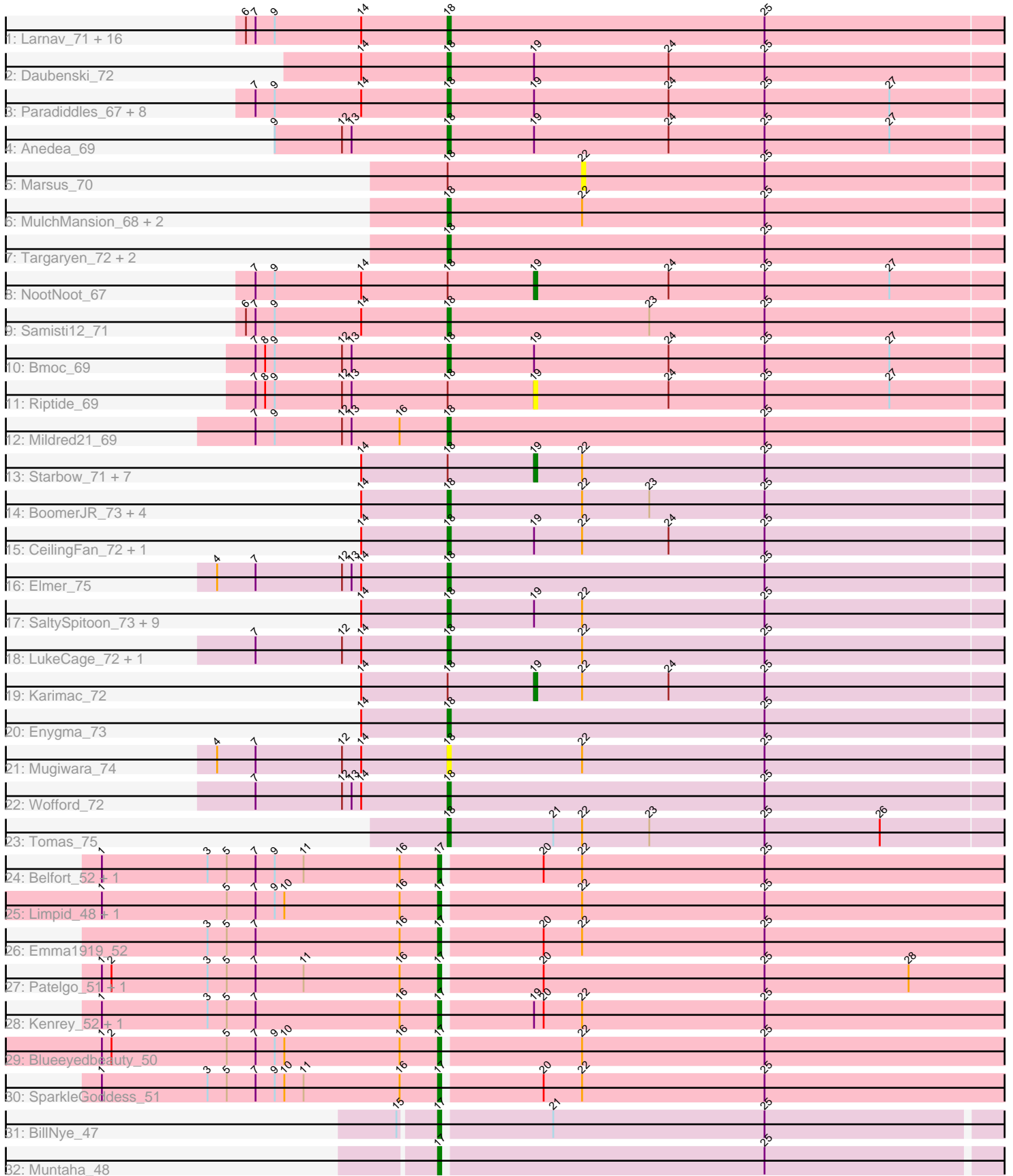


Pham 216076



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 216076 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216076 has 86 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Larnav_71, EGole_72, Cursive_69, HangryHippo_71, Watermoore_71, BlueOtter_71, Tribute_69, PacManQ_70, Leo04_72, Teutsch_71, Scheme_72, Cross_71, Pepperwood_71, Sushi23_71, Lululemon_70, Peebs_70, Shuckle_69
- Track 2 : Daubenski_72
- Track 3 : Paradiddles_67, Braelyn_70, Persimmon_67, Squillium_70, Navo_69, Bartholomune_69, PinkiePie_69, Liandry_70, WhereRU_68
- Track 4 : Anedea_69
- Track 5 : Marsus_70
- Track 6 : MulchMansion_68, LilMartin_68, Angela_68
- Track 7 : Targaryen_72, Evy_72, Warpy_75
- Track 8 : NootNoot_67
- Track 9 : Samisti12_71
- Track 10 : Bmoc_69
- Track 11 : Riptide_69
- Track 12 : Mildred21_69
- Track 13 : Starbow_71, Battuta_71, Quaran19_73, Rikishi_76, Birchlyn_70, Bordeaux_71, Gibbi_77, Amabiko_73
- Track 14 : BoomerJR_73, Stanimal_73, Sollertia_73, Genie2_73, Yaboi_73
- Track 15 : CeilingFan_72, IchabodCrane_70
- Track 16 : Elmer_75
- Track 17 : SaltySpittoon_73, Spelly_73, TomSawyer_71, Spilled_74, JimJam_73, KentuckyRacer_73, PumpkinSpice_72, Jollison_72, MindFlayer_71, Wipeout_71
- Track 18 : LukeCage_72, StarPlatinum_73
- Track 19 : Karimac_72
- Track 20 : Enygma_73
- Track 21 : Mugiwara_74
- Track 22 : Wofford_72
- Track 23 : Tomas_75
- Track 24 : Belfort_52, Comrade_51
- Track 25 : Limpid_48, Annadreamy_48
- Track 26 : Emma1919_52
- Track 27 : Patelgo_51, Moab_51
- Track 28 : Kenrey_52, Phredrick_50
- Track 29 : Blueeyedbeauty_50
- Track 30 : SparkleGoddess_51
- Track 31 : BillNye_47
- Track 32 : Muntaha_48

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

The start number called the most often in the published annotations is 18, it was called in 58 of the 79 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea_69, Angela_68, Bartholomune_69, BlueOtter_71, Bmoc_69, BoomerJR_73, Braelyn_70, CeilingFan_72, Cross_71, Cursive_69, Daubenski_72, EGole_72, Elmer_75, Enygma_73, Evy_72, Genie2_73, HangryHippo_71, IchabodCrane_70, JimJam_73, Jollison_72, KentuckyRacer_73, Larnav_71, Leo04_72, Liandry_70, LilMartin_68, LukeCage_72, Lululemon_70, Mildred21_69, MindFlayer_71, Mugiwara_74, MulchMansion_68, Navo_69, PacManQ_70, Paradiddles_67, Peebs_70, Pepperwood_71, Persimmon_67, PinkiePie_69, PumpkinSpice_72, SaltySpittoon_73, Samisti12_71, Scheme_72, Shuckle_69, Sollertia_73, Spelly_73, Spilled_74, Squillium_70, Stanimal_73, StarPlatinum_73, Sushi23_71, Targaryen_72, Teutsch_71, TomSawyer_71, Tomas_75, Tribute_69, Warpy_75, Watermoore_71, WhereRU_68, Wipeout_71, Wofford_72, Yaboi_73,

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

- Amabiko_73, Battuta_71, Birchlyn_70, Bordeaux_71, Gibbi_77, Karimac_72, Marsus_70, NootNoot_67, Quaran19_73, Rikishi_76, Riptide_69, Starbow_71,

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

- Annadreamy_48, Belfort_52, BillNye_47, Blueeyedbeauty_50, Comrade_51, Emma1919_52, Kenrey_52, Limpid_48, Moab_51, Muntaha_48, Patelgo_51, Phredrick_50, SparkleGoddess_51,

Summary by start number:

Start 17:

- Found in 13 of 86 (15.1%) of genes in pham
- Manual Annotations of this start: 13 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_48 (BK1), Belfort_52 (BK1), BillNye_47 (BK2), Blueeyedbeauty_50 (BK1), Comrade_51 (BK1), Emma1919_52 (BK1), Kenrey_52 (BK1), Limpid_48 (BK1), Moab_51 (BK1), Muntaha_48 (BK2), Patelgo_51 (BK1), Phredrick_50 (BK1), SparkleGoddess_51 (BK1),

Start 18:

- Found in 73 of 86 (84.9%) of genes in pham
- Manual Annotations of this start: 58 of 79
- Called 83.6% of time when present
- Phage (with cluster) where this start called: Anedea_69 (BE1), Angela_68 (BE1), Bartholomune_69 (BE1), BlueOtter_71 (BE1), Bmoc_69 (BE1), BoomerJR_73 (BE2), Braelyn_70 (BE1), CeilingFan_72 (BE2), Cross_71 (BE1), Cursive_69 (BE1), Daubenski_72 (BE1), EGole_72 (BE1), Elmer_75 (BE2), Enygma_73 (BE2), Evy_72 (BE1), Genie2_73 (BE2), HangryHippo_71 (BE1), IchabodCrane_70 (BE2), JimJam_73 (BE2), Jollison_72 (BE2), KentuckyRacer_73 (BE2), Larnav_71 (BE1),

Leo04_72 (BE1), Liandry_70 (BE1), LilMartin_68 (BE1), LukeCage_72 (BE2), Lululemon_70 (BE1), Mildred21_69 (BE1), MindFlayer_71 (BE2), Mugiwara_74 (BE2), MulchMansion_68 (BE1), Navo_69 (BE1), PacManQ_70 (BE1), Paradiddles_67 (BE1), Peebs_70 (BE1), Pepperwood_71 (BE1), Persimmon_67 (BE1), PinkiePie_69 (BE1), PumpkinSpice_72 (BE2), SaltySpittoon_73 (BE2), Samisti12_71 (BE1), Scheme_72 (BE1), Shuckle_69 (BE1), Sollertia_73 (BE2), Spelly_73 (BE2), Spilled_74 (BE2), Squillium_70 (BE1), Stanimal_73 (BE2), StarPlatinum_73 (BE2), Sushi23_71 (BE1), Targaryen_72 (BE1), Teutsch_71 (BE1), TomSawyer_71 (BE2), Tomas_75 (BE2), Tribute_69 (BE1), Warpy_75 (BE1), Watermoore_71 (BE1), WhereRU_68 (BE1), Wipeout_71 (BE2), Wofford_72 (BE2), Yaboi_73 (BE2),

Start 19:

- Found in 37 of 86 (43.0%) of genes in pham
- Manual Annotations of this start: 8 of 79
- Called 29.7% of time when present
- Phage (with cluster) where this start called: Amabiko_73 (BE2), Battuta_71 (BE2), Birchlyn_70 (BE2), Bordeaux_71 (BE2), Gibbi_77 (BE2), Karimac_72 (BE2), NootNoot_67 (BE1), Quaran19_73 (BE2), Rikishi_76 (BE2), Riptide_69 (BE1), Starbow_71 (BE2),

Start 22:

- Found in 43 of 86 (50.0%) of genes in pham
- No Manual Annotations of this start.
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Marsus_70 (BE1),

Summary by clusters:

There are 4 clusters represented in this pham: BE2, BE1, BK1, BK2,

Info for manual annotations of cluster BE1:

- Start number 18 was manually annotated 35 times for cluster BE1.
- Start number 19 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 18 was manually annotated 23 times for cluster BE2.
- Start number 19 was manually annotated 7 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 17 was manually annotated 11 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 17 was manually annotated 2 times for cluster BK2.

Gene Information:

Gene: Amabiko_73 Start: 53394, Stop: 53546, Start Num: 19

Candidate Starts for Amabiko_73:

(14, 53340), (Start: 18 @53367 has 58 MA's), (Start: 19 @53394 has 8 MA's), (22, 53409), (25, 53466),

Gene: Anedea_69 Start: 52939, Stop: 53118, Start Num: 18
Candidate Starts for Anedea_69:
(9, 52885), (12, 52906), (13, 52909), (Start: 18 @52939 has 58 MA's), (Start: 19 @52966 has 8 MA's),
(24, 53008), (25, 53038), (27, 53077),

Gene: Angela_68 Start: 52399, Stop: 52578, Start Num: 18
Candidate Starts for Angela_68:
(Start: 18 @52399 has 58 MA's), (22, 52441), (25, 52498),

Gene: Annadreamy_48 Start: 42410, Stop: 42601, Start Num: 17
Candidate Starts for Annadreamy_48:
(1, 42305), (5, 42344), (7, 42353), (9, 42359), (10, 42362), (16, 42398), (Start: 17 @42410 has 13
MA's), (22, 42452), (25, 42509),

Gene: Bartholomune_69 Start: 52765, Stop: 52944, Start Num: 18
Candidate Starts for Bartholomune_69:
(7, 52705), (9, 52711), (14, 52738), (Start: 18 @52765 has 58 MA's), (Start: 19 @52792 has 8 MA's),
(24, 52834), (25, 52864), (27, 52903),

Gene: Battuta_71 Start: 53368, Stop: 53520, Start Num: 19
Candidate Starts for Battuta_71:
(14, 53314), (Start: 18 @53341 has 58 MA's), (Start: 19 @53368 has 8 MA's), (22, 53383), (25, 53440),

Gene: Belfort_52 Start: 44931, Stop: 45122, Start Num: 17
Candidate Starts for Belfort_52:
(1, 44826), (3, 44859), (5, 44865), (7, 44874), (9, 44880), (11, 44889), (16, 44919), (Start: 17 @44931
has 13 MA's), (20, 44961), (22, 44973), (25, 45030),

Gene: BillNye_47 Start: 46338, Stop: 46523, Start Num: 17
Candidate Starts for BillNye_47:
(15, 46329), (Start: 17 @46338 has 13 MA's), (21, 46371), (25, 46437),

Gene: Birchlyn_70 Start: 51251, Stop: 51403, Start Num: 19
Candidate Starts for Birchlyn_70:
(14, 51197), (Start: 18 @51224 has 58 MA's), (Start: 19 @51251 has 8 MA's), (22, 51266), (25, 51323),

Gene: BlueOtter_71 Start: 54139, Stop: 54318, Start Num: 18
Candidate Starts for BlueOtter_71:
(6, 54076), (7, 54079), (9, 54085), (14, 54112), (Start: 18 @54139 has 58 MA's), (25, 54238),

Gene: Blueeyedbeauty_50 Start: 42922, Stop: 43113, Start Num: 17
Candidate Starts for Blueeyedbeauty_50:
(1, 42817), (2, 42820), (5, 42856), (7, 42865), (9, 42871), (10, 42874), (16, 42910), (Start: 17 @42922
has 13 MA's), (22, 42964), (25, 43021),

Gene: Bmoc_69 Start: 52743, Stop: 52922, Start Num: 18
Candidate Starts for Bmoc_69:
(7, 52683), (8, 52686), (9, 52689), (12, 52710), (13, 52713), (Start: 18 @52743 has 58 MA's), (Start: 19
@52770 has 8 MA's), (24, 52812), (25, 52842), (27, 52881),

Gene: BoomerJR_73 Start: 53219, Stop: 53398, Start Num: 18
Candidate Starts for BoomerJR_73:
(14, 53192), (Start: 18 @53219 has 58 MA's), (22, 53261), (23, 53282), (25, 53318),

Gene: Bordeaux_71 Start: 53523, Stop: 53675, Start Num: 19
Candidate Starts for Bordeaux_71:
(14, 53469), (Start: 18 @53496 has 58 MA's), (Start: 19 @53523 has 8 MA's), (22, 53538), (25, 53595),

Gene: Braelyn_70 Start: 53532, Stop: 53711, Start Num: 18
Candidate Starts for Braelyn_70:
(7, 53472), (9, 53478), (14, 53505), (Start: 18 @53532 has 58 MA's), (Start: 19 @53559 has 8 MA's),
(24, 53601), (25, 53631), (27, 53670),

Gene: CeilingFan_72 Start: 53256, Stop: 53435, Start Num: 18
Candidate Starts for CeilingFan_72:
(14, 53229), (Start: 18 @53256 has 58 MA's), (Start: 19 @53283 has 8 MA's), (22, 53298), (24, 53325),
(25, 53355),

Gene: Comrade_51 Start: 44547, Stop: 44738, Start Num: 17
Candidate Starts for Comrade_51:
(1, 44442), (3, 44475), (5, 44481), (7, 44490), (9, 44496), (11, 44505), (16, 44535), (Start: 17 @44547
has 13 MA's), (20, 44577), (22, 44589), (25, 44646),

Gene: Cross_71 Start: 54140, Stop: 54319, Start Num: 18
Candidate Starts for Cross_71:
(6, 54077), (7, 54080), (9, 54086), (14, 54113), (Start: 18 @54140 has 58 MA's), (25, 54239),

Gene: Cursive_69 Start: 53665, Stop: 53844, Start Num: 18
Candidate Starts for Cursive_69:
(6, 53602), (7, 53605), (9, 53611), (14, 53638), (Start: 18 @53665 has 58 MA's), (25, 53764),

Gene: Daubenski_72 Start: 53913, Stop: 54092, Start Num: 18
Candidate Starts for Daubenski_72:
(14, 53886), (Start: 18 @53913 has 58 MA's), (Start: 19 @53940 has 8 MA's), (24, 53982), (25, 54012),

Gene: EGole_72 Start: 55086, Stop: 55265, Start Num: 18
Candidate Starts for EGole_72:
(6, 55023), (7, 55026), (9, 55032), (14, 55059), (Start: 18 @55086 has 58 MA's), (25, 55185),

Gene: Elmer_75 Start: 54434, Stop: 54613, Start Num: 18
Candidate Starts for Elmer_75:
(4, 54362), (7, 54374), (12, 54401), (13, 54404), (14, 54407), (Start: 18 @54434 has 58 MA's), (25,
54533),

Gene: Emma1919_52 Start: 43344, Stop: 43535, Start Num: 17
Candidate Starts for Emma1919_52:
(3, 43272), (5, 43278), (7, 43287), (16, 43332), (Start: 17 @43344 has 13 MA's), (20, 43374), (22,
43386), (25, 43443),

Gene: Enygma_73 Start: 55159, Stop: 55338, Start Num: 18
Candidate Starts for Enygma_73:
(14, 55132), (Start: 18 @55159 has 58 MA's), (25, 55258),

Gene: Evy_72 Start: 54034, Stop: 54213, Start Num: 18
Candidate Starts for Evy_72:
(Start: 18 @54034 has 58 MA's), (25, 54133),

Gene: Genie2_73 Start: 53333, Stop: 53512, Start Num: 18

Candidate Starts for Genie2_73:

(14, 53306), (Start: 18 @53333 has 58 MA's), (22, 53375), (23, 53396), (25, 53432),

Gene: Gibbi_77 Start: 53506, Stop: 53658, Start Num: 19

Candidate Starts for Gibbi_77:

(14, 53452), (Start: 18 @53479 has 58 MA's), (Start: 19 @53506 has 8 MA's), (22, 53521), (25, 53578),

Gene: HangryHippo_71 Start: 54139, Stop: 54318, Start Num: 18

Candidate Starts for HangryHippo_71:

(6, 54076), (7, 54079), (9, 54085), (14, 54112), (Start: 18 @54139 has 58 MA's), (25, 54238),

Gene: IchabodCrane_70 Start: 53068, Stop: 53247, Start Num: 18

Candidate Starts for IchabodCrane_70:

(14, 53041), (Start: 18 @53068 has 58 MA's), (Start: 19 @53095 has 8 MA's), (22, 53110), (24, 53137), (25, 53167),

Gene: JimJam_73 Start: 53442, Stop: 53621, Start Num: 18

Candidate Starts for JimJam_73:

(14, 53415), (Start: 18 @53442 has 58 MA's), (Start: 19 @53469 has 8 MA's), (22, 53484), (25, 53541),

Gene: Jollison_72 Start: 53324, Stop: 53503, Start Num: 18

Candidate Starts for Jollison_72:

(14, 53297), (Start: 18 @53324 has 58 MA's), (Start: 19 @53351 has 8 MA's), (22, 53366), (25, 53423),

Gene: Karimac_72 Start: 53500, Stop: 53652, Start Num: 19

Candidate Starts for Karimac_72:

(14, 53446), (Start: 18 @53473 has 58 MA's), (Start: 19 @53500 has 8 MA's), (22, 53515), (24, 53542), (25, 53572),

Gene: Kenrey_52 Start: 43492, Stop: 43683, Start Num: 17

Candidate Starts for Kenrey_52:

(1, 43387), (3, 43420), (5, 43426), (7, 43435), (16, 43480), (Start: 17 @43492 has 13 MA's), (Start: 19 @43519 has 8 MA's), (20, 43522), (22, 43534), (25, 43591),

Gene: KentuckyRacer_73 Start: 53257, Stop: 53436, Start Num: 18

Candidate Starts for KentuckyRacer_73:

(14, 53230), (Start: 18 @53257 has 58 MA's), (Start: 19 @53284 has 8 MA's), (22, 53299), (25, 53356),

Gene: Larnav_71 Start: 54124, Stop: 54303, Start Num: 18

Candidate Starts for Larnav_71:

(6, 54061), (7, 54064), (9, 54070), (14, 54097), (Start: 18 @54124 has 58 MA's), (25, 54223),

Gene: Leo04_72 Start: 54639, Stop: 54818, Start Num: 18

Candidate Starts for Leo04_72:

(6, 54576), (7, 54579), (9, 54585), (14, 54612), (Start: 18 @54639 has 58 MA's), (25, 54738),

Gene: Liandry_70 Start: 53514, Stop: 53693, Start Num: 18

Candidate Starts for Liandry_70:

(7, 53454), (9, 53460), (14, 53487), (Start: 18 @53514 has 58 MA's), (Start: 19 @53541 has 8 MA's), (24, 53583), (25, 53613), (27, 53652),

Gene: LilMartin_68 Start: 52347, Stop: 52526, Start Num: 18

Candidate Starts for LilMartin_68:

(Start: 18 @52347 has 58 MA's), (22, 52389), (25, 52446),

Gene: Limpid_48 Start: 42409, Stop: 42600, Start Num: 17

Candidate Starts for Limpid_48:

(1, 42304), (5, 42343), (7, 42352), (9, 42358), (10, 42361), (16, 42397), (Start: 17 @42409 has 13 MA's), (22, 42451), (25, 42508),

Gene: LukeCage_72 Start: 53227, Stop: 53406, Start Num: 18

Candidate Starts for LukeCage_72:

(7, 53167), (12, 53194), (14, 53200), (Start: 18 @53227 has 58 MA's), (22, 53269), (25, 53326),

Gene: Lululemon_70 Start: 53520, Stop: 53699, Start Num: 18

Candidate Starts for Lululemon_70:

(6, 53457), (7, 53460), (9, 53466), (14, 53493), (Start: 18 @53520 has 58 MA's), (25, 53619),

Gene: Marsus_70 Start: 52661, Stop: 52798, Start Num: 22

Candidate Starts for Marsus_70:

(Start: 18 @52619 has 58 MA's), (22, 52661), (25, 52718),

Gene: Mildred21_69 Start: 52544, Stop: 52723, Start Num: 18

Candidate Starts for Mildred21_69:

(7, 52484), (9, 52490), (12, 52511), (13, 52514), (16, 52529), (Start: 18 @52544 has 58 MA's), (25, 52643),

Gene: MindFlayer_71 Start: 52975, Stop: 53154, Start Num: 18

Candidate Starts for MindFlayer_71:

(14, 52948), (Start: 18 @52975 has 58 MA's), (Start: 19 @53002 has 8 MA's), (22, 53017), (25, 53074),

Gene: Moab_51 Start: 44517, Stop: 44708, Start Num: 17

Candidate Starts for Moab_51:

(1, 44412), (2, 44415), (3, 44445), (5, 44451), (7, 44460), (11, 44475), (16, 44505), (Start: 17 @44517 has 13 MA's), (20, 44547), (25, 44616), (28, 44661),

Gene: Mugiwara_74 Start: 53726, Stop: 53905, Start Num: 18

Candidate Starts for Mugiwara_74:

(4, 53654), (7, 53666), (12, 53693), (14, 53699), (Start: 18 @53726 has 58 MA's), (22, 53768), (25, 53825),

Gene: MulchMansion_68 Start: 52347, Stop: 52526, Start Num: 18

Candidate Starts for MulchMansion_68:

(Start: 18 @52347 has 58 MA's), (22, 52389), (25, 52446),

Gene: Muntaha_48 Start: 44734, Stop: 44919, Start Num: 17

Candidate Starts for Muntaha_48:

(Start: 17 @44734 has 13 MA's), (25, 44833),

Gene: Navo_69 Start: 53436, Stop: 53615, Start Num: 18

Candidate Starts for Navo_69:

(7, 53376), (9, 53382), (14, 53409), (Start: 18 @53436 has 58 MA's), (Start: 19 @53463 has 8 MA's), (24, 53505), (25, 53535), (27, 53574),

Gene: NootNoot_67 Start: 52455, Stop: 52607, Start Num: 19

Candidate Starts for NootNoot_67:

(7, 52368), (9, 52374), (14, 52401), (Start: 18 @52428 has 58 MA's), (Start: 19 @52455 has 8 MA's), (24, 52497), (25, 52527), (27, 52566),

Gene: PacManQ_70 Start: 53520, Stop: 53699, Start Num: 18

Candidate Starts for PacManQ_70:

(6, 53457), (7, 53460), (9, 53466), (14, 53493), (Start: 18 @53520 has 58 MA's), (25, 53619),

Gene: Paradiddles_67 Start: 52692, Stop: 52871, Start Num: 18

Candidate Starts for Paradiddles_67:

(7, 52632), (9, 52638), (14, 52665), (Start: 18 @52692 has 58 MA's), (Start: 19 @52719 has 8 MA's), (24, 52761), (25, 52791), (27, 52830),

Gene: Patelgo_51 Start: 44704, Stop: 44895, Start Num: 17

Candidate Starts for Patelgo_51:

(1, 44599), (2, 44602), (3, 44632), (5, 44638), (7, 44647), (11, 44662), (16, 44692), (Start: 17 @44704 has 13 MA's), (20, 44734), (25, 44803), (28, 44848),

Gene: Peebs_70 Start: 53874, Stop: 54053, Start Num: 18

Candidate Starts for Peebs_70:

(6, 53811), (7, 53814), (9, 53820), (14, 53847), (Start: 18 @53874 has 58 MA's), (25, 53973),

Gene: Pepperwood_71 Start: 54007, Stop: 54186, Start Num: 18

Candidate Starts for Pepperwood_71:

(6, 53944), (7, 53947), (9, 53953), (14, 53980), (Start: 18 @54007 has 58 MA's), (25, 54106),

Gene: Persimmon_67 Start: 52361, Stop: 52540, Start Num: 18

Candidate Starts for Persimmon_67:

(7, 52301), (9, 52307), (14, 52334), (Start: 18 @52361 has 58 MA's), (Start: 19 @52388 has 8 MA's), (24, 52430), (25, 52460), (27, 52499),

Gene: Phredrick_50 Start: 42563, Stop: 42754, Start Num: 17

Candidate Starts for Phredrick_50:

(1, 42458), (3, 42491), (5, 42497), (7, 42506), (16, 42551), (Start: 17 @42563 has 13 MA's), (Start: 19 @42590 has 8 MA's), (20, 42593), (22, 42605), (25, 42662),

Gene: PinkiePie_69 Start: 53514, Stop: 53693, Start Num: 18

Candidate Starts for PinkiePie_69:

(7, 53454), (9, 53460), (14, 53487), (Start: 18 @53514 has 58 MA's), (Start: 19 @53541 has 8 MA's), (24, 53583), (25, 53613), (27, 53652),

Gene: PumpkinSpice_72 Start: 53367, Stop: 53546, Start Num: 18

Candidate Starts for PumpkinSpice_72:

(14, 53340), (Start: 18 @53367 has 58 MA's), (Start: 19 @53394 has 8 MA's), (22, 53409), (25, 53466),

Gene: Quaran19_73 Start: 53385, Stop: 53537, Start Num: 19

Candidate Starts for Quaran19_73:

(14, 53331), (Start: 18 @53358 has 58 MA's), (Start: 19 @53385 has 8 MA's), (22, 53400), (25, 53457),

Gene: Rikishi_76 Start: 53300, Stop: 53452, Start Num: 19

Candidate Starts for Rikishi_76:

(14, 53246), (Start: 18 @53273 has 58 MA's), (Start: 19 @53300 has 8 MA's), (22, 53315), (25, 53372),

Gene: Riptide_69 Start: 52188, Stop: 52340, Start Num: 19

Candidate Starts for Riptide_69:

(7, 52101), (8, 52104), (9, 52107), (12, 52128), (13, 52131), (Start: 18 @52161 has 58 MA's), (Start: 19 @52188 has 8 MA's), (24, 52230), (25, 52260), (27, 52299),

Gene: SaltySpittoon_73 Start: 53367, Stop: 53546, Start Num: 18

Candidate Starts for SaltySpittoon_73:

(14, 53340), (Start: 18 @53367 has 58 MA's), (Start: 19 @53394 has 8 MA's), (22, 53409), (25, 53466),

Gene: Samisti12_71 Start: 55317, Stop: 55496, Start Num: 18

Candidate Starts for Samisti12_71:

(6, 55254), (7, 55257), (9, 55263), (14, 55290), (Start: 18 @55317 has 58 MA's), (23, 55380), (25, 55416),

Gene: Scheme_72 Start: 54721, Stop: 54900, Start Num: 18

Candidate Starts for Scheme_72:

(6, 54658), (7, 54661), (9, 54667), (14, 54694), (Start: 18 @54721 has 58 MA's), (25, 54820),

Gene: Shuckle_69 Start: 54331, Stop: 54510, Start Num: 18

Candidate Starts for Shuckle_69:

(6, 54268), (7, 54271), (9, 54277), (14, 54304), (Start: 18 @54331 has 58 MA's), (25, 54430),

Gene: Sollertia_73 Start: 53333, Stop: 53512, Start Num: 18

Candidate Starts for Sollertia_73:

(14, 53306), (Start: 18 @53333 has 58 MA's), (22, 53375), (23, 53396), (25, 53432),

Gene: SparkleGoddess_51 Start: 44548, Stop: 44739, Start Num: 17

Candidate Starts for SparkleGoddess_51:

(1, 44443), (3, 44476), (5, 44482), (7, 44491), (9, 44497), (10, 44500), (11, 44506), (16, 44536), (Start: 17 @44548 has 13 MA's), (20, 44578), (22, 44590), (25, 44647),

Gene: Spelly_73 Start: 53322, Stop: 53501, Start Num: 18

Candidate Starts for Spelly_73:

(14, 53295), (Start: 18 @53322 has 58 MA's), (Start: 19 @53349 has 8 MA's), (22, 53364), (25, 53421),

Gene: Spilled_74 Start: 53439, Stop: 53618, Start Num: 18

Candidate Starts for Spilled_74:

(14, 53412), (Start: 18 @53439 has 58 MA's), (Start: 19 @53466 has 8 MA's), (22, 53481), (25, 53538),

Gene: Squillium_70 Start: 53515, Stop: 53694, Start Num: 18

Candidate Starts for Squillium_70:

(7, 53455), (9, 53461), (14, 53488), (Start: 18 @53515 has 58 MA's), (Start: 19 @53542 has 8 MA's), (24, 53584), (25, 53614), (27, 53653),

Gene: Stanimal_73 Start: 53222, Stop: 53401, Start Num: 18

Candidate Starts for Stanimal_73:

(14, 53195), (Start: 18 @53222 has 58 MA's), (22, 53264), (23, 53285), (25, 53321),

Gene: StarPlatinum_73 Start: 53867, Stop: 54046, Start Num: 18

Candidate Starts for StarPlatinum_73:

(7, 53807), (12, 53834), (14, 53840), (Start: 18 @53867 has 58 MA's), (22, 53909), (25, 53966),

Gene: Starbow_71 Start: 53370, Stop: 53522, Start Num: 19
Candidate Starts for Starbow_71:
(14, 53316), (Start: 18 @53343 has 58 MA's), (Start: 19 @53370 has 8 MA's), (22, 53385), (25, 53442),

Gene: Sushi23_71 Start: 54232, Stop: 54411, Start Num: 18
Candidate Starts for Sushi23_71:
(6, 54169), (7, 54172), (9, 54178), (14, 54205), (Start: 18 @54232 has 58 MA's), (25, 54331),

Gene: Targaryen_72 Start: 54936, Stop: 55115, Start Num: 18
Candidate Starts for Targaryen_72:
(Start: 18 @54936 has 58 MA's), (25, 55035),

Gene: Teutsch_71 Start: 54495, Stop: 54674, Start Num: 18
Candidate Starts for Teutsch_71:
(6, 54432), (7, 54435), (9, 54441), (14, 54468), (Start: 18 @54495 has 58 MA's), (25, 54594),

Gene: TomSawyer_71 Start: 52961, Stop: 53140, Start Num: 18
Candidate Starts for TomSawyer_71:
(14, 52934), (Start: 18 @52961 has 58 MA's), (Start: 19 @52988 has 8 MA's), (22, 53003), (25, 53060),

Gene: Tomas_75 Start: 55682, Stop: 55861, Start Num: 18
Candidate Starts for Tomas_75:
(Start: 18 @55682 has 58 MA's), (21, 55715), (22, 55724), (23, 55745), (25, 55781), (26, 55817),

Gene: Tribute_69 Start: 53701, Stop: 53880, Start Num: 18
Candidate Starts for Tribute_69:
(6, 53638), (7, 53641), (9, 53647), (14, 53674), (Start: 18 @53701 has 58 MA's), (25, 53800),

Gene: Warpy_75 Start: 54400, Stop: 54579, Start Num: 18
Candidate Starts for Warpy_75:
(Start: 18 @54400 has 58 MA's), (25, 54499),

Gene: Watermoore_71 Start: 54711, Stop: 54890, Start Num: 18
Candidate Starts for Watermoore_71:
(6, 54648), (7, 54651), (9, 54657), (14, 54684), (Start: 18 @54711 has 58 MA's), (25, 54810),

Gene: WhereRU_68 Start: 52952, Stop: 53131, Start Num: 18
Candidate Starts for WhereRU_68:
(7, 52892), (9, 52898), (14, 52925), (Start: 18 @52952 has 58 MA's), (Start: 19 @52979 has 8 MA's),
(24, 53021), (25, 53051), (27, 53090),

Gene: Wipeout_71 Start: 53712, Stop: 53891, Start Num: 18
Candidate Starts for Wipeout_71:
(14, 53685), (Start: 18 @53712 has 58 MA's), (Start: 19 @53739 has 8 MA's), (22, 53754), (25, 53811),

Gene: Wofford_72 Start: 54397, Stop: 54576, Start Num: 18
Candidate Starts for Wofford_72:
(7, 54337), (12, 54364), (13, 54367), (14, 54370), (Start: 18 @54397 has 58 MA's), (25, 54496),

Gene: Yaboi_73 Start: 53310, Stop: 53489, Start Num: 18
Candidate Starts for Yaboi_73:
(14, 53283), (Start: 18 @53310 has 58 MA's), (22, 53352), (23, 53373), (25, 53409),