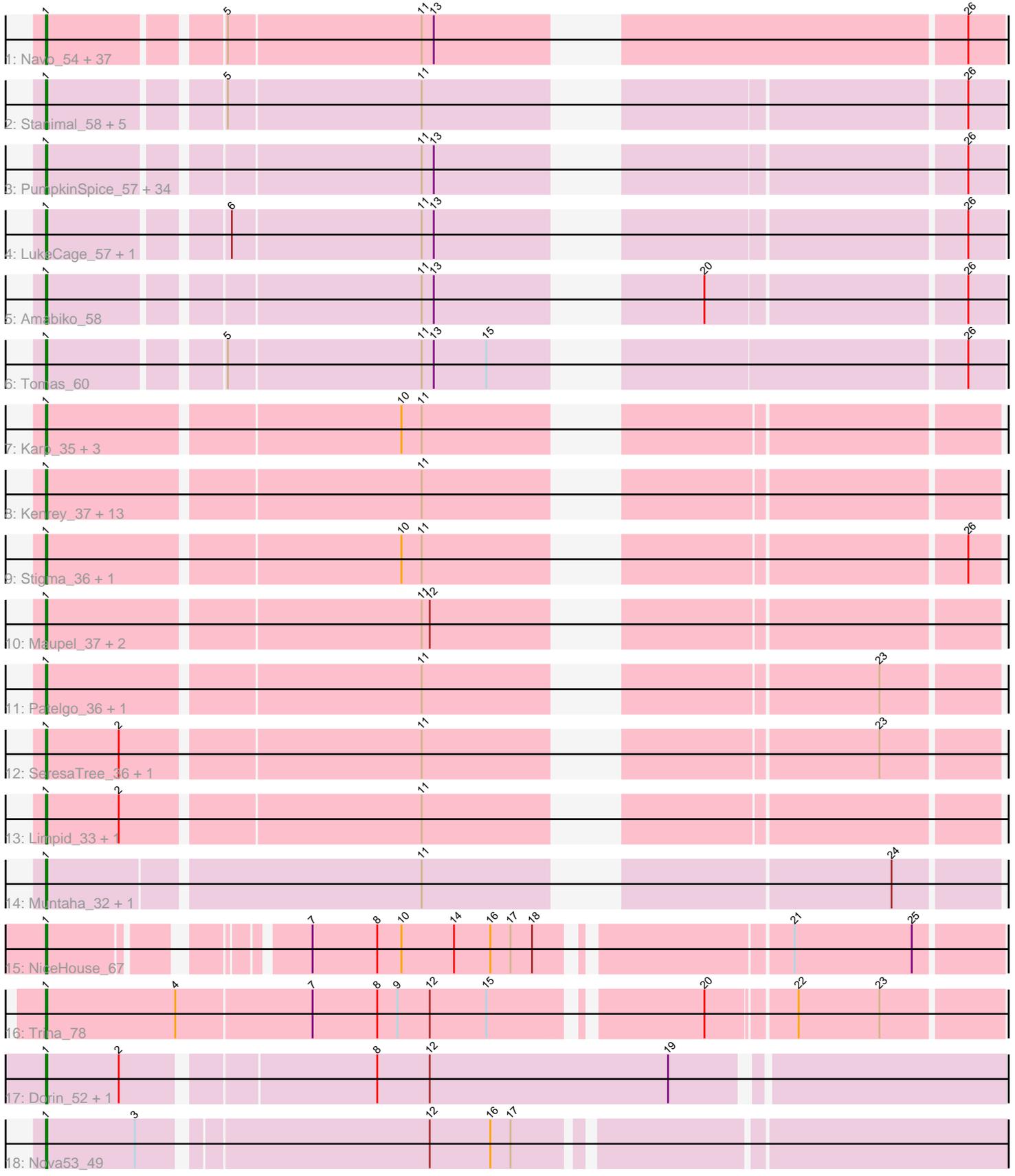# Pham 289195

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 289195 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289195 has 119 members, 7 are drafts.

Phages represented in each track:
• Track 1 : Navo_54, WhereRU_53, Jay2Jay_61, Sushi23_56, Teutsch_56, Liandry_55, Warpy_60, Squillium_55, NootNoot_52, EGole_57, Shuckle_54, Eliot67_53, Persimmon_52, Scheme_57, Cross_56, Cadmus_54, Leo04_57, Watermoore_56, Lululemon_55, BlueOtter_56, Evy_57, Bartholomune_54, Braelyn_55, FreddyDRoo_53, Davielle_53, PinkiePie_54, Cursive_54, Larnav_56, Daubenski_57, Targaryen_57, Paradiddles_52, HangryHippo_56, Tribute_54, Coogler_56, Samisti12_56, Peebs_55, PacManQ_55, Pepperwood_56
• Track 2 : Stanimal_58, Yaboi_58, Sollertia_58, Genie2_58, BoomerJR_58, AngryGiraffe_57
• Track 3 : PumpkinSpice_57, Anedea_54, Wofford_57, Rikishi_58, Jollison_57, Karimac_57, Wipeout_56, Brizzy_57, LilSaint_55, Marsus_54, Birchlyn_55, KentuckyRacer_58, Bmoc_54, Angela_53, TomSawyer_56, JimJam_58, Mugiwara_57, Bordeaux_56, MindFlayer_56, Riptide_53, Spelly_58, MulchMansion_53, IchabodCrane_55, CeilingFan_57, Gibbi_62, LilMartin_53, Quaran19_58, Starbow_56, Battuta_56, Enygma_58, Mildred21_54, Elmer_60, SaltySpitoon_58, Spilled_59, AcciDwight_62
• Track 4 : LukeCage_57, StarPlatinum_58
• Track 5 : Amabiko_58
• Track 6 : Tomas_60
• Track 7 : Karp_35, Westy_36, Belfort_37, Comrade_36
• Track 8 : Kenrey_37, Jada_35, Beuffert_34, Blueeyedbeauty_35, Sham_33, Chaewon_35, Forrest_37, TunaTartare_35, Francob_35, Phredrick_35, DeluluLabubu_35, Emma1919_37, Circinus_33, BillNye_31
• Track 9 : Stigma_36, SparkleGoddess_36
• Track 10 : Maupel_37, Gilson_37, MeganTheeKilla_35
• Track 11 : Patelgo_36, Moab_36
• Track 12 : SeresaTree_36, Faust_36
• Track 13 : Limpid_33, Annadreamy_33
• Track 14 : Muntaha_32, Wakanda_32
• Track 15 : NiceHouse_67
• Track 16 : Trina_78
• Track 17 : Dorin_52, Francesca_51
• Track 18 : Nova53_49

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

The start number called the most often in the published annotations is 1, it was called in 112 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AcciDwight_62, Amabiko_58, Anedea_54, Angela_53, AngryGiraffe_57, Annadreamy_33, Bartholomune_54, Battuta_56, Belfort_37, Beuffert_34, BillNye_31, Birchlyn_55, BlueOtter_56, Blueeyedbeauty_35, Bmoc_54, BoomerJR_58, Bordeaux_56, Braelyn_55, Brizzy_57, Cadmus_54, CeilingFan_57, Chaewon_35, Circinus_33, Comrade_36, Coogler_56, Cross_56, Cursive_54, Daubenski_57, Davielle_53, DeluluLabubu_35, Dorin_52, EGole_57, Eliot67_53, Elmer_60, Emma1919_37, Enygma_58, Evy_57, Faust_36, Forrest_37, Francesca_51, Francob_35, FreddyDRoo_53, Genie2_58, Gibbi_62, Gilson_37, HangryHippo_56, IchabodCrane_55, Jada_35, Jay2Jay_61, JimJam_58, Jollison_57, Karimac_57, Karp_35, Kenrey_37, KentuckyRacer_58, Larnav_56, Leo04_57, Liandry_55, LilMartin_53, LilSaint_55, Limpid_33, LukeCage_57, Lululemon_55, Marsus_54, Maupel_37, MeganTheeKilla_35, Mildred21_54, MindFlayer_56, Moab_36, Mugiwara_57, MulchMansion_53, Muntaha_32, Navo_54, NiceHouse_67, NootNoot_52, Nova53_49, PacManQ_55, Paradiddles_52, Patelgo_36, Peebs_55, Pepperwood_56, Persimmon_52, Phredrick_35, PinkiePie_54, PumpkinSpice_57, Quaran19_58, Rikishi_58, Riptide_53, SaltySpitoon_58, Samisti12_56, Scheme_57, SeresaTree_36, Sham_33, Shuckle_54, 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, Westy_36, WhereRU_53, 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:
•

Summary by start number:

Start 1:
• Found in 119 of 119 (100.0%) of genes in pham
• Manual Annotations of this start: 112 of 112
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AcciDwight_62 (BE2), Amabiko_58 (BE2), Anedea_54 (BE1), Angela_53 (BE1), AngryGiraffe_57 (BE2), Annadreamy_33 (BK1), Bartholomune_54 (BE1), Battuta_56 (BE2), Belfort_37 (BK1), Beuffert_34 (BK1), BillNye_31 (BK2), Birchlyn_55 (BE2), BlueOtter_56 (BE1), Blueeyedbeauty_35 (BK1), Bmoc_54 (BE1), BoomerJR_58 (BE2), Bordeaux_56 (BE2), Braelyn_55 (BE1), Brizzy_57 (BE2), Cadmus_54 (BE1), CeilingFan_57 (BE2), Chaewon_35 (BK2), Circinus_33 (BK2), Comrade_36 (BK1), Coogler_56 (BE1), Cross_56 (BE1), Cursive_54 (BE1), Daubenski_57 (BE1), Davielle_53 (BE1), DeluluLabubu_35 (BK1), Dorin_52 (CG), EGole_57 (BE1), Eliot67_53 (BE1), Elmer_60 (BE2), Emma1919_37 (BK1), Enygma_58 (BE2), Evy_57 (BE1), Faust_36 (BK1), Forrest_37 (BK1), Francesca_51 (CG), Francob_35 (BK1), FreddyDRoo_53 (BE1), Genie2_58 (BE2), Gibbi_62 (BE2), Gilson_37 (BK1), HangryHippo_56 (BE1), IchabodCrane_55 (BE2), Jada_35 (BK1), Jay2Jay_61 (BE1), JimJam_58 (BE2), Jollison_57 (BE2), Karimac_57 (BE2), Karp_35 (BK1), Kenrey_37 (BK1), KentuckyRacer_58 (BE2),

Larnav_56 (BE1), Leo04_57 (BE1), Liandry_55 (BE1), LilMartin_53 (BE1), LilSaint_55 (BE1), Limpid_33 (BK1), LukeCage_57 (BE2), Lululemon_55 (BE1), Marsus_54 (BE1), Maupel_37 (BK1), MeganTheeKilla_35 (BK1), Mildred21_54 (BE1), MindFlayer_56 (BE2), Moab_36 (BK1), Mugiwara_57 (BE2), MulchMansion_53 (BE1), Muntaha_32 (BK2), Navo_54 (BE1), NiceHouse_67 (CE), NootNoot_52 (BE1), Nova53_49 (CG), PacManQ_55 (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), Quaran19_58 (BE2), Rikishi_58 (BE2), Riptide_53 (BE1), SaltySpitoon_58 (BE2), Samisti12_56 (BE1), Scheme_57 (BE1), SeresaTree_36 (BK1), Sham_33 (BK1), Shuckle_54 (BE1), 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), Westy_36 (BK1), WhereRU_53 (BE1), Wipeout_56 (BE2), Wofford_57 (BE2), Yaboi_58 (BE2),

Summary by clusters:

There are 6 clusters represented in this pham: CG, CE, BK1, BK2, BE2, BE1,

Info for manual annotations of cluster BE1:
•Start number 1 was manually annotated 45 times for cluster BE1.

Info for manual annotations of cluster BE2:
•Start number 1 was manually annotated 34 times for cluster BE2.

Info for manual annotations of cluster BK1:
•Start number 1 was manually annotated 24 times for cluster BK1.

Info for manual annotations of cluster BK2:
•Start number 1 was manually annotated 4 times for cluster BK2.

Info for manual annotations of cluster CE:
•Start number 1 was manually annotated 2 times for cluster CE.

Info for manual annotations of cluster CG:
•Start number 1 was manually annotated 3 times for cluster CG.

Gene Information:
Gene: AcciDwight_62 Start: 32286, Stop: 32909, Start Num: 1
Candidate Starts for AcciDwight_62:
(Start: 1 @32286 has 112 MA's), (11, 32544), (13, 32553), (26, 32883),

Gene: Amabiko_58 Start: 32331, Stop: 32954, Start Num: 1
Candidate Starts for Amabiko_58:
(Start: 1 @32331 has 112 MA's), (11, 32589), (13, 32598), (20, 32745), (26, 32928),

Gene: Anedea_54 Start: 31851, Stop: 32474, Start Num: 1
Candidate Starts for Anedea_54:

(Start: 1 @31851 has 112 MA's), (11, 32109), (13, 32118), (26, 32448),

Gene: Angela_53 Start: 31326, Stop: 31949, Start Num: 1
Candidate Starts for Angela_53:
(Start: 1 @31326 has 112 MA's), (11, 31584), (13, 31593), (26, 31923),

Gene: AngryGiraffe_57 Start: 32305, Stop: 32928, Start Num: 1
Candidate Starts for AngryGiraffe_57:
(Start: 1 @32305 has 112 MA's), (5, 32422), (11, 32563), (26, 32902),

Gene: Annadreamy_33 Start: 20959, Stop: 21588, Start Num: 1
Candidate Starts for Annadreamy_33:
(Start: 1 @20959 has 112 MA's), (2, 21013), (11, 21226),

Gene: Bartholomune_54 Start: 31640, Stop: 32263, Start Num: 1
Candidate Starts for Bartholomune_54:
(Start: 1 @31640 has 112 MA's), (5, 31757), (11, 31898), (13, 31907), (26, 32237),

Gene: Battuta_56 Start: 32305, Stop: 32928, Start Num: 1
Candidate Starts for Battuta_56:
(Start: 1 @32305 has 112 MA's), (11, 32563), (13, 32572), (26, 32902),

Gene: Belfort_37 Start: 23475, Stop: 24104, Start Num: 1
Candidate Starts for Belfort_37:
(Start: 1 @23475 has 112 MA's), (10, 23727), (11, 23742),

Gene: Beuffert_34 Start: 22054, Stop: 22683, Start Num: 1
Candidate Starts for Beuffert_34:
(Start: 1 @22054 has 112 MA's), (11, 22321),

Gene: BillNye_31 Start: 24340, Stop: 24969, Start Num: 1
Candidate Starts for BillNye_31:
(Start: 1 @24340 has 112 MA's), (11, 24607),

Gene: Birchlyn_55 Start: 30188, Stop: 30811, Start Num: 1
Candidate Starts for Birchlyn_55:
(Start: 1 @30188 has 112 MA's), (11, 30446), (13, 30455), (26, 30785),

Gene: BlueOtter_56 Start: 33004, Stop: 33627, Start Num: 1
Candidate Starts for BlueOtter_56:
(Start: 1 @33004 has 112 MA's), (5, 33121), (11, 33262), (13, 33271), (26, 33601),

Gene: Blueeyedbeauty_35 Start: 21451, Stop: 22080, Start Num: 1
Candidate Starts for Blueeyedbeauty_35:
(Start: 1 @21451 has 112 MA's), (11, 21718),

Gene: Bmoc_54 Start: 31636, Stop: 32259, Start Num: 1
Candidate Starts for Bmoc_54:
(Start: 1 @31636 has 112 MA's), (11, 31894), (13, 31903), (26, 32233),

Gene: BoomerJR_58 Start: 32194, Stop: 32817, Start Num: 1
Candidate Starts for BoomerJR_58:
(Start: 1 @32194 has 112 MA's), (5, 32311), (11, 32452), (26, 32791),

Gene: Bordeaux_56 Start: 32460, Stop: 33083, Start Num: 1
Candidate Starts for Bordeaux_56:
(Start: 1 @32460 has 112 MA's), (11, 32718), (13, 32727), (26, 33057),

Gene: Braelyn_55 Start: 32407, Stop: 33030, Start Num: 1
Candidate Starts for Braelyn_55:
(Start: 1 @32407 has 112 MA's), (5, 32524), (11, 32665), (13, 32674), (26, 33004),

Gene: Brizzy_57 Start: 31979, Stop: 32602, Start Num: 1
Candidate Starts for Brizzy_57:
(Start: 1 @31979 has 112 MA's), (11, 32237), (13, 32246), (26, 32576),

Gene: Cadmus_54 Start: 31986, Stop: 32609, Start Num: 1
Candidate Starts for Cadmus_54:
(Start: 1 @31986 has 112 MA's), (5, 32103), (11, 32244), (13, 32253), (26, 32583),

Gene: CeilingFan_57 Start: 32220, Stop: 32843, Start Num: 1
Candidate Starts for CeilingFan_57:
(Start: 1 @32220 has 112 MA's), (11, 32478), (13, 32487), (26, 32817),

Gene: Chaewon_35 Start: 24468, Stop: 25097, Start Num: 1
Candidate Starts for Chaewon_35:
(Start: 1 @24468 has 112 MA's), (11, 24735),

Gene: Circinus_33 Start: 24476, Stop: 25105, Start Num: 1
Candidate Starts for Circinus_33:
(Start: 1 @24476 has 112 MA's), (11, 24743),

Gene: Comrade_36 Start: 23090, Stop: 23719, Start Num: 1
Candidate Starts for Comrade_36:
(Start: 1 @23090 has 112 MA's), (10, 23342), (11, 23357),

Gene: Coogler_56 Start: 33030, Stop: 33653, Start Num: 1
Candidate Starts for Coogler_56:
(Start: 1 @33030 has 112 MA's), (5, 33147), (11, 33288), (13, 33297), (26, 33627),

Gene: Cross_56 Start: 33005, Stop: 33628, Start Num: 1
Candidate Starts for Cross_56:
(Start: 1 @33005 has 112 MA's), (5, 33122), (11, 33263), (13, 33272), (26, 33602),

Gene: Cursive_54 Start: 32530, Stop: 33153, Start Num: 1
Candidate Starts for Cursive_54:
(Start: 1 @32530 has 112 MA's), (5, 32647), (11, 32788), (13, 32797), (26, 33127),

Gene: Daubenski_57 Start: 32750, Stop: 33373, Start Num: 1
Candidate Starts for Daubenski_57:
(Start: 1 @32750 has 112 MA's), (5, 32867), (11, 33008), (13, 33017), (26, 33347),

Gene: Davielle_53 Start: 31824, Stop: 32447, Start Num: 1
Candidate Starts for Davielle_53:
(Start: 1 @31824 has 112 MA's), (5, 31941), (11, 32082), (13, 32091), (26, 32421),

Gene: DeluluLabubu_35 Start: 21182, Stop: 21811, Start Num: 1
Candidate Starts for DeluluLabubu_35:
(Start: 1 @21182 has 112 MA's), (11, 21449),

Gene: Dorin_52 Start: 32041, Stop: 32715, Start Num: 1
Candidate Starts for Dorin_52:
(Start: 1 @32041 has 112 MA's), (2, 32095), (8, 32269), (12, 32308), (19, 32485),

Gene: EGole_57 Start: 33960, Stop: 34583, Start Num: 1
Candidate Starts for EGole_57:
(Start: 1 @33960 has 112 MA's), (5, 34077), (11, 34218), (13, 34227), (26, 34557),

Gene: Eliot67_53 Start: 31682, Stop: 32305, Start Num: 1
Candidate Starts for Eliot67_53:
(Start: 1 @31682 has 112 MA's), (5, 31799), (11, 31940), (13, 31949), (26, 32279),

Gene: Elmer_60 Start: 33365, Stop: 33988, Start Num: 1
Candidate Starts for Elmer_60:
(Start: 1 @33365 has 112 MA's), (11, 33623), (13, 33632), (26, 33962),

Gene: Emma1919_37 Start: 21877, Stop: 22506, Start Num: 1
Candidate Starts for Emma1919_37:
(Start: 1 @21877 has 112 MA's), (11, 22144),

Gene: Enygma_58 Start: 34137, Stop: 34760, Start Num: 1
Candidate Starts for Enygma_58:
(Start: 1 @34137 has 112 MA's), (11, 34395), (13, 34404), (26, 34734),

Gene: Evy_57 Start: 33006, Stop: 33629, Start Num: 1
Candidate Starts for Evy_57:
(Start: 1 @33006 has 112 MA's), (5, 33123), (11, 33264), (13, 33273), (26, 33603),

Gene: Faust_36 Start: 22457, Stop: 23086, Start Num: 1
Candidate Starts for Faust_36:
(Start: 1 @22457 has 112 MA's), (2, 22511), (11, 22724), (23, 23003),

Gene: Forrest_37 Start: 22000, Stop: 22629, Start Num: 1
Candidate Starts for Forrest_37:
(Start: 1 @22000 has 112 MA's), (11, 22267),

Gene: Francesca_51 Start: 32173, Stop: 32847, Start Num: 1
Candidate Starts for Francesca_51:
(Start: 1 @32173 has 112 MA's), (2, 32227), (8, 32401), (12, 32440), (19, 32617),

Gene: Francob_35 Start: 22009, Stop: 22638, Start Num: 1
Candidate Starts for Francob_35:
(Start: 1 @22009 has 112 MA's), (11, 22276),

Gene: FreddyDRoo_53 Start: 31682, Stop: 32305, Start Num: 1
Candidate Starts for FreddyDRoo_53:
(Start: 1 @31682 has 112 MA's), (5, 31799), (11, 31940), (13, 31949), (26, 32279),

Gene: Genie2_58 Start: 32308, Stop: 32931, Start Num: 1

Candidate Starts for Genie2_58:
(Start: 1 @32308 has 112 MA's), (5, 32425), (11, 32566), (26, 32905),

Gene: Gibbi_62 Start: 32443, Stop: 33066, Start Num: 1
Candidate Starts for Gibbi_62:
(Start: 1 @32443 has 112 MA's), (11, 32701), (13, 32710), (26, 33040),

Gene: Gilson_37 Start: 21830, Stop: 22459, Start Num: 1
Candidate Starts for Gilson_37:
(Start: 1 @21830 has 112 MA's), (11, 22097), (12, 22103),

Gene: HangryHippo_56 Start: 33004, Stop: 33627, Start Num: 1
Candidate Starts for HangryHippo_56:
(Start: 1 @33004 has 112 MA's), (5, 33121), (11, 33262), (13, 33271), (26, 33601),

Gene: IchabodCrane_55 Start: 32032, Stop: 32655, Start Num: 1
Candidate Starts for IchabodCrane_55:
(Start: 1 @32032 has 112 MA's), (11, 32290), (13, 32299), (26, 32629),

Gene: Jada_35 Start: 21182, Stop: 21811, Start Num: 1
Candidate Starts for Jada_35:
(Start: 1 @21182 has 112 MA's), (11, 21449),

Gene: Jay2Jay_61 Start: 33859, Stop: 34482, Start Num: 1
Candidate Starts for Jay2Jay_61:
(Start: 1 @33859 has 112 MA's), (5, 33976), (11, 34117), (13, 34126), (26, 34456),

Gene: JimJam_58 Start: 32406, Stop: 33029, Start Num: 1
Candidate Starts for JimJam_58:
(Start: 1 @32406 has 112 MA's), (11, 32664), (13, 32673), (26, 33003),

Gene: Jollison_57 Start: 32288, Stop: 32911, Start Num: 1
Candidate Starts for Jollison_57:
(Start: 1 @32288 has 112 MA's), (11, 32546), (13, 32555), (26, 32885),

Gene: Karimac_57 Start: 32437, Stop: 33060, Start Num: 1
Candidate Starts for Karimac_57:
(Start: 1 @32437 has 112 MA's), (11, 32695), (13, 32704), (26, 33034),

Gene: Karp_35 Start: 22690, Stop: 23319, Start Num: 1
Candidate Starts for Karp_35:
(Start: 1 @22690 has 112 MA's), (10, 22942), (11, 22957),

Gene: Kenrey_37 Start: 21879, Stop: 22508, Start Num: 1
Candidate Starts for Kenrey_37:
(Start: 1 @21879 has 112 MA's), (11, 22146),

Gene: KentuckyRacer_58 Start: 32221, Stop: 32844, Start Num: 1
Candidate Starts for KentuckyRacer_58:
(Start: 1 @32221 has 112 MA's), (11, 32479), (13, 32488), (26, 32818),

Gene: Larnav_56 Start: 32989, Stop: 33612, Start Num: 1
Candidate Starts for Larnav_56:

(Start: 1 @32989 has 112 MA's), (5, 33106), (11, 33247), (13, 33256), (26, 33586),

Gene: Leo04_57 Start: 33504, Stop: 34127, Start Num: 1
Candidate Starts for Leo04_57:
(Start: 1 @33504 has 112 MA's), (5, 33621), (11, 33762), (13, 33771), (26, 34101),

Gene: Liandry_55 Start: 32389, Stop: 33012, Start Num: 1
Candidate Starts for Liandry_55:
(Start: 1 @32389 has 112 MA's), (5, 32506), (11, 32647), (13, 32656), (26, 32986),

Gene: LilMartin_53 Start: 31274, Stop: 31897, Start Num: 1
Candidate Starts for LilMartin_53:
(Start: 1 @31274 has 112 MA's), (11, 31532), (13, 31541), (26, 31871),

Gene: LilSaint_55 Start: 31523, Stop: 32146, Start Num: 1
Candidate Starts for LilSaint_55:
(Start: 1 @31523 has 112 MA's), (11, 31781), (13, 31790), (26, 32120),

Gene: Limpid_33 Start: 20958, Stop: 21587, Start Num: 1
Candidate Starts for Limpid_33:
(Start: 1 @20958 has 112 MA's), (2, 21012), (11, 21225),

Gene: LukeCage_57 Start: 32187, Stop: 32810, Start Num: 1
Candidate Starts for LukeCage_57:
(Start: 1 @32187 has 112 MA's), (6, 32307), (11, 32445), (13, 32454), (26, 32784),

Gene: Lululemon_55 Start: 32385, Stop: 33008, Start Num: 1
Candidate Starts for Lululemon_55:
(Start: 1 @32385 has 112 MA's), (5, 32502), (11, 32643), (13, 32652), (26, 32982),

Gene: Marsus_54 Start: 31546, Stop: 32169, Start Num: 1
Candidate Starts for Marsus_54:
(Start: 1 @31546 has 112 MA's), (11, 31804), (13, 31813), (26, 32143),

Gene: Maupel_37 Start: 21830, Stop: 22459, Start Num: 1
Candidate Starts for Maupel_37:
(Start: 1 @21830 has 112 MA's), (11, 22097), (12, 22103),

Gene: MeganTheeKilla_35 Start: 21191, Stop: 21820, Start Num: 1
Candidate Starts for MeganTheeKilla_35:
(Start: 1 @21191 has 112 MA's), (11, 21458), (12, 21464),

Gene: Mildred21_54 Start: 31467, Stop: 32090, Start Num: 1
Candidate Starts for Mildred21_54:
(Start: 1 @31467 has 112 MA's), (11, 31725), (13, 31734), (26, 32064),

Gene: MindFlayer_56 Start: 31939, Stop: 32562, Start Num: 1
Candidate Starts for MindFlayer_56:
(Start: 1 @31939 has 112 MA's), (11, 32197), (13, 32206), (26, 32536),

Gene: Moab_36 Start: 23022, Stop: 23651, Start Num: 1
Candidate Starts for Moab_36:
(Start: 1 @23022 has 112 MA's), (11, 23289), (23, 23568),

Gene: Mugiwara_57 Start: 32687, Stop: 33310, Start Num: 1
Candidate Starts for Mugiwara_57:
(Start: 1 @32687 has 112 MA's), (11, 32945), (13, 32954), (26, 33284),

Gene: MulchMansion_53 Start: 31274, Stop: 31897, Start Num: 1
Candidate Starts for MulchMansion_53:
(Start: 1 @31274 has 112 MA's), (11, 31532), (13, 31541), (26, 31871),

Gene: Muntaha_32 Start: 22808, Stop: 23440, Start Num: 1
Candidate Starts for Muntaha_32:
(Start: 1 @22808 has 112 MA's), (11, 23075), (24, 23366),

Gene: Navo_54 Start: 32302, Stop: 32931, Start Num: 1
Candidate Starts for Navo_54:
(Start: 1 @32302 has 112 MA's), (5, 32419), (11, 32560), (13, 32569), (26, 32905),

Gene: NiceHouse_67 Start: 38460, Stop: 39092, Start Num: 1
Candidate Starts for NiceHouse_67:
(Start: 1 @38460 has 112 MA's), (7, 38616), (8, 38664), (10, 38682), (14, 38721), (16, 38748), (17, 38763), (18, 38778), (21, 38943), (25, 39030),

Gene: NootNoot_52 Start: 31303, Stop: 31926, Start Num: 1
Candidate Starts for NootNoot_52:
(Start: 1 @31303 has 112 MA's), (5, 31420), (11, 31561), (13, 31570), (26, 31900),

Gene: Nova53_49 Start: 32171, Stop: 32842, Start Num: 1
Candidate Starts for Nova53_49:
(Start: 1 @32171 has 112 MA's), (3, 32237), (12, 32438), (16, 32483), (17, 32498),

Gene: PacManQ_55 Start: 32385, Stop: 33008, Start Num: 1
Candidate Starts for PacManQ_55:
(Start: 1 @32385 has 112 MA's), (5, 32502), (11, 32643), (13, 32652), (26, 32982),

Gene: Paradiddles_52 Start: 31564, Stop: 32187, Start Num: 1
Candidate Starts for Paradiddles_52:
(Start: 1 @31564 has 112 MA's), (5, 31681), (11, 31822), (13, 31831), (26, 32161),

Gene: Patelgo_36 Start: 23212, Stop: 23841, Start Num: 1
Candidate Starts for Patelgo_36:
(Start: 1 @23212 has 112 MA's), (11, 23479), (23, 23758),

Gene: Peebs_55 Start: 32742, Stop: 33365, Start Num: 1
Candidate Starts for Peebs_55:
(Start: 1 @32742 has 112 MA's), (5, 32859), (11, 33000), (13, 33009), (26, 33339),

Gene: Pepperwood_56 Start: 32875, Stop: 33498, Start Num: 1
Candidate Starts for Pepperwood_56:
(Start: 1 @32875 has 112 MA's), (5, 32992), (11, 33133), (13, 33142), (26, 33472),

Gene: Persimmon_52 Start: 31233, Stop: 31856, Start Num: 1
Candidate Starts for Persimmon_52:
(Start: 1 @31233 has 112 MA's), (5, 31350), (11, 31491), (13, 31500), (26, 31830),

Gene: Phredrick_35 Start: 21085, Stop: 21714, Start Num: 1
Candidate Starts for Phredrick_35:
(Start: 1 @21085 has 112 MA's), (11, 21352),

Gene: PinkiePie_54 Start: 32389, Stop: 33012, Start Num: 1
Candidate Starts for PinkiePie_54:
(Start: 1 @32389 has 112 MA's), (5, 32506), (11, 32647), (13, 32656), (26, 32986),

Gene: PumpkinSpice_57 Start: 32331, Stop: 32954, Start Num: 1
Candidate Starts for PumpkinSpice_57:
(Start: 1 @32331 has 112 MA's), (11, 32589), (13, 32598), (26, 32928),

Gene: Quaran19_58 Start: 32322, Stop: 32945, Start Num: 1
Candidate Starts for Quaran19_58:
(Start: 1 @32322 has 112 MA's), (11, 32580), (13, 32589), (26, 32919),

Gene: Rikishi_58 Start: 32237, Stop: 32860, Start Num: 1
Candidate Starts for Rikishi_58:
(Start: 1 @32237 has 112 MA's), (11, 32495), (13, 32504), (26, 32834),

Gene: Riptide_53 Start: 31072, Stop: 31695, Start Num: 1
Candidate Starts for Riptide_53:
(Start: 1 @31072 has 112 MA's), (11, 31330), (13, 31339), (26, 31669),

Gene: SaltySpitoon_58 Start: 32331, Stop: 32954, Start Num: 1
Candidate Starts for SaltySpitoon_58:
(Start: 1 @32331 has 112 MA's), (11, 32589), (13, 32598), (26, 32928),

Gene: Samisti12_56 Start: 34178, Stop: 34801, Start Num: 1
Candidate Starts for Samisti12_56:
(Start: 1 @34178 has 112 MA's), (5, 34295), (11, 34436), (13, 34445), (26, 34775),

Gene: Scheme_57 Start: 33589, Stop: 34212, Start Num: 1
Candidate Starts for Scheme_57:
(Start: 1 @33589 has 112 MA's), (5, 33706), (11, 33847), (13, 33856), (26, 34186),

Gene: SeresaTree_36 Start: 21847, Stop: 22476, Start Num: 1
Candidate Starts for SeresaTree_36:
(Start: 1 @21847 has 112 MA's), (2, 21901), (11, 22114), (23, 22393),

Gene: Sham_33 Start: 22950, Stop: 23579, Start Num: 1
Candidate Starts for Sham_33:
(Start: 1 @22950 has 112 MA's), (11, 23217),

Gene: Shuckle_54 Start: 33195, Stop: 33818, Start Num: 1
Candidate Starts for Shuckle_54:
(Start: 1 @33195 has 112 MA's), (5, 33312), (11, 33453), (13, 33462), (26, 33792),

Gene: Sollertia_58 Start: 32308, Stop: 32931, Start Num: 1
Candidate Starts for Sollertia_58:
(Start: 1 @32308 has 112 MA's), (5, 32425), (11, 32566), (26, 32905),

Gene: SparkleGoddess_36 Start: 23092, Stop: 23721, Start Num: 1
Candidate Starts for SparkleGoddess_36:
(Start: 1 @23092 has 112 MA's), (10, 23344), (11, 23359), (26, 23698),

Gene: Spelly_58 Start: 32286, Stop: 32909, Start Num: 1
Candidate Starts for Spelly_58:
(Start: 1 @32286 has 112 MA's), (11, 32544), (13, 32553), (26, 32883),

Gene: Spilled_59 Start: 32403, Stop: 33026, Start Num: 1
Candidate Starts for Spilled_59:
(Start: 1 @32403 has 112 MA's), (11, 32661), (13, 32670), (26, 33000),

Gene: Squillium_55 Start: 32390, Stop: 33013, Start Num: 1
Candidate Starts for Squillium_55:
(Start: 1 @32390 has 112 MA's), (5, 32507), (11, 32648), (13, 32657), (26, 32987),

Gene: Stanimal_58 Start: 32197, Stop: 32820, Start Num: 1
Candidate Starts for Stanimal_58:
(Start: 1 @32197 has 112 MA's), (5, 32314), (11, 32455), (26, 32794),

Gene: StarPlatinum_58 Start: 32827, Stop: 33450, Start Num: 1
Candidate Starts for StarPlatinum_58:
(Start: 1 @32827 has 112 MA's), (6, 32947), (11, 33085), (13, 33094), (26, 33424),

Gene: Starbow_56 Start: 32307, Stop: 32930, Start Num: 1
Candidate Starts for Starbow_56:
(Start: 1 @32307 has 112 MA's), (11, 32565), (13, 32574), (26, 32904),

Gene: Stigma_36 Start: 23093, Stop: 23722, Start Num: 1
Candidate Starts for Stigma_36:
(Start: 1 @23093 has 112 MA's), (10, 23345), (11, 23360), (26, 23699),

Gene: Sushi23_56 Start: 33100, Stop: 33723, Start Num: 1
Candidate Starts for Sushi23_56:
(Start: 1 @33100 has 112 MA's), (5, 33217), (11, 33358), (13, 33367), (26, 33697),

Gene: Targaryen_57 Start: 33908, Stop: 34531, Start Num: 1
Candidate Starts for Targaryen_57:
(Start: 1 @33908 has 112 MA's), (5, 34025), (11, 34166), (13, 34175), (26, 34505),

Gene: Teutsch_56 Start: 33369, Stop: 33992, Start Num: 1
Candidate Starts for Teutsch_56:
(Start: 1 @33369 has 112 MA's), (5, 33486), (11, 33627), (13, 33636), (26, 33966),

Gene: TomSawyer_56 Start: 31925, Stop: 32548, Start Num: 1
Candidate Starts for TomSawyer_56:
(Start: 1 @31925 has 112 MA's), (11, 32183), (13, 32192), (26, 32522),

Gene: Tomas_60 Start: 34654, Stop: 35280, Start Num: 1
Candidate Starts for Tomas_60:
(Start: 1 @34654 has 112 MA's), (5, 34771), (11, 34912), (13, 34921), (15, 34960), (26, 35254),

Gene: Tribute_54 Start: 32569, Stop: 33192, Start Num: 1

Candidate Starts for Tribute_54:
(Start: 1 @32569 has 112 MA's), (5, 32686), (11, 32827), (13, 32836), (26, 33166),

Gene: Trina_78 Start: 41924, Stop: 42592, Start Num: 1
Candidate Starts for Trina_78:
(Start: 1 @41924 has 112 MA's), (4, 42020), (7, 42119), (8, 42167), (9, 42182), (12, 42206), (15, 42248), (20, 42386), (22, 42446), (23, 42506),

Gene: TunaTartare_35 Start: 23244, Stop: 23873, Start Num: 1
Candidate Starts for TunaTartare_35:
(Start: 1 @23244 has 112 MA's), (11, 23511),

Gene: Wakanda_32 Start: 22746, Stop: 23378, Start Num: 1
Candidate Starts for Wakanda_32:
(Start: 1 @22746 has 112 MA's), (11, 23013), (24, 23304),

Gene: Warpy_60 Start: 33372, Stop: 33995, Start Num: 1
Candidate Starts for Warpy_60:
(Start: 1 @33372 has 112 MA's), (5, 33489), (11, 33630), (13, 33639), (26, 33969),

Gene: Watermoore_56 Start: 33576, Stop: 34199, Start Num: 1
Candidate Starts for Watermoore_56:
(Start: 1 @33576 has 112 MA's), (5, 33693), (11, 33834), (13, 33843), (26, 34173),

Gene: Westy_36 Start: 23093, Stop: 23722, Start Num: 1
Candidate Starts for Westy_36:
(Start: 1 @23093 has 112 MA's), (10, 23345), (11, 23360),

Gene: WhereRU_53 Start: 31824, Stop: 32447, Start Num: 1
Candidate Starts for WhereRU_53:
(Start: 1 @31824 has 112 MA's), (5, 31941), (11, 32082), (13, 32091), (26, 32421),

Gene: Wipeout_56 Start: 32676, Stop: 33299, Start Num: 1
Candidate Starts for Wipeout_56:
(Start: 1 @32676 has 112 MA's), (11, 32934), (13, 32943), (26, 33273),

Gene: Wofford_57 Start: 33328, Stop: 33951, Start Num: 1
Candidate Starts for Wofford_57:
(Start: 1 @33328 has 112 MA's), (11, 33586), (13, 33595), (26, 33925),

Gene: Yaboi_58 Start: 32285, Stop: 32908, Start Num: 1
Candidate Starts for Yaboi_58:
(Start: 1 @32285 has 112 MA's), (5, 32402), (11, 32543), (26, 32882),