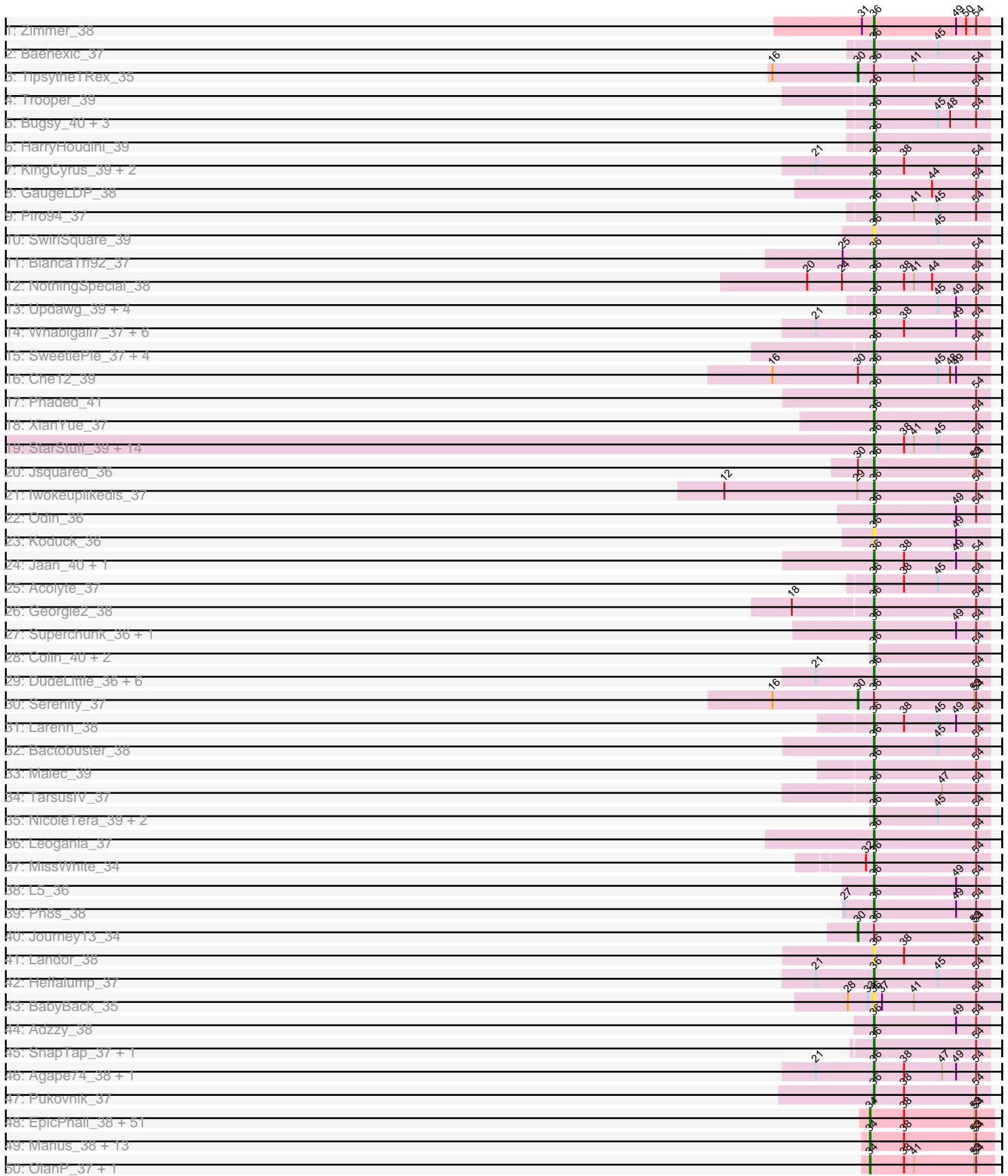
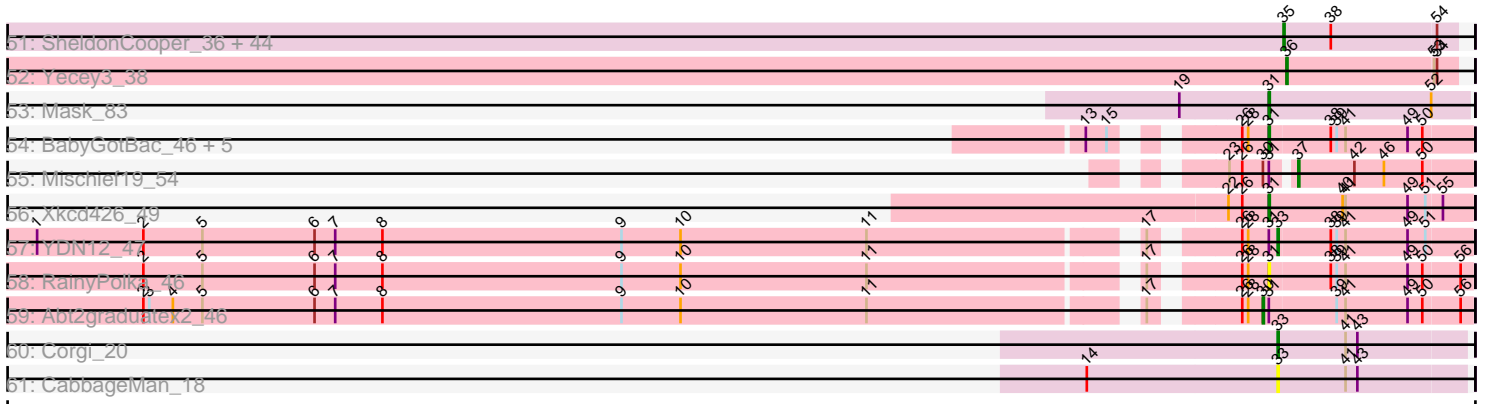


Pham 163337





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 163337 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163337 has 222 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Zimmer_38
- Track 2 : Baehexic_37
- Track 3 : TopsytheTRex_35
- Track 4 : Trooper_39
- Track 5 : Buggy_40, NaSiaTalie_38, Flare16_38, MiculUcigas_38
- Track 6 : HarryHoudini_39
- Track 7 : KingCyrus_39, ChipMunk_39, EvilGenius_39
- Track 8 : GaugeLDP_38
- Track 9 : Piro94_37
- Track 10 : SwirlSquare_39
- Track 11 : BiancaTri92_37
- Track 12 : NothingSpecial_38
- Track 13 : Updawg_39, Equemioh13_39, Centaur_39, Drake55_40, WideWale_39
- Track 14 : Whabigail7_37, AbbyPaige_38, Dignity_38, Jerm_38, Leviathan_38, LilTurb_37, Smeagan_39
- Track 15 : SweetiePie_37, Crucio_37, QueenBeesly_37, FiringLine_37, Power_36
- Track 16 : Che12_39
- Track 17 : Phaded_41
- Track 18 : XianYue_37
- Track 19 : StarStuff_39, ANI8_39, Naji_39, C3_34, AN3_36, DBQu4n_39, Duplo_39, VC3_39, D29_36, Tomathan_39, AN9_39, Kerberos_39, D32_39, VA6_36, Pomar16_39
- Track 20 : Jsquared_36
- Track 21 : Iwokeuplikedis_37
- Track 22 : Odin_36
- Track 23 : Koduck_36
- Track 24 : Jaan_40, IronMan_38
- Track 25 : Acolyte_37
- Track 26 : Georgie2_38
- Track 27 : Superchunk_36, Caraxes_37
- Track 28 : Colin_40, Trixie_37, Kalpine_37
- Track 29 : DudeLittle_36, Anselm_38, Fameo_37, Retro23_38, QueenB2_37, Dalmatian_38, JoshKayV_38
- Track 30 : Serenity_37
- Track 31 : Larenn_38
- Track 32 : Bactobuster_38
- Track 33 : Malec_39

- Track 34 : TarsusIV_37
- Track 35 : NicoleTera_39, Pharaoh_35, WeiHuaDA_42
- Track 36 : Leogania_37
- Track 37 : MissWhite_34
- Track 38 : L5_36
- Track 39 : Ph8s_38
- Track 40 : Journey13_34
- Track 41 : Landor_38
- Track 42 : Heffalump_37
- Track 43 : BabyBack_35
- Track 44 : Adzzy_38
- Track 45 : SnapTap_37, SemperFi_38
- Track 46 : Agape74_38, Turbido_37
- Track 47 : Pukovnik_37
- Track 48 : EpicPhail_38, Snickers_38, Vix_38, Microwolf_38, Taurus_38, Dieselweasel_38, Watson_38, LBerry_38, StepMih_38, MadMarie_38, PGHhamlin_40, Fernando_38, MuchMore_40, Malinsilva_40, Farber_38, Aglet_38, Wooldri_40, MarQuardt_38, PotatoSplit_39, Tiffany_38, Anubis_40, Colbster_38, DaHudson_38, GingkoMaracino_38, P28Green_38, Grum1_38, Phoebe_38, Jobu08_37, AugsMagnumOpus_40, Zetzy_37, JenCasNa_38, SoYo_38, Mainiac_38, Grub_38, Pembroke_38, Ollie_38, LugYA_40, Cullens_38, BreSam8_38, JHC117_38, SoilDragon_37, GtownJaz_38, MoneyMay_38, Beauxregard13_38, Grif_38, Marie_38, Sabinator_37, Stagni_38, Sabia_38, Hercules11_38, Lilith_38, Penny1_38
- Track 49 : Marius_38, Kalb97_38, Reba_38, Manu_38, Phranny_38, ACFishhook_37, Groupthink_38, Heliosoles_37, JeppNRM_38, Gemma_37, Pawn_38, PhishRPhriends_36, Kalnoky_38, PurpleHaze_37
- Track 50 : OlanP_37, HaveUMetTed_38
- Track 51 : SheldonCooper_36, Rockstar_35, LeoAvram_35, TroyPia_35, BabyRay_35, BangNhom_35, Heathen_35, Puppy_36, TinaFeyge_35, MK4_35, ChampagnePapi_36, Cerulean_36, Polymorphads_35, MA5_35, Maxo_35, Bugatti_35, Commander_35, BlueBird_36, Fred313_35, BellusTerra_35, TNguyen7_35, Eurydice_35, Medusa_35, Pistachio_36, JF4_35, Phantastic_35, JF2_35, LHTSCC_36, Nebs_35, Morrow_35, Idleandcovert_35, Kampy_35, Eagle_34, Giroux_35, HelDan_35, Melvin_36, Sparxx_35, Isca_35, Scout_35, Abdiel_34, SaturnRing_35, Obama12_36, Ohfah_35, Phelipe_35, B1_33
- Track 52 : Yecey3_38
- Track 53 : Mask_83
- Track 54 : BabyGotBac_46, Asis_45, Maih_44, BayC_45, TP1604_45, Salete_45
- Track 55 : Mischief19_54
- Track 56 : Xkcd426_49
- Track 57 : YDN12_47
- Track 58 : RainyPolka_46
- Track 59 : Abt2graduatex2_46
- Track 60 : Corgi_20
- Track 61 : CabbageMan_18

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

The start number called the most often in the published annotations is 36, it was called in 85 of the 208 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AN3_36, AN9_39, AN18_39, AbbyPaige_38, Acolyte_37, Adzzy_38, Agape74_38, Anselm_38, BabyBack_35, Bactobuster_38, Baehexic_37, BiancaTri92_37, Buggy_40, C3_34, Caraxes_37, Centaur_39, Che12_39, ChipMunk_39, Colin_40, Crucio_37, D29_36, D32_39, DBQu4n_39, Dalmatian_38, Dignity_38, Drake55_40, DudeLittle_36, Duplo_39, Equemioh13_39, EvilGenius_39, Fameo_37, FiringLine_37, Flare16_38, GaugeLDP_38, Georgie2_38, HarryHoudini_39, Heffalump_37, IronMan_38, Iwokeuplikedis_37, Jaan_40, Jerm_38, JoshKayV_38, Jsquared_36, Kalpine_37, Kerberos_39, KingCyrus_39, Koduck_36, L5_36, Landor_38, Larenn_38, Leogania_37, Leviathan_38, LilTurb_37, Malec_39, MiculUcigas_38, MissWhite_34, NaSiaTalie_38, Naji_39, NicoleTera_39, NothingSpecial_38, Odin_36, Ph8s_38, Phaded_41, Pharaoh_35, Piro94_37, Pomar16_39, Power_36, Pukovnik_37, QueenB2_37, QueenBeesly_37, Retro23_38, SemperFi_38, Smeagan_39, SnapTap_37, StarStuff_39, Superchunk_36, SweetiePie_37, SwirlSquare_39, TarsusIV_37, Tomathan_39, Trixie_37, Trooper_39, Turbido_37, Updawg_39, VA6_36, VC3_39, WeiHuaDA_42, Whabigail7_37, WideWale_39, XianYue_37, Yecey3_38, Zimmer_38,

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

- Journey13_34, Serenity_37, TipsytheTRex_35,

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

- ACFishhook_37, Abdiel_34, Abt2graduatex2_46, Aglet_38, Anubis_40, Asis_45, AugsMagnumOpus_40, B1_33, BabyGotBac_46, BabyRay_35, BangNhom_35, BayC_45, Beauxregard13_38, BellusTerra_35, BlueBird_36, BreSam8_38, Bugatti_35, CabbageMan_18, Cerulean_36, ChampagnePapi_36, Colbster_38, Commander_35, Corgi_20, Cullens_38, DaHudson_38, Dieselweasel_38, Eagle_34, EpicPhail_38, Eurydice_35, Farber_38, Fernando_38, Fred313_35, Gemma_37, GingkoMaracino_38, Giroux_35, Grif_38, Groupthink_38, Grub_38, Grum1_38, GtownJaz_38, HaveUMetTed_38, Heathen_35, HelDan_35, Heliosoles_37, Hercules11_38, Idleandcovert_35, Isca_35, JF2_35, JF4_35, JHC117_38, JenCasNa_38, JeppNRM_38, Jobu08_37, Kalb97_38, Kalnoky_38, Kamy_35, LBerry_38, LHTSCC_36, LeoAvram_35, Lilit_38, LugYA_40, MA5_35, MK4_35, MadMarie_38, Maih_44, Mainiac_38, Malinsilva_40, Manu_38, MarQuardt_38, Marie_38, Marius_38, Mask_83, Maxo_35, Medusa_35, Melvin_36, Microwolf_38, Mischief19_54, MoneyMay_38, Morrow_35, MuchMore_40, Nebs_35, Obama12_36, Ohfah_35, OlanP_37, Ollie_38, P28Green_38, PGHhamlin_40, Pawn_38, Pembroke_38, Penny1_38, Phantastic_35, Phelipe_35, PhishRPhriends_36, Phoebe_38, Phranny_38, Pistachio_36, Polymorphads_35, PotatoSplit_39, Puppy_36, PurpleHaze_37, RainyPolka_46, Reba_38, Rockstar_35, Sabia_38, Sabinator_37, Salete_45, SaturnRing_35, Scout_35, SheldonCooper_36, Snickers_38, SoYo_38, SoilDragon_37, Sparxx_35, Stagni_38, StepMih_38, TNguyen7_35, TP1604_45, Taurus_38, Tiffany_38, TinaFeyge_35, TroyPia_35, Vix_38, Watson_38, Wooldri_40, Xkcd426_49, YDN12_47, Zetzy_37,

Summary by start number:

Start 30:

- Found in 7 of 222 (3.2%) of genes in pham
- Manual Annotations of this start: 4 of 208

- Called 57.1% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2_46 (BG), Journey13_34 (A2), Serenity_37 (A2), TopsytheTRex_35 (A2),

Start 31:

- Found in 13 of 222 (5.9%) of genes in pham
- Manual Annotations of this start: 8 of 208
- Called 69.2% of time when present
- Phage (with cluster) where this start called: Asis_45 (BG), BabyGotBac_46 (BG), BayC_45 (BG), Maih_44 (BG), Mask_83 (AD), RainyPolka_46 (BG), Salete_45 (BG), TP1604_45 (BG), Xkcd426_49 (BG),

Start 33:

- Found in 4 of 222 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 208
- Called 75.0% of time when present
- Phage (with cluster) where this start called: CabbageMan_18 (FE), Corgi_20 (FE), YDN12_47 (BG),

Start 34:

- Found in 68 of 222 (30.6%) of genes in pham
- Manual Annotations of this start: 66 of 208
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_37 (A3), Aglet_38 (A3), Anubis_40 (A3), AugsMagnumOpus_40 (A3), Beauxregard13_38 (A3), BreSam8_38 (A3), Colbster_38 (A3), Cullens_38 (A3), DaHudson_38 (A3), Dieselweasel_38 (A3), EpicPhail_38 (A3), Farber_38 (A3), Fernando_38 (A3), Gemma_37 (A3), GingkoMaracino_38 (A3), Grif_38 (A3), Groupthink_38 (A3), Grub_38 (A3), Grum1_38 (A3), GtownJaz_38 (A3), HaveUMetTed_38 (A3), Heliosoles_37 (A3), Hercules11_38 (A3), JHC117_38 (A3), JenCasNa_38 (A3), JeppNRM_38 (A3), Jobu08_37 (A3), Kalb97_38 (A3), Kalnoky_38 (A3), LBerry_38 (A3), Lilith_38 (A3), LugYA_40 (A3), MadMarie_38 (A3), Mainiac_38 (A3), Malinsilva_40 (A3), Manu_38 (A3), MarQuardt_38 (A3), Marie_38 (A3), Marius_38 (A3), Microwolf_38 (A3), MoneyMay_38 (A3), MuchMore_40 (A3), OlanP_37 (A3), Ollie_38 (A3), P28Green_38 (A3), PGHhamlin_40 (A3), Pawn_38 (A3), Pembroke_38 (A3), Penny1_38 (A3), PhishRPhriends_36 (A3), Phoebe_38 (A3), Phranny_38 (A3), PotatoSplit_39 (A3), PurpleHaze_37 (A3), Reba_38 (A3), Sabia_38 (A3), Sabinator_37 (A3), Snickers_38 (A3), SoYo_38 (A3), SoilDragon_37 (A3), Stagni_38 (A3), StepMih_38 (A3), Taurus_38 (A3), Tiffany_38 (A3), Vix_38 (A3), Watson_38 (A3), Wooldri_40 (A3), Zetzy_37 (A3),

Start 35:

- Found in 45 of 222 (20.3%) of genes in pham
- Manual Annotations of this start: 42 of 208
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abdiel_34 (A4), B1_33 (A3), BabyRay_35 (A3), BangNhom_35 (A4), BellusTerra_35 (A4), BlueBird_36 (A3), Bugatti_35 (A3), Cerulean_36 (A4), ChampagnePapi_36 (A4), Commander_35 (A4), Eagle_34 (A4), Eurydice_35 (A4), Fred313_35 (A3), Giroux_35 (A3), Heathen_35 (A3), HelDan_35 (A3), Idleandcovert_35 (A3), Isca_35 (A3), JF2_35 (A3), JF4_35 (A3), Kampy_35 (A4), LHTSCC_36 (A4), LeoAvram_35 (A4), MA5_35 (A3), MK4_35 (A3), Maxo_35 (A4), Medusa_35 (A4), Melvin_36 (A4), Morrow_35 (A4), Nebs_35 (A4), Obama12_36 (A4), Ohfah_35 (A4), Phantastic_35 (A3), Phelipe_35 (A4),

Pistachio_36 (A3), Polymorphads_35 (A4), Puppy_36 (A3), Rockstar_35 (A3), SaturnRing_35 (A3), Scout_35 (A3), SheldonCooper_36 (A4), Sparxx_35 (A4), TNguyen7_35 (A3), TinaFeyge_35 (A4), TroyPia_35 (A4),

Start 36:

- Found in 95 of 222 (42.8%) of genes in pham
- Manual Annotations of this start: 85 of 208
- Called 96.8% of time when present
- Phage (with cluster) where this start called: AN3_36 (A2), AN9_39 (A2), ANI8_39 (A2), AbbyPaige_38 (A2), Acolyte_37 (A2), Adzzy_38 (A2), Agape74_38 (A2), Anselm_38 (A2), BabyBack_35 (A2), Bactobuster_38 (A2), Baehexic_37 (A2), BiancaTri92_37 (A2), Buggy_40 (A2), C3_34 (A2), Caraxes_37 (A2), Centaur_39 (A2), Che12_39 (A2), ChipMunk_39 (A2), Colin_40 (A2), Crucio_37 (A2), D29_36 (A2), D32_39 (A2), DBQu4n_39 (A2), Dalmatian_38 (A2), Dignity_38 (A2), Drake55_40 (A2), DudeLittle_36 (A2), Duplo_39 (A2), Equemioh13_39 (A2), EvilGenius_39 (A2), Fameo_37 (A2), FiringLine_37 (A2), Flare16_38 (A2), GaugeLDP_38 (A2), Georgie2_38 (A2), HarryHoudini_39 (A2), Heffalump_37 (A2), IronMan_38 (A2), Iwokeuplikedis_37 (A2), Jaan_40 (A2), Jerm_38 (A2), JoshKayV_38 (A2), Jsquared_36 (A2), Kalpine_37 (A2), Kerberos_39 (A2), KingCyrus_39 (A2), Koduck_36 (A2), L5_36 (A2), Landor_38 (A2), Larenn_38 (A2), Leogania_37 (A2), Leviathan_38 (A2), LiITurb_37 (A2), Malec_39 (A2), MiculUcigas_38 (A2), MissWhite_34 (A2), NaSiaTalie_38 (A2), Naji_39 (A2), NicoleTera_39 (A2), NothingSpecial_38 (A2), Odin_36 (A2), Ph8s_38 (A2), Phaded_41 (A2), Pharaoh_35 (A12), Piro94_37 (A2), Pomar16_39 (A2), Power_36 (A2), Pukovnik_37 (A2), QueenB2_37 (A2), QueenBeesly_37 (A2), Retro23_38 (A2), SemperFi_38 (A2), Smeagan_39 (A2), SnapTap_37 (A2), StarStuff_39 (A2), Superchunk_36 (A2), SweetiePie_37 (A2), SwirlSquare_39 (A2), TarsusIV_37 (A2), Tomathan_39 (A2), Trixie_37 (A2), Trooper_39 (A2), Turbido_37 (A2), Updawg_39 (A2), VA6_36 (A2), VC3_39 (A2), WeiHuaDA_42 (A2), Whabigail7_37 (A2), WideWale_39 (A2), XianYue_37 (A2), Yecey3_38 (A9), Zimmer_38 (A12),

Start 37:

- Found in 2 of 222 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 208
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mischief19_54 (BG),

Summary by clusters:

There are 8 clusters represented in this pham: BG, AD, A12, A3, A2, A4, A9, FE,

Info for manual annotations of cluster A12:

- Start number 36 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A2:

- Start number 30 was manually annotated 3 times for cluster A2.
- Start number 36 was manually annotated 82 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 34 was manually annotated 66 times for cluster A3.
- Start number 35 was manually annotated 18 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 35 was manually annotated 24 times for cluster A4.

Info for manual annotations of cluster A9:

- Start number 36 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AD:

- Start number 31 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster BG:

- Start number 30 was manually annotated 1 time for cluster BG.
- Start number 31 was manually annotated 7 times for cluster BG.
- Start number 33 was manually annotated 1 time for cluster BG.
- Start number 37 was manually annotated 1 time for cluster BG.

Info for manual annotations of cluster FE:

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

Gene Information:

Gene: ACFishhook_37 Start: 27807, Stop: 27625, Start Num: 34

Candidate Starts for ACFishhook_37:

(Start: 34 @27807 has 66 MA's), (38, 27756), (53, 27654), (54, 27651),

Gene: AN3_36 Start: 27680, Stop: 27510, Start Num: 36

Candidate Starts for AN3_36:

(Start: 36 @27680 has 85 MA's), (38, 27635), (41, 27620), (45, 27584), (54, 27530),

Gene: AN9_39 Start: 27665, Stop: 27495, Start Num: 36

Candidate Starts for AN9_39:

(Start: 36 @27665 has 85 MA's), (38, 27620), (41, 27605), (45, 27569), (54, 27515),

Gene: ANI8_39 Start: 27665, Stop: 27495, Start Num: 36

Candidate Starts for ANI8_39:

(Start: 36 @27665 has 85 MA's), (38, 27620), (41, 27605), (45, 27569), (54, 27515),

Gene: AbbyPaige_38 Start: 28214, Stop: 28044, Start Num: 36

Candidate Starts for AbbyPaige_38:

(21, 28295), (Start: 36 @28214 has 85 MA's), (38, 28169), (49, 28091), (54, 28064),

Gene: Abdiel_34 Start: 27322, Stop: 27149, Start Num: 35

Candidate Starts for Abdiel_34:

(Start: 35 @27322 has 42 MA's), (38, 27274), (54, 27169),

Gene: Abt2graduatex2_46 Start: 36467, Stop: 36673, Start Num: 30

Candidate Starts for Abt2graduatex2_46:

(2, 35390), (3, 35396), (4, 35420), (5, 35450), (6, 35564), (7, 35585), (8, 35633), (9, 35876), (10, 35936), (11, 36125), (17, 36377), (26, 36446), (28, 36452), (Start: 30 @36467 has 4 MA's), (Start: 31 @36473 has 8 MA's), (39, 36539), (41, 36548), (49, 36611), (50, 36626), (56, 36662),

Gene: Acolyte_37 Start: 28346, Stop: 28176, Start Num: 36

Candidate Starts for Acolyte_37:

(Start: 36 @28346 has 85 MA's), (38, 28301), (45, 28250), (54, 28196),

Gene: Adzzy_38 Start: 26529, Stop: 26359, Start Num: 36

Candidate Starts for Adzzy_38:

(Start: 36 @26529 has 85 MA's), (49, 26406), (54, 26379),

Gene: Agape74_38 Start: 28199, Stop: 28029, Start Num: 36

Candidate Starts for Agape74_38:

(21, 28280), (Start: 36 @28199 has 85 MA's), (38, 28154), (47, 28097), (49, 28076), (54, 28049),

Gene: Aglet_38 Start: 27905, Stop: 27723, Start Num: 34

Candidate Starts for Aglet_38:

(Start: 34 @27905 has 66 MA's), (38, 27854), (53, 27752), (54, 27749),

Gene: Anselm_38 Start: 28317, Stop: 28147, Start Num: 36

Candidate Starts for Anselm_38:

(21, 28398), (Start: 36 @28317 has 85 MA's), (54, 28167),

Gene: Anubis_40 Start: 27790, Stop: 27608, Start Num: 34

Candidate Starts for Anubis_40:

(Start: 34 @27790 has 66 MA's), (38, 27739), (53, 27637), (54, 27634),

Gene: Asis_45 Start: 36225, Stop: 36425, Start Num: 31

Candidate Starts for Asis_45:

(13, 36090), (15, 36111), (26, 36198), (28, 36204), (Start: 31 @36225 has 8 MA's), (38, 36285), (39, 36291), (41, 36300), (49, 36363), (50, 36378),

Gene: AugsMagnumOpus_40 Start: 27896, Stop: 27714, Start Num: 34

Candidate Starts for AugsMagnumOpus_40:

(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: B1_33 Start: 26932, Stop: 26753, Start Num: 35

Candidate Starts for B1_33:

(Start: 35 @26932 has 42 MA's), (38, 26884), (54, 26779),

Gene: BabyBack_35 Start: 28565, Stop: 28377, Start Num: 36

Candidate Starts for BabyBack_35:

(28, 28604), (Start: 33 @28574 has 2 MA's), (Start: 36 @28565 has 85 MA's), (Start: 37 @28553 has 1 MA's), (41, 28505), (54, 28415),

Gene: BabyGotBac_46 Start: 36225, Stop: 36425, Start Num: 31

Candidate Starts for BabyGotBac_46:

(13, 36090), (15, 36111), (26, 36198), (28, 36204), (Start: 31 @36225 has 8 MA's), (38, 36285), (39, 36291), (41, 36300), (49, 36363), (50, 36378),

Gene: BabyRay_35 Start: 27483, Stop: 27304, Start Num: 35

Candidate Starts for BabyRay_35:

(Start: 35 @27483 has 42 MA's), (38, 27435), (54, 27330),

Gene: Bactobuster_38 Start: 29229, Stop: 29059, Start Num: 36

Candidate Starts for Bactobuster_38:

(Start: 36 @29229 has 85 MA's), (45, 29133), (54, 29079),

Gene: Baehexic_37 Start: 28367, Stop: 28197, Start Num: 36

Candidate Starts for Baehexic_37:

(Start: 36 @28367 has 85 MA's), (45, 28271),

Gene: BangNhom_35 Start: 27659, Stop: 27486, Start Num: 35

Candidate Starts for BangNhom_35:

(Start: 35 @27659 has 42 MA's), (38, 27611), (54, 27506),

Gene: BayC_45 Start: 36222, Stop: 36422, Start Num: 31

Candidate Starts for BayC_45:

(13, 36087), (15, 36108), (26, 36195), (28, 36201), (Start: 31 @36222 has 8 MA's), (38, 36282), (39, 36288), (41, 36297), (49, 36360), (50, 36375),

Gene: Beauxregard13_38 Start: 27904, Stop: 27722, Start Num: 34

Candidate Starts for Beauxregard13_38:

(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: BellusTerra_35 Start: 27322, Stop: 27149, Start Num: 35

Candidate Starts for BellusTerra_35:

(Start: 35 @27322 has 42 MA's), (38, 27274), (54, 27169),

Gene: BiancaTri92_37 Start: 28784, Stop: 28614, Start Num: 36

Candidate Starts for BiancaTri92_37:

(25, 28829), (Start: 36 @28784 has 85 MA's), (54, 28634),

Gene: BlueBird_36 Start: 27412, Stop: 27233, Start Num: 35

Candidate Starts for BlueBird_36:

(Start: 35 @27412 has 42 MA's), (38, 27364), (54, 27259),

Gene: BreSam8_38 Start: 27897, Stop: 27715, Start Num: 34

Candidate Starts for BreSam8_38:

(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: Bugatti_35 Start: 27412, Stop: 27233, Start Num: 35

Candidate Starts for Bugatti_35:

(Start: 35 @27412 has 42 MA's), (38, 27364), (54, 27259),

Gene: Buggy_40 Start: 28650, Stop: 28480, Start Num: 36

Candidate Starts for Buggy_40:

(Start: 36 @28650 has 85 MA's), (45, 28554), (48, 28536), (54, 28500),

Gene: C3_34 Start: 27665, Stop: 27495, Start Num: 36

Candidate Starts for C3_34:

(Start: 36 @27665 has 85 MA's), (38, 27620), (41, 27605), (45, 27569), (54, 27515),

Gene: CabbageMan_18 Start: 13371, Stop: 13559, Start Num: 33

Candidate Starts for CabbageMan_18:

(14, 13179), (Start: 33 @13371 has 2 MA's), (41, 13440), (43, 13452),

Gene: Caraxes_37 Start: 26412, Stop: 26242, Start Num: 36

Candidate Starts for Caraxes_37:

(Start: 36 @26412 has 85 MA's), (49, 26289), (54, 26262),

Gene: Centaur_39 Start: 28483, Stop: 28313, Start Num: 36
Candidate Starts for Centaur_39:
(Start: 36 @28483 has 85 MA's), (45, 28387), (49, 28360), (54, 28333),

Gene: Cerulean_36 Start: 27660, Stop: 27487, Start Num: 35
Candidate Starts for Cerulean_36:
(Start: 35 @27660 has 42 MA's), (38, 27612), (54, 27507),

Gene: ChampagnePapi_36 Start: 27659, Stop: 27486, Start Num: 35
Candidate Starts for ChampagnePapi_36:
(Start: 35 @27659 has 42 MA's), (38, 27611), (54, 27506),

Gene: Che12_39 Start: 26775, Stop: 26605, Start Num: 36
Candidate Starts for Che12_39:
(16, 26919), (Start: 30 @26796 has 4 MA's), (Start: 36 @26775 has 85 MA's), (45, 26679), (48, 26661), (49, 26652),

Gene: ChipMunk_39 Start: 29644, Stop: 29474, Start Num: 36
Candidate Starts for ChipMunk_39:
(21, 29725), (Start: 36 @29644 has 85 MA's), (38, 29599), (54, 29494),

Gene: Colbster_38 Start: 27904, Stop: 27722, Start Num: 34
Candidate Starts for Colbster_38:
(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: Colin_40 Start: 28947, Stop: 28777, Start Num: 36
Candidate Starts for Colin_40:
(Start: 36 @28947 has 85 MA's), (54, 28797),

Gene: Commander_35 Start: 27323, Stop: 27150, Start Num: 35
Candidate Starts for Commander_35:
(Start: 35 @27323 has 42 MA's), (38, 27275), (54, 27170),

Gene: Corgi_20 Start: 13530, Stop: 13718, Start Num: 33
Candidate Starts for Corgi_20:
(Start: 33 @13530 has 2 MA's), (41, 13599), (43, 13611),

Gene: Crucio_37 Start: 27910, Stop: 27740, Start Num: 36
Candidate Starts for Crucio_37:
(Start: 36 @27910 has 85 MA's), (54, 27760),

Gene: Cullens_38 Start: 27903, Stop: 27721, Start Num: 34
Candidate Starts for Cullens_38:
(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: D29_36 Start: 27596, Stop: 27426, Start Num: 36
Candidate Starts for D29_36:
(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: D32_39 Start: 27596, Stop: 27426, Start Num: 36
Candidate Starts for D32_39:
(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: DBQu4n_39 Start: 27596, Stop: 27426, Start Num: 36
Candidate Starts for DBQu4n_39:
(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: DaHudson_38 Start: 27896, Stop: 27714, Start Num: 34
Candidate Starts for DaHudson_38:
(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: Dalmatian_38 Start: 28293, Stop: 28123, Start Num: 36
Candidate Starts for Dalmatian_38:
(21, 28374), (Start: 36 @28293 has 85 MA's), (54, 28143),

Gene: Dieselweasel_38 Start: 27906, Stop: 27724, Start Num: 34
Candidate Starts for Dieselweasel_38:
(Start: 34 @27906 has 66 MA's), (38, 27855), (53, 27753), (54, 27750),

Gene: Dignity_38 Start: 28279, Stop: 28109, Start Num: 36
Candidate Starts for Dignity_38:
(21, 28360), (Start: 36 @28279 has 85 MA's), (38, 28234), (49, 28156), (54, 28129),

Gene: Drake55_40 Start: 28546, Stop: 28376, Start Num: 36
Candidate Starts for Drake55_40:
(Start: 36 @28546 has 85 MA's), (45, 28450), (49, 28423), (54, 28396),

Gene: DudeLittle_36 Start: 27959, Stop: 27789, Start Num: 36
Candidate Starts for DudeLittle_36:
(21, 28040), (Start: 36 @27959 has 85 MA's), (54, 27809),

Gene: Duplo_39 Start: 27634, Stop: 27464, Start Num: 36
Candidate Starts for Duplo_39:
(Start: 36 @27634 has 85 MA's), (38, 27589), (41, 27574), (45, 27538), (54, 27484),

Gene: Eagle_34 Start: 27346, Stop: 27173, Start Num: 35
Candidate Starts for Eagle_34:
(Start: 35 @27346 has 42 MA's), (38, 27298), (54, 27193),

Gene: EpicPhail_38 Start: 27904, Stop: 27722, Start Num: 34
Candidate Starts for EpicPhail_38:
(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: Equemioh13_39 Start: 28486, Stop: 28316, Start Num: 36
Candidate Starts for Equemioh13_39:
(Start: 36 @28486 has 85 MA's), (45, 28390), (49, 28363), (54, 28336),

Gene: Eurydice_35 Start: 27321, Stop: 27148, Start Num: 35
Candidate Starts for Eurydice_35:
(Start: 35 @27321 has 42 MA's), (38, 27273), (54, 27168),

Gene: EvilGenius_39 Start: 29648, Stop: 29478, Start Num: 36
Candidate Starts for EvilGenius_39:
(21, 29729), (Start: 36 @29648 has 85 MA's), (38, 29603), (54, 29498),

Gene: Fameo_37 Start: 28087, Stop: 27917, Start Num: 36

Candidate Starts for Fameo_37:
(21, 28168), (Start: 36 @28087 has 85 MA's), (54, 27937),

Gene: Farber_38 Start: 27897, Stop: 27715, Start Num: 34
Candidate Starts for Farber_38:
(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: Fernando_38 Start: 27903, Stop: 27721, Start Num: 34
Candidate Starts for Fernando_38:
(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: FiringLine_37 Start: 27891, Stop: 27721, Start Num: 36
Candidate Starts for FiringLine_37:
(Start: 36 @27891 has 85 MA's), (54, 27741),

Gene: Flare16_38 Start: 28158, Stop: 27988, Start Num: 36
Candidate Starts for Flare16_38:
(Start: 36 @28158 has 85 MA's), (45, 28062), (48, 28044), (54, 28008),

Gene: Fred313_35 Start: 27164, Stop: 26985, Start Num: 35
Candidate Starts for Fred313_35:
(Start: 35 @27164 has 42 MA's), (38, 27116), (54, 27011),

Gene: GaugeLDP_38 Start: 28708, Stop: 28538, Start Num: 36
Candidate Starts for GaugeLDP_38:
(Start: 36 @28708 has 85 MA's), (44, 28621), (54, 28558),

Gene: Gemma_37 Start: 27728, Stop: 27546, Start Num: 34
Candidate Starts for Gemma_37:
(Start: 34 @27728 has 66 MA's), (38, 27677), (53, 27575), (54, 27572),

Gene: Georgie2_38 Start: 27936, Stop: 27766, Start Num: 36
Candidate Starts for Georgie2_38:
(18, 28050), (Start: 36 @27936 has 85 MA's), (54, 27786),

Gene: GingkoMaracino_38 Start: 27790, Stop: 27608, Start Num: 34
Candidate Starts for GingkoMaracino_38:
(Start: 34 @27790 has 66 MA's), (38, 27739), (53, 27637), (54, 27634),

Gene: Giroux_35 Start: 27411, Stop: 27232, Start Num: 35
Candidate Starts for Giroux_35:
(Start: 35 @27411 has 42 MA's), (38, 27363), (54, 27258),

Gene: Grif_38 Start: 27978, Stop: 27796, Start Num: 34
Candidate Starts for Grif_38:
(Start: 34 @27978 has 66 MA's), (38, 27927), (53, 27825), (54, 27822),

Gene: Groupthink_38 Start: 27732, Stop: 27550, Start Num: 34
Candidate Starts for Groupthink_38:
(Start: 34 @27732 has 66 MA's), (38, 27681), (53, 27579), (54, 27576),

Gene: Grub_38 Start: 27896, Stop: 27714, Start Num: 34
Candidate Starts for Grub_38:

(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: Grum1_38 Start: 27903, Stop: 27721, Start Num: 34

Candidate Starts for Grum1_38:

(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: GtownJaz_38 Start: 27905, Stop: 27723, Start Num: 34

Candidate Starts for GtownJaz_38:

(Start: 34 @27905 has 66 MA's), (38, 27854), (53, 27752), (54, 27749),

Gene: HarryHoudini_39 Start: 28432, Stop: 28262, Start Num: 36

Candidate Starts for HarryHoudini_39:

(Start: 36 @28432 has 85 MA's),

Gene: HaveUMetTed_38 Start: 27725, Stop: 27543, Start Num: 34

Candidate Starts for HaveUMetTed_38:

(Start: 34 @27725 has 66 MA's), (38, 27674), (41, 27659), (53, 27572), (54, 27569),

Gene: Heathen_35 Start: 27220, Stop: 27041, Start Num: 35

Candidate Starts for Heathen_35:

(Start: 35 @27220 has 42 MA's), (38, 27172), (54, 27067),

Gene: Heffalump_37 Start: 28819, Stop: 28649, Start Num: 36

Candidate Starts for Heffalump_37:

(21, 28900), (Start: 36 @28819 has 85 MA's), (45, 28723), (54, 28669),

Gene: HelDan_35 Start: 27472, Stop: 27293, Start Num: 35

Candidate Starts for HelDan_35:

(Start: 35 @27472 has 42 MA's), (38, 27424), (54, 27319),

Gene: Heliosoles_37 Start: 27732, Stop: 27550, Start Num: 34

Candidate Starts for Heliosoles_37:

(Start: 34 @27732 has 66 MA's), (38, 27681), (53, 27579), (54, 27576),

Gene: Hercules11_38 Start: 27912, Stop: 27730, Start Num: 34

Candidate Starts for Hercules11_38:

(Start: 34 @27912 has 66 MA's), (38, 27861), (53, 27759), (54, 27756),

Gene: Idleandcovert_35 Start: 27412, Stop: 27233, Start Num: 35

Candidate Starts for Idleandcovert_35:

(Start: 35 @27412 has 42 MA's), (38, 27364), (54, 27259),

Gene: IronMan_38 Start: 29131, Stop: 28961, Start Num: 36

Candidate Starts for IronMan_38:

(Start: 36 @29131 has 85 MA's), (38, 29086), (49, 29008), (54, 28981),

Gene: Isca_35 Start: 27181, Stop: 27002, Start Num: 35

Candidate Starts for Isca_35:

(Start: 35 @27181 has 42 MA's), (38, 27133), (54, 27028),

Gene: Iwokeuplikedis_37 Start: 27530, Stop: 27360, Start Num: 36

Candidate Starts for Iwokeuplikedis_37:

(12, 27749), (29, 27554), (Start: 36 @27530 has 85 MA's), (54, 27380),

Gene: JF2_35 Start: 26932, Stop: 26753, Start Num: 35
Candidate Starts for JF2_35:
(Start: 35 @26932 has 42 MA's), (38, 26884), (54, 26779),

Gene: JF4_35 Start: 26932, Stop: 26753, Start Num: 35
Candidate Starts for JF4_35:
(Start: 35 @26932 has 42 MA's), (38, 26884), (54, 26779),

Gene: JHC117_38 Start: 27902, Stop: 27720, Start Num: 34
Candidate Starts for JHC117_38:
(Start: 34 @27902 has 66 MA's), (38, 27851), (53, 27749), (54, 27746),

Gene: Jaan_40 Start: 29710, Stop: 29540, Start Num: 36
Candidate Starts for Jaan_40:
(Start: 36 @29710 has 85 MA's), (38, 29665), (49, 29587), (54, 29560),

Gene: JenCasNa_38 Start: 27903, Stop: 27721, Start Num: 34
Candidate Starts for JenCasNa_38:
(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: JeppNRM_38 Start: 27730, Stop: 27548, Start Num: 34
Candidate Starts for JeppNRM_38:
(Start: 34 @27730 has 66 MA's), (38, 27679), (53, 27577), (54, 27574),

Gene: Jerm_38 Start: 28272, Stop: 28102, Start Num: 36
Candidate Starts for Jerm_38:
(21, 28353), (Start: 36 @28272 has 85 MA's), (38, 28227), (49, 28149), (54, 28122),

Gene: Jobu08_37 Start: 27733, Stop: 27551, Start Num: 34
Candidate Starts for Jobu08_37:
(Start: 34 @27733 has 66 MA's), (38, 27682), (53, 27580), (54, 27577),

Gene: JoshKayV_38 Start: 28235, Stop: 28065, Start Num: 36
Candidate Starts for JoshKayV_38:
(21, 28316), (Start: 36 @28235 has 85 MA's), (54, 28085),

Gene: Journey13_34 Start: 26962, Stop: 26771, Start Num: 30
Candidate Starts for Journey13_34:
(Start: 30 @26962 has 4 MA's), (Start: 36 @26941 has 85 MA's), (53, 26794), (54, 26791),

Gene: Jsquared_36 Start: 26790, Stop: 26620, Start Num: 36
Candidate Starts for Jsquared_36:
(Start: 30 @26811 has 4 MA's), (Start: 36 @26790 has 85 MA's), (53, 26643), (54, 26640),

Gene: Kalb97_38 Start: 27731, Stop: 27549, Start Num: 34
Candidate Starts for Kalb97_38:
(Start: 34 @27731 has 66 MA's), (38, 27680), (53, 27578), (54, 27575),

Gene: Kalnoky_38 Start: 27732, Stop: 27550, Start Num: 34
Candidate Starts for Kalnoky_38:
(Start: 34 @27732 has 66 MA's), (38, 27681), (53, 27579), (54, 27576),

Gene: Kalpine_37 Start: 28631, Stop: 28461, Start Num: 36
Candidate Starts for Kalpine_37:
(Start: 36 @28631 has 85 MA's), (54, 28481),

Gene: Kamy_35 Start: 27323, Stop: 27150, Start Num: 35
Candidate Starts for Kamy_35:
(Start: 35 @27323 has 42 MA's), (38, 27275), (54, 27170),

Gene: Kerberos_39 Start: 27596, Stop: 27426, Start Num: 36
Candidate Starts for Kerberos_39:
(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: KingCyrus_39 Start: 29643, Stop: 29473, Start Num: 36
Candidate Starts for KingCyrus_39:
(21, 29724), (Start: 36 @29643 has 85 MA's), (38, 29598), (54, 29493),

Gene: Koduck_36 Start: 26767, Stop: 26597, Start Num: 36
Candidate Starts for Koduck_36:
(Start: 36 @26767 has 85 MA's), (49, 26644),

Gene: L5_36 Start: 26727, Stop: 26557, Start Num: 36
Candidate Starts for L5_36:
(Start: 36 @26727 has 85 MA's), (49, 26604), (54, 26577),

Gene: LBerry_38 Start: 27904, Stop: 27722, Start Num: 34
Candidate Starts for LBerry_38:
(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: LHTSCC_36 Start: 27659, Stop: 27486, Start Num: 35
Candidate Starts for LHTSCC_36:
(Start: 35 @27659 has 42 MA's), (38, 27611), (54, 27506),

Gene: Landor_38 Start: 29245, Stop: 29075, Start Num: 36
Candidate Starts for Landor_38:
(Start: 36 @29245 has 85 MA's), (38, 29200), (54, 29095),

Gene: Larenn_38 Start: 28329, Stop: 28159, Start Num: 36
Candidate Starts for Larenn_38:
(Start: 36 @28329 has 85 MA's), (38, 28284), (45, 28233), (49, 28206), (54, 28179),

Gene: LeoAvram_35 Start: 27321, Stop: 27148, Start Num: 35
Candidate Starts for LeoAvram_35:
(Start: 35 @27321 has 42 MA's), (38, 27273), (54, 27168),

Gene: Leogania_37 Start: 29148, Stop: 28978, Start Num: 36
Candidate Starts for Leogania_37:
(Start: 36 @29148 has 85 MA's), (54, 28998),

Gene: Leviathan_38 Start: 28328, Stop: 28158, Start Num: 36
Candidate Starts for Leviathan_38:
(21, 28409), (Start: 36 @28328 has 85 MA's), (38, 28283), (49, 28205), (54, 28178),

Gene: LilTurb_37 Start: 28161, Stop: 27991, Start Num: 36

Candidate Starts for LilTurb_37:

(21, 28242), (Start: 36 @28161 has 85 MA's), (38, 28116), (49, 28038), (54, 28011),

Gene: Lilith_38 Start: 27897, Stop: 27715, Start Num: 34

Candidate Starts for Lilith_38:

(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: LugYA_40 Start: 27904, Stop: 27722, Start Num: 34

Candidate Starts for LugYA_40:

(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: MA5_35 Start: 27064, Stop: 26885, Start Num: 35

Candidate Starts for MA5_35:

(Start: 35 @27064 has 42 MA's), (38, 27016), (54, 26911),

Gene: MK4_35 Start: 27166, Stop: 26987, Start Num: 35

Candidate Starts for MK4_35:

(Start: 35 @27166 has 42 MA's), (38, 27118), (54, 27013),

Gene: MadMarie_38 Start: 27906, Stop: 27724, Start Num: 34

Candidate Starts for MadMarie_38:

(Start: 34 @27906 has 66 MA's), (38, 27855), (53, 27753), (54, 27750),

Gene: Maih_44 Start: 36224, Stop: 36424, Start Num: 31

Candidate Starts for Maih_44:

(13, 36089), (15, 36110), (26, 36197), (28, 36203), (Start: 31 @36224 has 8 MA's), (38, 36284), (39, 36290), (41, 36299), (49, 36362), (50, 36377),

Gene: Mainiac_38 Start: 27897, Stop: 27715, Start Num: 34

Candidate Starts for Mainiac_38:

(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: Malec_39 Start: 28893, Stop: 28723, Start Num: 36

Candidate Starts for Malec_39:

(Start: 36 @28893 has 85 MA's), (54, 28743),

Gene: Malinsilva_40 Start: 27896, Stop: 27714, Start Num: 34

Candidate Starts for Malinsilva_40:

(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: Manu_38 Start: 27732, Stop: 27550, Start Num: 34

Candidate Starts for Manu_38:

(Start: 34 @27732 has 66 MA's), (38, 27681), (53, 27579), (54, 27576),

Gene: MarQuardt_38 Start: 27905, Stop: 27723, Start Num: 34

Candidate Starts for MarQuardt_38:

(Start: 34 @27905 has 66 MA's), (38, 27854), (53, 27752), (54, 27749),

Gene: Marie_38 Start: 27903, Stop: 27721, Start Num: 34

Candidate Starts for Marie_38:

(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: Marius_38 Start: 27732, Stop: 27550, Start Num: 34

Candidate Starts for Marius_38:
(Start: 34 @27732 has 66 MA's), (38, 27681), (53, 27579), (54, 27576),

Gene: Mask_83 Start: 58809, Stop: 59012, Start Num: 31
Candidate Starts for Mask_83:
(19, 58722), (Start: 31 @58809 has 8 MA's), (52, 58974),

Gene: Maxo_35 Start: 27323, Stop: 27150, Start Num: 35
Candidate Starts for Maxo_35:
(Start: 35 @27323 has 42 MA's), (38, 27275), (54, 27170),

Gene: Medusa_35 Start: 27323, Stop: 27150, Start Num: 35
Candidate Starts for Medusa_35:
(Start: 35 @27323 has 42 MA's), (38, 27275), (54, 27170),

Gene: Melvin_36 Start: 27322, Stop: 27149, Start Num: 35
Candidate Starts for Melvin_36:
(Start: 35 @27322 has 42 MA's), (38, 27274), (54, 27169),

Gene: Microwolf_38 Start: 27905, Stop: 27723, Start Num: 34
Candidate Starts for Microwolf_38:
(Start: 34 @27905 has 66 MA's), (38, 27854), (53, 27752), (54, 27749),

Gene: MiculUcigas_38 Start: 28157, Stop: 27987, Start Num: 36
Candidate Starts for MiculUcigas_38:
(Start: 36 @28157 has 85 MA's), (45, 28061), (48, 28043), (54, 28007),

Gene: Mischief19_54 Start: 46638, Stop: 46811, Start Num: 37
Candidate Starts for Mischief19_54:
(23, 46584), (26, 46596), (Start: 30 @46614 has 4 MA's), (Start: 31 @46620 has 8 MA's), (Start: 37 @46638 has 1 MA's), (42, 46695), (46, 46725), (50, 46764),

Gene: MissWhite_34 Start: 26128, Stop: 25958, Start Num: 36
Candidate Starts for MissWhite_34:
(32, 26140), (Start: 36 @26128 has 85 MA's), (54, 25978),

Gene: MoneyMay_38 Start: 27903, Stop: 27721, Start Num: 34
Candidate Starts for MoneyMay_38:
(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: Morrow_35 Start: 27327, Stop: 27154, Start Num: 35
Candidate Starts for Morrow_35:
(Start: 35 @27327 has 42 MA's), (38, 27279), (54, 27174),

Gene: MuchMore_40 Start: 27896, Stop: 27714, Start Num: 34
Candidate Starts for MuchMore_40:
(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: NaSiaTalie_38 Start: 28155, Stop: 27985, Start Num: 36
Candidate Starts for NaSiaTalie_38:
(Start: 36 @28155 has 85 MA's), (45, 28059), (48, 28041), (54, 28005),

Gene: Naji_39 Start: 27596, Stop: 27426, Start Num: 36

Candidate Starts for Naji_39:

(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: Nebs_35 Start: 27321, Stop: 27148, Start Num: 35

Candidate Starts for Nebs_35:

(Start: 35 @27321 has 42 MA's), (38, 27273), (54, 27168),

Gene: NicoleTera_39 Start: 28870, Stop: 28700, Start Num: 36

Candidate Starts for NicoleTera_39:

(Start: 36 @28870 has 85 MA's), (45, 28774), (54, 28720),

Gene: NothingSpecial_38 Start: 29153, Stop: 28983, Start Num: 36

Candidate Starts for NothingSpecial_38:

(20, 29249), (24, 29201), (Start: 36 @29153 has 85 MA's), (38, 29108), (41, 29093), (44, 29066), (54, 29003),

Gene: Obama12_36 Start: 27661, Stop: 27488, Start Num: 35

Candidate Starts for Obama12_36:

(Start: 35 @27661 has 42 MA's), (38, 27613), (54, 27508),

Gene: Odin_36 Start: 26579, Stop: 26409, Start Num: 36

Candidate Starts for Odin_36:

(Start: 36 @26579 has 85 MA's), (49, 26456), (54, 26429),

Gene: Ohfah_35 Start: 27321, Stop: 27148, Start Num: 35

Candidate Starts for Ohfah_35:

(Start: 35 @27321 has 42 MA's), (38, 27273), (54, 27168),

Gene: OlanP_37 Start: 27913, Stop: 27731, Start Num: 34

Candidate Starts for OlanP_37:

(Start: 34 @27913 has 66 MA's), (38, 27862), (41, 27847), (53, 27760), (54, 27757),

Gene: Ollie_38 Start: 27775, Stop: 27593, Start Num: 34

Candidate Starts for Ollie_38:

(Start: 34 @27775 has 66 MA's), (38, 27724), (53, 27622), (54, 27619),

Gene: P28Green_38 Start: 27906, Stop: 27724, Start Num: 34

Candidate Starts for P28Green_38:

(Start: 34 @27906 has 66 MA's), (38, 27855), (53, 27753), (54, 27750),

Gene: PGHhamlin_40 Start: 27896, Stop: 27714, Start Num: 34

Candidate Starts for PGHhamlin_40:

(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: Pawn_38 Start: 27733, Stop: 27551, Start Num: 34

Candidate Starts for Pawn_38:

(Start: 34 @27733 has 66 MA's), (38, 27682), (53, 27580), (54, 27577),

Gene: Pembroke_38 Start: 27905, Stop: 27723, Start Num: 34

Candidate Starts for Pembroke_38:

(Start: 34 @27905 has 66 MA's), (38, 27854), (53, 27752), (54, 27749),

Gene: Penny1_38 Start: 27904, Stop: 27722, Start Num: 34

Candidate Starts for Penny1_38:
(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: Ph8s_38 Start: 26829, Stop: 26659, Start Num: 36
Candidate Starts for Ph8s_38:
(27, 26871), (Start: 36 @26829 has 85 MA's), (49, 26706), (54, 26679),

Gene: Phaded_41 Start: 29586, Stop: 29416, Start Num: 36
Candidate Starts for Phaded_41:
(Start: 36 @29586 has 85 MA's), (54, 29436),

Gene: Phantastic_35 Start: 27197, Stop: 27018, Start Num: 35
Candidate Starts for Phantastic_35:
(Start: 35 @27197 has 42 MA's), (38, 27149), (54, 27044),

Gene: Pharaoh_35 Start: 28307, Stop: 28137, Start Num: 36
Candidate Starts for Pharaoh_35:
(Start: 36 @28307 has 85 MA's), (45, 28211), (54, 28157),

Gene: Phelipe_35 Start: 27324, Stop: 27151, Start Num: 35
Candidate Starts for Phelipe_35:
(Start: 35 @27324 has 42 MA's), (38, 27276), (54, 27171),

Gene: PhishRPhriends_36 Start: 26910, Stop: 26728, Start Num: 34
Candidate Starts for PhishRPhriends_36:
(Start: 34 @26910 has 66 MA's), (38, 26859), (53, 26757), (54, 26754),

Gene: Phoebe_38 Start: 27896, Stop: 27714, Start Num: 34
Candidate Starts for Phoebe_38:
(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: Phranny_38 Start: 27718, Stop: 27536, Start Num: 34
Candidate Starts for Phranny_38:
(Start: 34 @27718 has 66 MA's), (38, 27667), (53, 27565), (54, 27562),

Gene: Piro94_37 Start: 28335, Stop: 28165, Start Num: 36
Candidate Starts for Piro94_37:
(Start: 36 @28335 has 85 MA's), (41, 28275), (45, 28239), (54, 28185),

Gene: Pistachio_36 Start: 26959, Stop: 26780, Start Num: 35
Candidate Starts for Pistachio_36:
(Start: 35 @26959 has 42 MA's), (38, 26911), (54, 26806),

Gene: Polymorphads_35 Start: 27320, Stop: 27147, Start Num: 35
Candidate Starts for Polymorphads_35:
(Start: 35 @27320 has 42 MA's), (38, 27272), (54, 27167),

Gene: Pomar16_39 Start: 27637, Stop: 27467, Start Num: 36
Candidate Starts for Pomar16_39:
(Start: 36 @27637 has 85 MA's), (38, 27592), (41, 27577), (45, 27541), (54, 27487),

Gene: PotatoSplit_39 Start: 27904, Stop: 27722, Start Num: 34
Candidate Starts for PotatoSplit_39:

(Start: 34 @27904 has 66 MA's), (38, 27853), (53, 27751), (54, 27748),

Gene: Power_36 Start: 27944, Stop: 27774, Start Num: 36

Candidate Starts for Power_36:

(Start: 36 @27944 has 85 MA's), (54, 27794),

Gene: Pukovnik_37 Start: 28796, Stop: 28626, Start Num: 36

Candidate Starts for Pukovnik_37:

(Start: 36 @28796 has 85 MA's), (38, 28751), (54, 28646),

Gene: Puppy_36 Start: 27029, Stop: 26850, Start Num: 35

Candidate Starts for Puppy_36:

(Start: 35 @27029 has 42 MA's), (38, 26981), (54, 26876),

Gene: PurpleHaze_37 Start: 27731, Stop: 27549, Start Num: 34

Candidate Starts for PurpleHaze_37:

(Start: 34 @27731 has 66 MA's), (38, 27680), (53, 27578), (54, 27575),

Gene: QueenB2_37 Start: 28005, Stop: 27835, Start Num: 36

Candidate Starts for QueenB2_37:

(21, 28086), (Start: 36 @28005 has 85 MA's), (54, 27855),

Gene: QueenBeesly_37 Start: 27891, Stop: 27721, Start Num: 36

Candidate Starts for QueenBeesly_37:

(Start: 36 @27891 has 85 MA's), (54, 27741),

Gene: RainyPolka_46 Start: 36213, Stop: 36413, Start Num: 31

Candidate Starts for RainyPolka_46:

(2, 35130), (5, 35190), (6, 35304), (7, 35325), (8, 35373), (9, 35616), (10, 35676), (11, 35865), (17, 36117), (26, 36186), (28, 36192), (Start: 31 @36213 has 8 MA's), (38, 36273), (39, 36279), (41, 36288), (49, 36351), (50, 36366), (56, 36402),

Gene: Reba_38 Start: 27391, Stop: 27209, Start Num: 34

Candidate Starts for Reba_38:

(Start: 34 @27391 has 66 MA's), (38, 27340), (53, 27238), (54, 27235),

Gene: Retro23_38 Start: 28289, Stop: 28119, Start Num: 36

Candidate Starts for Retro23_38:

(21, 28370), (Start: 36 @28289 has 85 MA's), (54, 28139),

Gene: Rockstar_35 Start: 27173, Stop: 26994, Start Num: 35

Candidate Starts for Rockstar_35:

(Start: 35 @27173 has 42 MA's), (38, 27125), (54, 27020),

Gene: Sabia_38 Start: 27897, Stop: 27715, Start Num: 34

Candidate Starts for Sabia_38:

(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: Sabinator_37 Start: 27902, Stop: 27720, Start Num: 34

Candidate Starts for Sabinator_37:

(Start: 34 @27902 has 66 MA's), (38, 27851), (53, 27749), (54, 27746),

Gene: Saletе_45 Start: 36222, Stop: 36422, Start Num: 31

Candidate Starts for Salete_45:

(13, 36087), (15, 36108), (26, 36195), (28, 36201), (Start: 31 @36222 has 8 MA's), (38, 36282), (39, 36288), (41, 36297), (49, 36360), (50, 36375),

Gene: SaturnRing_35 Start: 27412, Stop: 27233, Start Num: 35

Candidate Starts for SaturnRing_35:

(Start: 35 @27412 has 42 MA's), (38, 27364), (54, 27259),

Gene: Scout_35 Start: 26719, Stop: 26540, Start Num: 35

Candidate Starts for Scout_35:

(Start: 35 @26719 has 42 MA's), (38, 26671), (54, 26566),

Gene: SemperFi_38 Start: 28159, Stop: 27989, Start Num: 36

Candidate Starts for SemperFi_38:

(Start: 36 @28159 has 85 MA's), (54, 28009),

Gene: Serenity_37 Start: 26863, Stop: 26672, Start Num: 30

Candidate Starts for Serenity_37:

(16, 26986), (Start: 30 @26863 has 4 MA's), (Start: 36 @26842 has 85 MA's), (53, 26695), (54, 26692),

Gene: SheldonCooper_36 Start: 27660, Stop: 27487, Start Num: 35

Candidate Starts for SheldonCooper_36:

(Start: 35 @27660 has 42 MA's), (38, 27612), (54, 27507),

Gene: Smeagan_39 Start: 28415, Stop: 28245, Start Num: 36

Candidate Starts for Smeagan_39:

(21, 28496), (Start: 36 @28415 has 85 MA's), (38, 28370), (49, 28292), (54, 28265),

Gene: SnapTap_37 Start: 27970, Stop: 27800, Start Num: 36

Candidate Starts for SnapTap_37:

(Start: 36 @27970 has 85 MA's), (54, 27820),

Gene: Snickers_38 Start: 27877, Stop: 27695, Start Num: 34

Candidate Starts for Snickers_38:

(Start: 34 @27877 has 66 MA's), (38, 27826), (53, 27724), (54, 27721),

Gene: SoYo_38 Start: 27815, Stop: 27633, Start Num: 34

Candidate Starts for SoYo_38:

(Start: 34 @27815 has 66 MA's), (38, 27764), (53, 27662), (54, 27659),

Gene: SoilDragon_37 Start: 27349, Stop: 27167, Start Num: 34

Candidate Starts for SoilDragon_37:

(Start: 34 @27349 has 66 MA's), (38, 27298), (53, 27196), (54, 27193),

Gene: Sparxx_35 Start: 27322, Stop: 27149, Start Num: 35

Candidate Starts for Sparxx_35:

(Start: 35 @27322 has 42 MA's), (38, 27274), (54, 27169),

Gene: Stagni_38 Start: 27906, Stop: 27724, Start Num: 34

Candidate Starts for Stagni_38:

(Start: 34 @27906 has 66 MA's), (38, 27855), (53, 27753), (54, 27750),

Gene: StarStuff_39 Start: 27599, Stop: 27429, Start Num: 36
Candidate Starts for StarStuff_39:
(Start: 36 @27599 has 85 MA's), (38, 27554), (41, 27539), (45, 27503), (54, 27449),

Gene: StepMih_38 Start: 27897, Stop: 27715, Start Num: 34
Candidate Starts for StepMih_38:
(Start: 34 @27897 has 66 MA's), (38, 27846), (53, 27744), (54, 27741),

Gene: Superchunk_36 Start: 26412, Stop: 26242, Start Num: 36
Candidate Starts for Superchunk_36:
(Start: 36 @26412 has 85 MA's), (49, 26289), (54, 26262),

Gene: SweetiePie_37 Start: 27970, Stop: 27800, Start Num: 36
Candidate Starts for SweetiePie_37:
(Start: 36 @27970 has 85 MA's), (54, 27820),

Gene: SwirlSquare_39 Start: 26439, Stop: 26269, Start Num: 36
Candidate Starts for SwirlSquare_39:
(Start: 36 @26439 has 85 MA's), (45, 26343),

Gene: TNguyen7_35 Start: 27376, Stop: 27197, Start Num: 35
Candidate Starts for TNguyen7_35:
(Start: 35 @27376 has 42 MA's), (38, 27328), (54, 27223),

Gene: TP1604_45 Start: 36228, Stop: 36428, Start Num: 31
Candidate Starts for TP1604_45:
(13, 36093), (15, 36114), (26, 36201), (28, 36207), (Start: 31 @36228 has 8 MA's), (38, 36288), (39, 36294), (41, 36303), (49, 36366), (50, 36381),

Gene: TarsusIV_37 Start: 28077, Stop: 27907, Start Num: 36
Candidate Starts for TarsusIV_37:
(Start: 36 @28077 has 85 MA's), (47, 27975), (54, 27927),

Gene: Taurus_38 Start: 27903, Stop: 27721, Start Num: 34
Candidate Starts for Taurus_38:
(Start: 34 @27903 has 66 MA's), (38, 27852), (53, 27750), (54, 27747),

Gene: Tiffany_38 Start: 27789, Stop: 27607, Start Num: 34
Candidate Starts for Tiffany_38:
(Start: 34 @27789 has 66 MA's), (38, 27738), (53, 27636), (54, 27633),

Gene: TinaFeyge_35 Start: 27319, Stop: 27146, Start Num: 35
Candidate Starts for TinaFeyge_35:
(Start: 35 @27319 has 42 MA's), (38, 27271), (54, 27166),

Gene: TipsytheTRex_35 Start: 27089, Stop: 26898, Start Num: 30
Candidate Starts for TipsytheTRex_35:
(16, 27212), (Start: 30 @27089 has 4 MA's), (Start: 36 @27068 has 85 MA's), (41, 27008), (54, 26918),

Gene: Tomathan_39 Start: 27596, Stop: 27426, Start Num: 36
Candidate Starts for Tomathan_39:
(Start: 36 @27596 has 85 MA's), (38, 27551), (41, 27536), (45, 27500), (54, 27446),

Gene: Trixie_37 Start: 28496, Stop: 28326, Start Num: 36

Candidate Starts for Trixie_37:

(Start: 36 @28496 has 85 MA's), (54, 28346),

Gene: Trooper_39 Start: 28311, Stop: 28141, Start Num: 36

Candidate Starts for Trooper_39:

(Start: 36 @28311 has 85 MA's), (54, 28161),

Gene: TroyPia_35 Start: 27322, Stop: 27149, Start Num: 35

Candidate Starts for TroyPia_35:

(Start: 35 @27322 has 42 MA's), (38, 27274), (54, 27169),

Gene: Turbido_37 Start: 28155, Stop: 27985, Start Num: 36

Candidate Starts for Turbido_37:

(21, 28236), (Start: 36 @28155 has 85 MA's), (38, 28110), (47, 28053), (49, 28032), (54, 28005),

Gene: Updawg_39 Start: 28486, Stop: 28316, Start Num: 36

Candidate Starts for Updawg_39:

(Start: 36 @28486 has 85 MA's), (45, 28390), (49, 28363), (54, 28336),

Gene: VA6_36 Start: 27677, Stop: 27507, Start Num: 36

Candidate Starts for VA6_36:

(Start: 36 @27677 has 85 MA's), (38, 27632), (41, 27617), (45, 27581), (54, 27527),

Gene: VC3_39 Start: 27665, Stop: 27495, Start Num: 36

Candidate Starts for VC3_39:

(Start: 36 @27665 has 85 MA's), (38, 27620), (41, 27605), (45, 27569), (54, 27515),

Gene: Vix_38 Start: 27986, Stop: 27804, Start Num: 34

Candidate Starts for Vix_38:

(Start: 34 @27986 has 66 MA's), (38, 27935), (53, 27833), (54, 27830),

Gene: Watson_38 Start: 27896, Stop: 27714, Start Num: 34

Candidate Starts for Watson_38:

(Start: 34 @27896 has 66 MA's), (38, 27845), (53, 27743), (54, 27740),

Gene: WeiHuaDA_42 Start: 29572, Stop: 29402, Start Num: 36

Candidate Starts for WeiHuaDA_42:

(Start: 36 @29572 has 85 MA's), (45, 29476), (54, 29422),

Gene: Whabigail7_37 Start: 28143, Stop: 27973, Start Num: 36

Candidate Starts for Whabigail7_37:

(21, 28224), (Start: 36 @28143 has 85 MA's), (38, 28098), (49, 28020), (54, 27993),

Gene: WideWale_39 Start: 28486, Stop: 28316, Start Num: 36

Candidate Starts for WideWale_39:

(Start: 36 @28486 has 85 MA's), (45, 28390), (49, 28363), (54, 28336),

Gene: Wooldri_40 Start: 27815, Stop: 27633, Start Num: 34

Candidate Starts for Wooldri_40:

(Start: 34 @27815 has 66 MA's), (38, 27764), (53, 27662), (54, 27659),

Gene: XianYue_37 Start: 27771, Stop: 27601, Start Num: 36
Candidate Starts for XianYue_37:
(Start: 36 @27771 has 85 MA's), (54, 27621),

Gene: Xkcd426_49 Start: 42349, Stop: 42552, Start Num: 31
Candidate Starts for Xkcd426_49:
(22, 42310), (26, 42322), (Start: 31 @42349 has 8 MA's), (40, 42424), (41, 42427), (49, 42490), (51, 42508), (55, 42523),

Gene: YDN12_47 Start: 35929, Stop: 36120, Start Num: 33
Candidate Starts for YDN12_47:
(1, 34729), (2, 34837), (5, 34897), (6, 35011), (7, 35032), (8, 35080), (9, 35323), (10, 35383), (11, 35572), (17, 35824), (26, 35893), (28, 35899), (Start: 31 @35920 has 8 MA's), (Start: 33 @35929 has 2 MA's), (38, 35980), (39, 35986), (41, 35995), (49, 36058), (51, 36076),

Gene: Yecey3_38 Start: 27629, Stop: 27459, Start Num: 36
Candidate Starts for Yecey3_38:
(Start: 36 @27629 has 85 MA's), (53, 27482), (54, 27479),

Gene: Zetzy_37 Start: 27467, Stop: 27285, Start Num: 34
Candidate Starts for Zetzy_37:
(Start: 34 @27467 has 66 MA's), (38, 27416), (53, 27314), (54, 27311),

Gene: Zimmer_38 Start: 29474, Stop: 29304, Start Num: 36
Candidate Starts for Zimmer_38:
(Start: 31 @29492 has 8 MA's), (Start: 36 @29474 has 85 MA's), (49, 29351), (50, 29336), (54, 29324),