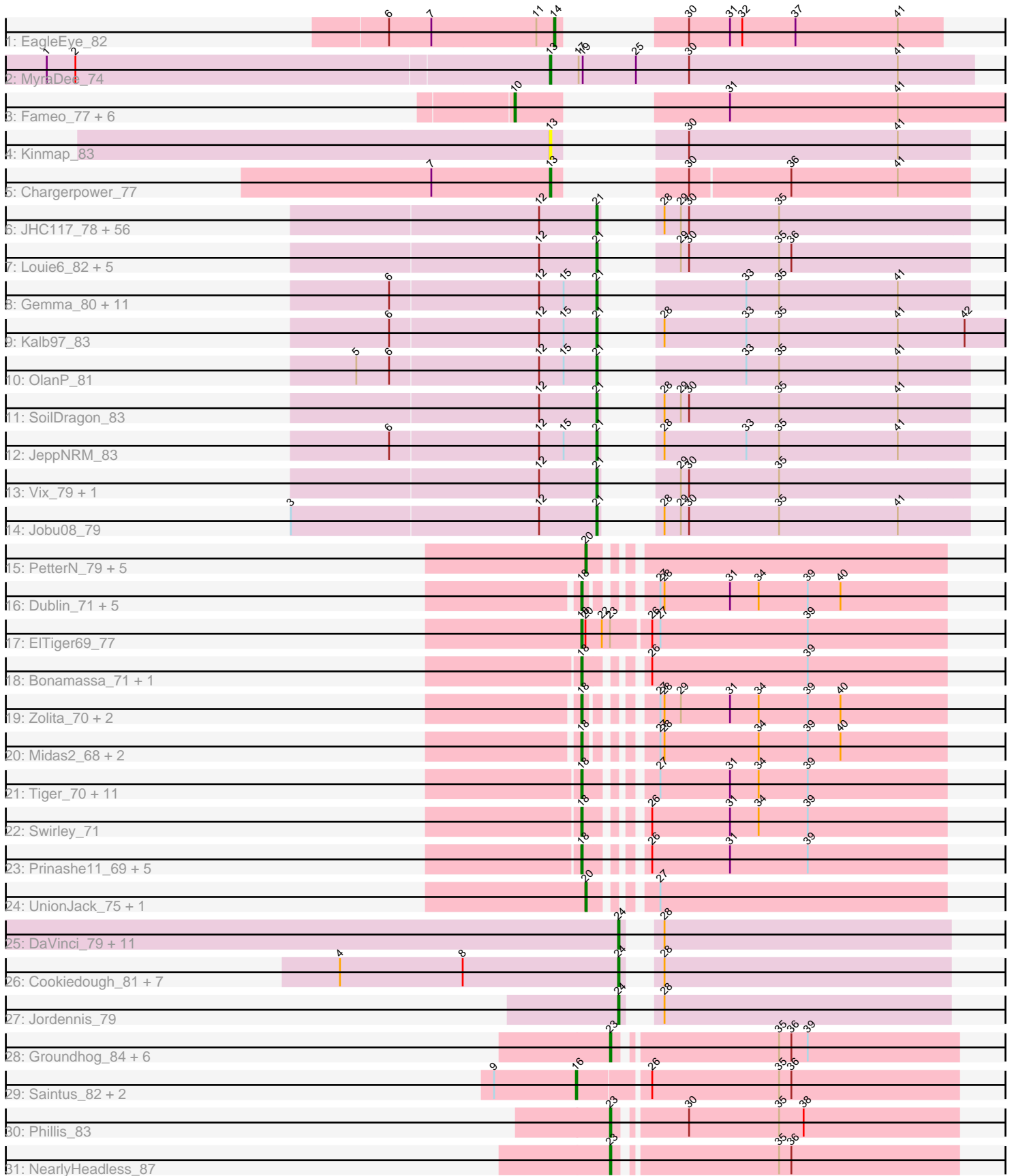


Pham 304750



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 304750 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304750 has 168 members, 14 are drafts.

Phages represented in each track:

- Track 1 : EagleEye_82
- Track 2 : MyraDee_74
- Track 3 : Fameo_77, Anselm_80, QueenB2_76, Heffalump_76, Dalmatian_79, DudeLittle_77, Retro23_79
- Track 4 : Kinmap_83
- Track 5 : Chargerpower_77
- Track 6 : JHC117_78, HashRod_84, LugYA_86, Mainiac_82, Grub_81, Aglet_84, MoneyMay_83, Grum1_83, Gwennie_78, Malinsilva_86, Methuselah_76, Beauxregard13_82, Grif_81, Marie_81, Sabinator_81, EpicPhail_84, JenCasNa_84, Stagni_80, LarryKay_83, Lilith_81, Sabia_81, Farber_83, Wooldri_85, PGHhamlin_85, PotatoSplit_84, MarQuardt_83, Pembroke_83, Phoxy_83, Ollie_83, AugsMagnumOpus_86, Spike509_83, Microwolf_79, SoYo_80, Watson_82, MuchMore_86, MadMarie_81, Hercules11_83, Taurus_84, Croquant_80, Montavir_78, Lowa_80, Snickers_83, Bigflo_80, GingkoMaracino_83, BreSam8_83, Tiffany_82, Colbster_79, Penny1_83, P28Green_83, DaHudson_82, Fernando_84, GtownJaz_83, Rummer_82, Dieselweasel_84, Cullens_84, Phoebe_84, LBerry_84
- Track 7 : Louie6_82, Daishi_82, Bxz2_78, TinyPebbles_82, KADY_80, BuzzBuzz_77
- Track 8 : Gemma_80, Groupthink_83, PhishRPhriends_79, Kalnoky_83, ClownCar_80, Calvinny_80, Reba_78, Pawn_81, Manu_82, Marius_83, HaveUMetTed_83, Heliosoles_80
- Track 9 : Kalb97_83
- Track 10 : OlanP_81
- Track 11 : SoilDragon_83
- Track 12 : JeppNRM_83
- Track 13 : Vix_79, Anubis_87
- Track 14 : Jobu08_79
- Track 15 : PetterN_79, Benedict_75, Naca_74, Airmid_74, Jabiru_73, Scorpia_74
- Track 16 : Dublin_71, Theia_70, Archetta_69, Micasa_71, Bluefalcon_67, MarysWell_71
- Track 17 : EITiger69_77
- Track 18 : Bonamassa_71, HuhtaEnerson15_69
- Track 19 : Zolita_70, Ghoulboy_71, SydNat_71
- Track 20 : Midas2_68, Cuco_70, Coog_68
- Track 21 : Tiger_70, PickleBack_72, Phlorence_70, AgentM_71, ForGetIt_72, Jovo_71, Florence4_69, Conspiracy_72, Discoknowium_69, Lev2_72, Florence1_68, Aragog_71

- Track 22 : Swirley_71
- Track 23 : Prinash11_69, Tarynearal_70, Twigg_70, Milcery_71, LittleCherry_70, George_66
- Track 24 : UnionJack_75, Chadwick_75
- Track 25 : DaVinci_79, McFly_81, Kazan_82, VohminGhazi_81, Candra_79, SuperCallie99_78, SmellyB_81, BABullseye_74, EricB_80, Kipper29_81, Dorothea_81, Chartreuse_80
- Track 26 : Cookiedough_81, DelvinSonDorr_77, Neeharika16_80, Isiphiwo_78, Hoot_76, Newrala_80, Pmask_80, SuperAwesome_81
- Track 27 : Jordennis_79
- Track 28 : Groundhog_84, Astro_86, Dixon_85, Caitlin_84, Expelliarmus_83, Roary_88, Smeadley_86
- Track 29 : Saintus_82, Stephig9_85, Danforth_87
- Track 30 : Phillis_83
- Track 31 : NearlyHeadless_87

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

The start number called the most often in the published annotations is 21, it was called in 75 of the 154 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aglet_84, Anubis_87, AugsMagnumOpus_86, Beauxregard13_82, Bigflo_80, BreSam8_83, BuzzBuzz_77, Bxz2_78, Calvinny_80, ClownCar_80, Colbster_79, Croquant_80, Cullens_84, DaHudson_82, Daishi_82, Dieselweasel_84, EpicPhail_84, Farber_83, Fernando_84, Gemma_80, GingkoMaracino_83, Grif_81, Groupthink_83, Grub_81, Grum1_83, GtownJaz_83, Gwennie_78, HashRod_84, HaveUMetTed_83, Heliosoles_80, Hercules11_83, JHC117_78, JenCasNa_84, JeppNRM_83, Jobu08_79, KADY_80, Kalb97_83, Kalnoky_83, LBerry_84, LarryKay_83, Lilith_81, Louie6_82, Lowa_80, LugYA_86, MadMarie_81, Mainiac_82, Malinsilva_86, Manu_82, MarQuardt_83, Marie_81, Marius_83, Methuselah_76, Microwolf_79, MoneyMay_83, Montavir_78, MuchMore_86, OlanP_81, Ollie_83, P28Green_83, PGHhamlin_85, Pawn_81, Pembroke_83, Penny1_83, PhishRPhriends_79, Phoebe_84, Phoxy_83, PotatoSplit_84, Reba_78, Rummer_82, Sabia_81, Sabinator_81, Snickers_83, SoYo_80, SoilDragon_83, Spike509_83, Stagni_80, Taurus_84, Tiffany_82, TinyPebbles_82, Vix_79, Watson_82, Wooldri_85,

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

-

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

- AgentM_71, Airmid_74, Anselm_80, Aragog_71, Archetta_69, Astro_86, BABullseye_74, Benedict_75, Bluefalcon_67, Bonamassa_71, Caitlin_84, Candra_79, Chadwick_75, Chargerpower_77, Chartreuse_80, Conspiracy_72, Coog_68, Cookiedough_81, Cuco_70, DaVinci_79, Dalmatian_79, Danforth_87, DelvinSonDorr_77, Discoknowium_69, Dixon_85, Dorothea_81, Dublin_71, DudeLittle_77, EagleEye_82, ElTiger69_77, EricB_80, Expelliarmus_83, Fameo_77, Florence1_68, Florence4_69, ForGetIt_72, George_66, Ghoulboy_71, Groundhog_84, Heffalump_76, Hoot_76, HuhtaEnerson15_69, Isiphiwo_78, Jabiru_73, Jordennis_79, Jovo_71, Kazan_82, Kinmap_83, Kipper29_81, Lev2_72,

LittleCherry_70, MarysWell_71, McFly_81, Micasa_71, Midas2_68, Milcery_71, MyraDee_74, Naca_74, NearlyHeadless_87, Neeharika16_80, Newrala_80, PetterN_79, Phillis_83, Phlorence_70, PickleBack_72, Pmask_80, Prinashe11_69, QueenB2_76, Retro23_79, Roary_88, Saintus_82, Scorpia_74, Smeadley_86, SmellyB_81, Stephig9_85, SuperAwesome_81, SuperCallie99_78, Swirley_71, SydNat_71, Tarynearal_70, Theia_70, Tiger_70, Twigg_70, UnionJack_75, VohminGhazi_81, Zolita_70,

Summary by start number:

Start 10:

- Found in 7 of 168 (4.2%) of genes in pham
- Manual Annotations of this start: 7 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anselm_80 (A2), Dalmatian_79 (A2), DudeLittle_77 (A2), Fameo_77 (A2), Heffalump_76 (A2), QueenB2_76 (A2), Retro23_79 (A2),

Start 13:

- Found in 3 of 168 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chargerpower_77 (A22), Kinmap_83 (A21), MyraDee_74 (A18),

Start 14:

- Found in 1 of 168 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EagleEye_82 (A16),

Start 16:

- Found in 3 of 168 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Danforth_87 (A8), Saintus_82 (A8), Stephig9_85 (A8),

Start 18:

- Found in 34 of 168 (20.2%) of genes in pham
- Manual Annotations of this start: 31 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM_71 (A5), Aragog_71 (A5), Archetta_69 (A5), Bluefalcon_67 (A5), Bonamassa_71 (A5), Conspiracy_72 (A5), Coog_68 (A5), Cuco_70 (A5), Discoknowium_69 (A5), Dublin_71 (A5), EITiger69_77 (A5), Florence1_68 (A5), Florence4_69 (A5), ForGetIt_72 (A5), George_66 (A5), Ghouboy_71 (A5), HuhtaEnerson15_69 (A5), Jovo_71 (A5), Lev2_72 (A5), LittleCherry_70 (A5), MarysWell_71 (A5), Micasa_71 (A5), Midas2_68 (A5), Milcery_71 (A5), Phlorence_70 (A5), PickleBack_72 (A5), Prinashe11_69 (A5), Swirley_71 (A5), SydNat_71 (A5), Tarynearal_70 (A5), Theia_70 (A5), Tiger_70 (A5), Twigg_70 (A5), Zolita_70 (A5),

Start 20:

- Found in 9 of 168 (5.4%) of genes in pham
- Manual Annotations of this start: 8 of 154
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Airmid_74 (A5), Benedict_75 (A5), Chadwick_75 (A5), Jabiru_73 (A5), Naca_74 (A5), PetterN_79 (A5), Scorpio_74 (A5), UnionJack_75 (A5),

Start 21:

- Found in 82 of 168 (48.8%) of genes in pham
- Manual Annotations of this start: 75 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aglet_84 (A3), Anubis_87 (A3), AugsMagnumOpus_86 (A3), Beauxregard13_82 (A3), Bigflo_80 (A3), BreSam8_83 (A3), BuzzBuzz_77 (A3), Bxz2_78 (A3), Calvinny_80 (A3), ClownCar_80 (A3), Colbster_79 (A3), Croquant_80 (A3), Cullens_84 (A3), DaHudson_82 (A3), Daishi_82 (A3), Dieselweasel_84 (A3), EpicPhail_84 (A3), Farber_83 (A3), Fernando_84 (A3), Gemma_80 (A3), GingkoMaracino_83 (A3), Grif_81 (A3), Groupthink_83 (A3), Grub_81 (A3), Grum1_83 (A3), GtownJaz_83 (A3), Gwennie_78 (A3), HashRod_84 (A3), HaveUMetTed_83 (A3), Heliosoles_80 (A3), Hercules11_83 (A3), JHC117_78 (A3), JenCasNa_84 (A3), JeppNRM_83 (A3), Jobu08_79 (A3), KADY_80 (A3), Kalb97_83 (A3), Kalnoky_83 (A3), LBerry_84 (A3), LarryKay_83 (A3), Lilith_81 (A3), Louie6_82 (A3), Iowa_80 (A3), LugYA_86 (A3), MadMarie_81 (A3), Mainiac_82 (A3), Malinsilva_86 (A3), Manu_82 (A3), MarQuardt_83 (A3), Marie_81 (A3), Marius_83 (A3), Methuselah_76 (A3), Microwolf_79 (A3), MoneyMay_83 (A3), Montavir_78 (A3), MuchMore_86 (A3), OlanP_81 (A3), Ollie_83 (A3), P28Green_83 (A3), PGHhamlin_85 (A3), Pawn_81 (A3), Pembroke_83 (A3), Penny1_83 (A3), PhishRPhriends_79 (A3), Phoebe_84 (A3), Phoxy_83 (A3), PotatoSplit_84 (A3), Reba_78 (A3), Rummer_82 (A3), Sabia_81 (A3), Sabinator_81 (A3), Snickers_83 (A3), SoYo_80 (A3), SoilDragon_83 (A3), Spike509_83 (A3), Stagni_80 (A3), Taurus_84 (A3), Tiffany_82 (A3), TinyPebbles_82 (A3), Vix_79 (A3), Watson_82 (A3), Wooldri_85 (A3),

Start 23:

- Found in 10 of 168 (6.0%) of genes in pham
- Manual Annotations of this start: 8 of 154
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Astro_86 (A8), Caitlin_84 (A8), Dixon_85 (A8), Expelliarmus_83 (A8), Groundhog_84 (A8), NearlyHeadless_87 (A8), Phillis_83 (A8), Roary_88 (A8), Smeadley_86 (A8),

Start 24:

- Found in 21 of 168 (12.5%) of genes in pham
- Manual Annotations of this start: 19 of 154
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BABullseye_74 (A6), Candra_79 (A6), Chartreuse_80 (A6), Cookiedough_81 (A6), DaVinci_79 (A6), DelvinSonDorr_77 (A6), Dorothea_81 (A6), EricB_80 (A6), Hoot_76 (A6), Isiphiwo_78 (A6), Jordennis_79 (A6), Kazan_82 (A6), Kipper29_81 (A6), McFly_81 (A6), Neeharika16_80 (A6), Newrala_80 (A6), Pmask_80 (A6), SmellyB_81 (A6), SuperAwesome_81 (A6), SuperCallie99_78 (A6), VohminGhazi_81 (A6),

Summary by clusters:

There are 9 clusters represented in this pham: A21, A22, A16, A18, A3, A2, A5, A6, A8,

Info for manual annotations of cluster A16:

- Start number 14 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A18:

- Start number 13 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 10 was manually annotated 7 times for cluster A2.

Info for manual annotations of cluster A22:

- Start number 13 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:

- Start number 21 was manually annotated 75 times for cluster A3.

Info for manual annotations of cluster A5:

- Start number 18 was manually annotated 31 times for cluster A5.
- Start number 20 was manually annotated 8 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 24 was manually annotated 19 times for cluster A6.

Info for manual annotations of cluster A8:

- Start number 16 was manually annotated 3 times for cluster A8.
- Start number 23 was manually annotated 8 times for cluster A8.

Gene Information:

Gene: AgentM_71 Start: 44359, Stop: 44114, Start Num: 18

Candidate Starts for AgentM_71:

(Start: 18 @44359 has 31 MA's), (27, 44323), (31, 44272), (34, 44251), (39, 44215),

Gene: Aglet_84 Start: 46272, Stop: 46042, Start Num: 21

Candidate Starts for Aglet_84:

(12, 46314), (Start: 21 @46272 has 75 MA's), (28, 46263), (29, 46251), (30, 46245), (35, 46179),

Gene: Airmid_74 Start: 45167, Stop: 44925, Start Num: 20

Candidate Starts for Airmid_74:

(Start: 20 @45167 has 8 MA's),

Gene: Anselm_80 Start: 46936, Stop: 46634, Start Num: 10

Candidate Starts for Anselm_80:

(Start: 10 @46936 has 7 MA's), (31, 46846), (41, 46723),

Gene: Anubis_87 Start: 46158, Stop: 45928, Start Num: 21

Candidate Starts for Anubis_87:

(12, 46200), (Start: 21 @46158 has 75 MA's), (29, 46137), (30, 46131), (35, 46065),

Gene: Aragog_71 Start: 44377, Stop: 44132, Start Num: 18

Candidate Starts for Aragog_71:

(Start: 18 @44377 has 31 MA's), (27, 44341), (31, 44290), (34, 44269), (39, 44233),

Gene: Archetta_69 Start: 44318, Stop: 44076, Start Num: 18

Candidate Starts for Archetta_69:

(Start: 18 @44318 has 31 MA's), (27, 44285), (28, 44282), (31, 44234), (34, 44213), (39, 44177), (40, 44153),

Gene: Astro_86 Start: 46880, Stop: 46638, Start Num: 23

Candidate Starts for Astro_86:

(Start: 23 @46880 has 8 MA's), (35, 46769), (36, 46760), (39, 46748),

Gene: AugsMagnumOpus_86 Start: 46260, Stop: 46030, Start Num: 21

Candidate Starts for AugsMagnumOpus_86:

(12, 46302), (Start: 21 @46260 has 75 MA's), (28, 46251), (29, 46239), (30, 46233), (35, 46167),

Gene: BABullseye_74 Start: 43477, Stop: 43256, Start Num: 24

Candidate Starts for BABullseye_74:

(Start: 24 @43477 has 19 MA's), (28, 43465),

Gene: Beauxregard13_82 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for Beauxregard13_82:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: Benedict_75 Start: 44899, Stop: 44657, Start Num: 20

Candidate Starts for Benedict_75:

(Start: 20 @44899 has 8 MA's),

Gene: Bigflo_80 Start: 46271, Stop: 46041, Start Num: 21

Candidate Starts for Bigflo_80:

(12, 46313), (Start: 21 @46271 has 75 MA's), (28, 46262), (29, 46250), (30, 46244), (35, 46178),

Gene: Bluefalcon_67 Start: 44317, Stop: 44075, Start Num: 18

Candidate Starts for Bluefalcon_67:

(Start: 18 @44317 has 31 MA's), (27, 44284), (28, 44281), (31, 44233), (34, 44212), (39, 44176), (40, 44152),

Gene: Bonamassa_71 Start: 44547, Stop: 44302, Start Num: 18

Candidate Starts for Bonamassa_71:

(Start: 18 @44547 has 31 MA's), (26, 44517), (39, 44403),

Gene: BreSam8_83 Start: 46265, Stop: 46035, Start Num: 21

Candidate Starts for BreSam8_83:

(12, 46307), (Start: 21 @46265 has 75 MA's), (28, 46256), (29, 46244), (30, 46238), (35, 46172),

Gene: BuzzBuzz_77 Start: 46300, Stop: 46070, Start Num: 21

Candidate Starts for BuzzBuzz_77:

(12, 46342), (Start: 21 @46300 has 75 MA's), (29, 46279), (30, 46273), (35, 46207), (36, 46198),

Gene: Bxz2_78 Start: 46307, Stop: 46077, Start Num: 21

Candidate Starts for Bxz2_78:

(12, 46349), (Start: 21 @46307 has 75 MA's), (29, 46286), (30, 46280), (35, 46214), (36, 46205),

Gene: Caitlin_84 Start: 46572, Stop: 46330, Start Num: 23

Candidate Starts for Caitlin_84:

(Start: 23 @46572 has 8 MA's), (35, 46461), (36, 46452), (39, 46440),

Gene: Calvinny_80 Start: 46083, Stop: 45853, Start Num: 21

Candidate Starts for Calvinny_80:

(6, 46233), (12, 46125), (15, 46107), (Start: 21 @46083 has 75 MA's), (33, 46014), (35, 45990), (41, 45903),

Gene: Candra_79 Start: 45172, Stop: 44951, Start Num: 24

Candidate Starts for Candra_79:

(Start: 24 @45172 has 19 MA's), (28, 45160),

Gene: Chadwick_75 Start: 44643, Stop: 44401, Start Num: 20

Candidate Starts for Chadwick_75:

(Start: 20 @44643 has 8 MA's), (27, 44610),

Gene: Chargerpower_77 Start: 44887, Stop: 44654, Start Num: 13

Candidate Starts for Chargerpower_77:

(7, 44971), (Start: 13 @44887 has 2 MA's), (30, 44854), (36, 44782), (41, 44704),

Gene: Chartreuse_80 Start: 44483, Stop: 44262, Start Num: 24

Candidate Starts for Chartreuse_80:

(Start: 24 @44483 has 19 MA's), (28, 44471),

Gene: ClownCar_80 Start: 46078, Stop: 45848, Start Num: 21

Candidate Starts for ClownCar_80:

(6, 46228), (12, 46120), (15, 46102), (Start: 21 @46078 has 75 MA's), (33, 46009), (35, 45985), (41, 45898),

Gene: Colbster_79 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for Colbster_79:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: Conspiracy_72 Start: 44599, Stop: 44354, Start Num: 18

Candidate Starts for Conspiracy_72:

(Start: 18 @44599 has 31 MA's), (27, 44563), (31, 44512), (34, 44491), (39, 44455),

Gene: Coog_68 Start: 44365, Stop: 44123, Start Num: 18

Candidate Starts for Coog_68:

(Start: 18 @44365 has 31 MA's), (27, 44332), (28, 44329), (34, 44260), (39, 44224), (40, 44200),

Gene: Cookiedough_81 Start: 45790, Stop: 45569, Start Num: 24

Candidate Starts for Cookiedough_81:

(4, 45994), (8, 45904), (Start: 24 @45790 has 19 MA's), (28, 45778),

Gene: Croquant_80 Start: 46272, Stop: 46042, Start Num: 21

Candidate Starts for Croquant_80:

(12, 46314), (Start: 21 @46272 has 75 MA's), (28, 46263), (29, 46251), (30, 46245), (35, 46179),

Gene: Cuco_70 Start: 44225, Stop: 43983, Start Num: 18

Candidate Starts for Cuco_70:

(Start: 18 @44225 has 31 MA's), (27, 44192), (28, 44189), (34, 44120), (39, 44084), (40, 44060),

Gene: Cullens_84 Start: 46274, Stop: 46044, Start Num: 21

Candidate Starts for Cullens_84:

(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: DaHudson_82 Start: 46264, Stop: 46034, Start Num: 21

Candidate Starts for DaHudson_82:

(12, 46306), (Start: 21 @46264 has 75 MA's), (28, 46255), (29, 46243), (30, 46237), (35, 46171),

Gene: DaVinci_79 Start: 44537, Stop: 44316, Start Num: 24

Candidate Starts for DaVinci_79:

(Start: 24 @44537 has 19 MA's), (28, 44525),

Gene: Daishi_82 Start: 45141, Stop: 44911, Start Num: 21

Candidate Starts for Daishi_82:

(12, 45183), (Start: 21 @45141 has 75 MA's), (29, 45120), (30, 45114), (35, 45048), (36, 45039),

Gene: Dalmatian_79 Start: 46667, Stop: 46365, Start Num: 10

Candidate Starts for Dalmatian_79:

(Start: 10 @46667 has 7 MA's), (31, 46577), (41, 46454),

Gene: Danforth_87 Start: 46987, Stop: 46715, Start Num: 16

Candidate Starts for Danforth_87:

(9, 47047), (Start: 16 @46987 has 3 MA's), (26, 46939), (35, 46846), (36, 46837),

Gene: DelvinSonDorr_77 Start: 45195, Stop: 44974, Start Num: 24

Candidate Starts for DelvinSonDorr_77:

(4, 45399), (8, 45309), (Start: 24 @45195 has 19 MA's), (28, 45183),

Gene: Dieselweasel_84 Start: 46273, Stop: 46043, Start Num: 21

Candidate Starts for Dieselweasel_84:

(12, 46315), (Start: 21 @46273 has 75 MA's), (28, 46264), (29, 46252), (30, 46246), (35, 46180),

Gene: Discoknowium_69 Start: 44116, Stop: 43871, Start Num: 18

Candidate Starts for Discoknowium_69:

(Start: 18 @44116 has 31 MA's), (27, 44080), (31, 44029), (34, 44008), (39, 43972),

Gene: Dixon_85 Start: 46439, Stop: 46197, Start Num: 23

Candidate Starts for Dixon_85:

(Start: 23 @46439 has 8 MA's), (35, 46328), (36, 46319), (39, 46307),

Gene: Dorothea_81 Start: 45783, Stop: 45562, Start Num: 24

Candidate Starts for Dorothea_81:

(Start: 24 @45783 has 19 MA's), (28, 45771),

Gene: Dublin_71 Start: 44497, Stop: 44255, Start Num: 18

Candidate Starts for Dublin_71:

(Start: 18 @44497 has 31 MA's), (27, 44464), (28, 44461), (31, 44413), (34, 44392), (39, 44356), (40, 44332),

Gene: DudeLittle_77 Start: 46433, Stop: 46131, Start Num: 10

Candidate Starts for DudeLittle_77:

(Start: 10 @46433 has 7 MA's), (31, 46343), (41, 46220),

Gene: EagleEye_82 Start: 46572, Stop: 46357, Start Num: 14

Candidate Starts for EagleEye_82:

(6, 46689), (7, 46659), (11, 46584), (Start: 14 @46572 has 1 MA's), (30, 46542), (31, 46512), (32, 46503), (37, 46464), (41, 46389),

Gene: EITiger69_77 Start: 45591, Stop: 45328, Start Num: 18

Candidate Starts for EITiger69_77:

(Start: 18 @45591 has 31 MA's), (Start: 20 @45588 has 8 MA's), (22, 45576), (Start: 23 @45570 has 8 MA's), (26, 45543), (27, 45537), (39, 45429),

Gene: EpicPhail_84 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for EpicPhail_84:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: EricB_80 Start: 45129, Stop: 44908, Start Num: 24

Candidate Starts for EricB_80:

(Start: 24 @45129 has 19 MA's), (28, 45117),

Gene: Expelliarmus_83 Start: 46653, Stop: 46411, Start Num: 23

Candidate Starts for Expelliarmus_83:

(Start: 23 @46653 has 8 MA's), (35, 46542), (36, 46533), (39, 46521),

Gene: Fameo_77 Start: 46475, Stop: 46173, Start Num: 10

Candidate Starts for Fameo_77:

(Start: 10 @46475 has 7 MA's), (31, 46385), (41, 46262),

Gene: Farber_83 Start: 46261, Stop: 46031, Start Num: 21

Candidate Starts for Farber_83:

(12, 46303), (Start: 21 @46261 has 75 MA's), (28, 46252), (29, 46240), (30, 46234), (35, 46168),

Gene: Fernando_84 Start: 46274, Stop: 46044, Start Num: 21

Candidate Starts for Fernando_84:

(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: Florence1_68 Start: 44057, Stop: 43812, Start Num: 18

Candidate Starts for Florence1_68:

(Start: 18 @44057 has 31 MA's), (27, 44021), (31, 43970), (34, 43949), (39, 43913),

Gene: Florence4_69 Start: 44057, Stop: 43812, Start Num: 18

Candidate Starts for Florence4_69:

(Start: 18 @44057 has 31 MA's), (27, 44021), (31, 43970), (34, 43949), (39, 43913),

Gene: ForGetIt_72 Start: 44624, Stop: 44379, Start Num: 18

Candidate Starts for ForGetIt_72:

(Start: 18 @44624 has 31 MA's), (27, 44588), (31, 44537), (34, 44516), (39, 44480),

Gene: Gemma_80 Start: 46081, Stop: 45851, Start Num: 21

Candidate Starts for Gemma_80:

(6, 46231), (12, 46123), (15, 46105), (Start: 21 @46081 has 75 MA's), (33, 46012), (35, 45988), (41, 45901),

Gene: George_66 Start: 44285, Stop: 44040, Start Num: 18
Candidate Starts for George_66:
(Start: 18 @44285 has 31 MA's), (26, 44255), (31, 44198), (39, 44141),

Gene: Ghoulboy_71 Start: 44592, Stop: 44350, Start Num: 18
Candidate Starts for Ghoulboy_71:
(Start: 18 @44592 has 31 MA's), (27, 44559), (28, 44556), (29, 44544), (31, 44508), (34, 44487), (39, 44451), (40, 44427),

Gene: GingkoMaracino_83 Start: 46157, Stop: 45927, Start Num: 21
Candidate Starts for GingkoMaracino_83:
(12, 46199), (Start: 21 @46157 has 75 MA's), (28, 46148), (29, 46136), (30, 46130), (35, 46064),

Gene: Grif_81 Start: 46348, Stop: 46118, Start Num: 21
Candidate Starts for Grif_81:
(12, 46390), (Start: 21 @46348 has 75 MA's), (28, 46339), (29, 46327), (30, 46321), (35, 46255),

Gene: Groundhog_84 Start: 46709, Stop: 46467, Start Num: 23
Candidate Starts for Groundhog_84:
(Start: 23 @46709 has 8 MA's), (35, 46598), (36, 46589), (39, 46577),

Gene: Groupthink_83 Start: 46082, Stop: 45852, Start Num: 21
Candidate Starts for Groupthink_83:
(6, 46232), (12, 46124), (15, 46106), (Start: 21 @46082 has 75 MA's), (33, 46013), (35, 45989), (41, 45902),

Gene: Grub_81 Start: 46264, Stop: 46034, Start Num: 21
Candidate Starts for Grub_81:
(12, 46306), (Start: 21 @46264 has 75 MA's), (28, 46255), (29, 46243), (30, 46237), (35, 46171),

Gene: Grum1_83 Start: 46274, Stop: 46044, Start Num: 21
Candidate Starts for Grum1_83:
(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: GtownJaz_83 Start: 46272, Stop: 46042, Start Num: 21
Candidate Starts for GtownJaz_83:
(12, 46314), (Start: 21 @46272 has 75 MA's), (28, 46263), (29, 46251), (30, 46245), (35, 46179),

Gene: Gwennie_78 Start: 46275, Stop: 46045, Start Num: 21
Candidate Starts for Gwennie_78:
(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: HashRod_84 Start: 46301, Stop: 46071, Start Num: 21
Candidate Starts for HashRod_84:
(12, 46343), (Start: 21 @46301 has 75 MA's), (28, 46292), (29, 46280), (30, 46274), (35, 46208),

Gene: HaveUMetTed_83 Start: 46070, Stop: 45840, Start Num: 21
Candidate Starts for HaveUMetTed_83:
(6, 46220), (12, 46112), (15, 46094), (Start: 21 @46070 has 75 MA's), (33, 46001), (35, 45977), (41, 45890),

Gene: Heffalump_76 Start: 46943, Stop: 46641, Start Num: 10

Candidate Starts for Heffalump_76:

(Start: 10 @46943 has 7 MA's), (31, 46853), (41, 46730),

Gene: Heliosoles_80 Start: 46086, Stop: 45856, Start Num: 21

Candidate Starts for Heliosoles_80:

(6, 46236), (12, 46128), (15, 46110), (Start: 21 @46086 has 75 MA's), (33, 46017), (35, 45993), (41, 45906),

Gene: Hercules11_83 Start: 46283, Stop: 46053, Start Num: 21

Candidate Starts for Hercules11_83:

(12, 46325), (Start: 21 @46283 has 75 MA's), (28, 46274), (29, 46262), (30, 46256), (35, 46190),

Gene: Hoot_76 Start: 42987, Stop: 42766, Start Num: 24

Candidate Starts for Hoot_76:

(4, 43191), (8, 43101), (Start: 24 @42987 has 19 MA's), (28, 42975),

Gene: HuhtaEnerson15_69 Start: 44200, Stop: 43955, Start Num: 18

Candidate Starts for HuhtaEnerson15_69:

(Start: 18 @44200 has 31 MA's), (26, 44170), (39, 44056),

Gene: Isiphiwo_78 Start: 45157, Stop: 44936, Start Num: 24

Candidate Starts for Isiphiwo_78:

(4, 45361), (8, 45271), (Start: 24 @45157 has 19 MA's), (28, 45145),

Gene: JHC117_78 Start: 46269, Stop: 46039, Start Num: 21

Candidate Starts for JHC117_78:

(12, 46311), (Start: 21 @46269 has 75 MA's), (28, 46260), (29, 46248), (30, 46242), (35, 46176),

Gene: Jabiru_73 Start: 44754, Stop: 44512, Start Num: 20

Candidate Starts for Jabiru_73:

(Start: 20 @44754 has 8 MA's),

Gene: JenCasNa_84 Start: 46274, Stop: 46044, Start Num: 21

Candidate Starts for JenCasNa_84:

(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: JeppNRM_83 Start: 46084, Stop: 45854, Start Num: 21

Candidate Starts for JeppNRM_83:

(6, 46234), (12, 46126), (15, 46108), (Start: 21 @46084 has 75 MA's), (28, 46075), (33, 46015), (35, 45991), (41, 45904),

Gene: Jobu08_79 Start: 46098, Stop: 45868, Start Num: 21

Candidate Starts for Jobu08_79:

(3, 46320), (12, 46140), (Start: 21 @46098 has 75 MA's), (28, 46089), (29, 46077), (30, 46071), (35, 46005), (41, 45918),

Gene: Jordennis_79 Start: 45369, Stop: 45148, Start Num: 24

Candidate Starts for Jordennis_79:

(Start: 24 @45369 has 19 MA's), (28, 45357),

Gene: Jovo_71 Start: 44880, Stop: 44635, Start Num: 18

Candidate Starts for Jovo_71:

(Start: 18 @44880 has 31 MA's), (27, 44844), (31, 44793), (34, 44772), (39, 44736),

Gene: KADY_80 Start: 46301, Stop: 46071, Start Num: 21

Candidate Starts for KADY_80:

(12, 46343), (Start: 21 @46301 has 75 MA's), (29, 46280), (30, 46274), (35, 46208), (36, 46199),

Gene: Kalb97_83 Start: 45452, Stop: 45192, Start Num: 21

Candidate Starts for Kalb97_83:

(6, 45602), (12, 45494), (15, 45476), (Start: 21 @45452 has 75 MA's), (28, 45443), (33, 45383), (35, 45359), (41, 45272), (42, 45224),

Gene: Kalnoky_83 Start: 46079, Stop: 45849, Start Num: 21

Candidate Starts for Kalnoky_83:

(6, 46229), (12, 46121), (15, 46103), (Start: 21 @46079 has 75 MA's), (33, 46010), (35, 45986), (41, 45899),

Gene: Kazan_82 Start: 45142, Stop: 44921, Start Num: 24

Candidate Starts for Kazan_82:

(Start: 24 @45142 has 19 MA's), (28, 45130),

Gene: Kinmap_83 Start: 45453, Stop: 45217, Start Num: 13

Candidate Starts for Kinmap_83:

(Start: 13 @45453 has 2 MA's), (30, 45420), (41, 45267),

Gene: Kipper29_81 Start: 45155, Stop: 44934, Start Num: 24

Candidate Starts for Kipper29_81:

(Start: 24 @45155 has 19 MA's), (28, 45143),

Gene: LBerry_84 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for LBerry_84:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: LarryKay_83 Start: 46305, Stop: 46075, Start Num: 21

Candidate Starts for LarryKay_83:

(12, 46347), (Start: 21 @46305 has 75 MA's), (28, 46296), (29, 46284), (30, 46278), (35, 46212),

Gene: Lev2_72 Start: 44512, Stop: 44267, Start Num: 18

Candidate Starts for Lev2_72:

(Start: 18 @44512 has 31 MA's), (27, 44476), (31, 44425), (34, 44404), (39, 44368),

Gene: Lilith_81 Start: 46264, Stop: 46034, Start Num: 21

Candidate Starts for Lilith_81:

(12, 46306), (Start: 21 @46264 has 75 MA's), (28, 46255), (29, 46243), (30, 46237), (35, 46171),

Gene: LittleCherry_70 Start: 44070, Stop: 43825, Start Num: 18

Candidate Starts for LittleCherry_70:

(Start: 18 @44070 has 31 MA's), (26, 44040), (31, 43983), (39, 43926),

Gene: Louie6_82 Start: 46302, Stop: 46072, Start Num: 21

Candidate Starts for Louie6_82:

(12, 46344), (Start: 21 @46302 has 75 MA's), (29, 46281), (30, 46275), (35, 46209), (36, 46200),

Gene: Lowa_80 Start: 46263, Stop: 46033, Start Num: 21

Candidate Starts for Lowa_80:

(12, 46305), (Start: 21 @46263 has 75 MA's), (28, 46254), (29, 46242), (30, 46236), (35, 46170),

Gene: LugYA_86 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for LugYA_86:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: MadMarie_81 Start: 46272, Stop: 46042, Start Num: 21

Candidate Starts for MadMarie_81:

(12, 46314), (Start: 21 @46272 has 75 MA's), (28, 46263), (29, 46251), (30, 46245), (35, 46179),

Gene: Mainiac_82 Start: 46264, Stop: 46034, Start Num: 21

Candidate Starts for Mainiac_82:

(12, 46306), (Start: 21 @46264 has 75 MA's), (28, 46255), (29, 46243), (30, 46237), (35, 46171),

Gene: Malinsilva_86 Start: 46263, Stop: 46033, Start Num: 21

Candidate Starts for Malinsilva_86:

(12, 46305), (Start: 21 @46263 has 75 MA's), (28, 46254), (29, 46242), (30, 46236), (35, 46170),

Gene: Manu_82 Start: 46086, Stop: 45856, Start Num: 21

Candidate Starts for Manu_82:

(6, 46236), (12, 46128), (15, 46110), (Start: 21 @46086 has 75 MA's), (33, 46017), (35, 45993), (41, 45906),

Gene: MarQuardt_83 Start: 46273, Stop: 46043, Start Num: 21

Candidate Starts for MarQuardt_83:

(12, 46315), (Start: 21 @46273 has 75 MA's), (28, 46264), (29, 46252), (30, 46246), (35, 46180),

Gene: Marie_81 Start: 46274, Stop: 46044, Start Num: 21

Candidate Starts for Marie_81:

(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: Marius_83 Start: 46079, Stop: 45849, Start Num: 21

Candidate Starts for Marius_83:

(6, 46229), (12, 46121), (15, 46103), (Start: 21 @46079 has 75 MA's), (33, 46010), (35, 45986), (41, 45899),

Gene: MarysWell_71 Start: 44740, Stop: 44498, Start Num: 18

Candidate Starts for MarysWell_71:

(Start: 18 @44740 has 31 MA's), (27, 44707), (28, 44704), (31, 44656), (34, 44635), (39, 44599), (40, 44575),

Gene: McFly_81 Start: 45491, Stop: 45270, Start Num: 24

Candidate Starts for McFly_81:

(Start: 24 @45491 has 19 MA's), (28, 45479),

Gene: Methuselah_76 Start: 46295, Stop: 46065, Start Num: 21

Candidate Starts for Methuselah_76:

(12, 46337), (Start: 21 @46295 has 75 MA's), (28, 46286), (29, 46274), (30, 46268), (35, 46202),

Gene: Micasa_71 Start: 44462, Stop: 44220, Start Num: 18

Candidate Starts for Micasa_71:

(Start: 18 @44462 has 31 MA's), (27, 44429), (28, 44426), (31, 44378), (34, 44357), (39, 44321), (40, 44297),

Gene: Microwolf_79 Start: 46287, Stop: 46057, Start Num: 21

Candidate Starts for Microwolf_79:

(12, 46329), (Start: 21 @46287 has 75 MA's), (28, 46278), (29, 46266), (30, 46260), (35, 46194),

Gene: Midas2_68 Start: 44365, Stop: 44123, Start Num: 18

Candidate Starts for Midas2_68:

(Start: 18 @44365 has 31 MA's), (27, 44332), (28, 44329), (34, 44260), (39, 44224), (40, 44200),

Gene: Milcery_71 Start: 44253, Stop: 44008, Start Num: 18

Candidate Starts for Milcery_71:

(Start: 18 @44253 has 31 MA's), (26, 44223), (31, 44166), (39, 44109),

Gene: MoneyMay_83 Start: 46274, Stop: 46044, Start Num: 21

Candidate Starts for MoneyMay_83:

(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: Montavir_78 Start: 46271, Stop: 46041, Start Num: 21

Candidate Starts for Montavir_78:

(12, 46313), (Start: 21 @46271 has 75 MA's), (28, 46262), (29, 46250), (30, 46244), (35, 46178),

Gene: MuchMore_86 Start: 46260, Stop: 46030, Start Num: 21

Candidate Starts for MuchMore_86:

(12, 46302), (Start: 21 @46260 has 75 MA's), (28, 46251), (29, 46239), (30, 46233), (35, 46167),

Gene: MyraDee_74 Start: 43043, Stop: 42735, Start Num: 13

Candidate Starts for MyraDee_74:

(1, 43406), (2, 43385), (Start: 13 @43043 has 2 MA's), (17, 43022), (19, 43019), (25, 42980), (30, 42941), (41, 42788),

Gene: Naca_74 Start: 45642, Stop: 45400, Start Num: 20

Candidate Starts for Naca_74:

(Start: 20 @45642 has 8 MA's),

Gene: NearlyHeadless_87 Start: 46723, Stop: 46481, Start Num: 23

Candidate Starts for NearlyHeadless_87:

(Start: 23 @46723 has 8 MA's), (35, 46612), (36, 46603),

Gene: Neeharika16_80 Start: 45241, Stop: 45020, Start Num: 24

Candidate Starts for Neeharika16_80:

(4, 45445), (8, 45355), (Start: 24 @45241 has 19 MA's), (28, 45229),

Gene: Newrala_80 Start: 45577, Stop: 45356, Start Num: 24

Candidate Starts for Newrala_80:

(4, 45781), (8, 45691), (Start: 24 @45577 has 19 MA's), (28, 45565),

Gene: OlanP_81 Start: 46258, Stop: 46028, Start Num: 21

Candidate Starts for OlanP_81:

(5, 46432), (6, 46408), (12, 46300), (15, 46282), (Start: 21 @46258 has 75 MA's), (33, 46189), (35, 46165), (41, 46078),

Gene: Ollie_83 Start: 46142, Stop: 45912, Start Num: 21

Candidate Starts for Ollie_83:

(12, 46184), (Start: 21 @46142 has 75 MA's), (28, 46133), (29, 46121), (30, 46115), (35, 46049),

Gene: P28Green_83 Start: 46277, Stop: 46047, Start Num: 21

Candidate Starts for P28Green_83:

(12, 46319), (Start: 21 @46277 has 75 MA's), (28, 46268), (29, 46256), (30, 46250), (35, 46184),

Gene: PGHhamlin_85 Start: 46263, Stop: 46033, Start Num: 21

Candidate Starts for PGHhamlin_85:

(12, 46305), (Start: 21 @46263 has 75 MA's), (28, 46254), (29, 46242), (30, 46236), (35, 46170),

Gene: Pawn_81 Start: 46086, Stop: 45856, Start Num: 21

Candidate Starts for Pawn_81:

(6, 46236), (12, 46128), (15, 46110), (Start: 21 @46086 has 75 MA's), (33, 46017), (35, 45993), (41, 45906),

Gene: Pembroke_83 Start: 46272, Stop: 46042, Start Num: 21

Candidate Starts for Pembroke_83:

(12, 46314), (Start: 21 @46272 has 75 MA's), (28, 46263), (29, 46251), (30, 46245), (35, 46179),

Gene: Penny1_83 Start: 46275, Stop: 46045, Start Num: 21

Candidate Starts for Penny1_83:

(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: PetterN_79 Start: 45429, Stop: 45187, Start Num: 20

Candidate Starts for PetterN_79:

(Start: 20 @45429 has 8 MA's),

Gene: Phillis_83 Start: 45739, Stop: 45497, Start Num: 23

Candidate Starts for Phillis_83:

(Start: 23 @45739 has 8 MA's), (30, 45694), (35, 45628), (38, 45610),

Gene: PhishRPhriends_79 Start: 45266, Stop: 45036, Start Num: 21

Candidate Starts for PhishRPhriends_79:

(6, 45416), (12, 45308), (15, 45290), (Start: 21 @45266 has 75 MA's), (33, 45197), (35, 45173), (41, 45086),

Gene: Phlorence_70 Start: 44259, Stop: 44014, Start Num: 18

Candidate Starts for Phlorence_70:

(Start: 18 @44259 has 31 MA's), (27, 44223), (31, 44172), (34, 44151), (39, 44115),

Gene: Phoebe_84 Start: 46267, Stop: 46037, Start Num: 21

Candidate Starts for Phoebe_84:

(12, 46309), (Start: 21 @46267 has 75 MA's), (28, 46258), (29, 46246), (30, 46240), (35, 46174),

Gene: Phoxy_83 Start: 46296, Stop: 46066, Start Num: 21

Candidate Starts for Phoxy_83:

(12, 46338), (Start: 21 @46296 has 75 MA's), (28, 46287), (29, 46275), (30, 46269), (35, 46203),

Gene: PickleBack_72 Start: 44434, Stop: 44189, Start Num: 18

Candidate Starts for PickleBack_72:

(Start: 18 @44434 has 31 MA's), (27, 44398), (31, 44347), (34, 44326), (39, 44290),

Gene: Pmask_80 Start: 45778, Stop: 45557, Start Num: 24

Candidate Starts for Pmask_80:
(4, 45982), (8, 45892), (Start: 24 @45778 has 19 MA's), (28, 45766),

Gene: PotatoSplit_84 Start: 46275, Stop: 46045, Start Num: 21
Candidate Starts for PotatoSplit_84:
(12, 46317), (Start: 21 @46275 has 75 MA's), (28, 46266), (29, 46254), (30, 46248), (35, 46182),

Gene: Prin Ashe11_69 Start: 44073, Stop: 43828, Start Num: 18
Candidate Starts for Prin Ashe11_69:
(Start: 18 @44073 has 31 MA's), (26, 44043), (31, 43986), (39, 43929),

Gene: QueenB2_76 Start: 46156, Stop: 45854, Start Num: 10
Candidate Starts for QueenB2_76:
(Start: 10 @46156 has 7 MA's), (31, 46066), (41, 45943),

Gene: Reba_78 Start: 44922, Stop: 44692, Start Num: 21
Candidate Starts for Reba_78:
(6, 45072), (12, 44964), (15, 44946), (Start: 21 @44922 has 75 MA's), (33, 44853), (35, 44829), (41, 44742),

Gene: Retro23_79 Start: 46560, Stop: 46258, Start Num: 10
Candidate Starts for Retro23_79:
(Start: 10 @46560 has 7 MA's), (31, 46470), (41, 46347),

Gene: Roary_88 Start: 46911, Stop: 46669, Start Num: 23
Candidate Starts for Roary_88:
(Start: 23 @46911 has 8 MA's), (35, 46800), (36, 46791), (39, 46779),

Gene: Rummer_82 Start: 46299, Stop: 46069, Start Num: 21
Candidate Starts for Rummer_82:
(12, 46341), (Start: 21 @46299 has 75 MA's), (28, 46290), (29, 46278), (30, 46272), (35, 46206),

Gene: Sabia_81 Start: 46279, Stop: 46049, Start Num: 21
Candidate Starts for Sabia_81:
(12, 46321), (Start: 21 @46279 has 75 MA's), (28, 46270), (29, 46258), (30, 46252), (35, 46186),

Gene: Sabinator_81 Start: 46273, Stop: 46043, Start Num: 21
Candidate Starts for Sabinator_81:
(12, 46315), (Start: 21 @46273 has 75 MA's), (28, 46264), (29, 46252), (30, 46246), (35, 46180),

Gene: Saintus_82 Start: 43589, Stop: 43317, Start Num: 16
Candidate Starts for Saintus_82:
(9, 43649), (Start: 16 @43589 has 3 MA's), (26, 43541), (35, 43448), (36, 43439),

Gene: Scorpio_74 Start: 45000, Stop: 44758, Start Num: 20
Candidate Starts for Scorpio_74:
(Start: 20 @45000 has 8 MA's),

Gene: Smeadley_86 Start: 46775, Stop: 46533, Start Num: 23
Candidate Starts for Smeadley_86:
(Start: 23 @46775 has 8 MA's), (35, 46664), (36, 46655), (39, 46643),

Gene: SmellyB_81 Start: 45136, Stop: 44915, Start Num: 24

Candidate Starts for SmellyB_81:
(Start: 24 @45136 has 19 MA's), (28, 45124),

Gene: Snickers_83 Start: 46244, Stop: 46014, Start Num: 21
Candidate Starts for Snickers_83:
(12, 46286), (Start: 21 @46244 has 75 MA's), (28, 46235), (29, 46223), (30, 46217), (35, 46151),

Gene: SoYo_80 Start: 46187, Stop: 45957, Start Num: 21
Candidate Starts for SoYo_80:
(12, 46229), (Start: 21 @46187 has 75 MA's), (28, 46178), (29, 46166), (30, 46160), (35, 46094),

Gene: SoilDragon_83 Start: 45714, Stop: 45484, Start Num: 21
Candidate Starts for SoilDragon_83:
(12, 45756), (Start: 21 @45714 has 75 MA's), (28, 45705), (29, 45693), (30, 45687), (35, 45621), (41, 45534),

Gene: Spike509_83 Start: 46296, Stop: 46066, Start Num: 21
Candidate Starts for Spike509_83:
(12, 46338), (Start: 21 @46296 has 75 MA's), (28, 46287), (29, 46275), (30, 46269), (35, 46203),

Gene: Stagni_80 Start: 46274, Stop: 46044, Start Num: 21
Candidate Starts for Stagni_80:
(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: Stephig9_85 Start: 46744, Stop: 46472, Start Num: 16
Candidate Starts for Stephig9_85:
(9, 46804), (Start: 16 @46744 has 3 MA's), (26, 46696), (35, 46603), (36, 46594),

Gene: SuperAwesome_81 Start: 45817, Stop: 45596, Start Num: 24
Candidate Starts for SuperAwesome_81:
(4, 46021), (8, 45931), (Start: 24 @45817 has 19 MA's), (28, 45805),

Gene: SuperCallie99_78 Start: 45658, Stop: 45437, Start Num: 24
Candidate Starts for SuperCallie99_78:
(Start: 24 @45658 has 19 MA's), (28, 45646),

Gene: Swirley_71 Start: 44403, Stop: 44158, Start Num: 18
Candidate Starts for Swirley_71:
(Start: 18 @44403 has 31 MA's), (26, 44373), (31, 44316), (34, 44295), (39, 44259),

Gene: SydNat_71 Start: 44601, Stop: 44359, Start Num: 18
Candidate Starts for SydNat_71:
(Start: 18 @44601 has 31 MA's), (27, 44568), (28, 44565), (29, 44553), (31, 44517), (34, 44496), (39, 44460), (40, 44436),

Gene: Tarynearal_70 Start: 44239, Stop: 43994, Start Num: 18
Candidate Starts for Tarynearal_70:
(Start: 18 @44239 has 31 MA's), (26, 44209), (31, 44152), (39, 44095),

Gene: Taurus_84 Start: 46274, Stop: 46044, Start Num: 21
Candidate Starts for Taurus_84:
(12, 46316), (Start: 21 @46274 has 75 MA's), (28, 46265), (29, 46253), (30, 46247), (35, 46181),

Gene: Theia_70 Start: 44724, Stop: 44482, Start Num: 18
Candidate Starts for Theia_70:
(Start: 18 @44724 has 31 MA's), (27, 44691), (28, 44688), (31, 44640), (34, 44619), (39, 44583), (40, 44559),

Gene: Tiffany_82 Start: 46159, Stop: 45929, Start Num: 21
Candidate Starts for Tiffany_82:
(12, 46201), (Start: 21 @46159 has 75 MA's), (28, 46150), (29, 46138), (30, 46132), (35, 46066),

Gene: Tiger_70 Start: 44180, Stop: 43935, Start Num: 18
Candidate Starts for Tiger_70:
(Start: 18 @44180 has 31 MA's), (27, 44144), (31, 44093), (34, 44072), (39, 44036),

Gene: TinyPebbles_82 Start: 46303, Stop: 46073, Start Num: 21
Candidate Starts for TinyPebbles_82:
(12, 46345), (Start: 21 @46303 has 75 MA's), (29, 46282), (30, 46276), (35, 46210), (36, 46201),

Gene: Twigg_70 Start: 44051, Stop: 43806, Start Num: 18
Candidate Starts for Twigg_70:
(Start: 18 @44051 has 31 MA's), (26, 44021), (31, 43964), (39, 43907),

Gene: UnionJack_75 Start: 44664, Stop: 44422, Start Num: 20
Candidate Starts for UnionJack_75:
(Start: 20 @44664 has 8 MA's), (27, 44631),

Gene: Vix_79 Start: 46354, Stop: 46124, Start Num: 21
Candidate Starts for Vix_79:
(12, 46396), (Start: 21 @46354 has 75 MA's), (29, 46333), (30, 46327), (35, 46261),

Gene: VohminGhazi_81 Start: 45137, Stop: 44916, Start Num: 24
Candidate Starts for VohminGhazi_81:
(Start: 24 @45137 has 19 MA's), (28, 45125),

Gene: Watson_82 Start: 46263, Stop: 46033, Start Num: 21
Candidate Starts for Watson_82:
(12, 46305), (Start: 21 @46263 has 75 MA's), (28, 46254), (29, 46242), (30, 46236), (35, 46170),

Gene: Wooldri_85 Start: 46180, Stop: 45950, Start Num: 21
Candidate Starts for Wooldri_85:
(12, 46222), (Start: 21 @46180 has 75 MA's), (28, 46171), (29, 46159), (30, 46153), (35, 46087),

Gene: Zolita_70 Start: 44584, Stop: 44342, Start Num: 18
Candidate Starts for Zolita_70:
(Start: 18 @44584 has 31 MA's), (27, 44551), (28, 44548), (29, 44536), (31, 44500), (34, 44479), (39, 44443), (40, 44419),