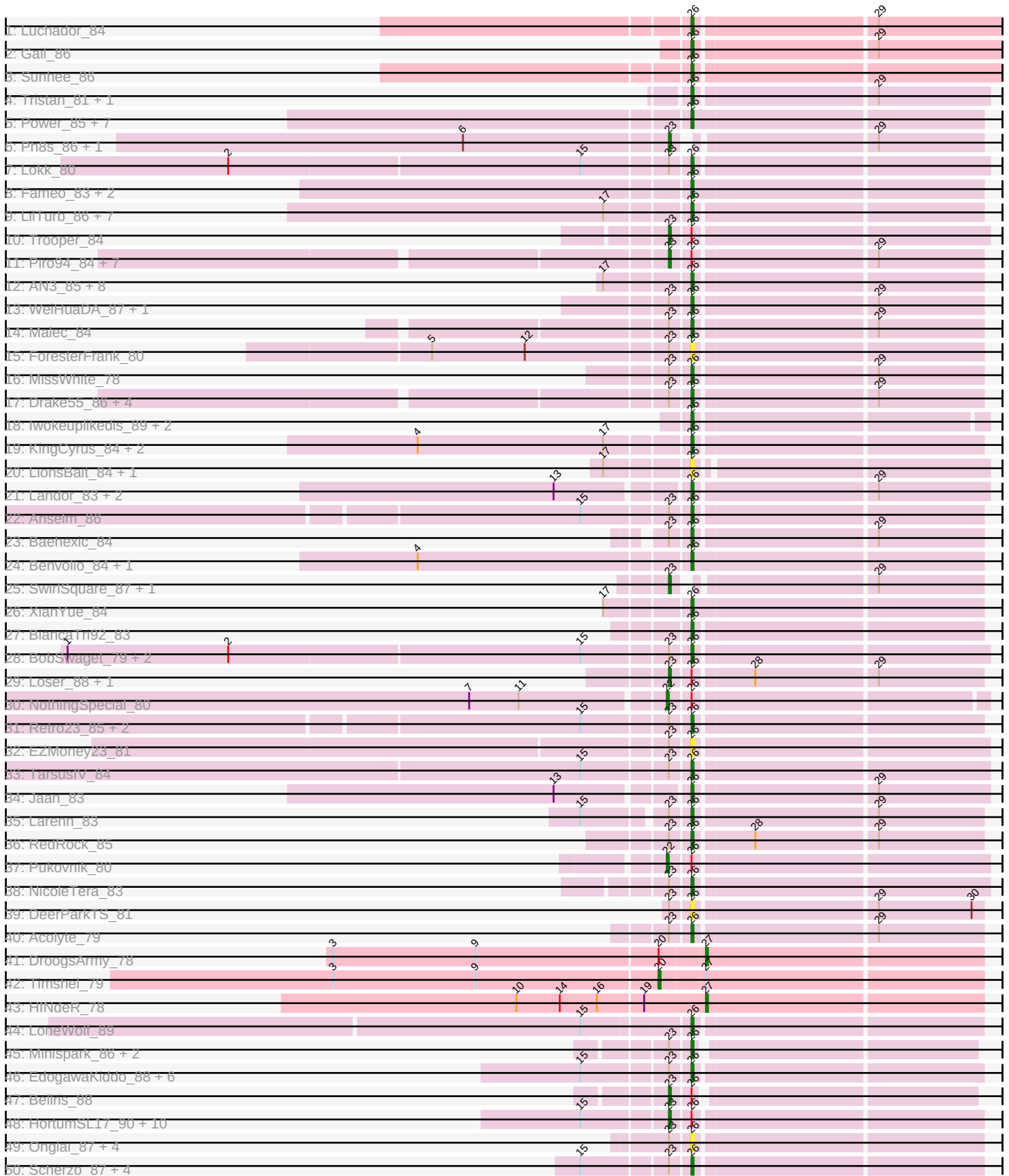
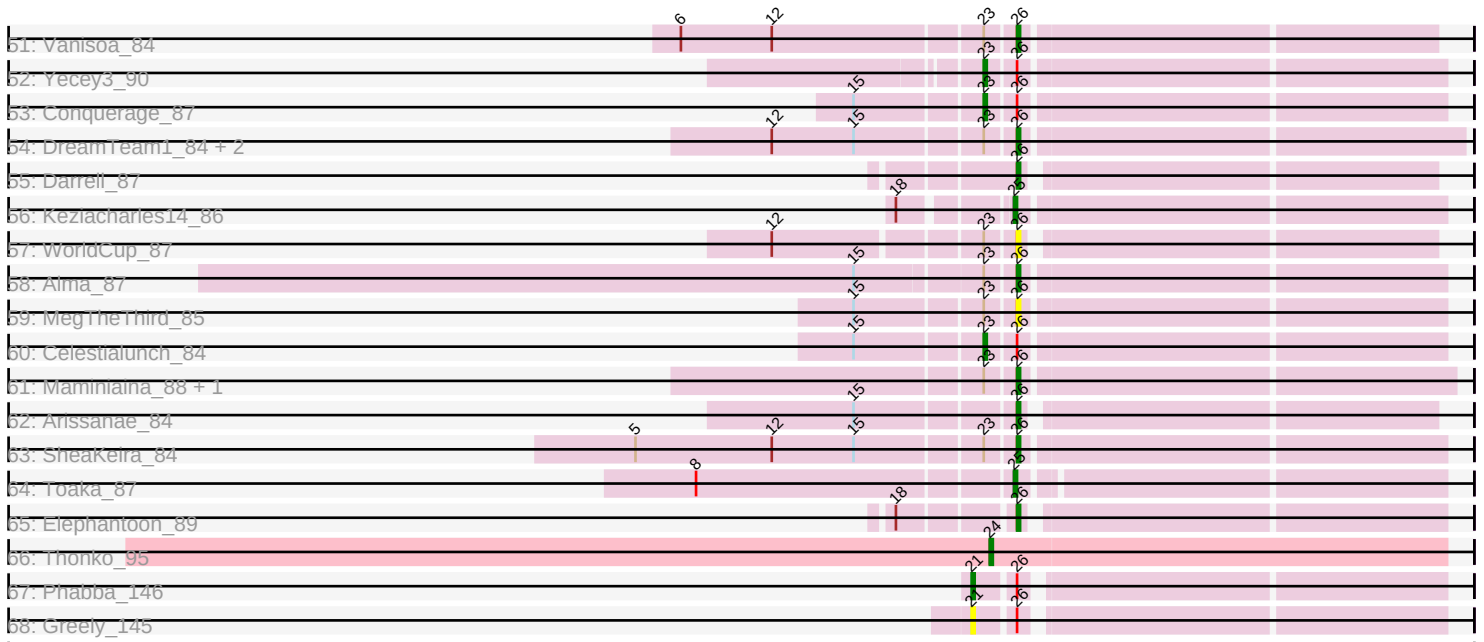






Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 330574 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330574 has 149 members, 25 are drafts.

Phages represented in each track:

- Track 1 : Luchador_84
- Track 2 : Gail_86
- Track 3 : Sunhee_86
- Track 4 : Tristan_81, Phaded_79
- Track 5 : Power_85, SnapTap_85, Georgie2_87, Crucio_85, SweetiePie_85, FiringLine_85, QueenBeesly_85, SemperFi_85
- Track 6 : Ph8s_86, Adzzy_86
- Track 7 : Loka_80
- Track 8 : Fameo_83, QueenB2_82, Heffalump_82
- Track 9 : LilTurb_86, Jerm_87, Turbido_86, Dignity_87, Agape74_87, Smeagan_88, Leviathan_87, AbbyPaige_87
- Track 10 : Trooper_84
- Track 11 : Piro94_84, Sknot_85, NaSiaTalie_86, WideWale_86, Flare16_85, Equemioh13_85, MiculUcigas_85, HarryHoudini_85
- Track 12 : AN3_85, First_0086, CRB1_86, VA6_85, LadyBird_89, Deloris_87, BengiVuitton_87, 20ES_87, JoshKayV_87
- Track 13 : WeiHuaDA_87, Kalpine_87
- Track 14 : Malec_84
- Track 15 : ForesterFrank_80
- Track 16 : MissWhite_78
- Track 17 : Drake55_86, Updawg_86, Terrific_86, Gratitude_83, Centaur_85
- Track 18 : IwokeupIikedis_89, SororFago_84, Jeeves_86
- Track 19 : KingCyrus_84, EvilGenius_85, ChipMunk_86
- Track 20 : LionsBait_84, HippoHollow_82
- Track 21 : Landor_83, Bactobuster_77, IronMan_82
- Track 22 : Anselm_86
- Track 23 : Baehexic_84
- Track 24 : Benvolio_84, Echild_88
- Track 25 : SwirlSquare_87, Che12_87
- Track 26 : XianYue_84
- Track 27 : BiancaTri92_83
- Track 28 : BobSwaget_79, Miko_80, Rachaly_82
- Track 29 : Loser_88, AnnaL29_87
- Track 30 : NothingSpecial_80
- Track 31 : Retro23_85, DudeLittle_83, Dalmatian_85
- Track 32 : EZMoney23_81
- Track 33 : TarsusIV_84

- Track 34 : Jaan_83
- Track 35 : Larenn_83
- Track 36 : RedRock_85
- Track 37 : Pukovnik_80
- Track 38 : NicoleTera_83
- Track 39 : DeerParkTS_81
- Track 40 : Acolyte_79
- Track 41 : DroogsArmy_78
- Track 42 : Timshel_79
- Track 43 : HINdeR_78
- Track 44 : LoneWolf_89
- Track 45 : Minispark_86, Rahalelujah_88, CogOmlette_86
- Track 46 : EdogawaKiddo_88, Qobbit_87, ExplosioNervosa_87, Priya_87, Phaeder_89, Sachima_85, Lilleskat_86
- Track 47 : Bellris_88
- Track 48 : HortumSL17_90, Aliter_82, Tubs_89, Catalina_91, Fayely_87, Eidsmoe_87, Myxus_89, EmyBug_86, PackMan_84, Spouty_87, Ayanochan_86
- Track 49 : Onglai_87, Jiawan_87, RyeScarlet_90, Halex_88, Hanray_87
- Track 50 : Scherzo_87, Phonnegut_89, Beemo_89, Pioneer_89, Ugenie5_76
- Track 51 : Vanisoa_84
- Track 52 : Yecey3_90
- Track 53 : Conquerage_87
- Track 54 : DreamTeam1_84, Klodlith_85, Charm_84
- Track 55 : Darrell_87
- Track 56 : Keziacharles14_86
- Track 57 : WorldCup_87
- Track 58 : Alma_87
- Track 59 : MegTheThird_85
- Track 60 : Celestiallunch_84
- Track 61 : Maminiaina_88, BogosyJay_88
- Track 62 : Arissanae_84
- Track 63 : SheaKeira_84
- Track 64 : Toaka_87
- Track 65 : Elephantoon_89
- Track 66 : Thonko_95
- Track 67 : Phabba_146
- Track 68 : Greely_145

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 85 of the 124 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 20ES_87, AN3_85, AbbyPaige_87, Acolyte_79, Agape74_87, Alma_87, Anselm_86, Arissanae_84, Bactobuster_77, Baehexic_84, Beemo_89, BengiVuitton_87, Benvolio_84, BiancaTri92_83, BobSwaget_79, BogosyJay_88, CRB1_86, Centaur_85, Charm_84, ChipMunk_86, CogOmlette_86, Crucio_85, Dalmatian_85, Darrell_87, DeerParkTS_81, Deloris_87, Dignity_87, Drake55_86, DreamTeam1_84, DudeLittle_83, EZMoney23_81, Echild_88, EdogawaKiddo_88, Elephantoon_89,

EvilGenius_85, ExplosioNervosa_87, Fameo_83, FiringLine_85, First_0086, ForesterFrank_80, Gail_86, Georgie2_87, Gratitude_83, Hanray_87, Heffalump_82, HippoHollow_82, Horex_88, IronMan_82, Iwokeuplikedis_89, Jaan_83, Jeeves_86, Jerm_87, Jiawan_87, JoshKayV_87, Kalpine_87, KingCyrus_84, Klodlith_85, LadyBird_89, Landor_83, Larenn_83, Leviathan_87, LilTurb_86, Lilleskat_86, LionsBait_84, Lökk_80, LoneWolf_89, Luchador_84, Malec_84, Maminiaina_88, MegTheThird_85, Miko_80, Minispark_86, MissWhite_78, NicoleTera_83, Onglai_87, Phaded_79, Phaeder_89, Phonnegut_89, Pioneer_89, Power_85, Priya_87, Qobbit_87, QueenB2_82, QueenBeesly_85, Rachaly_82, Rahalelujah_88, RedRock_85, Retro23_85, RyeScarlet_90, Sachima_85, Scherzo_87, SemperFi_85, SheaKeira_84, Smeagan_88, SnapTap_85, SororFago_84, Sunhee_86, SweetiePie_85, TarsusIV_84, Terrific_86, Tristan_81, Turbido_86, Ugenie5_76, Updawg_86, VA6_85, Vanisoa_84, WeiHuaDA_87, WorldCup_87, XianYue_84,

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

- Aliter_82, AnnaL29_87, Ayanochan_86, Bellris_88, Catalina_91, Celestiallunch_84, Conquerage_87, Eidsmoe_87, EmyBug_86, Equemioh13_85, Fayely_87, Flare16_85, Greely_145, HarryHoudini_85, HortumSL17_90, Loser_88, MiculUcigas_85, Myxus_89, NaSiaTalie_86, NothingSpecial_80, PackMan_84, Phabba_146, Piro94_84, Pukovnik_80, Sknot_85, Spouty_87, Trooper_84, Tubs_89, WideWale_86, Yecey3_90,

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

- Adzzy_86, Che12_87, DroogsArmy_78, HINdeR_78, Keziacharles14_86, Ph8s_86, SwirlSquare_87, Thonko_95, Timshel_79, Toaka_87,

Summary by start number:

Start 20:

- Found in 2 of 149 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 124
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Timshel_79 (A7),

Start 21:

- Found in 2 of 149 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 124
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely_145 (C2), Phabba_146 (C2),

Start 22:

- Found in 2 of 149 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 124
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial_80 (A2), Pukovnik_80 (A2),

Start 23:

- Found in 86 of 149 (57.7%) of genes in pham
- Manual Annotations of this start: 30 of 124
- Called 34.9% of time when present
- Phage (with cluster) where this start called: Adzzy_86 (A2), Aliter_82 (A9), AnnaL29_87 (A2), Ayanochan_86 (A9), Bellris_88 (A9), Catalina_91 (A9),

Celestialunch_84 (A9), Che12_87 (A2), Conquerage_87 (A9), Eidsmoe_87 (A9), EmyBug_86 (A9), Equemioh13_85 (A2), Fayely_87 (A9), Flare16_85 (A2), HarryHoudini_85 (A2), HortumSL17_90 (A9), Loser_88 (A2), MiculUcigas_85 (A2), Myxus_89 (A9), NaSiaTalie_86 (A2), PackMan_84 (A9), Ph8s_86 (A2), Piro94_84 (A2), Sknot_85 (A2), Spouty_87 (A9), SwirlSquare_87 (A2), Trooper_84 (A2), Tubs_89 (A9), WideWale_86 (A2), Yecey3_90 (A9),

Start 24:

- Found in 1 of 149 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 124
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko_95 (B8),

Start 25:

- Found in 2 of 149 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 124
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keziacharles14_86 (A9), Toaka_87 (A9),

Start 26:

- Found in 139 of 149 (93.3%) of genes in pham
- Manual Annotations of this start: 85 of 124
- Called 78.4% of time when present
- Phage (with cluster) where this start called: 20ES_87 (A2), AN3_85 (A2), AbbyPaige_87 (A2), Acolyte_79 (A2), Agape74_87 (A2), Alma_87 (A9), Anselm_86 (A2), Arissanae_84 (A9), Bactobuster_77 (A2), Baehexic_84 (A2), Beemo_89 (A9), BengiVuitton_87 (A2), Benvolio_84 (A2), BiancaTri92_83 (A2), BobSwaget_79 (A2), BogosyJay_88 (A9), CRB1_86 (A2), Centaur_85 (A2), Charm_84 (A9), ChipMunk_86 (A2), CogOmlette_86 (A9), Crucio_85 (A2), Dalmatian_85 (A2), Darrell_87 (A9), DeerParkTS_81 (A2), Deloris_87 (A2), Dignity_87 (A2), Drake55_86 (A2), DreamTeam1_84 (A9), DudeLittle_83 (A2), EZMoney23_81 (A2), Echild_88 (A2), EdogawaKiddo_88 (A9), Elephantoon_89 (A9), EvilGenius_85 (A2), ExplosioNervosa_87 (A9), Fameo_83 (A2), FiringLine_85 (A2), First_0086 (A2), ForesterFrank_80 (A2), Gail_86 (A14), Georgie2_87 (A2), Gratitude_83 (A2), Hanray_87 (A9), Heffalump_82 (A2), HippoHollow_82 (A2), Halex_88 (A9), IronMan_82 (A2), Iwokeuplikedis_89 (A2), Jaan_83 (A2), Jeeves_86 (A14), Jerm_87 (A2), Jiawan_87 (A9), JoshKayV_87 (A2), Kalpine_87 (A2), KingCyrus_84 (A2), Klodlith_85 (A9), LadyBird_89 (A2), Landor_83 (A2), Larenn_83 (A2), Leviathan_87 (A2), LiITurb_86 (A2), Lilleskat_86 (A9), LionsBait_84 (A2), Lokk_80 (A2), LoneWolf_89 (A9), Luchador_84 (A14), Malec_84 (A2), Maminaiaina_88 (A9), MegTheThird_85 (A9), Miko_80 (A2), Minispark_86 (A9), MissWhite_78 (A2), NicoleTera_83 (A2), Onglai_87 (A9), Phaded_79 (A2), Phaeder_89 (A9), Phonnegut_89 (A9), Pioneer_89 (A9), Power_85 (A2), Priya_87 (A9), Qobbit_87 (A9), QueenB2_82 (A2), QueenBeesly_85 (A2), Rachaly_82 (A2), Rahalelujah_88 (A9), RedRock_85 (A2), Retro23_85 (A2), RyeScarlet_90 (A9), Sachima_85 (A9), Scherzo_87 (A9), SemperFi_85 (A2), SheaKeira_84 (A9), Smeagan_88 (A2), SnapTap_85 (A2), SororFago_84 (A14), Sunhee_86 (A14), SweetiePie_85 (A2), TarsusIV_84 (A2), Terrific_86 (A2), Tristan_81 (A2), Turbido_86 (A2), Ugenie5_76 (A9), Updawg_86 (A2), VA6_85 (A2), Vanisoa_84 (A9), WeiHuaDA_87 (A2), WorldCup_87 (A9), XianYue_84 (A2),

Start 27:

- Found in 3 of 149 (2.0%) of genes in pham

- Manual Annotations of this start: 2 of 124
- Called 66.7% of time when present
- Phage (with cluster) where this start called: DroogsArmy_78 (A7), HINdeR_78 (A7),

Summary by clusters:

There are 6 clusters represented in this pham: A14, A2, A7, A9, C2, B8,

Info for manual annotations of cluster A14:

- Start number 26 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A2:

- Start number 22 was manually annotated 2 times for cluster A2.
- Start number 23 was manually annotated 15 times for cluster A2.
- Start number 26 was manually annotated 59 times for cluster A2.

Info for manual annotations of cluster A7:

- Start number 20 was manually annotated 1 time for cluster A7.
- Start number 27 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 23 was manually annotated 15 times for cluster A9.
- Start number 25 was manually annotated 2 times for cluster A9.
- Start number 26 was manually annotated 21 times for cluster A9.

Info for manual annotations of cluster B8:

- Start number 24 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster C2:

- Start number 21 was manually annotated 1 time for cluster C2.

Gene Information:

Gene: 20ES_87 Start: 48610, Stop: 48476, Start Num: 26

Candidate Starts for 20ES_87:

(17, 48646), (Start: 26 @48610 has 85 MA's),

Gene: AN3_85 Start: 46868, Stop: 46734, Start Num: 26

Candidate Starts for AN3_85:

(17, 46904), (Start: 26 @46868 has 85 MA's),

Gene: AbbyPaige_87 Start: 48867, Stop: 48733, Start Num: 26

Candidate Starts for AbbyPaige_87:

(17, 48903), (Start: 26 @48867 has 85 MA's),

Gene: Acolyte_79 Start: 47568, Stop: 47434, Start Num: 26

Candidate Starts for Acolyte_79:

(Start: 23 @47577 has 30 MA's), (Start: 26 @47568 has 85 MA's), (29, 47484),

Gene: Adzzy_86 Start: 47386, Stop: 47249, Start Num: 23

Candidate Starts for Adzzy_86:

(6, 47482), (Start: 23 @47386 has 30 MA's), (29, 47299),

Gene: Agape74_87 Start: 48843, Stop: 48709, Start Num: 26

Candidate Starts for Agape74_87:

(17, 48879), (Start: 26 @48843 has 85 MA's),

Gene: Aliter_82 Start: 46009, Stop: 45866, Start Num: 23

Candidate Starts for Aliter_82:

(15, 46048), (Start: 23 @46009 has 30 MA's), (Start: 26 @46000 has 85 MA's),

Gene: Alma_87 Start: 48839, Stop: 48705, Start Num: 26

Candidate Starts for Alma_87:

(15, 48887), (Start: 23 @48848 has 30 MA's), (Start: 26 @48839 has 85 MA's),

Gene: AnnaL29_87 Start: 49009, Stop: 48866, Start Num: 23

Candidate Starts for AnnaL29_87:

(Start: 23 @49009 has 30 MA's), (Start: 26 @49000 has 85 MA's), (28, 48973), (29, 48916),

Gene: Anselm_86 Start: 48751, Stop: 48617, Start Num: 26

Candidate Starts for Anselm_86:

(15, 48799), (Start: 23 @48760 has 30 MA's), (Start: 26 @48751 has 85 MA's),

Gene: Arissanae_84 Start: 48711, Stop: 48583, Start Num: 26

Candidate Starts for Arissanae_84:

(15, 48759), (Start: 26 @48711 has 85 MA's),

Gene: Ayanochan_86 Start: 48632, Stop: 48489, Start Num: 23

Candidate Starts for Ayanochan_86:

(15, 48671), (Start: 23 @48632 has 30 MA's), (Start: 26 @48623 has 85 MA's),

Gene: Bactobuster_77 Start: 47335, Stop: 47198, Start Num: 26

Candidate Starts for Bactobuster_77:

(13, 47392), (Start: 26 @47335 has 85 MA's), (29, 47251),

Gene: Baehexic_84 Start: 48234, Stop: 48100, Start Num: 26

Candidate Starts for Baehexic_84:

(Start: 23 @48243 has 30 MA's), (Start: 26 @48234 has 85 MA's), (29, 48150),

Gene: Beemo_89 Start: 48833, Stop: 48699, Start Num: 26

Candidate Starts for Beemo_89:

(15, 48881), (Start: 23 @48842 has 30 MA's), (Start: 26 @48833 has 85 MA's),

Gene: Bellris_88 Start: 48358, Stop: 48221, Start Num: 23

Candidate Starts for Bellris_88:

(Start: 23 @48358 has 30 MA's), (Start: 26 @48349 has 85 MA's),

Gene: BengiVuitton_87 Start: 48715, Stop: 48581, Start Num: 26

Candidate Starts for BengiVuitton_87:

(17, 48751), (Start: 26 @48715 has 85 MA's),

Gene: Benvolio_84 Start: 48484, Stop: 48347, Start Num: 26

Candidate Starts for Benvolio_84:

(4, 48610), (Start: 26 @48484 has 85 MA's),

Gene: BiancaTri92_83 Start: 48320, Stop: 48186, Start Num: 26
Candidate Starts for BiancaTri92_83:
(Start: 26 @48320 has 85 MA's),

Gene: BobSwaget_79 Start: 46253, Stop: 46116, Start Num: 26
Candidate Starts for BobSwaget_79:
(1, 46547), (2, 46469), (15, 46301), (Start: 23 @46262 has 30 MA's), (Start: 26 @46253 has 85 MA's),

Gene: BogosyJay_88 Start: 48878, Stop: 48741, Start Num: 26
Candidate Starts for BogosyJay_88:
(Start: 23 @48887 has 30 MA's), (Start: 26 @48878 has 85 MA's),

Gene: CRB1_86 Start: 48863, Stop: 48729, Start Num: 26
Candidate Starts for CRB1_86:
(17, 48899), (Start: 26 @48863 has 85 MA's),

Gene: Catalina_91 Start: 48956, Stop: 48813, Start Num: 23
Candidate Starts for Catalina_91:
(15, 48995), (Start: 23 @48956 has 30 MA's), (Start: 26 @48947 has 85 MA's),

Gene: Celestiallunch_84 Start: 48093, Stop: 47950, Start Num: 23
Candidate Starts for Celestiallunch_84:
(15, 48132), (Start: 23 @48093 has 30 MA's), (Start: 26 @48084 has 85 MA's),

Gene: Centaur_85 Start: 48112, Stop: 47978, Start Num: 26
Candidate Starts for Centaur_85:
(Start: 23 @48121 has 30 MA's), (Start: 26 @48112 has 85 MA's), (29, 48028),

Gene: Charm_84 Start: 48231, Stop: 48091, Start Num: 26
Candidate Starts for Charm_84:
(12, 48306), (15, 48279), (Start: 23 @48240 has 30 MA's), (Start: 26 @48231 has 85 MA's),

Gene: Che12_87 Start: 47465, Stop: 47328, Start Num: 23
Candidate Starts for Che12_87:
(Start: 23 @47465 has 30 MA's), (29, 47378),

Gene: ChipMunk_86 Start: 49770, Stop: 49636, Start Num: 26
Candidate Starts for ChipMunk_86:
(4, 49896), (17, 49806), (Start: 26 @49770 has 85 MA's),

Gene: CogOmlette_86 Start: 48346, Stop: 48218, Start Num: 26
Candidate Starts for CogOmlette_86:
(Start: 23 @48355 has 30 MA's), (Start: 26 @48346 has 85 MA's),

Gene: Conquerage_87 Start: 48617, Stop: 48474, Start Num: 23
Candidate Starts for Conquerage_87:
(15, 48656), (Start: 23 @48617 has 30 MA's), (Start: 26 @48608 has 85 MA's),

Gene: Crucio_85 Start: 48717, Stop: 48580, Start Num: 26
Candidate Starts for Crucio_85:
(Start: 26 @48717 has 85 MA's),

Gene: Dalmatian_85 Start: 48536, Stop: 48402, Start Num: 26
Candidate Starts for Dalmatian_85:
(15, 48584), (Start: 23 @48545 has 30 MA's), (Start: 26 @48536 has 85 MA's),

Gene: Darrell_87 Start: 48031, Stop: 47903, Start Num: 26
Candidate Starts for Darrell_87:
(Start: 26 @48031 has 85 MA's),

Gene: DeerParkTS_81 Start: 47209, Stop: 47075, Start Num: 26
Candidate Starts for DeerParkTS_81:
(Start: 23 @47218 has 30 MA's), (Start: 26 @47209 has 85 MA's), (29, 47125), (30, 47080),

Gene: Deloris_87 Start: 48408, Stop: 48274, Start Num: 26
Candidate Starts for Deloris_87:
(17, 48444), (Start: 26 @48408 has 85 MA's),

Gene: Dignity_87 Start: 48950, Stop: 48816, Start Num: 26
Candidate Starts for Dignity_87:
(17, 48986), (Start: 26 @48950 has 85 MA's),

Gene: Drake55_86 Start: 48363, Stop: 48229, Start Num: 26
Candidate Starts for Drake55_86:
(Start: 23 @48372 has 30 MA's), (Start: 26 @48363 has 85 MA's), (29, 48279),

Gene: DreamTeam1_84 Start: 48079, Stop: 47939, Start Num: 26
Candidate Starts for DreamTeam1_84:
(12, 48154), (15, 48127), (Start: 23 @48088 has 30 MA's), (Start: 26 @48079 has 85 MA's),

Gene: DroogsArmy_78 Start: 50033, Stop: 49902, Start Num: 27
Candidate Starts for DroogsArmy_78:
(3, 50210), (9, 50141), (Start: 20 @50054 has 1 MA's), (Start: 27 @50033 has 2 MA's),

Gene: DudeLittle_83 Start: 48254, Stop: 48120, Start Num: 26
Candidate Starts for DudeLittle_83:
(15, 48302), (Start: 23 @48263 has 30 MA's), (Start: 26 @48254 has 85 MA's),

Gene: EZMoney23_81 Start: 47816, Stop: 47679, Start Num: 26
Candidate Starts for EZMoney23_81:
(Start: 23 @47825 has 30 MA's), (Start: 26 @47816 has 85 MA's),

Gene: Echild_88 Start: 48508, Stop: 48371, Start Num: 26
Candidate Starts for Echild_88:
(4, 48634), (Start: 26 @48508 has 85 MA's),

Gene: EdogawaKiddo_88 Start: 48910, Stop: 48776, Start Num: 26
Candidate Starts for EdogawaKiddo_88:
(15, 48958), (Start: 23 @48919 has 30 MA's), (Start: 26 @48910 has 85 MA's),

Gene: Eidsmoe_87 Start: 48610, Stop: 48467, Start Num: 23
Candidate Starts for Eidsmoe_87:
(15, 48649), (Start: 23 @48610 has 30 MA's), (Start: 26 @48601 has 85 MA's),

Gene: Elephantoon_89 Start: 48757, Stop: 48626, Start Num: 26

Candidate Starts for Elephantoon_89:
(18, 48790), (Start: 26 @48757 has 85 MA's),

Gene: EmyBug_86 Start: 48612, Stop: 48469, Start Num: 23
Candidate Starts for EmyBug_86:
(15, 48651), (Start: 23 @48612 has 30 MA's), (Start: 26 @48603 has 85 MA's),

Gene: Equemioh13_85 Start: 48350, Stop: 48207, Start Num: 23
Candidate Starts for Equemioh13_85:
(Start: 23 @48350 has 30 MA's), (Start: 26 @48341 has 85 MA's), (29, 48257),

Gene: EvilGenius_85 Start: 49771, Stop: 49637, Start Num: 26
Candidate Starts for EvilGenius_85:
(4, 49897), (17, 49807), (Start: 26 @49771 has 85 MA's),

Gene: ExplosioNervosa_87 Start: 48669, Stop: 48535, Start Num: 26
Candidate Starts for ExplosioNervosa_87:
(15, 48717), (Start: 23 @48678 has 30 MA's), (Start: 26 @48669 has 85 MA's),

Gene: Fameo_83 Start: 48269, Stop: 48132, Start Num: 26
Candidate Starts for Fameo_83:
(Start: 26 @48269 has 85 MA's),

Gene: Fayely_87 Start: 48586, Stop: 48443, Start Num: 23
Candidate Starts for Fayely_87:
(15, 48625), (Start: 23 @48586 has 30 MA's), (Start: 26 @48577 has 85 MA's),

Gene: FiringLine_85 Start: 48657, Stop: 48520, Start Num: 26
Candidate Starts for FiringLine_85:
(Start: 26 @48657 has 85 MA's),

Gene: First_0086 Start: 48510, Stop: 48376, Start Num: 26
Candidate Starts for First_0086:
(17, 48546), (Start: 26 @48510 has 85 MA's),

Gene: Flare16_85 Start: 48165, Stop: 48022, Start Num: 23
Candidate Starts for Flare16_85:
(Start: 23 @48165 has 30 MA's), (Start: 26 @48156 has 85 MA's), (29, 48072),

Gene: ForesterFrank_80 Start: 48375, Stop: 48241, Start Num: 26
Candidate Starts for ForesterFrank_80:
(5, 48495), (12, 48450), (Start: 23 @48384 has 30 MA's), (Start: 26 @48375 has 85 MA's),

Gene: Gail_86 Start: 47979, Stop: 47836, Start Num: 26
Candidate Starts for Gail_86:
(Start: 26 @47979 has 85 MA's), (29, 47895),

Gene: Georgie2_87 Start: 48861, Stop: 48724, Start Num: 26
Candidate Starts for Georgie2_87:
(Start: 26 @48861 has 85 MA's),

Gene: Gratitude_83 Start: 48341, Stop: 48207, Start Num: 26
Candidate Starts for Gratitude_83:

(Start: 23 @48350 has 30 MA's), (Start: 26 @48341 has 85 MA's), (29, 48257),

Gene: Greely_145 Start: 89424, Stop: 89567, Start Num: 21

Candidate Starts for Greely_145:

(Start: 21 @89424 has 1 MA's), (Start: 26 @89436 has 85 MA's),

Gene: HINdeR_78 Start: 49444, Stop: 49313, Start Num: 27

Candidate Starts for HINdeR_78:

(10, 49534), (14, 49513), (16, 49495), (19, 49474), (Start: 27 @49444 has 2 MA's),

Gene: Hanray_87 Start: 48889, Stop: 48755, Start Num: 26

Candidate Starts for Hanray_87:

(Start: 23 @48898 has 30 MA's), (Start: 26 @48889 has 85 MA's),

Gene: HarryHoudini_85 Start: 48375, Stop: 48232, Start Num: 23

Candidate Starts for HarryHoudini_85:

(Start: 23 @48375 has 30 MA's), (Start: 26 @48366 has 85 MA's), (29, 48282),

Gene: Heffalump_82 Start: 48737, Stop: 48600, Start Num: 26

Candidate Starts for Heffalump_82:

(Start: 26 @48737 has 85 MA's),

Gene: HippoHollow_82 Start: 49369, Stop: 49235, Start Num: 26

Candidate Starts for HippoHollow_82:

(17, 49405), (Start: 26 @49369 has 85 MA's),

Gene: Horex_88 Start: 48902, Stop: 48768, Start Num: 26

Candidate Starts for Horex_88:

(Start: 23 @48911 has 30 MA's), (Start: 26 @48902 has 85 MA's),

Gene: HortumSL17_90 Start: 48954, Stop: 48811, Start Num: 23

Candidate Starts for HortumSL17_90:

(15, 48993), (Start: 23 @48954 has 30 MA's), (Start: 26 @48945 has 85 MA's),

Gene: IronMan_82 Start: 48859, Stop: 48722, Start Num: 26

Candidate Starts for IronMan_82:

(13, 48916), (Start: 26 @48859 has 85 MA's), (29, 48775),

Gene: Iwokeuplikedis_89 Start: 48834, Stop: 48700, Start Num: 26

Candidate Starts for Iwokeuplikedis_89:

(Start: 26 @48834 has 85 MA's),

Gene: Jaan_83 Start: 48967, Stop: 48830, Start Num: 26

Candidate Starts for Jaan_83:

(13, 49024), (Start: 26 @48967 has 85 MA's), (29, 48883),

Gene: Jeeves_86 Start: 46696, Stop: 46556, Start Num: 26

Candidate Starts for Jeeves_86:

(Start: 26 @46696 has 85 MA's),

Gene: Jerm_87 Start: 48918, Stop: 48784, Start Num: 26

Candidate Starts for Jerm_87:

(17, 48954), (Start: 26 @48918 has 85 MA's),

Gene: Jiawan_87 Start: 48919, Stop: 48785, Start Num: 26
Candidate Starts for Jiawan_87:
(Start: 23 @48928 has 30 MA's), (Start: 26 @48919 has 85 MA's),

Gene: JoshKayV_87 Start: 49086, Stop: 48952, Start Num: 26
Candidate Starts for JoshKayV_87:
(17, 49122), (Start: 26 @49086 has 85 MA's),

Gene: Kalpine_87 Start: 49082, Stop: 48948, Start Num: 26
Candidate Starts for Kalpine_87:
(Start: 23 @49091 has 30 MA's), (Start: 26 @49082 has 85 MA's), (29, 48998),

Gene: Keziacharles14_86 Start: 49418, Stop: 49284, Start Num: 25
Candidate Starts for Keziacharles14_86:
(18, 49448), (Start: 25 @49418 has 2 MA's),

Gene: KingCyrus_84 Start: 49784, Stop: 49650, Start Num: 26
Candidate Starts for KingCyrus_84:
(4, 49910), (17, 49820), (Start: 26 @49784 has 85 MA's),

Gene: Klodlith_85 Start: 48301, Stop: 48161, Start Num: 26
Candidate Starts for Klodlith_85:
(12, 48376), (15, 48349), (Start: 23 @48310 has 30 MA's), (Start: 26 @48301 has 85 MA's),

Gene: LadyBird_89 Start: 49008, Stop: 48874, Start Num: 26
Candidate Starts for LadyBird_89:
(17, 49044), (Start: 26 @49008 has 85 MA's),

Gene: Landor_83 Start: 48892, Stop: 48755, Start Num: 26
Candidate Starts for Landor_83:
(13, 48949), (Start: 26 @48892 has 85 MA's), (29, 48808),

Gene: Larenn_83 Start: 48362, Stop: 48228, Start Num: 26
Candidate Starts for Larenn_83:
(15, 48407), (Start: 23 @48371 has 30 MA's), (Start: 26 @48362 has 85 MA's), (29, 48278),

Gene: Leviathan_87 Start: 48999, Stop: 48865, Start Num: 26
Candidate Starts for Leviathan_87:
(17, 49035), (Start: 26 @48999 has 85 MA's),

Gene: LilTurb_86 Start: 48795, Stop: 48661, Start Num: 26
Candidate Starts for LilTurb_86:
(17, 48831), (Start: 26 @48795 has 85 MA's),

Gene: Lilleskat_86 Start: 48899, Stop: 48765, Start Num: 26
Candidate Starts for Lilleskat_86:
(15, 48947), (Start: 23 @48908 has 30 MA's), (Start: 26 @48899 has 85 MA's),

Gene: LionsBait_84 Start: 49309, Stop: 49175, Start Num: 26
Candidate Starts for LionsBait_84:
(17, 49345), (Start: 26 @49309 has 85 MA's),

Gene: Lokk_80 Start: 46874, Stop: 46737, Start Num: 26

Candidate Starts for Lokk_80:

(2, 47090), (15, 46922), (Start: 23 @46883 has 30 MA's), (Start: 26 @46874 has 85 MA's),

Gene: LoneWolf_89 Start: 48940, Stop: 48806, Start Num: 26

Candidate Starts for LoneWolf_89:

(15, 48988), (Start: 26 @48940 has 85 MA's),

Gene: Loser_88 Start: 49259, Stop: 49116, Start Num: 23

Candidate Starts for Loser_88:

(Start: 23 @49259 has 30 MA's), (Start: 26 @49250 has 85 MA's), (28, 49223), (29, 49166),

Gene: Luchador_84 Start: 47960, Stop: 47817, Start Num: 26

Candidate Starts for Luchador_84:

(Start: 26 @47960 has 85 MA's), (29, 47876),

Gene: Malec_84 Start: 48932, Stop: 48798, Start Num: 26

Candidate Starts for Malec_84:

(Start: 23 @48941 has 30 MA's), (Start: 26 @48932 has 85 MA's), (29, 48848),

Gene: Maminiaina_88 Start: 48860, Stop: 48723, Start Num: 26

Candidate Starts for Maminiaina_88:

(Start: 23 @48869 has 30 MA's), (Start: 26 @48860 has 85 MA's),

Gene: MegTheThird_85 Start: 48302, Stop: 48168, Start Num: 26

Candidate Starts for MegTheThird_85:

(15, 48350), (Start: 23 @48311 has 30 MA's), (Start: 26 @48302 has 85 MA's),

Gene: MiculUcigas_85 Start: 48068, Stop: 47925, Start Num: 23

Candidate Starts for MiculUcigas_85:

(Start: 23 @48068 has 30 MA's), (Start: 26 @48059 has 85 MA's), (29, 47975),

Gene: Miko_80 Start: 47639, Stop: 47502, Start Num: 26

Candidate Starts for Miko_80:

(1, 47933), (2, 47855), (15, 47687), (Start: 23 @47648 has 30 MA's), (Start: 26 @47639 has 85 MA's),

Gene: Minispark_86 Start: 48343, Stop: 48215, Start Num: 26

Candidate Starts for Minispark_86:

(Start: 23 @48352 has 30 MA's), (Start: 26 @48343 has 85 MA's),

Gene: MissWhite_78 Start: 44927, Stop: 44793, Start Num: 26

Candidate Starts for MissWhite_78:

(Start: 23 @44936 has 30 MA's), (Start: 26 @44927 has 85 MA's), (29, 44843),

Gene: Myxus_89 Start: 48954, Stop: 48811, Start Num: 23

Candidate Starts for Myxus_89:

(15, 48993), (Start: 23 @48954 has 30 MA's), (Start: 26 @48945 has 85 MA's),

Gene: NaSiaTalie_86 Start: 48355, Stop: 48212, Start Num: 23

Candidate Starts for NaSiaTalie_86:

(Start: 23 @48355 has 30 MA's), (Start: 26 @48346 has 85 MA's), (29, 48262),

Gene: NicoleTera_83 Start: 48277, Stop: 48140, Start Num: 26

Candidate Starts for NicoleTera_83:

(Start: 23 @48286 has 30 MA's), (Start: 26 @48277 has 85 MA's),

Gene: NothingSpecial_80 Start: 48222, Stop: 48079, Start Num: 22

Candidate Starts for NothingSpecial_80:

(7, 48312), (11, 48288), (Start: 22 @48222 has 2 MA's), (Start: 26 @48213 has 85 MA's),

Gene: Onglai_87 Start: 47091, Stop: 46957, Start Num: 26

Candidate Starts for Onglai_87:

(Start: 23 @47100 has 30 MA's), (Start: 26 @47091 has 85 MA's),

Gene: PackMan_84 Start: 46868, Stop: 46725, Start Num: 23

Candidate Starts for PackMan_84:

(15, 46907), (Start: 23 @46868 has 30 MA's), (Start: 26 @46859 has 85 MA's),

Gene: Ph8s_86 Start: 47599, Stop: 47462, Start Num: 23

Candidate Starts for Ph8s_86:

(6, 47695), (Start: 23 @47599 has 30 MA's), (29, 47512),

Gene: Phabba_146 Start: 88539, Stop: 88682, Start Num: 21

Candidate Starts for Phabba_146:

(Start: 21 @88539 has 1 MA's), (Start: 26 @88551 has 85 MA's),

Gene: Phaded_79 Start: 48851, Stop: 48714, Start Num: 26

Candidate Starts for Phaded_79:

(Start: 26 @48851 has 85 MA's), (29, 48767),

Gene: Phaeder_89 Start: 48820, Stop: 48686, Start Num: 26

Candidate Starts for Phaeder_89:

(15, 48868), (Start: 23 @48829 has 30 MA's), (Start: 26 @48820 has 85 MA's),

Gene: Phonnegut_89 Start: 48832, Stop: 48698, Start Num: 26

Candidate Starts for Phonnegut_89:

(15, 48880), (Start: 23 @48841 has 30 MA's), (Start: 26 @48832 has 85 MA's),

Gene: Pioneer_89 Start: 48832, Stop: 48698, Start Num: 26

Candidate Starts for Pioneer_89:

(15, 48880), (Start: 23 @48841 has 30 MA's), (Start: 26 @48832 has 85 MA's),

Gene: Piro94_84 Start: 48303, Stop: 48160, Start Num: 23

Candidate Starts for Piro94_84:

(Start: 23 @48303 has 30 MA's), (Start: 26 @48294 has 85 MA's), (29, 48210),

Gene: Power_85 Start: 48860, Stop: 48723, Start Num: 26

Candidate Starts for Power_85:

(Start: 26 @48860 has 85 MA's),

Gene: Priya_87 Start: 48604, Stop: 48470, Start Num: 26

Candidate Starts for Priya_87:

(15, 48652), (Start: 23 @48613 has 30 MA's), (Start: 26 @48604 has 85 MA's),

Gene: Pukovnik_80 Start: 48328, Stop: 48182, Start Num: 22

Candidate Starts for Pukovnik_80:

(Start: 22 @48328 has 2 MA's), (Start: 26 @48319 has 85 MA's),

Gene: Qobbit_87 Start: 48566, Stop: 48432, Start Num: 26

Candidate Starts for Qobbit_87:

(15, 48614), (Start: 23 @48575 has 30 MA's), (Start: 26 @48566 has 85 MA's),

Gene: QueenB2_82 Start: 47950, Stop: 47813, Start Num: 26

Candidate Starts for QueenB2_82:

(Start: 26 @47950 has 85 MA's),

Gene: QueenBeesly_85 Start: 48657, Stop: 48520, Start Num: 26

Candidate Starts for QueenBeesly_85:

(Start: 26 @48657 has 85 MA's),

Gene: Rachaly_82 Start: 47782, Stop: 47645, Start Num: 26

Candidate Starts for Rachaly_82:

(1, 48076), (2, 47998), (15, 47830), (Start: 23 @47791 has 30 MA's), (Start: 26 @47782 has 85 MA's),

Gene: Rahalelujah_88 Start: 48358, Stop: 48230, Start Num: 26

Candidate Starts for Rahalelujah_88:

(Start: 23 @48367 has 30 MA's), (Start: 26 @48358 has 85 MA's),

Gene: RedRock_85 Start: 48903, Stop: 48769, Start Num: 26

Candidate Starts for RedRock_85:

(Start: 23 @48912 has 30 MA's), (Start: 26 @48903 has 85 MA's), (28, 48876), (29, 48819),

Gene: Retro23_85 Start: 48378, Stop: 48244, Start Num: 26

Candidate Starts for Retro23_85:

(15, 48426), (Start: 23 @48387 has 30 MA's), (Start: 26 @48378 has 85 MA's),

Gene: RyeScarlet_90 Start: 48809, Stop: 48675, Start Num: 26

Candidate Starts for RyeScarlet_90:

(Start: 23 @48818 has 30 MA's), (Start: 26 @48809 has 85 MA's),

Gene: Sachima_85 Start: 48847, Stop: 48713, Start Num: 26

Candidate Starts for Sachima_85:

(15, 48895), (Start: 23 @48856 has 30 MA's), (Start: 26 @48847 has 85 MA's),

Gene: Scherzo_87 Start: 48864, Stop: 48730, Start Num: 26

Candidate Starts for Scherzo_87:

(15, 48912), (Start: 23 @48873 has 30 MA's), (Start: 26 @48864 has 85 MA's),

Gene: SemperFi_85 Start: 48545, Stop: 48408, Start Num: 26

Candidate Starts for SemperFi_85:

(Start: 26 @48545 has 85 MA's),

Gene: SheaKeira_84 Start: 48104, Stop: 47970, Start Num: 26

Candidate Starts for SheaKeira_84:

(5, 48224), (12, 48179), (15, 48152), (Start: 23 @48113 has 30 MA's), (Start: 26 @48104 has 85 MA's),

Gene: Sknot_85 Start: 48162, Stop: 48019, Start Num: 23

Candidate Starts for Sknot_85:

(Start: 23 @48162 has 30 MA's), (Start: 26 @48153 has 85 MA's), (29, 48069),

Gene: Smeagan_88 Start: 49090, Stop: 48956, Start Num: 26
Candidate Starts for Smeagan_88:
(17, 49126), (Start: 26 @49090 has 85 MA's),

Gene: SnapTap_85 Start: 48516, Stop: 48379, Start Num: 26
Candidate Starts for SnapTap_85:
(Start: 26 @48516 has 85 MA's),

Gene: SororFago_84 Start: 47898, Stop: 47755, Start Num: 26
Candidate Starts for SororFago_84:
(Start: 26 @47898 has 85 MA's),

Gene: Spouty_87 Start: 48612, Stop: 48469, Start Num: 23
Candidate Starts for Spouty_87:
(15, 48651), (Start: 23 @48612 has 30 MA's), (Start: 26 @48603 has 85 MA's),

Gene: Sunhee_86 Start: 46322, Stop: 46179, Start Num: 26
Candidate Starts for Sunhee_86:
(Start: 26 @46322 has 85 MA's),

Gene: SweetiePie_85 Start: 48649, Stop: 48512, Start Num: 26
Candidate Starts for SweetiePie_85:
(Start: 26 @48649 has 85 MA's),

Gene: SwirlSquare_87 Start: 47074, Stop: 46937, Start Num: 23
Candidate Starts for SwirlSquare_87:
(Start: 23 @47074 has 30 MA's), (29, 46987),

Gene: TarsusIV_84 Start: 48539, Stop: 48402, Start Num: 26
Candidate Starts for TarsusIV_84:
(15, 48587), (Start: 23 @48548 has 30 MA's), (Start: 26 @48539 has 85 MA's),

Gene: Terrific_86 Start: 48127, Stop: 47993, Start Num: 26
Candidate Starts for Terrific_86:
(Start: 23 @48136 has 30 MA's), (Start: 26 @48127 has 85 MA's), (29, 48043),

Gene: Thonko_95 Start: 65603, Stop: 65454, Start Num: 24
Candidate Starts for Thonko_95:
(Start: 24 @65603 has 1 MA's),

Gene: Timshel_79 Start: 49897, Stop: 49745, Start Num: 20
Candidate Starts for Timshel_79:
(3, 50053), (9, 49984), (Start: 20 @49897 has 1 MA's), (Start: 27 @49876 has 2 MA's),

Gene: Toaka_87 Start: 48704, Stop: 48573, Start Num: 25
Candidate Starts for Toaka_87:
(8, 48803), (Start: 25 @48704 has 2 MA's),

Gene: Tristan_81 Start: 48683, Stop: 48546, Start Num: 26
Candidate Starts for Tristan_81:
(Start: 26 @48683 has 85 MA's), (29, 48599),

Gene: Trooper_84 Start: 48107, Stop: 47961, Start Num: 23
Candidate Starts for Trooper_84:
(Start: 23 @48107 has 30 MA's), (Start: 26 @48098 has 85 MA's),

Gene: Tubs_89 Start: 48829, Stop: 48686, Start Num: 23
Candidate Starts for Tubs_89:
(15, 48868), (Start: 23 @48829 has 30 MA's), (Start: 26 @48820 has 85 MA's),

Gene: Turbido_86 Start: 48811, Stop: 48677, Start Num: 26
Candidate Starts for Turbido_86:
(17, 48847), (Start: 26 @48811 has 85 MA's),

Gene: Ugenie5_76 Start: 46308, Stop: 46174, Start Num: 26
Candidate Starts for Ugenie5_76:
(15, 46356), (Start: 23 @46317 has 30 MA's), (Start: 26 @46308 has 85 MA's),

Gene: Updawg_86 Start: 48341, Stop: 48207, Start Num: 26
Candidate Starts for Updawg_86:
(Start: 23 @48350 has 30 MA's), (Start: 26 @48341 has 85 MA's), (29, 48257),

Gene: VA6_85 Start: 48439, Stop: 48305, Start Num: 26
Candidate Starts for VA6_85:
(17, 48475), (Start: 26 @48439 has 85 MA's),

Gene: Vanisoa_84 Start: 49036, Stop: 48905, Start Num: 26
Candidate Starts for Vanisoa_84:
(6, 49141), (12, 49111), (Start: 23 @49045 has 30 MA's), (Start: 26 @49036 has 85 MA's),

Gene: WeiHuaDA_87 Start: 49366, Stop: 49232, Start Num: 26
Candidate Starts for WeiHuaDA_87:
(Start: 23 @49375 has 30 MA's), (Start: 26 @49366 has 85 MA's), (29, 49282),

Gene: WideWale_86 Start: 48350, Stop: 48207, Start Num: 23
Candidate Starts for WideWale_86:
(Start: 23 @48350 has 30 MA's), (Start: 26 @48341 has 85 MA's), (29, 48257),

Gene: WorldCup_87 Start: 48497, Stop: 48369, Start Num: 26
Candidate Starts for WorldCup_87:
(12, 48569), (Start: 23 @48506 has 30 MA's), (Start: 26 @48497 has 85 MA's),

Gene: XianYue_84 Start: 48596, Stop: 48459, Start Num: 26
Candidate Starts for XianYue_84:
(17, 48632), (Start: 26 @48596 has 85 MA's),

Gene: Yecey3_90 Start: 48586, Stop: 48443, Start Num: 23
Candidate Starts for Yecey3_90:
(Start: 23 @48586 has 30 MA's), (Start: 26 @48577 has 85 MA's),