MadamMonkfish_64, Manda_64, Mindy_63, Miniwave_59, Misfit_64, Moldemort_67, Murica_66, Murphy_64, Myrale_63, Nala_65, NelitzaMV_61, NoSleep_65, OrionPax_62, Paperbeatsrock_63, Pat3_61, Phaja_62, Pharsalus_61, PhatBacter_67, Phaux_65, Phrux_60, Policronamos_66, Porky_63, Ptowny_61, Pumpkin_66, Quallification_64, Rakim_65, Rimmer_64, RiverMonster_63, Sassay_58, ShamWow_64, ShereKhan_62, Simpliphy_63, SirDuracell_62, SophKB_61, Stank_67, Stark_64, StellaBean_62, StolenFromERC_66, TBrady12_67, Tarkin_63, TeamEdward_65, TeardropMSU_60, Teaspoon_65, Terminus_66, Thimble_64, Thresher_66, Toto_62, Traaww1_60, Tuco_65,

Ukulele_59, Wiggin_66, Willez_58, Xandras_63, YassJohnny_60, Youngblood_66,

Genes that have the "Most Annotated" start but do not call it:
• Contagion_59, Czyszczon1_64, Greep_67, Highbury_63, Marshmallow_61, Maxxinista_65, MollyToe_58, Mosby_59, Nimrod_64, NonchalantPear_64, PaddyBaddy_63, Saints25_63, Sotrice96_64, StormChicken_65, Tomaszewski_58, xkcd_66,

Genes that do not have the "Most Annotated" start:
• APunk_59, Abblin_58, Ariel_143, BAKA_147, Baddon_56, Bagrid_148, Barsten_58, Beem_149, Bibwit_57, BigHunkinEater_61, Bobby_137, Bombitas_135, BronnyJames_141, Constella_141, Courthouse_139, CurlyFries_106, Dallas_148, Delrey21_58, DmpstrDiver_148, DoctorFroggo_58, Dorin_23, Dove_133, Duke13_143, Ejimix_140, EricMillard_139, Francesca_22, Geodirt_57, Gonephishing_138, Gustavo_56, Halley_149, Hannaconda_137, Hidrated_130, HokkenD_140, Hughesyang_146, JKSyngboy_54, Jace_41, JuicyJay_143, Kalah2_138, KashFlow_146, Klein_145, Kwobi_58, LittleE_147, Lucky2013_139, Marleymoo_131, McCrothy_58, MiaZeal_146, Minerva_146, Natkenzie_58, Nekros_142, Nibley_140, NiceHouse_30, NihilNomen_149, Nordenberg_54, Nova53_20, Odette_151, Omega_151, Optimus_138, Phoebus_147, Porcelain_143, Pound_139, Rearden_143, Redno2_142, RegnumDei_100, Sampson_58, Saronaya_56, Schatzie_143, Scioto_59, Shaboozey_144, Shagrat_103, Sitar_58, Squint_138, Stichling_53, Superphikiman_141, Tangerine_55, Tardus_60, Thibault_129, ThreeRngTarjay_142, Trina_31, Verity_58, ViaConlectus_58, Wanda_146, Xiaokay_142, Yeet_141, Zelink_141, Zipp_59,

Summary by start number:

Start 4:
• Found in 69 of 224 (30.8%) of genes in pham
• Manual Annotations of this start: 13 of 206
• Called 23.2% of time when present
• Phage (with cluster) where this start called: Contagion_59 (E), Czyszczon1_64 (E), Greep_67 (E), Highbury_63 (E), Marshmallow_61 (E), Maxxinista_65 (E), MollyToe_58 (E), Mosby_59 (E), Nimrod_64 (E), NonchalantPear_64 (E), PaddyBaddy_63 (E), Saints25_63 (E), Sotrice96_64 (E), StormChicken_65 (E), Tomaszewski_58 (E), xkcd_66 (E),

Start 12:
• Found in 1 of 224 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RegnumDei_100 (CF),

Start 13:
• Found in 2 of 224 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CurlyFries_106 (CF), Shagrat_103 (CF),

Start 14:
• Found in 12 of 224 (5.4%) of genes in pham
• Manual Annotations of this start: 12 of 206

• Called 100.0% of time when present
• Phage (with cluster) where this start called: APunk_59 (DE4), Abblin_58 (DE4), BigHunkinEater_61 (DE4), Delrey21_58 (DE4), DoctorFroggo_58 (DE4), Natkenzie_58 (DE4), Sampson_58 (DE4), Scioto_59 (DE4), Tardus_60 (DE4), Verity_58 (DE4), ViaConlectus_58 (DE4), Zipp_59 (DE4),

Start 15:
• Found in 2 of 224 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Rearden_143 (J), Squint_138 (J),

Start 16:
• Found in 1 of 224 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: NiceHouse_30 (CE),

Start 17:
• Found in 139 of 224 (62.1%) of genes in pham
• Manual Annotations of this start: 120 of 206
• Called 88.5% of time when present
• Phage (with cluster) where this start called: 244_64 (E), ABCat_61 (E), Adnama_68 (E), Amao_63 (E), AmericanBeauty_67 (E), Argent26_67 (E), Asriel_63 (E), BaboJay_60 (E), BadStone_61 (E), Balomoji_63 (E), Barbarian_63 (E), Bask21_63 (E), Bench_66 (E), BigBubba_64 (E), BilboSwaggins_62 (E), Bogg_63 (E), Brewer_59 (E), Bruin_60 (E), Buck_64 (E), Budgie_69 (E), Cactus_66 (E), ChosenOne_64 (E), ChotaBhai_62 (E), Cjw1_63 (E), Command613_65 (E), Cookies_60 (E), CrystalP_63 (E), Daikon_65 (E), DoctorDiddles_62 (E), DrDrey_63 (E), Dumbo_63 (E), Dusk_61 (E), Easy2Say_65 (E), Elite2014_63 (E), Elph10_63 (E), Emmina_64 (E), Eureka_62 (E), FairyPath_64 (E), Filch_65 (E), FireRed_67 (E), Flypotenuse_59 (E), Gage_65 (E), Gator_62 (E), Gemini_68 (E), Glexan_62 (E), Goku_62 (E), GoldenSpark_67 (E), Goldilocks_66 (E), GooberAzure_66 (E), HanKaySha_63 (E), Harella_63 (E), Henry_62 (E), Holt_68 (E), Hoonter_66 (E), Hopey_63 (E), HufflyPuff_66 (E), IHOP_62 (E), Icee_64 (E), Inca_61 (E), JeTaime_63 (E), Kanye_60 (E), Kimchi_67 (E), Kostya_64 (E), Lilac_65 (E), Lilizi_64 (E), Lilpickle_63 (E), MISSy_64 (E), MPhalcon_64 (E), MadamMonkfish_64 (E), Manda_64 (E), Mindy_63 (E), Miniwave_59 (E), Misfit_64 (E), Moldemort_67 (E), Murica_66 (E), Murphy_64 (E), Myrale_63 (E), Nala_65 (E), NelitzaMV_61 (E), NoSleep_65 (E), OrionPax_62 (E), Paperbeatsrock_63 (E), Pat3_61 (E), Phaja_62 (E), Pharsalus_61 (E), PhatBacter_67 (E), Phaux_65 (E), Phrux_60 (E), Policronamos_66 (E), Porky_63 (E), Ptowny_61 (E), Pumpkin_66 (E), Quallification_64 (E), Rakim_65 (E), Rimmer_64 (E), RiverMonster_63 (E), Sassay_58 (E), ShamWow_64 (E), ShereKhan_62 (E), Simpliphy_63 (E), SirDuracell_62 (E), SophKB_61 (E), Stank_67 (E), Stark_64 (E), StellaBean_62 (E), StolenFromERC_66 (E), TBrady12_67 (E), Tarkin_63 (E), TeamEdward_65 (E), TeardropMSU_60 (E), Teaspoon_65 (E), Terminus_66 (E), Thimble_64 (E), Thresher_66 (E), Toto_62 (E), Traaww1_60 (E), Tuco_65 (E), Ukulele_59 (E), Wiggin_66 (E), Willez_58 (E), Xandras_63 (E), YassJohnny_60 (E), Youngblood_66 (E),

Start 19:
• Found in 45 of 224 (20.1%) of genes in pham

• Manual Annotations of this start: 11 of 206
• Called 28.9% of time when present
• Phage (with cluster) where this start called: Baddon_56 (DE1), Barsten_58 (DE1), Bibwit_57 (DE1), Geodirt_57 (DE1), Gustavo_56 (DE1), JKSyngboy_54 (DE1), Kwobi_58 (DE1), McCrothy_58 (DE1), Nordenberg_54 (DE1), Saronaya_56 (DE1), Sitar_58 (DE1), Stichling_53 (DE1), Tangerine_55 (DE1),

Start 20:
• Found in 4 of 224 (1.8%) of genes in pham
• Manual Annotations of this start: 4 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dorin_23 (CG), Francesca_22 (CG), Nova53_20 (CG), Trina_31 (CE),

Start 21:
• Found in 32 of 224 (14.3%) of genes in pham
• Manual Annotations of this start: 29 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BAKA_147 (J), Bagrid_148 (J), Beem_149 (J), Bobby_137 (J), Bombitas_135 (J), Constella_141 (J), Dallas_148 (J), DmpstrDiver_148 (J), Dove_133 (J), Duke13_143 (J), Ejimix_140 (J), EricMillard_139 (J), Halley_149 (J), HokkenD_140 (J), Hughesyang_146 (J), JuicyJay_143 (J), Kalah2_138 (J), KashFlow_146 (J), Klein_145 (J), Lucky2013_139 (J), Marleymoo_131 (J), MiaZeal_146 (J), NihilNomen_149 (J), Odette_151 (J), Optimus_138 (J), Phoebus_147 (J), Porcelain_143 (J), Pound_139 (J), Redno2_142 (J), Schatzie_143 (J), ThreeRngTarjay_142 (J), Yeet_141 (J),

Start 22:
• Found in 6 of 224 (2.7%) of genes in pham
• Manual Annotations of this start: 5 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hidrated_130 (J), Minerva_146 (J), Thibault_129 (J), Wanda_146 (J), Xiaokay_142 (J), Zelink_141 (J),

Start 23:
• Found in 12 of 224 (5.4%) of genes in pham
• Manual Annotations of this start: 6 of 206
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Ariel_143 (J), BronnyJames_141 (J), Courthouse_139 (J), Gonephishing_138 (J), Hannaconda_137 (J), LittleE_147 (J), Nekros_142 (J), Omega_151 (J), Shaboozey_144 (J), Superphikiman_141 (J),

Start 24:
• Found in 1 of 224 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 206
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jace_41 (singleton),

Start 28:
• Found in 12 of 224 (5.4%) of genes in pham
• No Manual Annotations of this start.
• Called 8.3% of time when present
• Phage (with cluster) where this start called: Nibley_140 (J),

Summary by clusters:

There are 8 clusters represented in this pham: singleton, E, DE4, DE1, J, CG, CF, CE,

Info for manual annotations of cluster CE:
•Start number 16 was manually annotated 1 time for cluster CE.
•Start number 20 was manually annotated 1 time for cluster CE.

Info for manual annotations of cluster CF:
•Start number 12 was manually annotated 1 time for cluster CF.
•Start number 13 was manually annotated 2 times for cluster CF.

Info for manual annotations of cluster CG:
•Start number 20 was manually annotated 3 times for cluster CG.

Info for manual annotations of cluster DE1:
•Start number 19 was manually annotated 11 times for cluster DE1.

Info for manual annotations of cluster DE4:
•Start number 14 was manually annotated 12 times for cluster DE4.

Info for manual annotations of cluster E:
•Start number 4 was manually annotated 13 times for cluster E.
•Start number 17 was manually annotated 120 times for cluster E.

Info for manual annotations of cluster J:
•Start number 15 was manually annotated 1 time for cluster J.
•Start number 21 was manually annotated 29 times for cluster J.
•Start number 22 was manually annotated 5 times for cluster J.
•Start number 23 was manually annotated 6 times for cluster J.

Gene Information:

Gene: 244_64 Start: 42954, Stop: 43187, Start Num: 17
Candidate Starts for 244_64:
(Start: 17 @42954 has 120 MA's),

Gene: ABCat_61 Start: 43599, Stop: 43832, Start Num: 17
Candidate Starts for ABCat_61:
(Start: 17 @43599 has 120 MA's),

Gene: APunk_59 Start: 46515, Stop: 46763, Start Num: 14
Candidate Starts for APunk_59:
(Start: 14 @46515 has 12 MA's),

Gene: Abblin_58 Start: 47003, Stop: 47251, Start Num: 14
Candidate Starts for Abblin_58:
(Start: 14 @47003 has 12 MA's),

Gene: Adnama_68 Start: 43622, Stop: 43855, Start Num: 17

Candidate Starts for Adnama_68:
(Start: 17 @43622 has 120 MA's),

Gene: Amao_63 Start: 42712, Stop: 42945, Start Num: 17
Candidate Starts for Amao_63:
(Start: 4 @42634 has 13 MA's), (Start: 17 @42712 has 120 MA's),

Gene: AmericanBeauty_67 Start: 43467, Stop: 43700, Start Num: 17
Candidate Starts for AmericanBeauty_67:
(Start: 17 @43467 has 120 MA's),

Gene: Argent26_67 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for Argent26_67:
(Start: 17 @43105 has 120 MA's),

Gene: Ariel_143 Start: 73283, Stop: 73555, Start Num: 23
Candidate Starts for Ariel_143:
(Start: 23 @73283 has 6 MA's), (28, 73325), (36, 73439), (41, 73478), (45, 73529),

Gene: Asriel_63 Start: 41959, Stop: 42192, Start Num: 17
Candidate Starts for Asriel_63:
(Start: 17 @41959 has 120 MA's),

Gene: BAKA_147 Start: 76909, Stop: 77187, Start Num: 21
Candidate Starts for BAKA_147:
(8, 76852), (Start: 19 @76900 has 11 MA's), (Start: 21 @76909 has 29 MA's), (31, 76999), (44, 77149), (45, 77161),

Gene: BaboJay_60 Start: 42499, Stop: 42732, Start Num: 17
Candidate Starts for BaboJay_60:
(Start: 4 @42421 has 13 MA's), (Start: 17 @42499 has 120 MA's),

Gene: BadStone_61 Start: 43168, Stop: 43401, Start Num: 17
Candidate Starts for BadStone_61:
(Start: 17 @43168 has 120 MA's),

Gene: Baddon_56 Start: 46941, Stop: 47180, Start Num: 19
Candidate Starts for Baddon_56:
(Start: 19 @46941 has 11 MA's),

Gene: Bagrid_148 Start: 77604, Stop: 77882, Start Num: 21
Candidate Starts for Bagrid_148:
(8, 77547), (Start: 19 @77595 has 11 MA's), (Start: 21 @77604 has 29 MA's), (31, 77694), (44, 77844), (45, 77856),

Gene: Balomoji_63 Start: 43431, Stop: 43664, Start Num: 17
Candidate Starts for Balomoji_63:
(Start: 4 @43353 has 13 MA's), (Start: 17 @43431 has 120 MA's),

Gene: Barbarian_63 Start: 41959, Stop: 42192, Start Num: 17
Candidate Starts for Barbarian_63:
(Start: 17 @41959 has 120 MA's),

Gene: Barsten_58 Start: 46874, Stop: 47104, Start Num: 19
Candidate Starts for Barsten_58:
(2, 46757), (Start: 19 @46874 has 11 MA's),

Gene: Bask21_63 Start: 42272, Stop: 42505, Start Num: 17
Candidate Starts for Bask21_63:
(Start: 4 @42194 has 13 MA's), (Start: 17 @42272 has 120 MA's),

Gene: Beem_149 Start: 78507, Stop: 78785, Start Num: 21
Candidate Starts for Beem_149:
(8, 78450), (Start: 19 @78498 has 11 MA's), (Start: 21 @78507 has 29 MA's), (31, 78597), (44, 78747), (45, 78759),

Gene: Bench_66 Start: 42937, Stop: 43236, Start Num: 17
Candidate Starts for Bench_66:
(Start: 4 @42859 has 13 MA's), (Start: 17 @42937 has 120 MA's),

Gene: Bibwit_57 Start: 45842, Stop: 46075, Start Num: 19
Candidate Starts for Bibwit_57:
(Start: 19 @45842 has 11 MA's),

Gene: BigBubba_64 Start: 42978, Stop: 43211, Start Num: 17
Candidate Starts for BigBubba_64:
(Start: 17 @42978 has 120 MA's),

Gene: BigHunkinEater_61 Start: 46230, Stop: 46478, Start Num: 14
Candidate Starts for BigHunkinEater_61:
(Start: 14 @46230 has 12 MA's),

Gene: BilboSwaggins_62 Start: 43607, Stop: 43840, Start Num: 17
Candidate Starts for BilboSwaggins_62:
(Start: 17 @43607 has 120 MA's),

Gene: Bobby_137 Start: 78377, Stop: 78655, Start Num: 21
Candidate Starts for Bobby_137:
(8, 78320), (Start: 19 @78368 has 11 MA's), (Start: 21 @78377 has 29 MA's), (43, 78593), (44, 78617), (45, 78629),

Gene: Bogg_63 Start: 42251, Stop: 42484, Start Num: 17
Candidate Starts for Bogg_63:
(Start: 17 @42251 has 120 MA's),

Gene: Bombitas_135 Start: 75918, Stop: 76196, Start Num: 21
Candidate Starts for Bombitas_135:
(8, 75861), (Start: 19 @75909 has 11 MA's), (Start: 21 @75918 has 29 MA's), (31, 76008), (44, 76158), (45, 76170),

Gene: Brewer_59 Start: 41767, Stop: 42000, Start Num: 17
Candidate Starts for Brewer_59:
(Start: 17 @41767 has 120 MA's),

Gene: BronnyJames_141 Start: 74958, Stop: 75230, Start Num: 23
Candidate Starts for BronnyJames_141:

(Start: 23 @74958 has 6 MA's), (28, 75000), (36, 75114), (45, 75204),

Gene: Bruin_60 Start: 41846, Stop: 42145, Start Num: 17
Candidate Starts for Bruin_60:
(Start: 4 @41768 has 13 MA's), (Start: 17 @41846 has 120 MA's),

Gene: Buck_64 Start: 43553, Stop: 43852, Start Num: 17
Candidate Starts for Buck_64:
(Start: 4 @43475 has 13 MA's), (Start: 17 @43553 has 120 MA's),

Gene: Budgie_69 Start: 43485, Stop: 43718, Start Num: 17
Candidate Starts for Budgie_69:
(10, 43458), (Start: 17 @43485 has 120 MA's), (39, 43686),

Gene: Cactus_66 Start: 42326, Stop: 42625, Start Num: 17
Candidate Starts for Cactus_66:
(Start: 4 @42248 has 13 MA's), (Start: 17 @42326 has 120 MA's),

Gene: ChosenOne_64 Start: 42626, Stop: 42859, Start Num: 17
Candidate Starts for ChosenOne_64:
(Start: 17 @42626 has 120 MA's),

Gene: ChotaBhai_62 Start: 42643, Stop: 42876, Start Num: 17
Candidate Starts for ChotaBhai_62:
(Start: 4 @42565 has 13 MA's), (Start: 17 @42643 has 120 MA's),

Gene: Cjw1_63 Start: 44027, Stop: 44326, Start Num: 17
Candidate Starts for Cjw1_63:
(Start: 4 @43949 has 13 MA's), (Start: 17 @44027 has 120 MA's),

Gene: Command613_65 Start: 43365, Stop: 43598, Start Num: 17
Candidate Starts for Command613_65:
(Start: 4 @43287 has 13 MA's), (Start: 17 @43365 has 120 MA's),

Gene: Constella_141 Start: 77160, Stop: 77438, Start Num: 21
Candidate Starts for Constella_141:
(8, 77103), (Start: 19 @77151 has 11 MA's), (Start: 21 @77160 has 29 MA's), (31, 77250), (44, 77400),
(45, 77412),

Gene: Contagion_59 Start: 42049, Stop: 42426, Start Num: 4
Candidate Starts for Contagion_59:
(Start: 4 @42049 has 13 MA's), (Start: 17 @42127 has 120 MA's),

Gene: Cookies_60 Start: 42494, Stop: 42727, Start Num: 17
Candidate Starts for Cookies_60:
(Start: 4 @42416 has 13 MA's), (Start: 17 @42494 has 120 MA's),

Gene: Courthouse_139 Start: 73141, Stop: 73413, Start Num: 23
Candidate Starts for Courthouse_139:
(Start: 23 @73141 has 6 MA's), (28, 73183), (36, 73297), (41, 73336), (45, 73387),

Gene: CrystalP_63 Start: 43607, Stop: 43840, Start Num: 17
Candidate Starts for CrystalP_63:

(Start: 17 @43607 has 120 MA's),

Gene: CurlyFries_106 Start: 54825, Stop: 55070, Start Num: 13
Candidate Starts for CurlyFries_106:
(7, 54795), (Start: 13 @54825 has 2 MA's), (29, 54915), (42, 55062),

Gene: Czyszczon1_64 Start: 42758, Stop: 43135, Start Num: 4
Candidate Starts for Czyszczon1_64:
(Start: 4 @42758 has 13 MA's), (Start: 17 @42836 has 120 MA's),

Gene: Daikon_65 Start: 43452, Stop: 43685, Start Num: 17
Candidate Starts for Daikon_65:
(Start: 4 @43374 has 13 MA's), (Start: 17 @43452 has 120 MA's),

Gene: Dallas_148 Start: 77974, Stop: 78252, Start Num: 21
Candidate Starts for Dallas_148:
(8, 77917), (Start: 19 @77965 has 11 MA's), (Start: 21 @77974 has 29 MA's), (31, 78064), (44, 78214), (45, 78226),

Gene: Delrey21_58 Start: 47732, Stop: 47980, Start Num: 14
Candidate Starts for Delrey21_58:
(Start: 14 @47732 has 12 MA's),

Gene: DmpstrDiver_148 Start: 77893, Stop: 78171, Start Num: 21
Candidate Starts for DmpstrDiver_148:
(8, 77836), (Start: 19 @77884 has 11 MA's), (Start: 21 @77893 has 29 MA's), (31, 77983), (44, 78133), (45, 78145),

Gene: DoctorDiddles_62 Start: 42684, Stop: 42917, Start Num: 17
Candidate Starts for DoctorDiddles_62:
(Start: 17 @42684 has 120 MA's),

Gene: DoctorFroggo_58 Start: 47732, Stop: 47980, Start Num: 14
Candidate Starts for DoctorFroggo_58:
(Start: 14 @47732 has 12 MA's),

Gene: Dorin_23 Start: 9384, Stop: 9154, Start Num: 20
Candidate Starts for Dorin_23:
(Start: 20 @9384 has 4 MA's), (35, 9222), (40, 9186),

Gene: Dove_133 Start: 73492, Stop: 73770, Start Num: 21
Candidate Starts for Dove_133:
(8, 73435), (Start: 19 @73483 has 11 MA's), (Start: 21 @73492 has 29 MA's), (44, 73732), (45, 73744),

Gene: DrDrey_63 Start: 43755, Stop: 44054, Start Num: 17
Candidate Starts for DrDrey_63:
(Start: 4 @43677 has 13 MA's), (Start: 17 @43755 has 120 MA's),

Gene: Duke13_143 Start: 75194, Stop: 75472, Start Num: 21
Candidate Starts for Duke13_143:
(8, 75137), (Start: 19 @75185 has 11 MA's), (Start: 21 @75194 has 29 MA's), (31, 75284), (44, 75434), (45, 75446),

Gene: Dumbo_63 Start: 42531, Stop: 42764, Start Num: 17
Candidate Starts for Dumbo_63:
(Start: 17 @42531 has 120 MA's),

Gene: Dusk_61 Start: 42828, Stop: 43061, Start Num: 17
Candidate Starts for Dusk_61:
(Start: 17 @42828 has 120 MA's),

Gene: Easy2Say_65 Start: 44069, Stop: 44302, Start Num: 17
Candidate Starts for Easy2Say_65:
(Start: 17 @44069 has 120 MA's),

Gene: Ejimix_140 Start: 78042, Stop: 78320, Start Num: 21
Candidate Starts for Ejimix_140:
(8, 77985), (Start: 19 @78033 has 11 MA's), (Start: 21 @78042 has 29 MA's), (31, 78132), (44, 78282), (45, 78294),

Gene: Elite2014_63 Start: 42625, Stop: 42858, Start Num: 17
Candidate Starts for Elite2014_63:
(Start: 17 @42625 has 120 MA's),

Gene: Elph10_63 Start: 42334, Stop: 42633, Start Num: 17
Candidate Starts for Elph10_63:
(Start: 4 @42256 has 13 MA's), (Start: 17 @42334 has 120 MA's),

Gene: Emmina_64 Start: 42532, Stop: 42765, Start Num: 17
Candidate Starts for Emmina_64:
(Start: 17 @42532 has 120 MA's),

Gene: EricMillard_139 Start: 76546, Stop: 76824, Start Num: 21
Candidate Starts for EricMillard_139:
(8, 76489), (Start: 19 @76537 has 11 MA's), (Start: 21 @76546 has 29 MA's), (31, 76636), (44, 76786), (45, 76798),

Gene: Eureka_62 Start: 43096, Stop: 43329, Start Num: 17
Candidate Starts for Eureka_62:
(Start: 17 @43096 has 120 MA's),

Gene: FairyPath_64 Start: 43443, Stop: 43676, Start Num: 17
Candidate Starts for FairyPath_64:
(Start: 4 @43365 has 13 MA's), (Start: 17 @43443 has 120 MA's),

Gene: Filch_65 Start: 42557, Stop: 42790, Start Num: 17
Candidate Starts for Filch_65:
(Start: 17 @42557 has 120 MA's),

Gene: FireRed_67 Start: 43823, Stop: 44122, Start Num: 17
Candidate Starts for FireRed_67:
(Start: 4 @43745 has 13 MA's), (Start: 17 @43823 has 120 MA's),

Gene: Flypotenuse_59 Start: 42315, Stop: 42548, Start Num: 17
Candidate Starts for Flypotenuse_59:
(Start: 4 @42237 has 13 MA's), (Start: 17 @42315 has 120 MA's),

Gene: Francesca_22 Start: 9506, Stop: 9276, Start Num: 20
Candidate Starts for Francesca_22:
(Start: 20 @9506 has 4 MA's), (35, 9344), (40, 9308),

Gene: Gage_65 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for Gage_65:
(Start: 17 @43105 has 120 MA's),

Gene: Gator_62 Start: 43459, Stop: 43692, Start Num: 17
Candidate Starts for Gator_62:
(Start: 17 @43459 has 120 MA's),

Gene: Gemini_68 Start: 43622, Stop: 43855, Start Num: 17
Candidate Starts for Gemini_68:
(Start: 17 @43622 has 120 MA's),

Gene: Geodirt_57 Start: 47622, Stop: 47852, Start Num: 19
Candidate Starts for Geodirt_57:
(2, 47505), (Start: 19 @47622 has 11 MA's),

Gene: Glexan_62 Start: 43442, Stop: 43675, Start Num: 17
Candidate Starts for Glexan_62:
(Start: 4 @43364 has 13 MA's), (Start: 17 @43442 has 120 MA's),

Gene: Goku_62 Start: 42825, Stop: 43058, Start Num: 17
Candidate Starts for Goku_62:
(Start: 17 @42825 has 120 MA's),

Gene: GoldenSpark_67 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for GoldenSpark_67:
(Start: 17 @43105 has 120 MA's),

Gene: Goldilocks_66 Start: 42607, Stop: 42840, Start Num: 17
Candidate Starts for Goldilocks_66:
(Start: 17 @42607 has 120 MA's),

Gene: Gonephishing_138 Start: 73676, Stop: 73948, Start Num: 23
Candidate Starts for Gonephishing_138:
(Start: 23 @73676 has 6 MA's), (28, 73718), (36, 73832), (45, 73922),

Gene: GooberAzure_66 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for GooberAzure_66:
(Start: 17 @43105 has 120 MA's),

Gene: Greep_67 Start: 44037, Stop: 44414, Start Num: 4
Candidate Starts for Greep_67:
(Start: 4 @44037 has 13 MA's), (Start: 17 @44115 has 120 MA's),

Gene: Gustavo_56 Start: 45880, Stop: 46119, Start Num: 19
Candidate Starts for Gustavo_56:
(Start: 19 @45880 has 11 MA's),

Gene: Halley_149 Start: 78358, Stop: 78636, Start Num: 21
Candidate Starts for Halley_149:
(8, 78301), (Start: 19 @78349 has 11 MA's), (Start: 21 @78358 has 29 MA's), (31, 78448), (44, 78598), (45, 78610),

Gene: HanKaySha_63 Start: 42415, Stop: 42648, Start Num: 17
Candidate Starts for HanKaySha_63:
(Start: 4 @42337 has 13 MA's), (Start: 17 @42415 has 120 MA's),

Gene: Hannaconda_137 Start: 73890, Stop: 74162, Start Num: 23
Candidate Starts for Hannaconda_137:
(Start: 23 @73890 has 6 MA's), (28, 73932), (36, 74046), (41, 74085), (45, 74136),

Gene: Harella_63 Start: 43958, Stop: 44191, Start Num: 17
Candidate Starts for Harella_63:
(Start: 4 @43880 has 13 MA's), (Start: 17 @43958 has 120 MA's),

Gene: Henry_62 Start: 43047, Stop: 43280, Start Num: 17
Candidate Starts for Henry_62:
(Start: 17 @43047 has 120 MA's),

Gene: Hidrated_130 Start: 76490, Stop: 76765, Start Num: 22
Candidate Starts for Hidrated_130:
(9, 76439), (Start: 22 @76490 has 5 MA's), (44, 76727), (45, 76739),

Gene: Highbury_63 Start: 42620, Stop: 42931, Start Num: 4
Candidate Starts for Highbury_63:
(Start: 4 @42620 has 13 MA's), (Start: 17 @42698 has 120 MA's),

Gene: HokkenD_140 Start: 77517, Stop: 77795, Start Num: 21
Candidate Starts for HokkenD_140:
(8, 77460), (Start: 19 @77508 has 11 MA's), (Start: 21 @77517 has 29 MA's), (44, 77757), (45, 77769),

Gene: Holt_68 Start: 43519, Stop: 43752, Start Num: 17
Candidate Starts for Holt_68:
(Start: 17 @43519 has 120 MA's),

Gene: Hoonter_66 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for Hoonter_66:
(Start: 17 @43105 has 120 MA's),

Gene: Hopey_63 Start: 42949, Stop: 43248, Start Num: 17
Candidate Starts for Hopey_63:
(Start: 4 @42871 has 13 MA's), (Start: 17 @42949 has 120 MA's),

Gene: HufflyPuff_66 Start: 43779, Stop: 44078, Start Num: 17
Candidate Starts for HufflyPuff_66:
(Start: 4 @43701 has 13 MA's), (Start: 17 @43779 has 120 MA's),

Gene: Hughesyang_146 Start: 78128, Stop: 78406, Start Num: 21
Candidate Starts for Hughesyang_146:
(8, 78071), (Start: 19 @78119 has 11 MA's), (Start: 21 @78128 has 29 MA's), (31, 78218), (44, 78368), (45, 78380),

Gene: IHOP_62 Start: 43171, Stop: 43404, Start Num: 17
Candidate Starts for IHOP_62:
(Start: 17 @43171 has 120 MA's),

Gene: Icee_64 Start: 42773, Stop: 43072, Start Num: 17
Candidate Starts for Icee_64:
(Start: 4 @42695 has 13 MA's), (Start: 17 @42773 has 120 MA's),

Gene: Inca_61 Start: 41696, Stop: 41929, Start Num: 17
Candidate Starts for Inca_61:
(Start: 17 @41696 has 120 MA's),

Gene: JKSyngboy_54 Start: 46472, Stop: 46711, Start Num: 19
Candidate Starts for JKSyngboy_54:
(Start: 19 @46472 has 11 MA's),

Gene: Jace_41 Start: 29901, Stop: 30098, Start Num: 24
Candidate Starts for Jace_41:
(1, 29718), (5, 29808), (11, 29853), (Start: 24 @29901 has 1 MA's), (28, 29943), (32, 30003), (34, 30054),

Gene: JeTaime_63 Start: 43599, Stop: 43832, Start Num: 17
Candidate Starts for JeTaime_63:
(Start: 17 @43599 has 120 MA's),

Gene: JuicyJay_143 Start: 79643, Stop: 79921, Start Num: 21
Candidate Starts for JuicyJay_143:
(8, 79586), (Start: 19 @79634 has 11 MA's), (Start: 21 @79643 has 29 MA's), (31, 79733), (44, 79883), (45, 79895),

Gene: Kalah2_138 Start: 77249, Stop: 77527, Start Num: 21
Candidate Starts for Kalah2_138:
(8, 77192), (Start: 19 @77240 has 11 MA's), (Start: 21 @77249 has 29 MA's), (44, 77489), (45, 77501),

Gene: Kanye_60 Start: 42454, Stop: 42687, Start Num: 17
Candidate Starts for Kanye_60:
(Start: 4 @42376 has 13 MA's), (Start: 17 @42454 has 120 MA's),

Gene: KashFlow_146 Start: 76549, Stop: 76827, Start Num: 21
Candidate Starts for KashFlow_146:
(8, 76492), (Start: 19 @76540 has 11 MA's), (Start: 21 @76549 has 29 MA's), (44, 76789), (45, 76801),

Gene: Kimchi_67 Start: 43108, Stop: 43341, Start Num: 17
Candidate Starts for Kimchi_67:
(Start: 17 @43108 has 120 MA's),

Gene: Klein_145 Start: 75851, Stop: 76129, Start Num: 21
Candidate Starts for Klein_145:
(8, 75794), (Start: 19 @75842 has 11 MA's), (Start: 21 @75851 has 29 MA's), (31, 75941), (44, 76091), (45, 76103),

Gene: Kostya_64 Start: 43270, Stop: 43503, Start Num: 17

Candidate Starts for Kostya_64:
(Start: 17 @43270 has 120 MA's),

Gene: Kwobi_58 Start: 46585, Stop: 46824, Start Num: 19
Candidate Starts for Kwobi_58:
(Start: 19 @46585 has 11 MA's),

Gene: Lilac_65 Start: 42734, Stop: 43033, Start Num: 17
Candidate Starts for Lilac_65:
(Start: 4 @42656 has 13 MA's), (Start: 17 @42734 has 120 MA's),

Gene: Lilizi_64 Start: 42408, Stop: 42707, Start Num: 17
Candidate Starts for Lilizi_64:
(Start: 4 @42330 has 13 MA's), (Start: 17 @42408 has 120 MA's),

Gene: Lilpickle_63 Start: 42625, Stop: 42858, Start Num: 17
Candidate Starts for Lilpickle_63:
(Start: 17 @42625 has 120 MA's),

Gene: LittleE_147 Start: 76532, Stop: 76804, Start Num: 23
Candidate Starts for LittleE_147:
(Start: 23 @76532 has 6 MA's), (28, 76574), (36, 76688), (45, 76778),

Gene: Lucky2013_139 Start: 73595, Stop: 73873, Start Num: 21
Candidate Starts for Lucky2013_139:
(8, 73538), (Start: 19 @73586 has 11 MA's), (Start: 21 @73595 has 29 MA's), (44, 73835), (45, 73847),

Gene: MISSy_64 Start: 42832, Stop: 43131, Start Num: 17
Candidate Starts for MISSy_64:
(Start: 4 @42754 has 13 MA's), (Start: 17 @42832 has 120 MA's),

Gene: MPhalcon_64 Start: 42825, Stop: 43124, Start Num: 17
Candidate Starts for MPhalcon_64:
(Start: 4 @42747 has 13 MA's), (Start: 17 @42825 has 120 MA's),

Gene: MadamMonkfish_64 Start: 42349, Stop: 42582, Start Num: 17
Candidate Starts for MadamMonkfish_64:
(Start: 4 @42271 has 13 MA's), (Start: 17 @42349 has 120 MA's),

Gene: Manda_64 Start: 43630, Stop: 43863, Start Num: 17
Candidate Starts for Manda_64:
(Start: 17 @43630 has 120 MA's),

Gene: Marleymoo_131 Start: 74123, Stop: 74401, Start Num: 21
Candidate Starts for Marleymoo_131:
(8, 74066), (Start: 19 @74114 has 11 MA's), (Start: 21 @74123 has 29 MA's), (43, 74339), (44, 74363), (45, 74375),

Gene: Marshmallow_61 Start: 43522, Stop: 43833, Start Num: 4
Candidate Starts for Marshmallow_61:
(Start: 4 @43522 has 13 MA's), (Start: 17 @43600 has 120 MA's),

Gene: Maxxinista_65 Start: 42626, Stop: 43003, Start Num: 4

Candidate Starts for Maxxinista_65:
(Start: 4 @42626 has 13 MA's), (Start: 17 @42704 has 120 MA's),

Gene: McCrothy_58 Start: 47573, Stop: 47803, Start Num: 19
Candidate Starts for McCrothy_58:
(2, 47456), (Start: 19 @47573 has 11 MA's),

Gene: MiaZeal_146 Start: 74742, Stop: 75020, Start Num: 21
Candidate Starts for MiaZeal_146:
(8, 74685), (Start: 19 @74733 has 11 MA's), (Start: 21 @74742 has 29 MA's), (44, 74982), (45, 74994),

Gene: Mindy_63 Start: 42213, Stop: 42446, Start Num: 17
Candidate Starts for Mindy_63:
(Start: 17 @42213 has 120 MA's),

Gene: Minerva_146 Start: 77113, Stop: 77388, Start Num: 22
Candidate Starts for Minerva_146:
(9, 77062), (Start: 22 @77113 has 5 MA's), (41, 77311), (44, 77350), (45, 77362),

Gene: Miniwave_59 Start: 42666, Stop: 42899, Start Num: 17
Candidate Starts for Miniwave_59:
(Start: 17 @42666 has 120 MA's),

Gene: Misfit_64 Start: 43844, Stop: 44143, Start Num: 17
Candidate Starts for Misfit_64:
(Start: 4 @43766 has 13 MA's), (Start: 17 @43844 has 120 MA's),

Gene: Moldemort_67 Start: 43222, Stop: 43455, Start Num: 17
Candidate Starts for Moldemort_67:
(Start: 17 @43222 has 120 MA's),

Gene: MollyToe_58 Start: 41595, Stop: 41972, Start Num: 4
Candidate Starts for MollyToe_58:
(Start: 4 @41595 has 13 MA's), (Start: 17 @41673 has 120 MA's),

Gene: Mosby_59 Start: 42049, Stop: 42426, Start Num: 4
Candidate Starts for Mosby_59:
(Start: 4 @42049 has 13 MA's), (Start: 17 @42127 has 120 MA's),

Gene: Murica_66 Start: 43779, Stop: 44078, Start Num: 17
Candidate Starts for Murica_66:
(Start: 4 @43701 has 13 MA's), (Start: 17 @43779 has 120 MA's),

Gene: Murphy_64 Start: 43216, Stop: 43515, Start Num: 17
Candidate Starts for Murphy_64:
(Start: 4 @43138 has 13 MA's), (Start: 17 @43216 has 120 MA's),

Gene: Myrale_63 Start: 43465, Stop: 43698, Start Num: 17
Candidate Starts for Myrale_63:
(Start: 4 @43387 has 13 MA's), (Start: 17 @43465 has 120 MA's),

Gene: Nala_65 Start: 43337, Stop: 43636, Start Num: 17
Candidate Starts for Nala_65:

(Start: 4 @43259 has 13 MA's), (Start: 17 @43337 has 120 MA's),

Gene: Natkenzie_58 Start: 47003, Stop: 47251, Start Num: 14
Candidate Starts for Natkenzie_58:
(Start: 14 @47003 has 12 MA's),

Gene: Nekros_142 Start: 76782, Stop: 77054, Start Num: 23
Candidate Starts for Nekros_142:
(Start: 23 @76782 has 6 MA's), (28, 76824), (36, 76938), (45, 77028),

Gene: NelitzaMV_61 Start: 42414, Stop: 42647, Start Num: 17
Candidate Starts for NelitzaMV_61:
(Start: 17 @42414 has 120 MA's),

Gene: Nibley_140 Start: 74577, Stop: 74807, Start Num: 28
Candidate Starts for Nibley_140:
(Start: 23 @74535 has 6 MA's), (28, 74577), (36, 74691), (45, 74781),

Gene: NiceHouse_30 Start: 12831, Stop: 12589, Start Num: 16
Candidate Starts for NiceHouse_30:
(Start: 16 @12831 has 1 MA's), (18, 12828), (Start: 23 @12810 has 6 MA's), (33, 12669),

Gene: NihilNomen_149 Start: 77588, Stop: 77866, Start Num: 21
Candidate Starts for NihilNomen_149:
(8, 77531), (Start: 19 @77579 has 11 MA's), (Start: 21 @77588 has 29 MA's), (44, 77828), (45, 77840),

Gene: Nimrod_64 Start: 43959, Stop: 44336, Start Num: 4
Candidate Starts for Nimrod_64:
(Start: 4 @43959 has 13 MA's), (Start: 17 @44037 has 120 MA's),

Gene: NoSleep_65 Start: 42970, Stop: 43203, Start Num: 17
Candidate Starts for NoSleep_65:
(Start: 17 @42970 has 120 MA's),

Gene: NonchalantPear_64 Start: 42742, Stop: 43053, Start Num: 4
Candidate Starts for NonchalantPear_64:
(Start: 4 @42742 has 13 MA's), (Start: 17 @42820 has 120 MA's),

Gene: Nordenberg_54 Start: 46353, Stop: 46583, Start Num: 19
Candidate Starts for Nordenberg_54:
(2, 46236), (Start: 19 @46353 has 11 MA's),

Gene: Nova53_20 Start: 9188, Stop: 8967, Start Num: 20
Candidate Starts for Nova53_20:
(Start: 20 @9188 has 4 MA's), (27, 9161), (30, 9113), (31, 9101), (37, 9032), (38, 9026), (39, 9008),

Gene: Odette_151 Start: 79731, Stop: 80009, Start Num: 21
Candidate Starts for Odette_151:
(8, 79674), (Start: 19 @79722 has 11 MA's), (Start: 21 @79731 has 29 MA's), (41, 79932), (44, 79971), (45, 79983),

Gene: Omega_151 Start: 77610, Stop: 77882, Start Num: 23
Candidate Starts for Omega_151:

(Start: 23 @77610 has 6 MA's), (28, 77652), (36, 77766), (41, 77805), (45, 77856),

Gene: Optimus_138 Start: 74868, Stop: 75146, Start Num: 21
Candidate Starts for Optimus_138:
(8, 74811), (Start: 19 @74859 has 11 MA's), (Start: 21 @74868 has 29 MA's), (31, 74958), (44, 75108), (45, 75120),

Gene: OrionPax_62 Start: 42421, Stop: 42654, Start Num: 17
Candidate Starts for OrionPax_62:
(Start: 17 @42421 has 120 MA's),

Gene: PaddyBaddy_63 Start: 42350, Stop: 42727, Start Num: 4
Candidate Starts for PaddyBaddy_63:
(Start: 4 @42350 has 13 MA's), (Start: 17 @42428 has 120 MA's),

Gene: Paperbeatsrock_63 Start: 43344, Stop: 43577, Start Num: 17
Candidate Starts for Paperbeatsrock_63:
(Start: 17 @43344 has 120 MA's),

Gene: Pat3_61 Start: 41569, Stop: 41802, Start Num: 17
Candidate Starts for Pat3_61:
(Start: 4 @41491 has 13 MA's), (Start: 17 @41569 has 120 MA's),

Gene: Phaja_62 Start: 43170, Stop: 43403, Start Num: 17
Candidate Starts for Phaja_62:
(Start: 17 @43170 has 120 MA's),

Gene: Pharsalus_61 Start: 43144, Stop: 43377, Start Num: 17
Candidate Starts for Pharsalus_61:
(Start: 17 @43144 has 120 MA's),

Gene: PhatBacter_67 Start: 43823, Stop: 44122, Start Num: 17
Candidate Starts for PhatBacter_67:
(Start: 4 @43745 has 13 MA's), (Start: 17 @43823 has 120 MA's),

Gene: Phaux_65 Start: 43821, Stop: 44120, Start Num: 17
Candidate Starts for Phaux_65:
(Start: 4 @43743 has 13 MA's), (Start: 17 @43821 has 120 MA's),

Gene: Phoebus_147 Start: 79482, Stop: 79760, Start Num: 21
Candidate Starts for Phoebus_147:
(8, 79425), (Start: 19 @79473 has 11 MA's), (Start: 21 @79482 has 29 MA's), (31, 79572), (44, 79722), (45, 79734),

Gene: Phrux_60 Start: 42414, Stop: 42713, Start Num: 17
Candidate Starts for Phrux_60:
(Start: 4 @42336 has 13 MA's), (Start: 17 @42414 has 120 MA's),

Gene: Policronamos_66 Start: 43821, Stop: 44120, Start Num: 17
Candidate Starts for Policronamos_66:
(Start: 4 @43743 has 13 MA's), (Start: 17 @43821 has 120 MA's),

Gene: Porcelain_143 Start: 74541, Stop: 74819, Start Num: 21

Candidate Starts for Porcelain_143:
(8, 74484), (Start: 19 @74532 has 11 MA's), (Start: 21 @74541 has 29 MA's), (44, 74781), (45, 74793),

Gene: Porky_63 Start: 42540, Stop: 42773, Start Num: 17
Candidate Starts for Porky_63:
(Start: 17 @42540 has 120 MA's),

Gene: Pound_139 Start: 77301, Stop: 77579, Start Num: 21
Candidate Starts for Pound_139:
(8, 77244), (Start: 19 @77292 has 11 MA's), (Start: 21 @77301 has 29 MA's), (31, 77391), (44, 77541), (45, 77553),

Gene: Ptowny_61 Start: 42006, Stop: 42239, Start Num: 17
Candidate Starts for Ptowny_61:
(Start: 17 @42006 has 120 MA's),

Gene: Pumpkin_66 Start: 43471, Stop: 43704, Start Num: 17
Candidate Starts for Pumpkin_66:
(Start: 17 @43471 has 120 MA's),

Gene: Quallification_64 Start: 43454, Stop: 43687, Start Num: 17
Candidate Starts for Quallification_64:
(Start: 4 @43376 has 13 MA's), (Start: 17 @43454 has 120 MA's),

Gene: Rakim_65 Start: 43221, Stop: 43454, Start Num: 17
Candidate Starts for Rakim_65:
(Start: 17 @43221 has 120 MA's),

Gene: Rearden_143 Start: 76191, Stop: 76463, Start Num: 15
Candidate Starts for Rearden_143:
(6, 76140), (Start: 15 @76191 has 1 MA's), (26, 76218), (36, 76347), (45, 76437),

Gene: Redno2_142 Start: 75590, Stop: 75868, Start Num: 21
Candidate Starts for Redno2_142:
(8, 75533), (Start: 19 @75581 has 11 MA's), (Start: 21 @75590 has 29 MA's), (44, 75830), (45, 75842),

Gene: RegnumDei_100 Start: 55451, Stop: 55702, Start Num: 12
Candidate Starts for RegnumDei_100:
(Start: 12 @55451 has 1 MA's), (29, 55547), (42, 55694),

Gene: Rimmer_64 Start: 43163, Stop: 43462, Start Num: 17
Candidate Starts for Rimmer_64:
(Start: 4 @43085 has 13 MA's), (Start: 17 @43163 has 120 MA's),

Gene: RiverMonster_63 Start: 42992, Stop: 43291, Start Num: 17
Candidate Starts for RiverMonster_63:
(Start: 4 @42914 has 13 MA's), (Start: 17 @42992 has 120 MA's),

Gene: Saints25_63 Start: 42620, Stop: 42931, Start Num: 4
Candidate Starts for Saints25_63:
(Start: 4 @42620 has 13 MA's), (Start: 17 @42698 has 120 MA's),

Gene: Sampson_58 Start: 46948, Stop: 47196, Start Num: 14

Candidate Starts for Sampson_58:
(Start: 14 @46948 has 12 MA's),

Gene: Saronaya_56 Start: 45880, Stop: 46119, Start Num: 19
Candidate Starts for Saronaya_56:
(Start: 19 @45880 has 11 MA's),

Gene: Sassay_58 Start: 41087, Stop: 41320, Start Num: 17
Candidate Starts for Sassay_58:
(Start: 4 @41009 has 13 MA's), (Start: 17 @41087 has 120 MA's),

Gene: Schatzie_143 Start: 78150, Stop: 78428, Start Num: 21
Candidate Starts for Schatzie_143:
(8, 78093), (Start: 19 @78141 has 11 MA's), (Start: 21 @78150 has 29 MA's), (31, 78240), (44, 78390), (45, 78402),

Gene: Scioto_59 Start: 47004, Stop: 47252, Start Num: 14
Candidate Starts for Scioto_59:
(Start: 14 @47004 has 12 MA's),

Gene: Shaboozey_144 Start: 74979, Stop: 75251, Start Num: 23
Candidate Starts for Shaboozey_144:
(Start: 23 @74979 has 6 MA's), (28, 75021), (36, 75135), (45, 75225),

Gene: Shagrat_103 Start: 54533, Stop: 54778, Start Num: 13
Candidate Starts for Shagrat_103:
(3, 54452), (Start: 13 @54533 has 2 MA's), (40, 54749),

Gene: ShamWow_64 Start: 43607, Stop: 43840, Start Num: 17
Candidate Starts for ShamWow_64:
(Start: 17 @43607 has 120 MA's),

Gene: ShereKhan_62 Start: 43378, Stop: 43611, Start Num: 17
Candidate Starts for ShereKhan_62:
(Start: 4 @43300 has 13 MA's), (Start: 17 @43378 has 120 MA's),

Gene: Simpliphy_63 Start: 42688, Stop: 42921, Start Num: 17
Candidate Starts for Simpliphy_63:
(Start: 17 @42688 has 120 MA's),

Gene: SirDuracell_62 Start: 41661, Stop: 41894, Start Num: 17
Candidate Starts for SirDuracell_62:
(Start: 4 @41583 has 13 MA's), (Start: 17 @41661 has 120 MA's),

Gene: Sitar_58 Start: 48071, Stop: 48301, Start Num: 19
Candidate Starts for Sitar_58:
(2, 47954), (Start: 19 @48071 has 11 MA's),

Gene: SophKB_61 Start: 42363, Stop: 42596, Start Num: 17
Candidate Starts for SophKB_61:
(Start: 17 @42363 has 120 MA's),

Gene: Sotrice96_64 Start: 42991, Stop: 43368, Start Num: 4

Candidate Starts for Sotrice96_64:
(Start: 4 @42991 has 13 MA's), (Start: 17 @43069 has 120 MA's),

Gene: Squint_138 Start: 73681, Stop: 73953, Start Num: 15
Candidate Starts for Squint_138:
(6, 73630), (Start: 15 @73681 has 1 MA's), (36, 73837), (41, 73876), (45, 73927),

Gene: Stank_67 Start: 43621, Stop: 43854, Start Num: 17
Candidate Starts for Stank_67:
(Start: 17 @43621 has 120 MA's),

Gene: Stark_64 Start: 42876, Stop: 43109, Start Num: 17
Candidate Starts for Stark_64:
(Start: 4 @42798 has 13 MA's), (Start: 17 @42876 has 120 MA's),

Gene: StellaBean_62 Start: 42931, Stop: 43164, Start Num: 17
Candidate Starts for StellaBean_62:
(Start: 17 @42931 has 120 MA's),

Gene: Stichling_53 Start: 44936, Stop: 45175, Start Num: 19
Candidate Starts for Stichling_53:
(Start: 19 @44936 has 11 MA's),

Gene: StolenFromERC_66 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for StolenFromERC_66:
(Start: 17 @43105 has 120 MA's),

Gene: StormChicken_65 Start: 43693, Stop: 44070, Start Num: 4
Candidate Starts for StormChicken_65:
(Start: 4 @43693 has 13 MA's), (Start: 17 @43771 has 120 MA's),

Gene: Superphikiman_141 Start: 73423, Stop: 73695, Start Num: 23
Candidate Starts for Superphikiman_141:
(Start: 23 @73423 has 6 MA's), (28, 73465), (36, 73579), (41, 73618), (45, 73669),

Gene: TBrady12_67 Start: 43105, Stop: 43338, Start Num: 17
Candidate Starts for TBrady12_67:
(Start: 17 @43105 has 120 MA's),

Gene: Tangerine_55 Start: 45291, Stop: 45530, Start Num: 19
Candidate Starts for Tangerine_55:
(Start: 19 @45291 has 11 MA's),

Gene: Tardus_60 Start: 46703, Stop: 46951, Start Num: 14
Candidate Starts for Tardus_60:
(Start: 14 @46703 has 12 MA's),

Gene: Tarkin_63 Start: 43353, Stop: 43586, Start Num: 17
Candidate Starts for Tarkin_63:
(Start: 17 @43353 has 120 MA's),

Gene: TeamEdward_65 Start: 43768, Stop: 44067, Start Num: 17
Candidate Starts for TeamEdward_65:

(Start: 4 @43690 has 13 MA's), (Start: 17 @43768 has 120 MA's),

Gene: TeardropMSU_60 Start: 42353, Stop: 42586, Start Num: 17
Candidate Starts for TeardropMSU_60:
(Start: 17 @42353 has 120 MA's),

Gene: Teaspoon_65 Start: 43247, Stop: 43480, Start Num: 17
Candidate Starts for Teaspoon_65:
(Start: 17 @43247 has 120 MA's),

Gene: Terminus_66 Start: 43844, Stop: 44143, Start Num: 17
Candidate Starts for Terminus_66:
(Start: 4 @43766 has 13 MA's), (Start: 17 @43844 has 120 MA's),

Gene: Thibault_129 Start: 74298, Stop: 74573, Start Num: 22
Candidate Starts for Thibault_129:
(9, 74247), (Start: 22 @74298 has 5 MA's), (45, 74547),

Gene: Thimble_64 Start: 42287, Stop: 42520, Start Num: 17
Candidate Starts for Thimble_64:
(Start: 17 @42287 has 120 MA's),

Gene: ThreeRngTarjay_142 Start: 78073, Stop: 78351, Start Num: 21
Candidate Starts for ThreeRngTarjay_142:
(8, 78016), (Start: 19 @78064 has 11 MA's), (Start: 21 @78073 has 29 MA's), (31, 78163), (44, 78313), (45, 78325),

Gene: Thresher_66 Start: 44230, Stop: 44463, Start Num: 17
Candidate Starts for Thresher_66:
(Start: 17 @44230 has 120 MA's),

Gene: Tomaszewski_58 Start: 42143, Stop: 42454, Start Num: 4
Candidate Starts for Tomaszewski_58:
(Start: 4 @42143 has 13 MA's), (Start: 17 @42221 has 120 MA's),

Gene: Toto_62 Start: 43607, Stop: 43840, Start Num: 17
Candidate Starts for Toto_62:
(Start: 17 @43607 has 120 MA's),

Gene: Traaww1_60 Start: 42788, Stop: 43021, Start Num: 17
Candidate Starts for Traaww1_60:
(Start: 17 @42788 has 120 MA's),

Gene: Trina_31 Start: 11657, Stop: 11451, Start Num: 20
Candidate Starts for Trina_31:
(Start: 20 @11657 has 4 MA's), (25, 11633), (39, 11492),

Gene: Tuco_65 Start: 44115, Stop: 44348, Start Num: 17
Candidate Starts for Tuco_65:
(Start: 17 @44115 has 120 MA's),

Gene: Ukulele_59 Start: 42501, Stop: 42734, Start Num: 17
Candidate Starts for Ukulele_59:

(Start: 4 @42423 has 13 MA's), (Start: 17 @42501 has 120 MA's),

Gene: Verity_58 Start: 47732, Stop: 47980, Start Num: 14
Candidate Starts for Verity_58:
(Start: 14 @47732 has 12 MA's),

Gene: ViaConlectus_58 Start: 45658, Stop: 45906, Start Num: 14
Candidate Starts for ViaConlectus_58:
(Start: 14 @45658 has 12 MA's),

Gene: Wanda_146 Start: 75593, Stop: 75868, Start Num: 22
Candidate Starts for Wanda_146:
(9, 75542), (Start: 22 @75593 has 5 MA's), (41, 75791), (44, 75830), (45, 75842),

Gene: Wiggin_66 Start: 43189, Stop: 43422, Start Num: 17
Candidate Starts for Wiggin_66:
(Start: 17 @43189 has 120 MA's),

Gene: Willez_58 Start: 41087, Stop: 41320, Start Num: 17
Candidate Starts for Willez_58:
(Start: 4 @41009 has 13 MA's), (Start: 17 @41087 has 120 MA's),

Gene: Xandras_63 Start: 42600, Stop: 42833, Start Num: 17
Candidate Starts for Xandras_63:
(Start: 17 @42600 has 120 MA's),

Gene: Xiaokay_142 Start: 77426, Stop: 77701, Start Num: 22
Candidate Starts for Xiaokay_142:
(9, 77375), (Start: 22 @77426 has 5 MA's), (44, 77663), (45, 77675),

Gene: YassJohnny_60 Start: 42261, Stop: 42494, Start Num: 17
Candidate Starts for YassJohnny_60:
(Start: 4 @42183 has 13 MA's), (Start: 17 @42261 has 120 MA's),

Gene: Yeet_141 Start: 77546, Stop: 77824, Start Num: 21
Candidate Starts for Yeet_141:
(8, 77489), (Start: 19 @77537 has 11 MA's), (Start: 21 @77546 has 29 MA's), (44, 77786), (45, 77798),

Gene: Youngblood_66 Start: 43774, Stop: 44073, Start Num: 17
Candidate Starts for Youngblood_66:
(Start: 4 @43696 has 13 MA's), (Start: 17 @43774 has 120 MA's),

Gene: Zelink_141 Start: 78405, Stop: 78680, Start Num: 22
Candidate Starts for Zelink_141:
(9, 78354), (Start: 22 @78405 has 5 MA's), (41, 78603), (44, 78642), (45, 78654),

Gene: Zipp_59 Start: 47656, Stop: 47904, Start Num: 14
Candidate Starts for Zipp_59:
(Start: 14 @47656 has 12 MA's),

Gene: xkcd_66 Start: 43886, Stop: 44263, Start Num: 4
Candidate Starts for xkcd_66:
(Start: 4 @43886 has 13 MA's), (Start: 17 @43964 has 120 MA's),