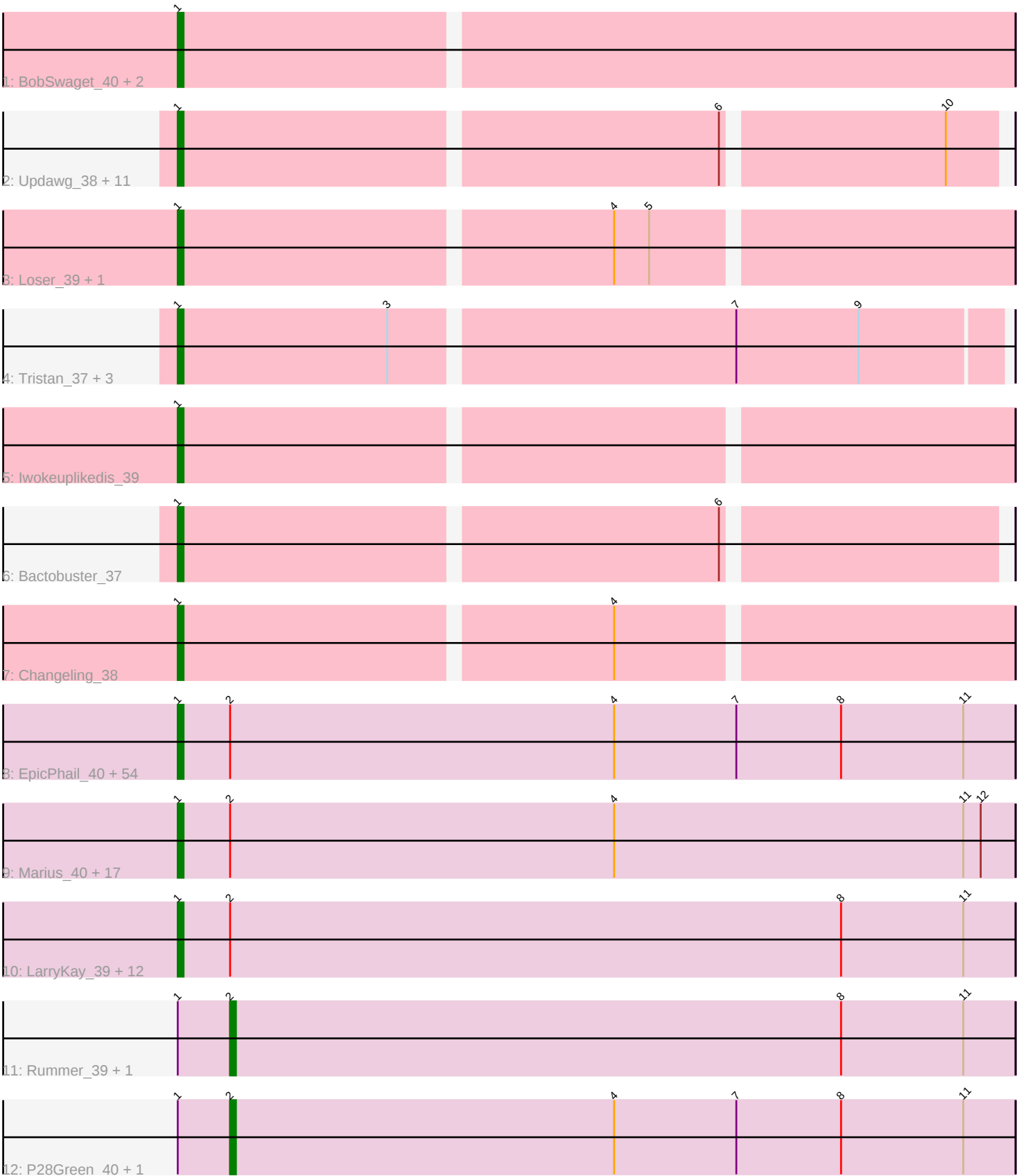


Pham 317338



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 317338 Report

This analysis was run 09/05/26 on database version 662.

Pham number 317338 has 114 members, 6 are drafts.

Phages represented in each track:

- Track 1 : BobSwaget_40, Rachaly_41, Lokk_41
- Track 2 : Updawg_38, Gratitude_37, Terrific_40, Equemioh13_38, Sknot_37, NaSiaTalie_37, Drake55_39, Buggy_39, MicuUcigas_37, Flare16_37, Centaur_38, WideWale_38
- Track 3 : Loser_39, AnnaL29_39
- Track 4 : Tristan_37, Jaan_39, Landor_37, Phaded_40
- Track 5 : Iwokeuplikedis_39
- Track 6 : Bactobuster_37
- Track 7 : Changeling_38
- Track 8 : EpicPhail_40, Vix_40, Snickers_40, Microwolf_40, Taurus_40, Dieselweasel_40, Watson_40, LBerry_40, StepMih_40, MadMarie_40, PGHhamlin_42, Iowa_40, PotatoSplit_41, Montavir_39, MuchMore_42, Croquant_41, Bigflo_40, Farber_40, Malinsilva_42, MarQuardt_40, Tiffany_40, Colbster_40, Anubis_42, DaHudson_40, BreSam8_40, Phoebe_40, Grum1_40, AugsMagnumOpus_42, Jobu08_39, Gwennie_40, Zetzy_39, LugYA_42, JenCasNa_40, GingkoMaracino_40, SoYo_40, Mainiac_40, Grub_40, Wooldri_42, Ollie_40, Pembroke_40, Cullens_40, SoilDragon_39, MoneyMay_40, GtownJaz_40, Beauxregard13_40, Grif_40, Marie_40, Aglet_40, Sabinator_39, Stagni_40, Fernando_40, Sabia_40, Hercules11_40, Lilith_40, Penny1_40
- Track 9 : Marius_40, ClownCar_39, Reba_40, Kalb97_40, Phranny_40, Calvinny_39, ACFishhook_39, Heliosoles_39, PurpleHaze_39, Manu_40, JeppNRM_40, Gemma_39, HaveUMetTed_40, Pawn_39, Groupthink_40, PhishRPhriends_38, Kalnoky_40, OlanP_39
- Track 10 : LarryKay_39, TinyPebbles_39, BuzzBuzz_38, Misomonster_41, KADY_40, Phoxy_39, Spike509_39, Daishi_38, Methuselah_38, Soshari_41, HashRod_40, Louie6_39, AgronaGT15_39
- Track 11 : Rummer_39, Bxz2_37
- Track 12 : P28Green_40, JHC117_40

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

The start number called the most often in the published annotations is 1, it was called in 104 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ACFishhook_39, Aglet_40, AgronaGT15_39, AnnaL29_39, Anubis_42, AugsMagnumOpus_42, Bactobuster_37, Beauxregard13_40, Bigflo_40, BobSwaget_40, BreSam8_40, Bugsy_39, BuzzBuzz_38, Calvinny_39, Centaur_38, Changeling_38, ClownCar_39, Colbster_40, Croquant_41, Cullens_40, DaHudson_40, Daishi_38, Dieselweasel_40, Drake55_39, EpicPhail_40, Equemioh13_38, Farber_40, Fernando_40, Flare16_37, Gemma_39, GingkoMaracino_40, Gratitude_37, Grif_40, Groupthink_40, Grub_40, Grum1_40, GtownJaz_40, Gwennie_40, HashRod_40, HaveUMetTed_40, Heliosoles_39, Hercules11_40, Iwokeuplikedis_39, Jaan_39, JenCasNa_40, JeppNRM_40, Jobu08_39, KADY_40, Kalb97_40, Kalnoky_40, LBerry_40, Landor_37, LarryKay_39, Lilith_40, Lokk_41, Loser_39, Louie6_39, Lowa_40, LugYA_42, MadMarie_40, Mainiac_40, Malinsilva_42, Manu_40, MarQuardt_40, Marie_40, Marius_40, Methuselah_38, Microwolf_40, MiculUcigas_37, Misommonster_41, MoneyMay_40, Montavir_39, MuchMore_42, NaSiaTalie_37, OlanP_39, Ollie_40, PGHhamlin_42, Pawn_39, Pembroke_40, Penny1_40, Phaded_40, PhishRPhriends_38, Phoebe_40, Phoxy_39, Phranny_40, PotatoSplit_41, PurpleHaze_39, Rachaly_41, Reba_40, Sabia_40, Sabinator_39, Sknot_37, Snickers_40, SoYo_40, SoilDragon_39, Soshari_41, Spike509_39, Stagni_40, StepMih_40, Taurus_40, Terrific_40, Tiffany_40, TinyPebbles_39, Tristan_37, Updawg_38, Vix_40, Watson_40, WideWale_38, Wooldri_42, Zetzy_39,

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

- Bxz2_37, JHC117_40, P28Green_40, Rummer_39,

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

-

Summary by start number:

Start 1:

- Found in 114 of 114 (100.0%) of genes in pham
- Manual Annotations of this start: 104 of 108
- Called 96.5% of time when present
- Phage (with cluster) where this start called: ACFishhook_39 (A3), Aglet_40 (A3), AgronaGT15_39 (A3), AnnaL29_39 (A2), Anubis_42 (A3), AugsMagnumOpus_42 (A3), Bactobuster_37 (A2), Beauxregard13_40 (A3), Bigflo_40 (A3), BobSwaget_40 (A2), BreSam8_40 (A3), Bugsy_39 (A2), BuzzBuzz_38 (A3), Calvinny_39 (A3), Centaur_38 (A2), Changeling_38 (A2), ClownCar_39 (A3), Colbster_40 (A3), Croquant_41 (A3), Cullens_40 (A3), DaHudson_40 (A3), Daishi_38 (A3), Dieselweasel_40 (A3), Drake55_39 (A2), EpicPhail_40 (A3), Equemioh13_38 (A2), Farber_40 (A3), Fernando_40 (A3), Flare16_37 (A2), Gemma_39 (A3), GingkoMaracino_40 (A3), Gratitude_37 (A2), Grif_40 (A3), Groupthink_40 (A3), Grub_40 (A3), Grum1_40 (A3), GtownJaz_40 (A3), Gwennie_40 (A3), HashRod_40 (A3), HaveUMetTed_40 (A3), Heliosoles_39 (A3), Hercules11_40 (A3), Iwokeuplikedis_39 (A2), Jaan_39 (A2), JenCasNa_40 (A3), JeppNRM_40 (A3), Jobu08_39 (A3), KADY_40 (A3), Kalb97_40 (A3), Kalnoky_40 (A3), LBerry_40 (A3), Landor_37 (A2), LarryKay_39 (A3), Lilith_40 (A3), Lokk_41 (A2), Loser_39 (A2), Louie6_39 (A3), Lowa_40 (A3), LugYA_42 (A3), MadMarie_40 (A3), Mainiac_40 (A3), Malinsilva_42 (A3), Manu_40 (A3), MarQuardt_40 (A3), Marie_40 (A3), Marius_40 (A3), Methuselah_38 (A3), Microwolf_40 (A3), MiculUcigas_37 (A2), Misommonster_41 (A3), MoneyMay_40 (A3), Montavir_39 (A3), MuchMore_42 (A3), NaSiaTalie_37 (A2), OlanP_39 (A3), Ollie_40 (A3), PGHhamlin_42 (A3), Pawn_39 (A3), Pembroke_40

(A3), Penny1_40 (A3), Phaded_40 (A2), PhishRPhriends_38 (A3), Phoebe_40 (A3), Phoxy_39 (A3), Phranny_40 (A3), PotatoSplit_41 (A3), PurpleHaze_39 (A3), Rachaly_41 (A2), Reba_40 (A3), Sabia_40 (A3), Sabinator_39 (A3), Sknot_37 (A2), Snickers_40 (A3), SoYo_40 (A3), SoilDragon_39 (A3), Soshari_41 (A3), Spike509_39 (A3), Stagni_40 (A3), StepMih_40 (A3), Taurus_40 (A3), Terrific_40 (A2), Tiffany_40 (A3), TinyPebbles_39 (A3), Tristan_37 (A2), Updawg_38 (A2), Vix_40 (A3), Watson_40 (A3), WideWale_38 (A2), Wooldri_42 (A3), Zetzy_39 (A3),

Start 2:

- Found in 90 of 114 (78.9%) of genes in pham
- Manual Annotations of this start: 4 of 108
- Called 4.4% of time when present
- Phage (with cluster) where this start called: Bxz2_37 (A3), JHC117_40 (A3), P28Green_40 (A3), Rummer_39 (A3),

Summary by clusters:

There are 2 clusters represented in this pham: A3, A2,

Info for manual annotations of cluster A2:

- Start number 1 was manually annotated 22 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 1 was manually annotated 82 times for cluster A3.
- Start number 2 was manually annotated 4 times for cluster A3.

Gene Information:

Gene: ACFishhook_39 Start: 28092, Stop: 27949, Start Num: 1

Candidate Starts for ACFishhook_39:

(Start: 1 @28092 has 104 MA's), (Start: 2 @28083 has 4 MA's), (4, 28017), (11, 27957), (12, 27954),

Gene: Aglet_40 Start: 28193, Stop: 28050, Start Num: 1

Candidate Starts for Aglet_40:

(Start: 1 @28193 has 104 MA's), (Start: 2 @28184 has 4 MA's), (4, 28118), (7, 28097), (8, 28079), (11, 28058),

Gene: AgronaGT15_39 Start: 28011, Stop: 27868, Start Num: 1

Candidate Starts for AgronaGT15_39:

(Start: 1 @28011 has 104 MA's), (Start: 2 @28002 has 4 MA's), (8, 27897), (11, 27876),

Gene: AnnaL29_39 Start: 28926, Stop: 28789, Start Num: 1

Candidate Starts for AnnaL29_39:

(Start: 1 @28926 has 104 MA's), (4, 28854), (5, 28848),

Gene: Anubis_42 Start: 28078, Stop: 27935, Start Num: 1

Candidate Starts for Anubis_42:

(Start: 1 @28078 has 104 MA's), (Start: 2 @28069 has 4 MA's), (4, 28003), (7, 27982), (8, 27964), (11, 27943),

Gene: AugsMagnumOpus_42 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for AugsMagnumOpus_42:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Bactobuster_37 Start: 29055, Stop: 28921, Start Num: 1

Candidate Starts for Bactobuster_37:

(Start: 1 @29055 has 104 MA's), (6, 28965),

Gene: Beauxregard13_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for Beauxregard13_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: Bigflo_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Bigflo_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: BobSwaget_40 Start: 28764, Stop: 28624, Start Num: 1

Candidate Starts for BobSwaget_40:

(Start: 1 @28764 has 104 MA's),

Gene: BreSam8_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for BreSam8_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Bugsy_39 Start: 28476, Stop: 28342, Start Num: 1

Candidate Starts for Bugsy_39:

(Start: 1 @28476 has 104 MA's), (6, 28386), (10, 28350),

Gene: BuzzBuzz_38 Start: 28190, Stop: 28047, Start Num: 1

Candidate Starts for BuzzBuzz_38:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (8, 28076), (11, 28055),

Gene: Bxz2_37 Start: 28188, Stop: 28054, Start Num: 2

Candidate Starts for Bxz2_37:

(Start: 1 @28197 has 104 MA's), (Start: 2 @28188 has 4 MA's), (8, 28083), (11, 28062),

Gene: Calvinny_39 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Calvinny_39:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: Centaur_38 Start: 28309, Stop: 28175, Start Num: 1

Candidate Starts for Centaur_38:

(Start: 1 @28309 has 104 MA's), (6, 28219), (10, 28183),

Gene: Changeling_38 Start: 28875, Stop: 28738, Start Num: 1

Candidate Starts for Changeling_38:

(Start: 1 @28875 has 104 MA's), (4, 28803),

Gene: ClownCar_39 Start: 28009, Stop: 27866, Start Num: 1

Candidate Starts for ClownCar_39:

(Start: 1 @28009 has 104 MA's), (Start: 2 @28000 has 4 MA's), (4, 27934), (11, 27874), (12, 27871),

Gene: Colbster_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for Colbster_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: Croquant_41 Start: 28190, Stop: 28047, Start Num: 1

Candidate Starts for Croquant_41:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (4, 28115), (7, 28094), (8, 28076), (11, 28055),

Gene: Cullens_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Cullens_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: DaHudson_40 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for DaHudson_40:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Daishi_38 Start: 27031, Stop: 26888, Start Num: 1

Candidate Starts for Daishi_38:

(Start: 1 @27031 has 104 MA's), (Start: 2 @27022 has 4 MA's), (8, 26917), (11, 26896),

Gene: Dieselweasel_40 Start: 28194, Stop: 28051, Start Num: 1

Candidate Starts for Dieselweasel_40:

(Start: 1 @28194 has 104 MA's), (Start: 2 @28185 has 4 MA's), (4, 28119), (7, 28098), (8, 28080), (11, 28059),

Gene: Drake55_39 Start: 28372, Stop: 28238, Start Num: 1

Candidate Starts for Drake55_39:

(Start: 1 @28372 has 104 MA's), (6, 28282), (10, 28246),

Gene: EpicPhail_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for EpicPhail_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: Equemioh13_38 Start: 28312, Stop: 28178, Start Num: 1

Candidate Starts for Equemioh13_38:

(Start: 1 @28312 has 104 MA's), (6, 28222), (10, 28186),

Gene: Farber_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for Farber_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Fernando_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Fernando_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: Flare16_37 Start: 27984, Stop: 27850, Start Num: 1

Candidate Starts for Flare16_37:

(Start: 1 @27984 has 104 MA's), (6, 27894), (10, 27858),

Gene: Gemma_39 Start: 28013, Stop: 27870, Start Num: 1

Candidate Starts for Gemma_39:

(Start: 1 @28013 has 104 MA's), (Start: 2 @28004 has 4 MA's), (4, 27938), (11, 27878), (12, 27875),

Gene: GingkoMaracino_40 Start: 28078, Stop: 27935, Start Num: 1

Candidate Starts for GingkoMaracino_40:

(Start: 1 @28078 has 104 MA's), (Start: 2 @28069 has 4 MA's), (4, 28003), (7, 27982), (8, 27964), (11, 27943),

Gene: Gratitude_37 Start: 28312, Stop: 28178, Start Num: 1

Candidate Starts for Gratitude_37:

(Start: 1 @28312 has 104 MA's), (6, 28222), (10, 28186),

Gene: Grif_40 Start: 28266, Stop: 28123, Start Num: 1

Candidate Starts for Grif_40:

(Start: 1 @28266 has 104 MA's), (Start: 2 @28257 has 4 MA's), (4, 28191), (7, 28170), (8, 28152), (11, 28131),

Gene: Groupthink_40 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Groupthink_40:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: Grub_40 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for Grub_40:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Grum1_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Grum1_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: GtownJaz_40 Start: 28193, Stop: 28050, Start Num: 1

Candidate Starts for GtownJaz_40:

(Start: 1 @28193 has 104 MA's), (Start: 2 @28184 has 4 MA's), (4, 28118), (7, 28097), (8, 28079), (11, 28058),

Gene: Gwennie_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for Gwennie_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: HashRod_40 Start: 28190, Stop: 28047, Start Num: 1

Candidate Starts for HashRod_40:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (8, 28076), (11, 28055),

Gene: HaveUMetTed_40 Start: 28010, Stop: 27867, Start Num: 1

Candidate Starts for HaveUMetTed_40:

(Start: 1 @28010 has 104 MA's), (Start: 2 @28001 has 4 MA's), (4, 27935), (11, 27875), (12, 27872),

Gene: Heliosoles_39 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Heliosoles_39:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: Hercules11_40 Start: 28200, Stop: 28057, Start Num: 1

Candidate Starts for Hercules11_40:

(Start: 1 @28200 has 104 MA's), (Start: 2 @28191 has 4 MA's), (4, 28125), (7, 28104), (8, 28086), (11, 28065),

Gene: Iwokeuplikedis_39 Start: 27855, Stop: 27718, Start Num: 1

Candidate Starts for Iwokeuplikedis_39:

(Start: 1 @27855 has 104 MA's),

Gene: JHC117_40 Start: 28181, Stop: 28047, Start Num: 2

Candidate Starts for JHC117_40:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (4, 28115), (7, 28094), (8, 28076), (11, 28055),

Gene: Jaan_39 Start: 29536, Stop: 29399, Start Num: 1

Candidate Starts for Jaan_39:

(Start: 1 @29536 has 104 MA's), (3, 29500), (7, 29443), (9, 29422),

Gene: JenCasNa_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for JenCasNa_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: JeppNRM_40 Start: 28015, Stop: 27872, Start Num: 1

Candidate Starts for JeppNRM_40:

(Start: 1 @28015 has 104 MA's), (Start: 2 @28006 has 4 MA's), (4, 27940), (11, 27880), (12, 27877),

Gene: Jobu08_39 Start: 28021, Stop: 27878, Start Num: 1

Candidate Starts for Jobu08_39:

(Start: 1 @28021 has 104 MA's), (Start: 2 @28012 has 4 MA's), (4, 27946), (7, 27925), (8, 27907), (11, 27886),

Gene: KADY_40 Start: 28190, Stop: 28047, Start Num: 1

Candidate Starts for KADY_40:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (8, 28076), (11, 28055),

Gene: Kalb97_40 Start: 28016, Stop: 27873, Start Num: 1

Candidate Starts for Kalb97_40:

(Start: 1 @28016 has 104 MA's), (Start: 2 @28007 has 4 MA's), (4, 27941), (11, 27881), (12, 27878),

Gene: Kalnoky_40 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Kalnoky_40:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: LBerry_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for LBerry_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: Landor_37 Start: 29071, Stop: 28934, Start Num: 1

Candidate Starts for Landor_37:

(Start: 1 @29071 has 104 MA's), (3, 29035), (7, 28978), (9, 28957),

Gene: LarryKay_39 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for LarryKay_39:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (8, 28078), (11, 28057),

Gene: Lilith_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for Lilith_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Lokk_41 Start: 29286, Stop: 29146, Start Num: 1

Candidate Starts for Lokk_41:

(Start: 1 @29286 has 104 MA's),

Gene: Loser_39 Start: 28866, Stop: 28729, Start Num: 1

Candidate Starts for Loser_39:

(Start: 1 @28866 has 104 MA's), (4, 28794), (5, 28788),

Gene: Louie6_39 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Louie6_39:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (8, 28077), (11, 28056),

Gene: Lowa_40 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for Lowa_40:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: LugYA_42 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for LugYA_42:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: MadMarie_40 Start: 28194, Stop: 28051, Start Num: 1

Candidate Starts for MadMarie_40:

(Start: 1 @28194 has 104 MA's), (Start: 2 @28185 has 4 MA's), (4, 28119), (7, 28098), (8, 28080), (11, 28059),

Gene: Mainiac_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for Mainiac_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Malinsilva_42 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for Malinsilva_42:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Manu_40 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Manu_40:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: MarQuardt_40 Start: 28193, Stop: 28050, Start Num: 1

Candidate Starts for MarQuardt_40:

(Start: 1 @28193 has 104 MA's), (Start: 2 @28184 has 4 MA's), (4, 28118), (7, 28097), (8, 28079), (11, 28058),

Gene: Marie_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Marie_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: Marius_40 Start: 28017, Stop: 27874, Start Num: 1

Candidate Starts for Marius_40:

(Start: 1 @28017 has 104 MA's), (Start: 2 @28008 has 4 MA's), (4, 27942), (11, 27882), (12, 27879),

Gene: Methuselah_38 Start: 28186, Stop: 28043, Start Num: 1

Candidate Starts for Methuselah_38:

(Start: 1 @28186 has 104 MA's), (Start: 2 @28177 has 4 MA's), (8, 28072), (11, 28051),

Gene: Microwolf_40 Start: 28193, Stop: 28050, Start Num: 1

Candidate Starts for Microwolf_40:

(Start: 1 @28193 has 104 MA's), (Start: 2 @28184 has 4 MA's), (4, 28118), (7, 28097), (8, 28079), (11, 28058),

Gene: MiculUcigas_37 Start: 27983, Stop: 27849, Start Num: 1

Candidate Starts for MiculUcigas_37:

(Start: 1 @27983 has 104 MA's), (6, 27893), (10, 27857),

Gene: Misomonster_41 Start: 28189, Stop: 28046, Start Num: 1

Candidate Starts for Misomonster_41:

(Start: 1 @28189 has 104 MA's), (Start: 2 @28180 has 4 MA's), (8, 28075), (11, 28054),

Gene: MoneyMay_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for MoneyMay_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: Montavir_39 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for Montavir_39:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: MuchMore_42 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for MuchMore_42:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: NaSiaTalie_37 Start: 27981, Stop: 27847, Start Num: 1

Candidate Starts for NaSiaTalie_37:

(Start: 1 @27981 has 104 MA's), (6, 27891), (10, 27855),

Gene: OlanP_39 Start: 28198, Stop: 28055, Start Num: 1

Candidate Starts for OlanP_39:

(Start: 1 @28198 has 104 MA's), (Start: 2 @28189 has 4 MA's), (4, 28123), (11, 28063), (12, 28060),

Gene: Ollie_40 Start: 28063, Stop: 27920, Start Num: 1

Candidate Starts for Ollie_40:

(Start: 1 @28063 has 104 MA's), (Start: 2 @28054 has 4 MA's), (4, 27988), (7, 27967), (8, 27949), (11, 27928),

Gene: P28Green_40 Start: 28185, Stop: 28051, Start Num: 2

Candidate Starts for P28Green_40:

(Start: 1 @28194 has 104 MA's), (Start: 2 @28185 has 4 MA's), (4, 28119), (7, 28098), (8, 28080), (11, 28059),

Gene: PGHhamlin_42 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for PGHhamlin_42:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Pawn_39 Start: 28018, Stop: 27875, Start Num: 1

Candidate Starts for Pawn_39:

(Start: 1 @28018 has 104 MA's), (Start: 2 @28009 has 4 MA's), (4, 27943), (11, 27883), (12, 27880),

Gene: Pembroke_40 Start: 28193, Stop: 28050, Start Num: 1

Candidate Starts for Pembroke_40:

(Start: 1 @28193 has 104 MA's), (Start: 2 @28184 has 4 MA's), (4, 28118), (7, 28097), (8, 28079), (11, 28058),

Gene: Penny1_40 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for Penny1_40:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: Phaded_40 Start: 29412, Stop: 29275, Start Num: 1

Candidate Starts for Phaded_40:

(Start: 1 @29412 has 104 MA's), (3, 29376), (7, 29319), (9, 29298),

Gene: PhishRPhriends_38 Start: 27195, Stop: 27052, Start Num: 1

Candidate Starts for PhishRPhriends_38:

(Start: 1 @27195 has 104 MA's), (Start: 2 @27186 has 4 MA's), (4, 27120), (11, 27060), (12, 27057),

Gene: Phoebe_40 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for Phoebe_40:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: Phoxy_39 Start: 28187, Stop: 28044, Start Num: 1

Candidate Starts for Phoxy_39:

(Start: 1 @28187 has 104 MA's), (Start: 2 @28178 has 4 MA's), (8, 28073), (11, 28052),

Gene: Phranny_40 Start: 28003, Stop: 27860, Start Num: 1

Candidate Starts for Phranny_40:

(Start: 1 @28003 has 104 MA's), (Start: 2 @27994 has 4 MA's), (4, 27928), (11, 27868), (12, 27865),

Gene: PotatoSplit_41 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for PotatoSplit_41:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (4, 28117), (7, 28096), (8, 28078), (11, 28057),

Gene: PurpleHaze_39 Start: 28016, Stop: 27873, Start Num: 1

Candidate Starts for PurpleHaze_39:

(Start: 1 @28016 has 104 MA's), (Start: 2 @28007 has 4 MA's), (4, 27941), (11, 27881), (12, 27878),

Gene: Rachaly_41 Start: 29360, Stop: 29220, Start Num: 1

Candidate Starts for Rachaly_41:

(Start: 1 @29360 has 104 MA's),

Gene: Reba_40 Start: 27676, Stop: 27533, Start Num: 1

Candidate Starts for Reba_40:

(Start: 1 @27676 has 104 MA's), (Start: 2 @27667 has 4 MA's), (4, 27601), (11, 27541), (12, 27538),

Gene: Rummer_39 Start: 28178, Stop: 28044, Start Num: 2

Candidate Starts for Rummer_39:

(Start: 1 @28187 has 104 MA's), (Start: 2 @28178 has 4 MA's), (8, 28073), (11, 28052),

Gene: Sabia_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for Sabia_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Sabinator_39 Start: 28190, Stop: 28047, Start Num: 1

Candidate Starts for Sabinator_39:

(Start: 1 @28190 has 104 MA's), (Start: 2 @28181 has 4 MA's), (4, 28115), (7, 28094), (8, 28076), (11, 28055),

Gene: Sknot_37 Start: 27984, Stop: 27850, Start Num: 1

Candidate Starts for Sknot_37:

(Start: 1 @27984 has 104 MA's), (6, 27894), (10, 27858),

Gene: Snickers_40 Start: 28165, Stop: 28022, Start Num: 1

Candidate Starts for Snickers_40:

(Start: 1 @28165 has 104 MA's), (Start: 2 @28156 has 4 MA's), (4, 28090), (7, 28069), (8, 28051), (11, 28030),

Gene: SoYo_40 Start: 28103, Stop: 27960, Start Num: 1

Candidate Starts for SoYo_40:

(Start: 1 @28103 has 104 MA's), (Start: 2 @28094 has 4 MA's), (4, 28028), (7, 28007), (8, 27989), (11, 27968),

Gene: SoilDragon_39 Start: 27637, Stop: 27494, Start Num: 1

Candidate Starts for SoilDragon_39:

(Start: 1 @27637 has 104 MA's), (Start: 2 @27628 has 4 MA's), (4, 27562), (7, 27541), (8, 27523), (11, 27502),

Gene: Soshari_41 Start: 28186, Stop: 28043, Start Num: 1

Candidate Starts for Soshari_41:

(Start: 1 @28186 has 104 MA's), (Start: 2 @28177 has 4 MA's), (8, 28072), (11, 28051),

Gene: Spike509_39 Start: 28187, Stop: 28044, Start Num: 1

Candidate Starts for Spike509_39:

(Start: 1 @28187 has 104 MA's), (Start: 2 @28178 has 4 MA's), (8, 28073), (11, 28052),

Gene: Stagni_40 Start: 28194, Stop: 28051, Start Num: 1

Candidate Starts for Stagni_40:

(Start: 1 @28194 has 104 MA's), (Start: 2 @28185 has 4 MA's), (4, 28119), (7, 28098), (8, 28080), (11, 28059),

Gene: StepMih_40 Start: 28185, Stop: 28042, Start Num: 1

Candidate Starts for StepMih_40:

(Start: 1 @28185 has 104 MA's), (Start: 2 @28176 has 4 MA's), (4, 28110), (7, 28089), (8, 28071), (11, 28050),

Gene: Taurus_40 Start: 28191, Stop: 28048, Start Num: 1

Candidate Starts for Taurus_40:

(Start: 1 @28191 has 104 MA's), (Start: 2 @28182 has 4 MA's), (4, 28116), (7, 28095), (8, 28077), (11, 28056),

Gene: Terrific_40 Start: 28324, Stop: 28190, Start Num: 1

Candidate Starts for Terrific_40:

(Start: 1 @28324 has 104 MA's), (6, 28234), (10, 28198),

Gene: Tiffany_40 Start: 28077, Stop: 27934, Start Num: 1

Candidate Starts for Tiffany_40:

(Start: 1 @28077 has 104 MA's), (Start: 2 @28068 has 4 MA's), (4, 28002), (7, 27981), (8, 27963), (11, 27942),

Gene: TinyPebbles_39 Start: 28192, Stop: 28049, Start Num: 1

Candidate Starts for TinyPebbles_39:

(Start: 1 @28192 has 104 MA's), (Start: 2 @28183 has 4 MA's), (8, 28078), (11, 28057),

Gene: Tristan_37 Start: 29207, Stop: 29070, Start Num: 1

Candidate Starts for Tristan_37:

(Start: 1 @29207 has 104 MA's), (3, 29171), (7, 29114), (9, 29093),

Gene: Updawg_38 Start: 28312, Stop: 28178, Start Num: 1

Candidate Starts for Updawg_38:

(Start: 1 @28312 has 104 MA's), (6, 28222), (10, 28186),

Gene: Vix_40 Start: 28274, Stop: 28131, Start Num: 1

Candidate Starts for Vix_40:

(Start: 1 @28274 has 104 MA's), (Start: 2 @28265 has 4 MA's), (4, 28199), (7, 28178), (8, 28160), (11, 28139),

Gene: Watson_40 Start: 28184, Stop: 28041, Start Num: 1

Candidate Starts for Watson_40:

(Start: 1 @28184 has 104 MA's), (Start: 2 @28175 has 4 MA's), (4, 28109), (7, 28088), (8, 28070), (11, 28049),

Gene: WideWale_38 Start: 28312, Stop: 28178, Start Num: 1

Candidate Starts for WideWale_38:

(Start: 1 @28312 has 104 MA's), (6, 28222), (10, 28186),

Gene: Wooldri_42 Start: 28103, Stop: 27960, Start Num: 1

Candidate Starts for Wooldri_42:

(Start: 1 @28103 has 104 MA's), (Start: 2 @28094 has 4 MA's), (4, 28028), (7, 28007), (8, 27989), (11, 27968),

Gene: Zetzy_39 Start: 27755, Stop: 27612, Start Num: 1

Candidate Starts for Zetzy_39:

(Start: 1 @27755 has 104 MA's), (Start: 2 @27746 has 4 MA's), (4, 27680), (7, 27659), (8, 27641), (11, 27620),