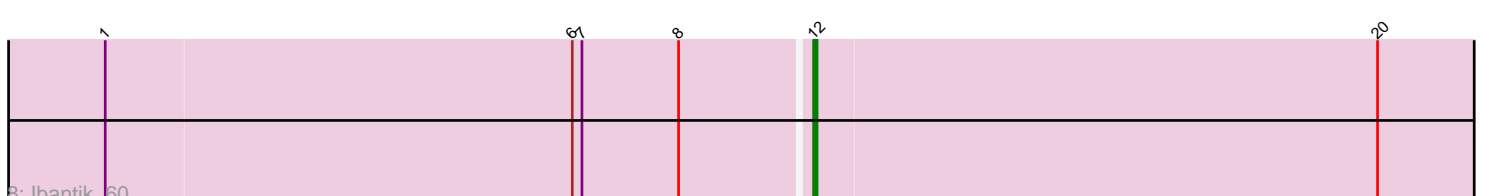
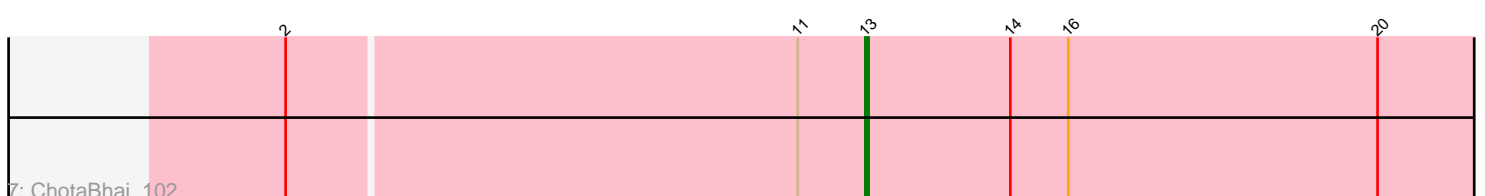
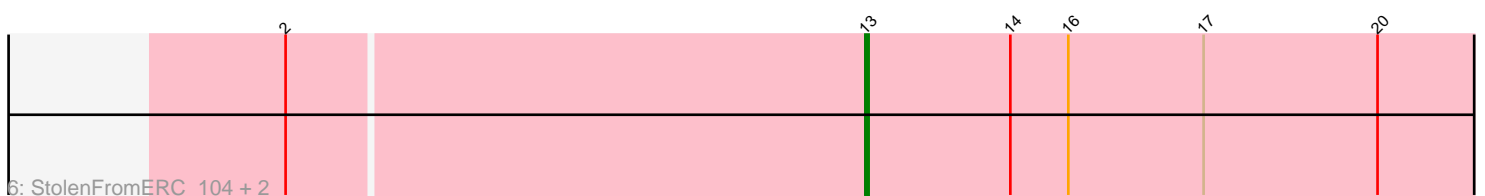
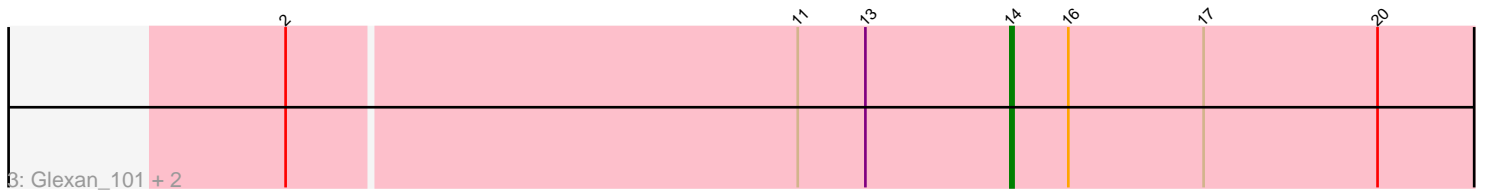
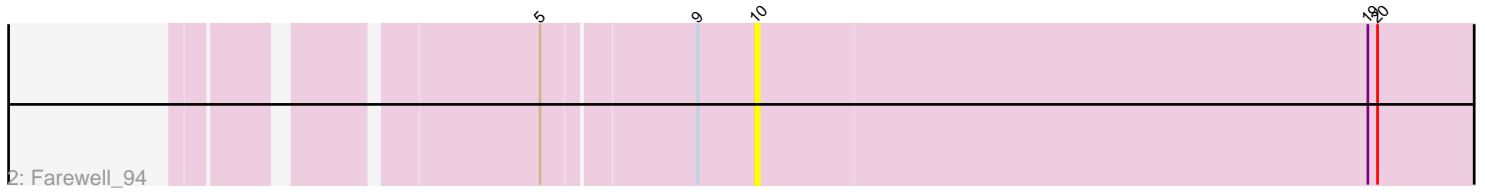
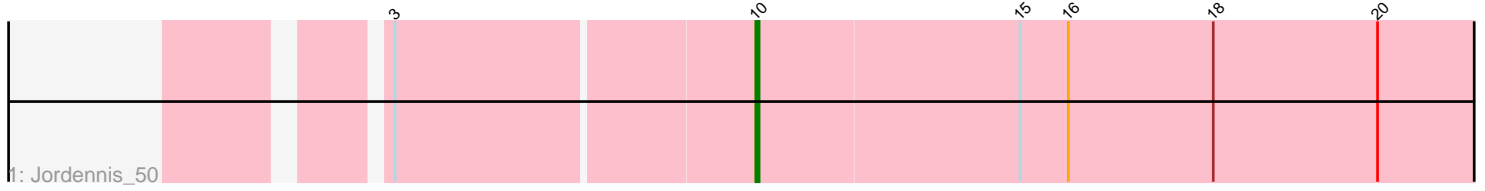


Pham 157760



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 157760 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157760 has 99 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Jordennis_50
- Track 2 : Farewell_94
- Track 3 : Glexan_101, BigBubba_101, Balomoji_102
- Track 4 : Bruin_99, Miniwave_97, Lilpickle_101, Nimrod_102, Petra64142_106, Paperbeatsrock_101, DrDrey_102, ShamWow_102, Emmina_102, Nala_104, Pat3_99, Pharsalus_99, Dusk_99, TBrady12_105, BilboSwaggins_101, Misfit_103, Contagion_98, Phaja_100, SirDuracell_102, StellaBean_99, PhatBacter_105, Bask21_102, Adnama_106, Elite2014_101, Manda_103, Marshmallow_99, Buck_103, ChosenOne_102, Harella_102, Command613_104, Kostya_102, Phaux_104, Mindy_101, Tarkin_101, Tomaszewski_97, Mosby_98, Eureka_101, CrystalP_101, Wiggin_104, GoldenSpark_106, Barbarian_101, NelitzaMV_99, xkcd_105, Cookies_99, DoctorDiddles_101, Gator_100, Easy2Say_102, Cactus_106, Hoonter_105, Gemini_107, YassJohnny_99, Quallification_103, Inca_99, FireRed_105, ABCat_99, Henry_99, Sotrice96_103, Argent26_106, Goldilocks_105, TeardropMSU_98, Sassay_97, SophKB_100, Icee_103, Asriel_100, Youngblood_105, Tuco_103, Rimmer_100, Stank_104, Terminus_105, Kanye_99, HufflyPuff_104, BadStone_99, Holt_107, ShereKhan_100, Goku_101, GooberAzure_105, Myrale_102, Daikon_102, Amao_102, Willez_97, Toto_100, IHOP_100, Kimchi_106, Rakim_103, Traaww1_98, MPhalcon_103, Flypotenuse_98
- Track 5 : Murica_105, MISSy_103
- Track 6 : StolenFromERC_104, Gage_104, Xandras_100
- Track 7 : ChotaBhai_102
- Track 8 : Ibantik_60

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

The start number called the most often in the published annotations is 13, it was called in 86 of the 89 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_99, Adnama_106, Amao_102, Argent26_106, Asriel_100, BadStone_99, Barbarian_101, Bask21_102, BilboSwaggins_101, Bruin_99, Buck_103, Cactus_106, ChosenOne_102, ChotaBhai_102, Command613_104, Contagion_98, Cookies_99, CrystalP_101, Daikon_102, DoctorDiddles_101, DrDrey_102, Dusk_99,

Easy2Say_102, Elite2014_101, Emmina_102, Eureka_101, FireRed_105, Flypotenuse_98, Gage_104, Gator_100, Gemini_107, Goku_101, GoldenSpark_106, Goldilocks_105, GooberAzure_105, Harella_102, Henry_99, Holt_107, Hoonter_105, HufflyPuff_104, IHOP_100, Icee_103, Inca_99, Kanye_99, Kimchi_106, Kostya_102, Lilpickle_101, MISSy_103, MPhalcon_103, Manda_103, Marshmallow_99, Mindy_101, Miniwave_97, Misfit_103, Mosby_98, Murica_105, Myrale_102, Nala_104, NelitzaMV_99, Nimrod_102, Paperbeatsrock_101, Pat3_99, Petra64142_106, Phaja_100, Pharsalus_99, PhatBacter_105, Phaux_104, Quallification_103, Rakim_103, Rimmer_100, Sassay_97, ShamWow_102, ShereKhan_100, SirDuracell_102, SophKB_100, Sotrice96_103, Stank_104, StellaBean_99, StolenFromERC_104, TBrady12_105, Tarkin_101, TeardropMSU_98, Terminus_105, Tomaszewski_97, Toto_100, Traaww1_98, Tuco_103, Wiggin_104, Willez_97, Xandras_100, YassJohnny_99, Youngblood_105, xkcd_105,

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

- Balomoji_102, BigBubba_101, Glexan_101,

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

- Farewell_94, Ibantik_60, Jordennis_50,

Summary by start number:

Start 10:

- Found in 2 of 99 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 89
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Farewell_94 (AF), Jordennis_50 (A6),

Start 12:

- Found in 1 of 99 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 89
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik_60 (singleton),

Start 13:

- Found in 96 of 99 (97.0%) of genes in pham
- Manual Annotations of this start: 86 of 89
- Called 96.9% of time when present
- Phage (with cluster) where this start called: ABCat_99 (E), Adnama_106 (E), Amao_102 (E), Argent26_106 (E), Asriel_100 (E), BadStone_99 (E), Barbarian_101 (E), Bask21_102 (E), BilboSwaggins_101 (E), Bruin_99 (E), Buck_103 (E), Cactus_106 (E), ChosenOne_102 (E), ChotaBhai_102 (E), Command613_104 (E), Contagion_98 (E), Cookies_99 (E), CrystalP_101 (E), Daikon_102 (E), DoctorDiddles_101 (E), DrDrey_102 (E), Dusk_99 (E), Easy2Say_102 (E), Elite2014_101 (E), Emmina_102 (E), Eureka_101 (E), FireRed_105 (E), Flypotenuse_98 (E), Gage_104 (E), Gator_100 (E), Gemini_107 (E), Goku_101 (E), GoldenSpark_106 (E), Goldilocks_105 (E), GooberAzure_105 (E), Harella_102 (E), Henry_99 (E), Holt_107 (E), Hoonter_105 (E), HufflyPuff_104 (E), IHOP_100 (E), Icee_103 (E), Inca_99 (E), Kanye_99 (E), Kimchi_106 (E), Kostya_102 (E), Lilpickle_101 (E), MISSy_103 (E), MPhalcon_103 (E), Manda_103 (E), Marshmallow_99 (E), Mindy_101 (E), Miniwave_97 (E), Misfit_103 (E), Mosby_98 (E), Murica_105 (E), Myrale_102 (E), Nala_104 (E), NelitzaMV_99 (E), Nimrod_102

(E), Paperbeatsrock_101 (E), Pat3_99 (E), Petra64142_106 (E), Phaja_100 (E), Pharsalus_99 (E), PhatBacter_105 (E), Phaux_104 (E), Qualification_103 (E), Rakim_103 (E), Rimmer_100 (E), Sassay_97 (E), ShamWow_102 (E), ShereKhan_100 (E), SirDuracell_102 (E), SophKB_100 (E), Sotrice96_103 (E), Stank_104 (E), StellaBean_99 (E), StolenFromERC_104 (E), TBrady12_105 (E), Tarkin_101 (E), TeardropMSU_98 (E), Terminus_105 (E), Tomaszewski_97 (E), Toto_100 (E), Traaww1_98 (E), Tuco_103 (E), Wiggin_104 (E), Willez_97 (E), Xandras_100 (E), YassJohnny_99 (E), Youngblood_105 (E), xkcd_105 (E),

Start 14:

- Found in 96 of 99 (97.0%) of genes in pham
- Manual Annotations of this start: 1 of 89
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Balomoji_102 (E), BigBubba_101 (E), Glexan_101 (E),

Summary by clusters:

There are 4 clusters represented in this pham: singleton, AF, E, A6,

Info for manual annotations of cluster A6:

- Start number 10 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster E:

- Start number 13 was manually annotated 86 times for cluster E.
- Start number 14 was manually annotated 1 time for cluster E.

Gene Information:

Gene: ABCat_99 Start: 61561, Stop: 61758, Start Num: 13

Candidate Starts for ABCat_99:

(2, 61384), (11, 61540), (Start: 13 @61561 has 86 MA's), (Start: 14 @61606 has 1 MA's), (16, 61624), (17, 61666), (20, 61720),

Gene: Adnama_106 Start: 60871, Stop: 61068, Start Num: 13

Candidate Starts for Adnama_106:

(2, 60694), (11, 60850), (Start: 13 @60871 has 86 MA's), (Start: 14 @60916 has 1 MA's), (16, 60934), (17, 60976), (20, 61030),

Gene: Amao_102 Start: 60985, Stop: 61182, Start Num: 13

Candidate Starts for Amao_102:

(2, 60808), (11, 60964), (Start: 13 @60985 has 86 MA's), (Start: 14 @61030 has 1 MA's), (16, 61048), (17, 61090), (20, 61144),

Gene: Argent26_106 Start: 60795, Stop: 60992, Start Num: 13

Candidate Starts for Argent26_106:

(2, 60618), (11, 60774), (Start: 13 @60795 has 86 MA's), (Start: 14 @60840 has 1 MA's), (16, 60858), (17, 60900), (20, 60954),

Gene: Asriel_100 Start: 59208, Stop: 59405, Start Num: 13

Candidate Starts for Asriel_100:

(2, 59031), (11, 59187), (Start: 13 @59208 has 86 MA's), (Start: 14 @59253 has 1 MA's), (16, 59271), (17, 59313), (20, 59367),

Gene: BadStone_99 Start: 61130, Stop: 61327, Start Num: 13

Candidate Starts for BadStone_99:

(2, 60953), (11, 61109), (Start: 13 @61130 has 86 MA's), (Start: 14 @61175 has 1 MA's), (16, 61193), (17, 61235), (20, 61289),

Gene: Balomoji_102 Start: 61036, Stop: 61188, Start Num: 14

Candidate Starts for Balomoji_102:

(2, 60814), (11, 60970), (Start: 13 @60991 has 86 MA's), (Start: 14 @61036 has 1 MA's), (16, 61054), (17, 61096), (20, 61150),

Gene: Barbarian_101 Start: 59208, Stop: 59405, Start Num: 13

Candidate Starts for Barbarian_101:

(2, 59031), (11, 59187), (Start: 13 @59208 has 86 MA's), (Start: 14 @59253 has 1 MA's), (16, 59271), (17, 59313), (20, 59367),

Gene: Bask21_102 Start: 59847, Stop: 60044, Start Num: 13

Candidate Starts for Bask21_102:

(2, 59670), (11, 59826), (Start: 13 @59847 has 86 MA's), (Start: 14 @59892 has 1 MA's), (16, 59910), (17, 59952), (20, 60006),

Gene: BigBubba_101 Start: 59949, Stop: 60101, Start Num: 14

Candidate Starts for BigBubba_101:

(2, 59727), (11, 59883), (Start: 13 @59904 has 86 MA's), (Start: 14 @59949 has 1 MA's), (16, 59967), (17, 60009), (20, 60063),

Gene: BilboSwaggins_101 Start: 61530, Stop: 61727, Start Num: 13

Candidate Starts for BilboSwaggins_101:

(2, 61353), (11, 61509), (Start: 13 @61530 has 86 MA's), (Start: 14 @61575 has 1 MA's), (16, 61593), (17, 61635), (20, 61689),

Gene: Bruin_99 Start: 60236, Stop: 60433, Start Num: 13

Candidate Starts for Bruin_99:

(2, 60059), (11, 60215), (Start: 13 @60236 has 86 MA's), (Start: 14 @60281 has 1 MA's), (16, 60299), (17, 60341), (20, 60395),

Gene: Buck_103 Start: 62073, Stop: 62270, Start Num: 13

Candidate Starts for Buck_103:

(2, 61896), (11, 62052), (Start: 13 @62073 has 86 MA's), (Start: 14 @62118 has 1 MA's), (16, 62136), (17, 62178), (20, 62232),

Gene: Cactus_106 Start: 60490, Stop: 60687, Start Num: 13

Candidate Starts for Cactus_106:

(2, 60313), (11, 60469), (Start: 13 @60490 has 86 MA's), (Start: 14 @60535 has 1 MA's), (16, 60553), (17, 60595), (20, 60649),

Gene: ChosenOne_102 Start: 60439, Stop: 60636, Start Num: 13

Candidate Starts for ChosenOne_102:

(2, 60262), (11, 60418), (Start: 13 @60439 has 86 MA's), (Start: 14 @60484 has 1 MA's), (16, 60502), (17, 60544), (20, 60598),

Gene: ChotaBhai_102 Start: 60849, Stop: 61046, Start Num: 13

Candidate Starts for ChotaBhai_102:

(2, 60672), (11, 60828), (Start: 13 @60849 has 86 MA's), (Start: 14 @60894 has 1 MA's), (16, 60912), (20, 61008),

Gene: Command613_104 Start: 61005, Stop: 61202, Start Num: 13

Candidate Starts for Command613_104:

(2, 60828), (11, 60984), (Start: 13 @61005 has 86 MA's), (Start: 14 @61050 has 1 MA's), (16, 61068), (17, 61110), (20, 61164),

Gene: Contagion_98 Start: 60598, Stop: 60795, Start Num: 13

Candidate Starts for Contagion_98:

(2, 60421), (11, 60577), (Start: 13 @60598 has 86 MA's), (Start: 14 @60643 has 1 MA's), (16, 60661), (17, 60703), (20, 60757),

Gene: Cookies_99 Start: 60775, Stop: 60972, Start Num: 13

Candidate Starts for Cookies_99:

(2, 60598), (11, 60754), (Start: 13 @60775 has 86 MA's), (Start: 14 @60820 has 1 MA's), (16, 60838), (17, 60880), (20, 60934),

Gene: CrystalP_101 Start: 61530, Stop: 61727, Start Num: 13

Candidate Starts for CrystalP_101:

(2, 61353), (11, 61509), (Start: 13 @61530 has 86 MA's), (Start: 14 @61575 has 1 MA's), (16, 61593), (17, 61635), (20, 61689),

Gene: Daikon_102 Start: 60404, Stop: 60601, Start Num: 13

Candidate Starts for Daikon_102:

(2, 60227), (11, 60383), (Start: 13 @60404 has 86 MA's), (Start: 14 @60449 has 1 MA's), (16, 60467), (17, 60509), (20, 60563),

Gene: DoctorDiddles_101 Start: 60253, Stop: 60450, Start Num: 13

Candidate Starts for DoctorDiddles_101:

(2, 60076), (11, 60232), (Start: 13 @60253 has 86 MA's), (Start: 14 @60298 has 1 MA's), (16, 60316), (17, 60358), (20, 60412),

Gene: DrDrey_102 Start: 62268, Stop: 62465, Start Num: 13

Candidate Starts for DrDrey_102:

(2, 62091), (11, 62247), (Start: 13 @62268 has 86 MA's), (Start: 14 @62313 has 1 MA's), (16, 62331), (17, 62373), (20, 62427),

Gene: Dusk_99 Start: 60790, Stop: 60987, Start Num: 13

Candidate Starts for Dusk_99:

(2, 60613), (11, 60769), (Start: 13 @60790 has 86 MA's), (Start: 14 @60835 has 1 MA's), (16, 60853), (17, 60895), (20, 60949),

Gene: Easy2Say_102 Start: 61262, Stop: 61459, Start Num: 13

Candidate Starts for Easy2Say_102:

(2, 61085), (11, 61241), (Start: 13 @61262 has 86 MA's), (Start: 14 @61307 has 1 MA's), (16, 61325), (17, 61367), (20, 61421),

Gene: Elite2014_101 Start: 60438, Stop: 60635, Start Num: 13

Candidate Starts for Elite2014_101:

(2, 60261), (11, 60417), (Start: 13 @60438 has 86 MA's), (Start: 14 @60483 has 1 MA's), (16, 60501), (17, 60543), (20, 60597),

Gene: Emmina_102 Start: 60213, Stop: 60410, Start Num: 13

Candidate Starts for Emmina_102:

(2, 60036), (11, 60192), (Start: 13 @60213 has 86 MA's), (Start: 14 @60258 has 1 MA's), (16, 60276), (17, 60318), (20, 60372),

Gene: Eureka_101 Start: 61401, Stop: 61598, Start Num: 13

Candidate Starts for Eureka_101:

(2, 61224), (11, 61380), (Start: 13 @61401 has 86 MA's), (Start: 14 @61446 has 1 MA's), (16, 61464), (17, 61506), (20, 61560),

Gene: Farewell_94 Start: 60732, Stop: 60971, Start Num: 10

Candidate Starts for Farewell_94:

(5, 60669), (9, 60714), (Start: 10 @60732 has 1 MA's), (19, 60921), (20, 60924),

Gene: FireRed_105 Start: 61677, Stop: 61874, Start Num: 13

Candidate Starts for FireRed_105:

(2, 61500), (11, 61656), (Start: 13 @61677 has 86 MA's), (Start: 14 @61722 has 1 MA's), (16, 61740), (17, 61782), (20, 61836),

Gene: Flypotenuse_98 Start: 59862, Stop: 60059, Start Num: 13

Candidate Starts for Flypotenuse_98:

(2, 59685), (11, 59841), (Start: 13 @59862 has 86 MA's), (Start: 14 @59907 has 1 MA's), (16, 59925), (17, 59967), (20, 60021),

Gene: Gage_104 Start: 60933, Stop: 61130, Start Num: 13

Candidate Starts for Gage_104:

(2, 60756), (Start: 13 @60933 has 86 MA's), (Start: 14 @60978 has 1 MA's), (16, 60996), (17, 61038), (20, 61092),

Gene: Gator_100 Start: 60718, Stop: 60915, Start Num: 13

Candidate Starts for Gator_100:

(2, 60541), (11, 60697), (Start: 13 @60718 has 86 MA's), (Start: 14 @60763 has 1 MA's), (16, 60781), (17, 60823), (20, 60877),

Gene: Gemini_107 Start: 61312, Stop: 61509, Start Num: 13

Candidate Starts for Gemini_107:

(2, 61135), (11, 61291), (Start: 13 @61312 has 86 MA's), (Start: 14 @61357 has 1 MA's), (16, 61375), (17, 61417), (20, 61471),

Gene: Glexan_101 Start: 61037, Stop: 61189, Start Num: 14

Candidate Starts for Glexan_101:

(2, 60815), (11, 60971), (Start: 13 @60992 has 86 MA's), (Start: 14 @61037 has 1 MA's), (16, 61055), (17, 61097), (20, 61151),

Gene: Goku_101 Start: 61130, Stop: 61327, Start Num: 13

Candidate Starts for Goku_101:

(2, 60953), (11, 61109), (Start: 13 @61130 has 86 MA's), (Start: 14 @61175 has 1 MA's), (16, 61193), (17, 61235), (20, 61289),

Gene: GoldenSpark_106 Start: 60795, Stop: 60992, Start Num: 13

Candidate Starts for GoldenSpark_106:

(2, 60618), (11, 60774), (Start: 13 @60795 has 86 MA's), (Start: 14 @60840 has 1 MA's), (16, 60858), (17, 60900), (20, 60954),

Gene: Goldilocks_105 Start: 60712, Stop: 60909, Start Num: 13

Candidate Starts for Goldilocks_105:

(2, 60535), (11, 60691), (Start: 13 @60712 has 86 MA's), (Start: 14 @60757 has 1 MA's), (16, 60775), (17, 60817), (20, 60871),

Gene: GooberAzure_105 Start: 60795, Stop: 60992, Start Num: 13

Candidate Starts for GooberAzure_105:

(2, 60618), (11, 60774), (Start: 13 @60795 has 86 MA's), (Start: 14 @60840 has 1 MA's), (16, 60858), (17, 60900), (20, 60954),

Gene: Harella_102 Start: 61508, Stop: 61705, Start Num: 13

Candidate Starts for Harella_102:

(2, 61331), (11, 61487), (Start: 13 @61508 has 86 MA's), (Start: 14 @61553 has 1 MA's), (16, 61571), (17, 61613), (20, 61667),

Gene: Henry_99 Start: 60835, Stop: 61032, Start Num: 13

Candidate Starts for Henry_99:

(2, 60658), (11, 60814), (Start: 13 @60835 has 86 MA's), (Start: 14 @60880 has 1 MA's), (16, 60898), (17, 60940), (20, 60994),

Gene: Holt_107 Start: 61209, Stop: 61406, Start Num: 13

Candidate Starts for Holt_107:

(2, 61032), (11, 61188), (Start: 13 @61209 has 86 MA's), (Start: 14 @61254 has 1 MA's), (16, 61272), (17, 61314), (20, 61368),

Gene: Hoonter_105 Start: 61288, Stop: 61485, Start Num: 13

Candidate Starts for Hoonter_105:

(2, 61111), (11, 61267), (Start: 13 @61288 has 86 MA's), (Start: 14 @61333 has 1 MA's), (16, 61351), (17, 61393), (20, 61447),

Gene: HufflyPuff_104 Start: 61903, Stop: 62100, Start Num: 13

Candidate Starts for HufflyPuff_104:

(2, 61726), (11, 61882), (Start: 13 @61903 has 86 MA's), (Start: 14 @61948 has 1 MA's), (16, 61966), (17, 62008), (20, 62062),

Gene: IHOP_100 Start: 60511, Stop: 60708, Start Num: 13

Candidate Starts for IHOP_100:

(2, 60334), (11, 60490), (Start: 13 @60511 has 86 MA's), (Start: 14 @60556 has 1 MA's), (16, 60574), (17, 60616), (20, 60670),

Gene: Ibantik_60 Start: 25970, Stop: 26188, Start Num: 12

Candidate Starts for Ibantik_60:

(1, 25754), (6, 25898), (7, 25901), (8, 25931), (Start: 12 @25970 has 1 MA's), (20, 26144),

Gene: Icee_103 Start: 60319, Stop: 60516, Start Num: 13

Candidate Starts for Icee_103:

(2, 60142), (11, 60298), (Start: 13 @60319 has 86 MA's), (Start: 14 @60364 has 1 MA's), (16, 60382), (17, 60424), (20, 60478),

Gene: Inca_99 Start: 59000, Stop: 59197, Start Num: 13

Candidate Starts for Inca_99:

(2, 58823), (11, 58979), (Start: 13 @59000 has 86 MA's), (Start: 14 @59045 has 1 MA's), (16, 59063), (17, 59105), (20, 59159),

Gene: Jordennis_50 Start: 31033, Stop: 30803, Start Num: 10

Candidate Starts for Jordennis_50:

(3, 31141), (Start: 10 @31033 has 1 MA's), (15, 30952), (16, 30937), (18, 30892), (20, 30841),

Gene: Kanye_99 Start: 61044, Stop: 61241, Start Num: 13

Candidate Starts for Kanye_99:

(2, 60867), (11, 61023), (Start: 13 @61044 has 86 MA's), (Start: 14 @61089 has 1 MA's), (16, 61107), (17, 61149), (20, 61203),

Gene: Kimchi_106 Start: 60936, Stop: 61133, Start Num: 13

Candidate Starts for Kimchi_106:

(2, 60759), (11, 60915), (Start: 13 @60936 has 86 MA's), (Start: 14 @60981 has 1 MA's), (16, 60999), (17, 61041), (20, 61095),

Gene: Kostya_102 Start: 60613, Stop: 60810, Start Num: 13

Candidate Starts for Kostya_102:

(2, 60436), (11, 60592), (Start: 13 @60613 has 86 MA's), (Start: 14 @60658 has 1 MA's), (16, 60676), (17, 60718), (20, 60772),

Gene: Lilpickle_101 Start: 60438, Stop: 60635, Start Num: 13

Candidate Starts for Lilpickle_101:

(2, 60261), (11, 60417), (Start: 13 @60438 has 86 MA's), (Start: 14 @60483 has 1 MA's), (16, 60501), (17, 60543), (20, 60597),

Gene: MISSy_103 Start: 61721, Stop: 61918, Start Num: 13

Candidate Starts for MISSy_103:

(2, 61544), (4, 61598), (11, 61700), (Start: 13 @61721 has 86 MA's), (Start: 14 @61766 has 1 MA's), (16, 61784), (17, 61826), (20, 61880),

Gene: MPhalcon_103 Start: 61138, Stop: 61335, Start Num: 13

Candidate Starts for MPhalcon_103:

(2, 60961), (11, 61117), (Start: 13 @61138 has 86 MA's), (Start: 14 @61183 has 1 MA's), (16, 61201), (17, 61243), (20, 61297),

Gene: Manda_103 Start: 61175, Stop: 61372, Start Num: 13

Candidate Starts for Manda_103:

(2, 60998), (11, 61154), (Start: 13 @61175 has 86 MA's), (Start: 14 @61220 has 1 MA's), (16, 61238), (17, 61280), (20, 61334),

Gene: Marshmallow_99 Start: 61133, Stop: 61330, Start Num: 13

Candidate Starts for Marshmallow_99:

(2, 60956), (11, 61112), (Start: 13 @61133 has 86 MA's), (Start: 14 @61178 has 1 MA's), (16, 61196), (17, 61238), (20, 61292),

Gene: Mindy_101 Start: 60454, Stop: 60651, Start Num: 13

Candidate Starts for Mindy_101:

(2, 60277), (11, 60433), (Start: 13 @60454 has 86 MA's), (Start: 14 @60499 has 1 MA's), (16, 60517), (17, 60559), (20, 60613),

Gene: Miniwave_97 Start: 60631, Stop: 60828, Start Num: 13

Candidate Starts for Miniwave_97:

(2, 60454), (11, 60610), (Start: 13 @60631 has 86 MA's), (Start: 14 @60676 has 1 MA's), (16, 60694), (17, 60736), (20, 60790),

Gene: Misfit_103 Start: 62234, Stop: 62431, Start Num: 13

Candidate Starts for Misfit_103:

(2, 62057), (11, 62213), (Start: 13 @62234 has 86 MA's), (Start: 14 @62279 has 1 MA's), (16, 62297), (17, 62339), (20, 62393),

Gene: Mosby_98 Start: 60598, Stop: 60795, Start Num: 13

Candidate Starts for Mosby_98:

(2, 60421), (11, 60577), (Start: 13 @60598 has 86 MA's), (Start: 14 @60643 has 1 MA's), (16, 60661), (17, 60703), (20, 60757),

Gene: Murica_105 Start: 62937, Stop: 63134, Start Num: 13

Candidate Starts for Murica_105:

(2, 62760), (4, 62814), (11, 62916), (Start: 13 @62937 has 86 MA's), (Start: 14 @62982 has 1 MA's), (16, 63000), (17, 63042), (20, 63096),

Gene: Myrale_102 Start: 61293, Stop: 61490, Start Num: 13

Candidate Starts for Myrale_102:

(2, 61116), (11, 61272), (Start: 13 @61293 has 86 MA's), (Start: 14 @61338 has 1 MA's), (16, 61356), (17, 61398), (20, 61452),

Gene: Nala_104 Start: 61647, Stop: 61844, Start Num: 13

Candidate Starts for Nala_104:

(2, 61470), (11, 61626), (Start: 13 @61647 has 86 MA's), (Start: 14 @61692 has 1 MA's), (16, 61710), (17, 61752), (20, 61806),

Gene: NelitzaMV_99 Start: 59641, Stop: 59838, Start Num: 13

Candidate Starts for NelitzaMV_99:

(2, 59464), (11, 59620), (Start: 13 @59641 has 86 MA's), (Start: 14 @59686 has 1 MA's), (16, 59704), (17, 59746), (20, 59800),

Gene: Nimrod_102 Start: 61260, Stop: 61457, Start Num: 13

Candidate Starts for Nimrod_102:

(2, 61083), (11, 61239), (Start: 13 @61260 has 86 MA's), (Start: 14 @61305 has 1 MA's), (16, 61323), (17, 61365), (20, 61419),

Gene: Paperbeatsrock_101 Start: 61309, Stop: 61506, Start Num: 13

Candidate Starts for Paperbeatsrock_101:

(2, 61132), (11, 61288), (Start: 13 @61309 has 86 MA's), (Start: 14 @61354 has 1 MA's), (16, 61372), (17, 61414), (20, 61468),

Gene: Pat3_99 Start: 59826, Stop: 60023, Start Num: 13

Candidate Starts for Pat3_99:

(2, 59649), (11, 59805), (Start: 13 @59826 has 86 MA's), (Start: 14 @59871 has 1 MA's), (16, 59889), (17, 59931), (20, 59985),

Gene: Petra64142_106 Start: 61798, Stop: 61995, Start Num: 13

Candidate Starts for Petra64142_106:

(2, 61621), (11, 61777), (Start: 13 @61798 has 86 MA's), (Start: 14 @61843 has 1 MA's), (16, 61861), (17, 61903), (20, 61957),

Gene: Phaja_100 Start: 60513, Stop: 60710, Start Num: 13

Candidate Starts for Phaja_100:

(2, 60336), (11, 60492), (Start: 13 @60513 has 86 MA's), (Start: 14 @60558 has 1 MA's), (16, 60576), (17, 60618), (20, 60672),

Gene: Pharsalus_99 Start: 61008, Stop: 61205, Start Num: 13

Candidate Starts for Pharsalus_99:

(2, 60831), (11, 60987), (Start: 13 @61008 has 86 MA's), (Start: 14 @61053 has 1 MA's), (16, 61071), (17, 61113), (20, 61167),

Gene: PhatBacter_105 Start: 61677, Stop: 61874, Start Num: 13

Candidate Starts for PhatBacter_105:

(2, 61500), (11, 61656), (Start: 13 @61677 has 86 MA's), (Start: 14 @61722 has 1 MA's), (16, 61740), (17, 61782), (20, 61836),

Gene: Phaux_104 Start: 62237, Stop: 62434, Start Num: 13

Candidate Starts for Phaux_104:

(2, 62060), (11, 62216), (Start: 13 @62237 has 86 MA's), (Start: 14 @62282 has 1 MA's), (16, 62300), (17, 62342), (20, 62396),

Gene: Quallification_103 Start: 61723, Stop: 61920, Start Num: 13

Candidate Starts for Quallification_103:

(2, 61546), (11, 61702), (Start: 13 @61723 has 86 MA's), (Start: 14 @61768 has 1 MA's), (16, 61786), (17, 61828), (20, 61882),

Gene: Rakim_103 Start: 60745, Stop: 60942, Start Num: 13

Candidate Starts for Rakim_103:

(2, 60568), (11, 60724), (Start: 13 @60745 has 86 MA's), (Start: 14 @60790 has 1 MA's), (16, 60808), (17, 60850), (20, 60904),

Gene: Rimmer_100 Start: 61135, Stop: 61332, Start Num: 13

Candidate Starts for Rimmer_100:

(2, 60958), (11, 61114), (Start: 13 @61135 has 86 MA's), (Start: 14 @61180 has 1 MA's), (16, 61198), (17, 61240), (20, 61294),

Gene: Sassay_97 Start: 59560, Stop: 59757, Start Num: 13

Candidate Starts for Sassay_97:

(2, 59383), (11, 59539), (Start: 13 @59560 has 86 MA's), (Start: 14 @59605 has 1 MA's), (16, 59623), (17, 59665), (20, 59719),

Gene: ShamWow_102 Start: 61530, Stop: 61727, Start Num: 13

Candidate Starts for ShamWow_102:

(2, 61353), (11, 61509), (Start: 13 @61530 has 86 MA's), (Start: 14 @61575 has 1 MA's), (16, 61593), (17, 61635), (20, 61689),

Gene: ShereKhan_100 Start: 61969, Stop: 62166, Start Num: 13

Candidate Starts for ShereKhan_100:

(2, 61792), (11, 61948), (Start: 13 @61969 has 86 MA's), (Start: 14 @62014 has 1 MA's), (16, 62032), (17, 62074), (20, 62128),

Gene: SirDuracell_102 Start: 60347, Stop: 60544, Start Num: 13

Candidate Starts for SirDuracell_102:

(2, 60170), (11, 60326), (Start: 13 @60347 has 86 MA's), (Start: 14 @60392 has 1 MA's), (16, 60410), (17, 60452), (20, 60506),

Gene: SophKB_100 Start: 60770, Stop: 60967, Start Num: 13

Candidate Starts for SophKB_100:

(2, 60593), (11, 60749), (Start: 13 @60770 has 86 MA's), (Start: 14 @60815 has 1 MA's), (16, 60833), (17, 60875), (20, 60929),

Gene: Sotrice96_103 Start: 61234, Stop: 61431, Start Num: 13

Candidate Starts for Sotrice96_103:

(2, 61057), (11, 61213), (Start: 13 @61234 has 86 MA's), (Start: 14 @61279 has 1 MA's), (16, 61297), (17, 61339), (20, 61393),

Gene: Stank_104 Start: 61008, Stop: 61205, Start Num: 13

Candidate Starts for Stank_104:

(2, 60831), (11, 60987), (Start: 13 @61008 has 86 MA's), (Start: 14 @61053 has 1 MA's), (16, 61071), (17, 61113), (20, 61167),

Gene: StellaBean_99 Start: 61370, Stop: 61567, Start Num: 13

Candidate Starts for StellaBean_99:

(2, 61193), (11, 61349), (Start: 13 @61370 has 86 MA's), (Start: 14 @61415 has 1 MA's), (16, 61433), (17, 61475), (20, 61529),

Gene: StolenFromERC_104 Start: 60933, Stop: 61130, Start Num: 13

Candidate Starts for StolenFromERC_104:

(2, 60756), (Start: 13 @60933 has 86 MA's), (Start: 14 @60978 has 1 MA's), (16, 60996), (17, 61038), (20, 61092),

Gene: TBrady12_105 Start: 60448, Stop: 60645, Start Num: 13

Candidate Starts for TBrady12_105:

(2, 60271), (11, 60427), (Start: 13 @60448 has 86 MA's), (Start: 14 @60493 has 1 MA's), (16, 60511), (17, 60553), (20, 60607),

Gene: Tarkin_101 Start: 61834, Stop: 62031, Start Num: 13

Candidate Starts for Tarkin_101:

(2, 61657), (11, 61813), (Start: 13 @61834 has 86 MA's), (Start: 14 @61879 has 1 MA's), (16, 61897), (17, 61939), (20, 61993),

Gene: TeardropMSU_98 Start: 60315, Stop: 60512, Start Num: 13

Candidate Starts for TeardropMSU_98:

(2, 60138), (11, 60294), (Start: 13 @60315 has 86 MA's), (Start: 14 @60360 has 1 MA's), (16, 60378), (17, 60420), (20, 60474),

Gene: Terminus_105 Start: 62234, Stop: 62431, Start Num: 13

Candidate Starts for Terminus_105:

(2, 62057), (11, 62213), (Start: 13 @62234 has 86 MA's), (Start: 14 @62279 has 1 MA's), (16, 62297), (17, 62339), (20, 62393),

Gene: Tomaszewski_97 Start: 60772, Stop: 60969, Start Num: 13

Candidate Starts for Tomaszewski_97:

(2, 60595), (11, 60751), (Start: 13 @60772 has 86 MA's), (Start: 14 @60817 has 1 MA's), (16, 60835), (17, 60877), (20, 60931),

Gene: Toto_100 Start: 61530, Stop: 61727, Start Num: 13

Candidate Starts for Toto_100:

(2, 61353), (11, 61509), (Start: 13 @61530 has 86 MA's), (Start: 14 @61575 has 1 MA's), (16, 61593), (17, 61635), (20, 61689),

Gene: Traaww1_98 Start: 60037, Stop: 60234, Start Num: 13

Candidate Starts for Traaww1_98:

(2, 59860), (11, 60016), (Start: 13 @60037 has 86 MA's), (Start: 14 @60082 has 1 MA's), (16, 60100), (17, 60142), (20, 60196),

Gene: Tuco_103 Start: 62395, Stop: 62592, Start Num: 13

Candidate Starts for Tuco_103:

(2, 62218), (11, 62374), (Start: 13 @62395 has 86 MA's), (Start: 14 @62440 has 1 MA's), (16, 62458), (17, 62500), (20, 62554),

Gene: Wiggin_104 Start: 60438, Stop: 60635, Start Num: 13

Candidate Starts for Wiggin_104:

(2, 60261), (11, 60417), (Start: 13 @60438 has 86 MA's), (Start: 14 @60483 has 1 MA's), (16, 60501), (17, 60543), (20, 60597),

Gene: Willez_97 Start: 59560, Stop: 59757, Start Num: 13

Candidate Starts for Willez_97:

(2, 59383), (11, 59539), (Start: 13 @59560 has 86 MA's), (Start: 14 @59605 has 1 MA's), (16, 59623), (17, 59665), (20, 59719),

Gene: Xandras_100 Start: 60261, Stop: 60458, Start Num: 13

Candidate Starts for Xandras_100:

(2, 60084), (Start: 13 @60261 has 86 MA's), (Start: 14 @60306 has 1 MA's), (16, 60324), (17, 60366), (20, 60420),

Gene: YassJohnny_99 Start: 59581, Stop: 59778, Start Num: 13

Candidate Starts for YassJohnny_99:

(2, 59404), (11, 59560), (Start: 13 @59581 has 86 MA's), (Start: 14 @59626 has 1 MA's), (16, 59644), (17, 59686), (20, 59740),

Gene: Youngblood_105 Start: 61731, Stop: 61928, Start Num: 13

Candidate Starts for Youngblood_105:

(2, 61554), (11, 61710), (Start: 13 @61731 has 86 MA's), (Start: 14 @61776 has 1 MA's), (16, 61794), (17, 61836), (20, 61890),

Gene: xkcd_105 Start: 61915, Stop: 62112, Start Num: 13

Candidate Starts for xkcd_105:

(2, 61738), (11, 61894), (Start: 13 @61915 has 86 MA's), (Start: 14 @61960 has 1 MA's), (16, 61978), (17, 62020), (20, 62074),