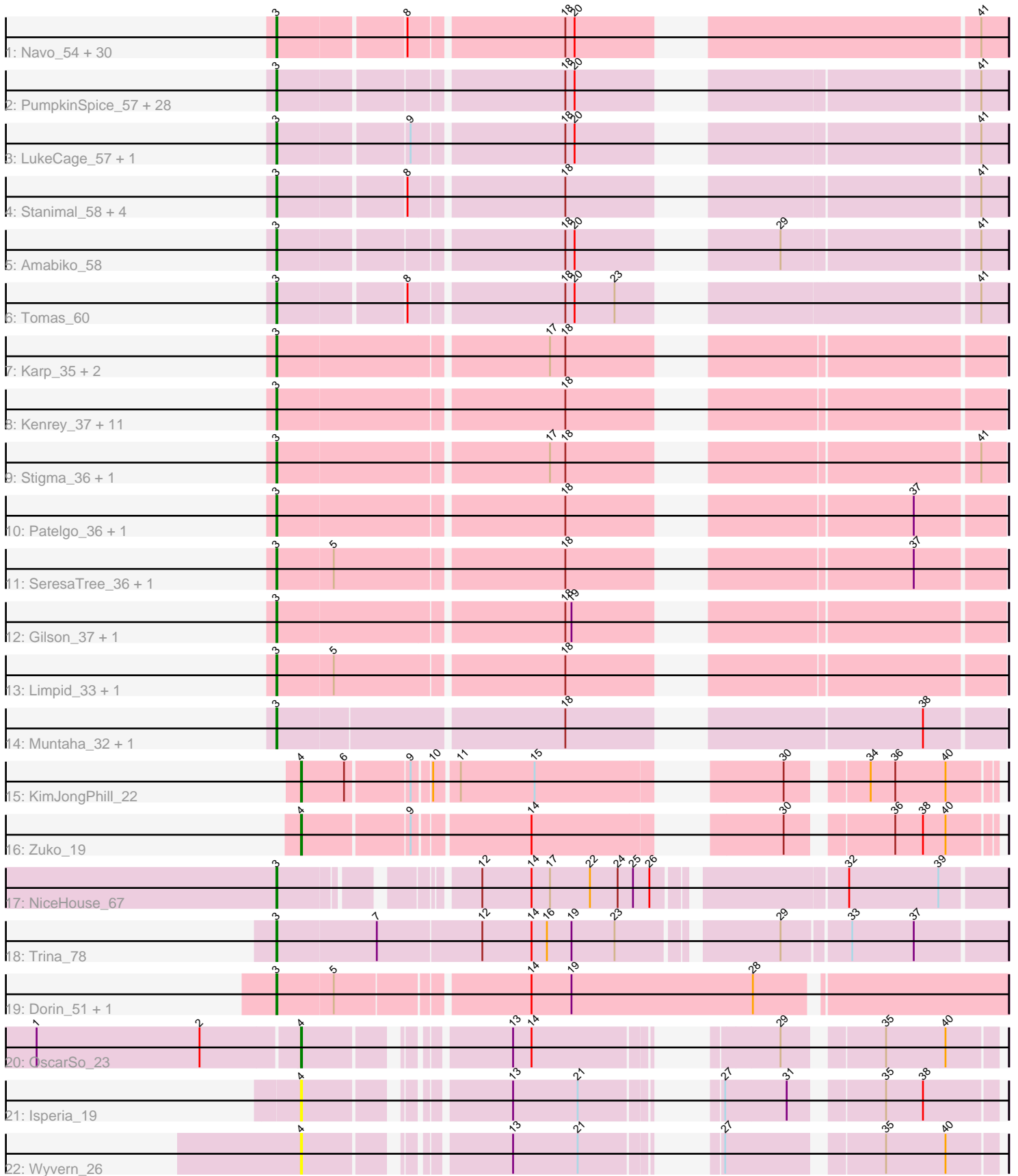


Pham 171340



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 171340 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171340 has 105 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Navo_54, Jay2Jay_61, WhereRU_55, Liandry_55, Sushi23_56, Teutsch_56, Warpy_60, Squillum_55, NootNoot_52, EGole_57, Persimmon_52, Cross_56, Leo04_57, Watermoore_56, Lululemon_57, BlueOtter_58, Evy_57, Bartholomune_54, Braelyn_55, PinkiePie_54, Cursive_54, Daubenski_57, Targaryen_57, Paradiddles_52, HangryHippo_58, Tribute_54, Samisti12_56, Larnav_61, Peebs_55, PacManQ_57, Pepperwood_56
- Track 2 : PumpkinSpice_57, Anedea_54, Wofford_57, Karimac_57, Wipeout_56, Elmer_65, Birchlyn_55, Bmoc_54, Angela_53, Mugiwara_59, Gibbi_62, TomSawyer_56, JimJam_58, Bordeaux_56, MindFlayer_56, Spelly_58, MulchMansion_53, IchabodCrane_55, LilMartin_53, Quaran19_58, KentuckyRacer_62, Starbow_56, Jollison_63, CeilingFan_60, Enygma_58, Mildred21_54, SaltySpittoon_58, Spilled_59, Battuta_56
- Track 3 : LukeCage_57, StarPlatinum_58
- Track 4 : Stanimal_58, Yaboi_58, Sollertia_58, Genie2_58, BoomerJR_58
- Track 5 : Amabiko_58
- Track 6 : Tomas_60
- Track 7 : Karp_35, Belfort_37, Comrade_36
- Track 8 : Kenrey_37, Jada_35, Beuffert_34, Blueeyedbeauty_35, TunaTartare_35, Sham_33, Francob_35, Phredrick_35, Emma1919_37, Circinus_33, BillNye_31, Forrest_37
- Track 9 : Stigma_36, SparkleGoddess_36
- Track 10 : Patelgo_36, Moab_36
- Track 11 : SeresaTree_36, Faust_36
- Track 12 : Gilson_37, MeganTheeKilla_35
- Track 13 : Limpid_33, Annadreamy_33
- Track 14 : Muntaha_32, Wakanda_32
- Track 15 : KimJongPhill_22
- Track 16 : Zuko_19
- Track 17 : NiceHouse_67
- Track 18 : Trina_78
- Track 19 : Dorin_51, Francesca_51
- Track 20 : OscarSo_23
- Track 21 : Isperia_19
- Track 22 : Wyvern_26

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

The start number called the most often in the published annotations is 3, it was called in 86 of the 89 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amabiko_58, Anedea_54, Angela_53, Annadreamy_33, Bartholomune_54, Battuta_56, Belfort_37, Beuffert_34, BillNye_31, Birchlyn_55, BlueOtter_58, Blueeyedbeauty_35, Bmoc_54, BoomerJR_58, Bordeaux_56, Braelyn_55, CeilingFan_60, Circinus_33, Comrade_36, Cross_56, Cursive_54, Daubenski_57, Dorin_51, EGole_57, Elmer_65, Emma1919_37, Enygma_58, Evy_57, Faust_36, Forrest_37, Francesca_51, Francob_35, Genie2_58, Gibbi_62, Gilson_37, HangryHippo_58, IchabodCrane_55, Jada_35, Jay2Jay_61, JimJam_58, Jollison_63, Karimac_57, Karp_35, Kenrey_37, KentuckyRacer_62, Larnav_61, Leo04_57, Liandry_55, LilMartin_53, Limpid_33, LukeCage_57, Lululemon_57, MeganTheeKilla_35, Mildred21_54, MindFlayer_56, Moab_36, Mugiwara_59, MulchMansion_53, Muntaha_32, Navo_54, NiceHouse_67, NootNoot_52, PacManQ_57, Paradiddles_52, Patelgo_36, Peebs_55, Pepperwood_56, Persimmon_52, Phredrick_35, PinkiePie_54, PumpkinSpice_57, Quarant19_58, SaltySpittoon_58, Samisti12_56, SeresaTree_36, Sham_33, Sollertia_58, SparkleGoddess_36, Spelly_58, Spilled_59, Squillium_55, Stanimal_58, StarPlatinum_58, Starbow_56, Stigma_36, Sushi23_56, Targaryen_57, Teutsch_56, TomSawyer_56, Tomas_60, Tribute_54, Trina_78, TunaTartare_35, Wakanda_32, Warpy_60, Watermoore_56, WhereRU_55, Wipeout_56, Wofford_57, Yaboi_58,

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

-

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

- Isperia_19, KimJongPhill_22, OscarSo_23, Wyvern_26, Zuko_19,

Summary by start number:

Start 3:

- Found in 100 of 105 (95.2%) of genes in pham
- Manual Annotations of this start: 86 of 89
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amabiko_58 (BE2), Anedea_54 (BE1), Angela_53 (BE1), Annadreamy_33 (BK1), Bartholomune_54 (BE1), Battuta_56 (BE2), Belfort_37 (BK1), Beuffert_34 (BK1), BillNye_31 (BK2), Birchlyn_55 (BE2), BlueOtter_58 (BE1), Blueeyedbeauty_35 (BK1), Bmoc_54 (BE1), BoomerJR_58 (BE2), Bordeaux_56 (BE2), Braelyn_55 (BE1), CeilingFan_60 (BE2), Circinus_33 (BK2), Comrade_36 (BK1), Cross_56 (BE1), Cursive_54 (BE1), Daubenski_57 (BE1), Dorin_51 (CG), EGole_57 (BE1), Elmer_65 (BE2), Emma1919_37 (BK1), Enygma_58 (BE2), Evy_57 (BE1), Faust_36 (BK1), Forrest_37 (BK1), Francesca_51 (CG), Francob_35 (BK1), Genie2_58 (BE2), Gibbi_62 (BE2), Gilson_37 (BK1), HangryHippo_58 (BE1), IchabodCrane_55 (BE2), Jada_35 (BK1), Jay2Jay_61 (BE1), JimJam_58 (BE2), Jollison_63 (BE2), Karimac_57 (BE2), Karp_35 (BK1), Kenrey_37 (BK1), KentuckyRacer_62 (BE2), Larnav_61 (BE1), Leo04_57 (BE1), Liandry_55 (BE1), LilMartin_53 (BE1), Limpid_33 (BK1), LukeCage_57 (BE2), Lululemon_57 (BE1), MeganTheeKilla_35 (BK1), Mildred21_54 (BE1), MindFlayer_56 (BE2), Moab_36 (BK1), Mugiwara_59 (BE2), MulchMansion_53 (BE1), Muntaha_32 (BK2),

Navo_54 (BE1), NiceHouse_67 (CE), NootNoot_52 (BE1), PacManQ_57 (BE1), Paradiddles_52 (BE1), Patelgo_36 (BK1), Peebs_55 (BE1), Pepperwood_56 (BE1), Persimmon_52 (BE1), Phredrick_35 (BK1), PinkiePie_54 (BE1), PumpkinSpice_57 (BE2), Quarant19_58 (BE2), SaltySpittoon_58 (BE2), Samisti12_56 (BE1), SeresaTree_36 (BK1), Sham_33 (BK1), Sollertia_58 (BE2), SparkleGoddess_36 (BK1), Spelly_58 (BE2), Spilled_59 (BE2), Squillium_55 (BE1), Stanimal_58 (BE2), StarPlatinum_58 (BE2), Starbow_56 (BE2), Stigma_36 (BK1), Sushi23_56 (BE1), Targaryen_57 (BE1), Teutsch_56 (BE1), TomSawyer_56 (BE2), Tomas_60 (BE2), Tribute_54 (BE1), Trina_78 (CE), TunaTartare_35 (BK1), Wakanda_32 (BK2), Warpy_60 (BE1), Watermoore_56 (BE1), WhereRU_55 (BE1), Wipeout_56 (BE2), Wofford_57 (BE2), Yaboi_58 (BE2),

Start 4:

- Found in 5 of 105 (4.8%) of genes in pham
- Manual Annotations of this start: 3 of 89
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Isperia_19 (GJ), KimJongPhill_22 (BR), OscarSo_23 (GJ), Wyvern_26 (GJ), Zuko_19 (BR),

Summary by clusters:

There are 8 clusters represented in this pham: BR, CG, CE, BK1, BK2, BE2, BE1, GJ,

Info for manual annotations of cluster BE1:

- Start number 3 was manually annotated 31 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 3 was manually annotated 26 times for cluster BE2.

Info for manual annotations of cluster BK1:

- Start number 3 was manually annotated 22 times for cluster BK1.

Info for manual annotations of cluster BK2:

- Start number 3 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster BR:

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

Info for manual annotations of cluster CE:

- Start number 3 was manually annotated 2 times for cluster CE.

Info for manual annotations of cluster CG:

- Start number 3 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster GJ:

- Start number 4 was manually annotated 1 time for cluster GJ.

Gene Information:

Gene: Amabiko_58 Start: 32331, Stop: 32954, Start Num: 3

Candidate Starts for Amabiko_58:
(Start: 3 @32331 has 86 MA's), (18, 32589), (20, 32598), (29, 32745), (41, 32928),

Gene: Anedea_54 Start: 31851, Stop: 32474, Start Num: 3
Candidate Starts for Anedea_54:
(Start: 3 @31851 has 86 MA's), (18, 32109), (20, 32118), (41, 32448),

Gene: Angela_53 Start: 31326, Stop: 31949, Start Num: 3
Candidate Starts for Angela_53:
(Start: 3 @31326 has 86 MA's), (18, 31584), (20, 31593), (41, 31923),

Gene: Annadreamy_33 Start: 20959, Stop: 21588, Start Num: 3
Candidate Starts for Annadreamy_33:
(Start: 3 @20959 has 86 MA's), (5, 21013), (18, 21226),

Gene: Bartholomune_54 Start: 31640, Stop: 32263, Start Num: 3
Candidate Starts for Bartholomune_54:
(Start: 3 @31640 has 86 MA's), (8, 31757), (18, 31898), (20, 31907), (41, 32237),

Gene: Battuta_56 Start: 32305, Stop: 32928, Start Num: 3
Candidate Starts for Battuta_56:
(Start: 3 @32305 has 86 MA's), (18, 32563), (20, 32572), (41, 32902),

Gene: Belfort_37 Start: 23475, Stop: 24104, Start Num: 3
Candidate Starts for Belfort_37:
(Start: 3 @23475 has 86 MA's), (17, 23727), (18, 23742),

Gene: Beuffert_34 Start: 22054, Stop: 22683, Start Num: 3
Candidate Starts for Beuffert_34:
(Start: 3 @22054 has 86 MA's), (18, 22321),

Gene: BillNye_31 Start: 24340, Stop: 24969, Start Num: 3
Candidate Starts for BillNye_31:
(Start: 3 @24340 has 86 MA's), (18, 24607),

Gene: Birchlyn_55 Start: 30188, Stop: 30811, Start Num: 3
Candidate Starts for Birchlyn_55:
(Start: 3 @30188 has 86 MA's), (18, 30446), (20, 30455), (41, 30785),

Gene: BlueOtter_58 Start: 33004, Stop: 33627, Start Num: 3
Candidate Starts for BlueOtter_58:
(Start: 3 @33004 has 86 MA's), (8, 33121), (18, 33262), (20, 33271), (41, 33601),

Gene: Blueeyedbeauty_35 Start: 21451, Stop: 22080, Start Num: 3
Candidate Starts for Blueeyedbeauty_35:
(Start: 3 @21451 has 86 MA's), (18, 21718),

Gene: Bmoc_54 Start: 31636, Stop: 32259, Start Num: 3
Candidate Starts for Bmoc_54:
(Start: 3 @31636 has 86 MA's), (18, 31894), (20, 31903), (41, 32233),

Gene: BoomerJR_58 Start: 32194, Stop: 32817, Start Num: 3
Candidate Starts for BoomerJR_58:

(Start: 3 @32194 has 86 MA's), (8, 32311), (18, 32452), (41, 32791),

Gene: Bordeaux_56 Start: 32460, Stop: 33083, Start Num: 3

Candidate Starts for Bordeaux_56:

(Start: 3 @32460 has 86 MA's), (18, 32718), (20, 32727), (41, 33057),

Gene: Braelyn_55 Start: 32407, Stop: 33030, Start Num: 3

Candidate Starts for Braelyn_55:

(Start: 3 @32407 has 86 MA's), (8, 32524), (18, 32665), (20, 32674), (41, 33004),

Gene: CeilingFan_60 Start: 32220, Stop: 32843, Start Num: 3

Candidate Starts for CeilingFan_60:

(Start: 3 @32220 has 86 MA's), (18, 32478), (20, 32487), (41, 32817),

Gene: Circinus_33 Start: 24476, Stop: 25105, Start Num: 3

Candidate Starts for Circinus_33:

(Start: 3 @24476 has 86 MA's), (18, 24743),

Gene: Comrade_36 Start: 23090, Stop: 23719, Start Num: 3

Candidate Starts for Comrade_36:

(Start: 3 @23090 has 86 MA's), (17, 23342), (18, 23357),

Gene: Cross_56 Start: 33005, Stop: 33628, Start Num: 3

Candidate Starts for Cross_56:

(Start: 3 @33005 has 86 MA's), (8, 33122), (18, 33263), (20, 33272), (41, 33602),

Gene: Cursive_54 Start: 32530, Stop: 33153, Start Num: 3

Candidate Starts for Cursive_54:

(Start: 3 @32530 has 86 MA's), (8, 32647), (18, 32788), (20, 32797), (41, 33127),

Gene: Daubenski_57 Start: 32750, Stop: 33373, Start Num: 3

Candidate Starts for Daubenski_57:

(Start: 3 @32750 has 86 MA's), (8, 32867), (18, 33008), (20, 33017), (41, 33347),

Gene: Dorin_51 Start: 32041, Stop: 32715, Start Num: 3

Candidate Starts for Dorin_51:

(Start: 3 @32041 has 86 MA's), (5, 32095), (14, 32269), (19, 32308), (28, 32485),

Gene: EGole_57 Start: 33960, Stop: 34583, Start Num: 3

Candidate Starts for EGole_57:

(Start: 3 @33960 has 86 MA's), (8, 34077), (18, 34218), (20, 34227), (41, 34557),

Gene: Elmer_65 Start: 33365, Stop: 33988, Start Num: 3

Candidate Starts for Elmer_65:

(Start: 3 @33365 has 86 MA's), (18, 33623), (20, 33632), (41, 33962),

Gene: Emma1919_37 Start: 21877, Stop: 22506, Start Num: 3

Candidate Starts for Emma1919_37:

(Start: 3 @21877 has 86 MA's), (18, 22144),

Gene: Enygma_58 Start: 34137, Stop: 34760, Start Num: 3

Candidate Starts for Enygma_58:

(Start: 3 @34137 has 86 MA's), (18, 34395), (20, 34404), (41, 34734),

Gene: Evy_57 Start: 33006, Stop: 33629, Start Num: 3
Candidate Starts for Evy_57:
(Start: 3 @33006 has 86 MA's), (8, 33123), (18, 33264), (20, 33273), (41, 33603),

Gene: Faust_36 Start: 22457, Stop: 23086, Start Num: 3
Candidate Starts for Faust_36:
(Start: 3 @22457 has 86 MA's), (5, 22511), (18, 22724), (37, 23003),

Gene: Forrest_37 Start: 22000, Stop: 22629, Start Num: 3
Candidate Starts for Forrest_37:
(Start: 3 @22000 has 86 MA's), (18, 22267),

Gene: Francesca_51 Start: 32173, Stop: 32847, Start Num: 3
Candidate Starts for Francesca_51:
(Start: 3 @32173 has 86 MA's), (5, 32227), (14, 32401), (19, 32440), (28, 32617),

Gene: Francob_35 Start: 22009, Stop: 22638, Start Num: 3
Candidate Starts for Francob_35:
(Start: 3 @22009 has 86 MA's), (18, 22276),

Gene: Genie2_58 Start: 32308, Stop: 32931, Start Num: 3
Candidate Starts for Genie2_58:
(Start: 3 @32308 has 86 MA's), (8, 32425), (18, 32566), (41, 32905),

Gene: Gibbi_62 Start: 32443, Stop: 33066, Start Num: 3
Candidate Starts for Gibbi_62:
(Start: 3 @32443 has 86 MA's), (18, 32701), (20, 32710), (41, 33040),

Gene: Gilson_37 Start: 21830, Stop: 22459, Start Num: 3
Candidate Starts for Gilson_37:
(Start: 3 @21830 has 86 MA's), (18, 22097), (19, 22103),

Gene: HangryHippo_58 Start: 33004, Stop: 33627, Start Num: 3
Candidate Starts for HangryHippo_58:
(Start: 3 @33004 has 86 MA's), (8, 33121), (18, 33262), (20, 33271), (41, 33601),

Gene: IchabodCrane_55 Start: 32032, Stop: 32655, Start Num: 3
Candidate Starts for IchabodCrane_55:
(Start: 3 @32032 has 86 MA's), (18, 32290), (20, 32299), (41, 32629),

Gene: Isperia_19 Start: 11863, Stop: 12402, Start Num: 4
Candidate Starts for Isperia_19:
(Start: 4 @11863 has 3 MA's), (13, 12028), (21, 12091), (27, 12166), (31, 12223), (35, 12298), (38, 12334),

Gene: Jada_35 Start: 21182, Stop: 21811, Start Num: 3
Candidate Starts for Jada_35:
(Start: 3 @21182 has 86 MA's), (18, 21449),

Gene: Jay2Jay_61 Start: 33859, Stop: 34482, Start Num: 3
Candidate Starts for Jay2Jay_61:
(Start: 3 @33859 has 86 MA's), (8, 33976), (18, 34117), (20, 34126), (41, 34456),

Gene: JimJam_58 Start: 32406, Stop: 33029, Start Num: 3
Candidate Starts for JimJam_58:
(Start: 3 @32406 has 86 MA's), (18, 32664), (20, 32673), (41, 33003),

Gene: Jollison_63 Start: 32288, Stop: 32911, Start Num: 3
Candidate Starts for Jollison_63:
(Start: 3 @32288 has 86 MA's), (18, 32546), (20, 32555), (41, 32885),

Gene: Karimac_57 Start: 32437, Stop: 33060, Start Num: 3
Candidate Starts for Karimac_57:
(Start: 3 @32437 has 86 MA's), (18, 32695), (20, 32704), (41, 33034),

Gene: Karp_35 Start: 22690, Stop: 23319, Start Num: 3
Candidate Starts for Karp_35:
(Start: 3 @22690 has 86 MA's), (17, 22942), (18, 22957),

Gene: Kenrey_37 Start: 21879, Stop: 22508, Start Num: 3
Candidate Starts for Kenrey_37:
(Start: 3 @21879 has 86 MA's), (18, 22146),

Gene: KentuckyRacer_62 Start: 32221, Stop: 32844, Start Num: 3
Candidate Starts for KentuckyRacer_62:
(Start: 3 @32221 has 86 MA's), (18, 32479), (20, 32488), (41, 32818),

Gene: KimJongPhill_22 Start: 15059, Stop: 15628, Start Num: 4
Candidate Starts for KimJongPhill_22:
(Start: 4 @15059 has 3 MA's), (6, 15101), (9, 15158), (10, 15173), (11, 15194), (15, 15266), (30, 15449), (34, 15512), (36, 15536), (40, 15584),

Gene: Larnav_61 Start: 32989, Stop: 33612, Start Num: 3
Candidate Starts for Larnav_61:
(Start: 3 @32989 has 86 MA's), (8, 33106), (18, 33247), (20, 33256), (41, 33586),

Gene: Leo04_57 Start: 33504, Stop: 34127, Start Num: 3
Candidate Starts for Leo04_57:
(Start: 3 @33504 has 86 MA's), (8, 33621), (18, 33762), (20, 33771), (41, 34101),

Gene: Liandry_55 Start: 32389, Stop: 33012, Start Num: 3
Candidate Starts for Liandry_55:
(Start: 3 @32389 has 86 MA's), (8, 32506), (18, 32647), (20, 32656), (41, 32986),

Gene: LilMartin_53 Start: 31274, Stop: 31897, Start Num: 3
Candidate Starts for LilMartin_53:
(Start: 3 @31274 has 86 MA's), (18, 31532), (20, 31541), (41, 31871),

Gene: Limpid_33 Start: 20958, Stop: 21587, Start Num: 3
Candidate Starts for Limpid_33:
(Start: 3 @20958 has 86 MA's), (5, 21012), (18, 21225),

Gene: LukeCage_57 Start: 32187, Stop: 32810, Start Num: 3
Candidate Starts for LukeCage_57:
(Start: 3 @32187 has 86 MA's), (9, 32307), (18, 32445), (20, 32454), (41, 32784),

Gene: Lululemon_57 Start: 32385, Stop: 33008, Start Num: 3
Candidate Starts for Lululemon_57:
(Start: 3 @32385 has 86 MA's), (8, 32502), (18, 32643), (20, 32652), (41, 32982),

Gene: MeganTheeKilla_35 Start: 21191, Stop: 21820, Start Num: 3
Candidate Starts for MeganTheeKilla_35:
(Start: 3 @21191 has 86 MA's), (18, 21458), (19, 21464),

Gene: Mildred21_54 Start: 31467, Stop: 32090, Start Num: 3
Candidate Starts for Mildred21_54:
(Start: 3 @31467 has 86 MA's), (18, 31725), (20, 31734), (41, 32064),

Gene: MindFlayer_56 Start: 31939, Stop: 32562, Start Num: 3
Candidate Starts for MindFlayer_56:
(Start: 3 @31939 has 86 MA's), (18, 32197), (20, 32206), (41, 32536),

Gene: Moab_36 Start: 23022, Stop: 23651, Start Num: 3
Candidate Starts for Moab_36:
(Start: 3 @23022 has 86 MA's), (18, 23289), (37, 23568),

Gene: Mugiwara_59 Start: 32687, Stop: 33310, Start Num: 3
Candidate Starts for Mugiwara_59:
(Start: 3 @32687 has 86 MA's), (18, 32945), (20, 32954), (41, 33284),

Gene: MulchMansion_53 Start: 31274, Stop: 31897, Start Num: 3
Candidate Starts for MulchMansion_53:
(Start: 3 @31274 has 86 MA's), (18, 31532), (20, 31541), (41, 31871),

Gene: Muntaha_32 Start: 22808, Stop: 23440, Start Num: 3
Candidate Starts for Muntaha_32:
(Start: 3 @22808 has 86 MA's), (18, 23075), (38, 23366),

Gene: Navo_54 Start: 32302, Stop: 32931, Start Num: 3
Candidate Starts for Navo_54:
(Start: 3 @32302 has 86 MA's), (8, 32419), (18, 32560), (20, 32569), (41, 32905),

Gene: NiceHouse_67 Start: 38460, Stop: 39092, Start Num: 3
Candidate Starts for NiceHouse_67:
(Start: 3 @38460 has 86 MA's), (12, 38616), (14, 38664), (17, 38682), (22, 38721), (24, 38748), (25, 38763), (26, 38778), (32, 38943), (39, 39030),

Gene: NootNoot_52 Start: 31303, Stop: 31926, Start Num: 3
Candidate Starts for NootNoot_52:
(Start: 3 @31303 has 86 MA's), (8, 31420), (18, 31561), (20, 31570), (41, 31900),

Gene: OscarSo_23 Start: 14282, Stop: 14821, Start Num: 4
Candidate Starts for OscarSo_23:
(1, 14033), (2, 14192), (Start: 4 @14282 has 3 MA's), (13, 14447), (14, 14465), (29, 14636), (35, 14717), (40, 14774),

Gene: PacManQ_57 Start: 32385, Stop: 33008, Start Num: 3
Candidate Starts for PacManQ_57:

(Start: 3 @32385 has 86 MA's), (8, 32502), (18, 32643), (20, 32652), (41, 32982),

Gene: Paradiddles_52 Start: 31564, Stop: 32187, Start Num: 3

Candidate Starts for Paradiddles_52:

(Start: 3 @31564 has 86 MA's), (8, 31681), (18, 31822), (20, 31831), (41, 32161),

Gene: Patelgo_36 Start: 23212, Stop: 23841, Start Num: 3

Candidate Starts for Patelgo_36:

(Start: 3 @23212 has 86 MA's), (18, 23479), (37, 23758),

Gene: Peebs_55 Start: 32742, Stop: 33365, Start Num: 3

Candidate Starts for Peebs_55:

(Start: 3 @32742 has 86 MA's), (8, 32859), (18, 33000), (20, 33009), (41, 33339),

Gene: Pepperwood_56 Start: 32875, Stop: 33498, Start Num: 3

Candidate Starts for Pepperwood_56:

(Start: 3 @32875 has 86 MA's), (8, 32992), (18, 33133), (20, 33142), (41, 33472),

Gene: Persimmon_52 Start: 31233, Stop: 31856, Start Num: 3

Candidate Starts for Persimmon_52:

(Start: 3 @31233 has 86 MA's), (8, 31350), (18, 31491), (20, 31500), (41, 31830),

Gene: Phredrick_35 Start: 21085, Stop: 21714, Start Num: 3

Candidate Starts for Phredrick_35:

(Start: 3 @21085 has 86 MA's), (18, 21352),

Gene: PinkiePie_54 Start: 32389, Stop: 33012, Start Num: 3

Candidate Starts for PinkiePie_54:

(Start: 3 @32389 has 86 MA's), (8, 32506), (18, 32647), (20, 32656), (41, 32986),

Gene: PumpkinSpice_57 Start: 32331, Stop: 32954, Start Num: 3

Candidate Starts for PumpkinSpice_57:

(Start: 3 @32331 has 86 MA's), (18, 32589), (20, 32598), (41, 32928),

Gene: Quaran19_58 Start: 32322, Stop: 32945, Start Num: 3

Candidate Starts for Quaran19_58:

(Start: 3 @32322 has 86 MA's), (18, 32580), (20, 32589), (41, 32919),

Gene: SaltySpittoon_58 Start: 32331, Stop: 32954, Start Num: 3

Candidate Starts for SaltySpittoon_58:

(Start: 3 @32331 has 86 MA's), (18, 32589), (20, 32598), (41, 32928),

Gene: Samisti12_56 Start: 34178, Stop: 34801, Start Num: 3

Candidate Starts for Samisti12_56:

(Start: 3 @34178 has 86 MA's), (8, 34295), (18, 34436), (20, 34445), (41, 34775),

Gene: SeresaTree_36 Start: 21847, Stop: 22476, Start Num: 3

Candidate Starts for SeresaTree_36:

(Start: 3 @21847 has 86 MA's), (5, 21901), (18, 22114), (37, 22393),

Gene: Sham_33 Start: 22950, Stop: 23579, Start Num: 3

Candidate Starts for Sham_33:

(Start: 3 @22950 has 86 MA's), (18, 23217),

Gene: Sollertia_58 Start: 32308, Stop: 32931, Start Num: 3
Candidate Starts for Sollertia_58:
(Start: 3 @32308 has 86 MA's), (8, 32425), (18, 32566), (41, 32905),

Gene: SparkleGoddess_36 Start: 23092, Stop: 23721, Start Num: 3
Candidate Starts for SparkleGoddess_36:
(Start: 3 @23092 has 86 MA's), (17, 23344), (18, 23359), (41, 23698),

Gene: Spelly_58 Start: 32286, Stop: 32909, Start Num: 3
Candidate Starts for Spelly_58:
(Start: 3 @32286 has 86 MA's), (18, 32544), (20, 32553), (41, 32883),

Gene: Spilled_59 Start: 32403, Stop: 33026, Start Num: 3
Candidate Starts for Spilled_59:
(Start: 3 @32403 has 86 MA's), (18, 32661), (20, 32670), (41, 33000),

Gene: Squillium_55 Start: 32390, Stop: 33013, Start Num: 3
Candidate Starts for Squillium_55:
(Start: 3 @32390 has 86 MA's), (8, 32507), (18, 32648), (20, 32657), (41, 32987),

Gene: Stanimal_58 Start: 32197, Stop: 32820, Start Num: 3
Candidate Starts for Stanimal_58:
(Start: 3 @32197 has 86 MA's), (8, 32314), (18, 32455), (41, 32794),

Gene: StarPlatinum_58 Start: 32827, Stop: 33450, Start Num: 3
Candidate Starts for StarPlatinum_58:
(Start: 3 @32827 has 86 MA's), (9, 32947), (18, 33085), (20, 33094), (41, 33424),

Gene: Starbow_56 Start: 32307, Stop: 32930, Start Num: 3
Candidate Starts for Starbow_56:
(Start: 3 @32307 has 86 MA's), (18, 32565), (20, 32574), (41, 32904),

Gene: Stigma_36 Start: 23093, Stop: 23722, Start Num: 3
Candidate Starts for Stigma_36:
(Start: 3 @23093 has 86 MA's), (17, 23345), (18, 23360), (41, 23699),

Gene: Sushi23_56 Start: 33100, Stop: 33723, Start Num: 3
Candidate Starts for Sushi23_56:
(Start: 3 @33100 has 86 MA's), (8, 33217), (18, 33358), (20, 33367), (41, 33697),

Gene: Targaryen_57 Start: 33908, Stop: 34531, Start Num: 3
Candidate Starts for Targaryen_57:
(Start: 3 @33908 has 86 MA's), (8, 34025), (18, 34166), (20, 34175), (41, 34505),

Gene: Teutsch_56 Start: 33369, Stop: 33992, Start Num: 3
Candidate Starts for Teutsch_56:
(Start: 3 @33369 has 86 MA's), (8, 33486), (18, 33627), (20, 33636), (41, 33966),

Gene: TomSawyer_56 Start: 31925, Stop: 32548, Start Num: 3
Candidate Starts for TomSawyer_56:
(Start: 3 @31925 has 86 MA's), (18, 32183), (20, 32192), (41, 32522),

Gene: Tomas_60 Start: 34654, Stop: 35280, Start Num: 3
Candidate Starts for Tomas_60:
(Start: 3 @34654 has 86 MA's), (8, 34771), (18, 34912), (20, 34921), (23, 34960), (41, 35254),

Gene: Tribute_54 Start: 32569, Stop: 33192, Start Num: 3
Candidate Starts for Tribute_54:
(Start: 3 @32569 has 86 MA's), (8, 32686), (18, 32827), (20, 32836), (41, 33166),

Gene: Trina_78 Start: 41924, Stop: 42592, Start Num: 3
Candidate Starts for Trina_78:
(Start: 3 @41924 has 86 MA's), (7, 42020), (12, 42119), (14, 42167), (16, 42182), (19, 42206), (23, 42248), (29, 42386), (33, 42446), (37, 42506),

Gene: TunaTartare_35 Start: 23244, Stop: 23873, Start Num: 3
Candidate Starts for TunaTartare_35:
(Start: 3 @23244 has 86 MA's), (18, 23511),

Gene: Wakanda_32 Start: 22746, Stop: 23378, Start Num: 3
Candidate Starts for Wakanda_32:
(Start: 3 @22746 has 86 MA's), (18, 23013), (38, 23304),

Gene: Warpy_60 Start: 33372, Stop: 33995, Start Num: 3
Candidate Starts for Warpy_60:
(Start: 3 @33372 has 86 MA's), (8, 33489), (18, 33630), (20, 33639), (41, 33969),

Gene: Watermoore_56 Start: 33576, Stop: 34199, Start Num: 3
Candidate Starts for Watermoore_56:
(Start: 3 @33576 has 86 MA's), (8, 33693), (18, 33834), (20, 33843), (41, 34173),

Gene: WhereRU_55 Start: 31824, Stop: 32447, Start Num: 3
Candidate Starts for WhereRU_55:
(Start: 3 @31824 has 86 MA's), (8, 31941), (18, 32082), (20, 32091), (41, 32421),

Gene: Wipeout_56 Start: 32676, Stop: 33299, Start Num: 3
Candidate Starts for Wipeout_56:
(Start: 3 @32676 has 86 MA's), (18, 32934), (20, 32943), (41, 33273),

Gene: Wofford_57 Start: 33328, Stop: 33951, Start Num: 3
Candidate Starts for Wofford_57:
(Start: 3 @33328 has 86 MA's), (18, 33586), (20, 33595), (41, 33925),

Gene: Wyvern_26 Start: 12709, Stop: 13248, Start Num: 4
Candidate Starts for Wyvern_26:
(Start: 4 @12709 has 3 MA's), (13, 12874), (21, 12937), (27, 13012), (35, 13144), (40, 13201),

Gene: Yaboi_58 Start: 32285, Stop: 32908, Start Num: 3
Candidate Starts for Yaboi_58:
(Start: 3 @32285 has 86 MA's), (8, 32402), (18, 32543), (41, 32882),

Gene: Zuko_19 Start: 13016, Stop: 13585, Start Num: 4
Candidate Starts for Zuko_19:
(Start: 4 @13016 has 3 MA's), (9, 13115), (14, 13220), (30, 13406), (36, 13493), (38, 13520), (40, 13541),

