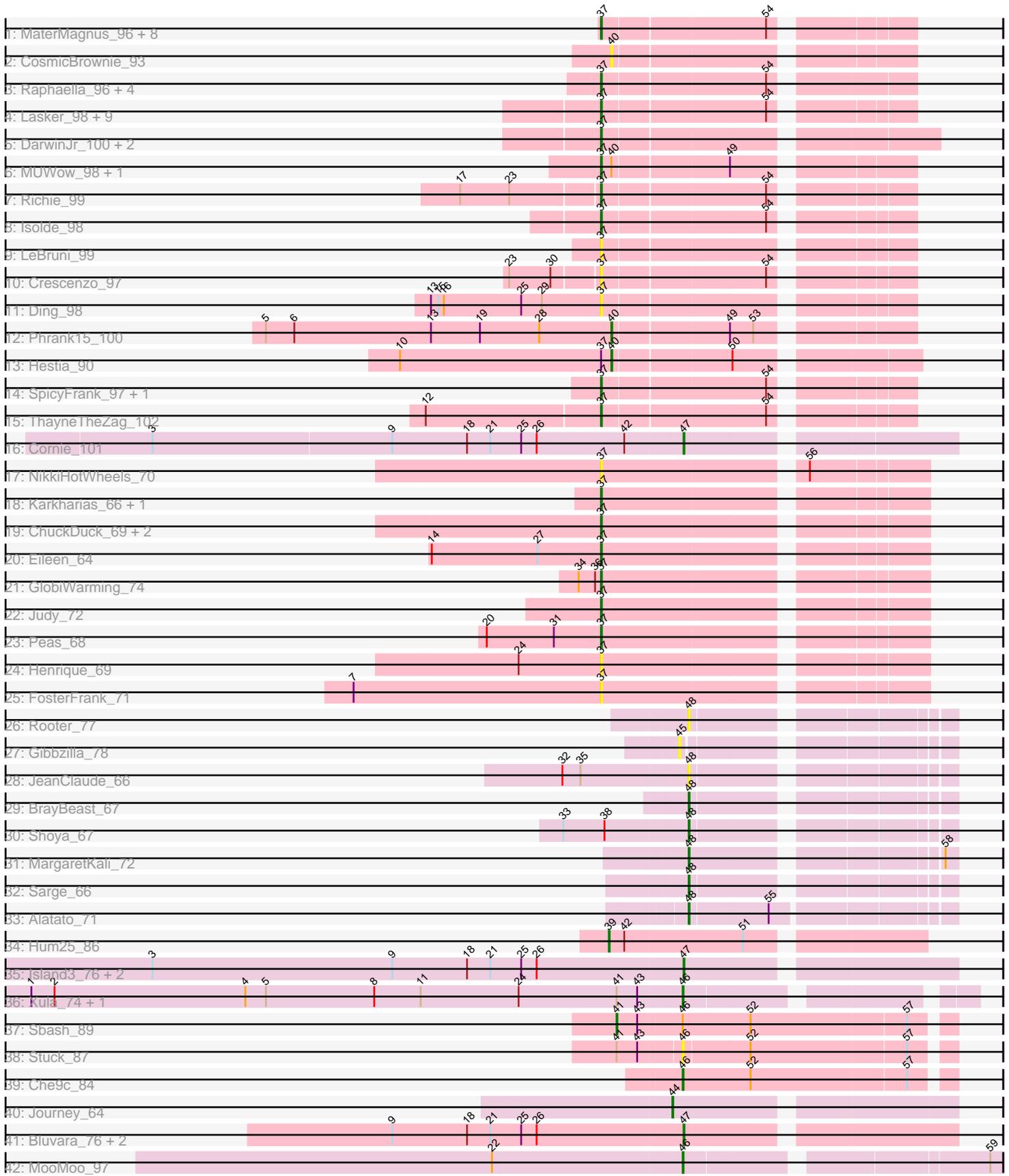


Pham 283749



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 283749 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283749 has 75 members, 20 are drafts.

Phages represented in each track:

- Track 1 : MaterMagnus_96, Tiff81_90, EvePickles_96, BillyTP_96, BenchScraper_96, Hillester_99, RadFad_100, MurphyJoseph_92, Auxilium_93
- Track 2 : CosmicBrownie_93
- Track 3 : Raphaella_96, AdaS_94, YoungHarleezy_97, Windest_101, JellyBread_95
- Track 4 : Lasker_98, Globfish_96, GumGum_103, Faja_96, Lawnathon_100, Sashimi_96, BlueShadow_92, CookieBear_95, BasketStar_96, SonDevVon_104
- Track 5 : DarwinJr_100, MidnightRain_102, Kabloowy_97
- Track 6 : MUWow_98, Anekin_95
- Track 7 : Richie_99
- Track 8 : Isolde_98
- Track 9 : LeBruni_99
- Track 10 : Crescenzo_97
- Track 11 : Ding_98
- Track 12 : Phrank15_100
- Track 13 : Hestia_90
- Track 14 : SpicyFrank_97, Seahorse_101
- Track 15 : ThayneTheZag_102
- Track 16 : Cornie_101
- Track 17 : NikkiHotWheels_70
- Track 18 : Karkharias_66, Bridgette_71
- Track 19 : ChuckDuck_69, PeggyLeg03_70, KayMoney_68
- Track 20 : Eileen_64
- Track 21 : GlobiWarming_74
- Track 22 : Judy_72
- Track 23 : Peas_68
- Track 24 : Henrique_69
- Track 25 : FosterFrank_71
- Track 26 : Rooter_77
- Track 27 : Gibbzilla_78
- Track 28 : JeanClaude_66
- Track 29 : BrayBeast_67
- Track 30 : Shoya_67
- Track 31 : MargaretKali_72
- Track 32 : Sarge_66
- Track 33 : Alatato_71
- Track 34 : Hum25_86
- Track 35 : Island3_76, Brujita_74, Babsiella_78

- Track 36 : Xula_74, QueenHazel_73
- Track 37 : Sbash_89
- Track 38 : Stuck_87
- Track 39 : Che9c_84
- Track 40 : Journey_64
- Track 41 : Bluvara_76, PaintedDog_77, HC_78
- Track 42 : MooMoo_97

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

The start number called the most often in the published annotations is 37, it was called in 36 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_94, Anekin_95, Auxilium_93, BasketStar_96, BenchScraper_96, BillyTP_96, BlueShadow_92, Bridgette_71, ChuckDuck_69, CookieBear_95, Crescenzo_97, DarwinJr_100, Ding_98, Eileen_64, EvePickles_96, Faja_96, FosterFrank_71, Globfish_96, GlobiWarming_74, GumGum_103, Henrique_69, Hillester_99, Isolde_98, JellyBread_95, Judy_72, Kabloowy_97, Karkharias_66, KayMoney_68, Lasker_98, Lawnathon_100, LeBruni_99, MUWow_98, MaterMagnus_96, MidnightRain_102, MurphyJoseph_92, NikkiHotWheels_70, Peas_68, PeggyLeg03_70, RadFad_100, Raphaella_96, Richie_99, Sashimi_96, Seahorse_101, SonDevVon_104, SpicyFrank_97, ThayneTheZag_102, Tiff81_90, Windest_101, YoungHarleezy_97,

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

- Hestia_90,

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

- Alatato_71, Babsiella_78, Bluvara_76, BrayBeast_67, Brujita_74, Che9c_84, Cornie_101, CosmicBrownie_93, Gibbzilla_78, HC_78, Hum25_86, Island3_76, JeanClaude_66, Journey_64, MargaretKali_72, MooMoo_97, PaintedDog_77, Phrank15_100, QueenHazel_73, Rooter_77, Sarge_66, Sbash_89, Shoya_67, Stuck_87, Xula_74,

Summary by start number:

Start 37:

- Found in 50 of 75 (66.7%) of genes in pham
- Manual Annotations of this start: 36 of 55
- Called 98.0% of time when present
- Phage (with cluster) where this start called: AdaS_94 (AY), Anekin_95 (AY), Auxilium_93 (AY), BasketStar_96 (AY), BenchScraper_96 (AY), BillyTP_96 (AY), BlueShadow_92 (AY), Bridgette_71 (FA), ChuckDuck_69 (FA), CookieBear_95 (AY), Crescenzo_97 (AY), DarwinJr_100 (AY), Ding_98 (AY), Eileen_64 (FA), EvePickles_96 (AY), Faja_96 (AY), FosterFrank_71 (FA), Globfish_96 (AY), GlobiWarming_74 (FA), GumGum_103 (AY), Henrique_69 (FA), Hillester_99 (AY), Isolde_98 (AY), JellyBread_95 (AY), Judy_72 (FA), Kabloowy_97 (AY), Karkharias_66 (FA), KayMoney_68 (FA), Lasker_98 (AY), Lawnathon_100 (AY), LeBruni_99 (AY), MUWow_98 (AY), MaterMagnus_96 (AY), MidnightRain_102 (AY),

MurphyJoseph_92 (AY), NikkiHotWheels_70 (FA), Peas_68 (FA), PeggyLeg03_70 (FA), RadFad_100 (AY), Raphaella_96 (AY), Richie_99 (AY), Sashimi_96 (AY), Seahorse_101 (AY), SonDevVon_104 (AY), SpicyFrank_97 (AY), ThayneTheZag_102 (AY), Tiff81_90 (AY), Windest_101 (AY), YoungHarleezy_97 (AY),

Start 39:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hum25_86 (FQ),

Start 40:

- Found in 5 of 75 (6.7%) of genes in pham
- Manual Annotations of this start: 2 of 55
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CosmicBrownie_93 (AY), Hestia_90 (AY), Phrank15_100 (AY),

Start 41:

- Found in 4 of 75 (5.3%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Sbash_89 (I2),

Start 44:

- Found in 1 of 75 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey_64 (N),

Start 45:

- Found in 1 of 75 (1.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gibbzilla_78 (FB),

Start 46:

- Found in 6 of 75 (8.0%) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Che9c_84 (I2), MooMoo_97 (singleton), QueenHazel_73 (I1), Stuck_87 (I2), Xula_74 (I1),

Start 47:

- Found in 7 of 75 (9.3%) of genes in pham
- Manual Annotations of this start: 5 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Babsiella_78 (I1), Bluvara_76 (UNK), Brujita_74 (I1), Cornie_101 (F5), HC_78 (I1), Island3_76 (I1), PaintedDog_77 (I1),

Start 48:

- Found in 7 of 75 (9.3%) of genes in pham

- Manual Annotations of this start: 5 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alatato_71 (FB), BrayBeast_67 (FB), JeanClaude_66 (FB), MargaretKali_72 (FB), Rooter_77 (FB), Sarge_66 (FB), Shoya_67 (FB),

Summary by clusters:

There are 10 clusters represented in this pham: FQ, singleton, F5, I1, I2, N, FA, FB, AY, UNK,

Info for manual annotations of cluster AY:

- Start number 37 was manually annotated 27 times for cluster AY.
- Start number 40 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster F5:

- Start number 47 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FA:

- Start number 37 was manually annotated 9 times for cluster FA.

Info for manual annotations of cluster FB:

- Start number 48 was manually annotated 5 times for cluster FB.

Info for manual annotations of cluster FQ:

- Start number 39 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster I1:

- Start number 46 was manually annotated 2 times for cluster I1.
- Start number 47 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 41 was manually annotated 1 time for cluster I2.
- Start number 46 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 44 was manually annotated 1 time for cluster N.

Gene Information:

Gene: AdaS_94 Start: 50303, Stop: 50629, Start Num: 37

Candidate Starts for AdaS_94:

(Start: 37 @50303 has 36 MA's), (54, 50483),

Gene: Alatato_71 Start: 39249, Stop: 39527, Start Num: 48

Candidate Starts for Alatato_71:

(Start: 48 @39249 has 5 MA's), (55, 39336),

Gene: Anekin_95 Start: 52237, Stop: 52560, Start Num: 37

Candidate Starts for Anekin_95:

(Start: 37 @52237 has 36 MA's), (Start: 40 @52249 has 2 MA's), (49, 52375),

Gene: Auxilium_93 Start: 49043, Stop: 49363, Start Num: 37

Candidate Starts for Auxilium_93:

(Start: 37 @49043 has 36 MA's), (54, 49223),

Gene: Babsiella_78 Start: 47992, Stop: 48282, Start Num: 47

Candidate Starts for Babsiella_78:

(3, 47377), (9, 47656), (18, 47743), (21, 47770), (25, 47806), (26, 47824), (Start: 47 @47992 has 5 MA's),

Gene: BasketStar_96 Start: 52523, Stop: 52843, Start Num: 37

Candidate Starts for BasketStar_96:

(Start: 37 @52523 has 36 MA's), (54, 52703),

Gene: BenchScraper_96 Start: 50794, Stop: 51114, Start Num: 37

Candidate Starts for BenchScraper_96:

(Start: 37 @50794 has 36 MA's), (54, 50974),

Gene: BillyTP_96 Start: 52593, Stop: 52919, Start Num: 37

Candidate Starts for BillyTP_96:

(Start: 37 @52593 has 36 MA's), (54, 52773),

Gene: BlueShadow_92 Start: 52029, Stop: 52349, Start Num: 37

Candidate Starts for BlueShadow_92:

(Start: 37 @52029 has 36 MA's), (54, 52209),

Gene: Bluvara_76 Start: 49031, Stop: 49321, Start Num: 47

Candidate Starts for Bluvara_76:

(9, 48695), (18, 48782), (21, 48809), (25, 48845), (26, 48863), (Start: 47 @49031 has 5 MA's),

Gene: BrayBeast_67 Start: 37446, Stop: 37709, Start Num: 48

Candidate Starts for BrayBeast_67:

(Start: 48 @37446 has 5 MA's),

Gene: Bridgette_71 Start: 42699, Stop: 43043, Start Num: 37

Candidate Starts for Bridgette_71:

(Start: 37 @42699 has 36 MA's),

Gene: Brujita_74 Start: 46629, Stop: 46919, Start Num: 47

Candidate Starts for Brujita_74:

(3, 46014), (9, 46293), (18, 46380), (21, 46407), (25, 46443), (26, 46461), (Start: 47 @46629 has 5 MA's),

Gene: Che9c_84 Start: 56646, Stop: 56942, Start Num: 46

Candidate Starts for Che9c_84:

(Start: 46 @56646 has 4 MA's), (52, 56724), (57, 56901),

Gene: ChuckDuck_69 Start: 42418, Stop: 42762, Start Num: 37

Candidate Starts for ChuckDuck_69:

(Start: 37 @42418 has 36 MA's),

Gene: CookieBear_95 Start: 51777, Stop: 52097, Start Num: 37

Candidate Starts for CookieBear_95:
(Start: 37 @51777 has 36 MA's), (54, 51957),

Gene: Cornie_101 Start: 56005, Stop: 56292, Start Num: 47
Candidate Starts for Cornie_101:
(3, 55393), (9, 55669), (18, 55756), (21, 55783), (25, 55819), (26, 55837), (42, 55939), (Start: 47 @56005 has 5 MA's),

Gene: CosmicBrownie_93 Start: 50511, Stop: 50822, Start Num: 40
Candidate Starts for CosmicBrownie_93:
(Start: 40 @50511 has 2 MA's),

Gene: Crescenzo_97 Start: 52946, Stop: 53266, Start Num: 37
Candidate Starts for Crescenzo_97:
(23, 52847), (30, 52895), (Start: 37 @52946 has 36 MA's), (54, 53126),

Gene: DarwinJr_100 Start: 53274, Stop: 53627, Start Num: 37
Candidate Starts for DarwinJr_100:
(Start: 37 @53274 has 36 MA's),

Gene: Ding_98 Start: 52235, Stop: 52555, Start Num: 37
Candidate Starts for Ding_98:
(13, 52037), (15, 52046), (16, 52052), (25, 52142), (29, 52166), (Start: 37 @52235 has 36 MA's),

Gene: Eileen_64 Start: 40750, Stop: 41094, Start Num: 37
Candidate Starts for Eileen_64:
(14, 40555), (27, 40678), (Start: 37 @40750 has 36 MA's),

Gene: EvePickles_96 Start: 52994, Stop: 53314, Start Num: 37
Candidate Starts for EvePickles_96:
(Start: 37 @52994 has 36 MA's), (54, 53174),

Gene: Faja_96 Start: 52066, Stop: 52386, Start Num: 37
Candidate Starts for Faja_96:
(Start: 37 @52066 has 36 MA's), (54, 52246),

Gene: FosterFrank_71 Start: 42119, Stop: 42463, Start Num: 37
Candidate Starts for FosterFrank_71:
(7, 41831), (Start: 37 @42119 has 36 MA's),

Gene: Gibbzilla_78 Start: 38657, Stop: 38926, Start Num: 45
Candidate Starts for Gibbzilla_78:
(45, 38657),

Gene: Globfish_96 Start: 50972, Stop: 51292, Start Num: 37
Candidate Starts for Globfish_96:
(Start: 37 @50972 has 36 MA's), (54, 51152),

Gene: GlobiWarming_74 Start: 42547, Stop: 42891, Start Num: 37
Candidate Starts for GlobiWarming_74:
(34, 42526), (36, 42541), (Start: 37 @42547 has 36 MA's),

Gene: GumGum_103 Start: 53268, Stop: 53588, Start Num: 37

Candidate Starts for GumGum_103:
(Start: 37 @53268 has 36 MA's), (54, 53448),

Gene: HC_78 Start: 45878, Stop: 46168, Start Num: 47
Candidate Starts for HC_78:
(9, 45542), (18, 45629), (21, 45656), (25, 45692), (26, 45710), (Start: 47 @45878 has 5 MA's),

Gene: Henrique_69 Start: 42189, Stop: 42533, Start Num: 37
Candidate Starts for Henrique_69:
(24, 42093), (Start: 37 @42189 has 36 MA's),

Gene: Hestia_90 Start: 50238, Stop: 50558, Start Num: 40
Candidate Starts for Hestia_90:
(10, 49992), (Start: 37 @50226 has 36 MA's), (Start: 40 @50238 has 2 MA's), (50, 50367),

Gene: Hillester_99 Start: 52313, Stop: 52633, Start Num: 37
Candidate Starts for Hillester_99:
(Start: 37 @52313 has 36 MA's), (54, 52493),

Gene: Hum25_86 Start: 42285, Stop: 42626, Start Num: 39
Candidate Starts for Hum25_86:
(Start: 39 @42285 has 1 MA's), (42, 42303), (51, 42438),

Gene: Island3_76 Start: 46859, Stop: 47149, Start Num: 47
Candidate Starts for Island3_76:
(3, 46244), (9, 46523), (18, 46610), (21, 46637), (25, 46673), (26, 46691), (Start: 47 @46859 has 5 MA's),

Gene: Isolde_98 Start: 52809, Stop: 53129, Start Num: 37
Candidate Starts for Isolde_98:
(Start: 37 @52809 has 36 MA's), (54, 52989),

Gene: JeanClaude_66 Start: 36463, Stop: 36726, Start Num: 48
Candidate Starts for JeanClaude_66:
(32, 36322), (35, 36343), (Start: 48 @36463 has 5 MA's),

Gene: JellyBread_95 Start: 53015, Stop: 53341, Start Num: 37
Candidate Starts for JellyBread_95:
(Start: 37 @53015 has 36 MA's), (54, 53195),

Gene: Journey_64 Start: 41500, Stop: 41799, Start Num: 44
Candidate Starts for Journey_64:
(Start: 44 @41500 has 1 MA's),

Gene: Judy_72 Start: 43025, Stop: 43369, Start Num: 37
Candidate Starts for Judy_72:
(Start: 37 @43025 has 36 MA's),

Gene: Kabloowy_97 Start: 52731, Stop: 53084, Start Num: 37
Candidate Starts for Kabloowy_97:
(Start: 37 @52731 has 36 MA's),

Gene: Karkharias_66 Start: 42195, Stop: 42539, Start Num: 37

Candidate Starts for Karkharias_66:
(Start: 37 @42195 has 36 MA's),

Gene: KayMoney_68 Start: 42631, Stop: 42975, Start Num: 37
Candidate Starts for KayMoney_68:
(Start: 37 @42631 has 36 MA's),

Gene: Lasker_98 Start: 53398, Stop: 53718, Start Num: 37
Candidate Starts for Lasker_98:
(Start: 37 @53398 has 36 MA's), (54, 53578),

Gene: Lawnathon_100 Start: 52639, Stop: 52959, Start Num: 37
Candidate Starts for Lawnathon_100:
(Start: 37 @52639 has 36 MA's), (54, 52819),

Gene: LeBruni_99 Start: 51926, Stop: 52246, Start Num: 37
Candidate Starts for LeBruni_99:
(Start: 37 @51926 has 36 MA's),

Gene: MUWow_98 Start: 53802, Stop: 54125, Start Num: 37
Candidate Starts for MUWow_98:
(Start: 37 @53802 has 36 MA's), (Start: 40 @53814 has 2 MA's), (49, 53940),

Gene: MargaretKali_72 Start: 38623, Stop: 38889, Start Num: 48
Candidate Starts for MargaretKali_72:
(Start: 48 @38623 has 5 MA's), (58, 38875),

Gene: MaterMagnus_96 Start: 52654, Stop: 52974, Start Num: 37
Candidate Starts for MaterMagnus_96:
(Start: 37 @52654 has 36 MA's), (54, 52834),

Gene: MidnightRain_102 Start: 53249, Stop: 53569, Start Num: 37
Candidate Starts for MidnightRain_102:
(Start: 37 @53249 has 36 MA's),

Gene: MooMoo_97 Start: 54747, Stop: 55079, Start Num: 46
Candidate Starts for MooMoo_97:
(22, 54531), (Start: 46 @54747 has 4 MA's), (59, 55065),

Gene: MurphyJoseph_92 Start: 50348, Stop: 50668, Start Num: 37
Candidate Starts for MurphyJoseph_92:
(Start: 37 @50348 has 36 MA's), (54, 50528),

Gene: NikkiHotWheels_70 Start: 41859, Stop: 42203, Start Num: 37
Candidate Starts for NikkiHotWheels_70:
(Start: 37 @41859 has 36 MA's), (56, 42075),

Gene: PaintedDog_77 Start: 48513, Stop: 48803, Start Num: 47
Candidate Starts for PaintedDog_77:
(9, 48177), (18, 48264), (21, 48291), (25, 48327), (26, 48345), (Start: 47 @48513 has 5 MA's),

Gene: Peas_68 Start: 43688, Stop: 44032, Start Num: 37
Candidate Starts for Peas_68:

(20, 43556), (31, 43634), (Start: 37 @43688 has 36 MA's),

Gene: PeggyLeg03_70 Start: 42854, Stop: 43198, Start Num: 37

Candidate Starts for PeggyLeg03_70:

(Start: 37 @42854 has 36 MA's),

Gene: Phrank15_100 Start: 52150, Stop: 52461, Start Num: 40

Candidate Starts for Phrank15_100:

(5, 51760), (6, 51793), (13, 51952), (19, 52009), (28, 52078), (Start: 40 @52150 has 2 MA's), (49, 52276), (53, 52303),

Gene: QueenHazel_73 Start: 47625, Stop: 47915, Start Num: 46

Candidate Starts for QueenHazel_73:

(1, 46872), (2, 46899), (4, 47121), (5, 47145), (8, 47271), (11, 47325), (24, 47439), (Start: 41 @47553 has 1 MA's), (43, 47577), (Start: 46 @47625 has 4 MA's),

Gene: RadFad_100 Start: 52313, Stop: 52633, Start Num: 37

Candidate Starts for RadFad_100:

(Start: 37 @52313 has 36 MA's), (54, 52493),

Gene: Raphaella_96 Start: 51282, Stop: 51608, Start Num: 37

Candidate Starts for Raphaella_96:

(Start: 37 @51282 has 36 MA's), (54, 51462),

Gene: Richie_99 Start: 53442, Stop: 53762, Start Num: 37

Candidate Starts for Richie_99:

(17, 53286), (23, 53343), (Start: 37 @53442 has 36 MA's), (54, 53622),

Gene: Rooter_77 Start: 38816, Stop: 39079, Start Num: 48

Candidate Starts for Rooter_77:

(Start: 48 @38816 has 5 MA's),

Gene: Sarge_66 Start: 35891, Stop: 36154, Start Num: 48

Candidate Starts for Sarge_66:

(Start: 48 @35891 has 5 MA's),

Gene: Sashimi_96 Start: 51797, Stop: 52117, Start Num: 37

Candidate Starts for Sashimi_96:

(Start: 37 @51797 has 36 MA's), (54, 51977),

Gene: Sbash_89 Start: 55345, Stop: 55713, Start Num: 41

Candidate Starts for Sbash_89:

(Start: 41 @55345 has 1 MA's), (43, 55369), (Start: 46 @55417 has 4 MA's), (52, 55495), (57, 55672),

Gene: Seahorse_101 Start: 56066, Stop: 56386, Start Num: 37

Candidate Starts for Seahorse_101:

(Start: 37 @56066 has 36 MA's), (54, 56246),

Gene: Shoya_67 Start: 37457, Stop: 37720, Start Num: 48

Candidate Starts for Shoya_67:

(33, 37322), (38, 37370), (Start: 48 @37457 has 5 MA's),

Gene: SonDevVon_104 Start: 52766, Stop: 53086, Start Num: 37

Candidate Starts for SonDevVon_104:
(Start: 37 @52766 has 36 MA's), (54, 52946),

Gene: SpicyFrank_97 Start: 51851, Stop: 52171, Start Num: 37
Candidate Starts for SpicyFrank_97:
(Start: 37 @51851 has 36 MA's), (54, 52031),

Gene: Stuck_87 Start: 54724, Stop: 55017, Start Num: 46
Candidate Starts for Stuck_87:
(Start: 41 @54655 has 1 MA's), (43, 54679), (Start: 46 @54724 has 4 MA's), (52, 54799), (57, 54976),

Gene: ThayneTheZag_102 Start: 53366, Stop: 53686, Start Num: 37
Candidate Starts for ThayneTheZag_102:
(12, 53168), (Start: 37 @53366 has 36 MA's), (54, 53546),

Gene: Tiff81_90 Start: 50115, Stop: 50435, Start Num: 37
Candidate Starts for Tiff81_90:
(Start: 37 @50115 has 36 MA's), (54, 50295),

Gene: Windest_101 Start: 51370, Stop: 51690, Start Num: 37
Candidate Starts for Windest_101:
(Start: 37 @51370 has 36 MA's), (54, 51550),

Gene: Xula_74 Start: 48112, Stop: 48402, Start Num: 46
Candidate Starts for Xula_74:
(1, 47359), (2, 47386), (4, 47608), (5, 47632), (8, 47758), (11, 47812), (24, 47926), (Start: 41 @48040 has 1 MA's), (43, 48064), (Start: 46 @48112 has 4 MA's),

Gene: YoungHarleezy_97 Start: 52603, Stop: 52923, Start Num: 37
Candidate Starts for YoungHarleezy_97:
(Start: 37 @52603 has 36 MA's), (54, 52783),