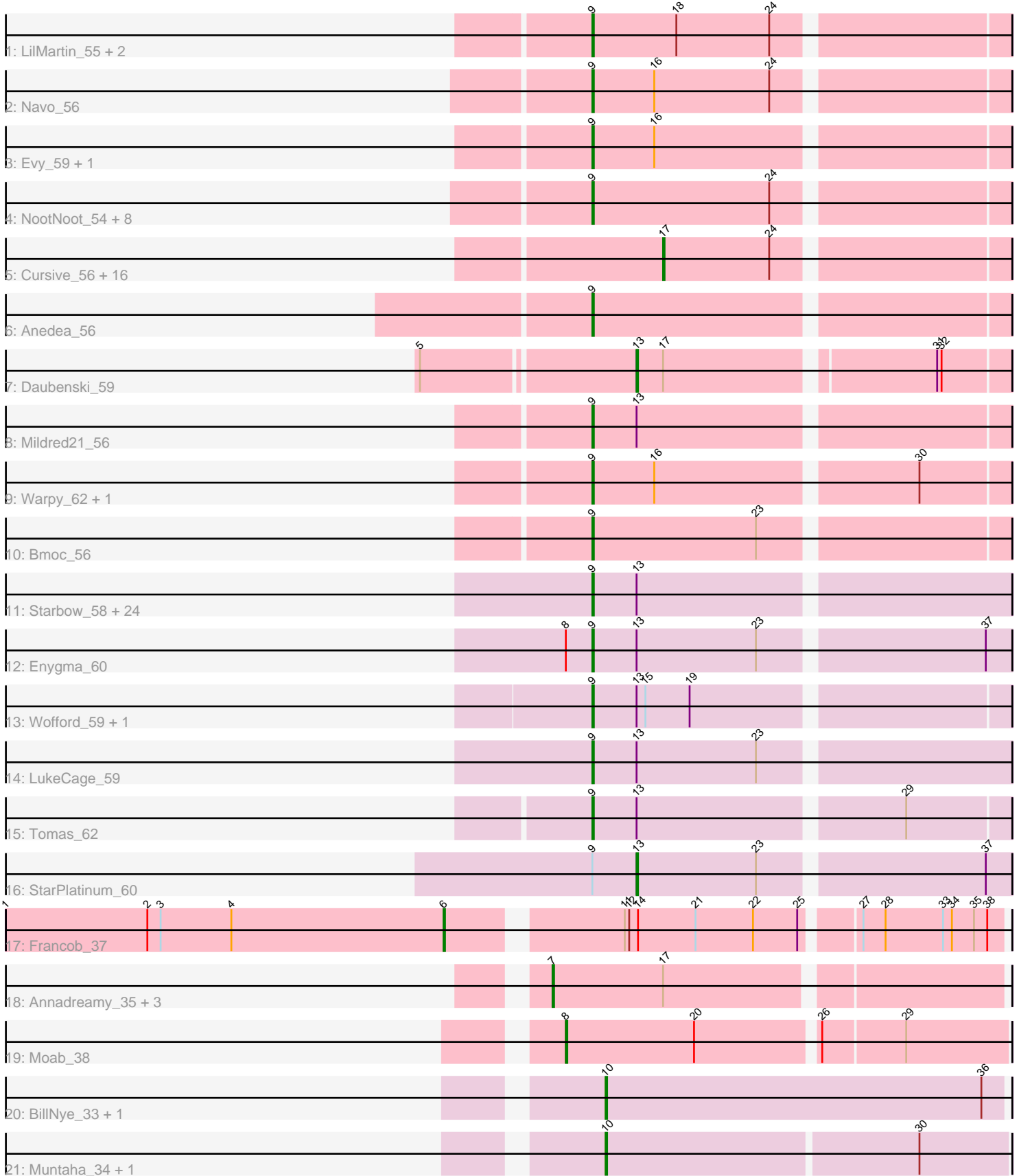


Pham 195557



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 195557 Report

This analysis was run 12/09/24 on database version 580.

Pham number 195557 has 79 members, 4 are drafts.

Phages represented in each track:

- Track 1 : LilMartin_55, Angela_55, MulchMansion_55
- Track 2 : Navo_56
- Track 3 : Evy_59, Targaryen_59
- Track 4 : NootNoot_54, Liandry_57, Bartholomune_56, Braelyn_57, Paradiddles_54, Persimmon_54, WhereRU_55, PinkiePie_56, Squillum_57
- Track 5 : Cursive_56, Larnav_58, Sushi23_58, EGole_59, Leo04_59, Teutsch_58, Tribute_56, Cross_58, Scheme_59, BlueOtter_58, HangryHippo_58, Peebs_57, PacManQ_57, Watermoore_58, Lululemon_57, Pepperwood_58, Samisti12_58
- Track 6 : Anedea_56
- Track 7 : Daubenski_59
- Track 8 : Mildred21_56
- Track 9 : Warpy_62, Jay2Jay_63
- Track 10 : Bmoc_56
- Track 11 : Starbow_58, Bordeaux_58, Sollertia_60, MindFlayer_58, Stanimal_60, Battuta_58, BoomerJR_60, TomSawyer_58, Mugiwara_61, Spelly_60, Quarant19_60, Birchlyn_57, Karimac_59, KentuckyRacer_60, Gibbi_64, CeilingFan_62, Genie2_60, SaltySpitoon_60, Amabiko_60, Jollison_59, JimJam_60, PumpkinSpice_59, IchabodCrane_57, Wipeout_58, Spilled_61
- Track 12 : Enygma_60
- Track 13 : Wofford_59, Elmer_62
- Track 14 : LukeCage_59
- Track 15 : Tomas_62
- Track 16 : StarPlatinum_60
- Track 17 : Francob_37
- Track 18 : Annadreamy_35, Beuffert_36, Blueeyedbeauty_37, Limpid_35
- Track 19 : Moab_38
- Track 20 : BillNye_33, Circinus_35
- Track 21 : Muntaha_34, Wakanda_34

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

The start number called the most often in the published annotations is 9, it was called in 47 of the 75 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_60, Anedea_56, Angela_55, Bartholomune_56, Battuta_58, Birchlyn_57, Bmoc_56, BoomerJR_60, Bordeaux_58, Braelyn_57, CeilingFan_62, Elmer_62, Enygma_60, Evy_59, Genie2_60, Gibbi_64, IchabodCrane_57, Jay2Jay_63, JimJam_60, Jollison_59, Karimac_59, KentuckyRacer_60, Liandry_57, LilMartin_55, LukeCage_59, Mildred21_56, MindFlayer_58, Mugiwara_61, MulchMansion_55, Navo_56, NootNoot_54, Paradiddles_54, Persimmon_54, PinkiePie_56, PumpkinSpice_59, Quarant19_60, SaltySpittoon_60, Sollertia_60, Spelly_60, Spilled_61, Squillium_57, Stanimal_60, Starbow_58, Targaryen_59, TomSawyer_58, Tomas_62, Warpy_62, WhereRU_55, Wipeout_58, Wofford_59,

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

- StarPlatinum_60,

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

- Annadreamy_35, Beuffert_36, BillNye_33, BlueOtter_58, Blueeyedbeauty_37, Circinus_35, Cross_58, Cursive_56, Daubenski_59, EGole_59, Francob_37, HangryHippo_58, Larnav_58, Leo04_59, Limpid_35, Lululemon_57, Moab_38, Muntaha_34, PacManQ_57, Peebs_57, Pepperwood_58, Samisti12_58, Scheme_59, Sushi23_58, Teutsch_58, Tribute_56, Wakanda_34, Watermoore_58,

Summary by start number:

Start 6:

- Found in 1 of 79 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Francob_37 (BK1),

Start 7:

- Found in 4 of 79 (5.1%) of genes in pham
- Manual Annotations of this start: 4 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_35 (BK1), Beuffert_36 (BK1), Blueeyedbeauty_37 (BK1), Limpid_35 (BK1),

Start 8:

- Found in 2 of 79 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 75
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Moab_38 (BK1),

Start 9:

- Found in 51 of 79 (64.6%) of genes in pham
- Manual Annotations of this start: 47 of 75
- Called 98.0% of time when present
- Phage (with cluster) where this start called: Amabiko_60 (BE2), Anedea_56 (BE1), Angela_55 (BE1), Bartholomune_56 (BE1), Battuta_58 (BE2), Birchlyn_57 (BE2), Bmoc_56 (BE1), BoomerJR_60 (BE2), Bordeaux_58 (BE2), Braelyn_57 (BE1), CeilingFan_62 (BE2), Elmer_62 (BE2), Enygma_60 (BE2), Evy_59 (BE1), Genie2_60 (BE2), Gibbi_64 (BE2), IchabodCrane_57 (BE2), Jay2Jay_63 (BE1), JimJam_60 (BE2), Jollison_59 (BE2), Karimac_59 (BE2), KentuckyRacer_60 (BE2), Liandry_57 (BE1), LilMartin_55 (BE1), LukeCage_59 (BE2), Mildred21_56 (BE1), MindFlayer_58

(BE2), Mugiwara_61 (BE2), MulchMansion_55 (BE1), Navo_56 (BE1), NootNoot_54 (BE1), Paradiddles_54 (BE1), Persimmon_54 (BE1), PinkiePie_56 (BE1), PumpkinSpice_59 (BE2), Quarant19_60 (BE2), SaltySpittoon_60 (BE2), Sollertia_60 (BE2), Spelly_60 (BE2), Spilled_61 (BE2), Squillium_57 (BE1), Stanimal_60 (BE2), Starbow_58 (BE2), Targaryen_59 (BE1), TomSawyer_58 (BE2), Tomas_62 (BE2), Warpy_62 (BE1), WhereRU_55 (BE1), Wipeout_58 (BE2), Wofford_59 (BE2),

Start 10:

- Found in 4 of 79 (5.1%) of genes in pham
- Manual Annotations of this start: 4 of 75
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye_33 (BK2), Circinus_35 (BK2), Muntaha_34 (BK2), Wakanda_34 (BK2),

Start 13:

- Found in 33 of 79 (41.8%) of genes in pham
- Manual Annotations of this start: 2 of 75
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Daubenski_59 (BE1), StarPlatinum_60 (BE2),

Start 17:

- Found in 22 of 79 (27.8%) of genes in pham
- Manual Annotations of this start: 16 of 75
- Called 77.3% of time when present
- Phage (with cluster) where this start called: BlueOtter_58 (BE1), Cross_58 (BE1), Cursive_56 (BE1), EGole_59 (BE1), HangryHippo_58 (BE1), Larnav_58 (BE1), Leo04_59 (BE1), Lululemon_57 (BE1), PacManQ_57 (BE1), Peebs_57 (BE1), Pepperwood_58 (BE1), Samisti12_58 (BE1), Scheme_59 (BE1), Sushi23_58 (BE1), Teutsch_58 (BE1), Tribute_56 (BE1), Watermoore_58 (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 9 was manually annotated 20 times for cluster BE1.
- Start number 13 was manually annotated 1 time for cluster BE1.
- Start number 17 was manually annotated 16 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 9 was manually annotated 27 times for cluster BE2.
- Start number 13 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 6 was manually annotated 1 time for cluster BK1.
- Start number 7 was manually annotated 4 times for cluster BK1.
- Start number 8 was manually annotated 1 time for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 10 was manually annotated 4 times for cluster BK2.

Gene Information:

Gene: Amabiko_60 Start: 33431, Stop: 33703, Start Num: 9

Candidate Starts for Amabiko_60:

(Start: 9 @33431 has 47 MA's), (Start: 13 @33461 has 2 MA's),

Gene: Anedea_56 Start: 32945, Stop: 33214, Start Num: 9

Candidate Starts for Anedea_56:

(Start: 9 @32945 has 47 MA's),

Gene: Angela_55 Start: 32418, Stop: 32687, Start Num: 9

Candidate Starts for Angela_55:

(Start: 9 @32418 has 47 MA's), (18, 32475), (24, 32538),

Gene: Annadreamy_35 Start: 22062, Stop: 22352, Start Num: 7

Candidate Starts for Annadreamy_35:

(Start: 7 @22062 has 4 MA's), (Start: 17 @22137 has 16 MA's),

Gene: Bartholomune_56 Start: 32734, Stop: 33003, Start Num: 9

Candidate Starts for Bartholomune_56:

(Start: 9 @32734 has 47 MA's), (24, 32854),

Gene: Battuta_58 Start: 33405, Stop: 33677, Start Num: 9

Candidate Starts for Battuta_58:

(Start: 9 @33405 has 47 MA's), (Start: 13 @33435 has 2 MA's),

Gene: Beuffert_36 Start: 23157, Stop: 23447, Start Num: 7

Candidate Starts for Beuffert_36:

(Start: 7 @23157 has 4 MA's), (Start: 17 @23232 has 16 MA's),

Gene: BillNye_33 Start: 25474, Stop: 25743, Start Num: 10

Candidate Starts for BillNye_33:

(Start: 10 @25474 has 4 MA's), (36, 25729),

Gene: Birchlyn_57 Start: 31288, Stop: 31560, Start Num: 9

Candidate Starts for Birchlyn_57:

(Start: 9 @31288 has 47 MA's), (Start: 13 @31318 has 2 MA's),

Gene: BlueOtter_58 Start: 34147, Stop: 34368, Start Num: 17

Candidate Starts for BlueOtter_58:

(Start: 17 @34147 has 16 MA's), (24, 34219),

Gene: Blueeyedbeauty_37 Start: 22553, Stop: 22843, Start Num: 7

Candidate Starts for Blueeyedbeauty_37:

(Start: 7 @22553 has 4 MA's), (Start: 17 @22628 has 16 MA's),

Gene: Bmoc_56 Start: 32730, Stop: 32999, Start Num: 9

Candidate Starts for Bmoc_56:

(Start: 9 @32730 has 47 MA's), (23, 32841),

Gene: BoomerJR_60 Start: 33305, Stop: 33574, Start Num: 9

Candidate Starts for BoomerJR_60:

(Start: 9 @33305 has 47 MA's), (Start: 13 @33335 has 2 MA's),

Gene: Bordeaux_58 Start: 33560, Stop: 33832, Start Num: 9
Candidate Starts for Bordeaux_58:
(Start: 9 @33560 has 47 MA's), (Start: 13 @33590 has 2 MA's),

Gene: Braelyn_57 Start: 33501, Stop: 33770, Start Num: 9
Candidate Starts for Braelyn_57:
(Start: 9 @33501 has 47 MA's), (24, 33621),

Gene: CeilingFan_62 Start: 33320, Stop: 33592, Start Num: 9
Candidate Starts for CeilingFan_62:
(Start: 9 @33320 has 47 MA's), (Start: 13 @33350 has 2 MA's),

Gene: Circinus_35 Start: 25610, Stop: 25879, Start Num: 10
Candidate Starts for Circinus_35:
(Start: 10 @25610 has 4 MA's), (36, 25865),

Gene: Cross_58 Start: 34148, Stop: 34369, Start Num: 17
Candidate Starts for Cross_58:
(Start: 17 @34148 has 16 MA's), (24, 34220),

Gene: Cursive_56 Start: 33673, Stop: 33894, Start Num: 17
Candidate Starts for Cursive_56:
(Start: 17 @33673 has 16 MA's), (24, 33745),

Gene: Daubenski_59 Start: 33871, Stop: 34107, Start Num: 13
Candidate Starts for Daubenski_59:
(5, 33733), (Start: 13 @33871 has 2 MA's), (Start: 17 @33889 has 16 MA's), (31, 34060), (32, 34063),

Gene: EGole_59 Start: 35103, Stop: 35324, Start Num: 17
Candidate Starts for EGole_59:
(Start: 17 @35103 has 16 MA's), (24, 35175),

Gene: Elmer_62 Start: 34490, Stop: 34759, Start Num: 9
Candidate Starts for Elmer_62:
(Start: 9 @34490 has 47 MA's), (Start: 13 @34520 has 2 MA's), (15, 34526), (19, 34556),

Gene: Enygma_60 Start: 35238, Stop: 35510, Start Num: 9
Candidate Starts for Enygma_60:
(Start: 8 @35220 has 1 MA's), (Start: 9 @35238 has 47 MA's), (Start: 13 @35268 has 2 MA's), (23, 35349), (37, 35493),

Gene: Evy_59 Start: 34100, Stop: 34369, Start Num: 9
Candidate Starts for Evy_59:
(Start: 9 @34100 has 47 MA's), (16, 34142),

Gene: Francob_37 Start: 23047, Stop: 23396, Start Num: 6
Candidate Starts for Francob_37:
(1, 22750), (2, 22846), (3, 22855), (4, 22903), (Start: 6 @23047 has 1 MA's), (11, 23152), (12, 23155),
(14, 23161), (21, 23200), (22, 23239), (25, 23269), (27, 23302), (28, 23317), (33, 23356), (34, 23362),
(35, 23377), (38, 23386),

Gene: Genie2_60 Start: 33419, Stop: 33688, Start Num: 9

Candidate Starts for Genie2_60:
(Start: 9 @33419 has 47 MA's), (Start: 13 @33449 has 2 MA's),

Gene: Gibbi_64 Start: 33543, Stop: 33815, Start Num: 9
Candidate Starts for Gibbi_64:
(Start: 9 @33543 has 47 MA's), (Start: 13 @33573 has 2 MA's),

Gene: HangryHippo_58 Start: 34147, Stop: 34368, Start Num: 17
Candidate Starts for HangryHippo_58:
(Start: 17 @34147 has 16 MA's), (24, 34219),

Gene: IchabodCrane_57 Start: 33132, Stop: 33404, Start Num: 9
Candidate Starts for IchabodCrane_57:
(Start: 9 @33132 has 47 MA's), (Start: 13 @33162 has 2 MA's),

Gene: Jay2Jay_63 Start: 34953, Stop: 35222, Start Num: 9
Candidate Starts for Jay2Jay_63:
(Start: 9 @34953 has 47 MA's), (16, 34995), (30, 35163),

Gene: JimJam_60 Start: 33506, Stop: 33778, Start Num: 9
Candidate Starts for JimJam_60:
(Start: 9 @33506 has 47 MA's), (Start: 13 @33536 has 2 MA's),

Gene: Jollison_59 Start: 33388, Stop: 33660, Start Num: 9
Candidate Starts for Jollison_59:
(Start: 9 @33388 has 47 MA's), (Start: 13 @33418 has 2 MA's),

Gene: Karimac_59 Start: 33537, Stop: 33809, Start Num: 9
Candidate Starts for Karimac_59:
(Start: 9 @33537 has 47 MA's), (Start: 13 @33567 has 2 MA's),

Gene: KentuckyRacer_60 Start: 33321, Stop: 33593, Start Num: 9
Candidate Starts for KentuckyRacer_60:
(Start: 9 @33321 has 47 MA's), (Start: 13 @33351 has 2 MA's),

Gene: Larnav_58 Start: 34132, Stop: 34353, Start Num: 17
Candidate Starts for Larnav_58:
(Start: 17 @34132 has 16 MA's), (24, 34204),

Gene: Leo04_59 Start: 34647, Stop: 34868, Start Num: 17
Candidate Starts for Leo04_59:
(Start: 17 @34647 has 16 MA's), (24, 34719),

Gene: Liandry_57 Start: 33483, Stop: 33752, Start Num: 9
Candidate Starts for Liandry_57:
(Start: 9 @33483 has 47 MA's), (24, 33603),

Gene: LilMartin_55 Start: 32366, Stop: 32635, Start Num: 9
Candidate Starts for LilMartin_55:
(Start: 9 @32366 has 47 MA's), (18, 32423), (24, 32486),

Gene: Limpid_35 Start: 22061, Stop: 22351, Start Num: 7
Candidate Starts for Limpid_35:

(Start: 7 @22061 has 4 MA's), (Start: 17 @22136 has 16 MA's),

Gene: LukeCage_59 Start: 33287, Stop: 33559, Start Num: 9

Candidate Starts for LukeCage_59:

(Start: 9 @33287 has 47 MA's), (Start: 13 @33317 has 2 MA's), (23, 33398),

Gene: Lululemon_57 Start: 33528, Stop: 33749, Start Num: 17

Candidate Starts for Lululemon_57:

(Start: 17 @33528 has 16 MA's), (24, 33600),

Gene: Mildred21_56 Start: 32562, Stop: 32831, Start Num: 9

Candidate Starts for Mildred21_56:

(Start: 9 @32562 has 47 MA's), (Start: 13 @32592 has 2 MA's),

Gene: MindFlayer_58 Start: 33039, Stop: 33311, Start Num: 9

Candidate Starts for MindFlayer_58:

(Start: 9 @33039 has 47 MA's), (Start: 13 @33069 has 2 MA's),

Gene: Moab_38 Start: 24121, Stop: 24408, Start Num: 8

Candidate Starts for Moab_38:

(Start: 8 @24121 has 1 MA's), (20, 24208), (26, 24286), (29, 24340),

Gene: Mugiwara_61 Start: 33787, Stop: 34059, Start Num: 9

Candidate Starts for Mugiwara_61:

(Start: 9 @33787 has 47 MA's), (Start: 13 @33817 has 2 MA's),

Gene: MulchMansion_55 Start: 32366, Stop: 32635, Start Num: 9

Candidate Starts for MulchMansion_55:

(Start: 9 @32366 has 47 MA's), (18, 32423), (24, 32486),

Gene: Muntaha_34 Start: 23939, Stop: 24205, Start Num: 10

Candidate Starts for Muntaha_34:

(Start: 10 @23939 has 4 MA's), (30, 24146),

Gene: Navo_56 Start: 33402, Stop: 33671, Start Num: 9

Candidate Starts for Navo_56:

(Start: 9 @33402 has 47 MA's), (16, 33444), (24, 33522),

Gene: NootNoot_54 Start: 32397, Stop: 32666, Start Num: 9

Candidate Starts for NootNoot_54:

(Start: 9 @32397 has 47 MA's), (24, 32517),

Gene: PacManQ_57 Start: 33528, Stop: 33749, Start Num: 17

Candidate Starts for PacManQ_57:

(Start: 17 @33528 has 16 MA's), (24, 33600),

Gene: Paradiddles_54 Start: 32658, Stop: 32927, Start Num: 9

Candidate Starts for Paradiddles_54:

(Start: 9 @32658 has 47 MA's), (24, 32778),

Gene: Peebs_57 Start: 33885, Stop: 34106, Start Num: 17

Candidate Starts for Peebs_57:

(Start: 17 @33885 has 16 MA's), (24, 33957),

Gene: Pepperwood_58 Start: 34018, Stop: 34239, Start Num: 17
Candidate Starts for Pepperwood_58:
(Start: 17 @34018 has 16 MA's), (24, 34090),

Gene: Persimmon_54 Start: 32327, Stop: 32596, Start Num: 9
Candidate Starts for Persimmon_54:
(Start: 9 @32327 has 47 MA's), (24, 32447),

Gene: PinkiePie_56 Start: 33483, Stop: 33752, Start Num: 9
Candidate Starts for PinkiePie_56:
(Start: 9 @33483 has 47 MA's), (24, 33603),

Gene: PumpkinSpice_59 Start: 33431, Stop: 33703, Start Num: 9
Candidate Starts for PumpkinSpice_59:
(Start: 9 @33431 has 47 MA's), (Start: 13 @33461 has 2 MA's),

Gene: Quaran19_60 Start: 33422, Stop: 33694, Start Num: 9
Candidate Starts for Quaran19_60:
(Start: 9 @33422 has 47 MA's), (Start: 13 @33452 has 2 MA's),

Gene: SaltySpittoon_60 Start: 33431, Stop: 33703, Start Num: 9
Candidate Starts for SaltySpittoon_60:
(Start: 9 @33431 has 47 MA's), (Start: 13 @33461 has 2 MA's),

Gene: Samisti12_58 Start: 35321, Stop: 35542, Start Num: 17
Candidate Starts for Samisti12_58:
(Start: 17 @35321 has 16 MA's), (24, 35393),

Gene: Scheme_59 Start: 34732, Stop: 34953, Start Num: 17
Candidate Starts for Scheme_59:
(Start: 17 @34732 has 16 MA's), (24, 34804),

Gene: Sollertia_60 Start: 33419, Stop: 33688, Start Num: 9
Candidate Starts for Sollertia_60:
(Start: 9 @33419 has 47 MA's), (Start: 13 @33449 has 2 MA's),

Gene: Spelly_60 Start: 33386, Stop: 33658, Start Num: 9
Candidate Starts for Spelly_60:
(Start: 9 @33386 has 47 MA's), (Start: 13 @33416 has 2 MA's),

Gene: Spilled_61 Start: 33503, Stop: 33775, Start Num: 9
Candidate Starts for Spilled_61:
(Start: 9 @33503 has 47 MA's), (Start: 13 @33533 has 2 MA's),

Gene: Squillium_57 Start: 33484, Stop: 33753, Start Num: 9
Candidate Starts for Squillium_57:
(Start: 9 @33484 has 47 MA's), (24, 33604),

Gene: Stanimal_60 Start: 33308, Stop: 33577, Start Num: 9
Candidate Starts for Stanimal_60:
(Start: 9 @33308 has 47 MA's), (Start: 13 @33338 has 2 MA's),

Gene: StarPlatinum_60 Start: 33957, Stop: 34199, Start Num: 13
Candidate Starts for StarPlatinum_60:
(Start: 9 @33927 has 47 MA's), (Start: 13 @33957 has 2 MA's), (23, 34038), (37, 34182),

Gene: Starbow_58 Start: 33407, Stop: 33679, Start Num: 9
Candidate Starts for Starbow_58:
(Start: 9 @33407 has 47 MA's), (Start: 13 @33437 has 2 MA's),

Gene: Sushi23_58 Start: 34243, Stop: 34464, Start Num: 17
Candidate Starts for Sushi23_58:
(Start: 17 @34243 has 16 MA's), (24, 34315),

Gene: Targaryen_59 Start: 35002, Stop: 35271, Start Num: 9
Candidate Starts for Targaryen_59:
(Start: 9 @35002 has 47 MA's), (16, 35044),

Gene: Teutsch_58 Start: 34512, Stop: 34733, Start Num: 17
Candidate Starts for Teutsch_58:
(Start: 17 @34512 has 16 MA's), (24, 34584),

Gene: TomSawyer_58 Start: 33025, Stop: 33297, Start Num: 9
Candidate Starts for TomSawyer_58:
(Start: 9 @33025 has 47 MA's), (Start: 13 @33055 has 2 MA's),

Gene: Tomas_62 Start: 35753, Stop: 36022, Start Num: 9
Candidate Starts for Tomas_62:
(Start: 9 @35753 has 47 MA's), (Start: 13 @35783 has 2 MA's), (29, 35954),

Gene: Tribute_56 Start: 33712, Stop: 33933, Start Num: 17
Candidate Starts for Tribute_56:
(Start: 17 @33712 has 16 MA's), (24, 33784),

Gene: Wakanda_34 Start: 23877, Stop: 24143, Start Num: 10
Candidate Starts for Wakanda_34:
(Start: 10 @23877 has 4 MA's), (30, 24084),

Gene: Warpy_62 Start: 34466, Stop: 34735, Start Num: 9
Candidate Starts for Warpy_62:
(Start: 9 @34466 has 47 MA's), (16, 34508), (30, 34676),

Gene: Watermoore_58 Start: 34719, Stop: 34940, Start Num: 17
Candidate Starts for Watermoore_58:
(Start: 17 @34719 has 16 MA's), (24, 34791),

Gene: WhereRU_55 Start: 32918, Stop: 33187, Start Num: 9
Candidate Starts for WhereRU_55:
(Start: 9 @32918 has 47 MA's), (24, 33038),

Gene: Wipeout_58 Start: 33776, Stop: 34048, Start Num: 9
Candidate Starts for Wipeout_58:
(Start: 9 @33776 has 47 MA's), (Start: 13 @33806 has 2 MA's),

Gene: Wofford_59 Start: 34453, Stop: 34722, Start Num: 9

Candidate Starts for Wofford_59:

(Start: 9 @34453 has 47 MA's), (Start: 13 @34483 has 2 MA's), (15, 34489), (19, 34519),