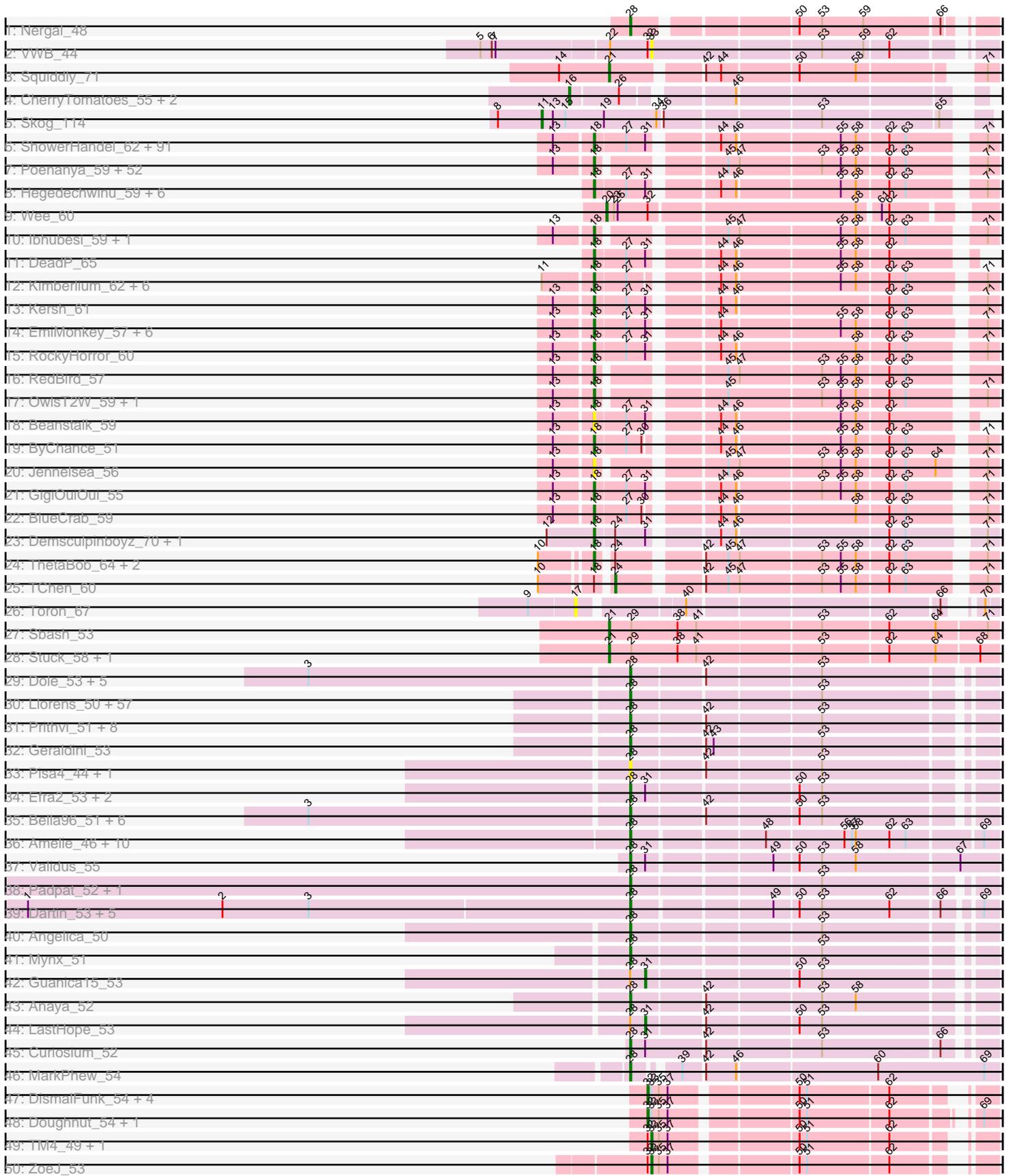# Pham 290752

Pham 290752

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 290752 Report

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

Pham number 290752 has 339 members, 35 are drafts.

Phages represented in each track:
• Track 1 : Nergal_48
• Track 2 : VWB_44
• Track 3 : Squiddly_71
• Track 4 : CherryTomatoes_55, Pupper_53, SCentae_53
• Track 5 : Skog_114
• Track 6 : ShowerHandel_62, Burwell21_57, Zizzle_63, SiSi_57, Jarcob_59, Marker_61, Mandlovu_55, Violac_61, Drago_57, Blexus_57, Strokeseat_55, Karhdo_56, Scottish_57, Vivum_60, Boomer_64, Sabbb_63, Soul22_65, DirtMcgirt_58, Brocalys_54, Jabbawokkie_73, Eradicator_52, Martik_59, Latretium_61, Mova_60, BuzzLyseyear_65, GUmbie_57, EleanorGeorge_60, Rockne_60, Whouxphf_56, IrishSherpFalk_60, KristaRAM_62, Spartacus_61, Gandalph_62, Dante_60, Tootsieroll_60, Pollywog_60, Koella_53, Chuckly_62, Mozy_68, Priscilla_59, Maravista_60, Peridot_60, Zapner_72, BobaPhett_63, Alexphander_63, Saal_61, ShiLan_58, Emmaloid_60, Yorick_58, Clifton_54, NormanBulbieJr_59, PMC_56, Hlubikazi_55, Totinger_58, James_63, Spikelee_66, Radiance_58, Rita_60, Zerg_59, Blarby_71, DaddyRickover_58, Mahavrat_57, Cabrinians_60, Gorge_63, OlympiaSaint_61, ShroomBoi_61, Pippy_57, UncleRicky_58, Firehouse51_60, WillSterrel_60, VRedHorse_59, Crumble_54, Byougenkin_57, Phatniss_57, MadMen_57, SwagPigglett_64, Llij_55, OldBen_56, LastJedi_53, Slim_60, Hades_60, Lucia_59, Mattes_63, FreddyB_60, Mutaforma13_63, LittleShirley_58, Rialto_65, Doug_61, Lizziana_65, Lorde_59, Madiba_57, Fancypants_61
• Track 7 : Poenanya_59, BodEinwohner17_59, Estave1_62, Seabastian_64, Plumbus_61, LilMoolah_57, Phasih_57, Jinglebell_64, Ochi17_62, Leperchaun_51, Leozinho_58, Girr_57, JoeyJr_54, SimranZ1_59, Spoonbill_56, Llama_64, PHappiness_54, Ruby_55, DRBy19_62, SeaLumen_63, OfUltron_64, AlpineSix_64, Clank_64, DosHalletts_61, Stap_57, RitaG_54, NewHope4_60, Oksu_63, Modragons_63, MisterCuddles_57, Mwanjiwa_65, Doomslug_68, Cornucopia_61, Job42_61, Pacc40_53, Galactic_58, Sassafras_57, LunaBlu_61, Inventum_54, Nivrat_55, Enzomatic_65, Philus_62, Daenerys_53, DillTech15_56, Dorothy_57, Polo2Bam_64, Polka14_57, KingMidas_58, Avani_67, Doomphist_59, Empress_57, Fastidio_59, Nichirin_66
• Track 8 : Hegedechwinu_59, MinionDave_58, Wee_63, CaptainTrips_56, Enby_60, SG4_56, IbOuu_58
• Track 9 : Wee_60
• Track 10 : Ibhubesi_59, Veteran_56
• Track 11 : DeadP_65

- Track 12 : Kimberlium_62, Topiatin_67, MulchExplorer_66, Starcevich_59, Cheesepuff_66, Cornie_55, QuickMath_61
- Track 13 : Kersh_61
- Track 14 : EmiMonkey_57, Eish_63, PatoPoderoso_56, DaWorst_60, KingJulian_59, PhlipPhlop_59, Corium_56
- Track 15 : RockyHorror_60
- Track 16 : RedBird_57
- Track 17 : OwlsT2W_59, Grimmer_69
- Track 18 : Beanstalk_59
- Track 19 : ByChance_51
- Track 20 : Jennelsea_56
- Track 21 : GigiOuiOui_55
- Track 22 : BlueCrab_59
- Track 23 : Demsculpinboyz_70, Renaud18_65
- Track 24 : ThetaBob_64, LunaStella_58, Yoshi_72
- Track 25 : TChen_60
- Track 26 : Toron_67
- Track 27 : Sbash_53
- Track 28 : Stuck_58, Shweta_42
- Track 29 : Dole_53, Illumine_53, Ageofdapage_52, Stinson_51, Devera_55, Murucutumbu_51
- Track 30 : Llorens_50, ActinUp_50, Padfoot_50, Dalmuri_50, CaseJules_52, Topper_50, BarrelRoll_50, JAWS_50, Durfee_50, TaiwanKao_52, Jeckyll_50, BEEST_50, Capricorn_50, Spock_50, CREW_50, MacKat_45, AlishaPH_50, Rosmarinus_50, Apocalypse_53, Boiiii_50, BaghaKamala_49, Bern_51, Slimphazie_50, TruffulaTree_50, Asayake_50, Joy99_50, Atiba_51, CheetoDust_49, Blizzard_50, Zavala_52, Zabiza_45, Belladonna_50, Adephagia_50, Piatt_50, Homura_50, Clipper_53, Inky_50, Jayhawk_51, Beezoo_52, Hyperbowlee_50, Veliki_51, Ganymede_51, HedwigODU_50, QuincyRose_49, YoureAdopted_49, Rapunzel97_51, Sulley_50, Peel_50, MeaningOfLife_51, Tachez_50, ShiaSurprise_51, Jarvi_50, Lunahalos_50, BGlluviae_50, Twitch_50, CallaLilly_50, Ramen_51, Adonis_50
- Track 31 : Prithvi_51, Megsy_52, LaterM_51, Deby_50, LindNT_49, Tiri_51, TreyKay_51, Pokerus_49, CrimD_50
- Track 32 : Geraldini_53
- Track 33 : Pisa4_44, Pisa1_50
- Track 34 : Efra2_53, Yunkel11_53, TingHuaYa_51
- Track 35 : Bella96_51, Anma_52, TiniBug_51, SamuelLPlaqson_51, Urkel_51, DartGoblin_53, DrHayes_51
- Track 36 : Amelie_46, Teejan_48, LilPharaoh_46, Torres_49, Trice_46, Biglebops_46, Nutello_46, Enkosi_48, Nikao_49, SgtBeansprout_46, Mdavu_47
- Track 37 : Validus_55
- Track 38 : Padpat_52, Emerson_51
- Track 39 : Dartin_53, Shaobing_53, Peanam_53, Richo_53, McMater_53, Niklas_53
- Track 40 : Angelica_50
- Track 41 : Mynx_51
- Track 42 : Guanica15_53
- Track 43 : Anaya_52
- Track 44 : LastHope_53
- Track 45 : Curiosium_52
- Track 46 : MarkPhew_54
- Track 47 : DismalFunk_54, Findley_54, DismalStressor_54, Milly_54, Marcoliusprime_54

- Track 48 : Doughnut_54, BoostSeason_54
- Track 49 : TM4_49, Strobilo_54
- Track 50 : ZoeJ_53
- Track 51 : Mufasa_54
- Track 52 : Bryler_54, PhelpsODU_53, Cain_54, Tierra_54, Phrank_54, Unicorn_53
- Track 53 : Lavahound_52, Amgine_51
- Track 54 : Applecrisp_50, Fefferhead_51, Ellie_49
- Track 55 : Ekdilam_50
- Track 56 : November_51
- Track 57 : SirPhilip_53
- Track 58 : TClif_54
- Track 59 : Charlie_44, Sejanus_58, Journey_43

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

The start number called the most often in the published annotations is 18, it was called in 164 of the 304 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Alexphander_63, AlpineSix_64, Avani_67, Beanstalk_59, Blarby_71, Blexus_57, BlueCrab_59, BobaPhett_63, BodEinwohner17_59, Boomer_64, Brocalys_54, Burwell21_57, BuzzLyseyear_65, ByChance_51, Byougenkin_57, Cabrinians_60, CaptainTrips_56, Cheesepuff_66, Chuckly_62, Clank_64, Clifton_54, Corium_56, Cornie_55, Cornucopia_61, Crumble_54, DRBy19_62, DaWorst_60, DaddyRickover_58, Daenerys_53, Dante_60, DeadP_65, Demsculpinboyz_70, DillTech15_56, DirtMcgirt_58, Doomphist_59, Doomslug_68, Dorothy_57, DosHalletts_61, Doug_61, Drago_57, Eish_63, EleanorGeorge_60, EmiMonkey_57, Emmaloid_60, Empress_57, Enby_60, Enzomatic_65, Eradicator_52, Estave1_62, Fancypants_61, Fastidio_59, Firehouse51_60, FreddyB_60, GUmbie_57, Galactic_58, Gandalph_62, GigiOuiOui_55, Girr_57, Gorge_63, Grimmer_69, Hades_60, Hegedechwinu_59, Hlubikazi_55, IbOuu_58, Ibhubesi_59, Inventum_54, IrishSherpFalk_60, Jabbawokkie_73, James_63, Jarcob_59, Jennelsea_56, Jinglebell_64, Job42_61, JoeyJr_54, Karhdo_56, Kersh_61, Kimberlium_62, KingJulian_59, KingMidas_58, Koella_53, KristaRAM_62, LastJedi_53, Latretium_61, Leozinho_58, Leperchaun_51, LilMoolah_57, LittleShirley_58, Lizziana_65, Llama_64, Llij_55, Lorde_59, Lucia_59, LunaBlu_61, LunaStella_58, MadMen_57, Madiba_57, Mahavrat_57, Mandlovu_55, Maravista_60, Marker_61, Martik_59, Mattes_63, MinionDave_58, MisterCuddles_57, Modragons_63, Mova_60, Mozy_68, MulchExplorer_66, Mutaforma13_63, Mwanjiwa_65, NewHope4_60, Nichirin_66, Nivrat_55, NormanBulbieJr_59, Ochi17_62, OfUltron_64, Oksu_63, OldBen_56, OlympiaSaint_61, OwlsT2W_59, PHappiness_54, PMC_56, Pacc40_53, PatoPoderoso_56, Peridot_60, Phasih_57, Phatniss_57, Philus_62, PhlipPhlop_59, Pippy_57, Plumbus_61, Poenanya_59, Polka14_57, Pollywog_60, Polo2Bam_64, Priscilla_59, QuickMath_61, Radiance_58, RedBird_57, Renaud18_65, Rialto_65, RitaG_54, Rita_60, Rockne_60, RockyHorror_60, Ruby_55, SG4_56, Saal_61, Sabbb_63, Sassafras_57, Scottish_57, SeaLumen_63, Seabastian_64, ShiLan_58, ShowerHandel_62, ShroomBoi_61, SiSi_57, SimranZ1_59, Slim_60, Soul22_65, Spartacus_61, Spikelee_66, Spoonbill_56, Stap_57, Starcevich_59, Strokeseat_55, SwagPigglett_64, ThetaBob_64, Tootsieroll_60, Topiatin_67, Totinger_58, UncleRicky_58, VRedHorse_59, Veteran_56, Violac_61, Vivum_60, Wee_63,

Whouxphf_56, WillSterrel_60, Yorick_58, Yoshi_72, Zapner_72, Zerg_59, Zizzle_63,

Genes that have the "Most Annotated" start but do not call it:
• TChen_60,

Genes that do not have the "Most Annotated" start:
• ActinUp_50, Adephagia_50, Adonis_50, Ageofdapage_52, AlishaPH_50, Amelie_46, Amgine_51, Anaya_52, Angelica_50, Anma_52, Apocalypse_53, Applecrisp_50, Asayake_50, Atiba_51, BEEST_50, BGlluviae_50, BaghaKamala_49, BarrelRoll_50, Beezoo_52, Bella96_51, Belladonna_50, Bern_51, Biglebops_46, Blizzard_50, Boiiii_50, BoostSeason_54, Bryler_54, CREW_50, Cain_54, CallaLilly_50, Capricorn_50, CaseJules_52, Charlie_44, CheetoDust_49, CherryTomatoes_55, Clipper_53, CrimD_50, Curiosium_52, Dalmuri_50, DartGoblin_53, Dartin_53, Deby_50, Devera_55, DismalFunk_54, DismalStressor_54, Dole_53, Doughnut_54, DrHayes_51, Durfee_50, Efra2_53, Ekdilam_50, Ellie_49, Emerson_51, Enkosi_48, Fefferhead_51, Findley_54, Ganymede_51, Geraldini_53, Guanica15_53, HedwigODU_50, Homura_50, Hyperbowlee_50, Illumine_53, Inky_50, JAWS_50, Jarvi_50, Jayhawk_51, Jeckyll_50, Journey_43, Joy99_50, LastHope_53, LaterM_51, Lavahound_52, LilPharaoh_46, LindNT_49, Llorens_50, Lunahalos_50, MacKat_45, Marcoliusprime_54, MarkPhew_54, McMater_53, Mdavu_47, MeaningOfLife_51, Megsy_52, Milly_54, Mufasa_54, Murucutumbu_51, Mynx_51, Nergal_48, Nikao_49, Niklas_53, November_51, Nutello_46, Padfoot_50, Padpat_52, Peanam_53, Peel_50, PhelpsODU_53, Phrank_54, Piatt_50, Pisa1_50, Pisa4_44, Pokerus_49, Prithvi_51, Pupper_53, QuincyRose_49, Ramen_51, Rapunzel97_51, Richo_53, Rosmarinus_50, SCentae_53, SamuelLPlaqson_51, Sbash_53, Sejanus_58, SgtBeansprout_46, Shaobing_53, ShiaSurprise_51, Shweta_42, SirPhilip_53, Skog_114, Slimphazie_50, Spock_50, Squiddly_71, Stinson_51, Strobilo_54, Stuck_58, Sulley_50, TClif_54, TM4_49, Tachez_50, TaiwanKao_52, Teejan_48, Tierra_54, TingHuaYa_51, TiniBug_51, Tiri_51, Topper_50, Toron_67, Torres_49, TreyKay_51, Trice_46, TruffulaTree_50, Twitch_50, Unicorn_53, Urkel_51, VWB_44, Validus_55, Veliki_51, Wee_60, YoureAdopted_49, Yunkel11_53, Zabiza_45, Zavala_52, ZoeJ_53,

Summary by start number:

Start 11:
• Found in 8 of 339 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 304
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Skog_114 (DO),

Start 16:
• Found in 3 of 339 (0.9%) of genes in pham
• Manual Annotations of this start: 3 of 304
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CherryTomatoes_55 (DO), Pupper_53 (DO), SCentae_53 (DO),

Start 17:
• Found in 1 of 339 (0.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Toron_67 (F6),

Start 18:
• Found in 185 of 339 (54.6%) of genes in pham
• Manual Annotations of this start: 164 of 304
• Called 99.5% of time when present
• Phage (with cluster) where this start called: Alexphander_63 (F1), AlpineSix_64 (F1), Avani_67 (F2), Beanstalk_59 (F1), Blarby_71 (F), Blexus_57 (F1), BlueCrab_59 (F1), BobaPhett_63 (F1), BodEinwohner17_59 (F1), Boomer_64 (F1), Brocalys_54 (F1), Burwell21_57 (F1), BuzzLyseyear_65 (F1), ByChance_51 (F1), Byougenkin_57 (F1), Cabrinians_60 (F1), CaptainTrips_56 (F1), Cheesepuff_66 (F1), Chuckly_62 (F1), Clank_64 (F), Clifton_54 (F1), Corium_56 (F1), Cornie_55 (F5), Cornucopia_61 (F1), Crumble_54 (F1), DRBy19_62 (F1), DaWorst_60 (F1), DaddyRickover_58 (F1), Daenerys_53 (F1), Dante_60 (F1), DeadP_65 (F1), Demsculpinboyz_70 (F2), DillTech15_56 (F1), DirtMcgirt_58 (F1), Doomphist_59 (F1), Doomslug_68 (F), Dorothy_57 (F1), DosHalletts_61 (F1), Doug_61 (F1), Drago_57 (F1), Eish_63 (F1), EleanorGeorge_60 (F1), EmiMonkey_57 (F1), Emmaloid_60 (F1), Empress_57 (F1), Enby_60 (F1), Enzomatic_65 (F1), Eradicator_52 (F1), Estave1_62 (F1), Fancypants_61 (F1), Fastidio_59 (F1), Firehouse51_60 (F1), FreddyB_60 (F1), GUmbie_57 (F1), Galactic_58 (F1), Gandalph_62 (F1), GigiOuiOui_55 (F1), Girr_57 (F1), Gorge_63 (F1), Grimmer_69 (F1), Hades_60 (F1), Hegedechwinu_59 (F1), Hlubikazi_55 (F1), IbOuu_58 (F1), Ibhubesi_59 (F1), Inventum_54 (F1), IrishSherpFalk_60 (F1), Jabbawokkie_73 (F2), James_63 (F1), Jarcob_59 (F1), Jennelsea_56 (F1), Jinglebell_64 (F1), Job42_61 (F1), JoeyJr_54 (F1), Karhdo_56 (F1), Kersh_61 (F1), Kimberlium_62 (F1), KingJulian_59 (F1), KingMidas_58 (F1), Koella_53 (F1), KristaRAM_62 (F1), LastJedi_53 (F1), Latretium_61 (F1), Leozinho_58 (F1), Leperchaun_51 (F1), LilMoolah_57 (F1), LittleShirley_58 (F1), Lizziana_65 (F1), Llama_64 (F1), Llij_55 (F1), Lorde_59 (F1), Lucia_59 (F1), LunaBlu_61 (F1), LunaStella_58 (F4), MadMen_57 (F1), Madiba_57 (F1), Mahavrat_57 (F1), Mandlovu_55 (F1), Maravista_60 (F1), Marker_61 (F1), Martik_59 (F1), Mattes_63 (F1), MinionDave_58 (F1), MisterCuddles_57 (F1), Modragons_63 (F1), Mova_60 (F1), Mozy_68 (F1), MulchExplorer_66 (F1), Mutaforma13_63 (F1), Mwanjiwa_65 (F1), NewHope4_60 (F1), Nichirin_66 (F1), Nivrat_55 (F1), NormanBulbieJr_59 (F1), Ochi17_62 (F1), OfUltron_64 (F1), Oksu_63 (F1), OldBen_56 (F1), OlympiaSaint_61 (F1), OwlsT2W_59 (F1), PHappiness_54 (F1), PMC_56 (F1), Pacc40_53 (F1), PatoPoderoso_56 (F1), Peridot_60 (F1), Phasih_57 (F1), Phatniss_57 (F1), Philus_62 (F1), PhlipPhlop_59 (F1), Pippy_57 (F1), Plumbus_61 (F1), Poenanya_59 (F1), Polka14_57 (F1), Pollywog_60 (F1), Polo2Bam_64 (F1), Priscilla_59 (F1), QuickMath_61 (F1), Radiance_58 (F1), RedBird_57 (F1), Renaud18_65 (F4), Rialto_65 (F1), RitaG_54 (F1), Rita_60 (F1), Rockne_60 (F1), RockyHorror_60 (F1), Ruby_55 (F1), SG4_56 (F1), Saal_61 (F1), Sabbb_63 (F1), Sassafras_57 (F1), Scottish_57 (F1), SeaLumen_63 (F1), Seabastian_64 (F1), ShiLan_58 (F1), ShowerHandel_62 (F1), ShroomBoi_61 (F1), SiSi_57 (F1), SimranZ1_59 (F1), Slim_60 (F1), Soul22_65 (F2), Spartacus_61 (F1), Spikelee_66 (F1), Spoonbill_56 (F1), Stap_57 (F1), Starcevich_59 (F1), Strokeseat_55 (F1), SwagPigglett_64 (F1), ThetaBob_64 (F4), Tootsieroll_60 (F1), Topiatin_67 (F1), Totinger_58 (F1), UncleRicky_58 (F1), VRedHorse_59 (F1), Veteran_56 (F1), Violac_61 (F1), Vivum_60 (F1), Wee_63 (F1), Whouxphf_56 (F1), WillSterrel_60 (F1), Yorick_58 (F1), Yoshi_72 (F2), Zapner_72 (F2), Zerg_59 (F1), Zizzle_63 (F1),

Start 20:
• Found in 1 of 339 (0.3%) of genes in pham

- Manual Annotations of this start: 1 of 304
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wee_60 (F1),

Start 21:
- Found in 7 of 339 (2.1%) of genes in pham
- Manual Annotations of this start: 6 of 304
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Charlie_44 (N), Journey_43 (N), Sbash_53 (I2), Sejanus_58 (AD), Shweta_42 (N), Squiddly_71 (DN2), Stuck_58 (I2),

Start 24:
- Found in 6 of 339 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 304
- Called 16.7% of time when present
- Phage (with cluster) where this start called: TChen_60 (F4),

Start 28:
- Found in 129 of 339 (38.1%) of genes in pham
- Manual Annotations of this start: 115 of 304
- Called 98.4% of time when present
- Phage (with cluster) where this start called: ActinUp_50 (K1), Adephagia_50 (K1), Adonis_50 (K1), Ageofdapage_52 (K1), AlishaPH_50 (K1), Amelie_46 (K1), Amgine_51 (K6), Anaya_52 (K1), Angelica_50 (K1), Anma_52 (K1), Apocalypse_53 (K1), Applecrisp_50 (K6), Asayake_50 (K1), Atiba_51 (K1), BEEST_50 (K1), BGlluviae_50 (K1), BaghaKamala_49 (K1), BarrelRoll_50 (K1), Beezoo_52 (K1), Bella96_51 (K1), Belladonna_50 (K1), Bern_51 (K1), Biglebops_46 (K1), Blizzard_50 (K1), Boiiii_50 (K1), Bryler_54 (K6), CREW_50 (K1), Cain_54 (K6), CallaLilly_50 (K1), Capricorn_50 (K1), CaseJules_52 (K1), CheetoDust_49 (K1), Clipper_53 (K1), CrimD_50 (K1), Curiosium_52 (K1), Dalmuri_50 (K1), DartGoblin_53 (K1), Dartin_53 (K1), Deby_50 (K1), Devera_55 (K1), Dole_53 (K1), DrHayes_51 (K1), Durfee_50 (K1), Efra2_53 (K1), Ekdilam_50 (K6), Ellie_49 (K6), Emerson_51 (K1), Enkosi_48 (K1), Fefferhead_51 (K6), Ganymede_51 (K1), Geraldini_53 (K1), HedwigODU_50 (K1), Homura_50 (K1), Hyperbowlee_50 (K1), Illumine_53 (K1), Inky_50 (K1), JAWS_50 (K1), Jarvi_50 (K1), Jayhawk_51 (K1), Jeckyll_50 (K1), Joy99_50 (K1), LaterM_51 (K1), Lavahound_52 (K6), LilPharaoh_46 (K1), LindNT_49 (K1), Llorens_50 (K1), Lunahalos_50 (K1), MacKat_45 (K1), MarkPhew_54 (K1), McMater_53 (K1), Mdavu_47 (K1), MeaningOfLife_51 (K1), Megsy_52 (K1), Murucutumbu_51 (K1), Mynx_51 (K1), Nergal_48 (AG), Nikao_49 (K1), Niklas_53 (K1), November_51 (K6), Nutello_46 (K1), Padfoot_50 (K1), Padpat_52 (K1), Peanam_53 (K1), Peel_50 (K1), PhelpsODU_53 (K6), Phrank_54 (K6), Piatt_50 (K1), Pisa1_50 (K1), Pisa4_44 (K1), Pokerus_49 (K1), Prithvi_51 (K1), QuincyRose_49 (K1), Ramen_51 (K1), Rapunzel97_51 (K1), Richo_53 (K1), Rosmarinus_50 (K1), SamuelLPlaqson_51 (K1), SgtBeansprout_46 (K1), Shaobing_53 (K1), ShiaSurprise_51 (K1), SirPhilip_53 (K6), Slimphazie_50 (K1), Spock_50 (K1), Stinson_51 (K1), Sulley_50 (K1), TClif_54 (K6), Tachez_50 (K1), TaiwanKao_52 (K1), Teejan_48 (K1), Tierra_54 (K6), TingHuaYa_51 (K1), TiniBug_51 (K1), Tiri_51 (K1), Topper_50 (K1), Torres_49 (K1), TreyKay_51 (K1), Trice_46 (K1), TruffulaTree_50 (K1), Twitch_50 (K1), Unicorn_53 (K6), Urkel_51 (K1), Validus_55 (K1), Veliki_51 (K1), YoureAdopted_49 (K1), Yunkel11_53 (K1), Zabiza_45 (K1), Zavala_52 (K1),

Start 31:
- Found in 120 of 339 (35.4%) of genes in pham

• Manual Annotations of this start: 2 of 304
• Called 1.7% of time when present
• Phage (with cluster) where this start called: Guanica15_53 (K1), LastHope_53 (K1),

Start 32:
• Found in 13 of 339 (3.8%) of genes in pham
• Manual Annotations of this start: 7 of 304
• Called 53.8% of time when present
• Phage (with cluster) where this start called: BoostSeason_54 (K2), DismalFunk_54 (K2), DismalStressor_54 (K2), Doughnut_54 (K2), Findley_54 (K2), Marcoliusprime_54 (K2), Milly_54 (K2),

Start 33:
• Found in 12 of 339 (3.5%) of genes in pham
• Manual Annotations of this start: 4 of 304
• Called 41.7% of time when present
• Phage (with cluster) where this start called: Mufasa_54 (K2), Strobilo_54 (K2), TM4_49 (K2), VWB_44 (BA), ZoeJ_53 (K2),

Summary by clusters:

There are 16 clusters represented in this pham: DO, F2, I2, F4, F5, F6, F1, F, BA, N, K2, K1, K6, DN2, AG, AD,

Info for manual annotations of cluster AD:
•Start number 21 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AG:
•Start number 28 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster DN2:
•Start number 21 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DO:
•Start number 11 was manually annotated 1 time for cluster DO.
•Start number 16 was manually annotated 3 times for cluster DO.

Info for manual annotations of cluster F1:
•Start number 18 was manually annotated 154 times for cluster F1.
•Start number 20 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 18 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 18 was manually annotated 3 times for cluster F4.
•Start number 24 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:
•Start number 18 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I2:
•Start number 21 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster K1:
•Start number 28 was manually annotated 100 times for cluster K1.
•Start number 31 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K2:
•Start number 32 was manually annotated 7 times for cluster K2.
•Start number 33 was manually annotated 4 times for cluster K2.

Info for manual annotations of cluster K6:
•Start number 28 was manually annotated 14 times for cluster K6.

Info for manual annotations of cluster N:
•Start number 21 was manually annotated 3 times for cluster N.

Gene Information:

Gene: ActinUp_50 Start: 37356, Stop: 37619, Start Num: 28
Candidate Starts for ActinUp_50:
(Start: 28 @37356 has 115 MA's), (53, 37497),

Gene: Adephagia_50 Start: 37353, Stop: 37616, Start Num: 28
Candidate Starts for Adephagia_50:
(Start: 28 @37353 has 115 MA's), (53, 37494),

Gene: Adonis_50 Start: 37651, Stop: 37914, Start Num: 28
Candidate Starts for Adonis_50:
(Start: 28 @37651 has 115 MA's), (53, 37792),

Gene: Ageofdapage_52 Start: 38336, Stop: 38599, Start Num: 28
Candidate Starts for Ageofdapage_52:
(3, 38084), (Start: 28 @38336 has 115 MA's), (42, 38390), (53, 38477),

Gene: Alexphander_63 Start: 40422, Stop: 40706, Start Num: 18
Candidate Starts for Alexphander_63:
(13, 40395), (Start: 18 @40422 has 164 MA's), (27, 40446), (Start: 31 @40461 has 2 MA's), (44, 40506), (46, 40518), (55, 40596), (58, 40608), (62, 40632), (63, 40644), (71, 40698),

Gene: AlishaPH_50 Start: 37626, Stop: 37889, Start Num: 28
Candidate Starts for AlishaPH_50:
(Start: 28 @37626 has 115 MA's), (53, 37767),

Gene: AlpineSix_64 Start: 42541, Stop: 42819, Start Num: 18
Candidate Starts for AlpineSix_64:
(13, 42514), (Start: 18 @42541 has 164 MA's), (45, 42625), (47, 42634), (53, 42697), (55, 42712), (58, 42724), (62, 42748), (63, 42760), (71, 42811),

Gene: Amelie_46 Start: 37040, Stop: 37309, Start Num: 28

Candidate Starts for Amelie_46:
(Start: 28 @37040 has 115 MA's), (48, 37136), (56, 37196), (57, 37202), (58, 37205), (62, 37232), (63, 37244), (69, 37298),

Gene: Amgine_51 Start: 38553, Stop: 38807, Start Num: 28
Candidate Starts for Amgine_51:
(4, 38403), (Start: 28 @38553 has 115 MA's), (46, 38619), (60, 38727),

Gene: Anaya_52 Start: 37953, Stop: 38216, Start Num: 28
Candidate Starts for Anaya_52:
(Start: 28 @37953 has 115 MA's), (42, 38007), (53, 38094), (58, 38121),

Gene: Angelica_50 Start: 37583, Stop: 37846, Start Num: 28
Candidate Starts for Angelica_50:
(Start: 28 @37583 has 115 MA's), (53, 37724),

Gene: Anma_52 Start: 38242, Stop: 38505, Start Num: 28
Candidate Starts for Anma_52:
(3, 37990), (Start: 28 @38242 has 115 MA's), (42, 38296), (50, 38365), (53, 38383),

Gene: Apocalypse_53 Start: 38362, Stop: 38625, Start Num: 28
Candidate Starts for Apocalypse_53:
(Start: 28 @38362 has 115 MA's), (53, 38503),

Gene: Applecrisp_50 Start: 38049, Stop: 38303, Start Num: 28
Candidate Starts for Applecrisp_50:
(4, 37899), (Start: 28 @38049 has 115 MA's), (46, 38115), (60, 38223), (66, 38268),

Gene: Asayake_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for Asayake_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: Atiba_51 Start: 37316, Stop: 37579, Start Num: 28
Candidate Starts for Atiba_51:
(Start: 28 @37316 has 115 MA's), (53, 37457),

Gene: Avani_67 Start: 40740, Stop: 41018, Start Num: 18
Candidate Starts for Avani_67:
(13, 40713), (Start: 18 @40740 has 164 MA's), (45, 40824), (47, 40833), (53, 40896), (55, 40911), (58, 40923), (62, 40947), (63, 40959), (71, 41010),

Gene: BEEST_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for BEEST_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: BGlluviae_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for BGlluviae_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: BaghaKamala_49 Start: 36791, Stop: 37054, Start Num: 28
Candidate Starts for BaghaKamala_49:
(Start: 28 @36791 has 115 MA's), (53, 36932),

Gene: BarrelRoll_50 Start: 37339, Stop: 37602, Start Num: 28
Candidate Starts for BarrelRoll_50:
(Start: 28 @37339 has 115 MA's), (53, 37480),

Gene: Beanstalk_59 Start: 38741, Stop: 39007, Start Num: 18
Candidate Starts for Beanstalk_59:
(13, 38714), (Start: 18 @38741 has 164 MA's), (27, 38765), (Start: 31 @38780 has 2 MA's), (44, 38825), (46, 38837), (55, 38915), (58, 38927), (62, 38951),

Gene: Beezoo_52 Start: 38314, Stop: 38577, Start Num: 28
Candidate Starts for Beezoo_52:
(Start: 28 @38314 has 115 MA's), (53, 38455),

Gene: Bella96_51 Start: 38180, Stop: 38443, Start Num: 28
Candidate Starts for Bella96_51:
(3, 37928), (Start: 28 @38180 has 115 MA's), (42, 38234), (50, 38303), (53, 38321),

Gene: Belladonna_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Belladonna_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Bern_51 Start: 36386, Stop: 36649, Start Num: 28
Candidate Starts for Bern_51:
(Start: 28 @36386 has 115 MA's), (53, 36527),

Gene: Biglebops_46 Start: 37040, Stop: 37309, Start Num: 28
Candidate Starts for Biglebops_46:
(Start: 28 @37040 has 115 MA's), (48, 37136), (56, 37196), (57, 37202), (58, 37205), (62, 37232), (63, 37244), (69, 37298),

Gene: Blarby_71 Start: 41835, Stop: 42119, Start Num: 18
Candidate Starts for Blarby_71:
(13, 41808), (Start: 18 @41835 has 164 MA's), (27, 41859), (Start: 31 @41874 has 2 MA's), (44, 41919), (46, 41931), (55, 42009), (58, 42021), (62, 42045), (63, 42057), (71, 42111),

Gene: Blexus_57 Start: 40392, Stop: 40673, Start Num: 18
Candidate Starts for Blexus_57:
(13, 40365), (Start: 18 @40392 has 164 MA's), (27, 40416), (Start: 31 @40431 has 2 MA's), (44, 40476), (46, 40488), (55, 40566), (58, 40578), (62, 40602), (63, 40614), (71, 40665),

Gene: Blizzard_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for Blizzard_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: BlueCrab_59 Start: 40700, Stop: 40978, Start Num: 18
Candidate Starts for BlueCrab_59:
(13, 40673), (Start: 18 @40700 has 164 MA's), (27, 40724), (30, 40736), (44, 40781), (46, 40793), (58, 40883), (62, 40907), (63, 40919), (71, 40970),

Gene: BobaPhett_63 Start: 42651, Stop: 42935, Start Num: 18
Candidate Starts for BobaPhett_63:
(13, 42624), (Start: 18 @42651 has 164 MA's), (27, 42675), (Start: 31 @42690 has 2 MA's), (44, 42735), (46, 42747), (55, 42825), (58, 42837), (62, 42861), (63, 42873), (71, 42927),

Gene: BodEinwohner17_59 Start: 39462, Stop: 39740, Start Num: 18
Candidate Starts for BodEinwohner17_59:
(13, 39435), (Start: 18 @39462 has 164 MA's), (45, 39546), (47, 39555), (53, 39618), (55, 39633), (58, 39645), (62, 39669), (63, 39681), (71, 39732),

Gene: Boiiii_50 Start: 37670, Stop: 37933, Start Num: 28
Candidate Starts for Boiiii_50:
(Start: 28 @37670 has 115 MA's), (53, 37811),

Gene: Boomer_64 Start: 42326, Stop: 42610, Start Num: 18
Candidate Starts for Boomer_64:
(13, 42299), (Start: 18 @42326 has 164 MA's), (27, 42350), (Start: 31 @42365 has 2 MA's), (44, 42410), (46, 42422), (55, 42500), (58, 42512), (62, 42536), (63, 42548), (71, 42602),

Gene: BoostSeason_54 Start: 39128, Stop: 39364, Start Num: 32
Candidate Starts for BoostSeason_54:
(Start: 32 @39128 has 7 MA's), (Start: 33 @39131 has 4 MA's), (35, 39137), (37, 39143), (50, 39233), (51, 39239), (62, 39302), (69, 39353),

Gene: Brocalys_54 Start: 36836, Stop: 37117, Start Num: 18
Candidate Starts for Brocalys_54:
(13, 36809), (Start: 18 @36836 has 164 MA's), (27, 36860), (Start: 31 @36875 has 2 MA's), (44, 36920), (46, 36932), (55, 37010), (58, 37022), (62, 37046), (63, 37058), (71, 37109),

Gene: Bryler_54 Start: 37154, Stop: 37411, Start Num: 28
Candidate Starts for Bryler_54:
(Start: 28 @37154 has 115 MA's), (34, 37175), (46, 37229), (53, 37292), (54, 37301), (66, 37379),

Gene: Burwell21_57 Start: 39934, Stop: 40218, Start Num: 18
Candidate Starts for Burwell21_57:
(13, 39907), (Start: 18 @39934 has 164 MA's), (27, 39958), (Start: 31 @39973 has 2 MA's), (44, 40018), (46, 40030), (55, 40108), (58, 40120), (62, 40144), (63, 40156), (71, 40210),

Gene: BuzzLyseyear_65 Start: 41358, Stop: 41639, Start Num: 18
Candidate Starts for BuzzLyseyear_65:
(13, 41331), (Start: 18 @41358 has 164 MA's), (27, 41382), (Start: 31 @41397 has 2 MA's), (44, 41442), (46, 41454), (55, 41532), (58, 41544), (62, 41568), (63, 41580), (71, 41631),

Gene: ByChance_51 Start: 35625, Stop: 35906, Start Num: 18
Candidate Starts for ByChance_51:
(13, 35598), (Start: 18 @35625 has 164 MA's), (27, 35649), (30, 35661), (44, 35706), (46, 35718), (55, 35796), (58, 35808), (62, 35832), (63, 35844), (71, 35898),

Gene: Byougenkin_57 Start: 39701, Stop: 39982, Start Num: 18
Candidate Starts for Byougenkin_57:
(13, 39674), (Start: 18 @39701 has 164 MA's), (27, 39725), (Start: 31 @39740 has 2 MA's), (44, 39785), (46, 39797), (55, 39875), (58, 39887), (62, 39911), (63, 39923), (71, 39974),

Gene: CREW_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for CREW_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Cabrinians_60 Start: 40012, Stop: 40296, Start Num: 18
Candidate Starts for Cabrinians_60:
(13, 39985), (Start: 18 @40012 has 164 MA's), (27, 40036), (Start: 31 @40051 has 2 MA's), (44, 40096), (46, 40108), (55, 40186), (58, 40198), (62, 40222), (63, 40234), (71, 40288),

Gene: Cain_54 Start: 37142, Stop: 37399, Start Num: 28
Candidate Starts for Cain_54:
(Start: 28 @37142 has 115 MA's), (34, 37163), (46, 37217), (53, 37280), (54, 37289), (66, 37367),

Gene: CallaLilly_50 Start: 37394, Stop: 37657, Start Num: 28
Candidate Starts for CallaLilly_50:
(Start: 28 @37394 has 115 MA's), (53, 37535),

Gene: Capricorn_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Capricorn_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: CaptainTrips_56 Start: 39508, Stop: 39792, Start Num: 18
Candidate Starts for CaptainTrips_56:
(Start: 18 @39508 has 164 MA's), (27, 39532), (Start: 31 @39547 has 2 MA's), (44, 39592), (46, 39604), (55, 39682), (58, 39694), (62, 39718), (63, 39730), (71, 39784),

Gene: CaseJules_52 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for CaseJules_52:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: Charlie_44 Start: 30217, Stop: 30516, Start Num: 21
Candidate Starts for Charlie_44:
(Start: 21 @30217 has 6 MA's), (29, 30235), (38, 30271), (41, 30286), (53, 30382), (62, 30433), (64, 30469), (68, 30502), (71, 30508),

Gene: Cheesepuff_66 Start: 41977, Stop: 42255, Start Num: 18
Candidate Starts for Cheesepuff_66:
(Start: 11 @41941 has 1 MA's), (Start: 18 @41977 has 164 MA's), (27, 42001), (44, 42058), (46, 42070), (55, 42148), (58, 42160), (62, 42184), (63, 42196), (71, 42247),

Gene: CheetoDust_49 Start: 36840, Stop: 37103, Start Num: 28
Candidate Starts for CheetoDust_49:
(Start: 28 @36840 has 115 MA's), (53, 36981),

Gene: CherryTomatoes_55 Start: 18497, Stop: 18778, Start Num: 16
Candidate Starts for CherryTomatoes_55:
(Start: 16 @18497 has 3 MA's), (26, 18533), (46, 18608),

Gene: Chuckly_62 Start: 40654, Stop: 40938, Start Num: 18
Candidate Starts for Chuckly_62:
(13, 40627), (Start: 18 @40654 has 164 MA's), (27, 40678), (Start: 31 @40693 has 2 MA's), (44, 40738), (46, 40750), (55, 40828), (58, 40840), (62, 40864), (63, 40876), (71, 40930),

Gene: Clank_64 Start: 40984, Stop: 41262, Start Num: 18
Candidate Starts for Clank_64:
(13, 40957), (Start: 18 @40984 has 164 MA's), (45, 41068), (47, 41077), (53, 41140), (55, 41155), (58, 41167), (62, 41191), (63, 41203), (71, 41254),

Gene: Clifton_54 Start: 37187, Stop: 37468, Start Num: 18
Candidate Starts for Clifton_54:
(13, 37160), (Start: 18 @37187 has 164 MA's), (27, 37211), (Start: 31 @37226 has 2 MA's), (44, 37271), (46, 37283), (55, 37361), (58, 37373), (62, 37397), (63, 37409), (71, 37460),

Gene: Clipper_53 Start: 37987, Stop: 38250, Start Num: 28
Candidate Starts for Clipper_53:
(Start: 28 @37987 has 115 MA's), (53, 38128),

Gene: Corium_56 Start: 39051, Stop: 39335, Start Num: 18
Candidate Starts for Corium_56:
(13, 39024), (Start: 18 @39051 has 164 MA's), (27, 39075), (Start: 31 @39090 has 2 MA's), (44, 39135), (55, 39225), (58, 39237), (62, 39261), (63, 39273), (71, 39327),

Gene: Cornie_55 Start: 38439, Stop: 38717, Start Num: 18
Candidate Starts for Cornie_55:
(Start: 11 @38403 has 1 MA's), (Start: 18 @38439 has 164 MA's), (27, 38463), (44, 38520), (46, 38532), (55, 38610), (58, 38622), (62, 38646), (63, 38658), (71, 38709),

Gene: Cornucopia_61 Start: 40668, Stop: 40946, Start Num: 18
Candidate Starts for Cornucopia_61:
(13, 40641), (Start: 18 @40668 has 164 MA's), (45, 40752), (47, 40761), (53, 40824), (55, 40839), (58, 40851), (62, 40875), (63, 40887), (71, 40938),

Gene: CrimD_50 Start: 37577, Stop: 37840, Start Num: 28
Candidate Starts for CrimD_50:
(Start: 28 @37577 has 115 MA's), (42, 37631), (53, 37718),

Gene: Crumble_54 Start: 35948, Stop: 36232, Start Num: 18
Candidate Starts for Crumble_54:
(13, 35921), (Start: 18 @35948 has 164 MA's), (27, 35972), (Start: 31 @35987 has 2 MA's), (44, 36032), (46, 36044), (55, 36122), (58, 36134), (62, 36158), (63, 36170), (71, 36224),

Gene: Curiosium_52 Start: 36255, Stop: 36521, Start Num: 28
Candidate Starts for Curiosium_52:
(Start: 28 @36255 has 115 MA's), (Start: 31 @36267 has 2 MA's), (42, 36312), (53, 36399), (66, 36489),

Gene: DRBy19_62 Start: 41112, Stop: 41393, Start Num: 18
Candidate Starts for DRBy19_62:
(13, 41085), (Start: 18 @41112 has 164 MA's), (45, 41196), (47, 41205), (53, 41268), (55, 41283), (58, 41295), (62, 41319), (63, 41331), (71, 41385),

Gene: DaWorst_60 Start: 40413, Stop: 40697, Start Num: 18
Candidate Starts for DaWorst_60:
(13, 40386), (Start: 18 @40413 has 164 MA's), (27, 40437), (Start: 31 @40452 has 2 MA's), (44, 40497), (55, 40587), (58, 40599), (62, 40623), (63, 40635), (71, 40689),

Gene: DaddyRickover_58 Start: 40151, Stop: 40435, Start Num: 18
Candidate Starts for DaddyRickover_58:
(13, 40124), (Start: 18 @40151 has 164 MA's), (27, 40175), (Start: 31 @40190 has 2 MA's), (44, 40235), (46, 40247), (55, 40325), (58, 40337), (62, 40361), (63, 40373), (71, 40427),

Gene: Daenerys_53 Start: 38267, Stop: 38545, Start Num: 18
Candidate Starts for Daenerys_53:
(13, 38240), (Start: 18 @38267 has 164 MA's), (45, 38351), (47, 38360), (53, 38423), (55, 38438), (58, 38450), (62, 38474), (63, 38486), (71, 38537),

Gene: Dalmuri_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Dalmuri_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Dante_60 Start: 39936, Stop: 40220, Start Num: 18
Candidate Starts for Dante_60:
(13, 39909), (Start: 18 @39936 has 164 MA's), (27, 39960), (Start: 31 @39975 has 2 MA's), (44, 40020), (46, 40032), (55, 40110), (58, 40122), (62, 40146), (63, 40158), (71, 40212),

Gene: DartGoblin_53 Start: 38152, Stop: 38415, Start Num: 28
Candidate Starts for DartGoblin_53:
(3, 37900), (Start: 28 @38152 has 115 MA's), (42, 38206), (50, 38275), (53, 38293),

Gene: Dartin_53 Start: 38285, Stop: 38548, Start Num: 28
Candidate Starts for Dartin_53:
(1, 37805), (2, 37961), (3, 38030), (Start: 28 @38285 has 115 MA's), (49, 38387), (50, 38405), (53, 38423), (62, 38477), (66, 38513), (69, 38537),

Gene: DeadP_65 Start: 42582, Stop: 42848, Start Num: 18
Candidate Starts for DeadP_65:
(Start: 18 @42582 has 164 MA's), (27, 42606), (Start: 31 @42621 has 2 MA's), (44, 42666), (46, 42678), (55, 42756), (58, 42768), (62, 42792),

Gene: Deby_50 Start: 37599, Stop: 37862, Start Num: 28
Candidate Starts for Deby_50:
(Start: 28 @37599 has 115 MA's), (42, 37653), (53, 37740),

Gene: Demsculpinboyz_70 Start: 39936, Stop: 40217, Start Num: 18
Candidate Starts for Demsculpinboyz_70:
(12, 39900), (Start: 18 @39936 has 164 MA's), (Start: 24 @39951 has 1 MA's), (Start: 31 @39975 has 2 MA's), (44, 40020), (46, 40032), (62, 40146), (63, 40158), (71, 40209),

Gene: Devera_55 Start: 38103, Stop: 38366, Start Num: 28
Candidate Starts for Devera_55:
(3, 37851), (Start: 28 @38103 has 115 MA's), (42, 38157), (53, 38244),

Gene: DillTech15_56 Start: 38601, Stop: 38879, Start Num: 18
Candidate Starts for DillTech15_56:
(13, 38574), (Start: 18 @38601 has 164 MA's), (45, 38685), (47, 38694), (53, 38757), (55, 38772), (58, 38784), (62, 38808), (63, 38820), (71, 38871),

Gene: DirtMcgirt_58 Start: 38676, Stop: 38960, Start Num: 18
Candidate Starts for DirtMcgirt_58:
(13, 38649), (Start: 18 @38676 has 164 MA's), (27, 38700), (Start: 31 @38715 has 2 MA's), (44, 38760), (46, 38772), (55, 38850), (58, 38862), (62, 38886), (63, 38898), (71, 38952),

Gene: DismalFunk_54 Start: 39559, Stop: 39792, Start Num: 32

Candidate Starts for DismalFunk_54:
(Start: 32 @39559 has 7 MA's), (Start: 33 @39562 has 4 MA's), (35, 39568), (37, 39574), (50, 39664), (51, 39670), (62, 39733),

Gene: DismalStressor_54 Start: 39559, Stop: 39792, Start Num: 32
Candidate Starts for DismalStressor_54:
(Start: 32 @39559 has 7 MA's), (Start: 33 @39562 has 4 MA's), (35, 39568), (37, 39574), (50, 39664), (51, 39670), (62, 39733),

Gene: Dole_53 Start: 38105, Stop: 38368, Start Num: 28
Candidate Starts for Dole_53:
(3, 37853), (Start: 28 @38105 has 115 MA's), (42, 38159), (53, 38246),

Gene: Doomphist_59 Start: 41112, Stop: 41390, Start Num: 18
Candidate Starts for Doomphist_59:
(13, 41085), (Start: 18 @41112 has 164 MA's), (45, 41196), (47, 41205), (53, 41268), (55, 41283), (58, 41295), (62, 41319), (63, 41331), (71, 41382),

Gene: Doomslug_68 Start: 40532, Stop: 40810, Start Num: 18
Candidate Starts for Doomslug_68:
(13, 40505), (Start: 18 @40532 has 164 MA's), (45, 40616), (47, 40625), (53, 40688), (55, 40703), (58, 40715), (62, 40739), (63, 40751), (71, 40802),

Gene: Dorothy_57 Start: 39331, Stop: 39609, Start Num: 18
Candidate Starts for Dorothy_57:
(13, 39304), (Start: 18 @39331 has 164 MA's), (45, 39415), (47, 39424), (53, 39487), (55, 39502), (58, 39514), (62, 39538), (63, 39550), (71, 39601),

Gene: DosHalletts_61 Start: 41467, Stop: 41745, Start Num: 18
Candidate Starts for DosHalletts_61:
(13, 41440), (Start: 18 @41467 has 164 MA's), (45, 41551), (47, 41560), (53, 41623), (55, 41638), (58, 41650), (62, 41674), (63, 41686), (71, 41737),

Gene: Doug_61 Start: 40679, Stop: 40963, Start Num: 18
Candidate Starts for Doug_61:
(13, 40652), (Start: 18 @40679 has 164 MA's), (27, 40703), (Start: 31 @40718 has 2 MA's), (44, 40763), (46, 40775), (55, 40853), (58, 40865), (62, 40889), (63, 40901), (71, 40955),

Gene: Doughnut_54 Start: 39169, Stop: 39405, Start Num: 32
Candidate Starts for Doughnut_54:
(Start: 32 @39169 has 7 MA's), (Start: 33 @39172 has 4 MA's), (35, 39178), (37, 39184), (50, 39274), (51, 39280), (62, 39343), (69, 39394),

Gene: DrHayes_51 Start: 38242, Stop: 38505, Start Num: 28
Candidate Starts for DrHayes_51:
(3, 37990), (Start: 28 @38242 has 115 MA's), (42, 38296), (50, 38365), (53, 38383),

Gene: Drago_57 Start: 38679, Stop: 38963, Start Num: 18
Candidate Starts for Drago_57:
(13, 38652), (Start: 18 @38679 has 164 MA's), (27, 38703), (Start: 31 @38718 has 2 MA's), (44, 38763), (46, 38775), (55, 38853), (58, 38865), (62, 38889), (63, 38901), (71, 38955),

Gene: Durfee_50 Start: 37668, Stop: 37931, Start Num: 28

Candidate Starts for Durfee_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: Efra2_53 Start: 37187, Stop: 37450, Start Num: 28
Candidate Starts for Efra2_53:
(Start: 28 @37187 has 115 MA's), (Start: 31 @37199 has 2 MA's), (50, 37310), (53, 37328),

Gene: Eish_63 Start: 40928, Stop: 41212, Start Num: 18
Candidate Starts for Eish_63:
(13, 40901), (Start: 18 @40928 has 164 MA's), (27, 40952), (Start: 31 @40967 has 2 MA's), (44, 41012), (55, 41102), (58, 41114), (62, 41138), (63, 41150), (71, 41204),

Gene: Ekdilam_50 Start: 37991, Stop: 38245, Start Num: 28
Candidate Starts for Ekdilam_50:
(2, 37673), (3, 37742), (4, 37838), (Start: 28 @37991 has 115 MA's), (53, 38120), (60, 38165),

Gene: EleanorGeorge_60 Start: 40795, Stop: 41076, Start Num: 18
Candidate Starts for EleanorGeorge_60:
(13, 40768), (Start: 18 @40795 has 164 MA's), (27, 40819), (Start: 31 @40834 has 2 MA's), (44, 40879), (46, 40891), (55, 40969), (58, 40981), (62, 41005), (63, 41017), (71, 41068),

Gene: Ellie_49 Start: 37741, Stop: 37995, Start Num: 28
Candidate Starts for Ellie_49:
(4, 37591), (Start: 28 @37741 has 115 MA's), (46, 37807), (60, 37915), (66, 37960),

Gene: Emerson_51 Start: 37347, Stop: 37610, Start Num: 28
Candidate Starts for Emerson_51:
(Start: 28 @37347 has 115 MA's), (53, 37488),

Gene: EmiMonkey_57 Start: 41642, Stop: 41926, Start Num: 18
Candidate Starts for EmiMonkey_57:
(13, 41615), (Start: 18 @41642 has 164 MA's), (27, 41666), (Start: 31 @41681 has 2 MA's), (44, 41726), (55, 41816), (58, 41828), (62, 41852), (63, 41864), (71, 41918),

Gene: Emmaloid_60 Start: 40738, Stop: 41022, Start Num: 18
Candidate Starts for Emmaloid_60:
(13, 40711), (Start: 18 @40738 has 164 MA's), (27, 40762), (Start: 31 @40777 has 2 MA's), (44, 40822), (46, 40834), (55, 40912), (58, 40924), (62, 40948), (63, 40960), (71, 41014),

Gene: Empress_57 Start: 39681, Stop: 39959, Start Num: 18
Candidate Starts for Empress_57:
(13, 39654), (Start: 18 @39681 has 164 MA's), (45, 39765), (47, 39774), (53, 39837), (55, 39852), (58, 39864), (62, 39888), (63, 39900), (71, 39951),

Gene: Enby_60 Start: 38955, Stop: 39239, Start Num: 18
Candidate Starts for Enby_60:
(Start: 18 @38955 has 164 MA's), (27, 38979), (Start: 31 @38994 has 2 MA's), (44, 39039), (46, 39051), (55, 39129), (58, 39141), (62, 39165), (63, 39177), (71, 39231),

Gene: Enkosi_48 Start: 39653, Stop: 39922, Start Num: 28
Candidate Starts for Enkosi_48:
(Start: 28 @39653 has 115 MA's), (48, 39749), (56, 39809), (57, 39815), (58, 39818), (62, 39845), (63, 39857), (69, 39911),

Gene: Enzomatic_65 Start: 39785, Stop: 40063, Start Num: 18
Candidate Starts for Enzomatic_65:
(13, 39758), (Start: 18 @39785 has 164 MA's), (45, 39869), (47, 39878), (53, 39941), (55, 39956), (58, 39968), (62, 39992), (63, 40004), (71, 40055),

Gene: Eradicator_52 Start: 38208, Stop: 38489, Start Num: 18
Candidate Starts for Eradicator_52:
(13, 38181), (Start: 18 @38208 has 164 MA's), (27, 38232), (Start: 31 @38247 has 2 MA's), (44, 38292), (46, 38304), (55, 38382), (58, 38394), (62, 38418), (63, 38430), (71, 38481),

Gene: Estave1_62 Start: 41132, Stop: 41410, Start Num: 18
Candidate Starts for Estave1_62:
(13, 41105), (Start: 18 @41132 has 164 MA's), (45, 41216), (47, 41225), (53, 41288), (55, 41303), (58, 41315), (62, 41339), (63, 41351), (71, 41402),

Gene: Fancypants_61 Start: 40646, Stop: 40930, Start Num: 18
Candidate Starts for Fancypants_61:
(13, 40619), (Start: 18 @40646 has 164 MA's), (27, 40670), (Start: 31 @40685 has 2 MA's), (44, 40730), (46, 40742), (55, 40820), (58, 40832), (62, 40856), (63, 40868), (71, 40922),

Gene: Fastidio_59 Start: 38748, Stop: 39026, Start Num: 18
Candidate Starts for Fastidio_59:
(13, 38721), (Start: 18 @38748 has 164 MA's), (45, 38832), (47, 38841), (53, 38904), (55, 38919), (58, 38931), (62, 38955), (63, 38967), (71, 39018),

Gene: Fefferhead_51 Start: 37691, Stop: 37945, Start Num: 28
Candidate Starts for Fefferhead_51:
(4, 37541), (Start: 28 @37691 has 115 MA's), (46, 37757), (60, 37865), (66, 37910),

Gene: Findley_54 Start: 39552, Stop: 39785, Start Num: 32
Candidate Starts for Findley_54:
(Start: 32 @39552 has 7 MA's), (Start: 33 @39555 has 4 MA's), (35, 39561), (37, 39567), (50, 39657), (51, 39663), (62, 39726),

Gene: Firehouse51_60 Start: 43530, Stop: 43814, Start Num: 18
Candidate Starts for Firehouse51_60:
(13, 43503), (Start: 18 @43530 has 164 MA's), (27, 43554), (Start: 31 @43569 has 2 MA's), (44, 43614), (46, 43626), (55, 43704), (58, 43716), (62, 43740), (63, 43752), (71, 43806),

Gene: FreddyB_60 Start: 38860, Stop: 39141, Start Num: 18
Candidate Starts for FreddyB_60:
(13, 38833), (Start: 18 @38860 has 164 MA's), (27, 38884), (Start: 31 @38899 has 2 MA's), (44, 38944), (46, 38956), (55, 39034), (58, 39046), (62, 39070), (63, 39082), (71, 39133),

Gene: GUmbie_57 Start: 39435, Stop: 39716, Start Num: 18
Candidate Starts for GUmbie_57:
(13, 39408), (Start: 18 @39435 has 164 MA's), (27, 39459), (Start: 31 @39474 has 2 MA's), (44, 39519), (46, 39531), (55, 39609), (58, 39621), (62, 39645), (63, 39657), (71, 39708),

Gene: Galactic_58 Start: 39901, Stop: 40179, Start Num: 18
Candidate Starts for Galactic_58:

(13, 39874), (Start: 18 @39901 has 164 MA's), (45, 39985), (47, 39994), (53, 40057), (55, 40072), (58, 40084), (62, 40108), (63, 40120), (71, 40171),

Gene: Gandalph_62 Start: 40257, Stop: 40538, Start Num: 18
Candidate Starts for Gandalph_62:
(13, 40230), (Start: 18 @40257 has 164 MA's), (27, 40281), (Start: 31 @40296 has 2 MA's), (44, 40341), (46, 40353), (55, 40431), (58, 40443), (62, 40467), (63, 40479), (71, 40530),

Gene: Ganymede_51 Start: 37786, Stop: 38049, Start Num: 28
Candidate Starts for Ganymede_51:
(Start: 28 @37786 has 115 MA's), (53, 37927),

Gene: Geraldini_53 Start: 38403, Stop: 38666, Start Num: 28
Candidate Starts for Geraldini_53:
(Start: 28 @38403 has 115 MA's), (42, 38457), (43, 38463), (53, 38544),

Gene: GigiOuiOui_55 Start: 38875, Stop: 39156, Start Num: 18
Candidate Starts for GigiOuiOui_55:
(13, 38848), (Start: 18 @38875 has 164 MA's), (27, 38899), (Start: 31 @38914 has 2 MA's), (44, 38959), (46, 38971), (53, 39034), (55, 39049), (58, 39061), (62, 39085), (63, 39097), (71, 39148),

Gene: Girr_57 Start: 39742, Stop: 40020, Start Num: 18
Candidate Starts for Girr_57:
(13, 39715), (Start: 18 @39742 has 164 MA's), (45, 39826), (47, 39835), (53, 39898), (55, 39913), (58, 39925), (62, 39949), (63, 39961), (71, 40012),

Gene: Gorge_63 Start: 41377, Stop: 41658, Start Num: 18
Candidate Starts for Gorge_63:
(13, 41350), (Start: 18 @41377 has 164 MA's), (27, 41401), (Start: 31 @41416 has 2 MA's), (44, 41461), (46, 41473), (55, 41551), (58, 41563), (62, 41587), (63, 41599), (71, 41650),

Gene: Grimmer_69 Start: 41537, Stop: 41815, Start Num: 18
Candidate Starts for Grimmer_69:
(13, 41510), (Start: 18 @41537 has 164 MA's), (45, 41621), (53, 41693), (55, 41708), (58, 41720), (62, 41744), (63, 41756), (71, 41807),

Gene: Guanica15_53 Start: 37156, Stop: 37407, Start Num: 31
Candidate Starts for Guanica15_53:
(Start: 28 @37144 has 115 MA's), (Start: 31 @37156 has 2 MA's), (50, 37267), (53, 37285),

Gene: Hades_60 Start: 40833, Stop: 41114, Start Num: 18
Candidate Starts for Hades_60:
(13, 40806), (Start: 18 @40833 has 164 MA's), (27, 40857), (Start: 31 @40872 has 2 MA's), (44, 40917), (46, 40929), (55, 41007), (58, 41019), (62, 41043), (63, 41055), (71, 41106),

Gene: HedwigODU_50 Start: 37356, Stop: 37619, Start Num: 28
Candidate Starts for HedwigODU_50:
(Start: 28 @37356 has 115 MA's), (53, 37497),

Gene: Hegedechwinu_59 Start: 39047, Stop: 39328, Start Num: 18
Candidate Starts for Hegedechwinu_59:
(Start: 18 @39047 has 164 MA's), (27, 39071), (Start: 31 @39086 has 2 MA's), (44, 39131), (46, 39143), (55, 39221), (58, 39233), (62, 39257), (63, 39269), (71, 39320),

Gene: Hlubikazi_55 Start: 38053, Stop: 38334, Start Num: 18
Candidate Starts for Hlubikazi_55:
(13, 38026), (Start: 18 @38053 has 164 MA's), (27, 38077), (Start: 31 @38092 has 2 MA's), (44, 38137), (46, 38149), (55, 38227), (58, 38239), (62, 38263), (63, 38275), (71, 38326),

Gene: Homura_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Homura_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Hyperbowlee_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for Hyperbowlee_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: IbOuu_58 Start: 40412, Stop: 40696, Start Num: 18
Candidate Starts for IbOuu_58:
(Start: 18 @40412 has 164 MA's), (27, 40436), (Start: 31 @40451 has 2 MA's), (44, 40496), (46, 40508), (55, 40586), (58, 40598), (62, 40622), (63, 40634), (71, 40688),

Gene: Ibhubesi_59 Start: 40025, Stop: 40303, Start Num: 18
Candidate Starts for Ibhubesi_59:
(13, 39998), (Start: 18 @40025 has 164 MA's), (45, 40109), (47, 40118), (55, 40196), (58, 40208), (62, 40232), (63, 40244), (71, 40295),

Gene: Illumine_53 Start: 38105, Stop: 38368, Start Num: 28
Candidate Starts for Illumine_53:
(3, 37853), (Start: 28 @38105 has 115 MA's), (42, 38159), (53, 38246),

Gene: Inky_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Inky_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Inventum_54 Start: 39529, Stop: 39807, Start Num: 18
Candidate Starts for Inventum_54:
(13, 39502), (Start: 18 @39529 has 164 MA's), (45, 39613), (47, 39622), (53, 39685), (55, 39700), (58, 39712), (62, 39736), (63, 39748), (71, 39799),

Gene: IrishSherpFalk_60 Start: 41690, Stop: 41971, Start Num: 18
Candidate Starts for IrishSherpFalk_60:
(13, 41663), (Start: 18 @41690 has 164 MA's), (27, 41714), (Start: 31 @41729 has 2 MA's), (44, 41774), (46, 41786), (55, 41864), (58, 41876), (62, 41900), (63, 41912), (71, 41963),

Gene: JAWS_50 Start: 37345, Stop: 37608, Start Num: 28
Candidate Starts for JAWS_50:
(Start: 28 @37345 has 115 MA's), (53, 37486),

Gene: Jabbawokkie_73 Start: 41755, Stop: 42039, Start Num: 18
Candidate Starts for Jabbawokkie_73:
(13, 41728), (Start: 18 @41755 has 164 MA's), (27, 41779), (Start: 31 @41794 has 2 MA's), (44, 41839), (46, 41851), (55, 41929), (58, 41941), (62, 41965), (63, 41977), (71, 42031),

Gene: James_63 Start: 41502, Stop: 41783, Start Num: 18
Candidate Starts for James_63:

(13, 41475), (Start: 18 @41502 has 164 MA's), (27, 41526), (Start: 31 @41541 has 2 MA's), (44, 41586), (46, 41598), (55, 41676), (58, 41688), (62, 41712), (63, 41724), (71, 41775),

Gene: Jarcob_59 Start: 39980, Stop: 40264, Start Num: 18
Candidate Starts for Jarcob_59:
(13, 39953), (Start: 18 @39980 has 164 MA's), (27, 40004), (Start: 31 @40019 has 2 MA's), (44, 40064), (46, 40076), (55, 40154), (58, 40166), (62, 40190), (63, 40202), (71, 40256),

Gene: Jarvi_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Jarvi_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Jayhawk_51 Start: 37354, Stop: 37617, Start Num: 28
Candidate Starts for Jayhawk_51:
(Start: 28 @37354 has 115 MA's), (53, 37495),

Gene: Jeckyll_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Jeckyll_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Jennelsea_56 Start: 38665, Stop: 38943, Start Num: 18
Candidate Starts for Jennelsea_56:
(13, 38638), (Start: 18 @38665 has 164 MA's), (45, 38749), (47, 38758), (53, 38821), (55, 38836), (58, 38848), (62, 38872), (63, 38884), (64, 38908), (71, 38935),

Gene: Jinglebell_64 Start: 42540, Stop: 42818, Start Num: 18
Candidate Starts for Jinglebell_64:
(13, 42513), (Start: 18 @42540 has 164 MA's), (45, 42624), (47, 42633), (53, 42696), (55, 42711), (58, 42723), (62, 42747), (63, 42759), (71, 42810),

Gene: Job42_61 Start: 41920, Stop: 42201, Start Num: 18
Candidate Starts for Job42_61:
(13, 41893), (Start: 18 @41920 has 164 MA's), (45, 42004), (47, 42013), (53, 42076), (55, 42091), (58, 42103), (62, 42127), (63, 42139), (71, 42193),

Gene: JoeyJr_54 Start: 38435, Stop: 38713, Start Num: 18
Candidate Starts for JoeyJr_54:
(13, 38408), (Start: 18 @38435 has 164 MA's), (45, 38519), (47, 38528), (53, 38591), (55, 38606), (58, 38618), (62, 38642), (63, 38654), (71, 38705),

Gene: Journey_43 Start: 30217, Stop: 30516, Start Num: 21
Candidate Starts for Journey_43:
(Start: 21 @30217 has 6 MA's), (29, 30235), (38, 30271), (41, 30286), (53, 30382), (62, 30433), (64, 30469), (68, 30502), (71, 30508),

Gene: Joy99_50 Start: 37400, Stop: 37663, Start Num: 28
Candidate Starts for Joy99_50:
(Start: 28 @37400 has 115 MA's), (53, 37541),

Gene: Karhdo_56 Start: 39525, Stop: 39809, Start Num: 18
Candidate Starts for Karhdo_56:
(13, 39498), (Start: 18 @39525 has 164 MA's), (27, 39549), (Start: 31 @39564 has 2 MA's), (44, 39609), (46, 39621), (55, 39699), (58, 39711), (62, 39735), (63, 39747), (71, 39801),

Gene: Kersh_61 Start: 42278, Stop: 42559, Start Num: 18
Candidate Starts for Kersh_61:
(13, 42251), (Start: 18 @42278 has 164 MA's), (27, 42302), (Start: 31 @42317 has 2 MA's), (44, 42362), (46, 42374), (62, 42488), (63, 42500), (71, 42551),

Gene: Kimberlium_62 Start: 41811, Stop: 42092, Start Num: 18
Candidate Starts for Kimberlium_62:
(Start: 11 @41775 has 1 MA's), (Start: 18 @41811 has 164 MA's), (27, 41835), (44, 41892), (46, 41904), (55, 41982), (58, 41994), (62, 42018), (63, 42030), (71, 42084),

Gene: KingJulian_59 Start: 39051, Stop: 39335, Start Num: 18
Candidate Starts for KingJulian_59:
(13, 39024), (Start: 18 @39051 has 164 MA's), (27, 39075), (Start: 31 @39090 has 2 MA's), (44, 39135), (55, 39225), (58, 39237), (62, 39261), (63, 39273), (71, 39327),

Gene: KingMidas_58 Start: 40097, Stop: 40375, Start Num: 18
Candidate Starts for KingMidas_58:
(13, 40070), (Start: 18 @40097 has 164 MA's), (45, 40181), (47, 40190), (53, 40253), (55, 40268), (58, 40280), (62, 40304), (63, 40316), (71, 40367),

Gene: Koella_53 Start: 35910, Stop: 36194, Start Num: 18
Candidate Starts for Koella_53:
(13, 35883), (Start: 18 @35910 has 164 MA's), (27, 35934), (Start: 31 @35949 has 2 MA's), (44, 35994), (46, 36006), (55, 36084), (58, 36096), (62, 36120), (63, 36132), (71, 36186),

Gene: KristaRAM_62 Start: 42482, Stop: 42763, Start Num: 18
Candidate Starts for KristaRAM_62:
(13, 42455), (Start: 18 @42482 has 164 MA's), (27, 42506), (Start: 31 @42521 has 2 MA's), (44, 42566), (46, 42578), (55, 42656), (58, 42668), (62, 42692), (63, 42704), (71, 42755),

Gene: LastHope_53 Start: 36640, Stop: 36891, Start Num: 31
Candidate Starts for LastHope_53:
(Start: 28 @36628 has 115 MA's), (Start: 31 @36640 has 2 MA's), (42, 36682), (50, 36751), (53, 36769),

Gene: LastJedi_53 Start: 37230, Stop: 37511, Start Num: 18
Candidate Starts for LastJedi_53:
(13, 37203), (Start: 18 @37230 has 164 MA's), (27, 37254), (Start: 31 @37269 has 2 MA's), (44, 37314), (46, 37326), (55, 37404), (58, 37416), (62, 37440), (63, 37452), (71, 37503),

Gene: LaterM_51 Start: 38233, Stop: 38496, Start Num: 28
Candidate Starts for LaterM_51:
(Start: 28 @38233 has 115 MA's), (42, 38287), (53, 38374),

Gene: Latretium_61 Start: 40556, Stop: 40837, Start Num: 18
Candidate Starts for Latretium_61:
(13, 40529), (Start: 18 @40556 has 164 MA's), (27, 40580), (Start: 31 @40595 has 2 MA's), (44, 40640), (46, 40652), (55, 40730), (58, 40742), (62, 40766), (63, 40778), (71, 40829),

Gene: Lavahound_52 Start: 38674, Stop: 38928, Start Num: 28
Candidate Starts for Lavahound_52:
(4, 38524), (Start: 28 @38674 has 115 MA's), (46, 38740), (60, 38848),

Gene: Leozinho_58 Start: 39315, Stop: 39593, Start Num: 18
Candidate Starts for Leozinho_58:
(13, 39288), (Start: 18 @39315 has 164 MA's), (45, 39399), (47, 39408), (53, 39471), (55, 39486), (58, 39498), (62, 39522), (63, 39534), (71, 39585),

Gene: Leperchaun_51 Start: 37665, Stop: 37943, Start Num: 18
Candidate Starts for Leperchaun_51:
(13, 37638), (Start: 18 @37665 has 164 MA's), (45, 37749), (47, 37758), (53, 37821), (55, 37836), (58, 37848), (62, 37872), (63, 37884), (71, 37935),

Gene: LilMoolah_57 Start: 39425, Stop: 39706, Start Num: 18
Candidate Starts for LilMoolah_57:
(13, 39398), (Start: 18 @39425 has 164 MA's), (45, 39509), (47, 39518), (53, 39581), (55, 39596), (58, 39608), (62, 39632), (63, 39644), (71, 39698),

Gene: LilPharaoh_46 Start: 36768, Stop: 37037, Start Num: 28
Candidate Starts for LilPharaoh_46:
(Start: 28 @36768 has 115 MA's), (48, 36864), (56, 36924), (57, 36930), (58, 36933), (62, 36960), (63, 36972), (69, 37026),

Gene: LindNT_49 Start: 37556, Stop: 37819, Start Num: 28
Candidate Starts for LindNT_49:
(Start: 28 @37556 has 115 MA's), (42, 37610), (53, 37697),

Gene: LittleShirley_58 Start: 40469, Stop: 40753, Start Num: 18
Candidate Starts for LittleShirley_58:
(13, 40442), (Start: 18 @40469 has 164 MA's), (27, 40493), (Start: 31 @40508 has 2 MA's), (44, 40553), (46, 40565), (55, 40643), (58, 40655), (62, 40679), (63, 40691), (71, 40745),

Gene: Lizziana_65 Start: 40983, Stop: 41264, Start Num: 18
Candidate Starts for Lizziana_65:
(13, 40956), (Start: 18 @40983 has 164 MA's), (27, 41007), (Start: 31 @41022 has 2 MA's), (44, 41067), (46, 41079), (55, 41157), (58, 41169), (62, 41193), (63, 41205), (71, 41256),

Gene: Llama_64 Start: 42394, Stop: 42672, Start Num: 18
Candidate Starts for Llama_64:
(13, 42367), (Start: 18 @42394 has 164 MA's), (45, 42478), (47, 42487), (53, 42550), (55, 42565), (58, 42577), (62, 42601), (63, 42613), (71, 42664),

Gene: Llij_55 Start: 38833, Stop: 39117, Start Num: 18
Candidate Starts for Llij_55:
(13, 38806), (Start: 18 @38833 has 164 MA's), (27, 38857), (Start: 31 @38872 has 2 MA's), (44, 38917), (46, 38929), (55, 39007), (58, 39019), (62, 39043), (63, 39055), (71, 39109),

Gene: Llorens_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Llorens_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Lorde_59 Start: 38120, Stop: 38404, Start Num: 18
Candidate Starts for Lorde_59:
(13, 38093), (Start: 18 @38120 has 164 MA's), (27, 38144), (Start: 31 @38159 has 2 MA's), (44, 38204), (46, 38216), (55, 38294), (58, 38306), (62, 38330), (63, 38342), (71, 38396),

Gene: Lucia_59 Start: 38977, Stop: 39258, Start Num: 18
Candidate Starts for Lucia_59:
(13, 38950), (Start: 18 @38977 has 164 MA's), (27, 39001), (Start: 31 @39016 has 2 MA's), (44, 39061), (46, 39073), (55, 39151), (58, 39163), (62, 39187), (63, 39199), (71, 39250),

Gene: LunaBlu_61 Start: 40560, Stop: 40838, Start Num: 18
Candidate Starts for LunaBlu_61:
(13, 40533), (Start: 18 @40560 has 164 MA's), (45, 40644), (47, 40653), (53, 40716), (55, 40731), (58, 40743), (62, 40767), (63, 40779), (71, 40830),

Gene: LunaStella_58 Start: 39407, Stop: 39685, Start Num: 18
Candidate Starts for LunaStella_58:
(10, 39371), (Start: 18 @39407 has 164 MA's), (Start: 24 @39416 has 1 MA's), (42, 39473), (45, 39491), (47, 39500), (53, 39563), (55, 39578), (58, 39590), (62, 39614), (63, 39626), (71, 39677),

Gene: Lunahalos_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Lunahalos_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: MacKat_45 Start: 32871, Stop: 33134, Start Num: 28
Candidate Starts for MacKat_45:
(Start: 28 @32871 has 115 MA's), (53, 33012),

Gene: MadMen_57 Start: 39757, Stop: 40041, Start Num: 18
Candidate Starts for MadMen_57:
(13, 39730), (Start: 18 @39757 has 164 MA's), (27, 39781), (Start: 31 @39796 has 2 MA's), (44, 39841), (46, 39853), (55, 39931), (58, 39943), (62, 39967), (63, 39979), (71, 40033),

Gene: Madiba_57 Start: 39006, Stop: 39290, Start Num: 18
Candidate Starts for Madiba_57:
(13, 38979), (Start: 18 @39006 has 164 MA's), (27, 39030), (Start: 31 @39045 has 2 MA's), (44, 39090), (46, 39102), (55, 39180), (58, 39192), (62, 39216), (63, 39228), (71, 39282),

Gene: Mahavrat_57 Start: 39385, Stop: 39666, Start Num: 18
Candidate Starts for Mahavrat_57:
(13, 39358), (Start: 18 @39385 has 164 MA's), (27, 39409), (Start: 31 @39424 has 2 MA's), (44, 39469), (46, 39481), (55, 39559), (58, 39571), (62, 39595), (63, 39607), (71, 39658),

Gene: Mandlovu_55 Start: 37995, Stop: 38276, Start Num: 18
Candidate Starts for Mandlovu_55:
(13, 37968), (Start: 18 @37995 has 164 MA's), (27, 38019), (Start: 31 @38034 has 2 MA's), (44, 38079), (46, 38091), (55, 38169), (58, 38181), (62, 38205), (63, 38217), (71, 38268),

Gene: Maravista_60 Start: 41432, Stop: 41713, Start Num: 18
Candidate Starts for Maravista_60:
(13, 41405), (Start: 18 @41432 has 164 MA's), (27, 41456), (Start: 31 @41471 has 2 MA's), (44, 41516), (46, 41528), (55, 41606), (58, 41618), (62, 41642), (63, 41654), (71, 41705),

Gene: Marcoliusprime_54 Start: 39559, Stop: 39792, Start Num: 32
Candidate Starts for Marcoliusprime_54:
(Start: 32 @39559 has 7 MA's), (Start: 33 @39562 has 4 MA's), (35, 39568), (37, 39574), (50, 39664), (51, 39670), (62, 39733),

Gene: MarkPhew_54 Start: 38124, Stop: 38393, Start Num: 28
Candidate Starts for MarkPhew_54:
(Start: 28 @38124 has 115 MA's), (39, 38151), (42, 38166), (46, 38190), (60, 38298), (69, 38382),

Gene: Marker_61 Start: 40100, Stop: 40384, Start Num: 18
Candidate Starts for Marker_61:
(13, 40073), (Start: 18 @40100 has 164 MA's), (27, 40124), (Start: 31 @40139 has 2 MA's), (44, 40184), (46, 40196), (55, 40274), (58, 40286), (62, 40310), (63, 40322), (71, 40376),

Gene: Martik_59 Start: 39936, Stop: 40217, Start Num: 18
Candidate Starts for Martik_59:
(13, 39909), (Start: 18 @39936 has 164 MA's), (27, 39960), (Start: 31 @39975 has 2 MA's), (44, 40020), (46, 40032), (55, 40110), (58, 40122), (62, 40146), (63, 40158), (71, 40209),

Gene: Mattes_63 Start: 41502, Stop: 41783, Start Num: 18
Candidate Starts for Mattes_63:
(13, 41475), (Start: 18 @41502 has 164 MA's), (27, 41526), (Start: 31 @41541 has 2 MA's), (44, 41586), (46, 41598), (55, 41676), (58, 41688), (62, 41712), (63, 41724), (71, 41775),

Gene: McMater_53 Start: 38285, Stop: 38548, Start Num: 28
Candidate Starts for McMater_53:
(1, 37805), (2, 37961), (3, 38030), (Start: 28 @38285 has 115 MA's), (49, 38387), (50, 38405), (53, 38423), (62, 38477), (66, 38513), (69, 38537),

Gene: Mdavu_47 Start: 37029, Stop: 37298, Start Num: 28
Candidate Starts for Mdavu_47:
(Start: 28 @37029 has 115 MA's), (48, 37125), (56, 37185), (57, 37191), (58, 37194), (62, 37221), (63, 37233), (69, 37287),

Gene: MeaningOfLife_51 Start: 38280, Stop: 38543, Start Num: 28
Candidate Starts for MeaningOfLife_51:
(Start: 28 @38280 has 115 MA's), (53, 38421),

Gene: Megsy_52 Start: 37615, Stop: 37878, Start Num: 28
Candidate Starts for Megsy_52:
(Start: 28 @37615 has 115 MA's), (42, 37669), (53, 37756),

Gene: Milly_54 Start: 39532, Stop: 39765, Start Num: 32
Candidate Starts for Milly_54:
(Start: 32 @39532 has 7 MA's), (Start: 33 @39535 has 4 MA's), (35, 39541), (37, 39547), (50, 39637), (51, 39643), (62, 39706),

Gene: MinionDave_58 Start: 40283, Stop: 40564, Start Num: 18
Candidate Starts for MinionDave_58:
(Start: 18 @40283 has 164 MA's), (27, 40307), (Start: 31 @40322 has 2 MA's), (44, 40367), (46, 40379), (55, 40457), (58, 40469), (62, 40493), (63, 40505), (71, 40556),

Gene: MisterCuddles_57 Start: 39742, Stop: 40020, Start Num: 18
Candidate Starts for MisterCuddles_57:
(13, 39715), (Start: 18 @39742 has 164 MA's), (45, 39826), (47, 39835), (53, 39898), (55, 39913), (58, 39925), (62, 39949), (63, 39961), (71, 40012),

Gene: Modragons_63 Start: 42384, Stop: 42662, Start Num: 18
Candidate Starts for Modragons_63:
(13, 42357), (Start: 18 @42384 has 164 MA's), (45, 42468), (47, 42477), (53, 42540), (55, 42555), (58, 42567), (62, 42591), (63, 42603), (71, 42654),

Gene: Mova_60 Start: 39510, Stop: 39794, Start Num: 18
Candidate Starts for Mova_60:
(13, 39483), (Start: 18 @39510 has 164 MA's), (27, 39534), (Start: 31 @39549 has 2 MA's), (44, 39594), (46, 39606), (55, 39684), (58, 39696), (62, 39720), (63, 39732), (71, 39786),

Gene: Mozy_68 Start: 42517, Stop: 42798, Start Num: 18
Candidate Starts for Mozy_68:
(13, 42490), (Start: 18 @42517 has 164 MA's), (27, 42541), (Start: 31 @42556 has 2 MA's), (44, 42601), (46, 42613), (55, 42691), (58, 42703), (62, 42727), (63, 42739), (71, 42790),

Gene: Mufasa_54 Start: 39116, Stop: 39349, Start Num: 33
Candidate Starts for Mufasa_54:
(Start: 32 @39113 has 7 MA's), (Start: 33 @39116 has 4 MA's), (35, 39122), (37, 39128), (50, 39218), (51, 39224), (62, 39287), (69, 39338),

Gene: MulchExplorer_66 Start: 41810, Stop: 42091, Start Num: 18
Candidate Starts for MulchExplorer_66:
(Start: 11 @41774 has 1 MA's), (Start: 18 @41810 has 164 MA's), (27, 41834), (44, 41891), (46, 41903), (55, 41981), (58, 41993), (62, 42017), (63, 42029), (71, 42083),

Gene: Murucutumbu_51 Start: 38326, Stop: 38589, Start Num: 28
Candidate Starts for Murucutumbu_51:
(3, 38074), (Start: 28 @38326 has 115 MA's), (42, 38380), (53, 38467),

Gene: Mutaforma13_63 Start: 42840, Stop: 43124, Start Num: 18
Candidate Starts for Mutaforma13_63:
(13, 42813), (Start: 18 @42840 has 164 MA's), (27, 42864), (Start: 31 @42879 has 2 MA's), (44, 42924), (46, 42936), (55, 43014), (58, 43026), (62, 43050), (63, 43062), (71, 43116),

Gene: Mwanjiwa_65 Start: 40617, Stop: 40895, Start Num: 18
Candidate Starts for Mwanjiwa_65:
(13, 40590), (Start: 18 @40617 has 164 MA's), (45, 40701), (47, 40710), (53, 40773), (55, 40788), (58, 40800), (62, 40824), (63, 40836), (71, 40887),

Gene: Mynx_51 Start: 37672, Stop: 37935, Start Num: 28
Candidate Starts for Mynx_51:
(Start: 28 @37672 has 115 MA's), (53, 37813),

Gene: Nergal_48 Start: 36024, Stop: 36272, Start Num: 28
Candidate Starts for Nergal_48:
(Start: 28 @36024 has 115 MA's), (50, 36138), (53, 36156), (59, 36189), (66, 36246),

Gene: NewHope4_60 Start: 39931, Stop: 40209, Start Num: 18
Candidate Starts for NewHope4_60:
(13, 39904), (Start: 18 @39931 has 164 MA's), (45, 40015), (47, 40024), (53, 40087), (55, 40102), (58, 40114), (62, 40138), (63, 40150), (71, 40201),

Gene: Nichirin_66 Start: 43925, Stop: 44203, Start Num: 18

Candidate Starts for Nichirin_66:
(13, 43898), (Start: 18 @43925 has 164 MA's), (45, 44009), (47, 44018), (53, 44081), (55, 44096), (58, 44108), (62, 44132), (63, 44144), (71, 44195),

Gene: Nikao_49 Start: 39653, Stop: 39922, Start Num: 28
Candidate Starts for Nikao_49:
(Start: 28 @39653 has 115 MA's), (48, 39749), (56, 39809), (57, 39815), (58, 39818), (62, 39845), (63, 39857), (69, 39911),

Gene: Niklas_53 Start: 38346, Stop: 38609, Start Num: 28
Candidate Starts for Niklas_53:
(1, 37866), (2, 38022), (3, 38091), (Start: 28 @38346 has 115 MA's), (49, 38448), (50, 38466), (53, 38484), (62, 38538), (66, 38574), (69, 38598),

Gene: Nivrat_55 Start: 39298, Stop: 39579, Start Num: 18
Candidate Starts for Nivrat_55:
(13, 39271), (Start: 18 @39298 has 164 MA's), (45, 39382), (47, 39391), (53, 39454), (55, 39469), (58, 39481), (62, 39505), (63, 39517), (71, 39571),

Gene: NormanBulbieJr_59 Start: 39923, Stop: 40207, Start Num: 18
Candidate Starts for NormanBulbieJr_59:
(13, 39896), (Start: 18 @39923 has 164 MA's), (27, 39947), (Start: 31 @39962 has 2 MA's), (44, 40007), (46, 40019), (55, 40097), (58, 40109), (62, 40133), (63, 40145), (71, 40199),

Gene: November_51 Start: 38195, Stop: 38449, Start Num: 28
Candidate Starts for November_51:
(2, 37877), (3, 37946), (4, 38042), (Start: 28 @38195 has 115 MA's), (46, 38261), (53, 38324), (60, 38369),

Gene: Nutello_46 Start: 37040, Stop: 37309, Start Num: 28
Candidate Starts for Nutello_46:
(Start: 28 @37040 has 115 MA's), (48, 37136), (56, 37196), (57, 37202), (58, 37205), (62, 37232), (63, 37244), (69, 37298),

Gene: Ochi17_62 Start: 41991, Stop: 42269, Start Num: 18
Candidate Starts for Ochi17_62:
(13, 41964), (Start: 18 @41991 has 164 MA's), (45, 42075), (47, 42084), (53, 42147), (55, 42162), (58, 42174), (62, 42198), (63, 42210), (71, 42261),

Gene: OfUltron_64 Start: 42540, Stop: 42818, Start Num: 18
Candidate Starts for OfUltron_64:
(13, 42513), (Start: 18 @42540 has 164 MA's), (45, 42624), (47, 42633), (53, 42696), (55, 42711), (58, 42723), (62, 42747), (63, 42759), (71, 42810),

Gene: Oksu_63 Start: 42803, Stop: 43081, Start Num: 18
Candidate Starts for Oksu_63:
(13, 42776), (Start: 18 @42803 has 164 MA's), (45, 42887), (47, 42896), (53, 42959), (55, 42974), (58, 42986), (62, 43010), (63, 43022), (71, 43073),

Gene: OldBen_56 Start: 39848, Stop: 40132, Start Num: 18
Candidate Starts for OldBen_56:
(13, 39821), (Start: 18 @39848 has 164 MA's), (27, 39872), (Start: 31 @39887 has 2 MA's), (44, 39932), (46, 39944), (55, 40022), (58, 40034), (62, 40058), (63, 40070), (71, 40124),

Gene: OlympiaSaint_61 Start: 40444, Stop: 40725, Start Num: 18
Candidate Starts for OlympiaSaint_61:
(13, 40417), (Start: 18 @40444 has 164 MA's), (27, 40468), (Start: 31 @40483 has 2 MA's), (44, 40528), (46, 40540), (55, 40618), (58, 40630), (62, 40654), (63, 40666), (71, 40717),

Gene: OwlsT2W_59 Start: 40166, Stop: 40444, Start Num: 18
Candidate Starts for OwlsT2W_59:
(13, 40139), (Start: 18 @40166 has 164 MA's), (45, 40250), (53, 40322), (55, 40337), (58, 40349), (62, 40373), (63, 40385), (71, 40436),

Gene: PHappiness_54 Start: 38211, Stop: 38489, Start Num: 18
Candidate Starts for PHappiness_54:
(13, 38184), (Start: 18 @38211 has 164 MA's), (45, 38295), (47, 38304), (53, 38367), (55, 38382), (58, 38394), (62, 38418), (63, 38430), (71, 38481),

Gene: PMC_56 Start: 40550, Stop: 40834, Start Num: 18
Candidate Starts for PMC_56:
(13, 40523), (Start: 18 @40550 has 164 MA's), (27, 40574), (Start: 31 @40589 has 2 MA's), (44, 40634), (46, 40646), (55, 40724), (58, 40736), (62, 40760), (63, 40772), (71, 40826),

Gene: Pacc40_53 Start: 38285, Stop: 38563, Start Num: 18
Candidate Starts for Pacc40_53:
(13, 38258), (Start: 18 @38285 has 164 MA's), (45, 38369), (47, 38378), (53, 38441), (55, 38456), (58, 38468), (62, 38492), (63, 38504), (71, 38555),

Gene: Padfoot_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for Padfoot_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: Padpat_52 Start: 37347, Stop: 37610, Start Num: 28
Candidate Starts for Padpat_52:
(Start: 28 @37347 has 115 MA's), (53, 37488),

Gene: PatoPoderoso_56 Start: 39051, Stop: 39335, Start Num: 18
Candidate Starts for PatoPoderoso_56:
(13, 39024), (Start: 18 @39051 has 164 MA's), (27, 39075), (Start: 31 @39090 has 2 MA's), (44, 39135), (55, 39225), (58, 39237), (62, 39261), (63, 39273), (71, 39327),

Gene: Peanam_53 Start: 38304, Stop: 38567, Start Num: 28
Candidate Starts for Peanam_53:
(1, 37824), (2, 37980), (3, 38049), (Start: 28 @38304 has 115 MA's), (49, 38406), (50, 38424), (53, 38442), (62, 38496), (66, 38532), (69, 38556),

Gene: Peel_50 Start: 37473, Stop: 37736, Start Num: 28
Candidate Starts for Peel_50:
(Start: 28 @37473 has 115 MA's), (53, 37614),

Gene: Peridot_60 Start: 39388, Stop: 39672, Start Num: 18
Candidate Starts for Peridot_60:
(13, 39361), (Start: 18 @39388 has 164 MA's), (27, 39412), (Start: 31 @39427 has 2 MA's), (44, 39472), (46, 39484), (55, 39562), (58, 39574), (62, 39598), (63, 39610), (71, 39664),

Gene: Phasih_57 Start: 40355, Stop: 40633, Start Num: 18
Candidate Starts for Phasih_57:
(13, 40328), (Start: 18 @40355 has 164 MA's), (45, 40439), (47, 40448), (53, 40511), (55, 40526), (58, 40538), (62, 40562), (63, 40574), (71, 40625),

Gene: Phatniss_57 Start: 39928, Stop: 40212, Start Num: 18
Candidate Starts for Phatniss_57:
(13, 39901), (Start: 18 @39928 has 164 MA's), (27, 39952), (Start: 31 @39967 has 2 MA's), (44, 40012), (46, 40024), (55, 40102), (58, 40114), (62, 40138), (63, 40150), (71, 40204),

Gene: PhelpsODU_53 Start: 37175, Stop: 37432, Start Num: 28
Candidate Starts for PhelpsODU_53:
(Start: 28 @37175 has 115 MA's), (34, 37196), (46, 37250), (53, 37313), (54, 37322), (66, 37400),

Gene: Philus_62 Start: 41088, Stop: 41369, Start Num: 18
Candidate Starts for Philus_62:
(13, 41061), (Start: 18 @41088 has 164 MA's), (45, 41172), (47, 41181), (53, 41244), (55, 41259), (58, 41271), (62, 41295), (63, 41307), (71, 41361),

Gene: PhlipPhlop_59 Start: 41642, Stop: 41926, Start Num: 18
Candidate Starts for PhlipPhlop_59:
(13, 41615), (Start: 18 @41642 has 164 MA's), (27, 41666), (Start: 31 @41681 has 2 MA's), (44, 41726), (55, 41816), (58, 41828), (62, 41852), (63, 41864), (71, 41918),

Gene: Phrank_54 Start: 37132, Stop: 37389, Start Num: 28
Candidate Starts for Phrank_54:
(Start: 28 @37132 has 115 MA's), (34, 37153), (46, 37207), (53, 37270), (54, 37279), (66, 37357),

Gene: Piatt_50 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for Piatt_50:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: Pippy_57 Start: 38794, Stop: 39075, Start Num: 18
Candidate Starts for Pippy_57:
(13, 38767), (Start: 18 @38794 has 164 MA's), (27, 38818), (Start: 31 @38833 has 2 MA's), (44, 38878), (46, 38890), (55, 38968), (58, 38980), (62, 39004), (63, 39016), (71, 39067),

Gene: Pisa1_50 Start: 38627, Stop: 38890, Start Num: 28
Candidate Starts for Pisa1_50:
(Start: 28 @38627 has 115 MA's), (42, 38681), (53, 38768),

Gene: Pisa4_44 Start: 33996, Stop: 34259, Start Num: 28
Candidate Starts for Pisa4_44:
(Start: 28 @33996 has 115 MA's), (42, 34050), (53, 34137),

Gene: Plumbus_61 Start: 40255, Stop: 40533, Start Num: 18
Candidate Starts for Plumbus_61:
(13, 40228), (Start: 18 @40255 has 164 MA's), (45, 40339), (47, 40348), (53, 40411), (55, 40426), (58, 40438), (62, 40462), (63, 40474), (71, 40525),

Gene: Poenanya_59 Start: 41112, Stop: 41390, Start Num: 18
Candidate Starts for Poenanya_59:

(13, 41085), (Start: 18 @41112 has 164 MA's), (45, 41196), (47, 41205), (53, 41268), (55, 41283), (58, 41295), (62, 41319), (63, 41331), (71, 41382),

Gene: Pokerus_49 Start: 37394, Stop: 37657, Start Num: 28
Candidate Starts for Pokerus_49:
(Start: 28 @37394 has 115 MA's), (42, 37448), (53, 37535),

Gene: Polka14_57 Start: 39308, Stop: 39586, Start Num: 18
Candidate Starts for Polka14_57:
(13, 39281), (Start: 18 @39308 has 164 MA's), (45, 39392), (47, 39401), (53, 39464), (55, 39479), (58, 39491), (62, 39515), (63, 39527), (71, 39578),

Gene: Pollywog_60 Start: 40759, Stop: 41043, Start Num: 18
Candidate Starts for Pollywog_60:
(13, 40732), (Start: 18 @40759 has 164 MA's), (27, 40783), (Start: 31 @40798 has 2 MA's), (44, 40843), (46, 40855), (55, 40933), (58, 40945), (62, 40969), (63, 40981), (71, 41035),

Gene: Polo2Bam_64 Start: 39785, Stop: 40063, Start Num: 18
Candidate Starts for Polo2Bam_64:
(13, 39758), (Start: 18 @39785 has 164 MA's), (45, 39869), (47, 39878), (53, 39941), (55, 39956), (58, 39968), (62, 39992), (63, 40004), (71, 40055),

Gene: Priscilla_59 Start: 40022, Stop: 40306, Start Num: 18
Candidate Starts for Priscilla_59:
(13, 39995), (Start: 18 @40022 has 164 MA's), (27, 40046), (Start: 31 @40061 has 2 MA's), (44, 40106), (46, 40118), (55, 40196), (58, 40208), (62, 40232), (63, 40244), (71, 40298),

Gene: Prithvi_51 Start: 37556, Stop: 37819, Start Num: 28
Candidate Starts for Prithvi_51:
(Start: 28 @37556 has 115 MA's), (42, 37610), (53, 37697),

Gene: Pupper_53 Start: 18336, Stop: 18617, Start Num: 16
Candidate Starts for Pupper_53:
(Start: 16 @18336 has 3 MA's), (26, 18372), (46, 18447),

Gene: QuickMath_61 Start: 42034, Stop: 42315, Start Num: 18
Candidate Starts for QuickMath_61:
(Start: 11 @41998 has 1 MA's), (Start: 18 @42034 has 164 MA's), (27, 42058), (44, 42115), (46, 42127), (55, 42205), (58, 42217), (62, 42241), (63, 42253), (71, 42307),

Gene: QuincyRose_49 Start: 37786, Stop: 38049, Start Num: 28
Candidate Starts for QuincyRose_49:
(Start: 28 @37786 has 115 MA's), (53, 37927),

Gene: Radiance_58 Start: 40047, Stop: 40328, Start Num: 18
Candidate Starts for Radiance_58:
(13, 40020), (Start: 18 @40047 has 164 MA's), (27, 40071), (Start: 31 @40086 has 2 MA's), (44, 40131), (46, 40143), (55, 40221), (58, 40233), (62, 40257), (63, 40269), (71, 40320),

Gene: Ramen_51 Start: 37358, Stop: 37621, Start Num: 28
Candidate Starts for Ramen_51:
(Start: 28 @37358 has 115 MA's), (53, 37499),

Gene: Rapunzel97_51 Start: 37354, Stop: 37617, Start Num: 28
Candidate Starts for Rapunzel97_51:
(Start: 28 @37354 has 115 MA's), (53, 37495),

Gene: RedBird_57 Start: 39343, Stop: 39624, Start Num: 18
Candidate Starts for RedBird_57:
(13, 39316), (Start: 18 @39343 has 164 MA's), (45, 39427), (47, 39436), (53, 39499), (55, 39514), (58, 39526), (62, 39550), (63, 39562),

Gene: Renaud18_65 Start: 40812, Stop: 41093, Start Num: 18
Candidate Starts for Renaud18_65:
(12, 40776), (Start: 18 @40812 has 164 MA's), (Start: 24 @40827 has 1 MA's), (Start: 31 @40851 has 2 MA's), (44, 40896), (46, 40908), (62, 41022), (63, 41034), (71, 41085),

Gene: Rialto_65 Start: 42826, Stop: 43110, Start Num: 18
Candidate Starts for Rialto_65:
(13, 42799), (Start: 18 @42826 has 164 MA's), (27, 42850), (Start: 31 @42865 has 2 MA's), (44, 42910), (46, 42922), (55, 43000), (58, 43012), (62, 43036), (63, 43048), (71, 43102),

Gene: Richo_53 Start: 38285, Stop: 38548, Start Num: 28
Candidate Starts for Richo_53:
(1, 37805), (2, 37961), (3, 38030), (Start: 28 @38285 has 115 MA's), (49, 38387), (50, 38405), (53, 38423), (62, 38477), (66, 38513), (69, 38537),

Gene: Rita_60 Start: 38653, Stop: 38937, Start Num: 18
Candidate Starts for Rita_60:
(13, 38626), (Start: 18 @38653 has 164 MA's), (27, 38677), (Start: 31 @38692 has 2 MA's), (44, 38737), (46, 38749), (55, 38827), (58, 38839), (62, 38863), (63, 38875), (71, 38929),

Gene: RitaG_54 Start: 38556, Stop: 38834, Start Num: 18
Candidate Starts for RitaG_54:
(13, 38529), (Start: 18 @38556 has 164 MA's), (45, 38640), (47, 38649), (53, 38712), (55, 38727), (58, 38739), (62, 38763), (63, 38775), (71, 38826),

Gene: Rockne_60 Start: 40562, Stop: 40846, Start Num: 18
Candidate Starts for Rockne_60:
(13, 40535), (Start: 18 @40562 has 164 MA's), (27, 40586), (Start: 31 @40601 has 2 MA's), (44, 40646), (46, 40658), (55, 40736), (58, 40748), (62, 40772), (63, 40784), (71, 40838),

Gene: RockyHorror_60 Start: 39611, Stop: 39892, Start Num: 18
Candidate Starts for RockyHorror_60:
(13, 39584), (Start: 18 @39611 has 164 MA's), (27, 39635), (Start: 31 @39650 has 2 MA's), (44, 39695), (46, 39707), (58, 39797), (62, 39821), (63, 39833), (71, 39884),

Gene: Rosmarinus_50 Start: 37459, Stop: 37722, Start Num: 28
Candidate Starts for Rosmarinus_50:
(Start: 28 @37459 has 115 MA's), (53, 37600),

Gene: Ruby_55 Start: 39743, Stop: 40021, Start Num: 18
Candidate Starts for Ruby_55:
(13, 39716), (Start: 18 @39743 has 164 MA's), (45, 39827), (47, 39836), (53, 39899), (55, 39914), (58, 39926), (62, 39950), (63, 39962), (71, 40013),

Gene: SCentae_53 Start: 18353, Stop: 18634, Start Num: 16
Candidate Starts for SCentae_53:
(Start: 16 @18353 has 3 MA's), (26, 18389), (46, 18464),

Gene: SG4_56 Start: 39440, Stop: 39724, Start Num: 18
Candidate Starts for SG4_56:
(Start: 18 @39440 has 164 MA's), (27, 39464), (Start: 31 @39479 has 2 MA's), (44, 39524), (46, 39536), (55, 39614), (58, 39626), (62, 39650), (63, 39662), (71, 39716),

Gene: Saal_61 Start: 41196, Stop: 41477, Start Num: 18
Candidate Starts for Saal_61:
(13, 41169), (Start: 18 @41196 has 164 MA's), (27, 41220), (Start: 31 @41235 has 2 MA's), (44, 41280), (46, 41292), (55, 41370), (58, 41382), (62, 41406), (63, 41418), (71, 41469),

Gene: Sabbb_63 Start: 40884, Stop: 41165, Start Num: 18
Candidate Starts for Sabbb_63:
(13, 40857), (Start: 18 @40884 has 164 MA's), (27, 40908), (Start: 31 @40923 has 2 MA's), (44, 40968), (46, 40980), (55, 41058), (58, 41070), (62, 41094), (63, 41106), (71, 41157),

Gene: SamuelLPlaqson_51 Start: 38242, Stop: 38505, Start Num: 28
Candidate Starts for SamuelLPlaqson_51:
(3, 37990), (Start: 28 @38242 has 115 MA's), (42, 38296), (50, 38365), (53, 38383),

Gene: Sassafras_57 Start: 39528, Stop: 39806, Start Num: 18
Candidate Starts for Sassafras_57:
(13, 39501), (Start: 18 @39528 has 164 MA's), (45, 39612), (47, 39621), (53, 39684), (55, 39699), (58, 39711), (62, 39735), (63, 39747), (71, 39798),

Gene: Sbash_53 Start: 39707, Stop: 40006, Start Num: 21
Candidate Starts for Sbash_53:
(Start: 21 @39707 has 6 MA's), (29, 39725), (38, 39761), (41, 39776), (53, 39872), (62, 39923), (64, 39959), (71, 39998),

Gene: Scottish_57 Start: 39568, Stop: 39852, Start Num: 18
Candidate Starts for Scottish_57:
(13, 39541), (Start: 18 @39568 has 164 MA's), (27, 39592), (Start: 31 @39607 has 2 MA's), (44, 39652), (46, 39664), (55, 39742), (58, 39754), (62, 39778), (63, 39790), (71, 39844),

Gene: SeaLumen_63 Start: 39785, Stop: 40063, Start Num: 18
Candidate Starts for SeaLumen_63:
(13, 39758), (Start: 18 @39785 has 164 MA's), (45, 39869), (47, 39878), (53, 39941), (55, 39956), (58, 39968), (62, 39992), (63, 40004), (71, 40055),

Gene: Seabastian_64 Start: 42541, Stop: 42819, Start Num: 18
Candidate Starts for Seabastian_64:
(13, 42514), (Start: 18 @42541 has 164 MA's), (45, 42625), (47, 42634), (53, 42697), (55, 42712), (58, 42724), (62, 42748), (63, 42760), (71, 42811),

Gene: Sejanus_58 Start: 47696, Stop: 47995, Start Num: 21
Candidate Starts for Sejanus_58:
(Start: 21 @47696 has 6 MA's), (29, 47714), (38, 47750), (41, 47765), (53, 47861), (62, 47912), (64, 47948), (68, 47981), (71, 47987),

Gene: SgtBeansprout_46 Start: 37040, Stop: 37309, Start Num: 28
Candidate Starts for SgtBeansprout_46:
(Start: 28 @37040 has 115 MA's), (48, 37136), (56, 37196), (57, 37202), (58, 37205), (62, 37232), (63, 37244), (69, 37298),

Gene: Shaobing_53 Start: 38322, Stop: 38585, Start Num: 28
Candidate Starts for Shaobing_53:
(1, 37842), (2, 37998), (3, 38067), (Start: 28 @38322 has 115 MA's), (49, 38424), (50, 38442), (53, 38460), (62, 38514), (66, 38550), (69, 38574),

Gene: ShiLan_58 Start: 39969, Stop: 40253, Start Num: 18
Candidate Starts for ShiLan_58:
(13, 39942), (Start: 18 @39969 has 164 MA's), (27, 39993), (Start: 31 @40008 has 2 MA's), (44, 40053), (46, 40065), (55, 40143), (58, 40155), (62, 40179), (63, 40191), (71, 40245),

Gene: ShiaSurprise_51 Start: 37668, Stop: 37931, Start Num: 28
Candidate Starts for ShiaSurprise_51:
(Start: 28 @37668 has 115 MA's), (53, 37809),

Gene: ShowerHandel_62 Start: 39936, Stop: 40217, Start Num: 18
Candidate Starts for ShowerHandel_62:
(13, 39909), (Start: 18 @39936 has 164 MA's), (27, 39960), (Start: 31 @39975 has 2 MA's), (44, 40020), (46, 40032), (55, 40110), (58, 40122), (62, 40146), (63, 40158), (71, 40209),

Gene: ShroomBoi_61 Start: 40896, Stop: 41177, Start Num: 18
Candidate Starts for ShroomBoi_61:
(13, 40869), (Start: 18 @40896 has 164 MA's), (27, 40920), (Start: 31 @40935 has 2 MA's), (44, 40980), (46, 40992), (55, 41070), (58, 41082), (62, 41106), (63, 41118), (71, 41169),

Gene: Shweta_42 Start: 30626, Stop: 30925, Start Num: 21
Candidate Starts for Shweta_42:
(Start: 21 @30626 has 6 MA's), (29, 30644), (38, 30680), (41, 30695), (53, 30791), (62, 30842), (64, 30878), (68, 30911),

Gene: SiSi_57 Start: 39342, Stop: 39626, Start Num: 18
Candidate Starts for SiSi_57:
(13, 39315), (Start: 18 @39342 has 164 MA's), (27, 39366), (Start: 31 @39381 has 2 MA's), (44, 39426), (46, 39438), (55, 39516), (58, 39528), (62, 39552), (63, 39564), (71, 39618),

Gene: SimranZ1_59 Start: 40122, Stop: 40400, Start Num: 18
Candidate Starts for SimranZ1_59:
(13, 40095), (Start: 18 @40122 has 164 MA's), (45, 40206), (47, 40215), (53, 40278), (55, 40293), (58, 40305), (62, 40329), (63, 40341), (71, 40392),

Gene: SirPhilip_53 Start: 38679, Stop: 38936, Start Num: 28
Candidate Starts for SirPhilip_53:
(Start: 28 @38679 has 115 MA's), (50, 38799), (52, 38808), (53, 38817), (63, 38880), (66, 38904),

Gene: Skog_114 Start: 46503, Stop: 46823, Start Num: 11
Candidate Starts for Skog_114:
(8, 46470), (Start: 11 @46503 has 1 MA's), (13, 46512), (15, 46521), (19, 46551), (34, 46593), (36, 46596), (53, 46713), (65, 46800),

Gene: Slim_60 Start: 40729, Stop: 41013, Start Num: 18
Candidate Starts for Slim_60:
(13, 40702), (Start: 18 @40729 has 164 MA's), (27, 40753), (Start: 31 @40768 has 2 MA's), (44, 40813), (46, 40825), (55, 40903), (58, 40915), (62, 40939), (63, 40951), (71, 41005),

Gene: Slimphazie_50 Start: 37354, Stop: 37617, Start Num: 28
Candidate Starts for Slimphazie_50:
(Start: 28 @37354 has 115 MA's), (53, 37495),

Gene: Soul22_65 Start: 41527, Stop: 41811, Start Num: 18
Candidate Starts for Soul22_65:
(13, 41500), (Start: 18 @41527 has 164 MA's), (27, 41551), (Start: 31 @41566 has 2 MA's), (44, 41611), (46, 41623), (55, 41701), (58, 41713), (62, 41737), (63, 41749), (71, 41803),

Gene: Spartacus_61 Start: 40606, Stop: 40887, Start Num: 18
Candidate Starts for Spartacus_61:
(13, 40579), (Start: 18 @40606 has 164 MA's), (27, 40630), (Start: 31 @40645 has 2 MA's), (44, 40690), (46, 40702), (55, 40780), (58, 40792), (62, 40816), (63, 40828), (71, 40879),

Gene: Spikelee_66 Start: 42226, Stop: 42507, Start Num: 18
Candidate Starts for Spikelee_66:
(13, 42199), (Start: 18 @42226 has 164 MA's), (27, 42250), (Start: 31 @42265 has 2 MA's), (44, 42310), (46, 42322), (55, 42400), (58, 42412), (62, 42436), (63, 42448), (71, 42499),

Gene: Spock_50 Start: 37472, Stop: 37735, Start Num: 28
Candidate Starts for Spock_50:
(Start: 28 @37472 has 115 MA's), (53, 37613),

Gene: Spoonbill_56 Start: 38516, Stop: 38794, Start Num: 18
Candidate Starts for Spoonbill_56:
(13, 38489), (Start: 18 @38516 has 164 MA's), (45, 38600), (47, 38609), (53, 38672), (55, 38687), (58, 38699), (62, 38723), (63, 38735), (71, 38786),

Gene: Squiddly_71 Start: 45719, Stop: 45979, Start Num: 21
Candidate Starts for Squiddly_71:
(14, 45680), (Start: 21 @45719 has 6 MA's), (42, 45782), (44, 45794), (50, 45851), (58, 45896), (71, 45971),

Gene: Stap_57 Start: 39317, Stop: 39595, Start Num: 18
Candidate Starts for Stap_57:
(13, 39290), (Start: 18 @39317 has 164 MA's), (45, 39401), (47, 39410), (53, 39473), (55, 39488), (58, 39500), (62, 39524), (63, 39536), (71, 39587),

Gene: Starcevich_59 Start: 40105, Stop: 40383, Start Num: 18
Candidate Starts for Starcevich_59:
(Start: 11 @40069 has 1 MA's), (Start: 18 @40105 has 164 MA's), (27, 40129), (44, 40186), (46, 40198), (55, 40276), (58, 40288), (62, 40312), (63, 40324), (71, 40375),

Gene: Stinson_51 Start: 37846, Stop: 38109, Start Num: 28
Candidate Starts for Stinson_51:
(3, 37594), (Start: 28 @37846 has 115 MA's), (42, 37900), (53, 37987),

Gene: Strobilo_54 Start: 39537, Stop: 39767, Start Num: 33

Candidate Starts for Strobilo_54:
(Start: 32 @39534 has 7 MA's), (Start: 33 @39537 has 4 MA's), (35, 39543), (37, 39549), (50, 39639), (51, 39645), (62, 39708),

Gene: Strokeseat_55 Start: 38052, Stop: 38333, Start Num: 18
Candidate Starts for Strokeseat_55:
(13, 38025), (Start: 18 @38052 has 164 MA's), (27, 38076), (Start: 31 @38091 has 2 MA's), (44, 38136), (46, 38148), (55, 38226), (58, 38238), (62, 38262), (63, 38274), (71, 38325),

Gene: Stuck_58 Start: 41100, Stop: 41399, Start Num: 21
Candidate Starts for Stuck_58:
(Start: 21 @41100 has 6 MA's), (29, 41118), (38, 41154), (41, 41169), (53, 41265), (62, 41316), (64, 41352), (68, 41385),

Gene: Sulley_50 Start: 37598, Stop: 37861, Start Num: 28
Candidate Starts for Sulley_50:
(Start: 28 @37598 has 115 MA's), (53, 37739),

Gene: SwagPigglett_64 Start: 42244, Stop: 42525, Start Num: 18
Candidate Starts for SwagPigglett_64:
(13, 42217), (Start: 18 @42244 has 164 MA's), (27, 42268), (Start: 31 @42283 has 2 MA's), (44, 42328), (46, 42340), (55, 42418), (58, 42430), (62, 42454), (63, 42466), (71, 42517),

Gene: TChen_60 Start: 41367, Stop: 41636, Start Num: 24
Candidate Starts for TChen_60:
(10, 41322), (Start: 18 @41358 has 164 MA's), (Start: 24 @41367 has 1 MA's), (42, 41424), (45, 41442), (47, 41451), (53, 41514), (55, 41529), (58, 41541), (62, 41565), (63, 41577), (71, 41628),

Gene: TClif_54 Start: 38425, Stop: 38685, Start Num: 28
Candidate Starts for TClif_54:
(Start: 28 @38425 has 115 MA's), (42, 38467), (58, 38581), (60, 38599), (69, 38674),

Gene: TM4_49 Start: 33917, Stop: 34147, Start Num: 33
Candidate Starts for TM4_49:
(Start: 32 @33914 has 7 MA's), (Start: 33 @33917 has 4 MA's), (35, 33923), (37, 33929), (50, 34019), (51, 34025), (62, 34088),

Gene: Tachez_50 Start: 37316, Stop: 37579, Start Num: 28
Candidate Starts for Tachez_50:
(Start: 28 @37316 has 115 MA's), (53, 37457),

Gene: TaiwanKao_52 Start: 37612, Stop: 37875, Start Num: 28
Candidate Starts for TaiwanKao_52:
(Start: 28 @37612 has 115 MA's), (53, 37753),

Gene: Teejan_48 Start: 39653, Stop: 39922, Start Num: 28
Candidate Starts for Teejan_48:
(Start: 28 @39653 has 115 MA's), (48, 39749), (56, 39809), (57, 39815), (58, 39818), (62, 39845), (63, 39857), (69, 39911),

Gene: ThetaBob_64 Start: 41432, Stop: 41710, Start Num: 18
Candidate Starts for ThetaBob_64:

(10, 41396), (Start: 18 @41432 has 164 MA's), (Start: 24 @41441 has 1 MA's), (42, 41498), (45, 41516), (47, 41525), (53, 41588), (55, 41603), (58, 41615), (62, 41639), (63, 41651), (71, 41702),

Gene: Tierra_54 Start: 37943, Stop: 38200, Start Num: 28
Candidate Starts for Tierra_54:
(Start: 28 @37943 has 115 MA's), (34, 37964), (46, 38018), (53, 38081), (54, 38090), (66, 38168),

Gene: TingHuaYa_51 Start: 36397, Stop: 36660, Start Num: 28
Candidate Starts for TingHuaYa_51:
(Start: 28 @36397 has 115 MA's), (Start: 31 @36409 has 2 MA's), (50, 36520), (53, 36538),

Gene: TiniBug_51 Start: 38238, Stop: 38501, Start Num: 28
Candidate Starts for TiniBug_51:
(3, 37986), (Start: 28 @38238 has 115 MA's), (42, 38292), (50, 38361), (53, 38379),

Gene: Tiri_51 Start: 37646, Stop: 37909, Start Num: 28
Candidate Starts for Tiri_51:
(Start: 28 @37646 has 115 MA's), (42, 37700), (53, 37787),

Gene: Tootsieroll_60 Start: 39265, Stop: 39549, Start Num: 18
Candidate Starts for Tootsieroll_60:
(13, 39238), (Start: 18 @39265 has 164 MA's), (27, 39289), (Start: 31 @39304 has 2 MA's), (44, 39349), (46, 39361), (55, 39439), (58, 39451), (62, 39475), (63, 39487), (71, 39541),

Gene: Topiatin_67 Start: 42597, Stop: 42878, Start Num: 18
Candidate Starts for Topiatin_67:
(Start: 11 @42561 has 1 MA's), (Start: 18 @42597 has 164 MA's), (27, 42621), (44, 42678), (46, 42690), (55, 42768), (58, 42780), (62, 42804), (63, 42816), (71, 42870),

Gene: Topper_50 Start: 37471, Stop: 37734, Start Num: 28
Candidate Starts for Topper_50:
(Start: 28 @37471 has 115 MA's), (53, 37612),

Gene: Toron_67 Start: 42166, Stop: 42447, Start Num: 17
Candidate Starts for Toron_67:
(9, 42130), (17, 42166), (40, 42241), (66, 42427), (70, 42439),

Gene: Torres_49 Start: 39654, Stop: 39923, Start Num: 28
Candidate Starts for Torres_49:
(Start: 28 @39654 has 115 MA's), (48, 39750), (56, 39810), (57, 39816), (58, 39819), (62, 39846), (63, 39858), (69, 39912),

Gene: Totinger_58 Start: 39195, Stop: 39479, Start Num: 18
Candidate Starts for Totinger_58:
(13, 39168), (Start: 18 @39195 has 164 MA's), (27, 39219), (Start: 31 @39234 has 2 MA's), (44, 39279), (46, 39291), (55, 39369), (58, 39381), (62, 39405), (63, 39417), (71, 39471),

Gene: TreyKay_51 Start: 37556, Stop: 37819, Start Num: 28
Candidate Starts for TreyKay_51:
(Start: 28 @37556 has 115 MA's), (42, 37610), (53, 37697),

Gene: Trice_46 Start: 37041, Stop: 37310, Start Num: 28
Candidate Starts for Trice_46:

(Start: 28 @37041 has 115 MA's), (48, 37137), (56, 37197), (57, 37203), (58, 37206), (62, 37233), (63, 37245), (69, 37299),

Gene: TruffulaTree_50 Start: 37350, Stop: 37613, Start Num: 28
Candidate Starts for TruffulaTree_50:
(Start: 28 @37350 has 115 MA's), (53, 37491),

Gene: Twitch_50 Start: 37473, Stop: 37736, Start Num: 28
Candidate Starts for Twitch_50:
(Start: 28 @37473 has 115 MA's), (53, 37614),

Gene: UncleRicky_58 Start: 40176, Stop: 40460, Start Num: 18
Candidate Starts for UncleRicky_58:
(13, 40149), (Start: 18 @40176 has 164 MA's), (27, 40200), (Start: 31 @40215 has 2 MA's), (44, 40260), (46, 40272), (55, 40350), (58, 40362), (62, 40386), (63, 40398), (71, 40452),

Gene: Unicorn_53 Start: 37175, Stop: 37432, Start Num: 28
Candidate Starts for Unicorn_53:
(Start: 28 @37175 has 115 MA's), (34, 37196), (46, 37250), (53, 37313), (54, 37322), (66, 37400),

Gene: Urkel_51 Start: 38242, Stop: 38505, Start Num: 28
Candidate Starts for Urkel_51:
(3, 37990), (Start: 28 @38242 has 115 MA's), (42, 38296), (50, 38365), (53, 38383),

Gene: VRedHorse_59 Start: 39252, Stop: 39533, Start Num: 18
Candidate Starts for VRedHorse_59:
(13, 39225), (Start: 18 @39252 has 164 MA's), (27, 39276), (Start: 31 @39291 has 2 MA's), (44, 39336), (46, 39348), (55, 39426), (58, 39438), (62, 39462), (63, 39474), (71, 39525),

Gene: VWB_44 Start: 35402, Stop: 35647, Start Num: 33
Candidate Starts for VWB_44:
(5, 35270), (6, 35279), (7, 35282), (22, 35369), (Start: 32 @35399 has 7 MA's), (Start: 33 @35402 has 4 MA's), (53, 35531), (59, 35564), (62, 35582),

Gene: Validus_55 Start: 38351, Stop: 38623, Start Num: 28
Candidate Starts for Validus_55:
(Start: 28 @38351 has 115 MA's), (Start: 31 @38363 has 2 MA's), (49, 38453), (50, 38471), (53, 38489), (58, 38516), (67, 38594),

Gene: Veliki_51 Start: 37390, Stop: 37653, Start Num: 28
Candidate Starts for Veliki_51:
(Start: 28 @37390 has 115 MA's), (53, 37531),

Gene: Veteran_56 Start: 38956, Stop: 39237, Start Num: 18
Candidate Starts for Veteran_56:
(13, 38929), (Start: 18 @38956 has 164 MA's), (45, 39040), (47, 39049), (55, 39127), (58, 39139), (62, 39163), (63, 39175), (71, 39229),

Gene: Violac_61 Start: 41322, Stop: 41603, Start Num: 18
Candidate Starts for Violac_61:
(13, 41295), (Start: 18 @41322 has 164 MA's), (27, 41346), (Start: 31 @41361 has 2 MA's), (44, 41406), (46, 41418), (55, 41496), (58, 41508), (62, 41532), (63, 41544), (71, 41595),

Gene: Vivum_60 Start: 40254, Stop: 40535, Start Num: 18
Candidate Starts for Vivum_60:
(13, 40227), (Start: 18 @40254 has 164 MA's), (27, 40278), (Start: 31 @40293 has 2 MA's), (44, 40338), (46, 40350), (55, 40428), (58, 40440), (62, 40464), (63, 40476), (71, 40527),

Gene: Wee_60 Start: 40789, Stop: 41067, Start Num: 20
Candidate Starts for Wee_60:
(Start: 20 @40789 has 1 MA's), (23, 40795), (25, 40798), (Start: 32 @40822 has 7 MA's), (58, 40981), (61, 40996), (62, 41002),

Gene: Wee_63 Start: 41773, Stop: 42054, Start Num: 18
Candidate Starts for Wee_63:
(Start: 18 @41773 has 164 MA's), (27, 41797), (Start: 31 @41812 has 2 MA's), (44, 41857), (46, 41869), (55, 41947), (58, 41959), (62, 41983), (63, 41995), (71, 42046),

Gene: Whouxphf_56 Start: 39848, Stop: 40129, Start Num: 18
Candidate Starts for Whouxphf_56:
(13, 39821), (Start: 18 @39848 has 164 MA's), (27, 39872), (Start: 31 @39887 has 2 MA's), (44, 39932), (46, 39944), (55, 40022), (58, 40034), (62, 40058), (63, 40070), (71, 40121),

Gene: WillSterrel_60 Start: 41723, Stop: 42004, Start Num: 18
Candidate Starts for WillSterrel_60:
(13, 41696), (Start: 18 @41723 has 164 MA's), (27, 41747), (Start: 31 @41762 has 2 MA's), (44, 41807), (46, 41819), (55, 41897), (58, 41909), (62, 41933), (63, 41945), (71, 41996),

Gene: Yorick_58 Start: 40310, Stop: 40591, Start Num: 18
Candidate Starts for Yorick_58:
(13, 40283), (Start: 18 @40310 has 164 MA's), (27, 40334), (Start: 31 @40349 has 2 MA's), (44, 40394), (46, 40406), (55, 40484), (58, 40496), (62, 40520), (63, 40532), (71, 40583),

Gene: Yoshi_72 Start: 41696, Stop: 41974, Start Num: 18
Candidate Starts for Yoshi_72:
(10, 41660), (Start: 18 @41696 has 164 MA's), (Start: 24 @41705 has 1 MA's), (42, 41762), (45, 41780), (47, 41789), (53, 41852), (55, 41867), (58, 41879), (62, 41903), (63, 41915), (71, 41966),

Gene: YoureAdopted_49 Start: 37555, Stop: 37818, Start Num: 28
Candidate Starts for YoureAdopted_49:
(Start: 28 @37555 has 115 MA's), (53, 37696),

Gene: Yunkel11_53 Start: 37143, Stop: 37406, Start Num: 28
Candidate Starts for Yunkel11_53:
(Start: 28 @37143 has 115 MA's), (Start: 31 @37155 has 2 MA's), (50, 37266), (53, 37284),

Gene: Zabiza_45 Start: 33661, Stop: 33924, Start Num: 28
Candidate Starts for Zabiza_45:
(Start: 28 @33661 has 115 MA's), (53, 33802),

Gene: Zapner_72 Start: 41849, Stop: 42133, Start Num: 18
Candidate Starts for Zapner_72:
(13, 41822), (Start: 18 @41849 has 164 MA's), (27, 41873), (Start: 31 @41888 has 2 MA's), (44, 41933), (46, 41945), (55, 42023), (58, 42035), (62, 42059), (63, 42071), (71, 42125),

Gene: Zavala_52 Start: 37632, Stop: 37895, Start Num: 28

Candidate Starts for Zavala_52:
(Start: 28 @37632 has 115 MA's), (53, 37773),

Gene: Zerg_59 Start: 39720, Stop: 40004, Start Num: 18
Candidate Starts for Zerg_59:
(13, 39693), (Start: 18 @39720 has 164 MA's), (27, 39744), (Start: 31 @39759 has 2 MA's), (44, 39804), (46, 39816), (55, 39894), (58, 39906), (62, 39930), (63, 39942), (71, 39996),

Gene: Zizzle_63 Start: 41563, Stop: 41847, Start Num: 18
Candidate Starts for Zizzle_63:
(13, 41536), (Start: 18 @41563 has 164 MA's), (27, 41587), (Start: 31 @41602 has 2 MA's), (44, 41647), (46, 41659), (55, 41737), (58, 41749), (62, 41773), (63, 41785), (71, 41839),

Gene: ZoeJ_53 Start: 39008, Stop: 39238, Start Num: 33
Candidate Starts for ZoeJ_53:
(Start: 32 @39005 has 7 MA's), (Start: 33 @39008 has 4 MA's), (35, 39014), (37, 39020), (50, 39110), (51, 39116), (62, 39179),