

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 308310 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308310 has 118 members, 11 are drafts.

Phages represented in each track:

- Track 1 : PynkPanther_70
- Track 2 : Jay2Jay_70, BlueOtter_65, Cursive_63, Evy_66, WashU_68, Leo04_66, Tribute_63, Coogler_65, PacManQ_64, Watermoore_65, Targaryen_66, ArianaSWT_68, Cross_65, HangryHippo_65, Samisti12_65, Scheme_66, Peebs_64, Lululemon_64, Pepperwood_65, Warpy_69, Shuckle_63, Teutsch_65, Larnav_65, Sushi23_65, EGole_66
- Track 3 : Paradiddles_61, NootNoot_61, Braelyn_64, Persimmon_61, Navo_63, Squillium_64, WhereRU_62, Bartholomune_63, Davielle_62, PinkiePie_63, Liandry_64
- Track 4 : Marsus_63, MulchMansion_62, LilMartin_62, Angela_62
- Track 5 : Anedea_63, Bmoc_63, Mildred21_63, LilSaint_64, Riptide_62
- Track 6 : FreddyDRoo_62, Eliot67_62
- Track 7 : Cadmus_63, Daubenski_66
- Track 8 : MindFlayer_65, Wipeout_65, Battuta_65, Birchlyn_64, Amabiko_67, Karimac_66, Gibbi_71, Daisy123_71, Spilled_68, IchabodCrane_64, JimJam_67, PumpkinSpice_66, CeilingFan_66, KentuckyRacer_67, TomSawyer_65, Brizzy_66, Quaran19_67
- Track 9 : Bordeaux_65, SaltySpittoon_67, Enygma_67, AcciDwight_71, Jollison_66, Starbow_65, Spelly_67, Rikishi_67
- Track 10 : Elmer_69, Wofford_66
- Track 11 : AngryGiraffe_66, Genie2_67, Stanimal_67, Sollertia_67, Yaboi_67, BoomerJR_67
- Track 12 : StarPlatinum_67, Mugiwara_66
- Track 13 : LukeCage_66
- Track 14 : Tomas_69
- Track 15 : Belfort_46, Stigma_45, Westy_45, Karp_44, Comrade_45, SparkleGoddess_45
- Track 16 : Emma1919_46, MeganTheeKilla_44, Gilson_46, Maupel_45
- Track 17 : Faust_45, SeresaTree_44
- Track 18 : Patelgo_45, Moab_45
- Track 19 : Beuffert_43
- Track 20 : Phredrick_44, Kenrey_46
- Track 21 : Sham_42
- Track 22 : Limpid_42, Annadreamy_42
- Track 23 : Blueeyedbeauty_44
- Track 24 : DeluluLabubu_44, Forrest_46, Jada_44
- Track 25 : Francob_44

- Track 26 : TunaTartare_44
- Track 27 : BillNye_40, Circinus_42
- Track 28 : Muntaha_41, Wakanda_41
- Track 29 : Chaewon_44

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

The start number called the most often in the published annotations is 7, it was called in 68 of the 107 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_67, Anedea_63, Angela_62, AngryGiraffe_66, ArianaSWT_68, Bartholomune_63, Battuta_65, Birchlyn_64, BlueOtter_65, Bmoc_63, BoomerJR_67, Braelyn_64, Brizzy_66, Cadmus_63, CeilingFan_66, Coogler_65, Cross_65, Cursive_63, Daisy123_71, Daubenski_66, Davielle_62, EGole_66, Evy_66, Genie2_67, Gibbi_71, HangryHippo_65, IchabodCrane_64, Jay2Jay_70, JimJam_67, Karimac_66, KentuckyRacer_67, Larnav_65, Leo04_66, Liandry_64, LilMartin_62, LilSaint_64, LukeCage_66, Lululemon_64, Marsus_63, Mildred21_63, MindFlayer_65, MulchMansion_62, Navo_63, NootNoot_61, PacManQ_64, Paradiddles_61, Peebs_64, Pepperwood_65, Persimmon_61, PinkiePie_63, PumpkinSpice_66, Quaran19_67, Riptide_62, Samisti12_65, Scheme_66, Shuckle_63, Sollertia_67, Spilled_68, Squillium_64, Stanimal_67, Sushi23_65, Targaryen_66, Teutsch_65, TomSawyer_65, Tomas_69, Tribute_63, Warpy_69, WashU_68, Watermoore_65, WhereRU_62, Wipeout_65, Yaboi_67,

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

- AcciDwight_71, Bordeaux_65, Eliot67_62, Elmer_69, Enygma_67, FreddyDRoo_62, Jollison_66, Mugiwara_66, PynkPanther_70, Rikishi_67, SaltySpittoon_67, Spelly_67, StarPlatinum_67, Starbow_65, Wofford_66,

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

- Annadreamy_42, Belfort_46, Beuffert_43, BillNye_40, Blueeyedbeauty_44, Chaewon_44, Circinus_42, Comrade_45, DeluluLabubu_44, Emma1919_46, Faust_45, Forrest_46, Francob_44, Gilson_46, Jada_44, Karp_44, Kenrey_46, Limpid_42, Maupel_45, MeganTheeKilla_44, Moab_45, Muntaha_41, Patelgo_45, Phredrick_44, SeresaTree_44, Sham_42, SparkleGoddess_45, Stigma_45, TunaTartare_44, Wakanda_41, Westy_45,

Summary by start number:

Start 4:

- Found in 3 of 118 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 107
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BillNye_40 (BK2), Chaewon_44 (BK2), Circinus_42 (BK2),

Start 5:

- Found in 2 of 118 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 107

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Muntaha_41 (BK2), Wakanda_41 (BK2),

Start 6:

- Found in 26 of 118 (22.0%) of genes in pham
- Manual Annotations of this start: 24 of 107
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_42 (BK1), Belfort_46 (BK1), Beuffert_43 (BK1), Blueeyedbeauty_44 (BK1), Comrade_45 (BK1), DeluluLabubu_44 (BK1), Emma1919_46 (BK1), Faust_45 (BK1), Forrest_46 (BK1), Francob_44 (BK1), Gilson_46 (BK1), Jada_44 (BK1), Karp_44 (BK1), Kenrey_46 (BK1), Limpid_42 (BK1), Maupel_45 (BK1), MeganTheeKilla_44 (BK1), Moab_45 (BK1), Patelgo_45 (BK1), Phredrick_44 (BK1), SeresaTree_44 (BK1), Sham_42 (BK1), SparkleGoddess_45 (BK1), Stigma_45 (BK1), TunaTartare_44 (BK1), Westy_45 (BK1),

Start 7:

- Found in 87 of 118 (73.7%) of genes in pham
- Manual Annotations of this start: 68 of 107
- Called 82.8% of time when present
- Phage (with cluster) where this start called: Amabiko_67 (BE2), Anedea_63 (BE1), Angela_62 (BE1), AngryGiraffe_66 (BE2), ArianaSWT_68 (BE1), Bartholomune_63 (BE1), Battuta_65 (BE2), Birchlyn_64 (BE2), BlueOtter_65 (BE1), Bmoc_63 (BE1), BoomerJR_67 (BE2), Braelyn_64 (BE1), Brizzy_66 (BE2), Cadmus_63 (BE1), CeilingFan_66 (BE2), Coogler_65 (BE1), Cross_65 (BE1), Cursive_63 (BE1), Daisy123_71 (BE2), Daubenski_66 (BE1), Davielle_62 (BE1), EGole_66 (BE1), Evy_66 (BE1), Genie2_67 (BE2), Gibbi_71 (BE2), HangryHippo_65 (BE1), IchabodCrane_64 (BE2), Jay2Jay_70 (BE1), JimJam_67 (BE2), Karimac_66 (BE2), KentuckyRacer_67 (BE2), Larnav_65 (BE1), Leo04_66 (BE1), Liandry_64 (BE1), LilMartin_62 (BE1), LilSaint_64 (BE1), LukeCage_66 (BE2), Lululemon_64 (BE1), Marsus_63 (BE1), Mildred21_63 (BE1), MindFlayer_65 (BE2), MulchMansion_62 (BE1), Navo_63 (BE1), NootNoot_61 (BE1), PacManQ_64 (BE1), Paradiddles_61 (BE1), Peebs_64 (BE1), Pepperwood_65 (BE1), Persimmon_61 (BE1), PinkiePie_63 (BE1), PumpkinSpice_66 (BE2), Quarant19_67 (BE2), Riptide_62 (BE1), Samisti12_65 (BE1), Scheme_66 (BE1), Shuckle_63 (BE1), Sollertia_67 (BE2), Spilled_68 (BE2), Squillium_64 (BE1), Stanimal_67 (BE2), Sushi23_65 (BE1), Targaryen_66 (BE1), Teutsch_65 (BE1), TomSawyer_65 (BE2), Tomas_69 (BE2), Tribute_63 (BE1), Warpy_69 (BE1), WashU_68 (BE1), Watermoore_65 (BE1), WhereRU_62 (BE1), Wipeout_65 (BE2), Yaboi_67 (BE2),

Start 8:

- Found in 82 of 118 (69.5%) of genes in pham
- Manual Annotations of this start: 11 of 107
- Called 15.9% of time when present
- Phage (with cluster) where this start called: AcciDwight_71 (BE2), Bordeaux_65 (BE2), Elmer_69 (BE2), Enygma_67 (BE2), Jollison_66 (BE2), Mugiwara_66 (BE2), PynkPanther_70 (BE1), Rikishi_67 (BE2), SaltySpittoon_67 (BE2), Spelly_67 (BE2), StarPlatinum_67 (BE2), Starbow_65 (BE2), Wofford_66 (BE2),

Start 10:

- Found in 20 of 118 (16.9%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present

- Phage (with cluster) where this start called: Eliot67_62 (BE1), FreddyDRoo_62 (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 7 was manually annotated 45 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 7 was manually annotated 23 times for cluster BE2.
- Start number 8 was manually annotated 11 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 6 was manually annotated 24 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 4 was manually annotated 2 times for cluster BK2.
- Start number 5 was manually annotated 2 times for cluster BK2.

Gene Information:

Gene: AcciDwight_71 Start: 50928, Stop: 51128, Start Num: 8

Candidate Starts for AcciDwight_71:

(3, 50898), (Start: 7 @50925 has 68 MA's), (Start: 8 @50928 has 11 MA's), (15, 51036), (16, 51045),

Gene: Amabiko_67 Start: 50970, Stop: 51173, Start Num: 7

Candidate Starts for Amabiko_67:

(3, 50943), (Start: 7 @50970 has 68 MA's), (Start: 8 @50973 has 11 MA's), (15, 51081), (16, 51090),

Gene: Anedea_63 Start: 50520, Stop: 50747, Start Num: 7

Candidate Starts for Anedea_63:

(Start: 7 @50520 has 68 MA's), (10, 50547), (28, 50727), (29, 50730),

Gene: Angela_62 Start: 49984, Stop: 50205, Start Num: 7

Candidate Starts for Angela_62:

(Start: 7 @49984 has 68 MA's), (22, 50170), (28, 50191),

Gene: AngryGiraffe_66 Start: 50932, Stop: 51138, Start Num: 7

Candidate Starts for AngryGiraffe_66:

(3, 50905), (Start: 7 @50932 has 68 MA's), (Start: 8 @50935 has 11 MA's), (16, 51052),

Gene: Annadreamy_42 Start: 39776, Stop: 40009, Start Num: 6

Candidate Starts for Annadreamy_42:

(1, 39731), (Start: 6 @39776 has 24 MA's), (9, 39794), (14, 39890), (31, 39983),

Gene: ArianaSWT_68 Start: 51613, Stop: 51816, Start Num: 7

Candidate Starts for ArianaSWT_68:

(Start: 7 @51613 has 68 MA's), (Start: 8 @51616 has 11 MA's), (13, 51718), (22, 51796),

Gene: Bartholomune_63 Start: 50273, Stop: 50476, Start Num: 7
Candidate Starts for Bartholomune_63:
(Start: 7 @50273 has 68 MA's), (Start: 8 @50276 has 11 MA's), (10, 50300), (13, 50378), (16, 50393),
(22, 50456),

Gene: Battuta_65 Start: 50944, Stop: 51147, Start Num: 7
Candidate Starts for Battuta_65:
(3, 50917), (Start: 7 @50944 has 68 MA's), (Start: 8 @50947 has 11 MA's), (15, 51055), (16, 51064),

Gene: Belfort_46 Start: 42270, Stop: 42518, Start Num: 6
Candidate Starts for Belfort_46:
(Start: 6 @42270 has 24 MA's), (Start: 8 @42279 has 11 MA's), (9, 42288), (14, 42384), (26, 42471),
(31, 42501),

Gene: Beuffert_43 Start: 40896, Stop: 41150, Start Num: 6
Candidate Starts for Beuffert_43:
(Start: 6 @40896 has 24 MA's), (9, 40914), (14, 41010), (20, 41073), (31, 41124),

Gene: BillNye_40 Start: 43185, Stop: 43391, Start Num: 4
Candidate Starts for BillNye_40:
(Start: 4 @43185 has 2 MA's), (14, 43305), (16, 43317),

Gene: Birchlyn_64 Start: 48827, Stop: 49030, Start Num: 7
Candidate Starts for Birchlyn_64:
(3, 48800), (Start: 7 @48827 has 68 MA's), (Start: 8 @48830 has 11 MA's), (15, 48938), (16, 48947),

Gene: BlueOtter_65 Start: 51650, Stop: 51853, Start Num: 7
Candidate Starts for BlueOtter_65:
(Start: 7 @51650 has 68 MA's), (Start: 8 @51653 has 11 MA's), (13, 51755), (22, 51833),

Gene: Blueeyedbeauty_44 Start: 40288, Stop: 40521, Start Num: 6
Candidate Starts for Blueeyedbeauty_44:
(1, 40243), (Start: 6 @40288 has 24 MA's), (9, 40306), (31, 40495),

Gene: Bmoc_63 Start: 50324, Stop: 50551, Start Num: 7
Candidate Starts for Bmoc_63:
(Start: 7 @50324 has 68 MA's), (10, 50351), (28, 50531), (29, 50534),

Gene: BoomerJR_67 Start: 50821, Stop: 51027, Start Num: 7
Candidate Starts for BoomerJR_67:
(3, 50794), (Start: 7 @50821 has 68 MA's), (Start: 8 @50824 has 11 MA's), (16, 50941),

Gene: Bordeaux_65 Start: 51102, Stop: 51302, Start Num: 8
Candidate Starts for Bordeaux_65:
(3, 51072), (Start: 7 @51099 has 68 MA's), (Start: 8 @51102 has 11 MA's), (15, 51210), (16, 51219),

Gene: Braelyn_64 Start: 51040, Stop: 51243, Start Num: 7
Candidate Starts for Braelyn_64:
(Start: 7 @51040 has 68 MA's), (Start: 8 @51043 has 11 MA's), (10, 51067), (13, 51145), (16, 51160),
(22, 51223),

Gene: Brizzy_66 Start: 50618, Stop: 50821, Start Num: 7
Candidate Starts for Brizzy_66:

(3, 50591), (Start: 7 @50618 has 68 MA's), (Start: 8 @50621 has 11 MA's), (15, 50729), (16, 50738),

Gene: Cadmus_63 Start: 50629, Stop: 50853, Start Num: 7

Candidate Starts for Cadmus_63:

(Start: 7 @50629 has 68 MA's), (22, 50815), (27, 50833), (28, 50836),

Gene: CeilingFan_66 Start: 50859, Stop: 51062, Start Num: 7

Candidate Starts for CeilingFan_66:

(3, 50832), (Start: 7 @50859 has 68 MA's), (Start: 8 @50862 has 11 MA's), (15, 50970), (16, 50979),

Gene: Chaewon_44 Start: 43322, Stop: 43528, Start Num: 4

Candidate Starts for Chaewon_44:

(Start: 4 @43322 has 2 MA's), (14, 43442), (17, 43475),

Gene: Circinus_42 Start: 43324, Stop: 43530, Start Num: 4

Candidate Starts for Circinus_42:

(Start: 4 @43324 has 2 MA's), (14, 43444), (16, 43456),

Gene: Comrade_45 Start: 41885, Stop: 42133, Start Num: 6

Candidate Starts for Comrade_45:

(Start: 6 @41885 has 24 MA's), (Start: 8 @41894 has 11 MA's), (9, 41903), (14, 41999), (26, 42086), (31, 42116),

Gene: Coogler_65 Start: 51676, Stop: 51879, Start Num: 7

Candidate Starts for Coogler_65:

(Start: 7 @51676 has 68 MA's), (Start: 8 @51679 has 11 MA's), (13, 51781), (22, 51859),

Gene: Cross_65 Start: 51651, Stop: 51854, Start Num: 7

Candidate Starts for Cross_65:

(Start: 7 @51651 has 68 MA's), (Start: 8 @51654 has 11 MA's), (13, 51756), (22, 51834),

Gene: Cursive_63 Start: 51176, Stop: 51379, Start Num: 7

Candidate Starts for Cursive_63:

(Start: 7 @51176 has 68 MA's), (Start: 8 @51179 has 11 MA's), (13, 51281), (22, 51359),

Gene: Daisy123_71 Start: 50718, Stop: 50921, Start Num: 7

Candidate Starts for Daisy123_71:

(3, 50691), (Start: 7 @50718 has 68 MA's), (Start: 8 @50721 has 11 MA's), (15, 50829), (16, 50838),

Gene: Daubenski_66 Start: 51393, Stop: 51617, Start Num: 7

Candidate Starts for Daubenski_66:

(Start: 7 @51393 has 68 MA's), (22, 51579), (27, 51597), (28, 51600),

Gene: Davielle_62 Start: 50460, Stop: 50663, Start Num: 7

Candidate Starts for Davielle_62:

(Start: 7 @50460 has 68 MA's), (Start: 8 @50463 has 11 MA's), (10, 50487), (13, 50565), (16, 50580), (22, 50643),

Gene: DeluluLabubu_44 Start: 40022, Stop: 40249, Start Num: 6

Candidate Starts for DeluluLabubu_44:

(2, 39980), (Start: 6 @40022 has 24 MA's), (31, 40223),

Gene: EGole_66 Start: 52597, Stop: 52800, Start Num: 7

Candidate Starts for EGole_66:

(Start: 7 @52597 has 68 MA's), (Start: 8 @52600 has 11 MA's), (13, 52702), (22, 52780),

Gene: Eliot67_62 Start: 50342, Stop: 50518, Start Num: 10

Candidate Starts for Eliot67_62:

(Start: 7 @50315 has 68 MA's), (Start: 8 @50318 has 11 MA's), (10, 50342), (13, 50420), (16, 50435), (22, 50498),

Gene: Elmer_69 Start: 52037, Stop: 52240, Start Num: 8

Candidate Starts for Elmer_69:

(3, 52007), (Start: 7 @52034 has 68 MA's), (Start: 8 @52037 has 11 MA's), (16, 52154), (21, 52217),

Gene: Emma1919_46 Start: 40705, Stop: 40932, Start Num: 6

Candidate Starts for Emma1919_46:

(2, 40663), (Start: 6 @40705 has 24 MA's), (14, 40819), (31, 40906),

Gene: Enygma_67 Start: 52765, Stop: 52965, Start Num: 8

Candidate Starts for Enygma_67:

(3, 52735), (Start: 7 @52762 has 68 MA's), (Start: 8 @52765 has 11 MA's), (15, 52873), (16, 52882),

Gene: Evy_66 Start: 51640, Stop: 51843, Start Num: 7

Candidate Starts for Evy_66:

(Start: 7 @51640 has 68 MA's), (Start: 8 @51643 has 11 MA's), (13, 51745), (22, 51823),

Gene: Faust_45 Start: 41234, Stop: 41452, Start Num: 6

Candidate Starts for Faust_45:

(Start: 6 @41234 has 24 MA's), (9, 41252), (11, 41297), (14, 41348), (18, 41393), (30, 41426),

Gene: Forrest_46 Start: 40840, Stop: 41067, Start Num: 6

Candidate Starts for Forrest_46:

(2, 40798), (Start: 6 @40840 has 24 MA's), (31, 41041),

Gene: Francob_44 Start: 40787, Stop: 41002, Start Num: 6

Candidate Starts for Francob_44:

(Start: 6 @40787 has 24 MA's), (11, 40850), (14, 40901), (31, 40976),

Gene: FreddyDRoo_62 Start: 50342, Stop: 50518, Start Num: 10

Candidate Starts for FreddyDRoo_62:

(Start: 7 @50315 has 68 MA's), (Start: 8 @50318 has 11 MA's), (10, 50342), (13, 50420), (16, 50435), (22, 50498),

Gene: Genie2_67 Start: 50935, Stop: 51141, Start Num: 7

Candidate Starts for Genie2_67:

(3, 50908), (Start: 7 @50935 has 68 MA's), (Start: 8 @50938 has 11 MA's), (16, 51055),

Gene: Gibbi_71 Start: 51082, Stop: 51285, Start Num: 7

Candidate Starts for Gibbi_71:

(3, 51055), (Start: 7 @51082 has 68 MA's), (Start: 8 @51085 has 11 MA's), (15, 51193), (16, 51202),

Gene: Gilson_46 Start: 40658, Stop: 40885, Start Num: 6

Candidate Starts for Gilson_46:

(2, 40616), (Start: 6 @40658 has 24 MA's), (14, 40772), (31, 40859),

Gene: HangryHippo_65 Start: 51650, Stop: 51853, Start Num: 7
Candidate Starts for HangryHippo_65:
(Start: 7 @51650 has 68 MA's), (Start: 8 @51653 has 11 MA's), (13, 51755), (22, 51833),

Gene: IchabodCrane_64 Start: 50671, Stop: 50874, Start Num: 7
Candidate Starts for IchabodCrane_64:
(3, 50644), (Start: 7 @50671 has 68 MA's), (Start: 8 @50674 has 11 MA's), (15, 50782), (16, 50791),

Gene: Jada_44 Start: 40022, Stop: 40249, Start Num: 6
Candidate Starts for Jada_44:
(2, 39980), (Start: 6 @40022 has 24 MA's), (31, 40223),

Gene: Jay2Jay_70 Start: 52493, Stop: 52696, Start Num: 7
Candidate Starts for Jay2Jay_70:
(Start: 7 @52493 has 68 MA's), (Start: 8 @52496 has 11 MA's), (13, 52598), (22, 52676),

Gene: JimJam_67 Start: 51045, Stop: 51248, Start Num: 7
Candidate Starts for JimJam_67:
(3, 51018), (Start: 7 @51045 has 68 MA's), (Start: 8 @51048 has 11 MA's), (15, 51156), (16, 51165),

Gene: Jollison_66 Start: 50930, Stop: 51130, Start Num: 8
Candidate Starts for Jollison_66:
(3, 50900), (Start: 7 @50927 has 68 MA's), (Start: 8 @50930 has 11 MA's), (15, 51038), (16, 51047),

Gene: Karimac_66 Start: 51076, Stop: 51279, Start Num: 7
Candidate Starts for Karimac_66:
(3, 51049), (Start: 7 @51076 has 68 MA's), (Start: 8 @51079 has 11 MA's), (15, 51187), (16, 51196),

Gene: Karp_44 Start: 41485, Stop: 41733, Start Num: 6
Candidate Starts for Karp_44:
(Start: 6 @41485 has 24 MA's), (Start: 8 @41494 has 11 MA's), (9, 41503), (14, 41599), (26, 41686),
(31, 41716),

Gene: Kenrey_46 Start: 40850, Stop: 41077, Start Num: 6
Candidate Starts for Kenrey_46:
(1, 40802), (Start: 6 @40850 has 24 MA's), (14, 40964), (31, 41051),

Gene: KentuckyRacer_67 Start: 50860, Stop: 51063, Start Num: 7
Candidate Starts for KentuckyRacer_67:
(3, 50833), (Start: 7 @50860 has 68 MA's), (Start: 8 @50863 has 11 MA's), (15, 50971), (16, 50980),

Gene: Larnav_65 Start: 51635, Stop: 51838, Start Num: 7
Candidate Starts for Larnav_65:
(Start: 7 @51635 has 68 MA's), (Start: 8 @51638 has 11 MA's), (13, 51740), (22, 51818),

Gene: Leo04_66 Start: 52150, Stop: 52353, Start Num: 7
Candidate Starts for Leo04_66:
(Start: 7 @52150 has 68 MA's), (Start: 8 @52153 has 11 MA's), (13, 52255), (22, 52333),

Gene: Liandry_64 Start: 51022, Stop: 51225, Start Num: 7
Candidate Starts for Liandry_64:
(Start: 7 @51022 has 68 MA's), (Start: 8 @51025 has 11 MA's), (10, 51049), (13, 51127), (16, 51142),
(22, 51205),

Gene: LilMartin_62 Start: 49932, Stop: 50153, Start Num: 7

Candidate Starts for LilMartin_62:

(Start: 7 @49932 has 68 MA's), (22, 50118), (28, 50139),

Gene: LilSaint_64 Start: 50192, Stop: 50419, Start Num: 7

Candidate Starts for LilSaint_64:

(Start: 7 @50192 has 68 MA's), (10, 50219), (28, 50399), (29, 50402),

Gene: Limpid_42 Start: 39775, Stop: 40008, Start Num: 6

Candidate Starts for Limpid_42:

(1, 39730), (Start: 6 @39775 has 24 MA's), (9, 39793), (14, 39889), (31, 39982),

Gene: LukeCage_66 Start: 50830, Stop: 51033, Start Num: 7

Candidate Starts for LukeCage_66:

(3, 50803), (Start: 7 @50830 has 68 MA's), (Start: 8 @50833 has 11 MA's), (16, 50950), (24, 51016),

Gene: Lululemon_64 Start: 51031, Stop: 51234, Start Num: 7

Candidate Starts for Lululemon_64:

(Start: 7 @51031 has 68 MA's), (Start: 8 @51034 has 11 MA's), (13, 51136), (22, 51214),

Gene: Marsus_63 Start: 50204, Stop: 50425, Start Num: 7

Candidate Starts for Marsus_63:

(Start: 7 @50204 has 68 MA's), (22, 50390), (28, 50411),

Gene: Maupel_45 Start: 40658, Stop: 40885, Start Num: 6

Candidate Starts for Maupel_45:

(2, 40616), (Start: 6 @40658 has 24 MA's), (14, 40772), (31, 40859),

Gene: MeganTheeKilla_44 Start: 40019, Stop: 40246, Start Num: 6

Candidate Starts for MeganTheeKilla_44:

(2, 39977), (Start: 6 @40019 has 24 MA's), (14, 40133), (31, 40220),

Gene: Mildred21_63 Start: 50119, Stop: 50349, Start Num: 7

Candidate Starts for Mildred21_63:

(Start: 7 @50119 has 68 MA's), (10, 50146), (28, 50326), (29, 50329),

Gene: MindFlayer_65 Start: 50578, Stop: 50781, Start Num: 7

Candidate Starts for MindFlayer_65:

(3, 50551), (Start: 7 @50578 has 68 MA's), (Start: 8 @50581 has 11 MA's), (15, 50689), (16, 50698),

Gene: Moab_45 Start: 41874, Stop: 42110, Start Num: 6

Candidate Starts for Moab_45:

(Start: 6 @41874 has 24 MA's), (14, 41988), (32, 42093),

Gene: Mugiwara_66 Start: 51332, Stop: 51532, Start Num: 8

Candidate Starts for Mugiwara_66:

(3, 51302), (Start: 7 @51329 has 68 MA's), (Start: 8 @51332 has 11 MA's), (15, 51440), (16, 51449), (24, 51515),

Gene: MulchMansion_62 Start: 49932, Stop: 50153, Start Num: 7

Candidate Starts for MulchMansion_62:

(Start: 7 @49932 has 68 MA's), (22, 50118), (28, 50139),

Gene: Muntaha_41 Start: 41616, Stop: 41807, Start Num: 5

Candidate Starts for Muntaha_41:

(Start: 5 @41616 has 2 MA's), (14, 41733),

Gene: Navo_63 Start: 50944, Stop: 51147, Start Num: 7

Candidate Starts for Navo_63:

(Start: 7 @50944 has 68 MA's), (Start: 8 @50947 has 11 MA's), (10, 50971), (13, 51049), (16, 51064), (22, 51127),

Gene: NootNoot_61 Start: 49936, Stop: 50139, Start Num: 7

Candidate Starts for NootNoot_61:

(Start: 7 @49936 has 68 MA's), (Start: 8 @49939 has 11 MA's), (10, 49963), (13, 50041), (16, 50056), (22, 50119),

Gene: PacManQ_64 Start: 51031, Stop: 51234, Start Num: 7

Candidate Starts for PacManQ_64:

(Start: 7 @51031 has 68 MA's), (Start: 8 @51034 has 11 MA's), (13, 51136), (22, 51214),

Gene: Paradiddles_61 Start: 50200, Stop: 50403, Start Num: 7

Candidate Starts for Paradiddles_61:

(Start: 7 @50200 has 68 MA's), (Start: 8 @50203 has 11 MA's), (10, 50227), (13, 50305), (16, 50320), (22, 50383),

Gene: Patelgo_45 Start: 42061, Stop: 42297, Start Num: 6

Candidate Starts for Patelgo_45:

(Start: 6 @42061 has 24 MA's), (14, 42175), (32, 42280),

Gene: Peebs_64 Start: 51385, Stop: 51588, Start Num: 7

Candidate Starts for Peebs_64:

(Start: 7 @51385 has 68 MA's), (Start: 8 @51388 has 11 MA's), (13, 51490), (22, 51568),

Gene: Pepperwood_65 Start: 51518, Stop: 51721, Start Num: 7

Candidate Starts for Pepperwood_65:

(Start: 7 @51518 has 68 MA's), (Start: 8 @51521 has 11 MA's), (13, 51623), (22, 51701),

Gene: Persimmon_61 Start: 49869, Stop: 50072, Start Num: 7

Candidate Starts for Persimmon_61:

(Start: 7 @49869 has 68 MA's), (Start: 8 @49872 has 11 MA's), (10, 49896), (13, 49974), (16, 49989), (22, 50052),

Gene: Phredrick_44 Start: 39921, Stop: 40148, Start Num: 6

Candidate Starts for Phredrick_44:

(1, 39873), (Start: 6 @39921 has 24 MA's), (14, 40035), (31, 40122),

Gene: PinkiePie_63 Start: 51022, Stop: 51225, Start Num: 7

Candidate Starts for PinkiePie_63:

(Start: 7 @51022 has 68 MA's), (Start: 8 @51025 has 11 MA's), (10, 51049), (13, 51127), (16, 51142), (22, 51205),

Gene: PumpkinSpice_66 Start: 50970, Stop: 51173, Start Num: 7

Candidate Starts for PumpkinSpice_66:

(3, 50943), (Start: 7 @50970 has 68 MA's), (Start: 8 @50973 has 11 MA's), (15, 51081), (16, 51090),

Gene: PynkPanther_70 Start: 51005, Stop: 51205, Start Num: 8
Candidate Starts for PynkPanther_70:
(Start: 7 @51002 has 68 MA's), (Start: 8 @51005 has 11 MA's), (10, 51029), (13, 51107), (16, 51122),
(22, 51185),

Gene: Quaran19_67 Start: 50961, Stop: 51164, Start Num: 7
Candidate Starts for Quaran19_67:
(3, 50934), (Start: 7 @50961 has 68 MA's), (Start: 8 @50964 has 11 MA's), (15, 51072), (16, 51081),

Gene: Rikishi_67 Start: 50879, Stop: 51079, Start Num: 8
Candidate Starts for Rikishi_67:
(3, 50849), (Start: 7 @50876 has 68 MA's), (Start: 8 @50879 has 11 MA's), (15, 50987), (16, 50996),

Gene: Riptide_62 Start: 49742, Stop: 49969, Start Num: 7
Candidate Starts for Riptide_62:
(Start: 7 @49742 has 68 MA's), (10, 49769), (28, 49949), (29, 49952),

Gene: SaltySpittoon_67 Start: 50973, Stop: 51173, Start Num: 8
Candidate Starts for SaltySpittoon_67:
(3, 50943), (Start: 7 @50970 has 68 MA's), (Start: 8 @50973 has 11 MA's), (15, 51081), (16, 51090),

Gene: Samisti12_65 Start: 52825, Stop: 53028, Start Num: 7
Candidate Starts for Samisti12_65:
(Start: 7 @52825 has 68 MA's), (Start: 8 @52828 has 11 MA's), (13, 52930), (22, 53008),

Gene: Scheme_66 Start: 52232, Stop: 52435, Start Num: 7
Candidate Starts for Scheme_66:
(Start: 7 @52232 has 68 MA's), (Start: 8 @52235 has 11 MA's), (13, 52337), (22, 52415),

Gene: SeresaTree_44 Start: 40624, Stop: 40842, Start Num: 6
Candidate Starts for SeresaTree_44:
(Start: 6 @40624 has 24 MA's), (9, 40642), (11, 40687), (14, 40738), (18, 40783), (30, 40816),

Gene: Sham_42 Start: 41761, Stop: 41997, Start Num: 6
Candidate Starts for Sham_42:
(Start: 6 @41761 has 24 MA's), (9, 41779), (23, 41929), (32, 41980),

Gene: Shuckle_63 Start: 51839, Stop: 52042, Start Num: 7
Candidate Starts for Shuckle_63:
(Start: 7 @51839 has 68 MA's), (Start: 8 @51842 has 11 MA's), (13, 51944), (22, 52022),

Gene: Sollertia_67 Start: 50935, Stop: 51141, Start Num: 7
Candidate Starts for Sollertia_67:
(3, 50908), (Start: 7 @50935 has 68 MA's), (Start: 8 @50938 has 11 MA's), (16, 51055),

Gene: SparkleGoddess_45 Start: 41887, Stop: 42135, Start Num: 6
Candidate Starts for SparkleGoddess_45:
(Start: 6 @41887 has 24 MA's), (Start: 8 @41896 has 11 MA's), (9, 41905), (14, 42001), (26, 42088),
(31, 42118),

Gene: Spelly_67 Start: 50928, Stop: 51128, Start Num: 8
Candidate Starts for Spelly_67:

(3, 50898), (Start: 7 @50925 has 68 MA's), (Start: 8 @50928 has 11 MA's), (15, 51036), (16, 51045),

Gene: Spilled_68 Start: 51042, Stop: 51245, Start Num: 7

Candidate Starts for Spilled_68:

(3, 51015), (Start: 7 @51042 has 68 MA's), (Start: 8 @51045 has 11 MA's), (15, 51153), (16, 51162),

Gene: Squillium_64 Start: 51023, Stop: 51226, Start Num: 7

Candidate Starts for Squillium_64:

(Start: 7 @51023 has 68 MA's), (Start: 8 @51026 has 11 MA's), (10, 51050), (13, 51128), (16, 51143), (22, 51206),

Gene: Stanimal_67 Start: 50824, Stop: 51030, Start Num: 7

Candidate Starts for Stanimal_67:

(3, 50797), (Start: 7 @50824 has 68 MA's), (Start: 8 @50827 has 11 MA's), (16, 50944),

Gene: StarPlatinum_67 Start: 51473, Stop: 51673, Start Num: 8

Candidate Starts for StarPlatinum_67:

(3, 51443), (Start: 7 @51470 has 68 MA's), (Start: 8 @51473 has 11 MA's), (15, 51581), (16, 51590), (24, 51656),

Gene: Starbow_65 Start: 50949, Stop: 51149, Start Num: 8

Candidate Starts for Starbow_65:

(3, 50919), (Start: 7 @50946 has 68 MA's), (Start: 8 @50949 has 11 MA's), (15, 51057), (16, 51066),

Gene: Stigma_45 Start: 41900, Stop: 42148, Start Num: 6

Candidate Starts for Stigma_45:

(Start: 6 @41900 has 24 MA's), (Start: 8 @41909 has 11 MA's), (9, 41918), (14, 42014), (26, 42101), (31, 42131),

Gene: Sushi23_65 Start: 51743, Stop: 51946, Start Num: 7

Candidate Starts for Sushi23_65:

(Start: 7 @51743 has 68 MA's), (Start: 8 @51746 has 11 MA's), (13, 51848), (22, 51926),

Gene: Targaryen_66 Start: 52542, Stop: 52745, Start Num: 7

Candidate Starts for Targaryen_66:

(Start: 7 @52542 has 68 MA's), (Start: 8 @52545 has 11 MA's), (13, 52647), (22, 52725),

Gene: Teutsch_65 Start: 52006, Stop: 52209, Start Num: 7

Candidate Starts for Teutsch_65:

(Start: 7 @52006 has 68 MA's), (Start: 8 @52009 has 11 MA's), (13, 52111), (22, 52189),

Gene: TomSawyer_65 Start: 50564, Stop: 50767, Start Num: 7

Candidate Starts for TomSawyer_65:

(3, 50537), (Start: 7 @50564 has 68 MA's), (Start: 8 @50567 has 11 MA's), (15, 50675), (16, 50684),

Gene: Tomas_69 Start: 53278, Stop: 53490, Start Num: 7

Candidate Starts for Tomas_69:

(Start: 7 @53278 has 68 MA's), (Start: 8 @53281 has 11 MA's), (10, 53305), (12, 53341), (15, 53389), (19, 53434), (25, 53461), (26, 53467),

Gene: Tribute_63 Start: 51212, Stop: 51415, Start Num: 7

Candidate Starts for Tribute_63:

(Start: 7 @51212 has 68 MA's), (Start: 8 @51215 has 11 MA's), (13, 51317), (22, 51395),

Gene: TunaTartare_44 Start: 42059, Stop: 42295, Start Num: 6
Candidate Starts for TunaTartare_44:
(Start: 6 @42059 has 24 MA's), (9, 42077), (14, 42173), (23, 42227), (32, 42278),

Gene: Wakanda_41 Start: 41554, Stop: 41745, Start Num: 5
Candidate Starts for Wakanda_41:
(Start: 5 @41554 has 2 MA's), (14, 41671),

Gene: Warpy_69 Start: 52006, Stop: 52209, Start Num: 7
Candidate Starts for Warpy_69:
(Start: 7 @52006 has 68 MA's), (Start: 8 @52009 has 11 MA's), (13, 52111), (22, 52189),

Gene: WashU_68 Start: 51521, Stop: 51724, Start Num: 7
Candidate Starts for WashU_68:
(Start: 7 @51521 has 68 MA's), (Start: 8 @51524 has 11 MA's), (13, 51626), (22, 51704),

Gene: Watermoore_65 Start: 52222, Stop: 52425, Start Num: 7
Candidate Starts for Watermoore_65:
(Start: 7 @52222 has 68 MA's), (Start: 8 @52225 has 11 MA's), (13, 52327), (22, 52405),

Gene: Westy_45 Start: 41888, Stop: 42136, Start Num: 6
Candidate Starts for Westy_45:
(Start: 6 @41888 has 24 MA's), (Start: 8 @41897 has 11 MA's), (9, 41906), (14, 42002), (26, 42089),
(31, 42119),

Gene: WhereRU_62 Start: 50460, Stop: 50663, Start Num: 7
Candidate Starts for WhereRU_62:
(Start: 7 @50460 has 68 MA's), (Start: 8 @50463 has 11 MA's), (10, 50487), (13, 50565), (16, 50580),
(22, 50643),

Gene: Wipeout_65 Start: 51315, Stop: 51518, Start Num: 7
Candidate Starts for Wipeout_65:
(3, 51288), (Start: 7 @51315 has 68 MA's), (Start: 8 @51318 has 11 MA's), (15, 51426), (16, 51435),

Gene: Wofford_66 Start: 52000, Stop: 52203, Start Num: 8
Candidate Starts for Wofford_66:
(3, 51970), (Start: 7 @51997 has 68 MA's), (Start: 8 @52000 has 11 MA's), (16, 52117), (21, 52180),

Gene: Yaboi_67 Start: 50912, Stop: 51118, Start Num: 7
Candidate Starts for Yaboi_67:
(3, 50885), (Start: 7 @50912 has 68 MA's), (Start: 8 @50915 has 11 MA's), (16, 51032),