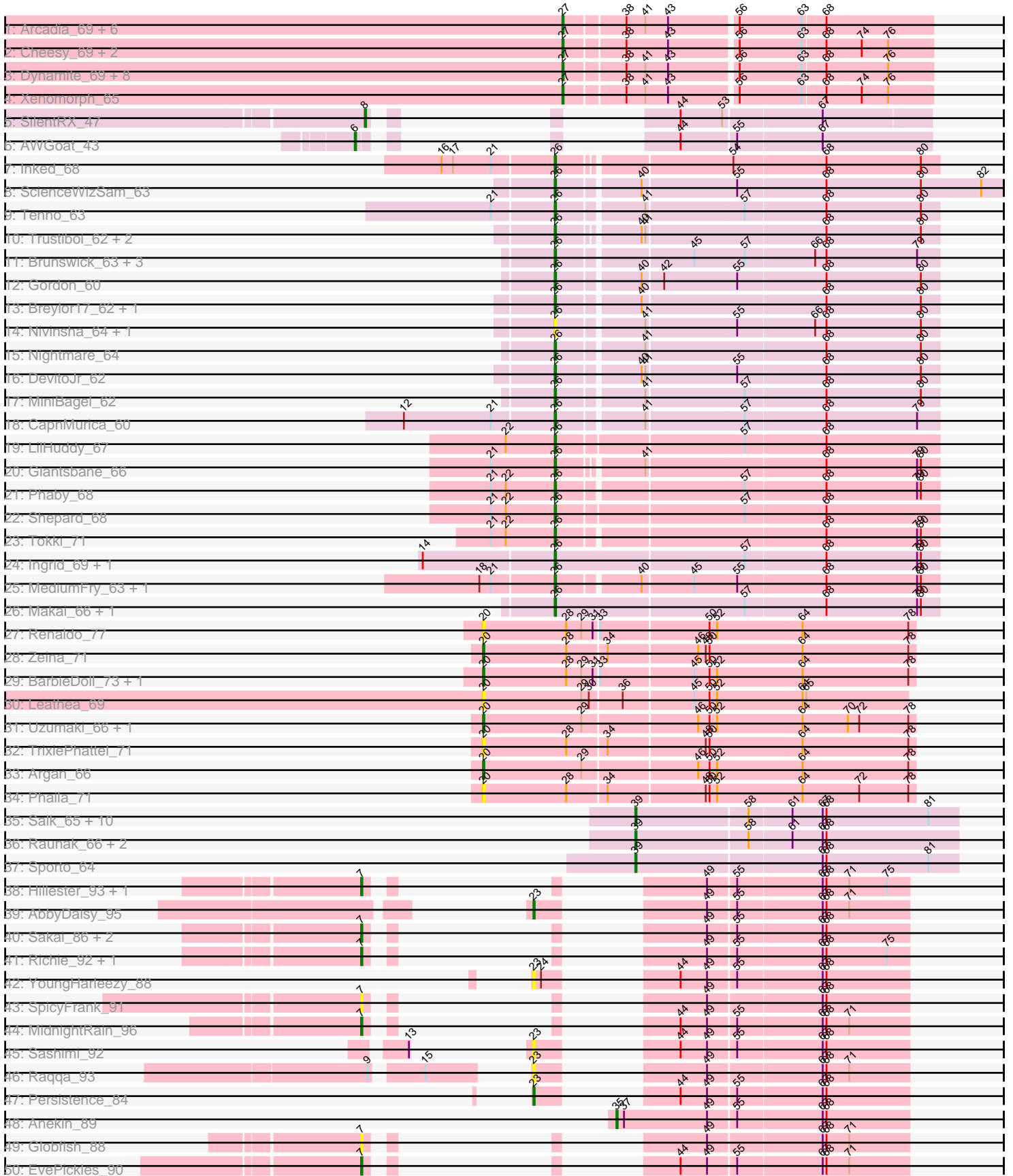
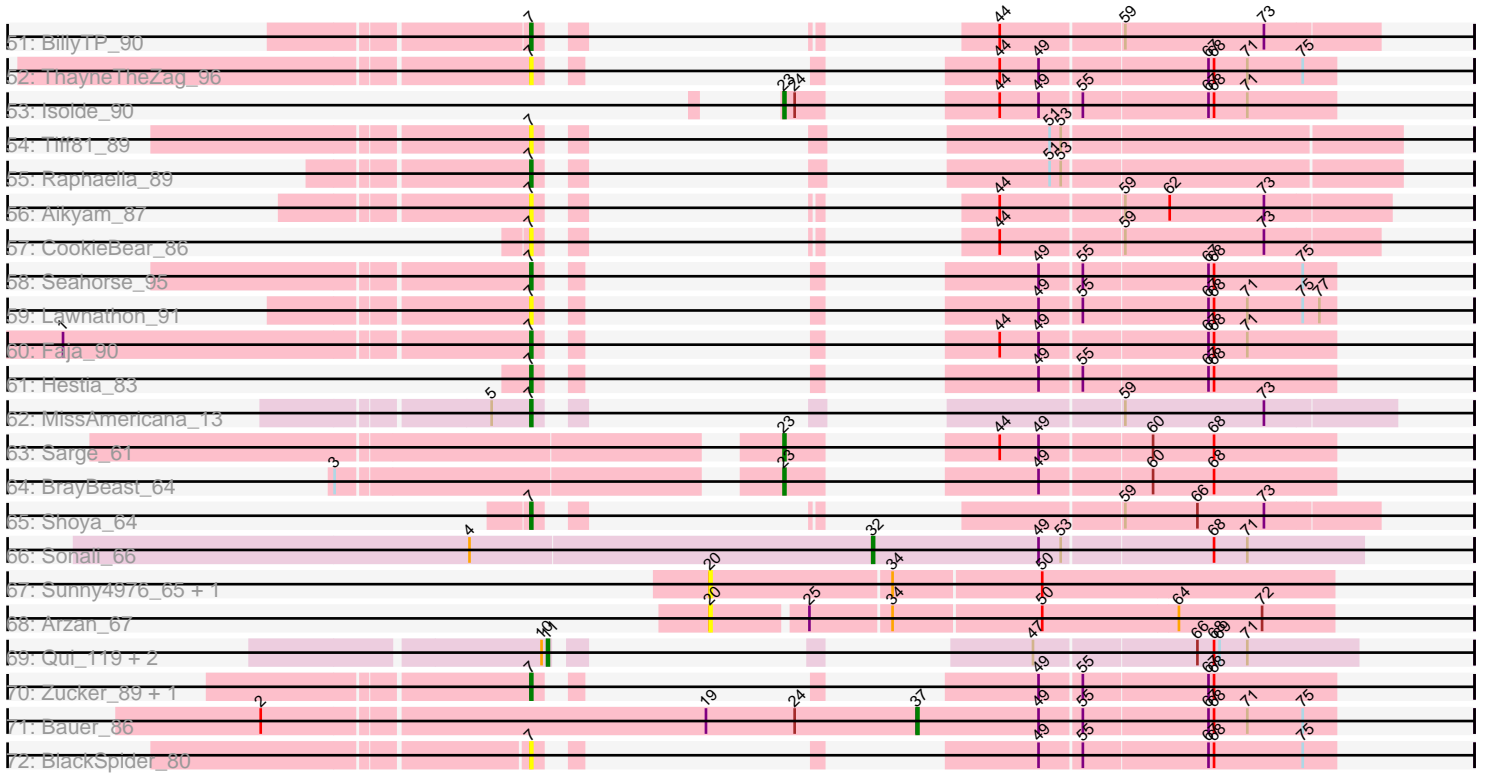


Pham 196387



Pham 196387



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 196387 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196387 has 120 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Arcadia_69, Kardesai_69, Nason_69, Elsa_69, Mooshroom_70, GoCrazy_66, KeaneyLin_65
- Track 2 : Cheesy_69, Tribby_72, Correa_67
- Track 3 : Dynamite_69, JEGGS_68, NapoleonB_70, Heisenberger_68, Circum_70, Benllo_69, Mudcat_65, BenitoAntonio_67, Hankly_68
- Track 4 : Xenomorph_65
- Track 5 : SilentRX_47
- Track 6 : AWGoat_43
- Track 7 : Inked_68
- Track 8 : ScienceWizSam_63
- Track 9 : Tenno_63
- Track 10 : Trustiboi_62, Darby_61, Synopsis_61
- Track 11 : Brunswick_63, Niktson_62, ElephantMan_62, Teacup_63
- Track 12 : Gordon_60
- Track 13 : Breylor17_62, CastorTray_66
- Track 14 : Nivinsha_64, AreFloNak_65
- Track 15 : Nightmare_64
- Track 16 : DevitoJr_62
- Track 17 : MiniBagel_62
- Track 18 : CapnMurica_60
- Track 19 : LilHuddy_67
- Track 20 : Giantsbane_66
- Track 21 : Phaby_68
- Track 22 : Shepard_68
- Track 23 : Tokki_71
- Track 24 : Ingrid_69, Loretta_66
- Track 25 : MediumFry_63, Caterpillar_62
- Track 26 : Makai_66, Truckee_64
- Track 27 : Renaldo_77
- Track 28 : Zeina_71
- Track 29 : BarbieDoll_73, Lewando_72
- Track 30 : Leathea_69
- Track 31 : Uzumaki_66, GantcherGoblin_67
- Track 32 : TrixiePhattel_71
- Track 33 : Argan_66
- Track 34 : Phaila_71

- Track 35 : Salk_65, BronxBay_65, Shiba_64, MrAaronian_65, DoctorPepper_64, Sloopyjoe_65, Linda_65, Michelle_65, Djungelskog_64, Stayer_65, StarLord_65
- Track 36 : Raunak_66, Egad_65, ProfFrink_65
- Track 37 : Sporto_64
- Track 38 : Hillester_93, RadFad_94
- Track 39 : AbbyDaisy_95
- Track 40 : Sakai_86, Auxilium_87, Gorpy_87
- Track 41 : Richie_92, BenchScraper_89
- Track 42 : YoungHarleezy_88
- Track 43 : SpicyFrank_91
- Track 44 : MidnightRain_96
- Track 45 : Sashimi_92
- Track 46 : Raqqa_93
- Track 47 : Persistence_84
- Track 48 : Anekin_89
- Track 49 : Globfish_88
- Track 50 : EvePickles_90
- Track 51 : BillyTP_90
- Track 52 : ThayneTheZag_96
- Track 53 : Isolde_90
- Track 54 : Tiff81_89
- Track 55 : Raphaella_89
- Track 56 : Aikyam_87
- Track 57 : CookieBear_86
- Track 58 : Seahorse_95
- Track 59 : Lawnathon_91
- Track 60 : Faja_90
- Track 61 : Hestia_83
- Track 62 : MissAmericana_13
- Track 63 : Sarge_61
- Track 64 : BrayBeast_64
- Track 65 : Shoya_64
- Track 66 : Sonali_66
- Track 67 : Sunny4976_65, Jazzy4900_66
- Track 68 : Arzan_67
- Track 69 : Qui_119, Paella_119, Elver_118
- Track 70 : Zucker_89, Phrank15_95
- Track 71 : Bauer_86
- Track 72 : BlackSpider_80

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

The start number called the most often in the published annotations is 26, it was called in 28 of the 95 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AreFloNak_65, Breylor17_62, Brunswick_63, CapnMurica_60, CastorTray_66, Caterpillar_62, Darby_61, DevitoJr_62, ElephantMan_62, Giantsbane_66, Gordon_60, Ingrid_69, Inked_68, LilHuddy_67, Loretta_66, Makai_66, MediumFry_63, MiniBagel_62, Nightmare_64, Niktson_62, Nivinsha_64, Phaby_68,

ScienceWizSam_63, Shepard_68, Synepsis_61, Teacup_63, Tenno_63, Tokki_71, Truckee_64, Trustiboi_62,

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

-

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

- AWGoat_43, AbbyDaisy_95, Aikyam_87, Anekin_89, Arcadia_69, Argan_66, Arzan_67, Auxilium_87, BarbieDoll_73, Bauer_86, BenchScraper_89, BenitoAntonio_67, Benllo_69, BillyTP_90, BlackSpider_80, BrayBeast_64, BronxBay_65, Cheesy_69, Circum_70, CookieBear_86, Correa_67, Djungelskog_64, DoctorPepper_64, Dynamite_69, Egad_65, Elsa_69, Elver_118, EvePickles_90, Faja_90, GantcherGoblin_67, Globfish_88, GoCrazy_66, Gorpy_87, Hankly_68, Heisenberger_68, Hestia_83, Hillester_93, Isolde_90, JEGGS_68, Jazzy4900_66, Kardesai_69, KeaneyLin_65, Lawnathon_91, Leathea_69, Lewando_72, Linda_65, Michelle_65, MidnightRain_96, MissAmericana_13, Mooshroom_70, MrAaronian_65, Mudcat_65, NapoleonB_70, Nason_69, Paella_119, Persistence_84, Phaila_71, Phrank15_95, ProfFrink_65, Qui_119, RadFad_94, Raphaella_89, Raqqa_93, Raunak_66, Renaldo_77, Richie_92, Sakai_86, Salk_65, Sarge_61, Sashimi_92, Seahorse_95, Shiba_64, Shoya_64, SilentRX_47, Sloopyjoe_65, Sonali_66, SpicyFrank_91, Sporto_64, StarLord_65, Stayer_65, Sunny4976_65, ThayneTheZag_96, Tiff81_89, Tribby_72, TrixiePhattel_71, Uzumaki_66, Xenomorph_65, YoungHarleezy_88, Zeina_71, Zucker_89,

Summary by start number:

Start 6:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AWGoat_43 (AP4),

Start 7:

- Found in 26 of 120 (21.7%) of genes in pham
- Manual Annotations of this start: 17 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikyam_87 (AY), Auxilium_87 (AY), BenchScraper_89 (AY), BillyTP_90 (AY), BlackSpider_80 (FN), CookieBear_86 (AY), EvePickles_90 (AY), Faja_90 (AY), Globfish_88 (AY), Gorpy_87 (AY), Hestia_83 (AY), Hillester_93 (AY), Lawnathon_91 (AY), MidnightRain_96 (AY), MissAmericana_13 (EM2), Phrank15_95 (AY), RadFad_94 (AY), Raphaella_89 (AY), Richie_92 (AY), Sakai_86 (AY), Seahorse_95 (AY), Shoya_64 (FB), SpicyFrank_91 (AY), ThayneTheZag_96 (AY), Tiff81_89 (AY), Zucker_89 (FN),

Start 8:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SilentRX_47 (AP4),

Start 11:

- Found in 3 of 120 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 95

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elver_118 (FK), Paella_119 (FK), Qui_119 (FK),

Start 20:

- Found in 13 of 120 (10.8%) of genes in pham
- Manual Annotations of this start: 5 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argan_66 (AU6), Arzan_67 (FI), BarbieDoll_73 (AU6), GantcherGoblin_67 (AU6), Jazzy4900_66 (FI), Leathea_69 (AU6), Lewando_72 (AU6), Phaila_71 (AU6), Renaldo_77 (AU6), Sunny4976_65 (FI), TrixiePhattel_71 (AU6), Uzumaki_66 (AU6), Zeina_71 (AU6),

Start 23:

- Found in 8 of 120 (6.7%) of genes in pham
- Manual Annotations of this start: 5 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_95 (AY), BrayBeast_64 (FB), Isolde_90 (AY), Persistence_84 (AY), Raqqa_93 (AY), Sarge_61 (FB), Sashimi_92 (AY), YoungHarleezy_88 (AY),

Start 26:

- Found in 30 of 120 (25.0%) of genes in pham
- Manual Annotations of this start: 28 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AreFloNak_65 (AU1), Breylor17_62 (AU1), Brunswick_63 (AU1), CapnMurica_60 (AU1), CastorTray_66 (AU1), Caterpillar_62 (AU4), Darby_61 (AU1), DevitoJr_62 (AU1), ElephantMan_62 (AU1), Giantsbane_66 (AU2), Gordon_60 (AU1), Ingrid_69 (AU3), Inked_68 (AU), LilHuddy_67 (AU2), Loretta_66 (AU3), Makai_66 (AU5), MediumFry_63 (AU4), MiniBage1_62 (AU1), Nightmare_64 (AU1), Niktson_62 (AU1), Nivinsha_64 (AU1), Phaby_68 (AU2), ScienceWizSam_63 (AU1), Shepard_68 (AU2), Synopsis_61 (AU1), Teacup_63 (AU1), Tenno_63 (AU1), Tokki_71 (AU2), Truckee_64 (AU5), Trustiboi_62 (AU1),

Start 27:

- Found in 20 of 120 (16.7%) of genes in pham
- Manual Annotations of this start: 19 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_69 (AM), BenitoAntonio_67 (AM), Benllo_69 (AM), Cheesy_69 (AM), Circum_70 (AM), Correa_67 (AM), Dynamite_69 (AM), Elsa_69 (AM), GoCrazy_66 (AM), Hankly_68 (AM), Heisenberger_68 (AM), JEGGS_68 (AM), Kardesai_69 (AM), KeaneyLin_65 (AM), Mooshroom_70 (AM), Mudcat_65 (AM), NapoleonB_70 (AM), Nason_69 (AM), Tribby_72 (AM), Xenomorph_65 (AM),

Start 32:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sonali_66 (FG),

Start 35:

- Found in 1 of 120 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anekin_89 (AY),

Start 37:

- Found in 2 of 120 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bauer_86 (FN),

Start 39:

- Found in 15 of 120 (12.5%) of genes in pham
- Manual Annotations of this start: 14 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BronxBay_65 (AW), Djungelskog_64 (AW), DoctorPepper_64 (AW), Egad_65 (AW), Linda_65 (AW), Michelle_65 (AW), MrAaronian_65 (AW), ProfFrink_65 (AW), Raunak_66 (AW), Salk_65 (AW), Shiba_64 (AW), Sloopyjoe_65 (AW), Sporto_64 (AW), StarLord_65 (AW), Stayer_65 (AW),

Summary by clusters:

There are 17 clusters represented in this pham: FG, AM, FB, AP4, AU1, AU3, AU2, AU5, AU4, AW, AU6, AY, FI, FK, AU, FN, EM2,

Info for manual annotations of cluster AM:

- Start number 27 was manually annotated 19 times for cluster AM.

Info for manual annotations of cluster AP4:

- Start number 6 was manually annotated 1 time for cluster AP4.
- Start number 8 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AU:

- Start number 26 was manually annotated 1 time for cluster AU.

Info for manual annotations of cluster AU1:

- Start number 26 was manually annotated 16 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 26 was manually annotated 5 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 26 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 26 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 26 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 20 was manually annotated 5 times for cluster AU6.

Info for manual annotations of cluster AW:

- Start number 39 was manually annotated 14 times for cluster AW.

Info for manual annotations of cluster AY:

- Start number 7 was manually annotated 14 times for cluster AY.
- Start number 23 was manually annotated 3 times for cluster AY.
- Start number 35 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster EM2:

- Start number 7 was manually annotated 1 time for cluster EM2.

Info for manual annotations of cluster FB:

- Start number 7 was manually annotated 1 time for cluster FB.
- Start number 23 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FG:

- Start number 32 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FK:

- Start number 11 was manually annotated 2 times for cluster FK.

Info for manual annotations of cluster FN:

- Start number 7 was manually annotated 1 time for cluster FN.
- Start number 37 was manually annotated 1 time for cluster FN.

Gene Information:

Gene: AWGoat_43 Start: 36435, Stop: 36184, Start Num: 6

Candidate Starts for AWGoat_43:

(Start: 6 @36435 has 1 MA's), (44, 36378), (55, 36336), (67, 36270),

Gene: AbbyDaisy_95 Start: 52716, Stop: 52943, Start Num: 23

Candidate Starts for AbbyDaisy_95:

(Start: 23 @52716 has 5 MA's), (49, 52788), (55, 52809), (67, 52875), (68, 52878), (71, 52896),

Gene: Aikyam_87 Start: 47697, Stop: 47942, Start Num: 7

Candidate Starts for Aikyam_87:

(Start: 7 @47697 has 17 MA's), (44, 47739), (59, 47802), (62, 47826), (73, 47877),

Gene: Anekin_89 Start: 49928, Stop: 50155, Start Num: 35

Candidate Starts for Anekin_89:

(Start: 35 @49928 has 1 MA's), (Start: 37 @49934 has 1 MA's), (49, 50000), (55, 50021), (67, 50087), (68, 50090),

Gene: Arcadia_69 Start: 43472, Stop: 43750, Start Num: 27

Candidate Starts for Arcadia_69:

(Start: 27 @43472 has 19 MA's), (38, 43517), (41, 43532), (43, 43550), (56, 43601), (63, 43649), (68, 43667),

Gene: AreFloNak_65 Start: 44289, Stop: 44579, Start Num: 26

Candidate Starts for AreFloNak_65:

(Start: 26 @44289 has 28 MA's), (41, 44352), (55, 44421), (66, 44481), (68, 44490), (80, 44565),

Gene: Argan_66 Start: 43247, Stop: 43582, Start Num: 20

Candidate Starts for Argan_66:

(Start: 20 @43247 has 5 MA's), (29, 43325), (46, 43412), (50, 43421), (52, 43427), (64, 43493), (78, 43577),

Gene: Arzan_67 Start: 44099, Stop: 44422, Start Num: 20

Candidate Starts for Arzan_67:

(Start: 20 @44099 has 5 MA's), (25, 44147), (34, 44189), (50, 44267), (64, 44339), (72, 44384),

Gene: Auxilium_87 Start: 46996, Stop: 47223, Start Num: 7

Candidate Starts for Auxilium_87:

(Start: 7 @46996 has 17 MA's), (49, 47068), (55, 47089), (67, 47155), (68, 47158),

Gene: BarbieDoll_73 Start: 44960, Stop: 45295, Start Num: 20

Candidate Starts for BarbieDoll_73:

(Start: 20 @44960 has 5 MA's), (28, 45026), (29, 45038), (31, 45047), (33, 45050), (45, 45122), (50, 45134), (52, 45140), (64, 45206), (78, 45290),

Gene: Bauer_86 Start: 46271, Stop: 46492, Start Num: 37

Candidate Starts for Bauer_86:

(2, 45926), (19, 46157), (24, 46205), (Start: 37 @46271 has 1 MA's), (49, 46337), (55, 46358), (67, 46424), (68, 46427), (71, 46445), (75, 46475),

Gene: BenchScraper_89 Start: 47947, Stop: 48174, Start Num: 7

Candidate Starts for BenchScraper_89:

(Start: 7 @47947 has 17 MA's), (49, 48019), (55, 48040), (67, 48106), (68, 48109), (75, 48157),

Gene: BenitoAntonio_67 Start: 42507, Stop: 42785, Start Num: 27

Candidate Starts for BenitoAntonio_67:

(Start: 27 @42507 has 19 MA's), (38, 42552), (41, 42567), (43, 42585), (56, 42636), (63, 42684), (68, 42702), (76, 42750),

Gene: Benllo_69 Start: 43185, Stop: 43463, Start Num: 27

Candidate Starts for Benllo_69:

(Start: 27 @43185 has 19 MA's), (38, 43230), (41, 43245), (43, 43263), (56, 43314), (63, 43362), (68, 43380), (76, 43428),

Gene: BillyTP_90 Start: 50050, Stop: 50289, Start Num: 7

Candidate Starts for BillyTP_90:

(Start: 7 @50050 has 17 MA's), (44, 50092), (59, 50155), (73, 50230),

Gene: BlackSpider_80 Start: 47304, Stop: 47531, Start Num: 7

Candidate Starts for BlackSpider_80:

(Start: 7 @47304 has 17 MA's), (49, 47376), (55, 47397), (67, 47463), (68, 47466), (75, 47514),

Gene: BrayBeast_64 Start: 36058, Stop: 36285, Start Num: 23

Candidate Starts for BrayBeast_64:

(3, 35845), (Start: 23 @36058 has 5 MA's), (49, 36130), (60, 36187), (68, 36220),

Gene: Breylor17_62 Start: 44864, Stop: 45154, Start Num: 26

Candidate Starts for Breylor17_62:

(Start: 26 @44864 has 28 MA's), (40, 44924), (68, 45065), (80, 45140),

Gene: BronxBay_65 Start: 42499, Stop: 42750, Start Num: 39

Candidate Starts for BronxBay_65:

(Start: 39 @42499 has 14 MA's), (58, 42586), (61, 42619), (67, 42643), (68, 42646), (81, 42727),

Gene: Brunswick_63 Start: 44167, Stop: 44457, Start Num: 26

Candidate Starts for Brunswick_63:

(Start: 26 @44167 has 28 MA's), (45, 44266), (57, 44305), (66, 44359), (68, 44368), (79, 44440),

Gene: CapnMurica_60 Start: 45050, Stop: 45340, Start Num: 26

Candidate Starts for CapnMurica_60:

(12, 44933), (21, 45002), (Start: 26 @45050 has 28 MA's), (41, 45113), (57, 45188), (68, 45251), (79, 45323),

Gene: CastorTray_66 Start: 45053, Stop: 45343, Start Num: 26

Candidate Starts for CastorTray_66:

(Start: 26 @45053 has 28 MA's), (40, 45113), (68, 45254), (80, 45329),

Gene: Caterpillar_62 Start: 43978, Stop: 44268, Start Num: 26

Candidate Starts for Caterpillar_62:

(18, 43921), (21, 43930), (Start: 26 @43978 has 28 MA's), (40, 44038), (45, 44077), (55, 44110), (68, 44179), (79, 44251), (80, 44254),

Gene: Cheesy_69 Start: 42699, Stop: 42977, Start Num: 27

Candidate Starts for Cheesy_69:

(Start: 27 @42699 has 19 MA's), (38, 42744), (43, 42777), (56, 42828), (63, 42876), (68, 42894), (74, 42921), (76, 42942),

Gene: Circum_70 Start: 43275, Stop: 43553, Start Num: 27

Candidate Starts for Circum_70:

(Start: 27 @43275 has 19 MA's), (38, 43320), (41, 43335), (43, 43353), (56, 43404), (63, 43452), (68, 43470), (76, 43518),

Gene: CookieBear_86 Start: 49258, Stop: 49497, Start Num: 7

Candidate Starts for CookieBear_86:

(Start: 7 @49258 has 17 MA's), (44, 49300), (59, 49363), (73, 49438),

Gene: Correa_67 Start: 42273, Stop: 42551, Start Num: 27

Candidate Starts for Correa_67:

(Start: 27 @42273 has 19 MA's), (38, 42318), (43, 42351), (56, 42402), (63, 42450), (68, 42468), (74, 42495), (76, 42516),

Gene: Darby_61 Start: 44099, Stop: 44389, Start Num: 26

Candidate Starts for Darby_61:

(Start: 26 @44099 has 28 MA's), (40, 44159), (41, 44162), (68, 44300), (80, 44375),

Gene: DevitoJr_62 Start: 44485, Stop: 44775, Start Num: 26

Candidate Starts for DevitoJr_62:

(Start: 26 @44485 has 28 MA's), (40, 44545), (41, 44548), (55, 44617), (68, 44686), (80, 44761),

Gene: Djungelskog_64 Start: 42498, Stop: 42749, Start Num: 39

Candidate Starts for Djungelskog_64:

(Start: 39 @42498 has 14 MA's), (58, 42585), (61, 42618), (67, 42642), (68, 42645), (81, 42726),

Gene: DoctorPepper_64 Start: 42203, Stop: 42454, Start Num: 39

Candidate Starts for DoctorPepper_64:

(Start: 39 @42203 has 14 MA's), (58, 42290), (61, 42323), (67, 42347), (68, 42350), (81, 42431),

Gene: Dynamite_69 Start: 43288, Stop: 43566, Start Num: 27

Candidate Starts for Dynamite_69:

(Start: 27 @43288 has 19 MA's), (38, 43333), (41, 43348), (43, 43366), (56, 43417), (63, 43465), (68, 43483), (76, 43531),

Gene: Egad_65 Start: 42494, Stop: 42745, Start Num: 39

Candidate Starts for Egad_65:

(Start: 39 @42494 has 14 MA's), (58, 42581), (61, 42614), (67, 42638), (68, 42641),

Gene: ElephantMan_62 Start: 44797, Stop: 45087, Start Num: 26

Candidate Starts for ElephantMan_62:

(Start: 26 @44797 has 28 MA's), (45, 44896), (57, 44935), (66, 44989), (68, 44998), (79, 45070),

Gene: Elsa_69 Start: 43472, Stop: 43750, Start Num: 27

Candidate Starts for Elsa_69:

(Start: 27 @43472 has 19 MA's), (38, 43517), (41, 43532), (43, 43550), (56, 43601), (63, 43649), (68, 43667),

Gene: Elver_118 Start: 65771, Stop: 66007, Start Num: 11

Candidate Starts for Elver_118:

(10, 65768), (Start: 11 @65771 has 2 MA's), (47, 65837), (66, 65921), (68, 65930), (69, 65933), (71, 65948),

Gene: EvePickles_90 Start: 50663, Stop: 50890, Start Num: 7

Candidate Starts for EvePickles_90:

(Start: 7 @50663 has 17 MA's), (44, 50714), (49, 50735), (55, 50756), (67, 50822), (68, 50825), (71, 50843),

Gene: Faja_90 Start: 49924, Stop: 50151, Start Num: 7

Candidate Starts for Faja_90:

(1, 49681), (Start: 7 @49924 has 17 MA's), (44, 49975), (49, 49996), (67, 50083), (68, 50086), (71, 50104),

Gene: GantcherGoblin_67 Start: 43303, Stop: 43638, Start Num: 20

Candidate Starts for GantcherGoblin_67:

(Start: 20 @43303 has 5 MA's), (29, 43381), (46, 43468), (50, 43477), (52, 43483), (64, 43549), (70, 43585), (72, 43594), (78, 43633),

Gene: Giantsbane_66 Start: 43674, Stop: 43961, Start Num: 26

Candidate Starts for Giantsbane_66:

(21, 43623), (Start: 26 @43674 has 28 MA's), (41, 43734), (68, 43872), (79, 43944), (80, 43947),

Gene: Globfish_88 Start: 48667, Stop: 48894, Start Num: 7

Candidate Starts for Globfish_88:

(Start: 7 @48667 has 17 MA's), (49, 48739), (67, 48826), (68, 48829), (71, 48847),

Gene: GoCrazy_66 Start: 42732, Stop: 43010, Start Num: 27

Candidate Starts for GoCrazy_66:

(Start: 27 @42732 has 19 MA's), (38, 42777), (41, 42792), (43, 42810), (56, 42861), (63, 42909), (68, 42927),

Gene: Gordon_60 Start: 44977, Stop: 45267, Start Num: 26

Candidate Starts for Gordon_60:

(Start: 26 @44977 has 28 MA's), (40, 45037), (42, 45052), (55, 45109), (68, 45178), (80, 45253),

Gene: Gorpy_87 Start: 50675, Stop: 50902, Start Num: 7

Candidate Starts for Gorpy_87:

(Start: 7 @50675 has 17 MA's), (49, 50747), (55, 50768), (67, 50834), (68, 50837),

Gene: Hankly_68 Start: 42356, Stop: 42634, Start Num: 27

Candidate Starts for Hankly_68:

(Start: 27 @42356 has 19 MA's), (38, 42401), (41, 42416), (43, 42434), (56, 42485), (63, 42533), (68, 42551), (76, 42599),

Gene: Heisenberger_68 Start: 42694, Stop: 42972, Start Num: 27

Candidate Starts for Heisenberger_68:

(Start: 27 @42694 has 19 MA's), (38, 42739), (41, 42754), (43, 42772), (56, 42823), (63, 42871), (68, 42889), (76, 42937),

Gene: Hestia_83 Start: 47282, Stop: 47509, Start Num: 7

Candidate Starts for Hestia_83:

(Start: 7 @47282 has 17 MA's), (49, 47354), (55, 47375), (67, 47441), (68, 47444),

Gene: Hillester_93 Start: 49669, Stop: 49896, Start Num: 7

Candidate Starts for Hillester_93:

(Start: 7 @49669 has 17 MA's), (49, 49741), (55, 49762), (67, 49828), (68, 49831), (71, 49849), (75, 49879),

Gene: Ingrid_69 Start: 44855, Stop: 45154, Start Num: 26

Candidate Starts for Ingrid_69:

(14, 44753), (Start: 26 @44855 has 28 MA's), (57, 45002), (68, 45065), (79, 45137), (80, 45140),

Gene: Inked_68 Start: 45528, Stop: 45815, Start Num: 26

Candidate Starts for Inked_68:

(16, 45441), (17, 45450), (21, 45480), (Start: 26 @45528 has 28 MA's), (54, 45654), (68, 45726), (80, 45801),

Gene: Isolde_90 Start: 50517, Stop: 50744, Start Num: 23

Candidate Starts for Isolde_90:

(Start: 23 @50517 has 5 MA's), (24, 50523), (44, 50568), (49, 50589), (55, 50610), (67, 50676), (68, 50679), (71, 50697),

Gene: JEGGS_68 Start: 42773, Stop: 43051, Start Num: 27

Candidate Starts for JEGGS_68:

(Start: 27 @42773 has 19 MA's), (38, 42818), (41, 42833), (43, 42851), (56, 42902), (63, 42950), (68, 42968), (76, 43016),

Gene: Jazzy4900_66 Start: 44859, Stop: 45188, Start Num: 20

Candidate Starts for Jazzy4900_66:

(Start: 20 @44859 has 5 MA's), (34, 44955), (50, 45033),

Gene: Kardesai_69 Start: 43082, Stop: 43360, Start Num: 27

Candidate Starts for Kardesai_69:

(Start: 27 @43082 has 19 MA's), (38, 43127), (41, 43142), (43, 43160), (56, 43211), (63, 43259), (68, 43277),

Gene: KeaneyLin_65 Start: 42732, Stop: 43010, Start Num: 27

Candidate Starts for KeaneyLin_65:

(Start: 27 @42732 has 19 MA's), (38, 42777), (41, 42792), (43, 42810), (56, 42861), (63, 42909), (68, 42927),

Gene: Lawnathon_91 Start: 50019, Stop: 50246, Start Num: 7

Candidate Starts for Lawnathon_91:

(Start: 7 @50019 has 17 MA's), (49, 50091), (55, 50112), (67, 50178), (68, 50181), (71, 50199), (75, 50229), (77, 50238),

Gene: Leathea_69 Start: 43211, Stop: 43540, Start Num: 20

Candidate Starts for Leathea_69:

(Start: 20 @43211 has 5 MA's), (29, 43289), (30, 43295), (36, 43319), (45, 43373), (50, 43385), (52, 43391), (64, 43457), (65, 43460),

Gene: Lewando_72 Start: 45032, Stop: 45367, Start Num: 20

Candidate Starts for Lewando_72:

(Start: 20 @45032 has 5 MA's), (28, 45098), (29, 45110), (31, 45119), (33, 45122), (45, 45194), (50, 45206), (52, 45212), (64, 45278), (78, 45362),

Gene: LilHuddy_67 Start: 44781, Stop: 45074, Start Num: 26

Candidate Starts for LilHuddy_67:

(22, 44742), (Start: 26 @44781 has 28 MA's), (57, 44922), (68, 44985),

Gene: Linda_65 Start: 42496, Stop: 42747, Start Num: 39

Candidate Starts for Linda_65:

(Start: 39 @42496 has 14 MA's), (58, 42583), (61, 42616), (67, 42640), (68, 42643), (81, 42724),

Gene: Loretta_66 Start: 44855, Stop: 45154, Start Num: 26

Candidate Starts for Loretta_66:

(14, 44753), (Start: 26 @44855 has 28 MA's), (57, 45002), (68, 45065), (79, 45137), (80, 45140),

Gene: Makai_66 Start: 44929, Stop: 45228, Start Num: 26

Candidate Starts for Makai_66:

(Start: 26 @44929 has 28 MA's), (57, 45076), (68, 45139), (79, 45211), (80, 45214),

Gene: MediumFry_63 Start: 44274, Stop: 44564, Start Num: 26

Candidate Starts for MediumFry_63:

(18, 44217), (21, 44226), (Start: 26 @44274 has 28 MA's), (40, 44334), (45, 44373), (55, 44406), (68, 44475), (79, 44547), (80, 44550),

Gene: Michelle_65 Start: 42498, Stop: 42749, Start Num: 39

Candidate Starts for Michelle_65:

(Start: 39 @42498 has 14 MA's), (58, 42585), (61, 42618), (67, 42642), (68, 42645), (81, 42726),

Gene: MidnightRain_96 Start: 51168, Stop: 51395, Start Num: 7

Candidate Starts for MidnightRain_96:

(Start: 7 @51168 has 17 MA's), (44, 51219), (49, 51240), (55, 51261), (67, 51327), (68, 51330), (71, 51348),

Gene: MiniBagel_62 Start: 45041, Stop: 45331, Start Num: 26

Candidate Starts for MiniBagel_62:

(Start: 26 @45041 has 28 MA's), (41, 45104), (57, 45179), (68, 45242), (80, 45317),

Gene: MissAmericana_13 Start: 9042, Stop: 8782, Start Num: 7

Candidate Starts for MissAmericana_13:

(5, 9063), (Start: 7 @9042 has 17 MA's), (59, 8925), (73, 8850),

Gene: Mooshroom_70 Start: 43082, Stop: 43360, Start Num: 27

Candidate Starts for Mooshroom_70:

(Start: 27 @43082 has 19 MA's), (38, 43127), (41, 43142), (43, 43160), (56, 43211), (63, 43259), (68, 43277),

Gene: MrAaronian_65 Start: 42498, Stop: 42749, Start Num: 39

Candidate Starts for MrAaronian_65:

(Start: 39 @42498 has 14 MA's), (58, 42585), (61, 42618), (67, 42642), (68, 42645), (81, 42726),

Gene: Mudcat_65 Start: 44131, Stop: 44409, Start Num: 27

Candidate Starts for Mudcat_65:

(Start: 27 @44131 has 19 MA's), (38, 44176), (41, 44191), (43, 44209), (56, 44260), (63, 44308), (68, 44326), (76, 44374),

Gene: NapoleonB_70 Start: 43288, Stop: 43566, Start Num: 27

Candidate Starts for NapoleonB_70:

(Start: 27 @43288 has 19 MA's), (38, 43333), (41, 43348), (43, 43366), (56, 43417), (63, 43465), (68, 43483), (76, 43531),

Gene: Nason_69 Start: 43472, Stop: 43750, Start Num: 27

Candidate Starts for Nason_69:

(Start: 27 @43472 has 19 MA's), (38, 43517), (41, 43532), (43, 43550), (56, 43601), (63, 43649), (68, 43667),

Gene: Nightmare_64 Start: 45339, Stop: 45629, Start Num: 26

Candidate Starts for Nightmare_64:

(Start: 26 @45339 has 28 MA's), (41, 45402), (68, 45540), (80, 45615),

Gene: Niktson_62 Start: 44797, Stop: 45087, Start Num: 26

Candidate Starts for Niktson_62:

(Start: 26 @44797 has 28 MA's), (45, 44896), (57, 44935), (66, 44989), (68, 44998), (79, 45070),

Gene: Nivinsha_64 Start: 44289, Stop: 44579, Start Num: 26

Candidate Starts for Nivinsha_64:

(Start: 26 @44289 has 28 MA's), (41, 44352), (55, 44421), (66, 44481), (68, 44490), (80, 44565),

Gene: Paella_119 Start: 66359, Stop: 66595, Start Num: 11

Candidate Starts for Paella_119:

(10, 66356), (Start: 11 @66359 has 2 MA's), (47, 66425), (66, 66509), (68, 66518), (69, 66521), (71, 66536),

Gene: Persistence_84 Start: 47327, Stop: 47554, Start Num: 23
Candidate Starts for Persistence_84:
(Start: 23 @47327 has 5 MA's), (44, 47378), (49, 47399), (55, 47420), (67, 47486), (68, 47489),

Gene: Phaby_68 Start: 45345, Stop: 45635, Start Num: 26
Candidate Starts for Phaby_68:
(21, 45294), (22, 45306), (Start: 26 @45345 has 28 MA's), (57, 45483), (68, 45546), (79, 45618), (80, 45621),

Gene: Phaila_71 Start: 43433, Stop: 43768, Start Num: 20
Candidate Starts for Phaila_71:
(Start: 20 @43433 has 5 MA's), (28, 43499), (34, 43529), (48, 43604), (50, 43607), (52, 43613), (64, 43679), (72, 43724), (78, 43763),

Gene: Phrank15_95 Start: 50347, Stop: 50574, Start Num: 7
Candidate Starts for Phrank15_95:
(Start: 7 @50347 has 17 MA's), (49, 50419), (55, 50440), (67, 50506), (68, 50509),

Gene: ProfFrink_65 Start: 42493, Stop: 42744, Start Num: 39
Candidate Starts for ProfFrink_65:
(Start: 39 @42493 has 14 MA's), (58, 42580), (61, 42613), (67, 42637), (68, 42640),

Gene: Qui_119 Start: 66359, Stop: 66595, Start Num: 11
Candidate Starts for Qui_119:
(10, 66356), (Start: 11 @66359 has 2 MA's), (47, 66425), (66, 66509), (68, 66518), (69, 66521), (71, 66536),

Gene: RadFad_94 Start: 49669, Stop: 49896, Start Num: 7
Candidate Starts for RadFad_94:
(Start: 7 @49669 has 17 MA's), (49, 49741), (55, 49762), (67, 49828), (68, 49831), (71, 49849), (75, 49879),

Gene: Raphaella_89 Start: 48624, Stop: 48887, Start Num: 7
Candidate Starts for Raphaella_89:
(Start: 7 @48624 has 17 MA's), (51, 48705), (53, 48711),

Gene: Raqqa_93 Start: 50720, Stop: 50947, Start Num: 23
Candidate Starts for Raqqa_93:
(9, 50645), (15, 50678), (Start: 23 @50720 has 5 MA's), (49, 50792), (67, 50879), (68, 50882), (71, 50900),

Gene: Raunak_66 Start: 42154, Stop: 42405, Start Num: 39
Candidate Starts for Raunak_66:
(Start: 39 @42154 has 14 MA's), (58, 42241), (61, 42274), (67, 42298), (68, 42301),

Gene: Renaldo_77 Start: 45398, Stop: 45733, Start Num: 20
Candidate Starts for Renaldo_77:
(Start: 20 @45398 has 5 MA's), (28, 45464), (29, 45476), (31, 45485), (33, 45488), (50, 45572), (52, 45578), (64, 45644), (78, 45728),

Gene: Richie_92 Start: 50519, Stop: 50746, Start Num: 7
Candidate Starts for Richie_92:
(Start: 7 @50519 has 17 MA's), (49, 50591), (55, 50612), (67, 50678), (68, 50681), (75, 50729),

Gene: Sakai_86 Start: 49386, Stop: 49613, Start Num: 7

Candidate Starts for Sakai_86:

(Start: 7 @49386 has 17 MA's), (49, 49458), (55, 49479), (67, 49545), (68, 49548),

Gene: Salk_65 Start: 42496, Stop: 42747, Start Num: 39

Candidate Starts for Salk_65:

(Start: 39 @42496 has 14 MA's), (58, 42583), (61, 42616), (67, 42640), (68, 42643), (81, 42724),

Gene: Sarge_61 Start: 33816, Stop: 34043, Start Num: 23

Candidate Starts for Sarge_61:

(Start: 23 @33816 has 5 MA's), (44, 33867), (49, 33888), (60, 33945), (68, 33978),

Gene: Sashimi_92 Start: 49657, Stop: 49884, Start Num: 23

Candidate Starts for Sashimi_92:

(13, 49651), (Start: 23 @49657 has 5 MA's), (44, 49708), (49, 49729), (55, 49750), (67, 49816), (68, 49819),

Gene: ScienceWizSam_63 Start: 44451, Stop: 44792, Start Num: 26

Candidate Starts for ScienceWizSam_63:

(Start: 26 @44451 has 28 MA's), (40, 44511), (55, 44583), (68, 44652), (80, 44727), (82, 44775),

Gene: Seahorse_95 Start: 54032, Stop: 54259, Start Num: 7

Candidate Starts for Seahorse_95:

(Start: 7 @54032 has 17 MA's), (49, 54104), (55, 54125), (67, 54191), (68, 54194), (75, 54242),

Gene: Shepard_68 Start: 44640, Stop: 44933, Start Num: 26

Candidate Starts for Shepard_68:

(21, 44589), (22, 44601), (Start: 26 @44640 has 28 MA's), (57, 44781), (68, 44844),

Gene: Shiba_64 Start: 42154, Stop: 42405, Start Num: 39

Candidate Starts for Shiba_64:

(Start: 39 @42154 has 14 MA's), (58, 42241), (61, 42274), (67, 42298), (68, 42301), (81, 42382),

Gene: Shoya_64 Start: 35887, Stop: 36126, Start Num: 7

Candidate Starts for Shoya_64:

(Start: 7 @35887 has 17 MA's), (59, 35992), (66, 36031), (73, 36067),

Gene: SilentRX_47 Start: 38442, Stop: 38200, Start Num: 8

Candidate Starts for SilentRX_47:

(Start: 8 @38442 has 1 MA's), (44, 38391), (53, 38358), (67, 38283),

Gene: Sloopyjoe_65 Start: 42500, Stop: 42751, Start Num: 39

Candidate Starts for Sloopyjoe_65:

(Start: 39 @42500 has 14 MA's), (58, 42587), (61, 42620), (67, 42644), (68, 42647), (81, 42728),

Gene: Sonali_66 Start: 45518, Stop: 45778, Start Num: 32

Candidate Starts for Sonali_66:

(4, 45302), (Start: 32 @45518 has 1 MA's), (49, 45608), (53, 45620), (68, 45698), (71, 45716),

Gene: SpicyFrank_91 Start: 49438, Stop: 49665, Start Num: 7

Candidate Starts for SpicyFrank_91:

(Start: 7 @49438 has 17 MA's), (49, 49510), (67, 49597), (68, 49600),

Gene: Sporto_64 Start: 43615, Stop: 43866, Start Num: 39
Candidate Starts for Sporto_64:
(Start: 39 @43615 has 14 MA's), (67, 43759), (68, 43762), (81, 43843),

Gene: StarLord_65 Start: 42493, Stop: 42744, Start Num: 39
Candidate Starts for StarLord_65:
(Start: 39 @42493 has 14 MA's), (58, 42580), (61, 42613), (67, 42637), (68, 42640), (81, 42721),

Gene: Stayer_65 Start: 42496, Stop: 42747, Start Num: 39
Candidate Starts for Stayer_65:
(Start: 39 @42496 has 14 MA's), (58, 42583), (61, 42616), (67, 42640), (68, 42643), (81, 42724),

Gene: Sunny4976_65 Start: 44859, Stop: 45188, Start Num: 20
Candidate Starts for Sunny4976_65:
(Start: 20 @44859 has 5 MA's), (34, 44955), (50, 45033),

Gene: Synopsis_61 Start: 44455, Stop: 44742, Start Num: 26
Candidate Starts for Synopsis_61:
(Start: 26 @44455 has 28 MA's), (40, 44512), (41, 44515), (68, 44653), (80, 44728),

Gene: Teacup_63 Start: 44876, Stop: 45166, Start Num: 26
Candidate Starts for Teacup_63:
(Start: 26 @44876 has 28 MA's), (45, 44975), (57, 45014), (66, 45068), (68, 45077), (79, 45149),

Gene: Tenno_63 Start: 45105, Stop: 45395, Start Num: 26
Candidate Starts for Tenno_63:
(21, 45057), (Start: 26 @45105 has 28 MA's), (41, 45168), (57, 45243), (68, 45306), (80, 45381),

Gene: ThayneTheZag_96 Start: 51075, Stop: 51302, Start Num: 7
Candidate Starts for ThayneTheZag_96:
(Start: 7 @51075 has 17 MA's), (44, 51126), (49, 51147), (67, 51234), (68, 51237), (71, 51255), (75, 51285),

Gene: Tiff81_89 Start: 47744, Stop: 48007, Start Num: 7
Candidate Starts for Tiff81_89:
(Start: 7 @47744 has 17 MA's), (51, 47825), (53, 47831),

Gene: Tokki_71 Start: 44994, Stop: 45284, Start Num: 26
Candidate Starts for Tokki_71:
(21, 44943), (22, 44955), (Start: 26 @44994 has 28 MA's), (68, 45195), (79, 45267), (80, 45270),

Gene: Tribby_72 Start: 43659, Stop: 43937, Start Num: 27
Candidate Starts for Tribby_72:
(Start: 27 @43659 has 19 MA's), (38, 43704), (43, 43737), (56, 43788), (63, 43836), (68, 43854), (74, 43881), (76, 43902),

Gene: TrixiePhattel_71 Start: 43595, Stop: 43930, Start Num: 20
Candidate Starts for TrixiePhattel_71:
(Start: 20 @43595 has 5 MA's), (28, 43661), (34, 43691), (48, 43766), (50, 43769), (64, 43841), (78, 43925),

Gene: Truckee_64 Start: 44713, Stop: 45012, Start Num: 26

Candidate Starts for Truckee_64:

(Start: 26 @44713 has 28 MA's), (57, 44860), (68, 44923), (79, 44995), (80, 44998),

Gene: Trustiboi_62 Start: 44710, Stop: 44997, Start Num: 26

Candidate Starts for Trustiboi_62:

(Start: 26 @44710 has 28 MA's), (40, 44767), (41, 44770), (68, 44908), (80, 44983),

Gene: Uzumaki_66 Start: 43404, Stop: 43739, Start Num: 20

Candidate Starts for Uzumaki_66:

(Start: 20 @43404 has 5 MA's), (29, 43482), (46, 43569), (50, 43578), (52, 43584), (64, 43650), (70, 43686), (72, 43695), (78, 43734),

Gene: Xenomorph_65 Start: 43143, Stop: 43421, Start Num: 27

Candidate Starts for Xenomorph_65:

(Start: 27 @43143 has 19 MA's), (38, 43188), (41, 43203), (43, 43221), (56, 43272), (63, 43320), (68, 43338), (74, 43365), (76, 43386),

Gene: YoungHarleezy_88 Start: 50145, Stop: 50372, Start Num: 23

Candidate Starts for YoungHarleezy_88:

(Start: 23 @50145 has 5 MA's), (24, 50151), (44, 50196), (49, 50217), (55, 50238), (67, 50304), (68, 50307),

Gene: Zeina_71 Start: 44101, Stop: 44436, Start Num: 20

Candidate Starts for Zeina_71:

(Start: 20 @44101 has 5 MA's), (28, 44167), (34, 44197), (46, 44266), (48, 44272), (50, 44275), (64, 44347), (78, 44431),

Gene: Zucker_89 Start: 50629, Stop: 50856, Start Num: 7

Candidate Starts for Zucker_89:

(Start: 7 @50629 has 17 MA's), (49, 50701), (55, 50722), (67, 50788), (68, 50791),