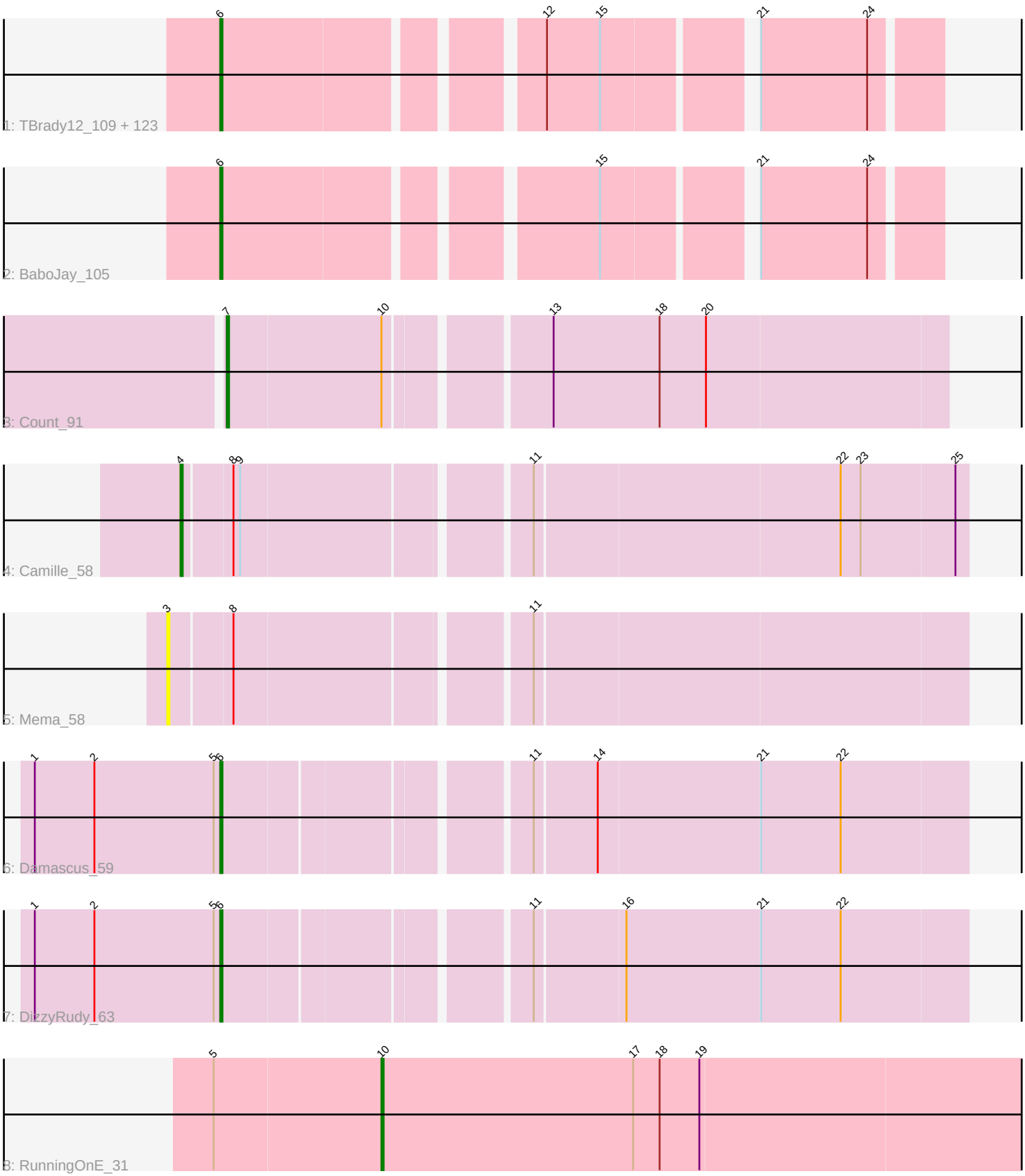
Pham 347377


6
12
15
21
24
1: TBrady12_109 + 123
6
15
21
24
2: BaboJay_105
7
10
13
18
20
3: Count_91
4
8
9
11
22
23
25
4: Camille_58
3
8
11
5: Mema_58
1
2
5
6
11
14
21
22
6: Damascus_59
1
2
5
6
11
16
21
22
7: DizzyRudy_63
5
10
17
18
19
8: RunningOnE_31

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 347377 Report

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

Pham number 347377 has 131 members, 1 are drafts.

Phages represented in each track:
• Track 1 : TBrady12_109, Lilizi_106, StellaBean_105, Glexan_105, Bench_108, JeTaime_104, Lilpickle_105, Nimrod_106, Hopey_106, Murphy_105, Paperbeatsrock_105, DrDrey_106, Stark_106, Nala_108, Moldemort_108, ShamWow_106, Kimchi_110, Emmina_106, Traaww1_102, RiverMonster_105, Contagion_102, Adnama_110, Gage_108, Cjw1_106, Pat3_103, Misfit_107, Teaspoon_106, Inca_103, Henry_103, Murica_109, GooberAzure_109, Phaja_104, SirDuracell_106, HanKaySha_106, StolenFromERC_108, Bruin_103, Tarkin_105, PhatBacter_109, Buck_107, Elite2014_105, Manda_107, GoldenSpark_110, Phaux_108, ChosenOne_106, Miniwave_101, Harella_106, Kostya_106, NelitzaMV_103, Dumbo_105, Mindy_105, Pumpkin_107, CrystalP_105, ChotaBhai_106, Wiggin_108, Bask21_106, Ukulele_100, Barbarian_105, Thresher_107, xkcd_109, Gator_104, Hoonter_109, Easy2Say_106, TeardropMSU_102, Flypotenuse_102, ABCat_103, Saints25_102, FireRed_109, Lilac_107, Brewer_102, Cookies_103, DoctorDiddles_105, YassJohnny_103, 244_106, TeamEdward_106, Sassay_101, Cactus_110, Sotrice96_107, Gemini_111, Goldilocks_109, SophKB_104, Dusk_103, Icee_107, Balomoji_106, BadStone_103, Asriel_104, Thimble_108, Youngblood_109, Tuco_107, Rimmer_104, Argent26_110, Terminus_109, Phrux_102, Pharsalus_103, HufflyPuff_108, Command613_108, Highbury_102, Czyszczon1_106, Elph10_105, Filch_107, ShereKhan_104, Willez_101, MISSy_107, BigBubba_106, Goku_105, MollyToe_101, Mosby_102, Stank_108, Myrale_106, Marshmallow_103, Amao_106, MadamMonkfish_105, Kanye_103, Eureka_105, OrionPax_104, NoSleep_106, Holt_111, MPhalcon_107, Toto_104, Porky_104, Tomaszewski_101, Rakim_107, Simpliphy_104, Maxxinista_107, IHOP_104
• Track 2 : BaboJay_105
• Track 3 : Count_91
• Track 4 : Camille_58
• Track 5 : Mema_58
• Track 6 : Damascus_59
• Track 7 : DizzyRudy_63
• Track 8 : RunningOnE_31

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

The start number called the most often in the published annotations is 6, it was called in 127 of the 130 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 244_106, ABCat_103, Adnama_110, Amao_106, Argent26_110, Asriel_104, BaboJay_105, BadStone_103, Balomoji_106, Barbarian_105, Bask21_106, Bench_108, BigBubba_106, Brewer_102, Bruin_103, Buck_107, Cactus_110, ChosenOne_106, ChotaBhai_106, Cjw1_106, Command613_108, Contagion_102, Cookies_103, CrystalP_105, Czyszczon1_106, Damascus_59, DizzyRudy_63, DoctorDiddles_105, DrDrey_106, Dumbo_105, Dusk_103, Easy2Say_106, Elite2014_105, Elph10_105, Emmina_106, Eureka_105, Filch_107, FireRed_109, Flypotenuse_102, Gage_108, Gator_104, Gemini_111, Glexan_105, Goku_105, GoldenSpark_110, Goldilocks_109, GooberAzure_109, HanKaySha_106, Harella_106, Henry_103, Highbury_102, Holt_111, Hoonter_109, Hopey_106, HufflyPuff_108, IHOP_104, Icee_107, Inca_103, JeTaime_104, Kanye_103, Kimchi_110, Kostya_106, Lilac_107, Lilizi_106, Lilpickle_105, MISSy_107, MPhalcon_107, MadamMonkfish_105, Manda_107, Marshmallow_103, Maxxinista_107, Mindy_105, Miniwave_101, Misfit_107, Moldemort_108, MollyToe_101, Mosby_102, Murica_109, Murphy_105, Myrale_106, Nala_108, NelitzaMV_103, Nimrod_106, NoSleep_106, OrionPax_104, Paperbeatsrock_105, Pat3_103, Phaja_104, Pharsalus_103, PhatBacter_109, Phaux_108, Phrux_102, Porky_104, Pumpkin_107, Rakim_107, Rimmer_104, RiverMonster_105, Saints25_102, Sassay_101, ShamWow_106, ShereKhan_104, Simpliphy_104, SirDuracell_106, SophKB_104, Sotrice96_107, Stank_108, Stark_106, StellaBean_105, StolenFromERC_108, TBrady12_109, Tarkin_105, TeamEdward_106, TeardropMSU_102, Teaspoon_106, Terminus_109, Thimble_108, Thresher_107, Tomaszewski_101, Toto_104, Traaww1_102, Tuco_107, Ukulele_100, Wiggin_108, Willez_101, YassJohnny_103, Youngblood_109, xkcd_109,

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

Genes that do not have the "Most Annotated" start:
• Camille_58, Count_91, Mema_58, RunningOnE_31,

Summary by start number:

Start 3:
• Found in 1 of 131 (0.8%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mema_58 (EL),

Start 4:
• Found in 1 of 131 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 130
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Camille_58 (EL),

Start 6:
• Found in 127 of 131 (96.9%) of genes in pham
• Manual Annotations of this start: 127 of 130

• Called 100.0% of time when present
• Phage (with cluster) where this start called: 244_106 (E), ABCat_103 (E), Adnama_110 (E), Amao_106 (E), Argent26_110 (E), Asriel_104 (E), BaboJay_105 (E), BadStone_103 (E), Balomoji_106 (E), Barbarian_105 (E), Bask21_106 (E), Bench_108 (E), BigBubba_106 (E), Brewer_102 (E), Bruin_103 (E), Buck_107 (E), Cactus_110 (E), ChosenOne_106 (E), ChotaBhai_106 (E), Cjw1_106 (E), Command613_108 (E), Contagion_102 (E), Cookies_103 (E), CrystalP_105 (E), Czyszczon1_106 (E), Damascus_59 (EL), DizzyRudy_63 (EL), DoctorDiddles_105 (E), DrDrey_106 (E), Dumbo_105 (E), Dusk_103 (E), Easy2Say_106 (E), Elite2014_105 (E), Elph10_105 (E), Emmina_106 (E), Eureka_105 (E), Filch_107 (E), FireRed_109 (E), Flypotenuse_102 (E), Gage_108 (E), Gator_104 (E), Gemini_111 (E), Glexan_105 (E), Goku_105 (E), GoldenSpark_110 (E), Goldilocks_109 (E), GooberAzure_109 (E), HanKaySha_106 (E), Harella_106 (E), Henry_103 (E), Highbury_102 (E), Holt_111 (E), Hoonter_109 (E), Hopey_106 (E), HufflyPuff_108 (E), IHOP_104 (E), Icee_107 (E), Inca_103 (E), JeTaime_104 (E), Kanye_103 (E), Kimchi_110 (E), Kostya_106 (E), Lilac_107 (E), Lilizi_106 (E), Lilpickle_105 (E), MISSy_107 (E), MPhalcon_107 (E), MadamMonkfish_105 (E), Manda_107 (E), Marshmallow_103 (E), Maxxinista_107 (E), Mindy_105 (E), Miniwave_101 (E), Misfit_107 (E), Moldemort_108 (E), MollyToe_101 (E), Mosby_102 (E), Murica_109 (E), Murphy_105 (E), Myrale_106 (E), Nala_108 (E), NelitzaMV_103 (E), Nimrod_106 (E), NoSleep_106 (E), OrionPax_104 (E), Paperbeatsrock_105 (E), Pat3_103 (E), Phaja_104 (E), Pharsalus_103 (E), PhatBacter_109 (E), Phaux_108 (E), Phrux_102 (E), Porky_104 (E), Pumpkin_107 (E), Rakim_107 (E), Rimmer_104 (E), RiverMonster_105 (E), Saints25_102 (E), Sassay_101 (E), ShamWow_106 (E), ShereKhan_104 (E), Simpliphy_104 (E), SirDuracell_106 (E), SophKB_104 (E), Sotrice96_107 (E), Stank_108 (E), Stark_106 (E), StellaBean_105 (E), StolenFromERC_108 (E), TBrady12_109 (E), Tarkin_105 (E), TeamEdward_106 (E), TeardropMSU_102 (E), Teaspoon_106 (E), Terminus_109 (E), Thimble_108 (E), Thresher_107 (E), Tomaszewski_101 (E), Toto_104 (E), Traaww1_102 (E), Tuco_107 (E), Ukulele_100 (E), Wiggin_108 (E), Willez_101 (E), YassJohnny_103 (E), Youngblood_109 (E), xkcd_109 (E),

Start 7:
• Found in 1 of 131 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 130
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Count_91 (EL),

Start 10:
• Found in 2 of 131 (1.5%) of genes in pham
• Manual Annotations of this start: 1 of 130
• Called 50.0% of time when present
• Phage (with cluster) where this start called: RunningOnE_31 (JN),

Summary by clusters:

There are 3 clusters represented in this pham: EL, JN, E,

Info for manual annotations of cluster E:
•Start number 6 was manually annotated 125 times for cluster E.

Info for manual annotations of cluster EL:
•Start number 4 was manually annotated 1 time for cluster EL.

•Start number 6 was manually annotated 2 times for cluster EL.
•Start number 7 was manually annotated 1 time for cluster EL.

Info for manual annotations of cluster JN:
•Start number 10 was manually annotated 1 time for cluster JN.

Gene Information:

Gene: 244_106 Start: 61588, Stop: 61878, Start Num: 6
Candidate Starts for 244_106:
(Start: 6 @61588 has 127 MA's), (12, 61717), (15, 61741), (21, 61801), (24, 61849),

Gene: ABCat_103 Start: 62792, Stop: 63082, Start Num: 6
Candidate Starts for ABCat_103:
(Start: 6 @62792 has 127 MA's), (12, 62921), (15, 62945), (21, 63005), (24, 63053),

Gene: Adnama_110 Start: 62081, Stop: 62371, Start Num: 6
Candidate Starts for Adnama_110:
(Start: 6 @62081 has 127 MA's), (12, 62210), (15, 62234), (21, 62294), (24, 62342),

Gene: Amao_106 Start: 62234, Stop: 62521, Start Num: 6
Candidate Starts for Amao_106:
(Start: 6 @62234 has 127 MA's), (12, 62363), (15, 62387), (21, 62447), (24, 62495),

Gene: Argent26_110 Start: 62005, Stop: 62295, Start Num: 6
Candidate Starts for Argent26_110:
(Start: 6 @62005 has 127 MA's), (12, 62134), (15, 62158), (21, 62218), (24, 62266),

Gene: Asriel_104 Start: 60418, Stop: 60708, Start Num: 6
Candidate Starts for Asriel_104:
(Start: 6 @60418 has 127 MA's), (12, 60547), (15, 60571), (21, 60631), (24, 60679),

Gene: BaboJay_105 Start: 62761, Stop: 63051, Start Num: 6
Candidate Starts for BaboJay_105:
(Start: 6 @62761 has 127 MA's), (15, 62914), (21, 62974), (24, 63022),

Gene: BadStone_103 Start: 62340, Stop: 62630, Start Num: 6
Candidate Starts for BadStone_103:
(Start: 6 @62340 has 127 MA's), (12, 62469), (15, 62493), (21, 62553), (24, 62601),

Gene: Balomoji_106 Start: 62201, Stop: 62491, Start Num: 6
Candidate Starts for Balomoji_106:
(Start: 6 @62201 has 127 MA's), (12, 62330), (15, 62354), (21, 62414), (24, 62462),

Gene: Barbarian_105 Start: 60418, Stop: 60708, Start Num: 6
Candidate Starts for Barbarian_105:
(Start: 6 @60418 has 127 MA's), (12, 60547), (15, 60571), (21, 60631), (24, 60679),

Gene: Bask21_106 Start: 61036, Stop: 61323, Start Num: 6
Candidate Starts for Bask21_106:
(Start: 6 @61036 has 127 MA's), (12, 61165), (15, 61189), (21, 61249), (24, 61297),

Gene: Bench_108 Start: 62762, Stop: 63052, Start Num: 6
Candidate Starts for Bench_108:
(Start: 6 @62762 has 127 MA's), (12, 62891), (15, 62915), (21, 62975), (24, 63023),

Gene: BigBubba_106 Start: 61114, Stop: 61404, Start Num: 6
Candidate Starts for BigBubba_106:
(Start: 6 @61114 has 127 MA's), (12, 61243), (15, 61267), (21, 61327), (24, 61375),

Gene: Brewer_102 Start: 60918, Stop: 61208, Start Num: 6
Candidate Starts for Brewer_102:
(Start: 6 @60918 has 127 MA's), (12, 61047), (15, 61071), (21, 61131), (24, 61179),

Gene: Bruin_103 Start: 61446, Stop: 61736, Start Num: 6
Candidate Starts for Bruin_103:
(Start: 6 @61446 has 127 MA's), (12, 61575), (15, 61599), (21, 61659), (24, 61707),

Gene: Buck_107 Start: 63262, Stop: 63552, Start Num: 6
Candidate Starts for Buck_107:
(Start: 6 @63262 has 127 MA's), (12, 63391), (15, 63415), (21, 63475), (24, 63523),

Gene: Cactus_110 Start: 61700, Stop: 61990, Start Num: 6
Candidate Starts for Cactus_110:
(Start: 6 @61700 has 127 MA's), (12, 61829), (15, 61853), (21, 61913), (24, 61961),

Gene: Camille_58 Start: 41232, Stop: 41567, Start Num: 4
Candidate Starts for Camille_58:
(Start: 4 @41232 has 1 MA's), (8, 41253), (9, 41256), (11, 41376), (22, 41511), (23, 41520), (25, 41562),

Gene: ChosenOne_106 Start: 61646, Stop: 61936, Start Num: 6
Candidate Starts for ChosenOne_106:
(Start: 6 @61646 has 127 MA's), (12, 61775), (15, 61799), (21, 61859), (24, 61907),

Gene: ChotaBhai_106 Start: 62098, Stop: 62385, Start Num: 6
Candidate Starts for ChotaBhai_106:
(Start: 6 @62098 has 127 MA's), (12, 62227), (15, 62251), (21, 62311), (24, 62359),

Gene: Cjw1_106 Start: 63455, Stop: 63745, Start Num: 6
Candidate Starts for Cjw1_106:
(Start: 6 @63455 has 127 MA's), (12, 63584), (15, 63608), (21, 63668), (24, 63716),

Gene: Command613_108 Start: 62194, Stop: 62484, Start Num: 6
Candidate Starts for Command613_108:
(Start: 6 @62194 has 127 MA's), (12, 62323), (15, 62347), (21, 62407), (24, 62455),

Gene: Contagion_102 Start: 61808, Stop: 62098, Start Num: 6
Candidate Starts for Contagion_102:
(Start: 6 @61808 has 127 MA's), (12, 61937), (15, 61961), (21, 62021), (24, 62069),

Gene: Cookies_103 Start: 61964, Stop: 62251, Start Num: 6
Candidate Starts for Cookies_103:
(Start: 6 @61964 has 127 MA's), (12, 62093), (15, 62117), (21, 62177), (24, 62225),

Gene: Count_91 Start: 59562, Stop: 59873, Start Num: 7
Candidate Starts for Count_91:
(Start: 7 @59562 has 1 MA's), (Start: 10 @59631 has 1 MA's), (13, 59697), (18, 59745), (20, 59766),

Gene: CrystalP_105 Start: 62698, Stop: 62988, Start Num: 6
Candidate Starts for CrystalP_105:
(Start: 6 @62698 has 127 MA's), (12, 62827), (15, 62851), (21, 62911), (24, 62959),

Gene: Czyszczon1_106 Start: 61801, Stop: 62091, Start Num: 6
Candidate Starts for Czyszczon1_106:
(Start: 6 @61801 has 127 MA's), (12, 61930), (15, 61954), (21, 62014), (24, 62062),

Gene: Damascus_59 Start: 42669, Stop: 42986, Start Num: 6
Candidate Starts for Damascus_59:
(1, 42585), (2, 42612), (5, 42666), (Start: 6 @42669 has 127 MA's), (11, 42795), (14, 42822), (21, 42894), (22, 42930),

Gene: DizzyRudy_63 Start: 42556, Stop: 42873, Start Num: 6
Candidate Starts for DizzyRudy_63:
(1, 42472), (2, 42499), (5, 42553), (Start: 6 @42556 has 127 MA's), (11, 42682), (16, 42721), (21, 42781), (22, 42817),

Gene: DoctorDiddles_105 Start: 61466, Stop: 61753, Start Num: 6
Candidate Starts for DoctorDiddles_105:
(Start: 6 @61466 has 127 MA's), (12, 61595), (15, 61619), (21, 61679), (24, 61727),

Gene: DrDrey_106 Start: 63478, Stop: 63768, Start Num: 6
Candidate Starts for DrDrey_106:
(Start: 6 @63478 has 127 MA's), (12, 63607), (15, 63631), (21, 63691), (24, 63739),

Gene: Dumbo_105 Start: 61838, Stop: 62128, Start Num: 6
Candidate Starts for Dumbo_105:
(Start: 6 @61838 has 127 MA's), (12, 61967), (15, 61991), (21, 62051), (24, 62099),

Gene: Dusk_103 Start: 62000, Stop: 62290, Start Num: 6
Candidate Starts for Dusk_103:
(Start: 6 @62000 has 127 MA's), (12, 62129), (15, 62153), (21, 62213), (24, 62261),

Gene: Easy2Say_106 Start: 62472, Stop: 62762, Start Num: 6
Candidate Starts for Easy2Say_106:
(Start: 6 @62472 has 127 MA's), (12, 62601), (15, 62625), (21, 62685), (24, 62733),

Gene: Elite2014_105 Start: 61645, Stop: 61935, Start Num: 6
Candidate Starts for Elite2014_105:
(Start: 6 @61645 has 127 MA's), (12, 61774), (15, 61798), (21, 61858), (24, 61906),

Gene: Elph10_105 Start: 61484, Stop: 61774, Start Num: 6
Candidate Starts for Elph10_105:
(Start: 6 @61484 has 127 MA's), (12, 61613), (15, 61637), (21, 61697), (24, 61745),

Gene: Emmina_106 Start: 61423, Stop: 61713, Start Num: 6
Candidate Starts for Emmina_106:

(Start: 6 @61423 has 127 MA's), (12, 61552), (15, 61576), (21, 61636), (24, 61684),

Gene: Eureka_105 Start: 62611, Stop: 62901, Start Num: 6
Candidate Starts for Eureka_105:
(Start: 6 @62611 has 127 MA's), (12, 62740), (15, 62764), (21, 62824), (24, 62872),

Gene: Filch_107 Start: 61797, Stop: 62087, Start Num: 6
Candidate Starts for Filch_107:
(Start: 6 @61797 has 127 MA's), (12, 61926), (15, 61950), (21, 62010), (24, 62058),

Gene: FireRed_109 Start: 62887, Stop: 63177, Start Num: 6
Candidate Starts for FireRed_109:
(Start: 6 @62887 has 127 MA's), (12, 63016), (15, 63040), (21, 63100), (24, 63148),

Gene: Flypotenuse_102 Start: 61072, Stop: 61362, Start Num: 6
Candidate Starts for Flypotenuse_102:
(Start: 6 @61072 has 127 MA's), (12, 61201), (15, 61225), (21, 61285), (24, 61333),

Gene: Gage_108 Start: 62143, Stop: 62433, Start Num: 6
Candidate Starts for Gage_108:
(Start: 6 @62143 has 127 MA's), (12, 62272), (15, 62296), (21, 62356), (24, 62404),

Gene: Gator_104 Start: 61931, Stop: 62218, Start Num: 6
Candidate Starts for Gator_104:
(Start: 6 @61931 has 127 MA's), (12, 62060), (15, 62084), (21, 62144), (24, 62192),

Gene: Gemini_111 Start: 62522, Stop: 62812, Start Num: 6
Candidate Starts for Gemini_111:
(Start: 6 @62522 has 127 MA's), (12, 62651), (15, 62675), (21, 62735), (24, 62783),

Gene: Glexan_105 Start: 62202, Stop: 62492, Start Num: 6
Candidate Starts for Glexan_105:
(Start: 6 @62202 has 127 MA's), (12, 62331), (15, 62355), (21, 62415), (24, 62463),

Gene: Goku_105 Start: 62340, Stop: 62630, Start Num: 6
Candidate Starts for Goku_105:
(Start: 6 @62340 has 127 MA's), (12, 62469), (15, 62493), (21, 62553), (24, 62601),

Gene: GoldenSpark_110 Start: 62005, Stop: 62295, Start Num: 6
Candidate Starts for GoldenSpark_110:
(Start: 6 @62005 has 127 MA's), (12, 62134), (15, 62158), (21, 62218), (24, 62266),

Gene: Goldilocks_109 Start: 61901, Stop: 62191, Start Num: 6
Candidate Starts for Goldilocks_109:
(Start: 6 @61901 has 127 MA's), (12, 62030), (15, 62054), (21, 62114), (24, 62162),

Gene: GooberAzure_109 Start: 62005, Stop: 62295, Start Num: 6
Candidate Starts for GooberAzure_109:
(Start: 6 @62005 has 127 MA's), (12, 62134), (15, 62158), (21, 62218), (24, 62266),

Gene: HanKaySha_106 Start: 62193, Stop: 62483, Start Num: 6
Candidate Starts for HanKaySha_106:
(Start: 6 @62193 has 127 MA's), (12, 62322), (15, 62346), (21, 62406), (24, 62454),

Gene: Harella_106 Start: 62718, Stop: 63008, Start Num: 6
Candidate Starts for Harella_106:
(Start: 6 @62718 has 127 MA's), (12, 62847), (15, 62871), (21, 62931), (24, 62979),

Gene: Henry_103 Start: 62003, Stop: 62293, Start Num: 6
Candidate Starts for Henry_103:
(Start: 6 @62003 has 127 MA's), (12, 62132), (15, 62156), (21, 62216), (24, 62264),

Gene: Highbury_102 Start: 60350, Stop: 60640, Start Num: 6
Candidate Starts for Highbury_102:
(Start: 6 @60350 has 127 MA's), (12, 60479), (15, 60503), (21, 60563), (24, 60611),

Gene: Holt_111 Start: 62419, Stop: 62709, Start Num: 6
Candidate Starts for Holt_111:
(Start: 6 @62419 has 127 MA's), (12, 62548), (15, 62572), (21, 62632), (24, 62680),

Gene: Hoonter_109 Start: 62498, Stop: 62788, Start Num: 6
Candidate Starts for Hoonter_109:
(Start: 6 @62498 has 127 MA's), (12, 62627), (15, 62651), (21, 62711), (24, 62759),

Gene: Hopey_106 Start: 62804, Stop: 63094, Start Num: 6
Candidate Starts for Hopey_106:
(Start: 6 @62804 has 127 MA's), (12, 62933), (15, 62957), (21, 63017), (24, 63065),

Gene: HufflyPuff_108 Start: 63113, Stop: 63403, Start Num: 6
Candidate Starts for HufflyPuff_108:
(Start: 6 @63113 has 127 MA's), (12, 63242), (15, 63266), (21, 63326), (24, 63374),

Gene: IHOP_104 Start: 61721, Stop: 62011, Start Num: 6
Candidate Starts for IHOP_104:
(Start: 6 @61721 has 127 MA's), (12, 61850), (15, 61874), (21, 61934), (24, 61982),

Gene: Icee_107 Start: 61529, Stop: 61819, Start Num: 6
Candidate Starts for Icee_107:
(Start: 6 @61529 has 127 MA's), (12, 61658), (15, 61682), (21, 61742), (24, 61790),

Gene: Inca_103 Start: 60210, Stop: 60500, Start Num: 6
Candidate Starts for Inca_103:
(Start: 6 @60210 has 127 MA's), (12, 60339), (15, 60363), (21, 60423), (24, 60471),

Gene: JeTaime_104 Start: 61629, Stop: 61919, Start Num: 6
Candidate Starts for JeTaime_104:
(Start: 6 @61629 has 127 MA's), (12, 61758), (15, 61782), (21, 61842), (24, 61890),

Gene: Kanye_103 Start: 62254, Stop: 62544, Start Num: 6
Candidate Starts for Kanye_103:
(Start: 6 @62254 has 127 MA's), (12, 62383), (15, 62407), (21, 62467), (24, 62515),

Gene: Kimchi_110 Start: 62146, Stop: 62436, Start Num: 6
Candidate Starts for Kimchi_110:
(Start: 6 @62146 has 127 MA's), (12, 62275), (15, 62299), (21, 62359), (24, 62407),

Gene: Kostya_106 Start: 61823, Stop: 62113, Start Num: 6
Candidate Starts for Kostya_106:
(Start: 6 @61823 has 127 MA's), (12, 61952), (15, 61976), (21, 62036), (24, 62084),

Gene: Lilac_107 Start: 62947, Stop: 63237, Start Num: 6
Candidate Starts for Lilac_107:
(Start: 6 @62947 has 127 MA's), (12, 63076), (15, 63100), (21, 63160), (24, 63208),

Gene: Lilizi_106 Start: 62233, Stop: 62523, Start Num: 6
Candidate Starts for Lilizi_106:
(Start: 6 @62233 has 127 MA's), (12, 62362), (15, 62386), (21, 62446), (24, 62494),

Gene: Lilpickle_105 Start: 61645, Stop: 61935, Start Num: 6
Candidate Starts for Lilpickle_105:
(Start: 6 @61645 has 127 MA's), (12, 61774), (15, 61798), (21, 61858), (24, 61906),

Gene: MISSy_107 Start: 62930, Stop: 63220, Start Num: 6
Candidate Starts for MISSy_107:
(Start: 6 @62930 has 127 MA's), (12, 63059), (15, 63083), (21, 63143), (24, 63191),

Gene: MPhalcon_107 Start: 62348, Stop: 62638, Start Num: 6
Candidate Starts for MPhalcon_107:
(Start: 6 @62348 has 127 MA's), (12, 62477), (15, 62501), (21, 62561), (24, 62609),

Gene: MadamMonkfish_105 Start: 61655, Stop: 61945, Start Num: 6
Candidate Starts for MadamMonkfish_105:
(Start: 6 @61655 has 127 MA's), (12, 61784), (15, 61808), (21, 61868), (24, 61916),

Gene: Manda_107 Start: 62385, Stop: 62675, Start Num: 6
Candidate Starts for Manda_107:
(Start: 6 @62385 has 127 MA's), (12, 62514), (15, 62538), (21, 62598), (24, 62646),

Gene: Marshmallow_103 Start: 62343, Stop: 62633, Start Num: 6
Candidate Starts for Marshmallow_103:
(Start: 6 @62343 has 127 MA's), (12, 62472), (15, 62496), (21, 62556), (24, 62604),

Gene: Maxxinista_107 Start: 62132, Stop: 62422, Start Num: 6
Candidate Starts for Maxxinista_107:
(Start: 6 @62132 has 127 MA's), (12, 62261), (15, 62285), (21, 62345), (24, 62393),

Gene: Mema_58 Start: 45072, Stop: 45413, Start Num: 3
Candidate Starts for Mema_58:
(3, 45072), (8, 45099), (11, 45222),

Gene: Mindy_105 Start: 61664, Stop: 61954, Start Num: 6
Candidate Starts for Mindy_105:
(Start: 6 @61664 has 127 MA's), (12, 61793), (15, 61817), (21, 61877), (24, 61925),

Gene: Miniwave_101 Start: 61841, Stop: 62131, Start Num: 6
Candidate Starts for Miniwave_101:
(Start: 6 @61841 has 127 MA's), (12, 61970), (15, 61994), (21, 62054), (24, 62102),

Gene: Misfit_107 Start: 63444, Stop: 63734, Start Num: 6

Candidate Starts for Misfit_107:
(Start: 6 @63444 has 127 MA's), (12, 63573), (15, 63597), (21, 63657), (24, 63705),

Gene: Moldemort_108 Start: 62113, Stop: 62403, Start Num: 6
Candidate Starts for Moldemort_108:
(Start: 6 @62113 has 127 MA's), (12, 62242), (15, 62266), (21, 62326), (24, 62374),

Gene: MollyToe_101 Start: 60221, Stop: 60511, Start Num: 6
Candidate Starts for MollyToe_101:
(Start: 6 @60221 has 127 MA's), (12, 60350), (15, 60374), (21, 60434), (24, 60482),

Gene: Mosby_102 Start: 61808, Stop: 62098, Start Num: 6
Candidate Starts for Mosby_102:
(Start: 6 @61808 has 127 MA's), (12, 61937), (15, 61961), (21, 62021), (24, 62069),

Gene: Murica_109 Start: 64147, Stop: 64437, Start Num: 6
Candidate Starts for Murica_109:
(Start: 6 @64147 has 127 MA's), (12, 64276), (15, 64300), (21, 64360), (24, 64408),

Gene: Murphy_105 Start: 62505, Stop: 62795, Start Num: 6
Candidate Starts for Murphy_105:
(Start: 6 @62505 has 127 MA's), (12, 62634), (15, 62658), (21, 62718), (24, 62766),

Gene: Myrale_106 Start: 62482, Stop: 62772, Start Num: 6
Candidate Starts for Myrale_106:
(Start: 6 @62482 has 127 MA's), (12, 62611), (15, 62635), (21, 62695), (24, 62743),

Gene: Nala_108 Start: 62857, Stop: 63147, Start Num: 6
Candidate Starts for Nala_108:
(Start: 6 @62857 has 127 MA's), (12, 62986), (15, 63010), (21, 63070), (24, 63118),

Gene: NelitzaMV_103 Start: 60830, Stop: 61120, Start Num: 6
Candidate Starts for NelitzaMV_103:
(Start: 6 @60830 has 127 MA's), (12, 60959), (15, 60983), (21, 61043), (24, 61091),

Gene: Nimrod_106 Start: 62491, Stop: 62781, Start Num: 6
Candidate Starts for Nimrod_106:
(Start: 6 @62491 has 127 MA's), (12, 62620), (15, 62644), (21, 62704), (24, 62752),

Gene: NoSleep_106 Start: 61665, Stop: 61955, Start Num: 6
Candidate Starts for NoSleep_106:
(Start: 6 @61665 has 127 MA's), (12, 61794), (15, 61818), (21, 61878), (24, 61926),

Gene: OrionPax_104 Start: 61738, Stop: 62028, Start Num: 6
Candidate Starts for OrionPax_104:
(Start: 6 @61738 has 127 MA's), (12, 61867), (15, 61891), (21, 61951), (24, 61999),

Gene: Paperbeatsrock_105 Start: 62519, Stop: 62809, Start Num: 6
Candidate Starts for Paperbeatsrock_105:
(Start: 6 @62519 has 127 MA's), (12, 62648), (15, 62672), (21, 62732), (24, 62780),

Gene: Pat3_103 Start: 61036, Stop: 61323, Start Num: 6
Candidate Starts for Pat3_103:

(Start: 6 @61036 has 127 MA's), (12, 61165), (15, 61189), (21, 61249), (24, 61297),

Gene: Phaja_104 Start: 61723, Stop: 62013, Start Num: 6
Candidate Starts for Phaja_104:
(Start: 6 @61723 has 127 MA's), (12, 61852), (15, 61876), (21, 61936), (24, 61984),

Gene: Pharsalus_103 Start: 62218, Stop: 62508, Start Num: 6
Candidate Starts for Pharsalus_103:
(Start: 6 @62218 has 127 MA's), (12, 62347), (15, 62371), (21, 62431), (24, 62479),

Gene: PhatBacter_109 Start: 62887, Stop: 63177, Start Num: 6
Candidate Starts for PhatBacter_109:
(Start: 6 @62887 has 127 MA's), (12, 63016), (15, 63040), (21, 63100), (24, 63148),

Gene: Phaux_108 Start: 63447, Stop: 63737, Start Num: 6
Candidate Starts for Phaux_108:
(Start: 6 @63447 has 127 MA's), (12, 63576), (15, 63600), (21, 63660), (24, 63708),

Gene: Phrux_102 Start: 61525, Stop: 61815, Start Num: 6
Candidate Starts for Phrux_102:
(Start: 6 @61525 has 127 MA's), (12, 61654), (15, 61678), (21, 61738), (24, 61786),

Gene: Porky_104 Start: 61269, Stop: 61559, Start Num: 6
Candidate Starts for Porky_104:
(Start: 6 @61269 has 127 MA's), (12, 61398), (15, 61422), (21, 61482), (24, 61530),

Gene: Pumpkin_107 Start: 61865, Stop: 62155, Start Num: 6
Candidate Starts for Pumpkin_107:
(Start: 6 @61865 has 127 MA's), (12, 61994), (15, 62018), (21, 62078), (24, 62126),

Gene: Rakim_107 Start: 61934, Stop: 62221, Start Num: 6
Candidate Starts for Rakim_107:
(Start: 6 @61934 has 127 MA's), (12, 62063), (15, 62087), (21, 62147), (24, 62195),

Gene: Rimmer_104 Start: 62324, Stop: 62614, Start Num: 6
Candidate Starts for Rimmer_104:
(Start: 6 @62324 has 127 MA's), (12, 62453), (15, 62477), (21, 62537), (24, 62585),

Gene: RiverMonster_105 Start: 62420, Stop: 62710, Start Num: 6
Candidate Starts for RiverMonster_105:
(Start: 6 @62420 has 127 MA's), (12, 62549), (15, 62573), (21, 62633), (24, 62681),

Gene: RunningOnE_31 Start: 16075, Stop: 15782, Start Num: 10
Candidate Starts for RunningOnE_31:
(5, 16150), (Start: 10 @16075 has 1 MA's), (17, 15961), (18, 15949), (19, 15931),

Gene: Saints25_102 Start: 60350, Stop: 60640, Start Num: 6
Candidate Starts for Saints25_102:
(Start: 6 @60350 has 127 MA's), (12, 60479), (15, 60503), (21, 60563), (24, 60611),

Gene: Sassay_101 Start: 60770, Stop: 61060, Start Num: 6
Candidate Starts for Sassay_101:
(Start: 6 @60770 has 127 MA's), (12, 60899), (15, 60923), (21, 60983), (24, 61031),

Gene: ShamWow_106 Start: 62698, Stop: 62988, Start Num: 6
Candidate Starts for ShamWow_106:
(Start: 6 @62698 has 127 MA's), (12, 62827), (15, 62851), (21, 62911), (24, 62959),

Gene: ShereKhan_104 Start: 63179, Stop: 63469, Start Num: 6
Candidate Starts for ShereKhan_104:
(Start: 6 @63179 has 127 MA's), (12, 63308), (15, 63332), (21, 63392), (24, 63440),

Gene: Simpliphy_104 Start: 61991, Stop: 62281, Start Num: 6
Candidate Starts for Simpliphy_104:
(Start: 6 @61991 has 127 MA's), (12, 62120), (15, 62144), (21, 62204), (24, 62252),

Gene: SirDuracell_106 Start: 61536, Stop: 61823, Start Num: 6
Candidate Starts for SirDuracell_106:
(Start: 6 @61536 has 127 MA's), (12, 61665), (15, 61689), (21, 61749), (24, 61797),

Gene: SophKB_104 Start: 61980, Stop: 62270, Start Num: 6
Candidate Starts for SophKB_104:
(Start: 6 @61980 has 127 MA's), (12, 62109), (15, 62133), (21, 62193), (24, 62241),

Gene: Sotrice96_107 Start: 62444, Stop: 62734, Start Num: 6
Candidate Starts for Sotrice96_107:
(Start: 6 @62444 has 127 MA's), (12, 62573), (15, 62597), (21, 62657), (24, 62705),

Gene: Stank_108 Start: 62218, Stop: 62508, Start Num: 6
Candidate Starts for Stank_108:
(Start: 6 @62218 has 127 MA's), (12, 62347), (15, 62371), (21, 62431), (24, 62479),

Gene: Stark_106 Start: 62304, Stop: 62594, Start Num: 6
Candidate Starts for Stark_106:
(Start: 6 @62304 has 127 MA's), (12, 62433), (15, 62457), (21, 62517), (24, 62565),

Gene: StellaBean_105 Start: 62601, Stop: 62891, Start Num: 6
Candidate Starts for StellaBean_105:
(Start: 6 @62601 has 127 MA's), (12, 62730), (15, 62754), (21, 62814), (24, 62862),

Gene: StolenFromERC_108 Start: 62143, Stop: 62433, Start Num: 6
Candidate Starts for StolenFromERC_108:
(Start: 6 @62143 has 127 MA's), (12, 62272), (15, 62296), (21, 62356), (24, 62404),

Gene: TBrady12_109 Start: 61655, Stop: 61945, Start Num: 6
Candidate Starts for TBrady12_109:
(Start: 6 @61655 has 127 MA's), (12, 61784), (15, 61808), (21, 61868), (24, 61916),

Gene: Tarkin_105 Start: 63044, Stop: 63334, Start Num: 6
Candidate Starts for Tarkin_105:
(Start: 6 @63044 has 127 MA's), (12, 63173), (15, 63197), (21, 63257), (24, 63305),

Gene: TeamEdward_106 Start: 62685, Stop: 62975, Start Num: 6
Candidate Starts for TeamEdward_106:
(Start: 6 @62685 has 127 MA's), (12, 62814), (15, 62838), (21, 62898), (24, 62946),

Gene: TeardropMSU_102 Start: 61546, Stop: 61836, Start Num: 6
Candidate Starts for TeardropMSU_102:
(Start: 6 @61546 has 127 MA's), (12, 61675), (15, 61699), (21, 61759), (24, 61807),

Gene: Teaspoon_106 Start: 62203, Stop: 62493, Start Num: 6
Candidate Starts for Teaspoon_106:
(Start: 6 @62203 has 127 MA's), (12, 62332), (15, 62356), (21, 62416), (24, 62464),

Gene: Terminus_109 Start: 63444, Stop: 63734, Start Num: 6
Candidate Starts for Terminus_109:
(Start: 6 @63444 has 127 MA's), (12, 63573), (15, 63597), (21, 63657), (24, 63705),

Gene: Thimble_108 Start: 61405, Stop: 61695, Start Num: 6
Candidate Starts for Thimble_108:
(Start: 6 @61405 has 127 MA's), (12, 61534), (15, 61558), (21, 61618), (24, 61666),

Gene: Thresher_107 Start: 63084, Stop: 63374, Start Num: 6
Candidate Starts for Thresher_107:
(Start: 6 @63084 has 127 MA's), (12, 63213), (15, 63237), (21, 63297), (24, 63345),

Gene: Tomaszewski_101 Start: 61982, Stop: 62272, Start Num: 6
Candidate Starts for Tomaszewski_101:
(Start: 6 @61982 has 127 MA's), (12, 62111), (15, 62135), (21, 62195), (24, 62243),

Gene: Toto_104 Start: 62698, Stop: 62988, Start Num: 6
Candidate Starts for Toto_104:
(Start: 6 @62698 has 127 MA's), (12, 62827), (15, 62851), (21, 62911), (24, 62959),

Gene: Traaww1_102 Start: 61247, Stop: 61537, Start Num: 6
Candidate Starts for Traaww1_102:
(Start: 6 @61247 has 127 MA's), (12, 61376), (15, 61400), (21, 61460), (24, 61508),

Gene: Tuco_107 Start: 63605, Stop: 63895, Start Num: 6
Candidate Starts for Tuco_107:
(Start: 6 @63605 has 127 MA's), (12, 63734), (15, 63758), (21, 63818), (24, 63866),

Gene: Ukulele_100 Start: 61803, Stop: 62093, Start Num: 6
Candidate Starts for Ukulele_100:
(Start: 6 @61803 has 127 MA's), (12, 61932), (15, 61956), (21, 62016), (24, 62064),

Gene: Wiggin_108 Start: 61648, Stop: 61938, Start Num: 6
Candidate Starts for Wiggin_108:
(Start: 6 @61648 has 127 MA's), (12, 61777), (15, 61801), (21, 61861), (24, 61909),

Gene: Willez_101 Start: 60770, Stop: 61060, Start Num: 6
Candidate Starts for Willez_101:
(Start: 6 @60770 has 127 MA's), (12, 60899), (15, 60923), (21, 60983), (24, 61031),

Gene: YassJohnny_103 Start: 60791, Stop: 61081, Start Num: 6
Candidate Starts for YassJohnny_103:
(Start: 6 @60791 has 127 MA's), (12, 60920), (15, 60944), (21, 61004), (24, 61052),

Gene: Youngblood_109 Start: 62940, Stop: 63230, Start Num: 6

Candidate Starts for Youngblood_109:
(Start: 6 @62940 has 127 MA's), (12, 63069), (15, 63093), (21, 63153), (24, 63201),

Gene: xkcd_109 Start: 63125, Stop: 63415, Start Num: 6
Candidate Starts for xkcd_109:
(Start: 6 @63125 has 127 MA's), (12, 63254), (15, 63278), (21, 63338), (24, 63386),