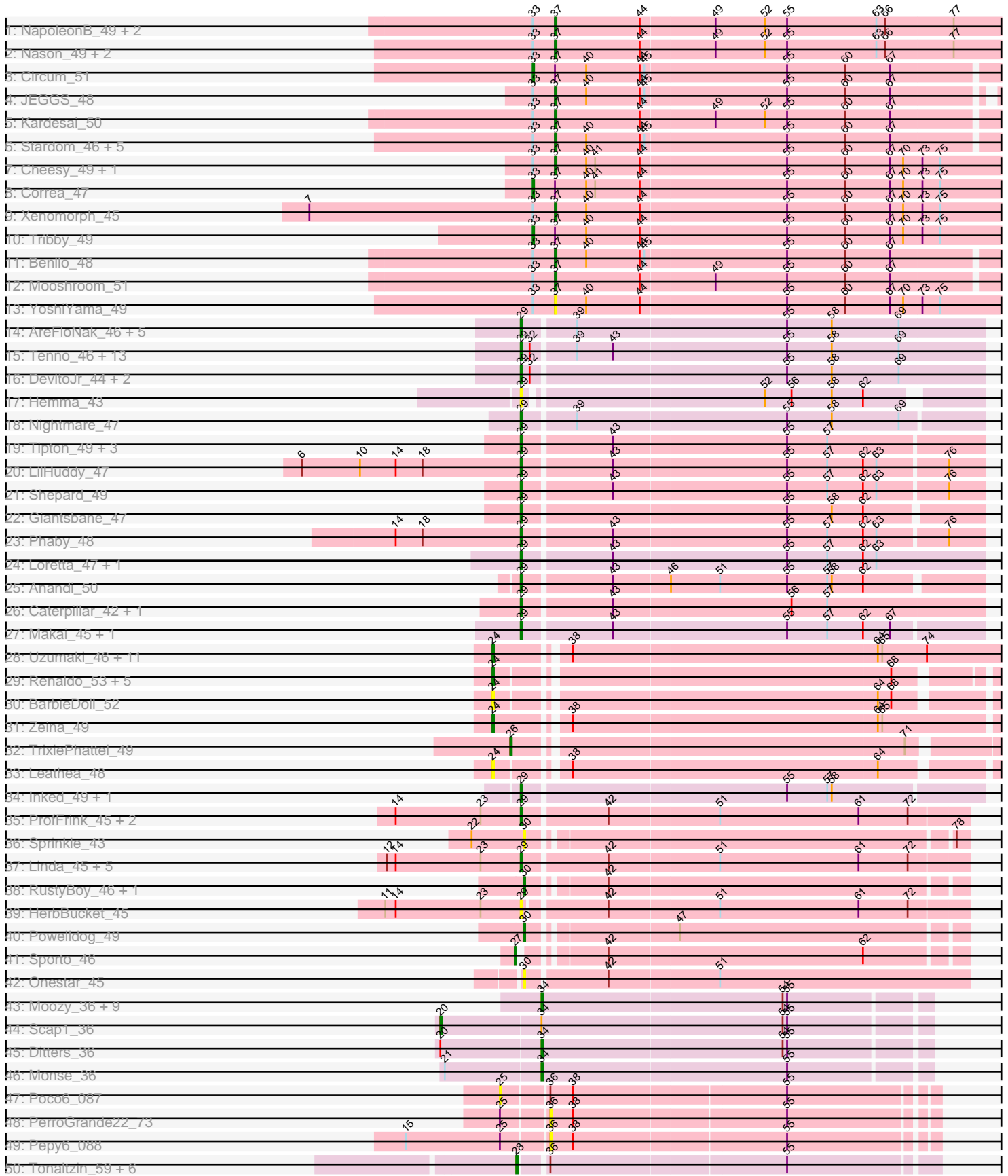
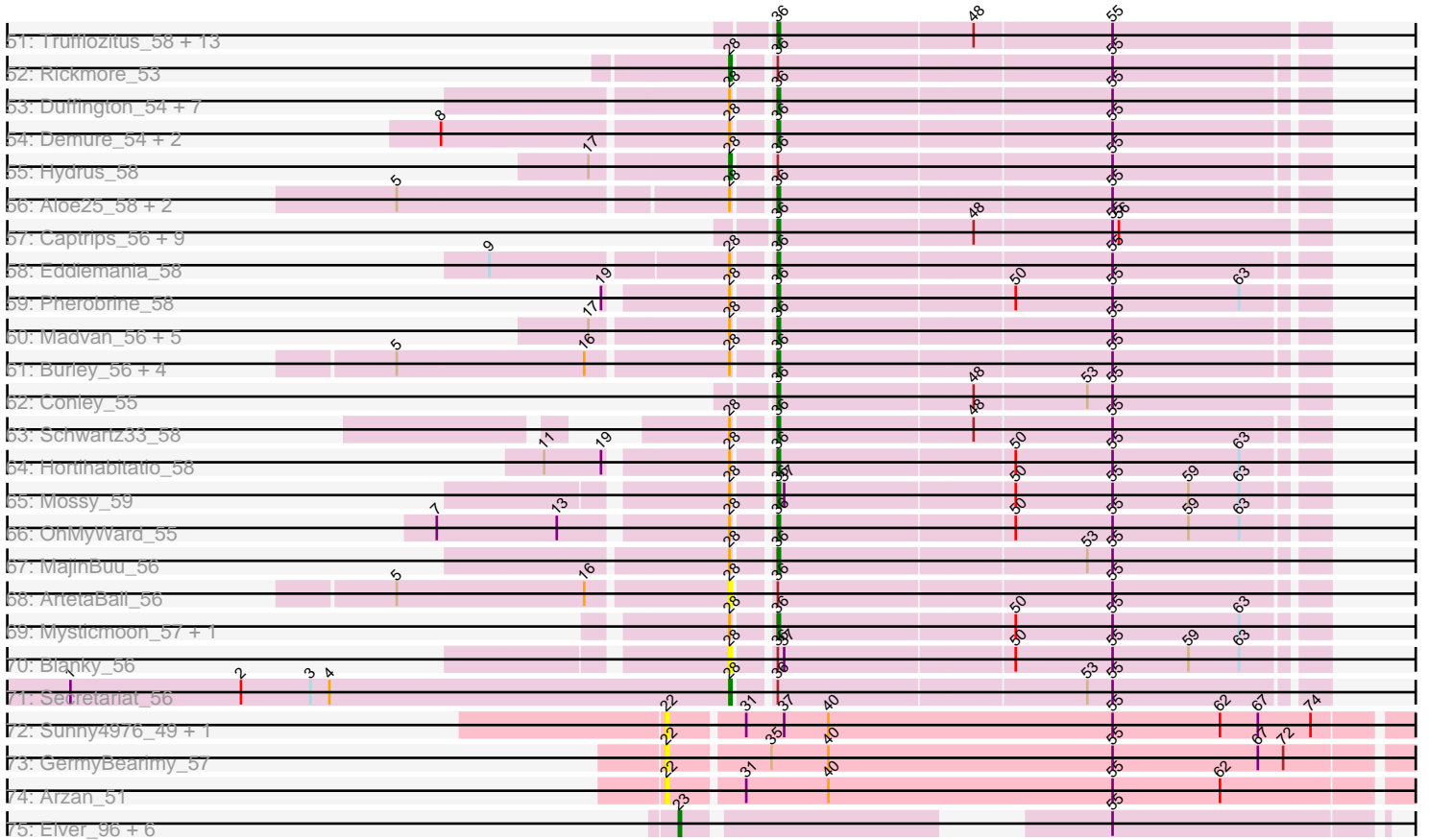


Pham 311244



Pham 311244



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 311244 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311244 has 201 members, 48 are drafts.

Phages represented in each track:

- Track 1 : NapoleonB_49, BenitoAntonio_49, Dynamite_49
- Track 2 : Nason_49, Elsa_49, Arcadia_49
- Track 3 : Circum_51
- Track 4 : JEGGS_48
- Track 5 : Kardesai_50
- Track 6 : Stardom_46, KeaneyLin_48, GoCrazy_48, Mudcat_46, Hankly_48, Heisenberger_48
- Track 7 : Cheesy_49, Bowling_49
- Track 8 : Correa_47
- Track 9 : Xenomorph_45
- Track 10 : Tribby_49
- Track 11 : Benllo_48
- Track 12 : Mooshroom_51
- Track 13 : YoshiYama_49
- Track 14 : AreFloNak_46, Nivinsha_46, Gordon_43, Breylor17_46, Darby_44, CastorTray_48
- Track 15 : Tenno_46, Teacup_46, Niktson_45, CapnMurica_43, Acai_47, Synopsis_44, Westerlin_45, ElephantMan_45, Tatanka_44, Issa_45, Dinallo_45, Brunswick_46, LucySwiss_46, MiniBagel_45
- Track 16 : DevitoJr_44, ScienceWizSam_46, Trustiboi_45
- Track 17 : Hemma_43
- Track 18 : Nightmare_47
- Track 19 : Tipton_49, Chlochlo_47, Bouchard_46, Tokki_50
- Track 20 : LilHuddy_47
- Track 21 : Shepard_49
- Track 22 : Giantsbane_47
- Track 23 : Phaby_48
- Track 24 : Loretta_47, Ingrid_47
- Track 25 : Anandi_50
- Track 26 : Caterpillar_42, MediumFry_43
- Track 27 : Makai_45, Truckee_43
- Track 28 : Uzumaki_46, Stardrop_48, Phaila_50, PoeMe_48, Altjira_50, Navi1117_50, Argan_47, Tenney120_49, GantcherGoblin_47, KevinMinion_48, Mardi_48, BlackHoleSun_50
- Track 29 : Renaldo_53, Muglass_50, Kinny_51, Lewando_50, Biscute_48, Barbonzobean_53
- Track 30 : BarbieDoll_52

- Track 31 : Zeina_49
- Track 32 : TrixiePhattel_49
- Track 33 : Leathea_48
- Track 34 : Inked_49, Zippen_47
- Track 35 : ProfFrink_45, Boog_44, Jeremy4pt0_44
- Track 36 : Sprinkle_43
- Track 37 : Linda_45, Djungelskog_45, Raunak_48, BronxBay_45, MrAaronian_45, Spain_48
- Track 38 : RustyBoy_46, Natasha_46
- Track 39 : HerbBucket_45
- Track 40 : Powelldog_49
- Track 41 : Sporto_46
- Track 42 : Onestar_45
- Track 43 : Moozy_36, Bilo_35, GoblinVoyage_37, Sangak_35, Doxi13_37, RavenPuff_36, SheRa_37, PherryCruz_36, Annihilus_37, HotFries_36
- Track 44 : Scap1_36
- Track 45 : Ditters_36
- Track 46 : Monse_36
- Track 47 : Poco6_087
- Track 48 : PerroGrande22_73
- Track 49 : Pepy6_088
- Track 50 : Tonaltzin_59, TenaciousP_56, EndAve_57, Citrus_55, Luthien_58, Glintora_57, Figliar_54
- Track 51 : Trufflozitus_58, SweetCrkHerbs_58, Football_59, FortCran_57, Tairn4Wing_59, Perkunas_58, Dancer_57, Petite_58, JulesRay_57, Talon44_58, ChickyNuggy_59, Bugg_59, Avazak_58, Artorias_57
- Track 52 : Rickmore_53
- Track 53 : Duffington_54, Chikenjars_54, Aflac_55, AlainaMarie_55, OlgasClover_57, Nithya_56, Jodelie19_55, BluerMoon_54
- Track 54 : Demure_54, Untouchable_58, Arataki_55
- Track 55 : Hydrus_58
- Track 56 : Aloe25_58, Gusicorn_57, PestoPenguin_59
- Track 57 : Captrips_56, Gravy_56, Odesza_56, Roney_57, Tanis_57, Capybara_57, Gill_57, NoPickles_56, Magel_58, Kerry_56
- Track 58 : Eddiemania_58
- Track 59 : Pherobrine_58
- Track 60 : Madvan_56, CWormy_55, Phepper_57, Dialga_56, Kenosha_55, Zeph_58
- Track 61 : Burley_56, Nadmeg_57, Vardy_55, Runhaar_56, Crocheter_56
- Track 62 : Conley_55
- Track 63 : Schwartz33_58
- Track 64 : Hortihabitatio_58
- Track 65 : Mossy_59
- Track 66 : OhMyWard_55
- Track 67 : MajinBuu_56
- Track 68 : ArtetaBall_56
- Track 69 : Mysticmoon_57, Fazel_57
- Track 70 : Blanky_56
- Track 71 : Secretariat_56
- Track 72 : Sunny4976_49, Jazzy4900_50
- Track 73 : GermyBearimy_57
- Track 74 : Arzan_51

- Track 75 : Elver_96, JeNeSaisPas_91, Gandionco_93, Kureo_95, Paella_97, Qui_97, Marianna39_94

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 49 of the 153 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aflac_55, AlainaMarie_55, Aloe25_58, Arataki_55, Artorias_57, Avazak_58, BluerMoon_54, Bugg_59, Burley_56, CWormy_55, Captrips_56, Copybara_57, ChickyNuggy_59, Chikenjars_54, Conley_55, Crocheter_56, Dancer_57, Demure_54, Dialga_56, Duffington_54, Eddiemania_58, Fazel_57, Football_59, FortCran_57, Gill_57, Gravy_56, Gusicorn_57, Hortihabitatio_58, Jodelie19_55, JulesRay_57, Kenosha_55, Kerry_56, Madvan_56, Magel_58, MajinBuu_56, Mossy_59, Mysticmoon_57, Nadmeg_57, Nithya_56, NoPickles_56, Odesza_56, OhMyWard_55, OlgasClover_57, Pepy6_088, Perkunas_58, PerroGrande22_73, PestoPenguin_59, Petite_58, Phepper_57, Pherobrine_58, Roney_57, Runhaar_56, Schwartz33_58, SweetCrkHerbs_58, Tairn4Wing_59, Talon44_58, Tanis_57, Trufflozitus_58, Untouchable_58, Vardy_55, Zeph_58,

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

- ArtetaBall_56, Blanky_56, Citrus_55, EndAve_57, Figliar_54, Glintora_57, Hydrus_58, Luthien_58, Poco6_087, Rickmore_53, Secretariat_56, TenaciousP_56, Tonaltzin_59,

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

- Acai_47, Altjira_50, Anandi_50, Annihilus_37, Arcadia_49, AreFloNak_46, Argan_47, Arzan_51, BarbieDoll_52, Barbonzobean_53, BenitoAntonio_49, Benllo_48, Bilo_35, Biscute_48, BlackHoleSun_50, Boog_44, Bouchard_46, Bowling_49, Breylor17_46, BronxBay_45, Brunswick_46, CapnMurica_43, CastorTray_48, Caterpillar_42, Cheesy_49, Chlochlo_47, Circum_51, Correa_47, Darby_44, DevitoJr_44, Dinallo_45, Ditters_36, Djungelskog_45, Doxi13_37, Dynamite_49, ElephantMan_45, Elsa_49, Elver_96, Gandionco_93, GantcherGoblin_47, GermyBearimy_57, Giantsbane_47, GoCrazy_48, GoblinVoyage_37, Gordon_43, Hankly_48, Heisenberger_48, Hemma_43, HerbBucket_45, HotFries_36, Ingrid_47, Inked_49, Issa_45, JEGGS_48, Jazzy4900_50, JeNeSaisPas_91, Jeremy4pt0_44, Kardesai_50, KeaneyLin_48, KevinMinion_48, Kinny_51, Kureo_95, Leathea_48, Lewando_50, LilHuddy_47, Linda_45, Loretta_47, LucySwiss_46, Makai_45, Mardi_48, Marianna39_94, MediumFry_43, MiniBagel_45, Monse_36, Mooshroom_51, Moozy_36, MrAaronian_45, Mudcat_46, Muglass_50, NapoleonB_49, Nason_49, Natasha_46, Navi1117_50, Nightmare_47, Niktson_45, Nivinsha_46, Onestar_45, Paella_97, Phaby_48, Phaila_50, PherryCruz_36, PoeMe_48, PowellDog_49, ProfFrink_45, Qui_97, Raunak_48, RavenPuff_36, Renaldo_53, RustyBoy_46, Sangak_35, Scap1_36, ScienceWizSam_46, SheRa_37, Shepard_49, Spain_48, Sporto_46, Sprinkle_43, Stardom_46, Stardrop_48, Sunny4976_49, Synopsis_44, Tatanka_44, Teacup_46, Tenney120_49, Tenno_46, Tipton_49, Tokki_50, Tribby_49, TrixiePhattel_49, Truckee_43, Trustiboi_45, Uzumaki_46, Westerlin_45, Xenomorph_45, YoshiYama_49, Zeina_49, Zippen_47,

Summary by start number:

Start 20:

- Found in 2 of 201 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 153
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Scap1_36 (BI2),

Start 22:

- Found in 5 of 201 (2.5%) of genes in pham
- No Manual Annotations of this start.
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Arzan_51 (FI), GermyBearimy_57 (FI), Jazzy4900_50 (FI), Sunny4976_49 (FI),

Start 23:

- Found in 17 of 201 (8.5%) of genes in pham
- Manual Annotations of this start: 3 of 153
- Called 41.2% of time when present
- Phage (with cluster) where this start called: Elver_96 (FK), Gandionco_93 (FK), JeNeSaisPas_91 (FK), Kureo_95 (FK), Marianna39_94 (FK), Paella_97 (FK), Qui_97 (FK),

Start 24:

- Found in 21 of 201 (10.4%) of genes in pham
- Manual Annotations of this start: 13 of 153
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altjira_50 (AU6), Argan_47 (AU6), BarbieDoll_52 (AU6), Barbonzobean_53 (AU6), Biscute_48 (AU6), BlackHoleSun_50 (AU6), GantcherGoblin_47 (AU6), KevinMinion_48 (AU6), Kinny_51 (AU6), Leathea_48 (AU6), Lewando_50 (AU6), Mardi_48 (AU6), Muglass_50 (AU6), Navi1117_50 (AU6), Phaila_50 (AU6), PoeMe_48 (AU6), Renaldo_53 (AU6), Stardrop_48 (AU6), Tenney120_49 (AU6), Uzumaki_46 (AU6), Zeina_49 (AU6),

Start 25:

- Found in 3 of 201 (1.5%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Poco6_087 (CC),

Start 26:

- Found in 1 of 201 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 153
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TrixiePhattel_49 (AU6),

Start 27:

- Found in 1 of 201 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 153
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sporto_46 (AW),

Start 28:

- Found in 46 of 201 (22.9%) of genes in pham
- Manual Annotations of this start: 7 of 153
- Called 26.1% of time when present
- Phage (with cluster) where this start called: ArtetaBall_56 (DJ), Blanky_56 (DJ), Citrus_55 (DJ), EndAve_57 (DJ), Figliar_54 (DJ), Glintora_57 (DJ), Hydrus_58 (DJ), Luthien_58 (DJ), Rickmore_53 (DJ), Secretariat_56 (DJ), TenaciousP_56 (DJ), Tonaltzin_59 (DJ),

Start 29:

- Found in 52 of 201 (25.9%) of genes in pham
- Manual Annotations of this start: 43 of 153
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acai_47 (AU1), Anandi_50 (AU4), AreFloNak_46 (AU1), Boog_44 (AW), Bouchard_46 (AU2), Breylor17_46 (AU1), BronxBay_45 (AW), Brunswick_46 (AU1), CapnMurica_43 (AU1), CastorTray_48 (AU1), Caterpillar_42 (AU4), Chlochlo_47 (AU2), Darby_44 (AU1), DevitoJr_44 (AU1), Dinallo_45 (AU1), Djungelskog_45 (AW), ElephantMan_45 (AU1), Giantsbane_47 (AU2), Gordon_43 (AU1), Hemma_43 (AU1), HerbBucket_45 (AW), Ingrid_47 (AU3), Inked_49 (AU7), Issa_45 (AU1), Jeremy4pt0_44 (AW), LilHuddy_47 (AU2), Linda_45 (AW), Loretta_47 (AU3), LucySwiss_46 (AU1), Makai_45 (AU5), MediumFry_43 (AU4), MiniBagel_45 (AU1), MrAaronian_45 (AW), Nightmare_47 (AU1), Niktson_45 (AU1), Nivinsha_46 (AU1), Phaby_48 (AU2), ProfFrink_45 (AW), Raunak_48 (AW), ScienceWizSam_46 (AU1), Shepard_49 (AU2), Spain_48 (AW), Synopsis_44 (AU1), Tatanka_44 (AU1), Teacup_46 (AU1), Tenno_46 (AU1), Tipton_49 (AU2), Tokki_50 (AU2), Truckee_43 (AU5), Trustiboi_45 (AU1), Westerlin_45 (AU1), Zippen_47 (AU7),

Start 30:

- Found in 5 of 201 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 153
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Natasha_46 (AW), Onestar_45 (AW), PowellDog_49 (AW), RustyBoy_46 (AW), Sprinkle_43 (AW),

Start 33:

- Found in 23 of 201 (11.4%) of genes in pham
- Manual Annotations of this start: 3 of 153
- Called 13.0% of time when present
- Phage (with cluster) where this start called: Circum_51 (AM), Correa_47 (AM), Tribby_49 (AM),

Start 34:

- Found in 13 of 201 (6.5%) of genes in pham
- Manual Annotations of this start: 11 of 153
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Annihilus_37 (BI2), Bilo_35 (BI2), Ditters_36 (BI2), Doxi13_37 (BI2), GoblinVoyage_37 (BI2), HotFries_36 (BI2), Monse_36 (BI2), Moozy_36 (BI2), PherryCruz_36 (BI2), RavenPuff_36 (BI2), Sangak_35 (BI2), SheRa_37 (BI2),

Start 36:

- Found in 74 of 201 (36.8%) of genes in pham

- Manual Annotations of this start: 49 of 153
- Called 82.4% of time when present
- Phage (with cluster) where this start called: Aflac_55 (DJ), AlainaMarie_55 (DJ), Aloe25_58 (DJ), Arataki_55 (DJ), Artorias_57 (DJ), Avazak_58 (DJ), BluerMoon_54 (DJ), Bugg_59 (DJ), Burley_56 (DJ), CWormy_55 (DJ), Captrips_56 (DJ), Capybara_57 (DJ), ChickyNuggy_59 (DJ), Chikenjars_54 (DJ), Conley_55 (DJ), Crocheter_56 (DJ), Dancer_57 (DJ), Demure_54 (DJ), Dialga_56 (DJ), Duffington_54 (DJ), Eddiemania_58 (DJ), Fazel_57 (DJ), Football_59 (DJ), FortCran_57 (DJ), Gill_57 (DJ), Gravy_56 (DJ), Gusicorn_57 (DJ), Hortihabitatio_58 (DJ), Jodelie19_55 (DJ), JulesRay_57 (DJ), Kenosha_55 (DJ), Kerry_56 (DJ), Madvan_56 (DJ), Magel_58 (DJ), MajinBuu_56 (DJ), Mossy_59 (DJ), Mysticmoon_57 (DJ), Nadmeg_57 (DJ), Nithya_56 (DJ), NoPickles_56 (DJ), Odesza_56 (DJ), OhMyWard_55 (DJ), OlgasClover_57 (DJ), Pepy6_088 (CC), Perkunas_58 (DJ), PerroGrande22_73 (CC), PestoPenguin_59 (DJ), Petite_58 (DJ), Phepper_57 (DJ), Pherobrine_58 (DJ), Roney_57 (DJ), Runhaar_56 (DJ), Schwartz33_58 (DJ), SweetCrkHerbs_58 (DJ), Tairn4Wing_59 (DJ), Talon44_58 (DJ), Tanis_57 (DJ), Trufflozitus_58 (DJ), Untouchable_58 (DJ), Vardy_55 (DJ), Zeph_58 (DJ),

Start 37:

- Found in 27 of 201 (13.4%) of genes in pham
- Manual Annotations of this start: 18 of 153
- Called 74.1% of time when present
- Phage (with cluster) where this start called: Arcadia_49 (AM), BenitoAntonio_49 (AM), Benllo_48 (AM), Bowling_49 (AM), Cheesy_49 (AM), Dynamite_49 (AM), Elsa_49 (AM), GoCrazy_48 (AM), Hankly_48 (AM), Heisenberger_48 (AM), JEGGS_48 (AM), Kardesai_50 (AM), KeaneyLin_48 (AM), Mooshroom_51 (AM), Mudcat_46 (AM), NapoleonB_49 (AM), Nason_49 (AM), Stardom_46 (AM), Xenomorph_45 (AM), YoshiYama_49 (AM),

Summary by clusters:

There are 14 clusters represented in this pham: DJ, AU7, CC, AM, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK, BI2,

Info for manual annotations of cluster AM:

- Start number 33 was manually annotated 3 times for cluster AM.
- Start number 37 was manually annotated 18 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 29 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 29 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 29 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 29 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 29 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 24 was manually annotated 13 times for cluster AU6.
- Start number 26 was manually annotated 1 time for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 29 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 27 was manually annotated 1 time for cluster AW.
- Start number 29 was manually annotated 7 times for cluster AW.
- Start number 30 was manually annotated 3 times for cluster AW.

Info for manual annotations of cluster BI2:

- Start number 20 was manually annotated 1 time for cluster BI2.
- Start number 34 was manually annotated 11 times for cluster BI2.

Info for manual annotations of cluster DJ:

- Start number 28 was manually annotated 7 times for cluster DJ.
- Start number 36 was manually annotated 49 times for cluster DJ.

Info for manual annotations of cluster FK:

- Start number 23 was manually annotated 3 times for cluster FK.

Gene Information:

Gene: Acai_47 Start: 34277, Stop: 34579, Start Num: 29

Candidate Starts for Acai_47:

(Start: 29 @34277 has 43 MA's), (32, 34283), (39, 34310), (43, 34334), (55, 34448), (58, 34478), (69, 34523),

Gene: Aflac_55 Start: 38455, Stop: 38703, Start Num: 36

Candidate Starts for Aflac_55:

(Start: 28 @38440 has 7 MA's), (Start: 36 @38455 has 49 MA's), (55, 38608),

Gene: AlainaMarie_55 Start: 38440, Stop: 38688, Start Num: 36

Candidate Starts for AlainaMarie_55:

(Start: 28 @38425 has 7 MA's), (Start: 36 @38440 has 49 MA's), (55, 38593),

Gene: Aloe25_58 Start: 38538, Stop: 38786, Start Num: 36

Candidate Starts for Aloe25_58:

(5, 38376), (Start: 28 @38523 has 7 MA's), (Start: 36 @38538 has 49 MA's), (55, 38691),

Gene: Altjira_50 Start: 34098, Stop: 34439, Start Num: 24

Candidate Starts for Altjira_50:

(Start: 24 @34098 has 13 MA's), (38, 34140), (64, 34341), (65, 34344), (74, 34374),

Gene: Anandi_50 Start: 34587, Stop: 34883, Start Num: 29

Candidate Starts for Anandi_50:

(Start: 29 @34587 has 43 MA's), (43, 34644), (46, 34680), (51, 34713), (55, 34758), (57, 34785), (58, 34788), (62, 34809),

Gene: Annihilus_37 Start: 27049, Stop: 27300, Start Num: 34

Candidate Starts for Annihilus_37:

(Start: 34 @27049 has 11 MA's), (54, 27208), (55, 27211),

Gene: Arataki_55 Start: 38135, Stop: 38383, Start Num: 36

Candidate Starts for Arataki_55:

(8, 37991), (Start: 28 @38120 has 7 MA's), (Start: 36 @38135 has 49 MA's), (55, 38288),

Gene: Arcadia_49 Start: 32580, Stop: 32888, Start Num: 37

Candidate Starts for Arcadia_49:

(Start: 33 @32565 has 3 MA's), (Start: 37 @32580 has 18 MA's), (44, 32637), (49, 32685), (52, 32718), (55, 32733), (63, 32793), (66, 32799), (77, 32844),

Gene: AreFloNak_46 Start: 34044, Stop: 34346, Start Num: 29

Candidate Starts for AreFloNak_46:

(Start: 29 @34044 has 43 MA's), (39, 34077), (55, 34215), (58, 34245), (69, 34290),

Gene: Argan_47 Start: 32696, Stop: 33043, Start Num: 24

Candidate Starts for Argan_47:

(Start: 24 @32696 has 13 MA's), (38, 32738), (64, 32939), (65, 32942), (74, 32972),

Gene: ArtetaBall_56 Start: 38748, Stop: 39011, Start Num: 28

Candidate Starts for ArtetaBall_56:

(5, 38598), (16, 38685), (Start: 28 @38748 has 7 MA's), (Start: 36 @38763 has 49 MA's), (55, 38916),

Gene: Artorias_57 Start: 38633, Stop: 38884, Start Num: 36

Candidate Starts for Artorias_57:

(Start: 36 @38633 has 49 MA's), (48, 38723), (55, 38786),

Gene: Arzan_51 Start: 33846, Stop: 34193, Start Num: 22

Candidate Starts for Arzan_51:

(22, 33846), (31, 33879), (40, 33918), (55, 34053), (62, 34104),

Gene: Avazak_58 Start: 38960, Stop: 39211, Start Num: 36

Candidate Starts for Avazak_58:

(Start: 36 @38960 has 49 MA's), (48, 39050), (55, 39113),

Gene: BarbieDoll_52 Start: 34320, Stop: 34643, Start Num: 24

Candidate Starts for BarbieDoll_52:

(Start: 24 @34320 has 13 MA's), (64, 34560), (68, 34569),

Gene: Barbonzobean_53 Start: 34363, Stop: 34683, Start Num: 24

Candidate Starts for Barbonzobean_53:

(Start: 24 @34363 has 13 MA's), (68, 34612),

Gene: BenitoAntonio_49 Start: 32116, Stop: 32424, Start Num: 37

Candidate Starts for BenitoAntonio_49:

(Start: 33 @32101 has 3 MA's), (Start: 37 @32116 has 18 MA's), (44, 32173), (49, 32221), (52, 32254), (55, 32269), (63, 32329), (66, 32335), (77, 32380),

Gene: Benllo_48 Start: 32800, Stop: 33102, Start Num: 37

Candidate Starts for Benllo_48:

(Start: 33 @32785 has 3 MA's), (Start: 37 @32800 has 18 MA's), (40, 32821), (44, 32857), (45, 32860), (55, 32953), (60, 32992), (67, 33022),

Gene: Bilo_35 Start: 27161, Stop: 27412, Start Num: 34

Candidate Starts for Bilo_35:

(Start: 34 @27161 has 11 MA's), (54, 27320), (55, 27323),

Gene: Biscute_48 Start: 33972, Stop: 34295, Start Num: 24

Candidate Starts for Biscute_48:

(Start: 24 @33972 has 13 MA's), (68, 34221),

Gene: BlackHoleSun_50 Start: 32827, Stop: 33168, Start Num: 24

Candidate Starts for BlackHoleSun_50:

(Start: 24 @32827 has 13 MA's), (38, 32869), (64, 33070), (65, 33073), (74, 33103),

Gene: Blanky_56 Start: 40046, Stop: 40309, Start Num: 28

Candidate Starts for Blanky_56:

(Start: 28 @40046 has 7 MA's), (Start: 36 @40061 has 49 MA's), (Start: 37 @40064 has 18 MA's), (50, 40169), (55, 40214), (59, 40250), (63, 40274),

Gene: BluerMoon_54 Start: 38484, Stop: 38732, Start Num: 36

Candidate Starts for BluerMoon_54:

(Start: 28 @38469 has 7 MA's), (Start: 36 @38484 has 49 MA's), (55, 38637),

Gene: Boog_44 Start: 31539, Stop: 31829, Start Num: 29

Candidate Starts for Boog_44:

(14, 31455), (Start: 23 @31512 has 3 MA's), (Start: 29 @31539 has 43 MA's), (42, 31593), (51, 31665), (61, 31758), (72, 31791),

Gene: Bouchard_46 Start: 34278, Stop: 34577, Start Num: 29

Candidate Starts for Bouchard_46:

(Start: 29 @34278 has 43 MA's), (43, 34335), (55, 34449), (57, 34476),

Gene: Bowling_49 Start: 32325, Stop: 32633, Start Num: 37

Candidate Starts for Bowling_49:

(Start: 33 @32310 has 3 MA's), (Start: 37 @32325 has 18 MA's), (40, 32346), (41, 32352), (44, 32382), (55, 32478), (60, 32517), (67, 32547), (70, 32556), (73, 32568), (75, 32580),

Gene: Breylor17_46 Start: 34842, Stop: 35144, Start Num: 29

Candidate Starts for Breylor17_46:

(Start: 29 @34842 has 43 MA's), (39, 34875), (55, 35013), (58, 35043), (69, 35088),

Gene: BronxBay_45 Start: 31837, Stop: 32127, Start Num: 29

Candidate Starts for BronxBay_45:

(12, 31747), (14, 31753), (Start: 23 @31810 has 3 MA's), (Start: 29 @31837 has 43 MA's), (42, 31891), (51, 31963), (61, 32056), (72, 32089),

Gene: Brunswick_46 Start: 33924, Stop: 34226, Start Num: 29

Candidate Starts for Brunswick_46:

(Start: 29 @33924 has 43 MA's), (32, 33930), (39, 33957), (43, 33981), (55, 34095), (58, 34125), (69, 34170),

Gene: Bugg_59 Start: 38678, Stop: 38929, Start Num: 36

Candidate Starts for Bugg_59:

(Start: 36 @38678 has 49 MA's), (48, 38768), (55, 38831),

Gene: Burley_56 Start: 38225, Stop: 38473, Start Num: 36

Candidate Starts for Burley_56:

(5, 38060), (16, 38147), (Start: 28 @38210 has 7 MA's), (Start: 36 @38225 has 49 MA's), (55, 38378),

Gene: CWormy_55 Start: 38177, Stop: 38425, Start Num: 36

Candidate Starts for CWormy_55:

(17, 38102), (Start: 28 @38162 has 7 MA's), (Start: 36 @38177 has 49 MA's), (55, 38330),

Gene: CapnMurica_43 Start: 34822, Stop: 35124, Start Num: 29

Candidate Starts for CapnMurica_43:

(Start: 29 @34822 has 43 MA's), (32, 34828), (39, 34855), (43, 34879), (55, 34993), (58, 35023), (69, 35068),

Gene: Captrips_56 Start: 38108, Stop: 38359, Start Num: 36

Candidate Starts for Captrips_56:

(Start: 36 @38108 has 49 MA's), (48, 38198), (55, 38261), (56, 38264),

Gene: Capybara_57 Start: 38439, Stop: 38690, Start Num: 36

Candidate Starts for Capybara_57:

(Start: 36 @38439 has 49 MA's), (48, 38529), (55, 38592), (56, 38595),

Gene: CastorTray_48 Start: 34652, Stop: 34954, Start Num: 29

Candidate Starts for CastorTray_48:

(Start: 29 @34652 has 43 MA's), (39, 34685), (55, 34823), (58, 34853), (69, 34898),

Gene: Caterpillar_42 Start: 33123, Stop: 33425, Start Num: 29

Candidate Starts for Caterpillar_42:

(Start: 29 @33123 has 43 MA's), (43, 33180), (56, 33297), (57, 33321),

Gene: Cheesy_49 Start: 32301, Stop: 32609, Start Num: 37

Candidate Starts for Cheesy_49:

(Start: 33 @32286 has 3 MA's), (Start: 37 @32301 has 18 MA's), (40, 32322), (41, 32328), (44, 32358), (55, 32454), (60, 32493), (67, 32523), (70, 32532), (73, 32544), (75, 32556),

Gene: ChickyNuggy_59 Start: 38704, Stop: 38955, Start Num: 36

Candidate Starts for ChickyNuggy_59:

(Start: 36 @38704 has 49 MA's), (48, 38794), (55, 38857),

Gene: Chikenjars_54 Start: 38453, Stop: 38701, Start Num: 36

Candidate Starts for Chikenjars_54:

(Start: 28 @38438 has 7 MA's), (Start: 36 @38453 has 49 MA's), (55, 38606),

Gene: Chlochlo_47 Start: 34022, Stop: 34321, Start Num: 29

Candidate Starts for Chlochlo_47:

(Start: 29 @34022 has 43 MA's), (43, 34079), (55, 34193), (57, 34220),

Gene: Circum_51 Start: 32976, Stop: 33293, Start Num: 33

Candidate Starts for Circum_51:

(Start: 33 @32976 has 3 MA's), (Start: 37 @32991 has 18 MA's), (40, 33012), (44, 33048), (45, 33051), (55, 33144), (60, 33183), (67, 33213),

Gene: Citrus_55 Start: 38715, Stop: 38978, Start Num: 28

Candidate Starts for Citrus_55:

(Start: 28 @38715 has 7 MA's), (Start: 36 @38730 has 49 MA's), (55, 38883),

Gene: Conley_55 Start: 39080, Stop: 39331, Start Num: 36

Candidate Starts for Conley_55:

(Start: 36 @39080 has 49 MA's), (48, 39170), (53, 39221), (55, 39233),

Gene: Correa_47 Start: 31432, Stop: 31755, Start Num: 33

Candidate Starts for Correa_47:

(Start: 33 @31432 has 3 MA's), (Start: 37 @31447 has 18 MA's), (40, 31468), (41, 31474), (44, 31504), (55, 31600), (60, 31639), (67, 31669), (70, 31678), (73, 31690), (75, 31702),

Gene: Crocheter_56 Start: 38621, Stop: 38869, Start Num: 36

Candidate Starts for Crocheter_56:

(5, 38456), (16, 38543), (Start: 28 @38606 has 7 MA's), (Start: 36 @38621 has 49 MA's), (55, 38774),

Gene: Dancer_57 Start: 38368, Stop: 38619, Start Num: 36

Candidate Starts for Dancer_57:

(Start: 36 @38368 has 49 MA's), (48, 38458), (55, 38521),

Gene: Darby_44 Start: 33824, Stop: 34126, Start Num: 29

Candidate Starts for Darby_44:

(Start: 29 @33824 has 43 MA's), (39, 33857), (55, 33995), (58, 34025), (69, 34070),

Gene: Demure_54 Start: 38135, Stop: 38383, Start Num: 36

Candidate Starts for Demure_54:

(8, 37991), (Start: 28 @38120 has 7 MA's), (Start: 36 @38135 has 49 MA's), (55, 38288),

Gene: DevitoJr_44 Start: 34012, Stop: 34314, Start Num: 29

Candidate Starts for DevitoJr_44:

(Start: 29 @34012 has 43 MA's), (32, 34018), (55, 34183), (58, 34213), (69, 34258),

Gene: Dialga_56 Start: 38791, Stop: 39039, Start Num: 36

Candidate Starts for Dialga_56:

(17, 38716), (Start: 28 @38776 has 7 MA's), (Start: 36 @38791 has 49 MA's), (55, 38944),

Gene: Dinallo_45 Start: 35131, Stop: 35433, Start Num: 29

Candidate Starts for Dinallo_45:

(Start: 29 @35131 has 43 MA's), (32, 35137), (39, 35164), (43, 35188), (55, 35302), (58, 35332), (69, 35377),

Gene: Ditters_36 Start: 27480, Stop: 27731, Start Num: 34

Candidate Starts for Ditters_36:

(Start: 20 @27414 has 1 MA's), (Start: 34 @27480 has 11 MA's), (54, 27639), (55, 27642),

Gene: Djungelskog_45 Start: 31836, Stop: 32126, Start Num: 29

Candidate Starts for Djungelskog_45:

(12, 31746), (14, 31752), (Start: 23 @31809 has 3 MA's), (Start: 29 @31836 has 43 MA's), (42, 31890), (51, 31962), (61, 32055), (72, 32088),

Gene: Doxi13_37 Start: 27023, Stop: 27274, Start Num: 34

Candidate Starts for Doxi13_37:

(Start: 34 @27023 has 11 MA's), (54, 27182), (55, 27185),

Gene: Duffington_54 Start: 38148, Stop: 38396, Start Num: 36

Candidate Starts for Duffington_54:

(Start: 28 @38133 has 7 MA's), (Start: 36 @38148 has 49 MA's), (55, 38301),

Gene: Dynamite_49 Start: 32516, Stop: 32824, Start Num: 37

Candidate Starts for Dynamite_49:

(Start: 33 @32501 has 3 MA's), (Start: 37 @32516 has 18 MA's), (44, 32573), (49, 32621), (52, 32654), (55, 32669), (63, 32729), (66, 32735), (77, 32780),

Gene: Eddiemania_58 Start: 39366, Stop: 39614, Start Num: 36

Candidate Starts for Eddiemania_58:

(9, 39246), (Start: 28 @39351 has 7 MA's), (Start: 36 @39366 has 49 MA's), (55, 39519),

Gene: ElephantMan_45 Start: 34497, Stop: 34799, Start Num: 29

Candidate Starts for ElephantMan_45:

(Start: 29 @34497 has 43 MA's), (32, 34503), (39, 34530), (43, 34554), (55, 34668), (58, 34698), (69, 34743),

Gene: Elsa_49 Start: 32580, Stop: 32888, Start Num: 37

Candidate Starts for Elsa_49:

(Start: 33 @32565 has 3 MA's), (Start: 37 @32580 has 18 MA's), (44, 32637), (49, 32685), (52, 32718), (55, 32733), (63, 32793), (66, 32799), (77, 32844),

Gene: Elver_96 Start: 54012, Stop: 54290, Start Num: 23

Candidate Starts for Elver_96:

(Start: 23 @54012 has 3 MA's), (55, 54168),

Gene: EndAve_57 Start: 38606, Stop: 38869, Start Num: 28

Candidate Starts for EndAve_57:

(Start: 28 @38606 has 7 MA's), (Start: 36 @38621 has 49 MA's), (55, 38774),

Gene: Fazel_57 Start: 38400, Stop: 38648, Start Num: 36

Candidate Starts for Fazel_57:

(Start: 28 @38385 has 7 MA's), (Start: 36 @38400 has 49 MA's), (50, 38508), (55, 38553), (63, 38613),

Gene: Figliar_54 Start: 38508, Stop: 38771, Start Num: 28

Candidate Starts for Figliar_54:

(Start: 28 @38508 has 7 MA's), (Start: 36 @38523 has 49 MA's), (55, 38676),

Gene: Football_59 Start: 38259, Stop: 38510, Start Num: 36

Candidate Starts for Football_59:

(Start: 36 @38259 has 49 MA's), (48, 38349), (55, 38412),

Gene: FortCran_57 Start: 38633, Stop: 38884, Start Num: 36

Candidate Starts for FortCran_57:

(Start: 36 @38633 has 49 MA's), (48, 38723), (55, 38786),

Gene: Gandionco_93 Start: 52868, Stop: 53146, Start Num: 23

Candidate Starts for Gandionco_93:
(Start: 23 @52868 has 3 MA's), (55, 53024),

Gene: GantcherGoblin_47 Start: 32895, Stop: 33227, Start Num: 24
Candidate Starts for GantcherGoblin_47:
(Start: 24 @32895 has 13 MA's), (38, 32937), (64, 33138), (65, 33141), (74, 33171),

Gene: GermyBearimy_57 Start: 35190, Stop: 35549, Start Num: 22
Candidate Starts for GermyBearimy_57:
(22, 35190), (35, 35235), (40, 35262), (55, 35397), (67, 35466), (72, 35478),

Gene: Giantsbane_47 Start: 33208, Stop: 33504, Start Num: 29
Candidate Starts for Giantsbane_47:
(Start: 29 @33208 has 43 MA's), (55, 33379), (58, 33409), (62, 33430),

Gene: Gill_57 Start: 38456, Stop: 38707, Start Num: 36
Candidate Starts for Gill_57:
(Start: 36 @38456 has 49 MA's), (48, 38546), (55, 38609), (56, 38612),

Gene: Glintora_57 Start: 39056, Stop: 39319, Start Num: 28
Candidate Starts for Glintora_57:
(Start: 28 @39056 has 7 MA's), (Start: 36 @39071 has 49 MA's), (55, 39224),

Gene: GoCrazy_48 Start: 32456, Stop: 32758, Start Num: 37
Candidate Starts for GoCrazy_48:
(Start: 33 @32441 has 3 MA's), (Start: 37 @32456 has 18 MA's), (40, 32477), (44, 32513), (45, 32516),
(55, 32609), (60, 32648), (67, 32678),

Gene: GoblinVoyage_37 Start: 27023, Stop: 27274, Start Num: 34
Candidate Starts for GoblinVoyage_37:
(Start: 34 @27023 has 11 MA's), (54, 27182), (55, 27185),

Gene: Gordon_43 Start: 34647, Stop: 34946, Start Num: 29
Candidate Starts for Gordon_43:
(Start: 29 @34647 has 43 MA's), (39, 34680), (55, 34818), (58, 34848), (69, 34893),

Gene: Gravy_56 Start: 38129, Stop: 38380, Start Num: 36
Candidate Starts for Gravy_56:
(Start: 36 @38129 has 49 MA's), (48, 38219), (55, 38282), (56, 38285),

Gene: Gusicorn_57 Start: 38538, Stop: 38786, Start Num: 36
Candidate Starts for Gusicorn_57:
(5, 38376), (Start: 28 @38523 has 7 MA's), (Start: 36 @38538 has 49 MA's), (55, 38691),

Gene: Hankly_48 Start: 31730, Stop: 32032, Start Num: 37
Candidate Starts for Hankly_48:
(Start: 33 @31715 has 3 MA's), (Start: 37 @31730 has 18 MA's), (40, 31751), (44, 31787), (45, 31790),
(55, 31883), (60, 31922), (67, 31952),

Gene: Heisenberger_48 Start: 32020, Stop: 32313, Start Num: 37
Candidate Starts for Heisenberger_48:
(Start: 33 @32005 has 3 MA's), (Start: 37 @32020 has 18 MA's), (40, 32041), (44, 32077), (45, 32080),
(55, 32173), (60, 32212), (67, 32242),

Gene: Hemma_43 Start: 31081, Stop: 31365, Start Num: 29

Candidate Starts for Hemma_43:

(Start: 29 @31081 has 43 MA's), (52, 31231), (56, 31249), (58, 31276), (62, 31297),

Gene: HerbBucket_45 Start: 31539, Stop: 31826, Start Num: 29

Candidate Starts for HerbBucket_45:

(11, 31449), (14, 31455), (Start: 23 @31512 has 3 MA's), (Start: 29 @31539 has 43 MA's), (42, 31590), (51, 31662), (61, 31755), (72, 31788),

Gene: Hortihabitatio_58 Start: 39228, Stop: 39476, Start Num: 36

Candidate Starts for Hortihabitatio_58:

(11, 39135), (19, 39162), (Start: 28 @39213 has 7 MA's), (Start: 36 @39228 has 49 MA's), (50, 39336), (55, 39381), (63, 39441),

Gene: HotFries_36 Start: 27067, Stop: 27318, Start Num: 34

Candidate Starts for HotFries_36:

(Start: 34 @27067 has 11 MA's), (54, 27226), (55, 27229),

Gene: Hydrus_58 Start: 39377, Stop: 39640, Start Num: 28

Candidate Starts for Hydrus_58:

(17, 39317), (Start: 28 @39377 has 7 MA's), (Start: 36 @39392 has 49 MA's), (55, 39545),

Gene: Ingrid_47 Start: 33951, Stop: 34253, Start Num: 29

Candidate Starts for Ingrid_47:

(Start: 29 @33951 has 43 MA's), (43, 34008), (55, 34122), (57, 34149), (62, 34173), (63, 34182),

Gene: Inked_49 Start: 35083, Stop: 35382, Start Num: 29

Candidate Starts for Inked_49:

(Start: 29 @35083 has 43 MA's), (55, 35254), (57, 35281), (58, 35284),

Gene: Issa_45 Start: 34116, Stop: 34418, Start Num: 29

Candidate Starts for Issa_45:

(Start: 29 @34116 has 43 MA's), (32, 34122), (39, 34149), (43, 34173), (55, 34287), (58, 34317), (69, 34362),

Gene: JEGGS_48 Start: 32075, Stop: 32368, Start Num: 37

Candidate Starts for JEGGS_48:

(Start: 33 @32060 has 3 MA's), (Start: 37 @32075 has 18 MA's), (40, 32096), (44, 32132), (45, 32135), (55, 32228), (60, 32267), (67, 32297),

Gene: Jazzy4900_50 Start: 34651, Stop: 34998, Start Num: 22

Candidate Starts for Jazzy4900_50:

(22, 34651), (31, 34684), (Start: 37 @34702 has 18 MA's), (40, 34723), (55, 34858), (62, 34909), (67, 34927), (74, 34951),

Gene: JeNeSaisPas_91 Start: 53442, Stop: 53720, Start Num: 23

Candidate Starts for JeNeSaisPas_91:

(Start: 23 @53442 has 3 MA's), (55, 53598),

Gene: Jeremy4pt0_44 Start: 31536, Stop: 31826, Start Num: 29

Candidate Starts for Jeremy4pt0_44:

(14, 31452), (Start: 23 @31509 has 3 MA's), (Start: 29 @31536 has 43 MA's), (42, 31590), (51, 31662), (61, 31755), (72, 31788),

Gene: Jodelie19_55 Start: 39927, Stop: 40175, Start Num: 36

Candidate Starts for Jodelie19_55:

(Start: 28 @39912 has 7 MA's), (Start: 36 @39927 has 49 MA's), (55, 40080),

Gene: JulesRay_57 Start: 38629, Stop: 38880, Start Num: 36

Candidate Starts for JulesRay_57:

(Start: 36 @38629 has 49 MA's), (48, 38719), (55, 38782),

Gene: Kardesai_50 Start: 32700, Stop: 33002, Start Num: 37

Candidate Starts for Kardesai_50:

(Start: 33 @32685 has 3 MA's), (Start: 37 @32700 has 18 MA's), (44, 32757), (49, 32805), (52, 32838), (55, 32853), (60, 32892), (67, 32922),

Gene: KeaneyLin_48 Start: 32456, Stop: 32758, Start Num: 37

Candidate Starts for KeaneyLin_48:

(Start: 33 @32441 has 3 MA's), (Start: 37 @32456 has 18 MA's), (40, 32477), (44, 32513), (45, 32516), (55, 32609), (60, 32648), (67, 32678),

Gene: Kenosha_55 Start: 38852, Stop: 39100, Start Num: 36

Candidate Starts for Kenosha_55:

(17, 38777), (Start: 28 @38837 has 7 MA's), (Start: 36 @38852 has 49 MA's), (55, 39005),

Gene: Kerry_56 Start: 38129, Stop: 38380, Start Num: 36

Candidate Starts for Kerry_56:

(Start: 36 @38129 has 49 MA's), (48, 38219), (55, 38282), (56, 38285),

Gene: KevinMinion_48 Start: 33653, Stop: 33994, Start Num: 24

Candidate Starts for KevinMinion_48:

(Start: 24 @33653 has 13 MA's), (38, 33695), (64, 33896), (65, 33899), (74, 33929),

Gene: Kinny_51 Start: 34815, Stop: 35138, Start Num: 24

Candidate Starts for Kinny_51:

(Start: 24 @34815 has 13 MA's), (68, 35064),

Gene: Kureo_95 Start: 53022, Stop: 53300, Start Num: 23

Candidate Starts for Kureo_95:

(Start: 23 @53022 has 3 MA's), (55, 53178),

Gene: Leathea_48 Start: 32547, Stop: 32861, Start Num: 24

Candidate Starts for Leathea_48:

(Start: 24 @32547 has 13 MA's), (38, 32586), (64, 32787),

Gene: Lewando_50 Start: 34105, Stop: 34425, Start Num: 24

Candidate Starts for Lewando_50:

(Start: 24 @34105 has 13 MA's), (68, 34354),

Gene: LilHuddy_47 Start: 34159, Stop: 34458, Start Num: 29

Candidate Starts for LilHuddy_47:

(6, 34012), (10, 34051), (14, 34075), (18, 34093), (Start: 29 @34159 has 43 MA's), (43, 34216), (55, 34330), (57, 34357), (62, 34381), (63, 34390), (76, 34435),

Gene: Linda_45 Start: 31834, Stop: 32124, Start Num: 29

Candidate Starts for Linda_45:

(12, 31744), (14, 31750), (Start: 23 @31807 has 3 MA's), (Start: 29 @31834 has 43 MA's), (42, 31888), (51, 31960), (61, 32053), (72, 32086),

Gene: Loretta_47 Start: 33951, Stop: 34253, Start Num: 29

Candidate Starts for Loretta_47:

(Start: 29 @33951 has 43 MA's), (43, 34008), (55, 34122), (57, 34149), (62, 34173), (63, 34182),

Gene: LucySwiss_46 Start: 33918, Stop: 34220, Start Num: 29

Candidate Starts for LucySwiss_46:

(Start: 29 @33918 has 43 MA's), (32, 33924), (39, 33951), (43, 33975), (55, 34089), (58, 34119), (69, 34164),

Gene: Luthien_58 Start: 38603, Stop: 38866, Start Num: 28

Candidate Starts for Luthien_58:

(Start: 28 @38603 has 7 MA's), (Start: 36 @38618 has 49 MA's), (55, 38771),

Gene: Madvan_56 Start: 38261, Stop: 38509, Start Num: 36

Candidate Starts for Madvan_56:

(17, 38186), (Start: 28 @38246 has 7 MA's), (Start: 36 @38261 has 49 MA's), (55, 38414),

Gene: Magel_58 Start: 38372, Stop: 38623, Start Num: 36

Candidate Starts for Magel_58:

(Start: 36 @38372 has 49 MA's), (48, 38462), (55, 38525), (56, 38528),

Gene: MajinBuu_56 Start: 38905, Stop: 39153, Start Num: 36

Candidate Starts for MajinBuu_56:

(Start: 28 @38890 has 7 MA's), (Start: 36 @38905 has 49 MA's), (53, 39046), (55, 39058),

Gene: Makai_45 Start: 34138, Stop: 34437, Start Num: 29

Candidate Starts for Makai_45:

(Start: 29 @34138 has 43 MA's), (43, 34195), (55, 34309), (57, 34336), (62, 34360), (67, 34378),

Gene: Mardi_48 Start: 32986, Stop: 33327, Start Num: 24

Candidate Starts for Mardi_48:

(Start: 24 @32986 has 13 MA's), (38, 33028), (64, 33229), (65, 33232), (74, 33262),

Gene: Marianna39_94 Start: 53437, Stop: 53715, Start Num: 23

Candidate Starts for Marianna39_94:

(Start: 23 @53437 has 3 MA's), (55, 53593),

Gene: MediumFry_43 Start: 33426, Stop: 33728, Start Num: 29

Candidate Starts for MediumFry_43:

(Start: 29 @33426 has 43 MA's), (43, 33483), (56, 33600), (57, 33624),

Gene: MiniBagel_45 Start: 34804, Stop: 35106, Start Num: 29

Candidate Starts for MiniBagel_45:

(Start: 29 @34804 has 43 MA's), (32, 34810), (39, 34837), (43, 34861), (55, 34975), (58, 35005), (69, 35050),

Gene: Monse_36 Start: 26928, Stop: 27179, Start Num: 34

Candidate Starts for Monse_36:
(21, 26865), (Start: 34 @26928 has 11 MA's), (55, 27090),

Gene: Mooshroom_51 Start: 32700, Stop: 33002, Start Num: 37
Candidate Starts for Mooshroom_51:
(Start: 33 @32685 has 3 MA's), (Start: 37 @32700 has 18 MA's), (44, 32757), (49, 32805), (55, 32853),
(60, 32892), (67, 32922),

Gene: Moozy_36 Start: 27024, Stop: 27275, Start Num: 34
Candidate Starts for Moozy_36:
(Start: 34 @27024 has 11 MA's), (54, 27183), (55, 27186),

Gene: Mossy_59 Start: 40273, Stop: 40521, Start Num: 36
Candidate Starts for Mossy_59:
(Start: 28 @40258 has 7 MA's), (Start: 36 @40273 has 49 MA's), (Start: 37 @40276 has 18 MA's), (50,
40381), (55, 40426), (59, 40462), (63, 40486),

Gene: MrAaronian_45 Start: 31836, Stop: 32126, Start Num: 29
Candidate Starts for MrAaronian_45:
(12, 31746), (14, 31752), (Start: 23 @31809 has 3 MA's), (Start: 29 @31836 has 43 MA's), (42, 31890),
(51, 31962), (61, 32055), (72, 32088),

Gene: Mudcat_46 Start: 33433, Stop: 33726, Start Num: 37
Candidate Starts for Mudcat_46:
(Start: 33 @33418 has 3 MA's), (Start: 37 @33433 has 18 MA's), (40, 33454), (44, 33490), (45, 33493),
(55, 33586), (60, 33625), (67, 33655),

Gene: Muglass_50 Start: 33876, Stop: 34199, Start Num: 24
Candidate Starts for Muglass_50:
(Start: 24 @33876 has 13 MA's), (68, 34125),

Gene: Mysticmoon_57 Start: 39697, Stop: 39945, Start Num: 36
Candidate Starts for Mysticmoon_57:
(Start: 28 @39682 has 7 MA's), (Start: 36 @39697 has 49 MA's), (50, 39805), (55, 39850), (63, 39910),

Gene: Nadmeg_57 Start: 39508, Stop: 39756, Start Num: 36
Candidate Starts for Nadmeg_57:
(5, 39343), (16, 39430), (Start: 28 @39493 has 7 MA's), (Start: 36 @39508 has 49 MA's), (55, 39661),

Gene: NapoleonB_49 Start: 32516, Stop: 32824, Start Num: 37
Candidate Starts for NapoleonB_49:
(Start: 33 @32501 has 3 MA's), (Start: 37 @32516 has 18 MA's), (44, 32573), (49, 32621), (52, 32654),
(55, 32669), (63, 32729), (66, 32735), (77, 32780),

Gene: Nason_49 Start: 32580, Stop: 32888, Start Num: 37
Candidate Starts for Nason_49:
(Start: 33 @32565 has 3 MA's), (Start: 37 @32580 has 18 MA's), (44, 32637), (49, 32685), (52, 32718),
(55, 32733), (63, 32793), (66, 32799), (77, 32844),

Gene: Natasha_46 Start: 31568, Stop: 31843, Start Num: 30
Candidate Starts for Natasha_46:
(Start: 30 @31568 has 3 MA's), (42, 31613),

Gene: Navi1117_50 Start: 33598, Stop: 33939, Start Num: 24
Candidate Starts for Navi1117_50:
(Start: 24 @33598 has 13 MA's), (38, 33640), (64, 33841), (65, 33844), (74, 33874),

Gene: Nightmare_47 Start: 35063, Stop: 35362, Start Num: 29
Candidate Starts for Nightmare_47:
(Start: 29 @35063 has 43 MA's), (39, 35096), (55, 35234), (58, 35264), (69, 35309),

Gene: Niktson_45 Start: 34497, Stop: 34799, Start Num: 29
Candidate Starts for Niktson_45:
(Start: 29 @34497 has 43 MA's), (32, 34503), (39, 34530), (43, 34554), (55, 34668), (58, 34698), (69, 34743),

Gene: Nithya_56 Start: 38364, Stop: 38612, Start Num: 36
Candidate Starts for Nithya_56:
(Start: 28 @38349 has 7 MA's), (Start: 36 @38364 has 49 MA's), (55, 38517),

Gene: Nivinsha_46 Start: 34044, Stop: 34346, Start Num: 29
Candidate Starts for Nivinsha_46:
(Start: 29 @34044 has 43 MA's), (39, 34077), (55, 34215), (58, 34245), (69, 34290),

Gene: NoPickles_56 Start: 37794, Stop: 38045, Start Num: 36
Candidate Starts for NoPickles_56:
(Start: 36 @37794 has 49 MA's), (48, 37884), (55, 37947), (56, 37950),

Gene: Odesza_56 Start: 38316, Stop: 38567, Start Num: 36
Candidate Starts for Odesza_56:
(Start: 36 @38316 has 49 MA's), (48, 38406), (55, 38469), (56, 38472),

Gene: OhMyWard_55 Start: 40027, Stop: 40275, Start Num: 36
Candidate Starts for OhMyWard_55:
(7, 39883), (13, 39940), (Start: 28 @40012 has 7 MA's), (Start: 36 @40027 has 49 MA's), (50, 40135), (55, 40180), (59, 40216), (63, 40240),

Gene: OlgasClover_57 Start: 39508, Stop: 39756, Start Num: 36
Candidate Starts for OlgasClover_57:
(Start: 28 @39493 has 7 MA's), (Start: 36 @39508 has 49 MA's), (55, 39661),

Gene: Onestar_45 Start: 31560, Stop: 31850, Start Num: 30
Candidate Starts for Onestar_45:
(Start: 30 @31560 has 3 MA's), (42, 31611), (51, 31683),

Gene: Paella_97 Start: 54602, Stop: 54880, Start Num: 23
Candidate Starts for Paella_97:
(Start: 23 @54602 has 3 MA's), (55, 54758),

Gene: Pepy6_088 Start: 48806, Stop: 49051, Start Num: 36
Candidate Starts for Pepy6_088:
(15, 48716), (25, 48779), (Start: 36 @48806 has 49 MA's), (38, 48821), (55, 48959),

Gene: Perkunas_58 Start: 38597, Stop: 38848, Start Num: 36
Candidate Starts for Perkunas_58:
(Start: 36 @38597 has 49 MA's), (48, 38687), (55, 38750),

Gene: PerroGrande22_73 Start: 50526, Stop: 50771, Start Num: 36

Candidate Starts for PerroGrande22_73:

(25, 50499), (Start: 36 @50526 has 49 MA's), (38, 50541), (55, 50679),

Gene: PestoPenguin_59 Start: 38538, Stop: 38786, Start Num: 36

Candidate Starts for PestoPenguin_59:

(5, 38376), (Start: 28 @38523 has 7 MA's), (Start: 36 @38538 has 49 MA's), (55, 38691),

Gene: Petito_58 Start: 39754, Stop: 40005, Start Num: 36

Candidate Starts for Petito_58:

(Start: 36 @39754 has 49 MA's), (48, 39844), (55, 39907),

Gene: Phaby_48 Start: 34705, Stop: 35004, Start Num: 29

Candidate Starts for Phaby_48:

(14, 34621), (18, 34639), (Start: 29 @34705 has 43 MA's), (43, 34762), (55, 34876), (57, 34903), (62, 34927), (63, 34936), (76, 34981),

Gene: Phaila_50 Start: 32979, Stop: 33320, Start Num: 24

Candidate Starts for Phaila_50:

(Start: 24 @32979 has 13 MA's), (38, 33021), (64, 33222), (65, 33225), (74, 33255),

Gene: Phepper_57 Start: 38523, Stop: 38771, Start Num: 36

Candidate Starts for Phepper_57:

(17, 38448), (Start: 28 @38508 has 7 MA's), (Start: 36 @38523 has 49 MA's), (55, 38676),

Gene: Pherobrine_58 Start: 40107, Stop: 40355, Start Num: 36

Candidate Starts for Pherobrine_58:

(19, 40041), (Start: 28 @40092 has 7 MA's), (Start: 36 @40107 has 49 MA's), (50, 40215), (55, 40260), (63, 40320),

Gene: PherryCruz_36 Start: 27019, Stop: 27270, Start Num: 34

Candidate Starts for PherryCruz_36:

(Start: 34 @27019 has 11 MA's), (54, 27178), (55, 27181),

Gene: Poco6_087 Start: 50294, Stop: 50566, Start Num: 25

Candidate Starts for Poco6_087:

(25, 50294), (Start: 36 @50321 has 49 MA's), (38, 50336), (55, 50474),

Gene: PoeMe_48 Start: 33153, Stop: 33494, Start Num: 24

Candidate Starts for PoeMe_48:

(Start: 24 @33153 has 13 MA's), (38, 33195), (64, 33396), (65, 33399), (74, 33429),

Gene: Powelldog_49 Start: 32567, Stop: 32842, Start Num: 30

Candidate Starts for Powelldog_49:

(Start: 30 @32567 has 3 MA's), (47, 32657),

Gene: ProfFrink_45 Start: 31837, Stop: 32127, Start Num: 29

Candidate Starts for ProfFrink_45:

(14, 31753), (Start: 23 @31810 has 3 MA's), (Start: 29 @31837 has 43 MA's), (42, 31891), (51, 31963), (61, 32056), (72, 32089),

Gene: Qui_97 Start: 54602, Stop: 54880, Start Num: 23

Candidate Starts for Qui_97:
(Start: 23 @54602 has 3 MA's), (55, 54758),

Gene: Raunak_48 Start: 31534, Stop: 31824, Start Num: 29
Candidate Starts for Raunak_48:
(12, 31444), (14, 31450), (Start: 23 @31507 has 3 MA's), (Start: 29 @31534 has 43 MA's), (42, 31588),
(51, 31660), (61, 31753), (72, 31786),

Gene: RavenPuff_36 Start: 27019, Stop: 27270, Start Num: 34
Candidate Starts for RavenPuff_36:
(Start: 34 @27019 has 11 MA's), (54, 27178), (55, 27181),

Gene: Renaldo_53 Start: 34414, Stop: 34734, Start Num: 24
Candidate Starts for Renaldo_53:
(Start: 24 @34414 has 13 MA's), (68, 34663),

Gene: Rickmore_53 Start: 36852, Stop: 37115, Start Num: 28
Candidate Starts for Rickmore_53:
(Start: 28 @36852 has 7 MA's), (Start: 36 @36867 has 49 MA's), (55, 37020),

Gene: Roney_57 Start: 38482, Stop: 38733, Start Num: 36
Candidate Starts for Roney_57:
(Start: 36 @38482 has 49 MA's), (48, 38572), (55, 38635), (56, 38638),

Gene: Runhaar_56 Start: 38324, Stop: 38572, Start Num: 36
Candidate Starts for Runhaar_56:
(5, 38159), (16, 38246), (Start: 28 @38309 has 7 MA's), (Start: 36 @38324 has 49 MA's), (55, 38477),

Gene: RustyBoy_46 Start: 31549, Stop: 31824, Start Num: 30
Candidate Starts for RustyBoy_46:
(Start: 30 @31549 has 3 MA's), (42, 31594),

Gene: Sangak_35 Start: 26577, Stop: 26828, Start Num: 34
Candidate Starts for Sangak_35:
(Start: 34 @26577 has 11 MA's), (54, 26736), (55, 26739),

Gene: Scap1_36 Start: 26822, Stop: 27139, Start Num: 20
Candidate Starts for Scap1_36:
(Start: 20 @26822 has 1 MA's), (Start: 34 @26888 has 11 MA's), (54, 27047), (55, 27050),

Gene: Schwartz33_58 Start: 38741, Stop: 38989, Start Num: 36
Candidate Starts for Schwartz33_58:
(Start: 28 @38726 has 7 MA's), (Start: 36 @38741 has 49 MA's), (48, 38831), (55, 38894),

Gene: ScienceWizSam_46 Start: 34154, Stop: 34456, Start Num: 29
Candidate Starts for ScienceWizSam_46:
(Start: 29 @34154 has 43 MA's), (32, 34160), (55, 34325), (58, 34355), (69, 34400),

Gene: Secretariat_56 Start: 37693, Stop: 37956, Start Num: 28
Candidate Starts for Secretariat_56:
(1, 37381), (2, 37462), (3, 37495), (4, 37504), (Start: 28 @37693 has 7 MA's), (Start: 36 @37708 has 49 MA's), (53, 37849), (55, 37861),

Gene: SheRa_37 Start: 27065, Stop: 27316, Start Num: 34
Candidate Starts for SheRa_37:
(Start: 34 @27065 has 11 MA's), (54, 27224), (55, 27227),

Gene: Shepard_49 Start: 34232, Stop: 34531, Start Num: 29
Candidate Starts for Shepard_49:
(Start: 29 @34232 has 43 MA's), (43, 34289), (55, 34403), (57, 34430), (62, 34454), (63, 34463), (76, 34508),

Gene: Spain_48 Start: 31836, Stop: 32126, Start Num: 29
Candidate Starts for Spain_48:
(12, 31746), (14, 31752), (Start: 23 @31809 has 3 MA's), (Start: 29 @31836 has 43 MA's), (42, 31890), (51, 31962), (61, 32055), (72, 32088),

Gene: Sporto_46 Start: 33334, Stop: 33609, Start Num: 27
Candidate Starts for Sporto_46:
(Start: 27 @33334 has 1 MA's), (42, 33379), (62, 33547),

Gene: Sprinkle_43 Start: 31683, Stop: 31958, Start Num: 30
Candidate Starts for Sprinkle_43:
(22, 31653), (Start: 30 @31683 has 3 MA's), (78, 31950),

Gene: Stardom_46 Start: 31192, Stop: 31494, Start Num: 37
Candidate Starts for Stardom_46:
(Start: 33 @31177 has 3 MA's), (Start: 37 @31192 has 18 MA's), (40, 31213), (44, 31249), (45, 31252), (55, 31345), (60, 31384), (67, 31414),

Gene: Stardrop_48 Start: 33346, Stop: 33693, Start Num: 24
Candidate Starts for Stardrop_48:
(Start: 24 @33346 has 13 MA's), (38, 33388), (64, 33589), (65, 33592), (74, 33622),

Gene: Sunny4976_49 Start: 34651, Stop: 34998, Start Num: 22
Candidate Starts for Sunny4976_49:
(22, 34651), (31, 34684), (Start: 37 @34702 has 18 MA's), (40, 34723), (55, 34858), (62, 34909), (67, 34927), (74, 34951),

Gene: SweetCrkHerbs_58 Start: 38289, Stop: 38540, Start Num: 36
Candidate Starts for SweetCrkHerbs_58:
(Start: 36 @38289 has 49 MA's), (48, 38379), (55, 38442),

Gene: Synopsis_44 Start: 34166, Stop: 34468, Start Num: 29
Candidate Starts for Synopsis_44:
(Start: 29 @34166 has 43 MA's), (32, 34172), (39, 34199), (43, 34223), (55, 34337), (58, 34367), (69, 34412),

Gene: Tairn4Wing_59 Start: 38473, Stop: 38724, Start Num: 36
Candidate Starts for Tairn4Wing_59:
(Start: 36 @38473 has 49 MA's), (48, 38563), (55, 38626),

Gene: Talon44_58 Start: 38631, Stop: 38882, Start Num: 36
Candidate Starts for Talon44_58:
(Start: 36 @38631 has 49 MA's), (48, 38721), (55, 38784),

Gene: Tanis_57 Start: 38302, Stop: 38553, Start Num: 36
Candidate Starts for Tanis_57:
(Start: 36 @38302 has 49 MA's), (48, 38392), (55, 38455), (56, 38458),

Gene: Tatanka_44 Start: 34336, Stop: 34638, Start Num: 29
Candidate Starts for Tatanka_44:
(Start: 29 @34336 has 43 MA's), (32, 34342), (39, 34369), (43, 34393), (55, 34507), (58, 34537), (69, 34582),

Gene: Teacup_46 Start: 34526, Stop: 34828, Start Num: 29
Candidate Starts for Teacup_46:
(Start: 29 @34526 has 43 MA's), (32, 34532), (39, 34559), (43, 34583), (55, 34697), (58, 34727), (69, 34772),

Gene: TenaciousP_56 Start: 39874, Stop: 40137, Start Num: 28
Candidate Starts for TenaciousP_56:
(Start: 28 @39874 has 7 MA's), (Start: 36 @39889 has 49 MA's), (55, 40042),

Gene: Tenney120_49 Start: 33195, Stop: 33536, Start Num: 24
Candidate Starts for Tenney120_49:
(Start: 24 @33195 has 13 MA's), (38, 33237), (64, 33438), (65, 33441), (74, 33471),

Gene: Tenno_46 Start: 34812, Stop: 35114, Start Num: 29
Candidate Starts for Tenno_46:
(Start: 29 @34812 has 43 MA's), (32, 34818), (39, 34845), (43, 34869), (55, 34983), (58, 35013), (69, 35058),

Gene: Tipton_49 Start: 34681, Stop: 34980, Start Num: 29
Candidate Starts for Tipton_49:
(Start: 29 @34681 has 43 MA's), (43, 34738), (55, 34852), (57, 34879),

Gene: Tokki_50 Start: 34333, Stop: 34632, Start Num: 29
Candidate Starts for Tokki_50:
(Start: 29 @34333 has 43 MA's), (43, 34390), (55, 34504), (57, 34531),

Gene: Tonaltzin_59 Start: 38444, Stop: 38707, Start Num: 28
Candidate Starts for Tonaltzin_59:
(Start: 28 @38444 has 7 MA's), (Start: 36 @38459 has 49 MA's), (55, 38612),

Gene: Tribby_49 Start: 32243, Stop: 32566, Start Num: 33
Candidate Starts for Tribby_49:
(Start: 33 @32243 has 3 MA's), (Start: 37 @32258 has 18 MA's), (40, 32279), (44, 32315), (55, 32411), (60, 32450), (67, 32480), (70, 32489), (73, 32501), (75, 32513),

Gene: TrixiePhattel_49 Start: 32839, Stop: 33141, Start Num: 26
Candidate Starts for TrixiePhattel_49:
(Start: 26 @32839 has 1 MA's), (71, 33088),

Gene: Truckee_43 Start: 33926, Stop: 34225, Start Num: 29
Candidate Starts for Truckee_43:
(Start: 29 @33926 has 43 MA's), (43, 33983), (55, 34097), (57, 34124), (62, 34148), (67, 34166),

Gene: Trufflozitus_58 Start: 38984, Stop: 39235, Start Num: 36

Candidate Starts for Trufflozitus_58:
(Start: 36 @38984 has 49 MA's), (48, 39074), (55, 39137),

Gene: Trustiboi_45 Start: 34372, Stop: 34674, Start Num: 29
Candidate Starts for Trustiboi_45:
(Start: 29 @34372 has 43 MA's), (32, 34378), (55, 34543), (58, 34573), (69, 34618),

Gene: Untouchable_58 Start: 39434, Stop: 39682, Start Num: 36
Candidate Starts for Untouchable_58:
(8, 39290), (Start: 28 @39419 has 7 MA's), (Start: 36 @39434 has 49 MA's), (55, 39587),

Gene: Uzumaki_46 Start: 32889, Stop: 33236, Start Num: 24
Candidate Starts for Uzumaki_46:
(Start: 24 @32889 has 13 MA's), (38, 32931), (64, 33132), (65, 33135), (74, 33165),

Gene: Vardy_55 Start: 38214, Stop: 38462, Start Num: 36
Candidate Starts for Vardy_55:
(5, 38049), (16, 38136), (Start: 28 @38199 has 7 MA's), (Start: 36 @38214 has 49 MA's), (55, 38367),

Gene: Westerlin_45 Start: 35634, Stop: 35936, Start Num: 29
Candidate Starts for Westerlin_45:
(Start: 29 @35634 has 43 MA's), (32, 35640), (39, 35667), (43, 35691), (55, 35805), (58, 35835), (69, 35880),

Gene: Xenomorph_45 Start: 31991, Stop: 32299, Start Num: 37
Candidate Starts for Xenomorph_45:
(7, 31826), (Start: 33 @31976 has 3 MA's), (Start: 37 @31991 has 18 MA's), (40, 32012), (44, 32048), (55, 32144), (60, 32183), (67, 32213), (70, 32222), (73, 32234), (75, 32246),

Gene: YoshiYama_49 Start: 32575, Stop: 32883, Start Num: 37
Candidate Starts for YoshiYama_49:
(Start: 33 @32560 has 3 MA's), (Start: 37 @32575 has 18 MA's), (40, 32596), (44, 32632), (55, 32728), (60, 32767), (67, 32797), (70, 32806), (73, 32818), (75, 32830),

Gene: Zeina_49 Start: 33207, Stop: 33545, Start Num: 24
Candidate Starts for Zeina_49:
(Start: 24 @33207 has 13 MA's), (38, 33249), (64, 33450), (65, 33453),

Gene: Zeph_58 Start: 39362, Stop: 39610, Start Num: 36
Candidate Starts for Zeph_58:
(17, 39287), (Start: 28 @39347 has 7 MA's), (Start: 36 @39362 has 49 MA's), (55, 39515),

Gene: Zippen_47 Start: 34782, Stop: 35081, Start Num: 29
Candidate Starts for Zippen_47:
(Start: 29 @34782 has 43 MA's), (55, 34953), (57, 34980), (58, 34983),