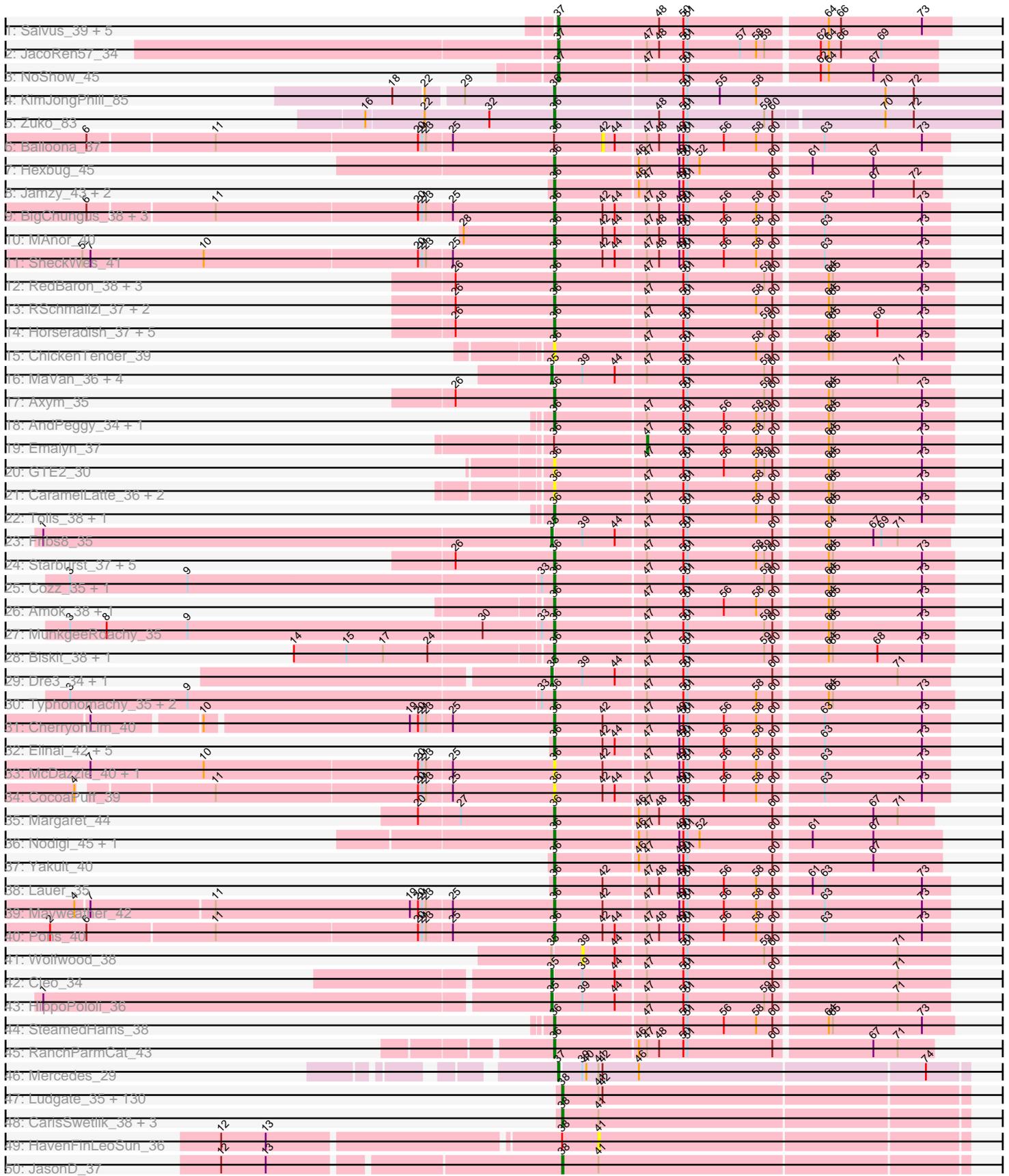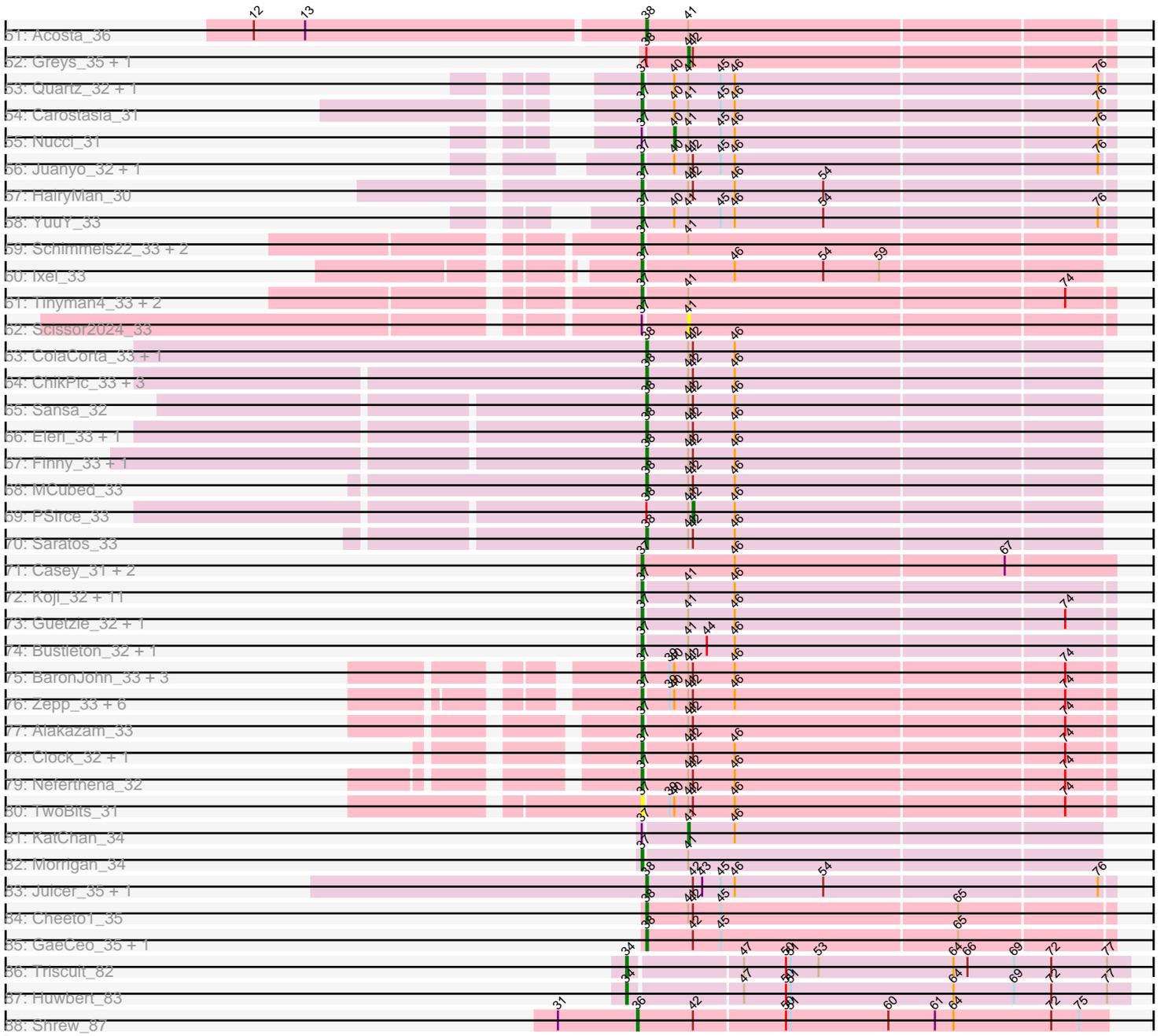# Pham 285203

Pham 285203

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 285203 Report

This analysis was run 03/28/26 on database version 641.

Pham number 285203 has 307 members, 49 are drafts.

Phages represented in each track:
• Track 1 : Salvus_39, FF47_37, Maco6_36, 8UZL_38, LongHai_39, Muddy_38
• Track 2 : JacoRen57_34
• Track 3 : NoShow_45
• Track 4 : KimJongPhill_85
• Track 5 : Zuko_83
• Track 6 : Balloona_37
• Track 7 : Hexbug_45
• Track 8 : Jamzy_43, GiKK_43, Button_41
• Track 9 : BigChungus_38, PotPie_39, SummitAcademy_38, Feastonyeet_38
• Track 10 : MAnor_40
• Track 11 : SheckWes_41
• Track 12 : RedBaron_38, Sopespian_35, SweatNTears_37, PsychoKiller_35
• Track 13 : RSchmailzl_37, Burnsey_35, Socotra_37
• Track 14 : Horseradish_37, Buttrmlkdreams_37, Blondies_38, Troje_37, Yummy_37, MScarn_38
• Track 15 : ChickenTender_39
• Track 16 : MaVan_36, Azira_36, Nibbles_35, Zareef_36, Survivors_36
• Track 17 : Axym_35
• Track 18 : AndPeggy_34, BillDoor_37
• Track 19 : Emalyn_37
• Track 20 : GTE2_30
• Track 21 : CaramelLatte_36, CanesSauce_36, ChocoMunchkin_36
• Track 22 : Tolls_38, Yarn_34
• Track 23 : Fribs8_35
• Track 24 : Starburst_37, GoldHunter_37, RADical_37, Eliott_36, Agatha_35, Quasar_36
• Track 25 : Cozz_35, Bubble_35
• Track 26 : Amok_38, AikoCarson_38
• Track 27 : MunkgeeRoachy_35
• Track 28 : Biskit_38, SketchMex_36
• Track 29 : Dre3_34, Gibbous_34
• Track 30 : Typhonomachy_35, Nina_36, Carsonalex_40
• Track 31 : CherryonLim_40
• Track 32 : Elinal_42, Tarnish_38, Vine_41, Yucky_41, Bavilard_38, KayGee_40
• Track 33 : McDazzle_40, ElJefes_39
• Track 34 : CocoaPuff_39
• Track 35 : Margaret_44

- Track 36 : Nodigi_45, Orla_45
- Track 37 : Yakult_40
- Track 38 : Lauer_35
- Track 39 : Mayweather_42
- Track 40 : Pons_40
- Track 41 : Wolfwood_38
- Track 42 : Cleo_34
- Track 43 : HippoPololi_36
- Track 44 : SteamedHams_38
- Track 45 : RanchParmCat_43
- Track 46 : Mercedes_29
- Track 47 : Ludgate_35, SonOfLevi_34, ManRay_34, Asta_34, Strathdee_35, Dothraki_35, Nattles_34, Thorongil_35, TeddyBear_34, Balsa_34, BigRedClifford_35, Velene_35, Etta_34, Shee_35, Erla_34, Phiderman_35, Christoph_34, Duocatuli_34, MrWorldwide_35, Raptor_35, Oxtober96_35, Phireproof_35, Espinosa_34, Hamlet_34, Papafritta_34, Blage_35, Peppino_34, MillyPhilly_35, HankSprout_35, StirfryIV_34, Anilorac_34, Jerbirus_35, Kurt1_35, Knox_35, Gelo_34, Robinson_35, Bandik_35, Raccoon_34, Chamuel_34, Redfield_34, TatarkaPM_35, Antoinette_35, RosieMae_34, AranulaLuti_34, Oats_34, Endor_35, Etna_34, KannH_34, Pherferi_35, TinSulphur_35, AxiPup_35, Clancy_34, Symere_34, Stanktossa_35, GoingMerry_35, JeriBeth_35, MaeLinda_35, Phriends_35, KingJulien_34, Kouch_34, GoneGirl_35, Aubergine_34, Superfresh_35, Agente005_35, SolidSnake_36, Byron23_35, Gargoyle_35, Vispistious_35, Rog141_34, Delphidian_35, KellyGreen_35, Rapheph_35, HanSolo_34, SoilGremlin_35, BonesMcCoy_35, Gubbabump_34, Calix_34, Nagem_35, ShaiHulud_35, BeautPeep30_35, Gershwin_34, PuppyEggo_35, PhillyPhantom_34, Sedgewig_34, Peep_35, NickSell_35, Tenda_34, Riyhil_35, Baines_34, Ilzat_34, Inventa_35, Convict_35, BeeBee8_35, AlexAdler_35, Kale_34, HungryHenry_34, OldNelly_35, Chako_34, Pocket_34, Dave_35, Winzigespinne_34, Stormbreaker8_34, WildNOut_35, SJay_35, Thompsone_35, Den3_35, Exploradora_34, Soror1_34, PhredFlintston_35, Ioannes_35, GardenB_34, Leafus_34, StingRay_34, Figueroism_35, Benjalauren_35, MonChoix_33, FarmerDoug_34, Teagan_35, Alyxandracam_35, ParleG_35, Garey24_34, JasperRussell_34, Lovelyunicorn_35, Klimt_34, Bonino_34, Schnapsidee_34, Martin_36, Zada_35, Janus167_34, Renzie_35, Merida02_36
- Track 48 : CarisSwetlik_38, McGalleon_37, Jenos_38, Schubert_32
- Track 49 : HavenFinLeoSun_36
- Track 50 : JasonD_37
- Track 51 : Acosta_36
- Track 52 : Greys_35, CoraRita_35
- Track 53 : Quartz_32, Mandalorian_31
- Track 54 : Carostasia_31
- Track 55 : Nucci_31
- Track 56 : Juanyo_32, MiniVolent_32
- Track 57 : HairyMan_30
- Track 58 : YuuY_33
- Track 59 : Schimmels22_33, WestPM_31, Penta_31
- Track 60 : Ixel_33
- Track 61 : Tinyman4_33, HerculesXL_33, Kavo_32
- Track 62 : Scissor2024_33
- Track 63 : ColaCorta_33, Andromedas_33
- Track 64 : ChikPic_33, Shamu_33, Glamour_32, Zenitsu_33
- Track 65 : Sansa_32
- Track 66 : Eleri_33, Xebius_33

- Track 67 : Finny_33, Phanita_33
- Track 68 : MCubed_33
- Track 69 : PSirce_33
- Track 70 : Saratos_33
- Track 71 : Casey_31, Pikmin_31, Pajaza_31
- Track 72 : Koji_32, Chepli_34, Lucky3_32, Jingles_32, PrincePhergus_32, BouleyBill_32, Luna18_34, Sinatra_32, WilliamStrong_33, Golden_32, RenegadeRaider_33, Kauala_32
- Track 73 : Guetzie_32, SirVictor_32
- Track 74 : Bustleton_32, Pherbot_32
- Track 75 : BaronJohn_33, Librie_32, CaptainRex_32, GreenIvy_32
- Track 76 : Zepp_33, QuadZero_32, Wardwill_34, Zayuliv_32, LilTerminator_32, Fulton_32, Hasitha_32
- Track 77 : Alakazam_33
- Track 78 : Clock_32, Nebulous_32
- Track 79 : Neferthena_32
- Track 80 : TwoBits_31
- Track 81 : KatChan_34
- Track 82 : Morrigan_34
- Track 83 : Juicer_35, Jemerald_35
- Track 84 : Cheeto1_35
- Track 85 : GaeCeo_35, ChickenKing_34
- Track 86 : Triscuit_82
- Track 87 : Huwbert_83
- Track 88 : Shrew_87

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

The start number called the most often in the published annotations is 38, it was called in 143 of the 258 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Acosta_36, Agente005_35, AlexAdler_35, Alyxandracam_35, Andromedas_33, Anilorac_34, Antoinette_35, AranulaLuti_34, Asta_34, Aubergine_34, AxiPup_35, Baines_34, Balsa_34, Bandik_35, BeautPeep30_35, BeeBee8_35, Benjalauren_35, BigRedClifford_35, Blage_35, BonesMcCoy_35, Bonino_34, Byron23_35, Calix_34, CarisSwetlik_38, Chako_34, Chamuel_34, Cheeto1_35, ChickenKing_34, ChikPic_33, Christoph_34, Clancy_34, ColaCorta_33, Convict_35, Dave_35, Delphidian_35, Den3_35, Dothraki_35, Duocatuli_34, Eleri_33, Endor_35, Erla_34, Espinosa_34, Etna_34, Etta_34, Exploradora_34, FarmerDoug_34, Figueroism_35, Finny_33, GaeCeo_35, GardenB_34, Garey24_34, Gargoyle_35, Gelo_34, Gershwin_34, Glamour_32, GoingMerry_35, GoneGirl_35, Gubbabump_34, Hamlet_34, HanSolo_34, HankSprout_35, HungryHenry_34, Ilzat_34, Inventa_35, Ioannes_35, Janus167_34, JasonD_37, JasperRussell_34, Jemerald_35, Jenos_38, Jerbirus_35, JeriBeth_35, Juicer_35, Kale_34, KannH_34, KellyGreen_35, KingJulien_34, Klimt_34, Knox_35, Kouch_34, Kurt1_35, Leafus_34, Lovelyunicorn_35, Ludgate_35, MCubed_33, MaeLinda_35, ManRay_34, Martin_36, McGalleon_37, Merida02_36, MillyPhilly_35, MonChoix_33, MrWorldwide_35, Nagem_35, Nattles_34, NickSell_35, Oats_34, OldNelly_35, Oxtober96_35, Papafritta_34, ParleG_35, Peep_35, Peppino_34, Phanita_33, Pherferi_35,

Phiderman_35, PhillyPhantom_34, Phireproof_35, PhredFlintston_35, Phriends_35, Pocket_34, PuppyEggo_35, Raccoon_34, Rapheph_35, Raptor_35, Redfield_34, Renzie_35, Riyhil_35, Robinson_35, Rog141_34, RosieMae_34, SJay_35, Sansa_32, Saratos_33, Schnapsidee_34, Schubert_32, Sedgewig_34, ShaiHulud_35, Shamu_33, Shee_35, SoilGremlin_35, SolidSnake_36, SonOfLevi_34, Soror1_34, Stanktossa_35, StingRay_34, StirfryIV_34, Stormbreaker8_34, Strathdee_35, Superfresh_35, Symere_34, TatarkaPM_35, Teagan_35, TeddyBear_34, Tenda_34, Thompsone_35, Thorongil_35, TinSulphur_35, Velene_35, Vispistious_35, WildNOut_35, Winzigespinne_34, Xebius_33, Zada_35, Zenitsu_33,

Genes that have the "Most Annotated" start but do not call it:
• CoraRita_35, Greys_35, HavenFinLeoSun_36, PSirce_33,

Genes that do not have the "Most Annotated" start:
• 8UZL_38, Agatha_35, AikoCarson_38, Alakazam_33, Amok_38, AndPeggy_34, Axym_35, Azira_36, Balloona_37, BaronJohn_33, Bavilard_38, BigChungus_38, BillDoor_37, Biskit_38, Blondies_38, BouleyBill_32, Bubble_35, Burnsey_35, Bustleton_32, Button_41, Buttrmlkdreams_37, CanesSauce_36, CaptainRex_32, CaramelLatte_36, Carostasia_31, Carsonalex_40, Casey_31, Chepli_34, CherryonLim_40, ChickenTender_39, ChocoMunchkin_36, Cleo_34, Clock_32, CocoaPuff_39, Cozz_35, Dre3_34, ElJefes_39, Elinal_42, Eliott_36, Emalyn_37, FF47_37, Feastonyeet_38, Fribs8_35, Fulton_32, GTE2_30, GiKK_43, Gibbous_34, GoldHunter_37, Golden_32, GreenIvy_32, Guetzie_32, HairyMan_30, Hasitha_32, HerculesXL_33, Hexbug_45, HippoPololi_36, Horseradish_37, Huwbert_83, Ixel_33, JacoRen57_34, Jamzy_43, Jingles_32, Juanyo_32, KatChan_34, Kauala_32, Kavo_32, KayGee_40, KimJongPhill_85, Koji_32, Lauer_35, Librie_32, LilTerminator_32, LongHai_39, Lucky3_32, Luna18_34, MAnor_40, MScarn_38, MaVan_36, Maco6_36, Mandalorian_31, Margaret_44, Mayweather_42, McDazzle_40, Mercedes_29, MiniVolent_32, Morrigan_34, Muddy_38, MunkgeeRoachy_35, Nebulous_32, Neferthena_32, Nibbles_35, Nina_36, NoShow_45, Nodigi_45, Nucci_31, Orla_45, Pajaza_31, Penta_31, Pherbot_32, Pikmin_31, Pons_40, PotPie_39, PrincePhergus_32, PsychoKiller_35, QuadZero_32, Quartz_32, Quasar_36, RADical_37, RSchmailzl_37, RanchParmCat_43, RedBaron_38, RenegadeRaider_33, Salvus_39, Schimmels22_33, Scissor2024_33, SheckWes_41, Shrew_87, Sinatra_32, SirVictor_32, SketchMex_36, Socotra_37, Sopespian_35, Starburst_37, SteamedHams_38, SummitAcademy_38, Survivors_36, SweatNTears_37, Tarnish_38, Tinyman4_33, Tolls_38, Triscuit_82, Troje_37, TwoBits_31, Typhonomachy_35, Vine_41, Wardwill_34, WestPM_31, WilliamStrong_33, Wolfwood_38, Yakult_40, Yarn_34, Yucky_41, Yummy_37, YuuY_33, Zareef_36, Zayuliv_32, Zepp_33, Zuko_83,

Summary by start number:

Start 34:
• Found in 2 of 307 (0.7%) of genes in pham
• Manual Annotations of this start: 2 of 258
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Huwbert_83 (GG), Triscuit_82 (GG),

Start 35:
• Found in 11 of 307 (3.6%) of genes in pham
• Manual Annotations of this start: 10 of 258

• Called 90.9% of time when present
• Phage (with cluster) where this start called: Azira_36 (CT), Cleo_34 (CT), Dre3_34 (CT), Fribs8_35 (CT), Gibbous_34 (CT), HippoPololi_36 (CT), MaVan_36 (CT), Nibbles_35 (CT), Survivors_36 (CT), Zareef_36 (CT),

Start 36:
• Found in 73 of 307 (23.8%) of genes in pham
• Manual Annotations of this start: 51 of 258
• Called 97.3% of time when present
• Phage (with cluster) where this start called: Agatha_35 (CT), AikoCarson_38 (CT), Amok_38 (CT), AndPeggy_34 (CT), Axym_35 (CT), Bavilard_38 (CT), BigChungus_38 (CT), BillDoor_37 (CT), Biskit_38 (CT), Blondies_38 (CT), Bubble_35 (CT), Burnsey_35 (CT), Button_41 (CT), Buttrmlkdreams_37 (CT), CanesSauce_36 (CT), CaramelLatte_36 (CT), Carsonalex_40 (CT), CherryonLim_40 (CT), ChickenTender_39 (CT), ChocoMunchkin_36 (CT), CocoaPuff_39 (CT), Cozz_35 (CT), ElJefes_39 (CT), Elinal_42 (CT), Eliott_36 (CT), Feastonyeet_38 (CT), GTE2_30 (CT), GiKK_43 (CT), GoldHunter_37 (CT), Hexbug_45 (CT), Horseradish_37 (CT), Jamzy_43 (CT), KayGee_40 (CT), KimJongPhill_85 (BR), Lauer_35 (CT), MAnor_40 (CT), MScarn_38 (CT), Margaret_44 (CT), Mayweather_42 (CT), McDazzle_40 (CT), MunkgeeRoachy_35 (CT), Nina_36 (CT), Nodigi_45 (CT), Orla_45 (CT), Pons_40 (CT), PotPie_39 (CT), PsychoKiller_35 (CT), Quasar_36 (CT), RADical_37 (CT), RSchmailzl_37 (CT), RanchParmCat_43 (CT), RedBaron_38 (CT), SheckWes_41 (CT), Shrew_87 (singleton), SketchMex_36 (CT), Socotra_37 (CT), Sopespian_35 (CT), Starburst_37 (CT), SteamedHams_38 (CT), SummitAcademy_38 (CT), SweatNTears_37 (CT), Tarnish_38 (CT), Tolls_38 (CT), Troje_37 (CT), Typhonomachy_35 (CT), Vine_41 (CT), Yakult_40 (CT), Yarn_34 (CT), Yucky_41 (CT), Yummy_37 (CT), Zuko_83 (BR),

Start 37:
• Found in 62 of 307 (20.2%) of genes in pham
• Manual Annotations of this start: 47 of 258
• Called 95.2% of time when present
• Phage (with cluster) where this start called: 8UZL_38 (AB), Alakazam_33 (EA5), BaronJohn_33 (EA5), BouleyBill_32 (EA4), Bustleton_32 (EA4), CaptainRex_32 (EA5), Carostasia_31 (EA10), Casey_31 (EA3), Chepli_34 (EA6), Clock_32 (EA5), FF47_37 (AB), Fulton_32 (EA5), Golden_32 (EA4), GreenIvy_32 (EA5), Guetzie_32 (EA4), HairyMan_30 (EA10), Hasitha_32 (EA5), HerculesXL_33 (EA11), Ixel_33 (EA11), JacoRen57_34 (AB), Jingles_32 (EA4), Juanyo_32 (EA10), Kauala_32 (EA4), Kavo_32 (EA11), Koji_32 (EA4), Librie_32 (EA5), LilTerminator_32 (EA5), LongHai_39 (AB), Lucky3_32 (EA4), Luna18_34 (EA6), Maco6_36 (AB), Mandalorian_31 (EA10), Mercedes_29 (EA), MiniVolent_32 (EA10), Morrigan_34 (EA6), Muddy_38 (AB), Nebulous_32 (EA5), Neferthena_32 (EA5), NoShow_45 (AB), Pajaza_31 (EA3), Penta_31 (EA11), Pherbot_32 (EA4), Pikmin_31 (EA3), PrincePhergus_32 (EA4), QuadZero_32 (EA5), Quartz_32 (EA10), RenegadeRaider_33 (EA4), Salvus_39 (AB), Schimmels22_33 (EA11), Sinatra_32 (EA4), SirVictor_32 (EA4), Tinyman4_33 (EA11), TwoBits_31 (EA5), Wardwill_34 (EA5), WestPM_31 (EA11), WilliamStrong_33 (EA6), YuuY_33 (EA10), Zayuliv_32 (EA5), Zepp_33 (EA5),

Start 38:
• Found in 159 of 307 (51.8%) of genes in pham
• Manual Annotations of this start: 143 of 258
• Called 97.5% of time when present

• Phage (with cluster) where this start called: Acosta_36 (EA1), Agente005_35 (EA1), AlexAdler_35 (EA1), Alyxandracam_35 (EA1), Andromedas_33 (EA2), Anilorac_34 (EA1), Antoinette_35 (EA1), AranulaLuti_34 (EA1), Asta_34 (EA1), Aubergine_34 (EA1), AxiPup_35 (EA1), Baines_34 (EA1), Balsa_34 (EA1), Bandik_35 (EA1), BeautPeep30_35 (EA1), BeeBee8_35 (EA1), Benjalauren_35 (EA1), BigRedClifford_35 (EA1), Blage_35 (EA1), BonesMcCoy_35 (EA1), Bonino_34 (EA1), Byron23_35 (EA1), Calix_34 (EA1), CarisSwetlik_38 (EA1), Chako_34 (EA1), Chamuel_34 (EA1), Cheeto1_35 (EA9), ChickenKing_34 (EA9), ChikPic_33 (EA2), Christoph_34 (EA1), Clancy_34 (EA1), ColaCorta_33 (EA2), Convict_35 (EA1), Dave_35 (EA1), Delphidian_35 (EA1), Den3_35 (EA1), Dothraki_35 (EA1), Duocatuli_34 (EA1), Eleri_33 (EA2), Endor_35 (EA1), Erla_34 (EA1), Espinosa_34 (EA1), Etna_34 (EA1), Etta_34 (EA1), Exploradora_34 (EA1), FarmerDoug_34 (EA1), Figueroism_35 (EA1), Finny_33 (EA2), GaeCeo_35 (EA9), GardenB_34 (EA1), Garey24_34 (EA1), Gargoyle_35 (EA1), Gelo_34 (EA1), Gershwin_34 (EA1), Glamour_32 (EA2), GoingMerry_35 (EA1), GoneGirl_35 (EA1), Gubbabump_34 (EA1), Hamlet_34 (EA1), HanSolo_34 (EA1), HankSprout_35 (EA1), HungryHenry_34 (EA1), Ilzat_34 (EA1), Inventa_35 (EA1), Ioannes_35 (EA1), Janus167_34 (EA1), JasonD_37 (EA1), JasperRussell_34 (EA1), Jemerald_35 (EA6), Jenos_38 (EA1), Jerbirus_35 (EA1), JeriBeth_35 (EA1), Juicer_35 (EA6), Kale_34 (EA1), KannH_34 (EA1), KellyGreen_35 (EA1), KingJulien_34 (EA1), Klimt_34 (EA1), Knox_35 (EA1), Kouch_34 (EA1), Kurt1_35 (EA1), Leafus_34 (EA1), Lovelyunicorn_35 (EA1), Ludgate_35 (EA1), MCubed_33 (EA2), MaeLinda_35 (EA1), ManRay_34 (EA1), Martin_36 (EA1), McGalleon_37 (EA1), Merida02_36 (EA1), MillyPhilly_35 (EA1), MonChoix_33 (EA1), MrWorldwide_35 (EA1), Nagem_35 (EA1), Nattles_34 (EA1), NickSell_35 (EA1), Oats_34 (EA1), OldNelly_35 (EA1), Oxtober96_35 (EA1), Papafritta_34 (EA1), ParleG_35 (EA1), Peep_35 (EA1), Peppino_34 (EA1), Phanita_33 (EA2), Pherferi_35 (EA1), Phiderman_35 (EA1), PhillyPhantom_34 (EA1), Phireproof_35 (EA1), PhredFlintston_35 (EA1), Phriends_35 (EA1), Pocket_34 (EA1), PuppyEggo_35 (EA1), Raccoon_34 (EA1), Rapheph_35 (EA1), Raptor_35 (EA1), Redfield_34 (EA1), Renzie_35 (EA1), Riyhil_35 (EA1), Robinson_35 (EA1), Rog141_34 (EA1), RosieMae_34 (EA1), SJay_35 (EA1), Sansa_32 (EA2), Saratos_33 (EA2), Schnapsidee_34 (EA1), Schubert_32 (EA8), Sedgewig_34 (EA1), ShaiHulud_35 (EA1), Shamu_33 (EA2), Shee_35 (EA1), SoilGremlin_35 (EA1), SolidSnake_36 (EA1), SonOfLevi_34 (EA1), Soror1_34 (EA1), Stanktossa_35 (EA1), StingRay_34 (EA1), StirfryIV_34 (EA1), Stormbreaker8_34 (EA1), Strathdee_35 (EA1), Superfresh_35 (EA1), Symere_34 (EA1), TatarkaPM_35 (EA1), Teagan_35 (EA1), TeddyBear_34 (EA1), Tenda_34 (EA1), Thompsone_35 (EA1), Thorongil_35 (EA1), TinSulphur_35 (EA1), Velene_35 (EA1), Vispistious_35 (EA1), WildNOut_35 (EA1), Winzigespinne_34 (EA1), Xebius_33 (EA2), Zada_35 (EA1), Zenitsu_33 (EA2),

Start 39:
• Found in 24 of 307 (7.8%) of genes in pham
• No Manual Annotations of this start.
• Called 4.2% of time when present
• Phage (with cluster) where this start called: Wolfwood_38 (CT),

Start 40:
• Found in 20 of 307 (6.5%) of genes in pham
• Manual Annotations of this start: 1 of 258
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Nucci_31 (EA10),

Start 41:
• Found in 205 of 307 (66.8%) of genes in pham
• Manual Annotations of this start: 2 of 258
• Called 2.4% of time when present
• Phage (with cluster) where this start called: CoraRita_35 (EA1), Greys_35 (EA1), HavenFinLeoSun_36 (EA1), KatChan_34 (EA6), Scissor2024_33 (EA11),

Start 42:
• Found in 193 of 307 (62.9%) of genes in pham
• Manual Annotations of this start: 1 of 258
• Called 1.0% of time when present
• Phage (with cluster) where this start called: Balloona_37 (CT), PSirce_33 (EA2),

Start 47:
• Found in 84 of 307 (27.4%) of genes in pham
• Manual Annotations of this start: 1 of 258
• Called 1.2% of time when present
• Phage (with cluster) where this start called: Emalyn_37 (CT),

Summary by clusters:

There are 16 clusters represented in this pham: GG, singleton, AB, EA11, EA10, EA6, EA, EA9, EA8, BR, EA1, EA3, EA2, EA5, EA4, CT,

Info for manual annotations of cluster AB:
•Start number 37 was manually annotated 4 times for cluster AB.

Info for manual annotations of cluster BR:
•Start number 36 was manually annotated 2 times for cluster BR.

Info for manual annotations of cluster CT:
•Start number 35 was manually annotated 10 times for cluster CT.
•Start number 36 was manually annotated 48 times for cluster CT.
•Start number 47 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster EA:
•Start number 37 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA1:
•Start number 38 was manually annotated 125 times for cluster EA1.
•Start number 41 was manually annotated 1 time for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 37 was manually annotated 6 times for cluster EA10.
•Start number 40 was manually annotated 1 time for cluster EA10.

Info for manual annotations of cluster EA11:
•Start number 37 was manually annotated 5 times for cluster EA11.

Info for manual annotations of cluster EA2:
•Start number 38 was manually annotated 12 times for cluster EA2.
•Start number 42 was manually annotated 1 time for cluster EA2.

Info for manual annotations of cluster EA3:
•Start number 37 was manually annotated 3 times for cluster EA3.

Info for manual annotations of cluster EA4:
•Start number 37 was manually annotated 11 times for cluster EA4.

Info for manual annotations of cluster EA5:
•Start number 37 was manually annotated 13 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 37 was manually annotated 4 times for cluster EA6.
•Start number 38 was manually annotated 2 times for cluster EA6.
•Start number 41 was manually annotated 1 time for cluster EA6.

Info for manual annotations of cluster EA8:
•Start number 38 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:
•Start number 38 was manually annotated 3 times for cluster EA9.

Info for manual annotations of cluster GG:
•Start number 34 was manually annotated 2 times for cluster GG.

Gene Information:

Gene: 8UZL_38 Start: 28660, Stop: 28376, Start Num: 37
Candidate Starts for 8UZL_38:
(Start: 37 @28660 has 47 MA's), (48, 28585), (50, 28567), (51, 28564), (64, 28465), (66, 28456), (73, 28396),

Gene: Acosta_36 Start: 24757, Stop: 24464, Start Num: 38
Candidate Starts for Acosta_36:
(12, 25003), (13, 24970), (Start: 38 @24757 has 143 MA's), (Start: 41 @24730 has 2 MA's),

Gene: Agatha_35 Start: 26614, Stop: 26327, Start Num: 36
Candidate Starts for Agatha_35:
(26, 26686), (Start: 36 @26614 has 51 MA's), (Start: 47 @26548 has 1 MA's), (50, 26521), (51, 26518), (58, 26467), (59, 26461), (60, 26455), (64, 26419), (65, 26416), (73, 26350),

Gene: Agente005_35 Start: 24581, Stop: 24288, Start Num: 38
Candidate Starts for Agente005_35:
(Start: 38 @24581 has 143 MA's), (Start: 41 @24554 has 2 MA's), (Start: 42 @24551 has 1 MA's),

Gene: AikoCarson_38 Start: 27454, Stop: 27167, Start Num: 36
Candidate Starts for AikoCarson_38:
(Start: 36 @27454 has 51 MA's), (Start: 47 @27388 has 1 MA's), (50, 27361), (51, 27358), (56, 27331), (58, 27307), (60, 27295), (64, 27259), (65, 27256), (73, 27190),

Gene: Alakazam_33 Start: 23875, Stop: 23582, Start Num: 37
Candidate Starts for Alakazam_33:

(Start: 37 @23875 has 47 MA's), (Start: 41 @23848 has 2 MA's), (Start: 42 @23845 has 1 MA's), (74, 23611),

Gene: AlexAdler_35 Start: 24357, Stop: 24064, Start Num: 38
Candidate Starts for AlexAdler_35:
(Start: 38 @24357 has 143 MA's), (Start: 41 @24330 has 2 MA's), (Start: 42 @24327 has 1 MA's),

Gene: Alyxandracam_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Alyxandracam_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Amok_38 Start: 27478, Stop: 27191, Start Num: 36
Candidate Starts for Amok_38:
(Start: 36 @27478 has 51 MA's), (Start: 47 @27412 has 1 MA's), (50, 27385), (51, 27382), (56, 27355), (58, 27331), (60, 27319), (64, 27283), (65, 27280), (73, 27214),

Gene: AndPeggy_34 Start: 26881, Stop: 26594, Start Num: 36
Candidate Starts for AndPeggy_34:
(Start: 36 @26881 has 51 MA's), (Start: 47 @26815 has 1 MA's), (50, 26788), (51, 26785), (56, 26758), (58, 26734), (59, 26728), (60, 26722), (64, 26686), (65, 26683), (73, 26617),

Gene: Andromedas_33 Start: 23980, Stop: 23693, Start Num: 38
Candidate Starts for Andromedas_33:
(Start: 38 @23980 has 143 MA's), (Start: 41 @23953 has 2 MA's), (Start: 42 @23950 has 1 MA's), (46, 23923),

Gene: Anilorac_34 Start: 24425, Stop: 24132, Start Num: 38
Candidate Starts for Anilorac_34:
(Start: 38 @24425 has 143 MA's), (Start: 41 @24398 has 2 MA's), (Start: 42 @24395 has 1 MA's),

Gene: Antoinette_35 Start: 24354, Stop: 24061, Start Num: 38
Candidate Starts for Antoinette_35:
(Start: 38 @24354 has 143 MA's), (Start: 41 @24327 has 2 MA's), (Start: 42 @24324 has 1 MA's),

Gene: AranulaLuti_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for AranulaLuti_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Asta_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for Asta_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: Aubergine_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for Aubergine_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: AxiPup_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for AxiPup_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Axym_35 Start: 26592, Stop: 26305, Start Num: 36
Candidate Starts for Axym_35:

(26, 26664), (Start: 36 @26592 has 51 MA's), (50, 26499), (51, 26496), (59, 26439), (60, 26433), (64, 26397), (65, 26394), (73, 26328),

Gene: Azira_36 Start: 27274, Stop: 26990, Start Num: 35
Candidate Starts for Azira_36:
(Start: 35 @27274 has 10 MA's), (39, 27253), (44, 27229), (Start: 47 @27208 has 1 MA's), (50, 27181), (51, 27178), (59, 27121), (60, 27115), (71, 27028),

Gene: Baines_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Baines_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Balloona_37 Start: 28139, Stop: 27891, Start Num: 42
Candidate Starts for Balloona_37:
(6, 28511), (11, 28421), (20, 28274), (21, 28271), (23, 28268), (25, 28250), (Start: 36 @28175 has 51 MA's), (Start: 42 @28139 has 1 MA's), (44, 28130), (Start: 47 @28109 has 1 MA's), (48, 28100), (49, 28085), (50, 28082), (51, 28079), (56, 28052), (58, 28028), (60, 28016), (63, 27983), (73, 27911),

Gene: Balsa_34 Start: 24471, Stop: 24178, Start Num: 38
Candidate Starts for Balsa_34:
(Start: 38 @24471 has 143 MA's), (Start: 41 @24444 has 2 MA's), (Start: 42 @24441 has 1 MA's),

Gene: Bandik_35 Start: 24362, Stop: 24069, Start Num: 38
Candidate Starts for Bandik_35:
(Start: 38 @24362 has 143 MA's), (Start: 41 @24335 has 2 MA's), (Start: 42 @24332 has 1 MA's),

Gene: BaronJohn_33 Start: 22797, Stop: 22504, Start Num: 37
Candidate Starts for BaronJohn_33:
(Start: 37 @22797 has 47 MA's), (39, 22782), (Start: 40 @22779 has 1 MA's), (Start: 41 @22770 has 2 MA's), (Start: 42 @22767 has 1 MA's), (46, 22740), (74, 22533),

Gene: Bavilard_38 Start: 28386, Stop: 28102, Start Num: 36
Candidate Starts for Bavilard_38:
(Start: 36 @28386 has 51 MA's), (Start: 42 @28350 has 1 MA's), (44, 28341), (Start: 47 @28320 has 1 MA's), (49, 28296), (50, 28293), (51, 28290), (56, 28263), (58, 28239), (60, 28227), (63, 28194), (73, 28122),

Gene: BeautPeep30_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for BeautPeep30_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: BeeBee8_35 Start: 24638, Stop: 24345, Start Num: 38
Candidate Starts for BeeBee8_35:
(Start: 38 @24638 has 143 MA's), (Start: 41 @24611 has 2 MA's), (Start: 42 @24608 has 1 MA's),

Gene: Benjalauren_35 Start: 24061, Stop: 23768, Start Num: 38
Candidate Starts for Benjalauren_35:
(Start: 38 @24061 has 143 MA's), (Start: 41 @24034 has 2 MA's), (Start: 42 @24031 has 1 MA's),

Gene: BigChungus_38 Start: 28576, Stop: 28292, Start Num: 36
Candidate Starts for BigChungus_38:
(6, 28912), (11, 28822), (20, 28675), (21, 28672), (23, 28669), (25, 28651), (Start: 36 @28576 has 51 MA's), (Start: 42 @28540 has 1 MA's), (44, 28531), (Start: 47 @28510 has 1 MA's), (48, 28501), (49,

28486), (50, 28483), (51, 28480), (56, 28453), (58, 28429), (60, 28417), (63, 28384), (73, 28312),

Gene: BigRedClifford_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for BigRedClifford_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: BillDoor_37 Start: 26558, Stop: 26271, Start Num: 36
Candidate Starts for BillDoor_37:
(Start: 36 @26558 has 51 MA's), (Start: 47 @26492 has 1 MA's), (50, 26465), (51, 26462), (56, 26435), (58, 26411), (59, 26405), (60, 26399), (64, 26363), (65, 26360), (73, 26294),

Gene: Biskit_38 Start: 26909, Stop: 26622, Start Num: 36
Candidate Starts for Biskit_38:
(14, 27092), (15, 27053), (17, 27026), (24, 26993), (Start: 36 @26909 has 51 MA's), (Start: 47 @26843 has 1 MA's), (50, 26816), (51, 26813), (59, 26756), (60, 26750), (64, 26714), (65, 26711), (68, 26678), (73, 26645),

Gene: Blage_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Blage_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Blondies_38 Start: 26885, Stop: 26598, Start Num: 36
Candidate Starts for Blondies_38:
(26, 26957), (Start: 36 @26885 has 51 MA's), (Start: 47 @26819 has 1 MA's), (50, 26792), (51, 26789), (59, 26732), (60, 26726), (64, 26690), (65, 26687), (68, 26654), (73, 26621),

Gene: BonesMcCoy_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for BonesMcCoy_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Bonino_34 Start: 24040, Stop: 23747, Start Num: 38
Candidate Starts for Bonino_34:
(Start: 38 @24040 has 143 MA's), (Start: 41 @24013 has 2 MA's), (Start: 42 @24010 has 1 MA's),

Gene: BouleyBill_32 Start: 23931, Stop: 23638, Start Num: 37
Candidate Starts for BouleyBill_32:
(Start: 37 @23931 has 47 MA's), (Start: 41 @23904 has 2 MA's), (46, 23874),

Gene: Bubble_35 Start: 26593, Stop: 26306, Start Num: 36
Candidate Starts for Bubble_35:
(3, 26947), (9, 26860), (33, 26602), (Start: 36 @26593 has 51 MA's), (Start: 47 @26527 has 1 MA's), (50, 26500), (51, 26497), (59, 26440), (60, 26434), (64, 26398), (65, 26395), (73, 26329),

Gene: Burnsey_35 Start: 26605, Stop: 26318, Start Num: 36
Candidate Starts for Burnsey_35:
(26, 26677), (Start: 36 @26605 has 51 MA's), (Start: 47 @26539 has 1 MA's), (50, 26512), (51, 26509), (58, 26458), (60, 26446), (64, 26410), (65, 26407), (73, 26341),

Gene: Bustleton_32 Start: 23931, Stop: 23638, Start Num: 37
Candidate Starts for Bustleton_32:
(Start: 37 @23931 has 47 MA's), (Start: 41 @23904 has 2 MA's), (44, 23892), (46, 23874),

Gene: Button_41 Start: 27875, Stop: 27597, Start Num: 36

Candidate Starts for Button_41:
(Start: 36 @27875 has 51 MA's), (46, 27815), (Start: 47 @27809 has 1 MA's), (49, 27785), (50, 27782), (51, 27779), (60, 27716), (67, 27647), (72, 27617),

Gene: Buttrmlkdreams_37 Start: 26891, Stop: 26604, Start Num: 36
Candidate Starts for Buttrmlkdreams_37:
(26, 26963), (Start: 36 @26891 has 51 MA's), (Start: 47 @26825 has 1 MA's), (50, 26798), (51, 26795), (59, 26738), (60, 26732), (64, 26696), (65, 26693), (68, 26660), (73, 26627),

Gene: Byron23_35 Start: 24371, Stop: 24078, Start Num: 38
Candidate Starts for Byron23_35:
(Start: 38 @24371 has 143 MA's), (Start: 41 @24344 has 2 MA's), (Start: 42 @24341 has 1 MA's),

Gene: Calix_34 Start: 24044, Stop: 23751, Start Num: 38
Candidate Starts for Calix_34:
(Start: 38 @24044 has 143 MA's), (Start: 41 @24017 has 2 MA's), (Start: 42 @24014 has 1 MA's),

Gene: CanesSauce_36 Start: 27054, Stop: 26767, Start Num: 36
Candidate Starts for CanesSauce_36:
(Start: 36 @27054 has 51 MA's), (Start: 47 @26988 has 1 MA's), (50, 26961), (51, 26958), (58, 26907), (60, 26895), (64, 26859), (65, 26856), (73, 26790),

Gene: CaptainRex_32 Start: 22209, Stop: 21916, Start Num: 37
Candidate Starts for CaptainRex_32:
(Start: 37 @22209 has 47 MA's), (39, 22194), (Start: 40 @22191 has 1 MA's), (Start: 41 @22182 has 2 MA's), (Start: 42 @22179 has 1 MA's), (46, 22152), (74, 21945),

Gene: CaramelLatte_36 Start: 27054, Stop: 26767, Start Num: 36
Candidate Starts for CaramelLatte_36:
(Start: 36 @27054 has 51 MA's), (Start: 47 @26988 has 1 MA's), (50, 26961), (51, 26958), (58, 26907), (60, 26895), (64, 26859), (65, 26856), (73, 26790),

Gene: CarisSwetlik_38 Start: 25252, Stop: 24959, Start Num: 38
Candidate Starts for CarisSwetlik_38:
(Start: 38 @25252 has 143 MA's), (Start: 41 @25225 has 2 MA's),

Gene: Carostasia_31 Start: 23654, Stop: 23361, Start Num: 37
Candidate Starts for Carostasia_31:
(Start: 37 @23654 has 47 MA's), (Start: 40 @23636 has 1 MA's), (Start: 41 @23627 has 2 MA's), (45, 23606), (46, 23597), (76, 23369),

Gene: Carsonalex_40 Start: 27034, Stop: 26747, Start Num: 36
Candidate Starts for Carsonalex_40:
(3, 27388), (9, 27301), (33, 27043), (Start: 36 @27034 has 51 MA's), (Start: 47 @26968 has 1 MA's), (50, 26941), (51, 26938), (58, 26887), (60, 26875), (64, 26839), (65, 26836), (73, 26770),

Gene: Casey_31 Start: 23331, Stop: 23032, Start Num: 37
Candidate Starts for Casey_31:
(Start: 37 @23331 has 47 MA's), (46, 23271), (67, 23100),

Gene: Chako_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Chako_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Chamuel_34 Start: 24046, Stop: 23753, Start Num: 38
Candidate Starts for Chamuel_34:
(Start: 38 @24046 has 143 MA's), (Start: 41 @24019 has 2 MA's), (Start: 42 @24016 has 1 MA's),

Gene: Cheeto1_35 Start: 24520, Stop: 24227, Start Num: 38
Candidate Starts for Cheeto1_35:
(Start: 38 @24520 has 143 MA's), (Start: 41 @24493 has 2 MA's), (Start: 42 @24490 has 1 MA's), (45, 24472), (65, 24322),

Gene: Chepli_34 Start: 23435, Stop: 23148, Start Num: 37
Candidate Starts for Chepli_34:
(Start: 37 @23435 has 47 MA's), (Start: 41 @23408 has 2 MA's), (46, 23378),

Gene: CherryonLim_40 Start: 29723, Stop: 29439, Start Num: 36
Candidate Starts for CherryonLim_40:
(7, 30050), (10, 29975), (19, 29828), (20, 29822), (21, 29819), (23, 29816), (25, 29798), (Start: 36 @29723 has 51 MA's), (Start: 42 @29687 has 1 MA's), (Start: 47 @29657 has 1 MA's), (49, 29633), (50, 29630), (51, 29627), (56, 29600), (58, 29576), (60, 29564), (63, 29531), (73, 29459),

Gene: ChickenKing_34 Start: 24433, Stop: 24140, Start Num: 38
Candidate Starts for ChickenKing_34:
(Start: 38 @24433 has 143 MA's), (Start: 42 @24403 has 1 MA's), (45, 24385), (65, 24235),

Gene: ChickenTender_39 Start: 26874, Stop: 26587, Start Num: 36
Candidate Starts for ChickenTender_39:
(Start: 36 @26874 has 51 MA's), (Start: 47 @26808 has 1 MA's), (50, 26781), (51, 26778), (58, 26727), (60, 26715), (64, 26679), (65, 26676), (73, 26610),

Gene: ChikPic_33 Start: 23996, Stop: 23709, Start Num: 38
Candidate Starts for ChikPic_33:
(Start: 38 @23996 has 143 MA's), (Start: 41 @23969 has 2 MA's), (Start: 42 @23966 has 1 MA's), (46, 23939),

Gene: ChocoMunchkin_36 Start: 27054, Stop: 26767, Start Num: 36
Candidate Starts for ChocoMunchkin_36:
(Start: 36 @27054 has 51 MA's), (Start: 47 @26988 has 1 MA's), (50, 26961), (51, 26958), (58, 26907), (60, 26895), (64, 26859), (65, 26856), (73, 26790),

Gene: Christoph_34 Start: 24062, Stop: 23769, Start Num: 38
Candidate Starts for Christoph_34:
(Start: 38 @24062 has 143 MA's), (Start: 41 @24035 has 2 MA's), (Start: 42 @24032 has 1 MA's),

Gene: Clancy_34 Start: 24096, Stop: 23803, Start Num: 38
Candidate Starts for Clancy_34:
(Start: 38 @24096 has 143 MA's), (Start: 41 @24069 has 2 MA's), (Start: 42 @24066 has 1 MA's),

Gene: Cleo_34 Start: 26822, Stop: 26538, Start Num: 35
Candidate Starts for Cleo_34:
(Start: 35 @26822 has 10 MA's), (39, 26801), (44, 26777), (Start: 47 @26756 has 1 MA's), (50, 26729), (51, 26726), (60, 26663), (71, 26576),

Gene: Clock_32 Start: 25053, Stop: 24760, Start Num: 37

Candidate Starts for Clock_32:
(Start: 37 @25053 has 47 MA's), (Start: 41 @25026 has 2 MA's), (Start: 42 @25023 has 1 MA's), (46, 24996), (74, 24789),

Gene: CocoaPuff_39 Start: 28590, Stop: 28306, Start Num: 36
Candidate Starts for CocoaPuff_39:
(4, 28926), (11, 28836), (20, 28689), (21, 28686), (23, 28683), (25, 28665), (Start: 36 @28590 has 51 MA's), (Start: 42 @28554 has 1 MA's), (44, 28545), (Start: 47 @28524 has 1 MA's), (49, 28500), (50, 28497), (51, 28494), (56, 28467), (58, 28443), (60, 28431), (63, 28398), (73, 28326),

Gene: ColaCorta_33 Start: 23980, Stop: 23693, Start Num: 38
Candidate Starts for ColaCorta_33:
(Start: 38 @23980 has 143 MA's), (Start: 41 @23953 has 2 MA's), (Start: 42 @23950 has 1 MA's), (46, 23923),

Gene: Convict_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Convict_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: CoraRita_35 Start: 24033, Stop: 23767, Start Num: 41
Candidate Starts for CoraRita_35:
(Start: 38 @24060 has 143 MA's), (Start: 41 @24033 has 2 MA's), (Start: 42 @24030 has 1 MA's),

Gene: Cozz_35 Start: 26594, Stop: 26307, Start Num: 36
Candidate Starts for Cozz_35:
(3, 26948), (9, 26861), (33, 26603), (Start: 36 @26594 has 51 MA's), (Start: 47 @26528 has 1 MA's), (50, 26501), (51, 26498), (59, 26441), (60, 26435), (64, 26399), (65, 26396), (73, 26330),

Gene: Dave_35 Start: 24354, Stop: 24061, Start Num: 38
Candidate Starts for Dave_35:
(Start: 38 @24354 has 143 MA's), (Start: 41 @24327 has 2 MA's), (Start: 42 @24324 has 1 MA's),

Gene: Delphidian_35 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for Delphidian_35:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: Den3_35 Start: 24371, Stop: 24078, Start Num: 38
Candidate Starts for Den3_35:
(Start: 38 @24371 has 143 MA's), (Start: 41 @24344 has 2 MA's), (Start: 42 @24341 has 1 MA's),

Gene: Dothraki_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Dothraki_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Dre3_34 Start: 26565, Stop: 26281, Start Num: 35
Candidate Starts for Dre3_34:
(Start: 35 @26565 has 10 MA's), (39, 26544), (44, 26520), (Start: 47 @26499 has 1 MA's), (50, 26472), (51, 26469), (60, 26406), (71, 26319),

Gene: Duocatuli_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Duocatuli_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: ElJefes_39 Start: 28915, Stop: 28631, Start Num: 36
Candidate Starts for ElJefes_39:
(7, 29254), (10, 29170), (20, 29014), (21, 29011), (23, 29008), (25, 28990), (Start: 36 @28915 has 51 MA's), (Start: 42 @28879 has 1 MA's), (Start: 47 @28849 has 1 MA's), (49, 28825), (50, 28822), (51, 28819), (56, 28792), (58, 28768), (60, 28756), (63, 28723), (73, 28651),

Gene: Eleri_33 Start: 23993, Stop: 23706, Start Num: 38
Candidate Starts for Eleri_33:
(Start: 38 @23993 has 143 MA's), (Start: 41 @23966 has 2 MA's), (Start: 42 @23963 has 1 MA's), (46, 23936),

Gene: Elinal_42 Start: 28954, Stop: 28670, Start Num: 36
Candidate Starts for Elinal_42:
(Start: 36 @28954 has 51 MA's), (Start: 42 @28918 has 1 MA's), (44, 28909), (Start: 47 @28888 has 1 MA's), (49, 28864), (50, 28861), (51, 28858), (56, 28831), (58, 28807), (60, 28795), (63, 28762), (73, 28690),

Gene: Eliott_36 Start: 26613, Stop: 26326, Start Num: 36
Candidate Starts for Eliott_36:
(26, 26685), (Start: 36 @26613 has 51 MA's), (Start: 47 @26547 has 1 MA's), (50, 26520), (51, 26517), (58, 26466), (59, 26460), (60, 26454), (64, 26418), (65, 26415), (73, 26349),

Gene: Emalyn_37 Start: 26583, Stop: 26362, Start Num: 47
Candidate Starts for Emalyn_37:
(Start: 36 @26649 has 51 MA's), (Start: 47 @26583 has 1 MA's), (50, 26556), (51, 26553), (56, 26526), (58, 26502), (60, 26490), (64, 26454), (65, 26451), (73, 26385),

Gene: Endor_35 Start: 24698, Stop: 24405, Start Num: 38
Candidate Starts for Endor_35:
(Start: 38 @24698 has 143 MA's), (Start: 41 @24671 has 2 MA's), (Start: 42 @24668 has 1 MA's),

Gene: Erla_34 Start: 24044, Stop: 23751, Start Num: 38
Candidate Starts for Erla_34:
(Start: 38 @24044 has 143 MA's), (Start: 41 @24017 has 2 MA's), (Start: 42 @24014 has 1 MA's),

Gene: Espinosa_34 Start: 24062, Stop: 23769, Start Num: 38
Candidate Starts for Espinosa_34:
(Start: 38 @24062 has 143 MA's), (Start: 41 @24035 has 2 MA's), (Start: 42 @24032 has 1 MA's),

Gene: Etna_34 Start: 24473, Stop: 24180, Start Num: 38
Candidate Starts for Etna_34:
(Start: 38 @24473 has 143 MA's), (Start: 41 @24446 has 2 MA's), (Start: 42 @24443 has 1 MA's),

Gene: Etta_34 Start: 24048, Stop: 23755, Start Num: 38
Candidate Starts for Etta_34:
(Start: 38 @24048 has 143 MA's), (Start: 41 @24021 has 2 MA's), (Start: 42 @24018 has 1 MA's),

Gene: Exploradora_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Exploradora_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: FF47_37 Start: 28571, Stop: 28287, Start Num: 37
Candidate Starts for FF47_37:

(Start: 37 @28571 has 47 MA's), (48, 28496), (50, 28478), (51, 28475), (64, 28376), (66, 28367), (73, 28307),

Gene: FarmerDoug_34 Start: 24339, Stop: 24046, Start Num: 38
Candidate Starts for FarmerDoug_34:
(Start: 38 @24339 has 143 MA's), (Start: 41 @24312 has 2 MA's), (Start: 42 @24309 has 1 MA's),

Gene: Feastonyeet_38 Start: 28576, Stop: 28292, Start Num: 36
Candidate Starts for Feastonyeet_38:
(6, 28912), (11, 28822), (20, 28675), (21, 28672), (23, 28669), (25, 28651), (Start: 36 @28576 has 51 MA's), (Start: 42 @28540 has 1 MA's), (44, 28531), (Start: 47 @28510 has 1 MA's), (48, 28501), (49, 28486), (50, 28483), (51, 28480), (56, 28453), (58, 28429), (60, 28417), (63, 28384), (73, 28312),

Gene: Figueroism_35 Start: 24353, Stop: 24060, Start Num: 38
Candidate Starts for Figueroism_35:
(Start: 38 @24353 has 143 MA's), (Start: 41 @24326 has 2 MA's), (Start: 42 @24323 has 1 MA's),

Gene: Finny_33 Start: 24033, Stop: 23746, Start Num: 38
Candidate Starts for Finny_33:
(Start: 38 @24033 has 143 MA's), (Start: 41 @24006 has 2 MA's), (Start: 42 @24003 has 1 MA's), (46, 23976),

Gene: Fribs8_35 Start: 26998, Stop: 26714, Start Num: 35
Candidate Starts for Fribs8_35:
(1, 27373), (Start: 35 @26998 has 10 MA's), (39, 26977), (44, 26953), (Start: 47 @26932 has 1 MA's), (50, 26905), (51, 26902), (60, 26839), (64, 26803), (67, 26770), (69, 26764), (71, 26752),

Gene: Fulton_32 Start: 22213, Stop: 21920, Start Num: 37
Candidate Starts for Fulton_32:
(Start: 37 @22213 has 47 MA's), (39, 22198), (Start: 40 @22195 has 1 MA's), (Start: 41 @22186 has 2 MA's), (Start: 42 @22183 has 1 MA's), (46, 22156), (74, 21949),

Gene: GTE2_30 Start: 26884, Stop: 26597, Start Num: 36
Candidate Starts for GTE2_30:
(Start: 36 @26884 has 51 MA's), (Start: 47 @26818 has 1 MA's), (50, 26791), (51, 26788), (56, 26761), (58, 26737), (59, 26731), (60, 26725), (64, 26689), (65, 26686), (73, 26620),

Gene: GaeCeo_35 Start: 24669, Stop: 24376, Start Num: 38
Candidate Starts for GaeCeo_35:
(Start: 38 @24669 has 143 MA's), (Start: 42 @24639 has 1 MA's), (45, 24621), (65, 24471),

Gene: GardenB_34 Start: 24462, Stop: 24169, Start Num: 38
Candidate Starts for GardenB_34:
(Start: 38 @24462 has 143 MA's), (Start: 41 @24435 has 2 MA's), (Start: 42 @24432 has 1 MA's),

Gene: Garey24_34 Start: 24027, Stop: 23734, Start Num: 38
Candidate Starts for Garey24_34:
(Start: 38 @24027 has 143 MA's), (Start: 41 @24000 has 2 MA's), (Start: 42 @23997 has 1 MA's),

Gene: Gargoyle_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Gargoyle_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Gelo_34 Start: 24048, Stop: 23755, Start Num: 38
Candidate Starts for Gelo_34:
(Start: 38 @24048 has 143 MA's), (Start: 41 @24021 has 2 MA's), (Start: 42 @24018 has 1 MA's),

Gene: Gershwin_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for Gershwin_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: GiKK_43 Start: 28205, Stop: 27927, Start Num: 36
Candidate Starts for GiKK_43:
(Start: 36 @28205 has 51 MA's), (46, 28145), (Start: 47 @28139 has 1 MA's), (49, 28115), (50, 28112), (51, 28109), (60, 28046), (67, 27977), (72, 27947),

Gene: Gibbous_34 Start: 26565, Stop: 26281, Start Num: 35
Candidate Starts for Gibbous_34:
(Start: 35 @26565 has 10 MA's), (39, 26544), (44, 26520), (Start: 47 @26499 has 1 MA's), (50, 26472), (51, 26469), (60, 26406), (71, 26319),

Gene: Glamour_32 Start: 23981, Stop: 23694, Start Num: 38
Candidate Starts for Glamour_32:
(Start: 38 @23981 has 143 MA's), (Start: 41 @23954 has 2 MA's), (Start: 42 @23951 has 1 MA's), (46, 23924),

Gene: GoingMerry_35 Start: 24376, Stop: 24083, Start Num: 38
Candidate Starts for GoingMerry_35:
(Start: 38 @24376 has 143 MA's), (Start: 41 @24349 has 2 MA's), (Start: 42 @24346 has 1 MA's),

Gene: GoldHunter_37 Start: 26614, Stop: 26327, Start Num: 36
Candidate Starts for GoldHunter_37:
(26, 26686), (Start: 36 @26614 has 51 MA's), (Start: 47 @26548 has 1 MA's), (50, 26521), (51, 26518), (58, 26467), (59, 26461), (60, 26455), (64, 26419), (65, 26416), (73, 26350),

Gene: Golden_32 Start: 24032, Stop: 23739, Start Num: 37
Candidate Starts for Golden_32:
(Start: 37 @24032 has 47 MA's), (Start: 41 @24005 has 2 MA's), (46, 23975),

Gene: GoneGirl_35 Start: 24458, Stop: 24165, Start Num: 38
Candidate Starts for GoneGirl_35:
(Start: 38 @24458 has 143 MA's), (Start: 41 @24431 has 2 MA's), (Start: 42 @24428 has 1 MA's),

Gene: GreenIvy_32 Start: 22799, Stop: 22506, Start Num: 37
Candidate Starts for GreenIvy_32:
(Start: 37 @22799 has 47 MA's), (39, 22784), (Start: 40 @22781 has 1 MA's), (Start: 41 @22772 has 2 MA's), (Start: 42 @22769 has 1 MA's), (46, 22742), (74, 22535),

Gene: Greys_35 Start: 24337, Stop: 24071, Start Num: 41
Candidate Starts for Greys_35:
(Start: 38 @24364 has 143 MA's), (Start: 41 @24337 has 2 MA's), (Start: 42 @24334 has 1 MA's),

Gene: Gubbabump_34 Start: 24053, Stop: 23760, Start Num: 38
Candidate Starts for Gubbabump_34:
(Start: 38 @24053 has 143 MA's), (Start: 41 @24026 has 2 MA's), (Start: 42 @24023 has 1 MA's),

Gene: Guetzie_32 Start: 24020, Stop: 23727, Start Num: 37
Candidate Starts for Guetzie_32:
(Start: 37 @24020 has 47 MA's), (Start: 41 @23993 has 2 MA's), (46, 23963), (74, 23756),

Gene: HairyMan_30 Start: 23172, Stop: 22879, Start Num: 37
Candidate Starts for HairyMan_30:
(Start: 37 @23172 has 47 MA's), (Start: 41 @23145 has 2 MA's), (Start: 42 @23142 has 1 MA's), (46, 23115), (54, 23058),

Gene: Hamlet_34 Start: 24471, Stop: 24178, Start Num: 38
Candidate Starts for Hamlet_34:
(Start: 38 @24471 has 143 MA's), (Start: 41 @24444 has 2 MA's), (Start: 42 @24441 has 1 MA's),

Gene: HanSolo_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for HanSolo_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: HankSprout_35 Start: 23931, Stop: 23638, Start Num: 38
Candidate Starts for HankSprout_35:
(Start: 38 @23931 has 143 MA's), (Start: 41 @23904 has 2 MA's), (Start: 42 @23901 has 1 MA's),

Gene: Hasitha_32 Start: 22225, Stop: 21932, Start Num: 37
Candidate Starts for Hasitha_32:
(Start: 37 @22225 has 47 MA's), (39, 22210), (Start: 40 @22207 has 1 MA's), (Start: 41 @22198 has 2 MA's), (Start: 42 @22195 has 1 MA's), (46, 22168), (74, 21961),

Gene: HavenFinLeoSun_36 Start: 24685, Stop: 24419, Start Num: 41
Candidate Starts for HavenFinLeoSun_36:
(12, 24949), (13, 24916), (Start: 38 @24712 has 143 MA's), (Start: 41 @24685 has 2 MA's),

Gene: HerculesXL_33 Start: 22687, Stop: 22394, Start Num: 37
Candidate Starts for HerculesXL_33:
(Start: 37 @22687 has 47 MA's), (Start: 41 @22660 has 2 MA's), (74, 22423),

Gene: Hexbug_45 Start: 29965, Stop: 29687, Start Num: 36
Candidate Starts for Hexbug_45:
(Start: 36 @29965 has 51 MA's), (46, 29905), (Start: 47 @29899 has 1 MA's), (49, 29875), (50, 29872), (51, 29869), (52, 29860), (60, 29806), (61, 29782), (67, 29737),

Gene: HippoPololi_36 Start: 27019, Stop: 26735, Start Num: 35
Candidate Starts for HippoPololi_36:
(1, 27388), (Start: 35 @27019 has 10 MA's), (39, 26998), (44, 26974), (Start: 47 @26953 has 1 MA's), (50, 26926), (51, 26923), (59, 26866), (60, 26860), (71, 26773),

Gene: Horseradish_37 Start: 26419, Stop: 26132, Start Num: 36
Candidate Starts for Horseradish_37:
(26, 26491), (Start: 36 @26419 has 51 MA's), (Start: 47 @26353 has 1 MA's), (50, 26326), (51, 26323), (59, 26266), (60, 26260), (64, 26224), (65, 26221), (68, 26188), (73, 26155),

Gene: HungryHenry_34 Start: 24062, Stop: 23769, Start Num: 38
Candidate Starts for HungryHenry_34:
(Start: 38 @24062 has 143 MA's), (Start: 41 @24035 has 2 MA's), (Start: 42 @24032 has 1 MA's),

Gene: Huwbert_83 Start: 51659, Stop: 51976, Start Num: 34
Candidate Starts for Huwbert_83:
(Start: 34 @51659 has 2 MA's), (Start: 47 @51728 has 1 MA's), (50, 51755), (51, 51758), (64, 51863), (69, 51902), (72, 51926), (77, 51962),

Gene: Ilzat_34 Start: 24061, Stop: 23768, Start Num: 38
Candidate Starts for Ilzat_34:
(Start: 38 @24061 has 143 MA's), (Start: 41 @24034 has 2 MA's), (Start: 42 @24031 has 1 MA's),

Gene: Inventa_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Inventa_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Ioannes_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Ioannes_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Ixel_33 Start: 22647, Stop: 22360, Start Num: 37
Candidate Starts for Ixel_33:
(Start: 37 @22647 has 47 MA's), (46, 22590), (54, 22533), (59, 22497),

Gene: JacoRen57_34 Start: 29387, Stop: 29115, Start Num: 37
Candidate Starts for JacoRen57_34:
(Start: 37 @29387 has 47 MA's), (Start: 47 @29324 has 1 MA's), (48, 29315), (50, 29297), (51, 29294), (57, 29255), (58, 29243), (59, 29237), (62, 29201), (64, 29195), (66, 29186), (69, 29156),

Gene: Jamzy_43 Start: 28188, Stop: 27910, Start Num: 36
Candidate Starts for Jamzy_43:
(Start: 36 @28188 has 51 MA's), (46, 28128), (Start: 47 @28122 has 1 MA's), (49, 28098), (50, 28095), (51, 28092), (60, 28029), (67, 27960), (72, 27930),

Gene: Janus167_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Janus167_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: JasonD_37 Start: 24889, Stop: 24596, Start Num: 38
Candidate Starts for JasonD_37:
(12, 25126), (13, 25093), (Start: 38 @24889 has 143 MA's), (Start: 41 @24862 has 2 MA's),

Gene: JasperRussell_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for JasperRussell_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Jemerald_35 Start: 24708, Stop: 24415, Start Num: 38
Candidate Starts for Jemerald_35:
(Start: 38 @24708 has 143 MA's), (Start: 42 @24678 has 1 MA's), (43, 24672), (45, 24660), (46, 24651), (54, 24594), (76, 24423),

Gene: Jenos_38 Start: 25549, Stop: 25256, Start Num: 38
Candidate Starts for Jenos_38:
(Start: 38 @25549 has 143 MA's), (Start: 41 @25522 has 2 MA's),

Gene: Jerbirus_35 Start: 24051, Stop: 23758, Start Num: 38

Candidate Starts for Jerbirus_35:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: JeriBeth_35 Start: 23908, Stop: 23615, Start Num: 38
Candidate Starts for JeriBeth_35:
(Start: 38 @23908 has 143 MA's), (Start: 41 @23881 has 2 MA's), (Start: 42 @23878 has 1 MA's),

Gene: Jingles_32 Start: 23938, Stop: 23645, Start Num: 37
Candidate Starts for Jingles_32:
(Start: 37 @23938 has 47 MA's), (Start: 41 @23911 has 2 MA's), (46, 23881),

Gene: Juanyo_32 Start: 23710, Stop: 23417, Start Num: 37
Candidate Starts for Juanyo_32:
(Start: 37 @23710 has 47 MA's), (Start: 40 @23692 has 1 MA's), (Start: 41 @23683 has 2 MA's),
(Start: 42 @23680 has 1 MA's), (45, 23662), (46, 23653), (76, 23425),

Gene: Juicer_35 Start: 24708, Stop: 24415, Start Num: 38
Candidate Starts for Juicer_35:
(Start: 38 @24708 has 143 MA's), (Start: 42 @24678 has 1 MA's), (43, 24672), (45, 24660), (46,
24651), (54, 24594), (76, 24423),

Gene: Kale_34 Start: 24066, Stop: 23773, Start Num: 38
Candidate Starts for Kale_34:
(Start: 38 @24066 has 143 MA's), (Start: 41 @24039 has 2 MA's), (Start: 42 @24036 has 1 MA's),

Gene: KannH_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for KannH_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: KatChan_34 Start: 23414, Stop: 23154, Start Num: 41
Candidate Starts for KatChan_34:
(Start: 37 @23441 has 47 MA's), (Start: 41 @23414 has 2 MA's), (46, 23384),

Gene: Kauala_32 Start: 23924, Stop: 23631, Start Num: 37
Candidate Starts for Kauala_32:
(Start: 37 @23924 has 47 MA's), (Start: 41 @23897 has 2 MA's), (46, 23867),

Gene: Kavo_32 Start: 22524, Stop: 22231, Start Num: 37
Candidate Starts for Kavo_32:
(Start: 37 @22524 has 47 MA's), (Start: 41 @22497 has 2 MA's), (74, 22260),

Gene: KayGee_40 Start: 28954, Stop: 28670, Start Num: 36
Candidate Starts for KayGee_40:
(Start: 36 @28954 has 51 MA's), (Start: 42 @28918 has 1 MA's), (44, 28909), (Start: 47 @28888 has 1
MA's), (49, 28864), (50, 28861), (51, 28858), (56, 28831), (58, 28807), (60, 28795), (63, 28762), (73,
28690),

Gene: KellyGreen_35 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for KellyGreen_35:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: KimJongPhill_85 Start: 63717, Stop: 64049, Start Num: 36
Candidate Starts for KimJongPhill_85:

(18, 63606), (22, 63627), (29, 63651), (Start: 36 @63717 has 51 MA's), (50, 63810), (51, 63813), (55, 63837), (58, 63864), (70, 63960), (72, 63981),

Gene: KingJulien_34 Start: 24464, Stop: 24171, Start Num: 38
Candidate Starts for KingJulien_34:
(Start: 38 @24464 has 143 MA's), (Start: 41 @24437 has 2 MA's), (Start: 42 @24434 has 1 MA's),

Gene: Klimt_34 Start: 24046, Stop: 23753, Start Num: 38
Candidate Starts for Klimt_34:
(Start: 38 @24046 has 143 MA's), (Start: 41 @24019 has 2 MA's), (Start: 42 @24016 has 1 MA's),

Gene: Knox_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Knox_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Koji_32 Start: 24059, Stop: 23766, Start Num: 37
Candidate Starts for Koji_32:
(Start: 37 @24059 has 47 MA's), (Start: 41 @24032 has 2 MA's), (46, 24002),

Gene: Kouch_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Kouch_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Kurt1_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Kurt1_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Lauer_35 Start: 29784, Stop: 29500, Start Num: 36
Candidate Starts for Lauer_35:
(Start: 36 @29784 has 51 MA's), (Start: 42 @29748 has 1 MA's), (Start: 47 @29718 has 1 MA's), (48, 29709), (49, 29694), (50, 29691), (51, 29688), (56, 29661), (58, 29637), (60, 29625), (61, 29601), (63, 29592), (73, 29520),

Gene: Leafus_34 Start: 24606, Stop: 24313, Start Num: 38
Candidate Starts for Leafus_34:
(Start: 38 @24606 has 143 MA's), (Start: 41 @24579 has 2 MA's), (Start: 42 @24576 has 1 MA's),

Gene: Librie_32 Start: 22209, Stop: 21916, Start Num: 37
Candidate Starts for Librie_32:
(Start: 37 @22209 has 47 MA's), (39, 22194), (Start: 40 @22191 has 1 MA's), (Start: 41 @22182 has 2 MA's), (Start: 42 @22179 has 1 MA's), (46, 22152), (74, 21945),

Gene: LilTerminator_32 Start: 22231, Stop: 21938, Start Num: 37
Candidate Starts for LilTerminator_32:
(Start: 37 @22231 has 47 MA's), (39, 22216), (Start: 40 @22213 has 1 MA's), (Start: 41 @22204 has 2 MA's), (Start: 42 @22201 has 1 MA's), (46, 22174), (74, 21967),

Gene: LongHai_39 Start: 28961, Stop: 28677, Start Num: 37
Candidate Starts for LongHai_39:
(Start: 37 @28961 has 47 MA's), (48, 28886), (50, 28868), (51, 28865), (64, 28766), (66, 28757), (73, 28697),

Gene: Lovelyunicorn_35 Start: 24367, Stop: 24074, Start Num: 38

Candidate Starts for Lovelyunicorn_35:
(Start: 38 @24367 has 143 MA's), (Start: 41 @24340 has 2 MA's), (Start: 42 @24337 has 1 MA's),

Gene: Lucky3_32 Start: 24032, Stop: 23739, Start Num: 37
Candidate Starts for Lucky3_32:
(Start: 37 @24032 has 47 MA's), (Start: 41 @24005 has 2 MA's), (46, 23975),

Gene: Ludgate_35 Start: 24362, Stop: 24069, Start Num: 38
Candidate Starts for Ludgate_35:
(Start: 38 @24362 has 143 MA's), (Start: 41 @24335 has 2 MA's), (Start: 42 @24332 has 1 MA's),

Gene: Luna18_34 Start: 23441, Stop: 23154, Start Num: 37
Candidate Starts for Luna18_34:
(Start: 37 @23441 has 47 MA's), (Start: 41 @23414 has 2 MA's), (46, 23384),

Gene: MAnor_40 Start: 29358, Stop: 29074, Start Num: 36
Candidate Starts for MAnor_40:
(28, 29424), (Start: 36 @29358 has 51 MA's), (Start: 42 @29322 has 1 MA's), (44, 29313), (Start: 47 @29292 has 1 MA's), (48, 29283), (49, 29268), (50, 29265), (51, 29262), (56, 29235), (58, 29211), (60, 29199), (63, 29166), (73, 29094),

Gene: MCubed_33 Start: 24003, Stop: 23716, Start Num: 38
Candidate Starts for MCubed_33:
(Start: 38 @24003 has 143 MA's), (Start: 41 @23976 has 2 MA's), (Start: 42 @23973 has 1 MA's), (46, 23946),

Gene: MScarn_38 Start: 26559, Stop: 26272, Start Num: 36
Candidate Starts for MScarn_38:
(26, 26631), (Start: 36 @26559 has 51 MA's), (Start: 47 @26493 has 1 MA's), (50, 26466), (51, 26463), (59, 26406), (60, 26400), (64, 26364), (65, 26361), (68, 26328), (73, 26295),

Gene: MaVan_36 Start: 27306, Stop: 27022, Start Num: 35
Candidate Starts for MaVan_36:
(Start: 35 @27306 has 10 MA's), (39, 27285), (44, 27261), (Start: 47 @27240 has 1 MA's), (50, 27213), (51, 27210), (59, 27153), (60, 27147), (71, 27060),

Gene: Maco6_36 Start: 27911, Stop: 27627, Start Num: 37
Candidate Starts for Maco6_36:
(Start: 37 @27911 has 47 MA's), (48, 27836), (50, 27818), (51, 27815), (64, 27716), (66, 27707), (73, 27647),

Gene: MaeLinda_35 Start: 24369, Stop: 24076, Start Num: 38
Candidate Starts for MaeLinda_35:
(Start: 38 @24369 has 143 MA's), (Start: 41 @24342 has 2 MA's), (Start: 42 @24339 has 1 MA's),

Gene: ManRay_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for ManRay_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: Mandalorian_31 Start: 23652, Stop: 23359, Start Num: 37
Candidate Starts for Mandalorian_31:
(Start: 37 @23652 has 47 MA's), (Start: 40 @23634 has 1 MA's), (Start: 41 @23625 has 2 MA's), (45, 23604), (46, 23595), (76, 23367),

Gene: Margaret_44 Start: 28911, Stop: 28639, Start Num: 36
Candidate Starts for Margaret_44:
(20, 29010), (27, 28980), (Start: 36 @28911 has 51 MA's), (46, 28851), (Start: 47 @28845 has 1 MA's), (48, 28836), (50, 28818), (51, 28815), (60, 28752), (67, 28683), (71, 28665),

Gene: Martin_36 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Martin_36:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Mayweather_42 Start: 29582, Stop: 29298, Start Num: 36
Candidate Starts for Mayweather_42:
(4, 29930), (7, 29921), (11, 29831), (19, 29687), (20, 29681), (21, 29678), (23, 29675), (25, 29657), (Start: 36 @29582 has 51 MA's), (Start: 42 @29546 has 1 MA's), (Start: 47 @29516 has 1 MA's), (49, 29492), (50, 29489), (51, 29486), (56, 29459), (58, 29435), (60, 29423), (63, 29390), (73, 29318),

Gene: McDazzle_40 Start: 28909, Stop: 28625, Start Num: 36
Candidate Starts for McDazzle_40:
(7, 29248), (10, 29164), (20, 29008), (21, 29005), (23, 29002), (25, 28984), (Start: 36 @28909 has 51 MA's), (Start: 42 @28873 has 1 MA's), (Start: 47 @28843 has 1 MA's), (49, 28819), (50, 28816), (51, 28813), (56, 28786), (58, 28762), (60, 28750), (63, 28717), (73, 28645),

Gene: McGalleon_37 Start: 25766, Stop: 25473, Start Num: 38
Candidate Starts for McGalleon_37:
(Start: 38 @25766 has 143 MA's), (Start: 41 @25739 has 2 MA's),

Gene: Mercedes_29 Start: 21222, Stop: 20929, Start Num: 37
Candidate Starts for Mercedes_29:
(Start: 37 @21222 has 47 MA's), (39, 21207), (Start: 40 @21204 has 1 MA's), (Start: 41 @21195 has 2 MA's), (Start: 42 @21192 has 1 MA's), (46, 21165), (74, 20958),

Gene: Merida02_36 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for Merida02_36:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: MillyPhilly_35 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for MillyPhilly_35:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: MiniVolent_32 Start: 23669, Stop: 23376, Start Num: 37
Candidate Starts for MiniVolent_32:
(Start: 37 @23669 has 47 MA's), (Start: 40 @23651 has 1 MA's), (Start: 41 @23642 has 2 MA's), (Start: 42 @23639 has 1 MA's), (45, 23621), (46, 23612), (76, 23384),

Gene: MonChoix_33 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for MonChoix_33:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Morrigan_34 Start: 23471, Stop: 23184, Start Num: 37
Candidate Starts for Morrigan_34:
(Start: 37 @23471 has 47 MA's), (Start: 41 @23444 has 2 MA's),

Gene: MrWorldwide_35 Start: 24369, Stop: 24076, Start Num: 38

Candidate Starts for MrWorldwide_35:
(Start: 38 @24369 has 143 MA's), (Start: 41 @24342 has 2 MA's), (Start: 42 @24339 has 1 MA's),

Gene: Muddy_38 Start: 29135, Stop: 28851, Start Num: 37
Candidate Starts for Muddy_38:
(Start: 37 @29135 has 47 MA's), (48, 29060), (50, 29042), (51, 29039), (64, 28940), (66, 28931), (73, 28871),

Gene: MunkgeeRoachy_35 Start: 26468, Stop: 26181, Start Num: 36
Candidate Starts for MunkgeeRoachy_35:
(3, 26822), (8, 26795), (9, 26735), (30, 26519), (33, 26477), (Start: 36 @26468 has 51 MA's), (Start: 47 @26402 has 1 MA's), (50, 26375), (51, 26372), (59, 26315), (60, 26309), (64, 26273), (65, 26270), (73, 26204),

Gene: Nagem_35 Start: 24362, Stop: 24069, Start Num: 38
Candidate Starts for Nagem_35:
(Start: 38 @24362 has 143 MA's), (Start: 41 @24335 has 2 MA's), (Start: 42 @24332 has 1 MA's),

Gene: Nattles_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Nattles_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Nebulous_32 Start: 25234, Stop: 24941, Start Num: 37
Candidate Starts for Nebulous_32:
(Start: 37 @25234 has 47 MA's), (Start: 41 @25207 has 2 MA's), (Start: 42 @25204 has 1 MA's), (46, 25177), (74, 24970),

Gene: Neferthena_32 Start: 24324, Stop: 24031, Start Num: 37
Candidate Starts for Neferthena_32:
(Start: 37 @24324 has 47 MA's), (Start: 41 @24297 has 2 MA's), (Start: 42 @24294 has 1 MA's), (46, 24267), (74, 24060),

Gene: Nibbles_35 Start: 26990, Stop: 26706, Start Num: 35
Candidate Starts for Nibbles_35:
(Start: 35 @26990 has 10 MA's), (39, 26969), (44, 26945), (Start: 47 @26924 has 1 MA's), (50, 26897), (51, 26894), (59, 26837), (60, 26831), (71, 26744),

Gene: NickSell_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for NickSell_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Nina_36 Start: 27130, Stop: 26843, Start Num: 36
Candidate Starts for Nina_36:
(3, 27484), (9, 27397), (33, 27139), (Start: 36 @27130 has 51 MA's), (Start: 47 @27064 has 1 MA's), (50, 27037), (51, 27034), (58, 26983), (60, 26971), (64, 26935), (65, 26932), (73, 26866),

Gene: NoShow_45 Start: 31933, Stop: 31661, Start Num: 37
Candidate Starts for NoShow_45:
(Start: 37 @31933 has 47 MA's), (Start: 47 @31870 has 1 MA's), (50, 31843), (51, 31840), (62, 31747), (64, 31741), (67, 31708),

Gene: Nodigi_45 Start: 29954, Stop: 29676, Start Num: 36
Candidate Starts for Nodigi_45:

(Start: 36 @29954 has 51 MA's), (46, 29894), (Start: 47 @29888 has 1 MA's), (49, 29864), (50, 29861), (51, 29858), (52, 29849), (60, 29795), (61, 29771), (67, 29726),

Gene: Nucci_31 Start: 23623, Stop: 23348, Start Num: 40
Candidate Starts for Nucci_31:
(Start: 37 @23641 has 47 MA's), (Start: 40 @23623 has 1 MA's), (Start: 41 @23614 has 2 MA's), (45, 23593), (46, 23584), (76, 23356),

Gene: Oats_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for Oats_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: OldNelly_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for OldNelly_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Orla_45 Start: 29927, Stop: 29649, Start Num: 36
Candidate Starts for Orla_45:
(Start: 36 @29927 has 51 MA's), (46, 29867), (Start: 47 @29861 has 1 MA's), (49, 29837), (50, 29834), (51, 29831), (52, 29822), (60, 29768), (61, 29744), (67, 29699),

Gene: Oxtober96_35 Start: 24367, Stop: 24074, Start Num: 38
Candidate Starts for Oxtober96_35:
(Start: 38 @24367 has 143 MA's), (Start: 41 @24340 has 2 MA's), (Start: 42 @24337 has 1 MA's),

Gene: PSirce_33 Start: 23966, Stop: 23709, Start Num: 42
Candidate Starts for PSirce_33:
(Start: 38 @23996 has 143 MA's), (Start: 41 @23969 has 2 MA's), (Start: 42 @23966 has 1 MA's), (46, 23939),

Gene: Pajaza_31 Start: 23331, Stop: 23032, Start Num: 37
Candidate Starts for Pajaza_31:
(Start: 37 @23331 has 47 MA's), (46, 23271), (67, 23100),

Gene: Papafritta_34 Start: 24060, Stop: 23767, Start Num: 38
Candidate Starts for Papafritta_34:
(Start: 38 @24060 has 143 MA's), (Start: 41 @24033 has 2 MA's), (Start: 42 @24030 has 1 MA's),

Gene: ParleG_35 Start: 24369, Stop: 24076, Start Num: 38
Candidate Starts for ParleG_35:
(Start: 38 @24369 has 143 MA's), (Start: 41 @24342 has 2 MA's), (Start: 42 @24339 has 1 MA's),

Gene: Peep_35 Start: 24354, Stop: 24061, Start Num: 38
Candidate Starts for Peep_35:
(Start: 38 @24354 has 143 MA's), (Start: 41 @24327 has 2 MA's), (Start: 42 @24324 has 1 MA's),

Gene: Penta_31 Start: 22381, Stop: 22088, Start Num: 37
Candidate Starts for Penta_31:
(Start: 37 @22381 has 47 MA's), (Start: 41 @22354 has 2 MA's),

Gene: Peppino_34 Start: 24463, Stop: 24170, Start Num: 38
Candidate Starts for Peppino_34:
(Start: 38 @24463 has 143 MA's), (Start: 41 @24436 has 2 MA's), (Start: 42 @24433 has 1 MA's),

Gene: Phanita_33 Start: 23976, Stop: 23689, Start Num: 38
Candidate Starts for Phanita_33:
(Start: 38 @23976 has 143 MA's), (Start: 41 @23949 has 2 MA's), (Start: 42 @23946 has 1 MA's), (46, 23919),

Gene: Pherbot_32 Start: 23930, Stop: 23637, Start Num: 37
Candidate Starts for Pherbot_32:
(Start: 37 @23930 has 47 MA's), (Start: 41 @23903 has 2 MA's), (44, 23891), (46, 23873),

Gene: Pherferi_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Pherferi_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Phiderman_35 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for Phiderman_35:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: PhillyPhantom_34 Start: 24444, Stop: 24151, Start Num: 38
Candidate Starts for PhillyPhantom_34:
(Start: 38 @24444 has 143 MA's), (Start: 41 @24417 has 2 MA's), (Start: 42 @24414 has 1 MA's),

Gene: Phireproof_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Phireproof_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: PhredFlintston_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for PhredFlintston_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Phriends_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Phriends_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Pikmin_31 Start: 23331, Stop: 23032, Start Num: 37
Candidate Starts for Pikmin_31:
(Start: 37 @23331 has 47 MA's), (46, 23271), (67, 23100),

Gene: Pocket_34 Start: 24049, Stop: 23756, Start Num: 38
Candidate Starts for Pocket_34:
(Start: 38 @24049 has 143 MA's), (Start: 41 @24022 has 2 MA's), (Start: 42 @24019 has 1 MA's),

Gene: Pons_40 Start: 28933, Stop: 28649, Start Num: 36
Candidate Starts for Pons_40:
(2, 29299), (6, 29272), (11, 29179), (20, 29032), (21, 29029), (23, 29026), (25, 29008), (Start: 36 @28933 has 51 MA's), (Start: 42 @28897 has 1 MA's), (44, 28888), (Start: 47 @28867 has 1 MA's), (48, 28858), (49, 28843), (50, 28840), (51, 28837), (56, 28810), (58, 28786), (60, 28774), (63, 28741), (73, 28669),

Gene: PotPie_39 Start: 29867, Stop: 29583, Start Num: 36
Candidate Starts for PotPie_39:
(6, 30203), (11, 30113), (20, 29966), (21, 29963), (23, 29960), (25, 29942), (Start: 36 @29867 has 51 MA's), (Start: 42 @29831 has 1 MA's), (44, 29822), (Start: 47 @29801 has 1 MA's), (48, 29792), (49,

29777), (50, 29774), (51, 29771), (56, 29744), (58, 29720), (60, 29708), (63, 29675), (73, 29603),

Gene: PrincePhergus_32 Start: 23933, Stop: 23640, Start Num: 37
Candidate Starts for PrincePhergus_32:
(Start: 37 @23933 has 47 MA's), (Start: 41 @23906 has 2 MA's), (46, 23876),

Gene: PsychoKiller_35 Start: 26614, Stop: 26327, Start Num: 36
Candidate Starts for PsychoKiller_35:
(26, 26686), (Start: 36 @26614 has 51 MA's), (Start: 47 @26548 has 1 MA's), (50, 26521), (51, 26518), (59, 26461), (60, 26455), (64, 26419), (65, 26416), (73, 26350),

Gene: PuppyEggo_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for PuppyEggo_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: QuadZero_32 Start: 22239, Stop: 21946, Start Num: 37
Candidate Starts for QuadZero_32:
(Start: 37 @22239 has 47 MA's), (39, 22224), (Start: 40 @22221 has 1 MA's), (Start: 41 @22212 has 2 MA's), (Start: 42 @22209 has 1 MA's), (46, 22182), (74, 21975),

Gene: Quartz_32 Start: 23777, Stop: 23484, Start Num: 37
Candidate Starts for Quartz_32:
(Start: 37 @23777 has 47 MA's), (Start: 40 @23759 has 1 MA's), (Start: 41 @23750 has 2 MA's), (45, 23729), (46, 23720), (76, 23492),

Gene: Quasar_36 Start: 27216, Stop: 26929, Start Num: 36
Candidate Starts for Quasar_36:
(26, 27288), (Start: 36 @27216 has 51 MA's), (Start: 47 @27150 has 1 MA's), (50, 27123), (51, 27120), (58, 27069), (59, 27063), (60, 27057), (64, 27021), (65, 27018), (73, 26952),

Gene: RADical_37 Start: 26608, Stop: 26321, Start Num: 36
Candidate Starts for RADical_37:
(26, 26680), (Start: 36 @26608 has 51 MA's), (Start: 47 @26542 has 1 MA's), (50, 26515), (51, 26512), (58, 26461), (59, 26455), (60, 26449), (64, 26413), (65, 26410), (73, 26344),

Gene: RSchmailzl_37 Start: 26651, Stop: 26364, Start Num: 36
Candidate Starts for RSchmailzl_37:
(26, 26723), (Start: 36 @26651 has 51 MA's), (Start: 47 @26585 has 1 MA's), (50, 26558), (51, 26555), (58, 26504), (60, 26492), (64, 26456), (65, 26453), (73, 26387),

Gene: Raccoon_34 Start: 24429, Stop: 24136, Start Num: 38
Candidate Starts for Raccoon_34:
(Start: 38 @24429 has 143 MA's), (Start: 41 @24402 has 2 MA's), (Start: 42 @24399 has 1 MA's),

Gene: RanchParmCat_43 Start: 29061, Stop: 28789, Start Num: 36
Candidate Starts for RanchParmCat_43:
(Start: 36 @29061 has 51 MA's), (46, 29001), (Start: 47 @28995 has 1 MA's), (48, 28986), (50, 28968), (51, 28965), (60, 28902), (67, 28833), (71, 28815),

Gene: Rapheph_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Rapheph_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Raptor_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Raptor_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: RedBaron_38 Start: 26851, Stop: 26564, Start Num: 36
Candidate Starts for RedBaron_38:
(26, 26923), (Start: 36 @26851 has 51 MA's), (Start: 47 @26785 has 1 MA's), (50, 26758), (51, 26755),
(59, 26698), (60, 26692), (64, 26656), (65, 26653), (73, 26587),

Gene: Redfield_34 Start: 24470, Stop: 24177, Start Num: 38
Candidate Starts for Redfield_34:
(Start: 38 @24470 has 143 MA's), (Start: 41 @24443 has 2 MA's), (Start: 42 @24440 has 1 MA's),

Gene: RenegadeRaider_33 Start: 23776, Stop: 23483, Start Num: 37
Candidate Starts for RenegadeRaider_33:
(Start: 37 @23776 has 47 MA's), (Start: 41 @23749 has 2 MA's), (46, 23719),

Gene: Renzie_35 Start: 24354, Stop: 24061, Start Num: 38
Candidate Starts for Renzie_35:
(Start: 38 @24354 has 143 MA's), (Start: 41 @24327 has 2 MA's), (Start: 42 @24324 has 1 MA's),

Gene: Riyhil_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Riyhil_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Robinson_35 Start: 24360, Stop: 24067, Start Num: 38
Candidate Starts for Robinson_35:
(Start: 38 @24360 has 143 MA's), (Start: 41 @24333 has 2 MA's), (Start: 42 @24330 has 1 MA's),

Gene: Rog141_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for Rog141_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: RosieMae_34 Start: 24106, Stop: 23813, Start Num: 38
Candidate Starts for RosieMae_34:
(Start: 38 @24106 has 143 MA's), (Start: 41 @24079 has 2 MA's), (Start: 42 @24076 has 1 MA's),

Gene: SJay_35 Start: 24363, Stop: 24070, Start Num: 38
Candidate Starts for SJay_35:
(Start: 38 @24363 has 143 MA's), (Start: 41 @24336 has 2 MA's), (Start: 42 @24333 has 1 MA's),

Gene: Salvus_39 Start: 28961, Stop: 28677, Start Num: 37
Candidate Starts for Salvus_39:
(Start: 37 @28961 has 47 MA's), (48, 28886), (50, 28868), (51, 28865), (64, 28766), (66, 28757), (73,
28697),

Gene: Sansa_32 Start: 24064, Stop: 23777, Start Num: 38
Candidate Starts for Sansa_32:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's), (46,
24007),

Gene: Saratos_33 Start: 23978, Stop: 23691, Start Num: 38
Candidate Starts for Saratos_33:

(Start: 38 @23978 has 143 MA's), (Start: 41 @23951 has 2 MA's), (Start: 42 @23948 has 1 MA's), (46, 23921),

Gene: Schimmels22_33 Start: 23061, Stop: 22768, Start Num: 37
Candidate Starts for Schimmels22_33:
(Start: 37 @23061 has 47 MA's), (Start: 41 @23034 has 2 MA's),

Gene: Schnapsidee_34 Start: 24464, Stop: 24171, Start Num: 38
Candidate Starts for Schnapsidee_34:
(Start: 38 @24464 has 143 MA's), (Start: 41 @24437 has 2 MA's), (Start: 42 @24434 has 1 MA's),

Gene: Schubert_32 Start: 23934, Stop: 23641, Start Num: 38
Candidate Starts for Schubert_32:
(Start: 38 @23934 has 143 MA's), (Start: 41 @23907 has 2 MA's),

Gene: Scissor2024_33 Start: 22670, Stop: 22404, Start Num: 41
Candidate Starts for Scissor2024_33:
(Start: 37 @22697 has 47 MA's), (Start: 41 @22670 has 2 MA's),

Gene: Sedgewig_34 Start: 24043, Stop: 23750, Start Num: 38
Candidate Starts for Sedgewig_34:
(Start: 38 @24043 has 143 MA's), (Start: 41 @24016 has 2 MA's), (Start: 42 @24013 has 1 MA's),

Gene: ShaiHulud_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for ShaiHulud_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Shamu_33 Start: 23993, Stop: 23706, Start Num: 38
Candidate Starts for Shamu_33:
(Start: 38 @23993 has 143 MA's), (Start: 41 @23966 has 2 MA's), (Start: 42 @23963 has 1 MA's), (46, 23936),

Gene: SheckWes_41 Start: 28454, Stop: 28170, Start Num: 36
Candidate Starts for SheckWes_41:
(5, 28799), (7, 28793), (10, 28709), (20, 28553), (21, 28550), (23, 28547), (25, 28529), (Start: 36 @28454 has 51 MA's), (Start: 42 @28418 has 1 MA's), (44, 28409), (Start: 47 @28388 has 1 MA's), (48, 28379), (49, 28364), (50, 28361), (51, 28358), (56, 28331), (58, 28307), (60, 28295), (63, 28262), (73, 28190),

Gene: Shee_35 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for Shee_35:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: Shrew_87 Start: 53023, Stop: 53322, Start Num: 36
Candidate Starts for Shrew_87:
(31, 52972), (Start: 36 @53023 has 51 MA's), (Start: 42 @53059 has 1 MA's), (50, 53116), (51, 53119), (60, 53182), (61, 53212), (64, 53224), (72, 53287), (75, 53305),

Gene: Sinatra_32 Start: 23929, Stop: 23636, Start Num: 37
Candidate Starts for Sinatra_32:
(Start: 37 @23929 has 47 MA's), (Start: 41 @23902 has 2 MA's), (46, 23872),

Gene: SirVictor_32 Start: 24020, Stop: 23727, Start Num: 37

Candidate Starts for SirVictor_32:
(Start: 37 @24020 has 47 MA's), (Start: 41 @23993 has 2 MA's), (46, 23963), (74, 23756),

Gene: SketchMex_36 Start: 26909, Stop: 26622, Start Num: 36
Candidate Starts for SketchMex_36:
(14, 27092), (15, 27053), (17, 27026), (24, 26993), (Start: 36 @26909 has 51 MA's), (Start: 47 @26843 has 1 MA's), (50, 26816), (51, 26813), (59, 26756), (60, 26750), (64, 26714), (65, 26711), (68, 26678), (73, 26645),

Gene: Socotra_37 Start: 26613, Stop: 26326, Start Num: 36
Candidate Starts for Socotra_37:
(26, 26685), (Start: 36 @26613 has 51 MA's), (Start: 47 @26547 has 1 MA's), (50, 26520), (51, 26517), (58, 26466), (60, 26454), (64, 26418), (65, 26415), (73, 26349),

Gene: SoilGremlin_35 Start: 24365, Stop: 24072, Start Num: 38
Candidate Starts for SoilGremlin_35:
(Start: 38 @24365 has 143 MA's), (Start: 41 @24338 has 2 MA's), (Start: 42 @24335 has 1 MA's),

Gene: SolidSnake_36 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for SolidSnake_36:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: SonOfLevi_34 Start: 24046, Stop: 23753, Start Num: 38
Candidate Starts for SonOfLevi_34:
(Start: 38 @24046 has 143 MA's), (Start: 41 @24019 has 2 MA's), (Start: 42 @24016 has 1 MA's),

Gene: Sopespian_35 Start: 26615, Stop: 26328, Start Num: 36
Candidate Starts for Sopespian_35:
(26, 26687), (Start: 36 @26615 has 51 MA's), (Start: 47 @26549 has 1 MA's), (50, 26522), (51, 26519), (59, 26462), (60, 26456), (64, 26420), (65, 26417), (73, 26351),

Gene: Soror1_34 Start: 24473, Stop: 24180, Start Num: 38
Candidate Starts for Soror1_34:
(Start: 38 @24473 has 143 MA's), (Start: 41 @24446 has 2 MA's), (Start: 42 @24443 has 1 MA's),

Gene: Stanktossa_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for Stanktossa_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Starburst_37 Start: 26608, Stop: 26321, Start Num: 36
Candidate Starts for Starburst_37:
(26, 26680), (Start: 36 @26608 has 51 MA's), (Start: 47 @26542 has 1 MA's), (50, 26515), (51, 26512), (58, 26461), (59, 26455), (60, 26449), (64, 26413), (65, 26410), (73, 26344),

Gene: SteamedHams_38 Start: 27027, Stop: 26740, Start Num: 36
Candidate Starts for SteamedHams_38:
(Start: 36 @27027 has 51 MA's), (Start: 47 @26961 has 1 MA's), (50, 26934), (51, 26931), (56, 26904), (58, 26880), (60, 26868), (64, 26832), (65, 26829), (73, 26763),

Gene: StingRay_34 Start: 24061, Stop: 23768, Start Num: 38
Candidate Starts for StingRay_34:
(Start: 38 @24061 has 143 MA's), (Start: 41 @24034 has 2 MA's), (Start: 42 @24031 has 1 MA's),

Gene: StirfryIV_34 Start: 24051, Stop: 23758, Start Num: 38
Candidate Starts for StirfryIV_34:
(Start: 38 @24051 has 143 MA's), (Start: 41 @24024 has 2 MA's), (Start: 42 @24021 has 1 MA's),

Gene: Stormbreaker8_34 Start: 24464, Stop: 24171, Start Num: 38
Candidate Starts for Stormbreaker8_34:
(Start: 38 @24464 has 143 MA's), (Start: 41 @24437 has 2 MA's), (Start: 42 @24434 has 1 MA's),

Gene: Strathdee_35 Start: 24367, Stop: 24074, Start Num: 38
Candidate Starts for Strathdee_35:
(Start: 38 @24367 has 143 MA's), (Start: 41 @24340 has 2 MA's), (Start: 42 @24337 has 1 MA's),

Gene: SummitAcademy_38 Start: 28496, Stop: 28212, Start Num: 36
Candidate Starts for SummitAcademy_38:
(6, 28832), (11, 28742), (20, 28595), (21, 28592), (23, 28589), (25, 28571), (Start: 36 @28496 has 51 MA's), (Start: 42 @28460 has 1 MA's), (44, 28451), (Start: 47 @28430 has 1 MA's), (48, 28421), (49, 28406), (50, 28403), (51, 28400), (56, 28373), (58, 28349), (60, 28337), (63, 28304), (73, 28232),

Gene: Superfresh_35 Start: 24354, Stop: 24061, Start Num: 38
Candidate Starts for Superfresh_35:
(Start: 38 @24354 has 143 MA's), (Start: 41 @24327 has 2 MA's), (Start: 42 @24324 has 1 MA's),

Gene: Survivors_36 Start: 27199, Stop: 26915, Start Num: 35
Candidate Starts for Survivors_36:
(Start: 35 @27199 has 10 MA's), (39, 27178), (44, 27154), (Start: 47 @27133 has 1 MA's), (50, 27106), (51, 27103), (59, 27046), (60, 27040), (71, 26953),

Gene: SweatNTears_37 Start: 26511, Stop: 26224, Start Num: 36
Candidate Starts for SweatNTears_37:
(26, 26583), (Start: 36 @26511 has 51 MA's), (Start: 47 @26445 has 1 MA's), (50, 26418), (51, 26415), (59, 26358), (60, 26352), (64, 26316), (65, 26313), (73, 26247),

Gene: Symere_34 Start: 24041, Stop: 23748, Start Num: 38
Candidate Starts for Symere_34:
(Start: 38 @24041 has 143 MA's), (Start: 41 @24014 has 2 MA's), (Start: 42 @24011 has 1 MA's),

Gene: Tarnish_38 Start: 28996, Stop: 28712, Start Num: 36
Candidate Starts for Tarnish_38:
(Start: 36 @28996 has 51 MA's), (Start: 42 @28960 has 1 MA's), (44, 28951), (Start: 47 @28930 has 1 MA's), (49, 28906), (50, 28903), (51, 28900), (56, 28873), (58, 28849), (60, 28837), (63, 28804), (73, 28732),

Gene: TatarkaPM_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for TatarkaPM_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Teagan_35 Start: 24362, Stop: 24069, Start Num: 38
Candidate Starts for Teagan_35:
(Start: 38 @24362 has 143 MA's), (Start: 41 @24335 has 2 MA's), (Start: 42 @24332 has 1 MA's),

Gene: TeddyBear_34 Start: 24064, Stop: 23771, Start Num: 38
Candidate Starts for TeddyBear_34:
(Start: 38 @24064 has 143 MA's), (Start: 41 @24037 has 2 MA's), (Start: 42 @24034 has 1 MA's),

Gene: Tenda_34 Start: 24062, Stop: 23769, Start Num: 38
Candidate Starts for Tenda_34:
(Start: 38 @24062 has 143 MA's), (Start: 41 @24035 has 2 MA's), (Start: 42 @24032 has 1 MA's),

Gene: Thompsone_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Thompsone_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Thorongil_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Thorongil_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: TinSulphur_35 Start: 24368, Stop: 24075, Start Num: 38
Candidate Starts for TinSulphur_35:
(Start: 38 @24368 has 143 MA's), (Start: 41 @24341 has 2 MA's), (Start: 42 @24338 has 1 MA's),

Gene: Tinyman4_33 Start: 22687, Stop: 22394, Start Num: 37
Candidate Starts for Tinyman4_33:
(Start: 37 @22687 has 47 MA's), (Start: 41 @22660 has 2 MA's), (74, 22423),

Gene: Tolls_38 Start: 27126, Stop: 26839, Start Num: 36
Candidate Starts for Tolls_38:
(Start: 36 @27126 has 51 MA's), (Start: 47 @27060 has 1 MA's), (50, 27033), (51, 27030), (58, 26979), (60, 26967), (64, 26931), (65, 26928), (73, 26862),

Gene: Triscuit_82 Start: 51622, Stop: 51939, Start Num: 34
Candidate Starts for Triscuit_82:
(Start: 34 @51622 has 2 MA's), (Start: 47 @51691 has 1 MA's), (50, 51718), (51, 51721), (53, 51739), (64, 51826), (66, 51835), (69, 51865), (72, 51889), (77, 51925),

Gene: Troje_37 Start: 26916, Stop: 26629, Start Num: 36
Candidate Starts for Troje_37:
(26, 26988), (Start: 36 @26916 has 51 MA's), (Start: 47 @26850 has 1 MA's), (50, 26823), (51, 26820), (59, 26763), (60, 26757), (64, 26721), (65, 26718), (68, 26685), (73, 26652),

Gene: TwoBits_31 Start: 22622, Stop: 22329, Start Num: 37
Candidate Starts for TwoBits_31:
(Start: 37 @22622 has 47 MA's), (39, 22607), (Start: 40 @22604 has 1 MA's), (Start: 41 @22595 has 2 MA's), (Start: 42 @22592 has 1 MA's), (46, 22565), (74, 22358),

Gene: Typhonomachy_35 Start: 26625, Stop: 26338, Start Num: 36
Candidate Starts for Typhonomachy_35:
(3, 26979), (9, 26892), (33, 26634), (Start: 36 @26625 has 51 MA's), (Start: 47 @26559 has 1 MA's), (50, 26532), (51, 26529), (58, 26478), (60, 26466), (64, 26430), (65, 26427), (73, 26361),

Gene: Velene_35 Start: 24367, Stop: 24074, Start Num: 38
Candidate Starts for Velene_35:
(Start: 38 @24367 has 143 MA's), (Start: 41 @24340 has 2 MA's), (Start: 42 @24337 has 1 MA's),

Gene: Vine_41 Start: 29228, Stop: 28944, Start Num: 36
Candidate Starts for Vine_41:

(Start: 36 @29228 has 51 MA's), (Start: 42 @29192 has 1 MA's), (44, 29183), (Start: 47 @29162 has 1 MA's), (49, 29138), (50, 29135), (51, 29132), (56, 29105), (58, 29081), (60, 29069), (63, 29036), (73, 28964),

Gene: Vispistious_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for Vispistious_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: Wardwill_34 Start: 22393, Stop: 22100, Start Num: 37
Candidate Starts for Wardwill_34:
(Start: 37 @22393 has 47 MA's), (39, 22378), (Start: 40 @22375 has 1 MA's), (Start: 41 @22366 has 2 MA's), (Start: 42 @22363 has 1 MA's), (46, 22336), (74, 22129),

Gene: WestPM_31 Start: 22544, Stop: 22251, Start Num: 37
Candidate Starts for WestPM_31:
(Start: 37 @22544 has 47 MA's), (Start: 41 @22517 has 2 MA's),

Gene: WildNOut_35 Start: 24366, Stop: 24073, Start Num: 38
Candidate Starts for WildNOut_35:
(Start: 38 @24366 has 143 MA's), (Start: 41 @24339 has 2 MA's), (Start: 42 @24336 has 1 MA's),

Gene: WilliamStrong_33 Start: 23765, Stop: 23478, Start Num: 37
Candidate Starts for WilliamStrong_33:
(Start: 37 @23765 has 47 MA's), (Start: 41 @23738 has 2 MA's), (46, 23708),

Gene: Winzigespinne_34 Start: 24050, Stop: 23757, Start Num: 38
Candidate Starts for Winzigespinne_34:
(Start: 38 @24050 has 143 MA's), (Start: 41 @24023 has 2 MA's), (Start: 42 @24020 has 1 MA's),

Gene: Wolfwood_38 Start: 27250, Stop: 26987, Start Num: 39
Candidate Starts for Wolfwood_38:
(Start: 35 @27271 has 10 MA's), (39, 27250), (44, 27226), (Start: 47 @27205 has 1 MA's), (50, 27178), (51, 27175), (59, 27118), (60, 27112), (71, 27025),

Gene: Xebius_33 Start: 23981, Stop: 23694, Start Num: 38
Candidate Starts for Xebius_33:
(Start: 38 @23981 has 143 MA's), (Start: 41 @23954 has 2 MA's), (Start: 42 @23951 has 1 MA's), (46, 23924),

Gene: Yakult_40 Start: 28020, Stop: 27742, Start Num: 36
Candidate Starts for Yakult_40:
(Start: 36 @28020 has 51 MA's), (46, 27960), (Start: 47 @27954 has 1 MA's), (49, 27930), (50, 27927), (51, 27924), (60, 27861), (67, 27792),

Gene: Yarn_34 Start: 26886, Stop: 26599, Start Num: 36
Candidate Starts for Yarn_34:
(Start: 36 @26886 has 51 MA's), (Start: 47 @26820 has 1 MA's), (50, 26793), (51, 26790), (58, 26739), (60, 26727), (64, 26691), (65, 26688), (73, 26622),

Gene: Yucky_41 Start: 29168, Stop: 28884, Start Num: 36
Candidate Starts for Yucky_41:
(Start: 36 @29168 has 51 MA's), (Start: 42 @29132 has 1 MA's), (44, 29123), (Start: 47 @29102 has 1 MA's), (49, 29078), (50, 29075), (51, 29072), (56, 29045), (58, 29021), (60, 29009), (63, 28976), (73,

28904),

Gene: Yummy_37 Start: 26533, Stop: 26246, Start Num: 36
Candidate Starts for Yummy_37:
(26, 26605), (Start: 36 @26533 has 51 MA's), (Start: 47 @26467 has 1 MA's), (50, 26440), (51, 26437), (59, 26380), (60, 26374), (64, 26338), (65, 26335), (68, 26302), (73, 26269),

Gene: YuuY_33 Start: 24385, Stop: 24092, Start Num: 37
Candidate Starts for YuuY_33:
(Start: 37 @24385 has 47 MA's), (Start: 40 @24367 has 1 MA's), (Start: 41 @24358 has 2 MA's), (45, 24337), (46, 24328), (54, 24271), (76, 24100),

Gene: Zada_35 Start: 24347, Stop: 24054, Start Num: 38
Candidate Starts for Zada_35:
(Start: 38 @24347 has 143 MA's), (Start: 41 @24320 has 2 MA's), (Start: 42 @24317 has 1 MA's),

Gene: Zareef_36 Start: 27293, Stop: 27009, Start Num: 35
Candidate Starts for Zareef_36:
(Start: 35 @27293 has 10 MA's), (39, 27272), (44, 27248), (Start: 47 @27227 has 1 MA's), (50, 27200), (51, 27197), (59, 27140), (60, 27134), (71, 27047),

Gene: Zayuliv_32 Start: 22821, Stop: 22528, Start Num: 37
Candidate Starts for Zayuliv_32:
(Start: 37 @22821 has 47 MA's), (39, 22806), (Start: 40 @22803 has 1 MA's), (Start: 41 @22794 has 2 MA's), (Start: 42 @22791 has 1 MA's), (46, 22764), (74, 22557),

Gene: Zenitsu_33 Start: 24008, Stop: 23721, Start Num: 38
Candidate Starts for Zenitsu_33:
(Start: 38 @24008 has 143 MA's), (Start: 41 @23981 has 2 MA's), (Start: 42 @23978 has 1 MA's), (46, 23951),

Gene: Zepp_33 Start: 22289, Stop: 21996, Start Num: 37
Candidate Starts for Zepp_33:
(Start: 37 @22289 has 47 MA's), (39, 22274), (Start: 40 @22271 has 1 MA's), (Start: 41 @22262 has 2 MA's), (Start: 42 @22259 has 1 MA's), (46, 22232), (74, 22025),

Gene: Zuko_83 Start: 63560, Stop: 63886, Start Num: 36
Candidate Starts for Zuko_83:
(16, 63422), (22, 63464), (32, 63512), (Start: 36 @63560 has 51 MA's), (48, 63635), (50, 63653), (51, 63656), (59, 63713), (60, 63719), (70, 63797), (72, 63818),