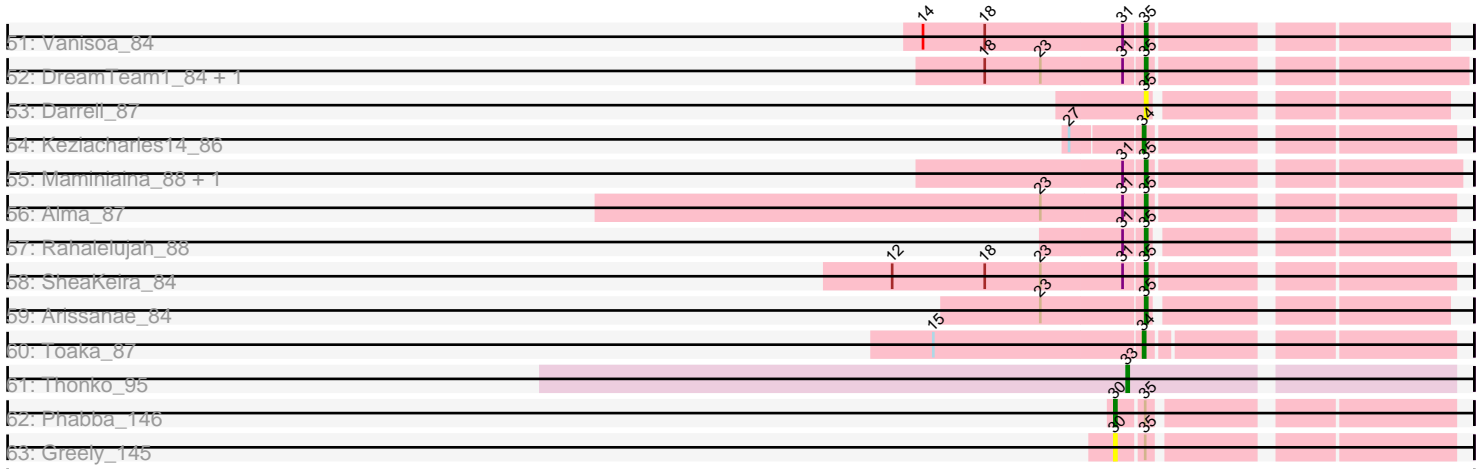


Pham 157664



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 157664 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157664 has 143 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Eaglepride_84
- Track 2 : Luchador_84
- Track 3 : SororFago_84, Iwokeuplikedis_89, Jeeves_86
- Track 4 : Gail_86
- Track 5 : Power_85, SnapTap_85, Georgie2_87, SweetiePie_85, FiringLine_85, Crucio_85, QueenBeesly_85, SemperFi_85
- Track 6 : Ph8s_86, Adzzy_86
- Track 7 : Lokk_80
- Track 8 : LilTurb_86, Leviathan_87, Jerm_87, Turbido_86, Dignity_87, Agape74_87, Smeagan_88, AbbyPaige_87
- Track 9 : Piro94_84, NaSiaTalie_86
- Track 10 : AN3_85, First_0086, CRB1_86, VA6_85, LadyBird_89, Deloris_87, BengiVuitton_87, 20ES_87, JoshKayV_87, Elephantoon_89
- Track 11 : WeiHuaDA_87, Kalpine_87
- Track 12 : Malec_84
- Track 13 : MissWhite_78
- Track 14 : Drake55_86, Updawg_86, Centaur_85
- Track 15 : QueenB2_82, Fameo_83, Heffalump_82
- Track 16 : BiancaTri92_83
- Track 17 : Anselm_86
- Track 18 : KingCyrus_84, EvilGenius_85, ChipMunk_86
- Track 19 : Landor_83, Bactobuster_77, IronMan_82
- Track 20 : Phaded_79
- Track 21 : Baehexic_84
- Track 22 : TarsusIV_84
- Track 23 : Benvolio_84, Echild_88
- Track 24 : SwirlSquare_88, Che12_87
- Track 25 : XianYue_84
- Track 26 : BobSwaget_79, Miko_80, Rachaly_82
- Track 27 : Loser_88, AnnaL29_87
- Track 28 : NothingSpecial_80
- Track 29 : Retro23_85, DudeLittle_83, Dalmatian_85
- Track 30 : EZMoney23_81
- Track 31 : Jaan_83
- Track 32 : Larenn_83
- Track 33 : Pukovnik_80
- Track 34 : NicoleTera_83

- Track 35 : RedRock_85
- Track 36 : Acolyte_79
- Track 37 : Pistachio_85, SaturnRing_86, Puppy_86, BlueBird_87, Giroux_83, Bugatti_86
- Track 38 : Fred313_82
- Track 39 : Eapen_82, NorthStar_79, SheldonCooper_82, Relief_81, Skipitt_81
- Track 40 : Arturo_79, Gadost_82, Nemo27_81, Kingmustik0402_82, MeeZee_81, NotAPhaseMom_81, Cocoaberry_82, TygerBlood_82, Avle17_82, Houdini22_81, Eagle_81, Kremtemulon_76
- Track 41 : Obama12_83, AvatarAhPeg_82, Deano_79, Stink_78
- Track 42 : Commander_80, Eros_82
- Track 43 : Datway_79, Cindaradix_77, Lunsford_79
- Track 44 : Badger_77, Katalie136_78
- Track 45 : DroogsArmy_78
- Track 46 : Timshel_79
- Track 47 : HINdeR_78
- Track 48 : LoneWolf_89
- Track 49 : Scherzo_87, Phonnegut_89, Beemo_89, Pioneer_89, Ugenie5_76
- Track 50 : Qobbit_87, EmyBug_83, ExplosioNervosa_87, Priya_87, Phaeder_89
- Track 51 : Vanisoa_84
- Track 52 : DreamTeam1_84, Charm_84
- Track 53 : Darrell_87
- Track 54 : Keziacharles14_86
- Track 55 : Maminiaina_88, BogosyJay_88
- Track 56 : Alma_87
- Track 57 : Rahalelujah_88
- Track 58 : SheaKeira_84
- Track 59 : Arissanae_84
- Track 60 : Toaka_87
- Track 61 : Thonko_95
- Track 62 : Phabba_146
- Track 63 : 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 35, it was called in 81 of the 127 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, Crucio_85, Dalmatian_85, Darrell_87, Deloris_87, Dignity_87, Drake55_86, DreamTeam1_84, DudeLittle_83, EZMoney23_81, Echild_88, Elephantoon_89, EmyBug_83, EvilGenius_85, ExplosioNervosa_87, Fameo_83, FiringLine_85, First_0086, Gail_86, Georgie2_87, Heffalump_82, IronMan_82, Iwokeuplikedis_89, Jaan_83, Jeeves_86, Jerm_87, JoshKayV_87, Kalpine_87, KingCyrus_84, LadyBird_89, Landor_83, Larenn_83, Leviathan_87, LilTurb_86, Lokk_80, LoneWolf_89, Luchador_84, Malec_84, Maminiaina_88, Miko_80, MissWhite_78, NicoleTera_83, 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, Scherzo_87, SemperFi_85, SheaKeira_84, Smeagan_88, SnapTap_85, SororFago_84, SweetiePie_85, TarsusIV_84, Turbido_86, Ugenie5_76, Updawg_86, VA6_85, Vanisoa_84, WeiHuaDA_87, XianYue_84,

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

- AnnaL29_87, Greely_145, Loser_88, NaSiaTalie_86, NothingSpecial_80, Phabba_146, Piro94_84, Pukovnik_80,

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

- Adzzy_86, Arturo_79, AvatarAhPeg_82, Avle17_82, Badger_77, BlueBird_87, Bugatti_86, Che12_87, Cindaradix_77, Cocoaberry_82, Commander_80, Datway_79, Deano_79, DroogsArmy_78, Eagle_81, Eaglepride_84, Eapen_82, Eros_82, Fred313_82, Gadost_82, Giroux_83, HINdeR_78, Houdini22_81, Katalie136_78, Keziacharles14_86, Kingmustik0402_82, Kremtemulon_76, Lunsford_79, MeeZee_81, Nemo27_81, NorthStar_79, NotAPhaseMom_81, Obama12_83, Ph8s_86, Pistachio_85, Puppy_86, Relief_81, SaturnRing_86, SheldonCooper_82, Skipitt_81, Stink_78, SwirlSquare_88, Thonko_95, Timshel_79, Toaka_87, TygerBlood_82,

Summary by start number:

Start 26:

- Found in 2 of 143 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Timshel_79 (A7),

Start 28:

- Found in 36 of 143 (25.2%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Eaglepride_84 (A10),

Start 29:

- Found in 4 of 143 (2.8%) of genes in pham
- Manual Annotations of this start: 2 of 127
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy_78 (A7), HINdeR_78 (A7),

Start 30:

- Found in 2 of 143 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely_145 (C2), Phabba_146 (C2),

Start 31:

- Found in 48 of 143 (33.6%) of genes in pham
- Manual Annotations of this start: 7 of 127
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Adzzy_86 (A2), AnnaL29_87 (A2), Che12_87 (A2), Loser_88 (A2), NaSiaTalie_86 (A2), Ph8s_86 (A2), Piro94_84 (A2),

SwirlSquare_88 (A2),

Start 32:

- Found in 2 of 143 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial_80 (A2), Pukovnik_80 (A2),

Start 33:

- Found in 1 of 143 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko_95 (B8),

Start 34:

- Found in 2 of 143 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 127
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keziacharles14_86 (A9), Toaka_87 (A9),

Start 35:

- Found in 97 of 143 (67.8%) of genes in pham
- Manual Annotations of this start: 81 of 127
- Called 91.8% 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), Crucio_85 (A2), Dalmatian_85 (A2), Darrell_87 (A9), Deloris_87 (A2), Dignity_87 (A2), Drake55_86 (A2), DreamTeam1_84 (A9), DudeLittle_83 (A2), EZMoney23_81 (A2), Echild_88 (A2), Elephantoon_89 (A9), EmyBug_83 (A9), EvilGenius_85 (A2), ExplosioNervosa_87 (A9), Fameo_83 (A2), FiringLine_85 (A2), First_0086 (A2), Gail_86 (A14), Georgie2_87 (A2), Heffalump_82 (A2), IronMan_82 (A2), Iwokeuplikedis_89 (A2), Jaan_83 (A2), Jeeves_86 (A14), Jerm_87 (A2), JoshKayV_87 (A2), Kalpine_87 (A2), KingCyrus_84 (A2), LadyBird_89 (A2), Landor_83 (A2), Larenn_83 (A2), Leviathan_87 (A2), LilTurb_86 (A2), Lokk_80 (A2), LoneWolf_89 (A9), Luchador_84 (A14), Malec_84 (A2), Maminaiaina_88 (A9), Miko_80 (A2), MissWhite_78 (A2), NicoleTera_83 (A2), 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), Scherzo_87 (A9), SemperFi_85 (A2), SheaKeira_84 (A9), Smeagan_88 (A2), SnapTap_85 (A2), SororFago_84 (A14), SweetiePie_85 (A2), TarsusIV_84 (A2), Turbido_86 (A2), Ugenie5_76 (A9), Updawg_86 (A2), VA6_85 (A2), Vanisoa_84 (A9), WeiHuaDA_87 (A2), XianYue_84 (A2),

Start 36:

- Found in 35 of 143 (24.5%) of genes in pham
- Manual Annotations of this start: 29 of 127
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Arturo_79 (A4), AvatarAhPeg_82 (A4), Avle17_82 (A4), Badger_77 (A4), BlueBird_87 (A3), Bugatti_86 (A3), Cindaradix_77 (A4), Cocoaberry_82 (A4), Commander_80 (A4), Datway_79 (A4), Deano_79 (A4), Eagle_81 (A4), Eapen_82 (A4), Eros_82 (A4), Fred313_82 (A3), Gadost_82 (A4), Giroux_83 (A3), Houdini22_81 (A4), Katalie136_78 (A4), Kingmustik0402_82 (A4), Kremtemulon_76 (A4), Lunsford_79 (A4), MeeZee_81 (A4), Nemo27_81 (A4), NorthStar_79 (A4), NotAPhaseMom_81 (A4), Obama12_83 (A4), Pistachio_85 (A3), Puppy_86 (A3), Relief_81 (A4), SaturnRing_86 (A3), SheldonCooper_82 (A4), Skipitt_81 (A4), Stink_78 (A4), TygerBlood_82 (A4),

Summary by clusters:

There are 9 clusters represented in this pham: A14, A10, A3, A2, A4, A7, A9, C2, B8,

Info for manual annotations of cluster A10:

- Start number 28 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A14:

- Start number 35 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A2:

- Start number 31 was manually annotated 7 times for cluster A2.
- Start number 32 was manually annotated 2 times for cluster A2.
- Start number 35 was manually annotated 57 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 36 was manually annotated 4 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 36 was manually annotated 25 times for cluster A4.

Info for manual annotations of cluster A7:

- Start number 26 was manually annotated 1 time for cluster A7.
- Start number 29 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 34 was manually annotated 2 times for cluster A9.
- Start number 35 was manually annotated 20 times for cluster A9.

Info for manual annotations of cluster B8:

- Start number 33 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster C2:

- Start number 30 was manually annotated 1 time for cluster C2.

Gene Information:

Gene: 20ES_87 Start: 48610, Stop: 48476, Start Num: 35

Candidate Starts for 20ES_87:

(27, 48646), (Start: 35 @48610 has 81 MA's),

Gene: AN3_85 Start: 46868, Stop: 46734, Start Num: 35
Candidate Starts for AN3_85:
(27, 46904), (Start: 35 @46868 has 81 MA's),

Gene: AbbyPaige_87 Start: 48867, Stop: 48733, Start Num: 35
Candidate Starts for AbbyPaige_87:
(27, 48903), (Start: 35 @48867 has 81 MA's),

Gene: Acolyte_79 Start: 47568, Stop: 47434, Start Num: 35
Candidate Starts for Acolyte_79:
(Start: 31 @47577 has 7 MA's), (Start: 35 @47568 has 81 MA's), (38, 47484),

Gene: Adzzy_86 Start: 47386, Stop: 47249, Start Num: 31
Candidate Starts for Adzzy_86:
(14, 47482), (Start: 31 @47386 has 7 MA's), (38, 47299),

Gene: Agape74_87 Start: 48843, Stop: 48709, Start Num: 35
Candidate Starts for Agape74_87:
(27, 48879), (Start: 35 @48843 has 81 MA's),

Gene: Alma_87 Start: 48839, Stop: 48705, Start Num: 35
Candidate Starts for Alma_87:
(23, 48887), (Start: 31 @48848 has 7 MA's), (Start: 35 @48839 has 81 MA's),

Gene: AnnaL29_87 Start: 49009, Stop: 48866, Start Num: 31
Candidate Starts for AnnaL29_87:
(Start: 31 @49009 has 7 MA's), (Start: 35 @49000 has 81 MA's), (37, 48973), (38, 48916),

Gene: Anselm_86 Start: 48751, Stop: 48617, Start Num: 35
Candidate Starts for Anselm_86:
(23, 48799), (Start: 31 @48760 has 7 MA's), (Start: 35 @48751 has 81 MA's),

Gene: Arissanae_84 Start: 48711, Stop: 48583, Start Num: 35
Candidate Starts for Arissanae_84:
(23, 48759), (Start: 35 @48711 has 81 MA's),

Gene: Arturo_79 Start: 48170, Stop: 48024, Start Num: 36
Candidate Starts for Arturo_79:
(Start: 28 @48194 has 1 MA's), (Start: 36 @48170 has 29 MA's),

Gene: AvatarAhPeg_82 Start: 48295, Stop: 48149, Start Num: 36
Candidate Starts for AvatarAhPeg_82:
(Start: 28 @48319 has 1 MA's), (Start: 36 @48295 has 29 MA's), (38, 48202),

Gene: Avle17_82 Start: 48036, Stop: 47890, Start Num: 36
Candidate Starts for Avle17_82:
(Start: 28 @48060 has 1 MA's), (Start: 36 @48036 has 29 MA's),

Gene: Bactobuster_77 Start: 47335, Stop: 47198, Start Num: 35
Candidate Starts for Bactobuster_77:
(22, 47392), (Start: 35 @47335 has 81 MA's), (38, 47251),

Gene: Badger_77 Start: 47660, Stop: 47514, Start Num: 36

Candidate Starts for Badger_77:

(1, 48179), (2, 48077), (3, 47996), (Start: 28 @47684 has 1 MA's), (Start: 36 @47660 has 29 MA's), (38, 47567),

Gene: Baehexic_84 Start: 48234, Stop: 48100, Start Num: 35

Candidate Starts for Baehexic_84:

(Start: 31 @48243 has 7 MA's), (Start: 35 @48234 has 81 MA's), (38, 48150),

Gene: Beemo_89 Start: 48833, Stop: 48699, Start Num: 35

Candidate Starts for Beemo_89:

(23, 48881), (Start: 31 @48842 has 7 MA's), (Start: 35 @48833 has 81 MA's),

Gene: BengiVuitton_87 Start: 48715, Stop: 48581, Start Num: 35

Candidate Starts for BengiVuitton_87:

(27, 48751), (Start: 35 @48715 has 81 MA's),

Gene: Benvolio_84 Start: 48484, Stop: 48347, Start Num: 35

Candidate Starts for Benvolio_84:

(11, 48610), (Start: 35 @48484 has 81 MA's),

Gene: BiancaTri92_83 Start: 48320, Stop: 48186, Start Num: 35

Candidate Starts for BiancaTri92_83:

(Start: 35 @48320 has 81 MA's),

Gene: BlueBird_87 Start: 47517, Stop: 47374, Start Num: 36

Candidate Starts for BlueBird_87:

(5, 47769), (6, 47742), (9, 47700), (19, 47595), (21, 47586), (25, 47568), (Start: 28 @47544 has 1 MA's), (Start: 36 @47517 has 29 MA's),

Gene: BobSwaget_79 Start: 46253, Stop: 46116, Start Num: 35

Candidate Starts for BobSwaget_79:

(4, 46547), (7, 46469), (23, 46301), (Start: 31 @46262 has 7 MA's), (Start: 35 @46253 has 81 MA's),

Gene: BogosyJay_88 Start: 48878, Stop: 48741, Start Num: 35

Candidate Starts for BogosyJay_88:

(Start: 31 @48887 has 7 MA's), (Start: 35 @48878 has 81 MA's),

Gene: Bugatti_86 Start: 47517, Stop: 47374, Start Num: 36

Candidate Starts for Bugatti_86:

(5, 47769), (6, 47742), (9, 47700), (19, 47595), (21, 47586), (25, 47568), (Start: 28 @47544 has 1 MA's), (Start: 36 @47517 has 29 MA's),

Gene: CRB1_86 Start: 48863, Stop: 48729, Start Num: 35

Candidate Starts for CRB1_86:

(27, 48899), (Start: 35 @48863 has 81 MA's),

Gene: Centaur_85 Start: 48112, Stop: 47978, Start Num: 35

Candidate Starts for Centaur_85:

(Start: 31 @48121 has 7 MA's), (Start: 35 @48112 has 81 MA's), (38, 48028),

Gene: Charm_84 Start: 48231, Stop: 48091, Start Num: 35

Candidate Starts for Charm_84:

(18, 48306), (23, 48279), (Start: 31 @48240 has 7 MA's), (Start: 35 @48231 has 81 MA's),

Gene: Che12_87 Start: 47465, Stop: 47328, Start Num: 31

Candidate Starts for Che12_87:

(Start: 31 @47465 has 7 MA's), (38, 47378),

Gene: ChipMunk_86 Start: 49770, Stop: 49636, Start Num: 35

Candidate Starts for ChipMunk_86:

(11, 49896), (27, 49806), (Start: 35 @49770 has 81 MA's),

Gene: Cindaradix_77 Start: 48255, Stop: 48109, Start Num: 36

Candidate Starts for Cindaradix_77:

(Start: 28 @48279 has 1 MA's), (Start: 36 @48255 has 29 MA's), (38, 48162),

Gene: Cocoaberry_82 Start: 48043, Stop: 47897, Start Num: 36

Candidate Starts for Cocoaberry_82:

(Start: 28 @48067 has 1 MA's), (Start: 36 @48043 has 29 MA's),

Gene: Commander_80 Start: 48043, Stop: 47897, Start Num: 36

Candidate Starts for Commander_80:

(Start: 28 @48070 has 1 MA's), (Start: 36 @48043 has 29 MA's), (38, 47950),

Gene: Crucio_85 Start: 48717, Stop: 48580, Start Num: 35

Candidate Starts for Crucio_85:

(Start: 35 @48717 has 81 MA's),

Gene: Dalmatian_85 Start: 48536, Stop: 48402, Start Num: 35

Candidate Starts for Dalmatian_85:

(23, 48584), (Start: 31 @48545 has 7 MA's), (Start: 35 @48536 has 81 MA's),

Gene: Darrell_87 Start: 48031, Stop: 47903, Start Num: 35

Candidate Starts for Darrell_87:

(Start: 35 @48031 has 81 MA's),

Gene: Datway_79 Start: 47853, Stop: 47707, Start Num: 36

Candidate Starts for Datway_79:

(Start: 28 @47877 has 1 MA's), (Start: 36 @47853 has 29 MA's), (38, 47760),

Gene: Deano_79 Start: 48050, Stop: 47904, Start Num: 36

Candidate Starts for Deano_79:

(Start: 28 @48074 has 1 MA's), (Start: 36 @48050 has 29 MA's), (38, 47957),

Gene: Deloris_87 Start: 48408, Stop: 48274, Start Num: 35

Candidate Starts for Deloris_87:

(27, 48444), (Start: 35 @48408 has 81 MA's),

Gene: Dignity_87 Start: 48950, Stop: 48816, Start Num: 35

Candidate Starts for Dignity_87:

(27, 48986), (Start: 35 @48950 has 81 MA's),

Gene: Drake55_86 Start: 48363, Stop: 48229, Start Num: 35

Candidate Starts for Drake55_86:

(Start: 31 @48372 has 7 MA's), (Start: 35 @48363 has 81 MA's), (38, 48279),

Gene: DreamTeam1_84 Start: 48079, Stop: 47939, Start Num: 35
Candidate Starts for DreamTeam1_84:
(18, 48154), (23, 48127), (Start: 31 @48088 has 7 MA's), (Start: 35 @48079 has 81 MA's),

Gene: DroogsArmy_78 Start: 50033, Stop: 49902, Start Num: 29
Candidate Starts for DroogsArmy_78:
(8, 50210), (10, 50141), (Start: 26 @50054 has 1 MA's), (Start: 29 @50033 has 2 MA's),

Gene: DudeLittle_83 Start: 48254, Stop: 48120, Start Num: 35
Candidate Starts for DudeLittle_83:
(23, 48302), (Start: 31 @48263 has 7 MA's), (Start: 35 @48254 has 81 MA's),

Gene: EZMoney23_81 Start: 47816, Stop: 47679, Start Num: 35
Candidate Starts for EZMoney23_81:
(Start: 31 @47825 has 7 MA's), (Start: 35 @47816 has 81 MA's),

Gene: Eagle_81 Start: 48104, Stop: 47958, Start Num: 36
Candidate Starts for Eagle_81:
(Start: 28 @48128 has 1 MA's), (Start: 36 @48104 has 29 MA's),

Gene: Eaglepride_84 Start: 47732, Stop: 47583, Start Num: 28
Candidate Starts for Eaglepride_84:
(25, 47756), (Start: 28 @47732 has 1 MA's), (Start: 29 @47726 has 2 MA's), (38, 47636), (39, 47591),

Gene: Eapen_82 Start: 48037, Stop: 47891, Start Num: 36
Candidate Starts for Eapen_82:
(Start: 28 @48061 has 1 MA's), (Start: 36 @48037 has 29 MA's),

Gene: Echild_88 Start: 48508, Stop: 48371, Start Num: 35
Candidate Starts for Echild_88:
(11, 48634), (Start: 35 @48508 has 81 MA's),

Gene: Elephantoon_89 Start: 48757, Stop: 48626, Start Num: 35
Candidate Starts for Elephantoon_89:
(27, 48790), (Start: 35 @48757 has 81 MA's),

Gene: EmyBug_83 Start: 48603, Stop: 48469, Start Num: 35
Candidate Starts for EmyBug_83:
(23, 48651), (Start: 31 @48612 has 7 MA's), (Start: 35 @48603 has 81 MA's),

Gene: Eros_82 Start: 48047, Stop: 47901, Start Num: 36
Candidate Starts for Eros_82:
(Start: 28 @48074 has 1 MA's), (Start: 36 @48047 has 29 MA's), (38, 47954),

Gene: EvilGenius_85 Start: 49771, Stop: 49637, Start Num: 35
Candidate Starts for EvilGenius_85:
(11, 49897), (27, 49807), (Start: 35 @49771 has 81 MA's),

Gene: ExplosioNervosa_87 Start: 48669, Stop: 48535, Start Num: 35
Candidate Starts for ExplosioNervosa_87:
(23, 48717), (Start: 31 @48678 has 7 MA's), (Start: 35 @48669 has 81 MA's),

Gene: Fameo_83 Start: 48269, Stop: 48132, Start Num: 35

Candidate Starts for Fameo_83:
(Start: 35 @48269 has 81 MA's),

Gene: FiringLine_85 Start: 48657, Stop: 48520, Start Num: 35
Candidate Starts for FiringLine_85:
(Start: 35 @48657 has 81 MA's),

Gene: First_0086 Start: 48510, Stop: 48376, Start Num: 35
Candidate Starts for First_0086:
(27, 48546), (Start: 35 @48510 has 81 MA's),

Gene: Fred313_82 Start: 47147, Stop: 47004, Start Num: 36
Candidate Starts for Fred313_82:
(5, 47399), (9, 47330), (19, 47225), (25, 47198), (Start: 28 @47174 has 1 MA's), (Start: 36 @47147 has 29 MA's),

Gene: Gadost_82 Start: 48043, Stop: 47897, Start Num: 36
Candidate Starts for Gadost_82:
(Start: 28 @48067 has 1 MA's), (Start: 36 @48043 has 29 MA's),

Gene: Gail_86 Start: 47979, Stop: 47836, Start Num: 35
Candidate Starts for Gail_86:
(Start: 35 @47979 has 81 MA's), (38, 47895),

Gene: Georgie2_87 Start: 48861, Stop: 48724, Start Num: 35
Candidate Starts for Georgie2_87:
(Start: 35 @48861 has 81 MA's),

Gene: Giroux_83 Start: 47516, Stop: 47373, Start Num: 36
Candidate Starts for Giroux_83:
(5, 47768), (6, 47741), (9, 47699), (19, 47594), (21, 47585), (25, 47567), (Start: 28 @47543 has 1 MA's), (Start: 36 @47516 has 29 MA's),

Gene: Greely_145 Start: 89424, Stop: 89567, Start Num: 30
Candidate Starts for Greely_145:
(Start: 30 @89424 has 1 MA's), (Start: 35 @89436 has 81 MA's),

Gene: HINdeR_78 Start: 49444, Stop: 49313, Start Num: 29
Candidate Starts for HINdeR_78:
(13, 49534), (17, 49513), (20, 49495), (25, 49474), (Start: 29 @49444 has 2 MA's),

Gene: Heffalump_82 Start: 48737, Stop: 48600, Start Num: 35
Candidate Starts for Heffalump_82:
(Start: 35 @48737 has 81 MA's),

Gene: Houdini22_81 Start: 48043, Stop: 47897, Start Num: 36
Candidate Starts for Houdini22_81:
(Start: 28 @48067 has 1 MA's), (Start: 36 @48043 has 29 MA's),

Gene: IronMan_82 Start: 48859, Stop: 48722, Start Num: 35
Candidate Starts for IronMan_82:
(22, 48916), (Start: 35 @48859 has 81 MA's), (38, 48775),

Gene: Iwokeuplikedis_89 Start: 48834, Stop: 48700, Start Num: 35
Candidate Starts for Iwokeuplikedis_89:
(Start: 35 @48834 has 81 MA's),

Gene: Jaan_83 Start: 48967, Stop: 48830, Start Num: 35
Candidate Starts for Jaan_83:
(22, 49024), (Start: 35 @48967 has 81 MA's), (38, 48883),

Gene: Jeeves_86 Start: 46696, Stop: 46556, Start Num: 35
Candidate Starts for Jeeves_86:
(Start: 35 @46696 has 81 MA's),

Gene: Jerm_87 Start: 48918, Stop: 48784, Start Num: 35
Candidate Starts for Jerm_87:
(27, 48954), (Start: 35 @48918 has 81 MA's),

Gene: JoshKayV_87 Start: 49086, Stop: 48952, Start Num: 35
Candidate Starts for JoshKayV_87:
(27, 49122), (Start: 35 @49086 has 81 MA's),

Gene: Kalpine_87 Start: 49082, Stop: 48948, Start Num: 35
Candidate Starts for Kalpine_87:
(Start: 31 @49091 has 7 MA's), (Start: 35 @49082 has 81 MA's), (38, 48998),

Gene: Katalie136_78 Start: 47660, Stop: 47514, Start Num: 36
Candidate Starts for Katalie136_78:
(1, 48179), (2, 48077), (3, 47996), (Start: 28 @47684 has 1 MA's), (Start: 36 @47660 has 29 MA's),
(38, 47567),

Gene: Keziacharles14_86 Start: 49418, Stop: 49284, Start Num: 34
Candidate Starts for Keziacharles14_86:
(27, 49448), (Start: 34 @49418 has 2 MA's),

Gene: KingCyrus_84 Start: 49784, Stop: 49650, Start Num: 35
Candidate Starts for KingCyrus_84:
(11, 49910), (27, 49820), (Start: 35 @49784 has 81 MA's),

Gene: Kingmustik0402_82 Start: 48031, Stop: 47885, Start Num: 36
Candidate Starts for Kingmustik0402_82:
(Start: 28 @48055 has 1 MA's), (Start: 36 @48031 has 29 MA's),

Gene: Kremtemulon_76 Start: 47922, Stop: 47776, Start Num: 36
Candidate Starts for Kremtemulon_76:
(Start: 28 @47946 has 1 MA's), (Start: 36 @47922 has 29 MA's),

Gene: LadyBird_89 Start: 49008, Stop: 48874, Start Num: 35
Candidate Starts for LadyBird_89:
(27, 49044), (Start: 35 @49008 has 81 MA's),

Gene: Landor_83 Start: 48892, Stop: 48755, Start Num: 35
Candidate Starts for Landor_83:
(22, 48949), (Start: 35 @48892 has 81 MA's), (38, 48808),

Gene: Larenn_83 Start: 48362, Stop: 48228, Start Num: 35

Candidate Starts for Larenn_83:

(24, 48407), (Start: 31 @48371 has 7 MA's), (Start: 35 @48362 has 81 MA's), (38, 48278),

Gene: Leviathan_87 Start: 48999, Stop: 48865, Start Num: 35

Candidate Starts for Leviathan_87:

(27, 49035), (Start: 35 @48999 has 81 MA's),

Gene: LilTurb_86 Start: 48795, Stop: 48661, Start Num: 35

Candidate Starts for LilTurb_86:

(27, 48831), (Start: 35 @48795 has 81 MA's),

Gene: Lokk_80 Start: 46874, Stop: 46737, Start Num: 35

Candidate Starts for Lokk_80:

(7, 47090), (23, 46922), (Start: 31 @46883 has 7 MA's), (Start: 35 @46874 has 81 MA's),

Gene: LoneWolf_89 Start: 48940, Stop: 48806, Start Num: 35

Candidate Starts for LoneWolf_89:

(23, 48988), (Start: 35 @48940 has 81 MA's),

Gene: Loser_88 Start: 49259, Stop: 49116, Start Num: 31

Candidate Starts for Loser_88:

(Start: 31 @49259 has 7 MA's), (Start: 35 @49250 has 81 MA's), (37, 49223), (38, 49166),

Gene: Luchador_84 Start: 47960, Stop: 47817, Start Num: 35

Candidate Starts for Luchador_84:

(Start: 35 @47960 has 81 MA's), (38, 47876),

Gene: Lunsford_79 Start: 48035, Stop: 47889, Start Num: 36

Candidate Starts for Lunsford_79:

(Start: 28 @48059 has 1 MA's), (Start: 36 @48035 has 29 MA's), (38, 47942),

Gene: Malec_84 Start: 48932, Stop: 48798, Start Num: 35

Candidate Starts for Malec_84:

(Start: 31 @48941 has 7 MA's), (Start: 35 @48932 has 81 MA's), (38, 48848),

Gene: Maminiaina_88 Start: 48860, Stop: 48723, Start Num: 35

Candidate Starts for Maminiaina_88:

(Start: 31 @48869 has 7 MA's), (Start: 35 @48860 has 81 MA's),

Gene: MeeZee_81 Start: 48036, Stop: 47890, Start Num: 36

Candidate Starts for MeeZee_81:

(Start: 28 @48060 has 1 MA's), (Start: 36 @48036 has 29 MA's),

Gene: Miko_80 Start: 47639, Stop: 47502, Start Num: 35

Candidate Starts for Miko_80:

(4, 47933), (7, 47855), (23, 47687), (Start: 31 @47648 has 7 MA's), (Start: 35 @47639 has 81 MA's),

Gene: MissWhite_78 Start: 44927, Stop: 44793, Start Num: 35

Candidate Starts for MissWhite_78:

(Start: 31 @44936 has 7 MA's), (Start: 35 @44927 has 81 MA's), (38, 44843),

Gene: NaSiaTalie_86 Start: 48355, Stop: 48212, Start Num: 31

Candidate Starts for NaSiaTalie_86:
(Start: 31 @48355 has 7 MA's), (Start: 35 @48346 has 81 MA's), (38, 48262),

Gene: Nemo27_81 Start: 48038, Stop: 47892, Start Num: 36
Candidate Starts for Nemo27_81:
(Start: 28 @48062 has 1 MA's), (Start: 36 @48038 has 29 MA's),

Gene: NicoleTera_83 Start: 48277, Stop: 48140, Start Num: 35
Candidate Starts for NicoleTera_83:
(Start: 31 @48286 has 7 MA's), (Start: 35 @48277 has 81 MA's),

Gene: NorthStar_79 Start: 48042, Stop: 47896, Start Num: 36
Candidate Starts for NorthStar_79:
(Start: 28 @48066 has 1 MA's), (Start: 36 @48042 has 29 MA's),

Gene: NotAPhaseMom_81 Start: 48043, Stop: 47897, Start Num: 36
Candidate Starts for NotAPhaseMom_81:
(Start: 28 @48067 has 1 MA's), (Start: 36 @48043 has 29 MA's),

Gene: NothingSpecial_80 Start: 48222, Stop: 48079, Start Num: 32
Candidate Starts for NothingSpecial_80:
(16, 48312), (18, 48288), (Start: 32 @48222 has 2 MA's), (Start: 35 @48213 has 81 MA's),

Gene: Obama12_83 Start: 48466, Stop: 48320, Start Num: 36
Candidate Starts for Obama12_83:
(Start: 28 @48490 has 1 MA's), (Start: 36 @48466 has 29 MA's), (38, 48373),

Gene: Ph8s_86 Start: 47599, Stop: 47462, Start Num: 31
Candidate Starts for Ph8s_86:
(14, 47695), (Start: 31 @47599 has 7 MA's), (38, 47512),

Gene: Phabba_146 Start: 88539, Stop: 88682, Start Num: 30
Candidate Starts for Phabba_146:
(Start: 30 @88539 has 1 MA's), (Start: 35 @88551 has 81 MA's),

Gene: Phaded_79 Start: 48851, Stop: 48714, Start Num: 35
Candidate Starts for Phaded_79:
(Start: 35 @48851 has 81 MA's), (38, 48767),

Gene: Phaeder_89 Start: 48820, Stop: 48686, Start Num: 35
Candidate Starts for Phaeder_89:
(23, 48868), (Start: 31 @48829 has 7 MA's), (Start: 35 @48820 has 81 MA's),

Gene: Phonnegut_89 Start: 48832, Stop: 48698, Start Num: 35
Candidate Starts for Phonnegut_89:
(23, 48880), (Start: 31 @48841 has 7 MA's), (Start: 35 @48832 has 81 MA's),

Gene: Pioneer_89 Start: 48832, Stop: 48698, Start Num: 35
Candidate Starts for Pioneer_89:
(23, 48880), (Start: 31 @48841 has 7 MA's), (Start: 35 @48832 has 81 MA's),

Gene: Piro94_84 Start: 48303, Stop: 48160, Start Num: 31
Candidate Starts for Piro94_84:

(Start: 31 @48303 has 7 MA's), (Start: 35 @48294 has 81 MA's), (38, 48210),

Gene: Pistachio_85 Start: 47064, Stop: 46921, Start Num: 36

Candidate Starts for Pistachio_85:

(5, 47316), (6, 47289), (9, 47247), (19, 47142), (21, 47133), (25, 47115), (Start: 28 @47091 has 1 MA's), (Start: 36 @47064 has 29 MA's),

Gene: Power_85 Start: 48860, Stop: 48723, Start Num: 35

Candidate Starts for Power_85:

(Start: 35 @48860 has 81 MA's),

Gene: Priya_87 Start: 48604, Stop: 48470, Start Num: 35

Candidate Starts for Priya_87:

(23, 48652), (Start: 31 @48613 has 7 MA's), (Start: 35 @48604 has 81 MA's),

Gene: Pukovnik_80 Start: 48328, Stop: 48182, Start Num: 32

Candidate Starts for Pukovnik_80:

(Start: 32 @48328 has 2 MA's), (Start: 35 @48319 has 81 MA's),

Gene: Puppy_86 Start: 47134, Stop: 46991, Start Num: 36

Candidate Starts for Puppy_86:

(5, 47386), (6, 47359), (9, 47317), (19, 47212), (21, 47203), (25, 47185), (Start: 28 @47161 has 1 MA's), (Start: 36 @47134 has 29 MA's),

Gene: Qobbit_87 Start: 48566, Stop: 48432, Start Num: 35

Candidate Starts for Qobbit_87:

(23, 48614), (Start: 31 @48575 has 7 MA's), (Start: 35 @48566 has 81 MA's),

Gene: QueenB2_82 Start: 47950, Stop: 47813, Start Num: 35

Candidate Starts for QueenB2_82:

(Start: 35 @47950 has 81 MA's),

Gene: QueenBeesly_85 Start: 48657, Stop: 48520, Start Num: 35

Candidate Starts for QueenBeesly_85:

(Start: 35 @48657 has 81 MA's),

Gene: Rachaly_82 Start: 47782, Stop: 47645, Start Num: 35

Candidate Starts for Rachaly_82:

(4, 48076), (7, 47998), (23, 47830), (Start: 31 @47791 has 7 MA's), (Start: 35 @47782 has 81 MA's),

Gene: Rahalelujah_88 Start: 48358, Stop: 48230, Start Num: 35

Candidate Starts for Rahalelujah_88:

(Start: 31 @48367 has 7 MA's), (Start: 35 @48358 has 81 MA's),

Gene: RedRock_85 Start: 48903, Stop: 48769, Start Num: 35

Candidate Starts for RedRock_85:

(Start: 31 @48912 has 7 MA's), (Start: 35 @48903 has 81 MA's), (37, 48876), (38, 48819),

Gene: Relief_81 Start: 48039, Stop: 47893, Start Num: 36

Candidate Starts for Relief_81:

(Start: 28 @48063 has 1 MA's), (Start: 36 @48039 has 29 MA's),

Gene: Retro23_85 Start: 48378, Stop: 48244, Start Num: 35

Candidate Starts for Retro23_85:

(23, 48426), (Start: 31 @48387 has 7 MA's), (Start: 35 @48378 has 81 MA's),

Gene: SaturnRing_86 Start: 47517, Stop: 47374, Start Num: 36

Candidate Starts for SaturnRing_86:

(5, 47769), (6, 47742), (9, 47700), (19, 47595), (21, 47586), (25, 47568), (Start: 28 @47544 has 1 MA's), (Start: 36 @47517 has 29 MA's),

Gene: Scherzo_87 Start: 48864, Stop: 48730, Start Num: 35

Candidate Starts for Scherzo_87:

(23, 48912), (Start: 31 @48873 has 7 MA's), (Start: 35 @48864 has 81 MA's),

Gene: SemperFi_85 Start: 48545, Stop: 48408, Start Num: 35

Candidate Starts for SemperFi_85:

(Start: 35 @48545 has 81 MA's),

Gene: SheaKeira_84 Start: 48104, Stop: 47970, Start Num: 35

Candidate Starts for SheaKeira_84:

(12, 48224), (18, 48179), (23, 48152), (Start: 31 @48113 has 7 MA's), (Start: 35 @48104 has 81 MA's),

Gene: SheldonCooper_82 Start: 48480, Stop: 48334, Start Num: 36

Candidate Starts for SheldonCooper_82:

(Start: 28 @48504 has 1 MA's), (Start: 36 @48480 has 29 MA's),

Gene: Skipitt_81 Start: 48036, Stop: 47890, Start Num: 36

Candidate Starts for Skipitt_81:

(Start: 28 @48060 has 1 MA's), (Start: 36 @48036 has 29 MA's),

Gene: Smeagan_88 Start: 49090, Stop: 48956, Start Num: 35

Candidate Starts for Smeagan_88:

(27, 49126), (Start: 35 @49090 has 81 MA's),

Gene: SnapTap_85 Start: 48516, Stop: 48379, Start Num: 35

Candidate Starts for SnapTap_85:

(Start: 35 @48516 has 81 MA's),

Gene: SororFago_84 Start: 47898, Stop: 47755, Start Num: 35

Candidate Starts for SororFago_84:

(Start: 35 @47898 has 81 MA's),

Gene: Stink_78 Start: 48266, Stop: 48120, Start Num: 36

Candidate Starts for Stink_78:

(Start: 28 @48290 has 1 MA's), (Start: 36 @48266 has 29 MA's), (38, 48173),

Gene: SweetiePie_85 Start: 48649, Stop: 48512, Start Num: 35

Candidate Starts for SweetiePie_85:

(Start: 35 @48649 has 81 MA's),

Gene: SwirlSquare_88 Start: 47074, Stop: 46937, Start Num: 31

Candidate Starts for SwirlSquare_88:

(Start: 31 @47074 has 7 MA's), (38, 46987),

Gene: TarsusIV_84 Start: 48539, Stop: 48402, Start Num: 35
Candidate Starts for TarsusIV_84:
(23, 48587), (Start: 31 @48548 has 7 MA's), (Start: 35 @48539 has 81 MA's),

Gene: Thonko_95 Start: 65603, Stop: 65454, Start Num: 33
Candidate Starts for Thonko_95:
(Start: 33 @65603 has 1 MA's),

Gene: Timshel_79 Start: 49897, Stop: 49745, Start Num: 26
Candidate Starts for Timshel_79:
(8, 50053), (10, 49984), (Start: 26 @49897 has 1 MA's), (Start: 29 @49876 has 2 MA's),

Gene: Toaka_87 Start: 48704, Stop: 48573, Start Num: 34
Candidate Starts for Toaka_87:
(15, 48803), (Start: 34 @48704 has 2 MA's),

Gene: Turbido_86 Start: 48811, Stop: 48677, Start Num: 35
Candidate Starts for Turbido_86:
(27, 48847), (Start: 35 @48811 has 81 MA's),

Gene: TygerBlood_82 Start: 48042, Stop: 47896, Start Num: 36
Candidate Starts for TygerBlood_82:
(Start: 28 @48066 has 1 MA's), (Start: 36 @48042 has 29 MA's),

Gene: Ugenie5_76 Start: 46308, Stop: 46174, Start Num: 35
Candidate Starts for Ugenie5_76:
(23, 46356), (Start: 31 @46317 has 7 MA's), (Start: 35 @46308 has 81 MA's),

Gene: Updawg_86 Start: 48341, Stop: 48207, Start Num: 35
Candidate Starts for Updawg_86:
(Start: 31 @48350 has 7 MA's), (Start: 35 @48341 has 81 MA's), (38, 48257),

Gene: VA6_85 Start: 48439, Stop: 48305, Start Num: 35
Candidate Starts for VA6_85:
(27, 48475), (Start: 35 @48439 has 81 MA's),

Gene: Vanisoa_84 Start: 49036, Stop: 48905, Start Num: 35
Candidate Starts for Vanisoa_84:
(14, 49141), (18, 49111), (Start: 31 @49045 has 7 MA's), (Start: 35 @49036 has 81 MA's),

Gene: WeiHuaDA_87 Start: 49366, Stop: 49232, Start Num: 35
Candidate Starts for WeiHuaDA_87:
(Start: 31 @49375 has 7 MA's), (Start: 35 @49366 has 81 MA's), (38, 49282),

Gene: XianYue_84 Start: 48596, Stop: 48459, Start Num: 35
Candidate Starts for XianYue_84:
(27, 48632), (Start: 35 @48596 has 81 MA's),