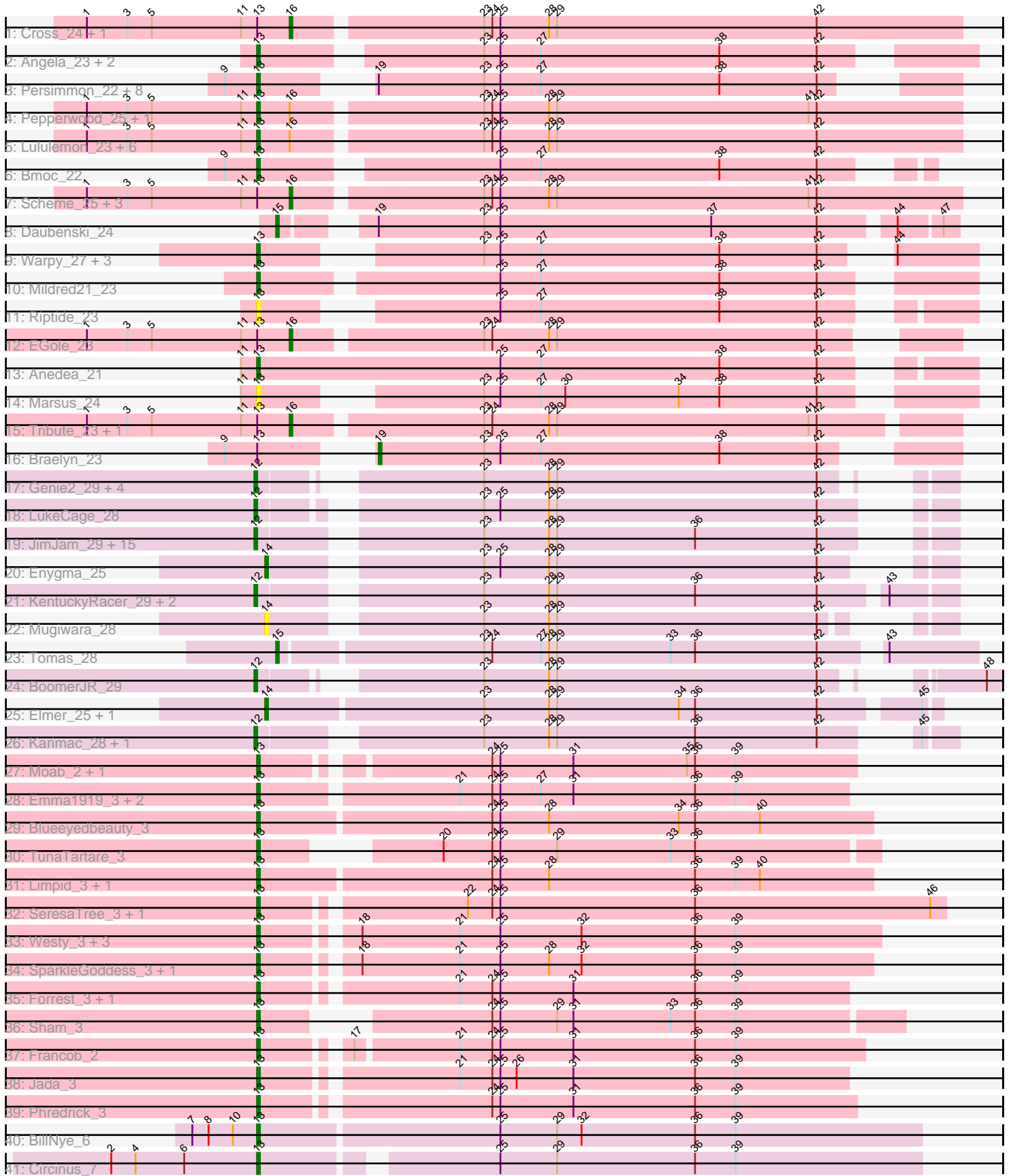


Pham 205001



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 205001 Report

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

Pham number 205001 has 99 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Cross_24, Peebs_24
- Track 2 : Angela_23, MulchMansion_23, LilMartin_23
- Track 3 : Persimmon_22, NootNoot_23, Navo_22, Squillum_23, WhereRU_22, Bartholomune_23, PinkiePie_23, Liandry_23, Paradiddles_23
- Track 4 : Pepperwood_25, Larnav_24
- Track 5 : Lululemon_23, BlueOtter_24, Watermoore_24, Leo04_24, HangryHippo_24, PacManQ_23, Cursive_22
- Track 6 : Bmoc_22
- Track 7 : Scheme_25, Samisti12_22, Shuckle_23, Sushi23_25
- Track 8 : Daubenski_24
- Track 9 : Warpy_27, Jay2Jay_27, Evy_24, Targaryen_22
- Track 10 : Mildred21_23
- Track 11 : Riptide_23
- Track 12 : EGole_23
- Track 13 : Anedea_21
- Track 14 : Marsus_24
- Track 15 : Tribute_23, Teutsch_23
- Track 16 : Braelyn_23
- Track 17 : Genie2_29, Yaboi_30, StarPlatinum_27, Sollertia_29, Stanimal_29
- Track 18 : LukeCage_28
- Track 19 : JimJam_29, PumpkinSpice_28, Jollison_28, Rikishi_31, Wipeout_27, Starbow_27, Quarant19_29, MindFlayer_27, Battuta_27, Birchlyn_26, SaltySpittoon_29, Spilled_28, Amabiko_29, Bordeaux_27, TomSawyer_27, Spelly_29
- Track 20 : Enygma_25
- Track 21 : KentuckyRacer_29, CeilingFan_28, Gibbi_31
- Track 22 : Mugiwara_28
- Track 23 : Tomas_28
- Track 24 : BoomerJR_29
- Track 25 : Elmer_25, Wofford_25
- Track 26 : Karimac_28, IchabodCrane_26
- Track 27 : Moab_2, Patelgo_3
- Track 28 : Emma1919_3, MeganTheeKilla_3, Gilson_3
- Track 29 : Blueeyedbeauty_3
- Track 30 : TunaTartare_3
- Track 31 : Limpid_3, Annadreamy_3
- Track 32 : SeresaTree_3, Faust_2
- Track 33 : Westy_3, Comrade_3, Belfort_3, Karp_3

- Track 34 : SparkleGoddess_3, Stigma_3
- Track 35 : Forrest_3, Kenrey_3
- Track 36 : Sham_3
- Track 37 : Francob_2
- Track 38 : Jada_3
- Track 39 : Phredrick_3
- Track 40 : BillNye_6
- Track 41 : Circinus_7

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

The start number called the most often in the published annotations is 13, it was called in 51 of the 90 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anedea_21, Angela_23, Annadreamy_3, Bartholomune_23, Belfort_3, BillNye_6, BlueOtter_24, Blueeyedbeauty_3, Bmoc_22, Circinus_7, Comrade_3, Cursive_22, Emma1919_3, Evy_24, Faust_2, Forrest_3, Francob_2, Gilson_3, HangryHippo_24, Jada_3, Jay2Jay_27, Karp_3, Kenrey_3, Larnav_24, Leo04_24, Liandry_23, LilMartin_23, Limpid_3, Lululemon_23, Marsus_24, MeganTheeKilla_3, Mildred21_23, Moab_2, MulchMansion_23, Navo_22, NootNoot_23, PacManQ_23, Paradiddles_23, Patelgo_3, Pepperwood_25, Persimmon_22, Phredrick_3, PinkiePie_23, Riptide_23, SeresaTree_3, Sham_3, SparkleGoddess_3, Squillum_23, Stigma_3, Targaryen_22, TunaTartare_3, Warpy_27, Watermoore_24, Westy_3, WhereRU_22,

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

- Braelyn_23, Cross_24, EGole_23, Peebs_24, Samisti12_22, Scheme_25, Shuckle_23, Sushi23_25, Teutsch_23, Tribute_23,

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

- Amabiko_29, Battuta_27, Birchlyn_26, BoomerJR_29, Bordeaux_27, CeilingFan_28, Daubenski_24, Elmer_25, Enygma_25, Genie2_29, Gibbi_31, IchabodCrane_26, JimJam_29, Jollison_28, Karimac_28, KentuckyRacer_29, LukeCage_28, MindFlayer_27, Mugiwara_28, PumpkinSpice_28, Quaran19_29, Rikishi_31, SaltySpittoon_29, Sollertia_29, Spelly_29, Spilled_28, Stanimal_29, StarPlatinum_27, Starbow_27, TomSawyer_27, Tomas_28, Wipeout_27, Wofford_25, Yaboi_30,

Summary by start number:

Start 12:

- Found in 28 of 99 (28.3%) of genes in pham
- Manual Annotations of this start: 26 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amabiko_29 (BE2), Battuta_27 (BE2), Birchlyn_26 (BE2), BoomerJR_29 (BE2), Bordeaux_27 (BE2), CeilingFan_28 (BE2), Genie2_29 (BE2), Gibbi_31 (BE2), IchabodCrane_26 (BE2), JimJam_29 (BE2), Jollison_28 (BE2), Karimac_28 (BE2), KentuckyRacer_29 (BE2), LukeCage_28 (BE2), MindFlayer_27 (BE2), PumpkinSpice_28 (BE2), Quaran19_29 (BE2),

Rikishi_31 (BE2), SaltySpittoon_29 (BE2), Sollertia_29 (BE2), Spelly_29 (BE2), Spilled_28 (BE2), Stanimal_29 (BE2), StarPlatinum_27 (BE2), Starbow_27 (BE2), TomSawyer_27 (BE2), Wipeout_27 (BE2), Yaboi_30 (BE2),

Start 13:

- Found in 65 of 99 (65.7%) of genes in pham
- Manual Annotations of this start: 51 of 90
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Anedea_21 (BE1), Angela_23 (BE1), Annadreamy_3 (BK1), Bartholomune_23 (BE1), Belfort_3 (BK1), BillNye_6 (BK2), BlueOtter_24 (BE1), Blueeyedbeauty_3 (BK1), Bmoc_22 (BE1), Circinus_7 (BK2), Comrade_3 (BK1), Cursive_22 (BE1), Emma1919_3 (BK1), Evy_24 (BE1), Faust_2 (BK1), Forrest_3 (BK1), Francob_2 (BK1), Gilson_3 (BK1), HangryHippo_24 (BE1), Jada_3 (BK1), Jay2Jay_27 (BE1), Karp_3 (BK1), Kenrey_3 (BK1), Larnav_24 (BE1), Leo04_24 (BE1), Liandry_23 (BE1), LilMartin_23 (BE1), Limpid_3 (BK1), Lululemon_23 (BE1), Marsus_24 (BE1), MeganTheeKilla_3 (BK1), Mildred21_23 (BE1), Moab_2 (BK1), MulchMansion_23 (BE1), Navo_22 (BE1), NootNoot_23 (BE1), PacManQ_23 (BE1), Paradiddles_23 (BE1), Patelgo_3 (BK1), Pepperwood_25 (BE1), Persimmon_22 (BE1), Phredrick_3 (BK1), PinkiePie_23 (BE1), Riptide_23 (BE1), SeresaTree_3 (BK1), Sham_3 (BK1), SparkleGoddess_3 (BK1), Squillium_23 (BE1), Stigma_3 (BK1), Targaryen_22 (BE1), TunaTartare_3 (BK1), Warpy_27 (BE1), Watermoore_24 (BE1), Westy_3 (BK1), WhereRU_22 (BE1),

Start 14:

- Found in 4 of 99 (4.0%) of genes in pham
- Manual Annotations of this start: 3 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elmer_25 (BE2), Enyigma_25 (BE2), Mugiwara_28 (BE2), Wofford_25 (BE2),

Start 15:

- Found in 2 of 99 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daubenski_24 (BE1), Tomas_28 (BE2),

Start 16:

- Found in 18 of 99 (18.2%) of genes in pham
- Manual Annotations of this start: 7 of 90
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Cross_24 (BE1), EGole_23 (BE1), Peebs_24 (BE1), Samisti12_22 (BE1), Scheme_25 (BE1), Shuckle_23 (BE1), Sushi23_25 (BE1), Teutsch_23 (BE1), Tribute_23 (BE1),

Start 19:

- Found in 11 of 99 (11.1%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Braelyn_23 (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 13 was manually annotated 28 times for cluster BE1.
- Start number 15 was manually annotated 1 time for cluster BE1.
- Start number 16 was manually annotated 7 times for cluster BE1.
- Start number 19 was manually annotated 1 time for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 12 was manually annotated 26 times for cluster BE2.
- Start number 14 was manually annotated 3 times for cluster BE2.
- Start number 15 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 13 was manually annotated 21 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 13 was manually annotated 2 times for cluster BK2.

Gene Information:

Gene: Amabiko_29 Start: 13103, Stop: 12864, Start Num: 12

Candidate Starts for Amabiko_29:

(Start: 12 @13103 has 26 MA's), (23, 13031), (28, 13007), (29, 13004), (36, 12953), (42, 12908),

Gene: Anedea_21 Start: 10696, Stop: 10448, Start Num: 13

Candidate Starts for Anedea_21:

(11, 10702), (Start: 13 @10696 has 51 MA's), (25, 10606), (27, 10591), (38, 10525), (42, 10489),

Gene: Angela_23 Start: 11461, Stop: 11222, Start Num: 13

Candidate Starts for Angela_23:

(Start: 13 @11461 has 51 MA's), (23, 11389), (25, 11383), (27, 11368), (38, 11302), (42, 11266),

Gene: Annadreamy_3 Start: 1146, Stop: 922, Start Num: 13

Candidate Starts for Annadreamy_3:

(Start: 13 @1146 has 51 MA's), (24, 1062), (25, 1059), (28, 1041), (36, 987), (39, 972), (40, 963),

Gene: Bartholomune_23 Start: 11049, Stop: 10831, Start Num: 13

Candidate Starts for Bartholomune_23:

(9, 11061), (Start: 13 @11049 has 51 MA's), (Start: 19 @11025 has 1 MA's), (23, 10986), (25, 10980), (27, 10965), (38, 10899), (42, 10863),

Gene: Battuta_27 Start: 13079, Stop: 12855, Start Num: 12

Candidate Starts for Battuta_27:

(Start: 12 @13079 has 26 MA's), (23, 13007), (28, 12983), (29, 12980), (36, 12929), (42, 12884),

Gene: Belfort_3 Start: 1094, Stop: 873, Start Num: 13

Candidate Starts for Belfort_3:

(Start: 13 @1094 has 51 MA's), (18, 1064), (21, 1028), (25, 1013), (32, 983), (36, 941), (39, 926),

Gene: BillNye_6 Start: 2944, Stop: 2702, Start Num: 13

Candidate Starts for BillNye_6:

(7, 2968), (8, 2962), (10, 2953), (Start: 13 @2944 has 51 MA's), (25, 2857), (29, 2836), (32, 2827), (36, 2785), (39, 2770),

Gene: Birchlyn_26 Start: 10960, Stop: 10721, Start Num: 12

Candidate Starts for Birchlyn_26:

(Start: 12 @10960 has 26 MA's), (23, 10888), (28, 10864), (29, 10861), (36, 10810), (42, 10765),

Gene: BlueOtter_24 Start: 11379, Stop: 11125, Start Num: 13

Candidate Starts for BlueOtter_24:

(1, 11442), (3, 11427), (5, 11418), (11, 11385), (Start: 13 @11379 has 51 MA's), (Start: 16 @11367 has 7 MA's), (23, 11301), (24, 11298), (25, 11295), (28, 11277), (29, 11274), (42, 11178),

Gene: Blueeyedbeauty_3 Start: 1146, Stop: 922, Start Num: 13

Candidate Starts for Blueeyedbeauty_3:

(Start: 13 @1146 has 51 MA's), (24, 1062), (25, 1059), (28, 1041), (34, 993), (36, 987), (40, 963),

Gene: Bmoc_22 Start: 11328, Stop: 11107, Start Num: 13

Candidate Starts for Bmoc_22:

(9, 11340), (Start: 13 @11328 has 51 MA's), (25, 11250), (27, 11235), (38, 11169), (42, 11133),

Gene: BoomerJR_29 Start: 12941, Stop: 12714, Start Num: 12

Candidate Starts for BoomerJR_29:

(Start: 12 @12941 has 26 MA's), (23, 12875), (28, 12851), (29, 12848), (42, 12752), (48, 12719),

Gene: Bordeaux_27 Start: 13094, Stop: 12855, Start Num: 12

Candidate Starts for Bordeaux_27:

(Start: 12 @13094 has 26 MA's), (23, 13022), (28, 12998), (29, 12995), (36, 12944), (42, 12899),

Gene: Braelyn_23 Start: 11069, Stop: 10875, Start Num: 19

Candidate Starts for Braelyn_23:

(9, 11105), (Start: 13 @11093 has 51 MA's), (Start: 19 @11069 has 1 MA's), (23, 11030), (25, 11024), (27, 11009), (38, 10943), (42, 10907),

Gene: CeilingFan_28 Start: 12854, Stop: 12615, Start Num: 12

Candidate Starts for CeilingFan_28:

(Start: 12 @12854 has 26 MA's), (23, 12782), (28, 12758), (29, 12755), (36, 12704), (42, 12659), (43, 12638),

Gene: Circinus_7 Start: 2825, Stop: 2592, Start Num: 13

Candidate Starts for Circinus_7:

(2, 2879), (4, 2870), (6, 2852), (Start: 13 @2825 has 51 MA's), (25, 2747), (29, 2726), (36, 2675), (39, 2660),

Gene: Comrade_3 Start: 1095, Stop: 874, Start Num: 13

Candidate Starts for Comrade_3:

(Start: 13 @1095 has 51 MA's), (18, 1065), (21, 1029), (25, 1014), (32, 984), (36, 942), (39, 927),

Gene: Cross_24 Start: 11368, Stop: 11126, Start Num: 16

Candidate Starts for Cross_24:

(1, 11443), (3, 11428), (5, 11419), (11, 11386), (Start: 13 @11380 has 51 MA's), (Start: 16 @11368 has 7 MA's), (23, 11302), (24, 11299), (25, 11296), (28, 11278), (29, 11275), (42, 11179),

Gene: Cursive_22 Start: 10197, Stop: 9943, Start Num: 13

Candidate Starts for Cursive_22:

(1, 10260), (3, 10245), (5, 10236), (11, 10203), (Start: 13 @10197 has 51 MA's), (Start: 16 @10185 has 7 MA's), (23, 10119), (24, 10116), (25, 10113), (28, 10095), (29, 10092), (42, 9996),

Gene: Daubenski_24 Start: 11214, Stop: 10984, Start Num: 15

Candidate Starts for Daubenski_24:

(Start: 15 @11214 has 2 MA's), (Start: 19 @11190 has 1 MA's), (23, 11151), (25, 11145), (37, 11067), (42, 11028), (44, 11004), (47, 10989),

Gene: EGole_23 Start: 11616, Stop: 11392, Start Num: 16

Candidate Starts for EGole_23:

(1, 11691), (3, 11676), (5, 11667), (11, 11634), (Start: 13 @11628 has 51 MA's), (Start: 16 @11616 has 7 MA's), (23, 11550), (24, 11547), (28, 11526), (29, 11523), (42, 11427),

Gene: Elmer_25 Start: 11762, Stop: 11523, Start Num: 14

Candidate Starts for Elmer_25:

(Start: 14 @11762 has 3 MA's), (23, 11684), (28, 11660), (29, 11657), (34, 11612), (36, 11606), (42, 11561), (45, 11528),

Gene: Emma1919_3 Start: 1108, Stop: 896, Start Num: 13

Candidate Starts for Emma1919_3:

(Start: 13 @1108 has 51 MA's), (21, 1039), (24, 1027), (25, 1024), (27, 1009), (31, 997), (36, 952), (39, 937),

Gene: Enygma_25 Start: 12062, Stop: 11844, Start Num: 14

Candidate Starts for Enygma_25:

(Start: 14 @12062 has 3 MA's), (23, 11993), (25, 11987), (28, 11969), (29, 11966), (42, 11870),

Gene: Evy_24 Start: 11519, Stop: 11292, Start Num: 13

Candidate Starts for Evy_24:

(Start: 13 @11519 has 51 MA's), (23, 11456), (25, 11450), (27, 11435), (38, 11369), (42, 11333), (44, 11321),

Gene: Faust_2 Start: 1232, Stop: 987, Start Num: 13

Candidate Starts for Faust_2:

(Start: 13 @1232 has 51 MA's), (22, 1163), (24, 1154), (25, 1151), (36, 1079), (46, 992),

Gene: Forrest_3 Start: 1105, Stop: 896, Start Num: 13

Candidate Starts for Forrest_3:

(Start: 13 @1105 has 51 MA's), (21, 1039), (24, 1027), (25, 1024), (31, 997), (36, 952), (39, 937),

Gene: Francob_2 Start: 1107, Stop: 895, Start Num: 13

Candidate Starts for Francob_2:

(Start: 13 @1107 has 51 MA's), (17, 1080), (21, 1044), (24, 1032), (25, 1029), (31, 1002), (36, 957), (39, 942),

Gene: Genie2_29 Start: 12944, Stop: 12732, Start Num: 12

Candidate Starts for Genie2_29:

(Start: 12 @12944 has 26 MA's), (23, 12878), (28, 12854), (29, 12851), (42, 12755),

Gene: Gibbi_31 Start: 12714, Stop: 12475, Start Num: 12

Candidate Starts for Gibbi_31:

(Start: 12 @12714 has 26 MA's), (23, 12642), (28, 12618), (29, 12615), (36, 12564), (42, 12519), (43, 12498),

Gene: Gilson_3 Start: 1105, Stop: 896, Start Num: 13

Candidate Starts for Gilson_3:

(Start: 13 @1105 has 51 MA's), (21, 1039), (24, 1027), (25, 1024), (27, 1009), (31, 997), (36, 952), (39, 937),

Gene: HangryHippo_24 Start: 11379, Stop: 11125, Start Num: 13

Candidate Starts for HangryHippo_24:

(1, 11442), (3, 11427), (5, 11418), (11, 11385), (Start: 13 @11379 has 51 MA's), (Start: 16 @11367 has 7 MA's), (23, 11301), (24, 11298), (25, 11295), (28, 11277), (29, 11274), (42, 11178),

Gene: IchabodCrane_26 Start: 12707, Stop: 12483, Start Num: 12

Candidate Starts for IchabodCrane_26:

(Start: 12 @12707 has 26 MA's), (23, 12635), (28, 12611), (29, 12608), (36, 12557), (42, 12512), (45, 12494),

Gene: Jada_3 Start: 1105, Stop: 896, Start Num: 13

Candidate Starts for Jada_3:

(Start: 13 @1105 has 51 MA's), (21, 1039), (24, 1027), (25, 1024), (26, 1018), (31, 997), (36, 952), (39, 937),

Gene: Jay2Jay_27 Start: 11709, Stop: 11482, Start Num: 13

Candidate Starts for Jay2Jay_27:

(Start: 13 @11709 has 51 MA's), (23, 11646), (25, 11640), (27, 11625), (38, 11559), (42, 11523), (44, 11511),

Gene: JimJam_29 Start: 13042, Stop: 12818, Start Num: 12

Candidate Starts for JimJam_29:

(Start: 12 @13042 has 26 MA's), (23, 12970), (28, 12946), (29, 12943), (36, 12892), (42, 12847),

Gene: Jollison_28 Start: 13060, Stop: 12821, Start Num: 12

Candidate Starts for Jollison_28:

(Start: 12 @13060 has 26 MA's), (23, 12988), (28, 12964), (29, 12961), (36, 12910), (42, 12865),

Gene: Karimac_28 Start: 13110, Stop: 12886, Start Num: 12

Candidate Starts for Karimac_28:

(Start: 12 @13110 has 26 MA's), (23, 13038), (28, 13014), (29, 13011), (36, 12960), (42, 12915), (45, 12897),

Gene: Karp_3 Start: 1095, Stop: 874, Start Num: 13

Candidate Starts for Karp_3:

(Start: 13 @1095 has 51 MA's), (18, 1065), (21, 1029), (25, 1014), (32, 984), (36, 942), (39, 927),

Gene: Kenrey_3 Start: 1094, Stop: 894, Start Num: 13

Candidate Starts for Kenrey_3:

(Start: 13 @1094 has 51 MA's), (21, 1040), (24, 1028), (25, 1025), (31, 998), (36, 953), (39, 938),

Gene: KentuckyRacer_29 Start: 12855, Stop: 12616, Start Num: 12

Candidate Starts for KentuckyRacer_29:

(Start: 12 @12855 has 26 MA's), (23, 12783), (28, 12759), (29, 12756), (36, 12705), (42, 12660), (43, 12639),

Gene: Larnav_24 Start: 11380, Stop: 11126, Start Num: 13

Candidate Starts for Larnav_24:

(1, 11443), (3, 11428), (5, 11419), (11, 11386), (Start: 13 @11380 has 51 MA's), (Start: 16 @11368 has 7 MA's), (23, 11302), (24, 11299), (25, 11296), (28, 11278), (29, 11275), (41, 11182), (42, 11179),

Gene: Leo04_24 Start: 11378, Stop: 11124, Start Num: 13

Candidate Starts for Leo04_24:

(1, 11441), (3, 11426), (5, 11417), (11, 11384), (Start: 13 @11378 has 51 MA's), (Start: 16 @11366 has 7 MA's), (23, 11300), (24, 11297), (25, 11294), (28, 11276), (29, 11273), (42, 11177),

Gene: Liandry_23 Start: 11048, Stop: 10830, Start Num: 13

Candidate Starts for Liandry_23:

(9, 11060), (Start: 13 @11048 has 51 MA's), (Start: 19 @11024 has 1 MA's), (23, 10985), (25, 10979), (27, 10964), (38, 10898), (42, 10862),

Gene: LilMartin_23 Start: 11408, Stop: 11169, Start Num: 13

Candidate Starts for LilMartin_23:

(Start: 13 @11408 has 51 MA's), (23, 11336), (25, 11330), (27, 11315), (38, 11249), (42, 11213),

Gene: Limpid_3 Start: 1145, Stop: 921, Start Num: 13

Candidate Starts for Limpid_3:

(Start: 13 @1145 has 51 MA's), (24, 1061), (25, 1058), (28, 1040), (36, 986), (39, 971), (40, 962),

Gene: LukeCage_28 Start: 12798, Stop: 12577, Start Num: 12

Candidate Starts for LukeCage_28:

(Start: 12 @12798 has 26 MA's), (23, 12729), (25, 12723), (28, 12705), (29, 12702), (42, 12606),

Gene: Lululemon_23 Start: 10759, Stop: 10505, Start Num: 13

Candidate Starts for Lululemon_23:

(1, 10822), (3, 10807), (5, 10798), (11, 10765), (Start: 13 @10759 has 51 MA's), (Start: 16 @10747 has 7 MA's), (23, 10681), (24, 10678), (25, 10675), (28, 10657), (29, 10654), (42, 10558),

Gene: Marsus_24 Start: 11255, Stop: 11025, Start Num: 13

Candidate Starts for Marsus_24:

(11, 11261), (Start: 13 @11255 has 51 MA's), (23, 11192), (25, 11186), (27, 11171), (30, 11162), (34, 11120), (38, 11105), (42, 11069),

Gene: MeganTheeKilla_3 Start: 1105, Stop: 896, Start Num: 13

Candidate Starts for MeganTheeKilla_3:

(Start: 13 @1105 has 51 MA's), (21, 1039), (24, 1027), (25, 1024), (27, 1009), (31, 997), (36, 952), (39, 937),

Gene: Mildred21_23 Start: 11103, Stop: 10861, Start Num: 13

Candidate Starts for Mildred21_23:

(Start: 13 @11103 has 51 MA's), (25, 11022), (27, 11007), (38, 10941), (42, 10905),

Gene: MindFlayer_27 Start: 12713, Stop: 12474, Start Num: 12

Candidate Starts for MindFlayer_27:

(Start: 12 @12713 has 26 MA's), (23, 12641), (28, 12617), (29, 12614), (36, 12563), (42, 12518),

Gene: Moab_2 Start: 1056, Stop: 847, Start Num: 13

Candidate Starts for Moab_2:

(Start: 13 @1056 has 51 MA's), (24, 981), (25, 978), (31, 951), (35, 909), (36, 906), (39, 891),

Gene: Mugiwara_28 Start: 12446, Stop: 12231, Start Num: 14

Candidate Starts for Mugiwara_28:

(Start: 14 @12446 has 3 MA's), (23, 12377), (28, 12353), (29, 12350), (42, 12254),

Gene: MulchMansion_23 Start: 11409, Stop: 11170, Start Num: 13

Candidate Starts for MulchMansion_23:

(Start: 13 @11409 has 51 MA's), (23, 11337), (25, 11331), (27, 11316), (38, 11250), (42, 11214),

Gene: Navo_22 Start: 10856, Stop: 10629, Start Num: 13

Candidate Starts for Navo_22:

(9, 10868), (Start: 13 @10856 has 51 MA's), (Start: 19 @10832 has 1 MA's), (23, 10793), (25, 10787), (27, 10772), (38, 10706), (42, 10670),

Gene: NootNoot_23 Start: 11056, Stop: 10838, Start Num: 13

Candidate Starts for NootNoot_23:

(9, 11068), (Start: 13 @11056 has 51 MA's), (Start: 19 @11032 has 1 MA's), (23, 10993), (25, 10987), (27, 10972), (38, 10906), (42, 10870),

Gene: PacManQ_23 Start: 10759, Stop: 10505, Start Num: 13

Candidate Starts for PacManQ_23:

(1, 10822), (3, 10807), (5, 10798), (11, 10765), (Start: 13 @10759 has 51 MA's), (Start: 16 @10747 has 7 MA's), (23, 10681), (24, 10678), (25, 10675), (28, 10657), (29, 10654), (42, 10558),

Gene: Paradiddles_23 Start: 11047, Stop: 10829, Start Num: 13

Candidate Starts for Paradiddles_23:

(9, 11059), (Start: 13 @11047 has 51 MA's), (Start: 19 @11023 has 1 MA's), (23, 10984), (25, 10978), (27, 10963), (38, 10897), (42, 10861),

Gene: Patelgo_3 Start: 1056, Stop: 847, Start Num: 13

Candidate Starts for Patelgo_3:

(Start: 13 @1056 has 51 MA's), (24, 981), (25, 978), (31, 951), (35, 909), (36, 906), (39, 891),

Gene: Peebs_24 Start: 11347, Stop: 11123, Start Num: 16

Candidate Starts for Peebs_24:

(1, 11422), (3, 11407), (5, 11398), (11, 11365), (Start: 13 @11359 has 51 MA's), (Start: 16 @11347 has 7 MA's), (23, 11281), (24, 11278), (25, 11275), (28, 11257), (29, 11254), (42, 11158),

Gene: Pepperwood_25 Start: 11532, Stop: 11278, Start Num: 13

Candidate Starts for Pepperwood_25:

(1, 11595), (3, 11580), (5, 11571), (11, 11538), (Start: 13 @11532 has 51 MA's), (Start: 16 @11520 has 7 MA's), (23, 11454), (24, 11451), (25, 11448), (28, 11430), (29, 11427), (41, 11334), (42, 11331),

Gene: Persimmon_22 Start: 10875, Stop: 10660, Start Num: 13

Candidate Starts for Persimmon_22:

(9, 10887), (Start: 13 @10875 has 51 MA's), (Start: 19 @10851 has 1 MA's), (23, 10812), (25, 10806), (27, 10791), (38, 10725), (42, 10689),

Gene: Phredrick_3 Start: 1105, Stop: 893, Start Num: 13

Candidate Starts for Phredrick_3:

(Start: 13 @1105 has 51 MA's), (24, 1027), (25, 1024), (31, 997), (36, 952), (39, 937),

Gene: PinkiePie_23 Start: 11049, Stop: 10831, Start Num: 13

Candidate Starts for PinkiePie_23:

(9, 11061), (Start: 13 @11049 has 51 MA's), (Start: 19 @11025 has 1 MA's), (23, 10986), (25, 10980), (27, 10965), (38, 10899), (42, 10863),

Gene: PumpkinSpice_28 Start: 13103, Stop: 12864, Start Num: 12

Candidate Starts for PumpkinSpice_28:

(Start: 12 @13103 has 26 MA's), (23, 13031), (28, 13007), (29, 13004), (36, 12953), (42, 12908),

Gene: Quaran19_29 Start: 13094, Stop: 12855, Start Num: 12

Candidate Starts for Quaran19_29:

(Start: 12 @13094 has 26 MA's), (23, 13022), (28, 12998), (29, 12995), (36, 12944), (42, 12899),

Gene: Rikishi_31 Start: 13009, Stop: 12770, Start Num: 12

Candidate Starts for Rikishi_31:

(Start: 12 @13009 has 26 MA's), (23, 12937), (28, 12913), (29, 12910), (36, 12859), (42, 12814),

Gene: Riptide_23 Start: 10961, Stop: 10734, Start Num: 13

Candidate Starts for Riptide_23:

(Start: 13 @10961 has 51 MA's), (25, 10892), (27, 10877), (38, 10811), (42, 10775),

Gene: SaltySpittoon_29 Start: 13103, Stop: 12864, Start Num: 12

Candidate Starts for SaltySpittoon_29:

(Start: 12 @13103 has 26 MA's), (23, 13031), (28, 13007), (29, 13004), (36, 12953), (42, 12908),

Gene: Samisti12_22 Start: 10959, Stop: 10717, Start Num: 16

Candidate Starts for Samisti12_22:

(1, 11034), (3, 11019), (5, 11010), (11, 10977), (Start: 13 @10971 has 51 MA's), (Start: 16 @10959 has 7 MA's), (23, 10893), (24, 10890), (25, 10887), (28, 10869), (29, 10866), (41, 10773), (42, 10770),

Gene: Scheme_25 Start: 11531, Stop: 11289, Start Num: 16

Candidate Starts for Scheme_25:

(1, 11606), (3, 11591), (5, 11582), (11, 11549), (Start: 13 @11543 has 51 MA's), (Start: 16 @11531 has 7 MA's), (23, 11465), (24, 11462), (25, 11459), (28, 11441), (29, 11438), (41, 11345), (42, 11342),

Gene: SeresaTree_3 Start: 1232, Stop: 987, Start Num: 13

Candidate Starts for SeresaTree_3:

(Start: 13 @1232 has 51 MA's), (22, 1163), (24, 1154), (25, 1151), (36, 1079), (46, 992),

Gene: Sham_3 Start: 1234, Stop: 1022, Start Num: 13

Candidate Starts for Sham_3:

(Start: 13 @1234 has 51 MA's), (24, 1171), (25, 1168), (29, 1147), (31, 1141), (33, 1105), (36, 1096), (39, 1081),

Gene: Shuckle_23 Start: 11517, Stop: 11275, Start Num: 16

Candidate Starts for Shuckle_23:

(1, 11592), (3, 11577), (5, 11568), (11, 11535), (Start: 13 @11529 has 51 MA's), (Start: 16 @11517 has 7 MA's), (23, 11451), (24, 11448), (25, 11445), (28, 11427), (29, 11424), (41, 11331), (42, 11328),

Gene: Sollertia_29 Start: 12944, Stop: 12732, Start Num: 12

Candidate Starts for Sollertia_29:

(Start: 12 @12944 has 26 MA's), (23, 12878), (28, 12854), (29, 12851), (42, 12755),

Gene: SparkleGoddess_3 Start: 1091, Stop: 873, Start Num: 13
Candidate Starts for SparkleGoddess_3:
(Start: 13 @1091 has 51 MA's), (18, 1061), (21, 1025), (25, 1010), (28, 992), (32, 980), (36, 938), (39, 923),

Gene: Spelly_29 Start: 13058, Stop: 12819, Start Num: 12
Candidate Starts for Spelly_29:
(Start: 12 @13058 has 26 MA's), (23, 12986), (28, 12962), (29, 12959), (36, 12908), (42, 12863),

Gene: Spilled_28 Start: 12713, Stop: 12474, Start Num: 12
Candidate Starts for Spilled_28:
(Start: 12 @12713 has 26 MA's), (23, 12641), (28, 12617), (29, 12614), (36, 12563), (42, 12518),

Gene: Squillium_23 Start: 11048, Stop: 10830, Start Num: 13
Candidate Starts for Squillium_23:
(9, 11060), (Start: 13 @11048 has 51 MA's), (Start: 19 @11024 has 1 MA's), (23, 10985), (25, 10979), (27, 10964), (38, 10898), (42, 10862),

Gene: Stanimal_29 Start: 12944, Stop: 12732, Start Num: 12
Candidate Starts for Stanimal_29:
(Start: 12 @12944 has 26 MA's), (23, 12878), (28, 12854), (29, 12851), (42, 12755),

Gene: StarPlatinum_27 Start: 12696, Stop: 12475, Start Num: 12
Candidate Starts for StarPlatinum_27:
(Start: 12 @12696 has 26 MA's), (23, 12627), (28, 12603), (29, 12600), (42, 12504),

Gene: Starbow_27 Start: 13079, Stop: 12855, Start Num: 12
Candidate Starts for Starbow_27:
(Start: 12 @13079 has 26 MA's), (23, 13007), (28, 12983), (29, 12980), (36, 12929), (42, 12884),

Gene: Stigma_3 Start: 1095, Stop: 874, Start Num: 13
Candidate Starts for Stigma_3:
(Start: 13 @1095 has 51 MA's), (18, 1065), (21, 1029), (25, 1014), (28, 996), (32, 984), (36, 942), (39, 927),

Gene: Sushi23_25 Start: 11367, Stop: 11125, Start Num: 16
Candidate Starts for Sushi23_25:
(1, 11442), (3, 11427), (5, 11418), (11, 11385), (Start: 13 @11379 has 51 MA's), (Start: 16 @11367 has 7 MA's), (23, 11301), (24, 11298), (25, 11295), (28, 11277), (29, 11274), (41, 11181), (42, 11178),

Gene: Targaryen_22 Start: 11515, Stop: 11288, Start Num: 13
Candidate Starts for Targaryen_22:
(Start: 13 @11515 has 51 MA's), (23, 11452), (25, 11446), (27, 11431), (38, 11365), (42, 11329), (44, 11317),

Gene: Teutsch_23 Start: 10963, Stop: 10727, Start Num: 16
Candidate Starts for Teutsch_23:
(1, 11038), (3, 11023), (5, 11014), (11, 10981), (Start: 13 @10975 has 51 MA's), (Start: 16 @10963 has 7 MA's), (23, 10897), (24, 10894), (28, 10873), (29, 10870), (41, 10777), (42, 10774),

Gene: TomSawyer_27 Start: 12697, Stop: 12458, Start Num: 12
Candidate Starts for TomSawyer_27:
(Start: 12 @12697 has 26 MA's), (23, 12625), (28, 12601), (29, 12598), (36, 12547), (42, 12502),

Gene: Tomas_28 Start: 13089, Stop: 12844, Start Num: 15

Candidate Starts for Tomas_28:

(Start: 15 @13089 has 2 MA's), (23, 13017), (24, 13014), (27, 12996), (28, 12993), (29, 12990), (33, 12948), (36, 12939), (42, 12894), (43, 12876),

Gene: Tribute_23 Start: 11214, Stop: 10978, Start Num: 16

Candidate Starts for Tribute_23:

(1, 11289), (3, 11274), (5, 11265), (11, 11232), (Start: 13 @11226 has 51 MA's), (Start: 16 @11214 has 7 MA's), (23, 11148), (24, 11145), (28, 11124), (29, 11121), (41, 11028), (42, 11025),

Gene: TunaTartare_3 Start: 1216, Stop: 1013, Start Num: 13

Candidate Starts for TunaTartare_3:

(Start: 13 @1216 has 51 MA's), (20, 1171), (24, 1153), (25, 1150), (29, 1129), (33, 1087), (36, 1078),

Gene: Warpy_27 Start: 11729, Stop: 11502, Start Num: 13

Candidate Starts for Warpy_27:

(Start: 13 @11729 has 51 MA's), (23, 11666), (25, 11660), (27, 11645), (38, 11579), (42, 11543), (44, 11531),

Gene: Watermoore_24 Start: 11380, Stop: 11126, Start Num: 13

Candidate Starts for Watermoore_24:

(1, 11443), (3, 11428), (5, 11419), (11, 11386), (Start: 13 @11380 has 51 MA's), (Start: 16 @11368 has 7 MA's), (23, 11302), (24, 11299), (25, 11296), (28, 11278), (29, 11275), (42, 11179),

Gene: Westy_3 Start: 1095, Stop: 874, Start Num: 13

Candidate Starts for Westy_3:

(Start: 13 @1095 has 51 MA's), (18, 1065), (21, 1029), (25, 1014), (32, 984), (36, 942), (39, 927),

Gene: WhereRU_22 Start: 10875, Stop: 10660, Start Num: 13

Candidate Starts for WhereRU_22:

(9, 10887), (Start: 13 @10875 has 51 MA's), (Start: 19 @10851 has 1 MA's), (23, 10812), (25, 10806), (27, 10791), (38, 10725), (42, 10689),

Gene: Wipeout_27 Start: 12719, Stop: 12480, Start Num: 12

Candidate Starts for Wipeout_27:

(Start: 12 @12719 has 26 MA's), (23, 12647), (28, 12623), (29, 12620), (36, 12569), (42, 12524),

Gene: Wofford_25 Start: 11766, Stop: 11527, Start Num: 14

Candidate Starts for Wofford_25:

(Start: 14 @11766 has 3 MA's), (23, 11688), (28, 11664), (29, 11661), (34, 11616), (36, 11610), (42, 11565), (45, 11532),

Gene: Yaboi_30 Start: 12920, Stop: 12708, Start Num: 12

Candidate Starts for Yaboi_30:

(Start: 12 @12920 has 26 MA's), (23, 12854), (28, 12830), (29, 12827), (42, 12731),