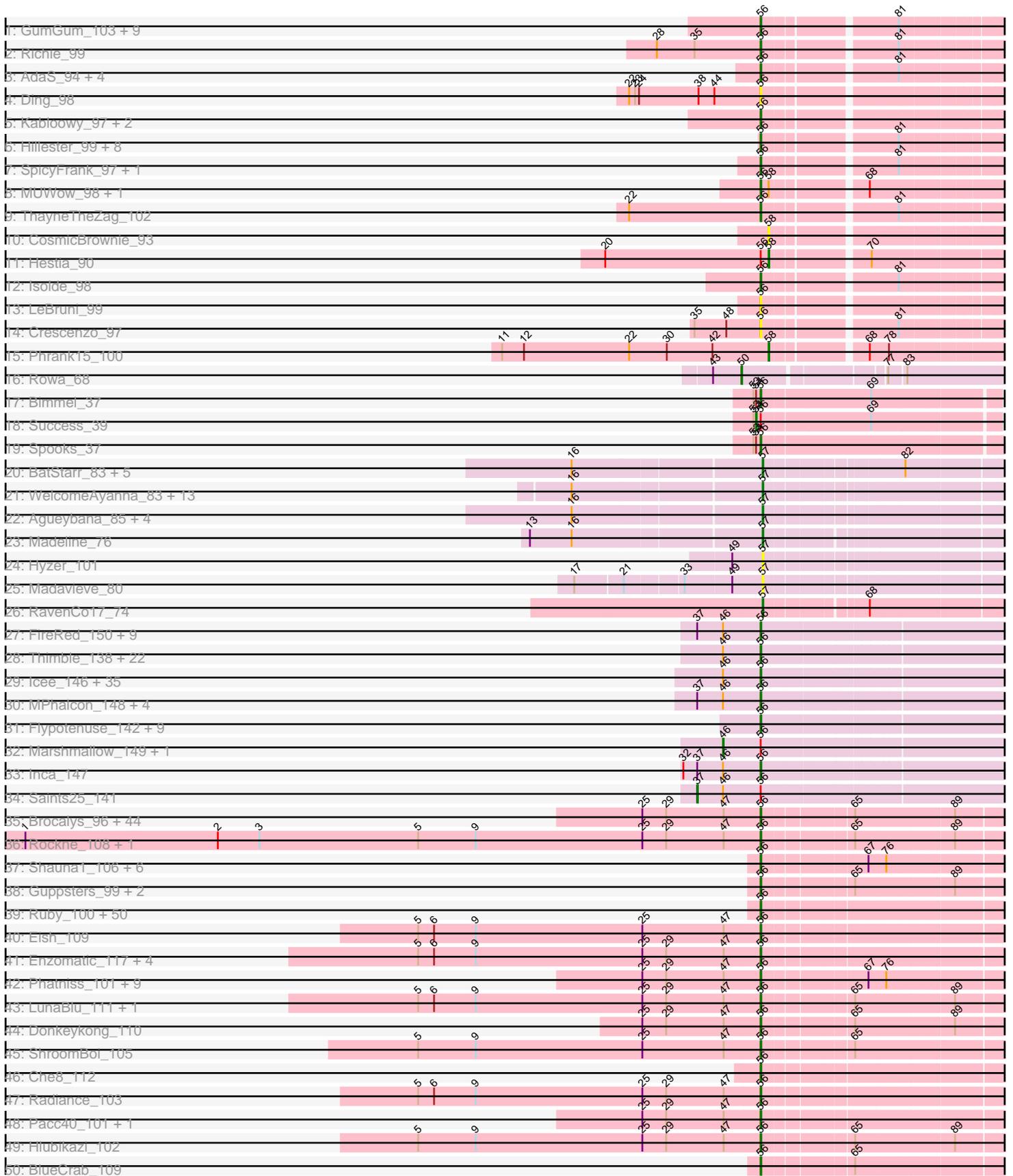
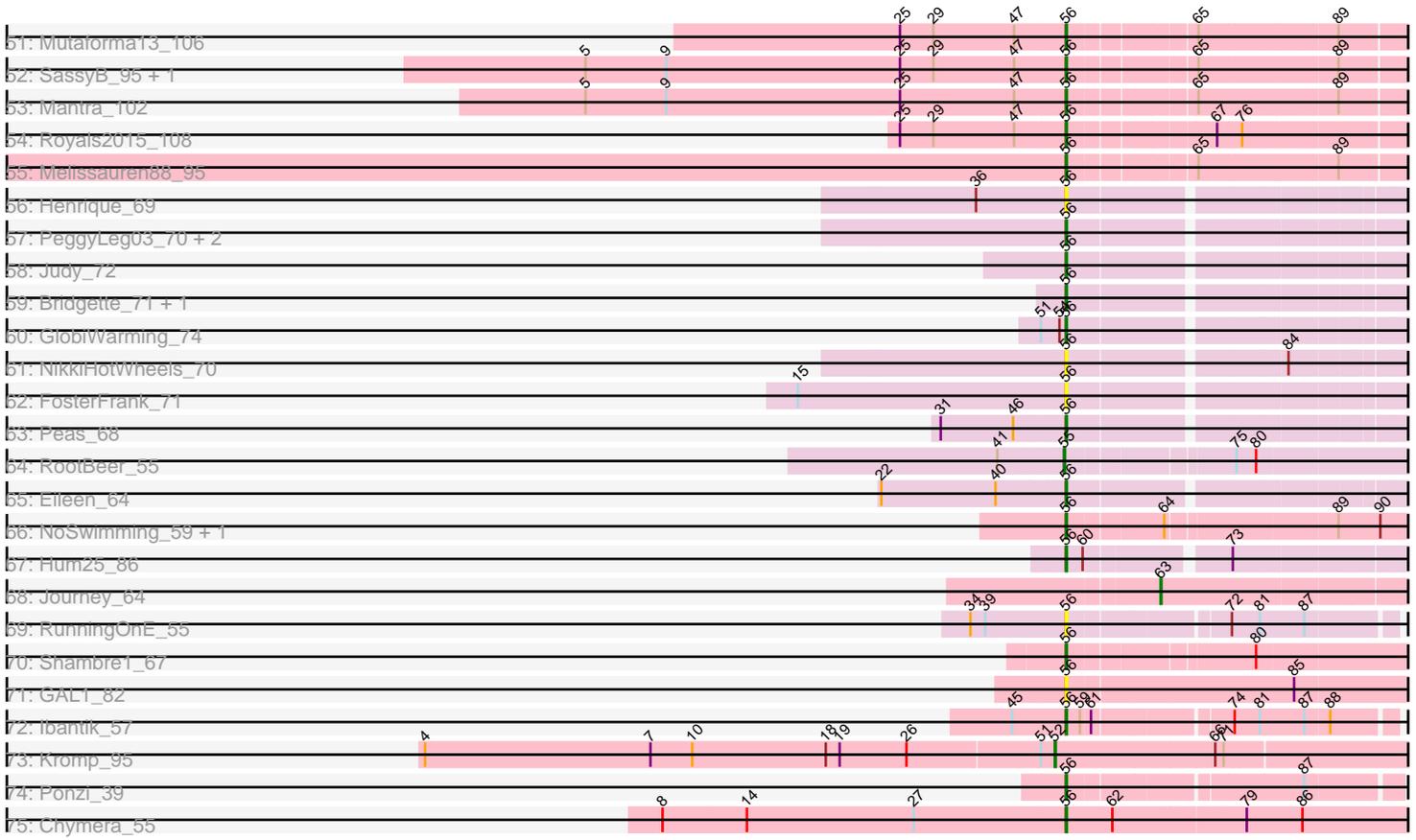


Pham 290758



Pham 290758



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 290758 Report

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

Pham number 290758 has 325 members, 24 are drafts.

Phages represented in each track:

- Track 1 : GumGum_103, Globfish_96, BlueShadow_92, Sashimi_96, Faja_96, Lasker_98, BasketStar_96, Lawnathon_100, SonDevVon_104, CookieBear_95
- Track 2 : Richie_99
- Track 3 : AdaS_94, JellyBread_95, Windest_101, Raphaella_96, YoungHarleezy_97
- Track 4 : Ding_98
- Track 5 : Kabloowy_97, DarwinJr_100, MidnightRain_102
- Track 6 : Hillester_99, Auxilium_93, MaterMagnus_96, BillyTP_96, Tiff81_90, EvePickles_96, BenchScraper_96, RadFad_100, MurphyJoseph_92
- Track 7 : SpicyFrank_97, Seahorse_101
- Track 8 : MUWow_98, Anekin_95
- Track 9 : ThayneTheZag_102
- Track 10 : CosmicBrownie_93
- Track 11 : Hestia_90
- Track 12 : Isolde_98
- Track 13 : LeBruni_99
- Track 14 : Crescenzo_97
- Track 15 : Phrank15_100
- Track 16 : Rowa_68
- Track 17 : Bimmel_37
- Track 18 : Success_39
- Track 19 : Spooks_37
- Track 20 : BatStarr_83, Nymphadora_84, Bosnia_82, Eviarto_84, Herod_84, TimTam_84
- Track 21 : WelcomeAyanna_83, Trumpet_79, Zameen_79, Maridalia_83, Bunnybear_78, Eudoria_79, Antonio_78, Manasvini_81, Kita_80, Susceptit_79, Polly_76, Neobush_81, ThankyouJordi_83, Tayonia_79
- Track 22 : Agueybana_85, Zirinka_79, AlumE_82, BoyNamedSue_82, Bialota_79
- Track 23 : Madeline_76
- Track 24 : Hyzer_101
- Track 25 : Madavieve_80
- Track 26 : RavenCo17_74
- Track 27 : FireRed_150, Thresher_148, Highbury_141, Palpatine_143, Manda_149, Nala_149, PhatBacter_150, Command613_149, BaboJay_146, Ukulele_143
- Track 28 : Thimble_138, Myrale_146, ShereKhan_145, Murphy_148, OrionPax_144, Miniwave_140, DoctorDiddles_145, Teaspoon_130, MadamMonkfish_148, NoSleep_145, Cookies_148, JeTaimé_144, Stark_143, Emmina_148, TBrady12_151, Paperbeatsrock_144, ShamWow_145, BigBubba_149, Phaja_151, Tarkin_144,

Nimrod_145, Phrux_143, Buck_148

- Track 29 : Icee_146, Cactus_154, Sotrice96_151, BadStone_145, SophKB_144, Rimmer_145, Elite2014_146, Goldilocks_152, Youngblood_150, Phaux_147, Tuco_150, AmericanBeauty_149, HufflyPuff_148, Gemini_151, IHOP_151, ABCat_145, Willez_144, Kanye_142, Easy2Say_148, Kimchi_151, Holt_152, Argent26_150, Bench_149, Lilpickle_146, RiverMonster_146, StolenFromERC_148, Adnama_150, Gage_137, Dumbo_149, ChosenOne_147, Stank_150, Maxxinista_148, GoldenSpark_150, Qualification_146, Wiggin_149, Contagion_142
- Track 30 : MPhalcon_148, MISSy_147, Hopey_144, Murica_149, Policronamos_145
- Track 31 : Flypotenuse_142, Balomoji_146, Glexan_150, Amao_151, Traaww1_144, Pat3_147, Hoonter_148, Harella_153, Barbarian_146, Asriel_144
- Track 32 : Marshmallow_149, Czyszczo1_146
- Track 33 : Inca_147
- Track 34 : Saints25_141
- Track 35 : Brocalys_96, CaptainTrips_107, ShowerHandel_107, PhesterPhotato_109, MinionDave_103, Veteran_94, Medindi_110, Gorge_103, James_108, SuperGrey_103, Fastidio_108, Gandalph_104, MilanaBonita_98, DillTech15_111, Filuzino_105, GUmbie_104, Cabrinians_101, Ms6_107, Ardmore_88, Rita_104, Philus_108, StAnnes_110, DLane_105, Pippy_103, Akhila_99, KingMidas_105, Florinda_117, Hamulus_105, IbOuu_96, EleanorGeorge_108, SiSi_99, FreddyB_113, Tweety_109, Whouxphf_108, Phalconet_106, Krakatau_97, Batiatus_105, NormanBulbieJr_102, Wee_109, Bipolar_106, Emma_109, Moonbeam_107, Kenuha5_96, Taj_110, Scottish_105
- Track 36 : Rockne_108, PMC_104
- Track 37 : Shauna1_106, WillSterrel_103, Mahavrat_98, Maravista_102, Juniper1_98, Phanphagia_109, IrishSherpFalk_105
- Track 38 : Guppsters_99, DoRead_108, Zizzle_108
- Track 39 : Ruby_100, Estave1_112, Karhdo_100, Mattes_105, Clifton_96, BodEinwohner17_116, Llama_111, BobaPhett_108, Wachhund_101, ByChance_95, Ochi17_110, Jinglebell_111, Seabastian_111, MisterCuddles_104, Crumble_99, ShiLan_107, Nimbo_96, Byougenkin_101, OldBen_101, Sassafra_106, Leperchaun_106, JoeyJr_107, KristaRAM_113, PHappiness_104, VRedHorse_105, Geralt_97, Inventum_102, MadMen_109, Lizziana_105, Deb65_97, DRBy19_104, Jarcob_107, Kersh_107, OfUltron_111, Polka14_108, RitaG_103, SwagPigglett_106, Ibhubesi_103, Daenerys_102, Priscilla_105, Phasih_100, Eradicator_95, RedBird_105, Sparkdehlily_111, TDanisky_112, Hades_102, Girr_103, AlpineSix_102, Spoonbill_104, Modragons_107, Martik_103
- Track 40 : Eish_109
- Track 41 : Enzomatic_117, SeaLumen_113, Polo2Bam_116, NewHope4_112, Galactic_109
- Track 42 : Phatniss_101, Chuckly_102, Bubbles123_100, Dante_104, Llij_99, Whatsapiecost_99, Minnie_99, Burwell21_99, Zerg_103, Sandalphon_103
- Track 43 : LunaBlu_111, GigiOuiOui_99
- Track 44 : Donkeykong_110
- Track 45 : ShroomBoi_105
- Track 46 : Che8_112
- Track 47 : Radiance_103
- Track 48 : Pacc40_101, Sabbb_107
- Track 49 : Hlubikazi_102
- Track 50 : BlueCrab_109
- Track 51 : Mutaforma13_106
- Track 52 : SassyB_95, PopTart_95
- Track 53 : Mantra_102

- Track 54 : Royals2015_108
- Track 55 : Melissauren88_95
- Track 56 : Henrique_69
- Track 57 : PeggyLeg03_70, KayMoney_68, ChuckDuck_69
- Track 58 : Judy_72
- Track 59 : Bridgette_71, Karkharias_66
- Track 60 : GlobiWarming_74
- Track 61 : NikkiHotWheels_70
- Track 62 : FosterFrank_71
- Track 63 : Peas_68
- Track 64 : RootBeer_55
- Track 65 : Eileen_64
- Track 66 : NoSwimming_59, Scotia_58
- Track 67 : Hum25_86
- Track 68 : Journey_64
- Track 69 : RunningOnE_55
- Track 70 : Shambre1_67
- Track 71 : GAL1_82
- Track 72 : Ibantik_57
- Track 73 : Kromp_95
- Track 74 : Ponzi_39
- Track 75 : Chymera_55

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

The start number called the most often in the published annotations is 56, it was called in 264 of the 301 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ABCat_145, AdaS_94, Adnama_150, Akhila_99, AlpineSix_102, Amao_151, AmericanBeauty_149, Anekin_95, Ardmore_88, Argent26_150, Asriel_144, Auxilium_93, BaboJay_146, BadStone_145, Balomoji_146, Barbarian_146, BasketStar_96, Batiatus_105, BenchScraper_96, Bench_149, BigBubba_149, BillyTP_96, Bimmel_37, Bipolar_106, BlueCrab_109, BlueShadow_92, BobaPhett_108, BodEinwohner17_116, Bridgette_71, Brocalys_96, Bubbles123_100, Buck_148, Burwell21_99, ByChance_95, Byougenkin_101, Cabrinians_101, Cactus_154, CaptainTrips_107, Che8_112, ChosenOne_147, ChuckDuck_69, Chuckly_102, Chymera_55, Clifton_96, Command613_149, Contagion_142, CookieBear_95, Cookies_148, Crescenzo_97, Crumble_99, DLane_105, DRBy19_104, Daenerys_102, Dante_104, DarwinJr_100, Deb65_97, DillTech15_111, Ding_98, DoRead_108, DoctorDiddles_145, Donkeykong_110, Dumbo_149, Easy2Say_148, Eileen_64, Eish_109, EleanorGeorge_108, Elite2014_146, Emma_109, Emmina_148, Enzomatic_117, Eradicator_95, Estave1_112, EvePickles_96, Faja_96, Fastidio_108, Filuzino_105, FireRed_150, Florinda_117, Flypotenuse_142, FosterFrank_71, FreddyB_113, GAL1_82, GUmbie_104, Gage_137, Galactic_109, Gandolph_104, Gemini_151, Geralt_97, GigiOuiOui_99, Girr_103, Glexan_150, Globfish_96, GlobiWarming_74, GoldenSpark_150, Goldilocks_152, Gorge_103, GumGum_103, Guppsters_99, Hades_102, Hamulus_105, Harella_153, Henrique_69, Highbury_141, Hillester_99, Hlubikazi_102, Holt_152, Hoonter_148, Hopey_144, HufflyPuff_148, Hum25_86,

IHOP_151, IbOuu_96, Ibantik_57, Ibhubesi_103, Icee_146, Inca_147, Inventum_102, IrishSherpFalk_105, Isolde_98, James_108, Jacob_107, JeTaime_144, JellyBread_95, Jinglebell_111, JoeyJr_107, Judy_72, Juniper1_98, Kabloowy_97, Kanye_142, Karhdo_100, Karkharias_66, KayMoney_68, Kenuha5_96, Kersh_107, Kimchi_151, KingMidas_105, Krakatau_97, KristaRAM_113, Lasker_98, Lawnathon_100, LeBruni_99, Leperchaun_106, Lilpickle_146, Lizziana_105, Llama_111, Llij_99, LunaBlu_111, MISSy_147, MPhalcon_148, MUWow_98, MadMen_109, MadamMonkfish_148, Mahavrat_98, Manda_149, Mantra_102, Maravista_102, Martik_103, MaterMagnus_96, Mattes_105, Maxxinista_148, Medindi_110, Melissauren88_95, MidnightRain_102, MilanaBonita_98, MinionDave_103, Miniwave_140, Minnie_99, MisterCuddles_104, Modragons_107, Moonbeam_107, Ms6_107, Murica_149, MurphyJoseph_92, Murphy_148, Mutaforma13_106, Myrale_146, Nala_149, NewHope4_112, NikkiHotWheels_70, Nimbo_96, Nimrod_145, NoSleep_145, NoSwimming_59, NormanBulbieJr_102, Ochi17_110, OfUltron_111, OldBen_101, OrionPax_144, PHappiness_104, PMC_104, Pacc40_101, Palpatine_143, Paperbeatsrock_144, Pat3_147, Peas_68, PeggyLeg03_70, Phaja_151, Phalconet_106, Phanphagia_109, Phasih_100, PhatBacter_150, Phatniss_101, Phaux_147, PhesterPotato_109, Philus_108, Phrux_143, Pippy_103, Policronamos_145, Polka14_108, Polo2Bam_116, Ponzi_39, PopTart_95, Priscilla_105, Quallification_146, RadFad_100, Radiance_103, Raphaella_96, RedBird_105, Richie_99, Rimmer_145, RitaG_103, Rita_104, RiverMonster_146, Rockne_108, Royals2015_108, Ruby_100, RunningOnE_55, Sabbb_107, Sandalphon_103, Sashimi_96, Sassafras_106, SassyB_95, Scotia_58, Scottish_105, SeaLumen_113, Seabastian_111, Seahorse_101, ShamWow_145, Shambre1_67, Shauna1_106, ShereKhan_145, ShiLan_107, ShowerHandel_107, ShroomBoi_105, SiSi_99, SonDevVon_104, SophKB_144, Sotrice96_151, Sparkdehlily_111, SpicyFrank_97, Spooks_37, Spoonbill_104, StAnnes_110, Stank_150, Stark_143, StolenFromERC_148, SuperGrey_103, SwagPigglett_106, TBrady12_151, TDanisky_112, Taj_110, Tarkin_144, Teaspoon_130, ThayneTheZag_102, Thimble_138, Thresher_148, Tiff81_90, Traaww1_144, Tuco_150, Tweety_109, Ukulele_143, VRedHorse_105, Veteran_94, Wachhund_101, Wee_109, Whatsapiecost_99, Whouxphf_108, Wiggin_149, WillSterrel_103, Willez_144, Windest_101, YoungHarleezy_97, Youngblood_150, Zerg_103, Zizzle_108,

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

- Czczczon1_146, Hestia_90, Marshmallow_149, Saints25_141, Success_39,

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

- Agueybana_85, AlumE_82, Antonio_78, BatStarr_83, Bialota_79, Bosnia_82, BoyNamedSue_82, Bunnybear_78, CosmicBrownie_93, Eudoria_79, Eviarto_84, Herod_84, Hyzer_101, Journey_64, Kita_80, Kromp_95, Madavieve_80, Madeline_76, Manasvini_81, Maridalia_83, Neobush_81, Nymphadora_84, Phrank15_100, Polly_76, RavenCo17_74, RootBeer_55, Rowa_68, Suscepit_79, Tayonia_79, ThankyouJordi_83, TimTam_84, Trumpet_79, WelcomeAyanna_83, Zameen_79, Zirinka_79,

Summary by start number:

Start 37:

- Found in 17 of 325 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 5.9% of time when present

- Phage (with cluster) where this start called: Saints25_141 (E),

Start 46:

- Found in 79 of 325 (24.3%) of genes in pham
- Manual Annotations of this start: 2 of 301
- Called 2.5% of time when present
- Phage (with cluster) where this start called: Czyszczon1_146 (E), Marshmallow_149 (E),

Start 50:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rowa_68 (BL),

Start 52:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kromp_95 (singleton),

Start 54:

- Found in 4 of 325 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Success_39 (BT),

Start 55:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RootBeer_55 (FA),

Start 56:

- Found in 290 of 325 (89.2%) of genes in pham
- Manual Annotations of this start: 264 of 301
- Called 98.3% of time when present
- Phage (with cluster) where this start called: ABCat_145 (E), AdaS_94 (AY), Adnama_150 (E), Akhila_99 (F1), AlpineSix_102 (F1), Amao_151 (E), AmericanBeauty_149 (E), Anekin_95 (AY), Ardmore_88 (F1), Argent26_150 (E), Asriel_144 (E), Auxilium_93 (AY), BaboJay_146 (E), BadStone_145 (E), Balomoji_146 (E), Barbarian_146 (E), BasketStar_96 (AY), Batiatus_105 (F1), BenchScraper_96 (AY), Bench_149 (E), BigBubba_149 (E), BillyTP_96 (AY), Bimmel_37 (BT), Bipolar_106 (F1), BlueCrab_109 (F1), BlueShadow_92 (AY), BobaPhett_108 (F1), BodEinwohner17_116 (F1), Bridgette_71 (FA), Brocalys_96 (F1), Bubbles123_100 (F1), Buck_148 (E), Burwell21_99 (F1), ByChance_95 (F1), Byougenkin_101 (F1), Cabrinians_101 (F1), Cactus_154 (E), CaptainTrips_107 (F1), Che8_112 (F1), ChosenOne_147 (E), ChuckDuck_69 (FA), Chuckly_102 (F1), Chymera_55 (singleton), Clifton_96 (F1), Command613_149 (E), Contagion_142 (E), CookieBear_95 (AY), Cookies_148 (E), Crescenzo_97 (AY), Crumble_99 (F1), DLane_105 (F1), DRBy19_104 (F1), Daenerys_102 (F1), Dante_104 (F1), DarwinJr_100 (AY), Deb65_97 (F1), DillTech15_111 (F1), Ding_98 (AY), DoRead_108 (F1), DoctorDiddles_145 (E), Donkeykong_110 (F1), Dumbo_149 (E),

Easy2Say_148 (E), Eileen_64 (FA), Eish_109 (F1), EleanorGeorge_108 (F1), Elite2014_146 (E), Emma_109 (F1), Emmina_148 (E), Enzomatic_117 (F1), Eradicator_95 (F1), Estave1_112 (F1), EvePickles_96 (AY), Faja_96 (AY), Fastidio_108 (F1), Filuzino_105 (F1), FireRed_150 (E), Florinda_117 (F1), Flypotenuse_142 (E), FosterFrank_71 (FA), FreddyB_113 (F1), GAL1_82 (singleton), GUmbie_104 (F1), Gage_137 (E), Galactic_109 (F1), Gandalph_104 (F1), Gemini_151 (E), Geralt_97 (F1), GigiOuiOui_99 (F1), Girr_103 (F1), Glexan_150 (E), Globfish_96 (AY), GlobiWarming_74 (FA), GoldenSpark_150 (E), Goldilocks_152 (E), Gorge_103 (F1), GumGum_103 (AY), Guppsters_99 (F1), Hades_102 (F1), Hamulus_105 (F1), Harella_153 (E), Henrique_69 (FA), Highbury_141 (E), Hillester_99 (AY), Hlubikazi_102 (F1), Holt_152 (E), Hoonter_148 (E), Hopey_144 (E), HufflyPuff_148 (E), Hum25_86 (FQ), IHOP_151 (E), IbOuu_96 (F1), Ibantik_57 (singleton), lbhubesi_103 (F1), Icee_146 (E), Inca_147 (E), Inventum_102 (F1), IrishSherpFalk_105 (F1), Isolde_98 (AY), James_108 (F1), Jarcob_107 (F1), JeTaimie_144 (E), JellyBread_95 (AY), Jinglebell_111 (F1), JoeyJr_107 (F1), Judy_72 (FA), Juniper1_98 (F1), Kabloowy_97 (AY), Kanye_142 (E), Karhdo_100 (F1), Karkharias_66 (FA), KayMoney_68 (FA), Kenuha5_96 (F1), Kersh_107 (F1), Kimchi_151 (E), KingMidas_105 (F1), Krakatau_97 (F1), KristaRAM_113 (F1), Lasker_98 (AY), Lawnathon_100 (AY), LeBruni_99 (AY), Leperchaun_106 (F1), Lilpickle_146 (E), Lizziana_105 (F1), Llama_111 (F1), Llij_99 (F1), LunaBlu_111 (F1), MISSy_147 (E), MPhalcon_148 (E), MUWow_98 (AY), MadMen_109 (F1), MadamMonkfish_148 (E), Mahavrat_98 (F1), Manda_149 (E), Mantra_102 (F1), Maravista_102 (F1), Martik_103 (F1), MaterMagnus_96 (AY), Mattes_105 (F1), Maxxinista_148 (E), Medindi_110 (F1), Melissauren88_95 (F1), MidnightRain_102 (AY), MilanaBonita_98 (F1), MinionDave_103 (F1), Miniwave_140 (E), Minnie_99 (F1), MisterCuddles_104 (F1), Modragons_107 (F1), Moonbeam_107 (F1), Ms6_107 (F1), Murica_149 (E), MurphyJoseph_92 (AY), Murphy_148 (E), Mutaforma13_106 (F1), Myrale_146 (E), Nala_149 (E), NewHope4_112 (F1), NikkiHotWheels_70 (FA), Nimbo_96 (F1), Nimrod_145 (E), NoSleep_145 (E), NoSwimming_59 (FO), NormanBulbieJr_102 (F1), Ochi17_110 (F1), OfUltron_111 (F1), OldBen_101 (F1), OrionPax_144 (E), PHappiness_104 (F1), PMC_104 (F1), Pacc40_101 (F1), Palpatine_143 (E), Paperbeatsrock_144 (E), Pat3_147 (E), Peas_68 (FA), PeggyLeg03_70 (FA), Phaja_151 (E), Phalconet_106 (F1), Phanphagia_109 (F1), Phasih_100 (F1), PhatBacter_150 (E), Phatniss_101 (F1), Phaux_147 (E), PhesterPhotato_109 (F1), Philus_108 (F1), Phrux_143 (E), Pippy_103 (F1), Policronamos_145 (E), Polka14_108 (F1), Polo2Bam_116 (F1), Ponzi_39 (singleton), PopTart_95 (F1), Priscilla_105 (F1), Quallification_146 (E), RadFad_100 (AY), Radiance_103 (F1), Raphaella_96 (AY), RedBird_105 (F1), Richie_99 (AY), Rimmer_145 (E), RitaG_103 (F1), Rita_104 (F1), RiverMonster_146 (E), Rockne_108 (F1), Royals2015_108 (F1), Ruby_100 (F1), RunningOnE_55 (UNK), Sabbb_107 (F1), Sandalphon_103 (F1), Sashimi_96 (AY), Sassafras_106 (F1), SassyB_95 (F1), Scotia_58 (FO), Scottish_105 (F1), SeaLumen_113 (F1), Seabastian_111 (F1), Seahorse_101 (AY), ShamWow_145 (E), Shambre1_67 (singleton), Shauna1_106 (F1), ShereKhan_145 (E), ShiLan_107 (F1), ShowerHandel_107 (F1), ShroomBoi_105 (F1), SiSi_99 (F1), SonDevVon_104 (AY), SophKB_144 (E), Sotrice96_151 (E), Sparkdehlily_111 (F1), SpicyFrank_97 (AY), Spooks_37 (BT), Spoonbill_104 (F1), StAnnes_110 (F1), Stank_150 (E), Stark_143 (E), StolenFromERC_148 (E), SuperGrey_103 (F1), SwagPiggett_106 (F1), TBrady12_151 (E), TDanisky_112 (F1), Taj_110 (F1), Tarkin_144 (E), Teaspoon_130 (E), ThayneTheZag_102 (AY), Thimble_138 (E), Thresher_148 (E), Tiff81_90 (AY), Traaww1_144 (E), Tuco_150 (E), Tweety_109 (F1), Ukulele_143 (E), VRedHorse_105 (F1), Veteran_94 (F1), Wachhund_101 (F1), Wee_109 (F1), Whatsapiecost_99 (F1), Whouxphf_108 (F1), Wiggin_149 (E), WillSterrel_103 (F1),

Willez_144 (E), Windest_101 (AY), YoungHarleezy_97 (AY), Youngblood_150 (E), Zerg_103 (F1), Zizzle_108 (F1),

Start 57:

- Found in 29 of 325 (8.9%) of genes in pham
- Manual Annotations of this start: 27 of 301
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana_85 (CZ1), AlumE_82 (CZ1), Antonio_78 (CZ1), BatStarr_83 (CZ1), Bialota_79 (CZ1), Bosnia_82 (CZ1), BoyNamedSue_82 (CZ1), Bunnybear_78 (CZ), Eudoria_79 (CZ1), Eviarto_84 (CZ1), Herod_84 (CZ1), Hyzer_101 (CZ1), Kita_80 (CZ1), Madavieve_80 (CZ1), Madeline_76 (CZ1), Manasvini_81 (CZ1), Maridalia_83 (CZ1), Neobush_81 (CZ1), Nymphadora_84 (CZ1), Polly_76 (CZ1), RavenCo17_74 (CZ8), Suscepit_79 (CZ1), Tayonia_79 (CZ1), ThankyouJordi_83 (CZ1), TimTam_84 (CZ1), Trumpet_79 (CZ1), WelcomeAyanna_83 (CZ1), Zameen_79 (CZ1), Zirinka_79 (CZ1),

Start 58:

- Found in 5 of 325 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 301
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CosmicBrownie_93 (AY), Hestia_90 (AY), Phrank15_100 (AY),

Start 63:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 301
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey_64 (N),

Summary by clusters:

There are 14 clusters represented in this pham: F1, singleton, E, FQ, BL, CZ1, CZ8, CZ, N, BT, FA, AY, UNK, FO,

Info for manual annotations of cluster AY:

- Start number 56 was manually annotated 27 times for cluster AY.
- Start number 58 was manually annotated 2 times for cluster AY.

Info for manual annotations of cluster BL:

- Start number 50 was manually annotated 1 time for cluster BL.

Info for manual annotations of cluster BT:

- Start number 54 was manually annotated 1 time for cluster BT.
- Start number 56 was manually annotated 2 times for cluster BT.

Info for manual annotations of cluster CZ:

- Start number 57 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 57 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ8:

- Start number 57 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster E:

- Start number 37 was manually annotated 1 time for cluster E.
- Start number 46 was manually annotated 2 times for cluster E.
- Start number 56 was manually annotated 85 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 56 was manually annotated 134 times for cluster F1.

Info for manual annotations of cluster FA:

- Start number 55 was manually annotated 1 time for cluster FA.
- Start number 56 was manually annotated 9 times for cluster FA.

Info for manual annotations of cluster FO:

- Start number 56 was manually annotated 2 times for cluster FO.

Info for manual annotations of cluster FQ:

- Start number 56 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster N:

- Start number 63 was manually annotated 1 time for cluster N.

Gene Information:

Gene: ABCat_145 Start: 75550, Stop: 75897, Start Num: 56

Candidate Starts for ABCat_145:

(Start: 46 @75493 has 2 MA's), (Start: 56 @75550 has 264 MA's),

Gene: AdaS_94 Start: 50303, Stop: 50629, Start Num: 56

Candidate Starts for AdaS_94:

(Start: 56 @50303 has 264 MA's), (81, 50483),

Gene: Adnama_150 Start: 74627, Stop: 74974, Start Num: 56

Candidate Starts for Adnama_150:

(Start: 46 @74570 has 2 MA's), (Start: 56 @74627 has 264 MA's),

Gene: Agueybana_85 Start: 52421, Stop: 52756, Start Num: 57

Candidate Starts for Agueybana_85:

(16, 52148), (Start: 57 @52421 has 27 MA's),

Gene: Akhila_99 Start: 55783, Stop: 56109, Start Num: 56

Candidate Starts for Akhila_99:

(25, 55609), (29, 55645), (47, 55732), (Start: 56 @55783 has 264 MA's), (65, 55906), (89, 56041),

Gene: AlpineSix_102 Start: 56250, Stop: 56576, Start Num: 56

Candidate Starts for AlpineSix_102:

(Start: 56 @56250 has 264 MA's),

Gene: AlumE_82 Start: 52312, Stop: 52647, Start Num: 57

Candidate Starts for AlumE_82:

(16, 52039), (Start: 57 @52312 has 27 MA's),

Gene: Amao_151 Start: 76132, Stop: 76479, Start Num: 56

Candidate Starts for Amao_151:

(Start: 56 @76132 has 264 MA's),

Gene: AmericanBeauty_149 Start: 74669, Stop: 75016, Start Num: 56

Candidate Starts for AmericanBeauty_149:

(Start: 46 @74612 has 2 MA's), (Start: 56 @74669 has 264 MA's),

Gene: Anekin_95 Start: 52237, Stop: 52560, Start Num: 56

Candidate Starts for Anekin_95:

(Start: 56 @52237 has 264 MA's), (Start: 58 @52249 has 2 MA's), (68, 52375),

Gene: Antonio_78 Start: 49950, Stop: 50285, Start Num: 57

Candidate Starts for Antonio_78:

(16, 49677), (Start: 57 @49950 has 27 MA's),

Gene: Ardmore_88 Start: 51672, Stop: 51998, Start Num: 56

Candidate Starts for Ardmore_88:

(25, 51498), (29, 51534), (47, 51621), (Start: 56 @51672 has 264 MA's), (65, 51795), (89, 51930),

Gene: Argent26_150 Start: 74551, Stop: 74898, Start Num: 56

Candidate Starts for Argent26_150:

(Start: 46 @74494 has 2 MA's), (Start: 56 @74551 has 264 MA's),

Gene: Asriel_144 Start: 74013, Stop: 74360, Start Num: 56

Candidate Starts for Asriel_144:

(Start: 56 @74013 has 264 MA's),

Gene: Auxilium_93 Start: 49043, Stop: 49363, Start Num: 56

Candidate Starts for Auxilium_93:

(Start: 56 @49043 has 264 MA's), (81, 49223),

Gene: BaboJay_146 Start: 75796, Stop: 76143, Start Num: 56

Candidate Starts for BaboJay_146:

(Start: 37 @75700 has 1 MA's), (Start: 46 @75739 has 2 MA's), (Start: 56 @75796 has 264 MA's),

Gene: BadStone_145 Start: 75098, Stop: 75445, Start Num: 56

Candidate Starts for BadStone_145:

(Start: 46 @75041 has 2 MA's), (Start: 56 @75098 has 264 MA's),

Gene: Balomoji_146 Start: 75838, Stop: 76185, Start Num: 56

Candidate Starts for Balomoji_146:

(Start: 56 @75838 has 264 MA's),

Gene: Barbarian_146 Start: 74013, Stop: 74360, Start Num: 56

Candidate Starts for Barbarian_146:

(Start: 56 @74013 has 264 MA's),

Gene: BasketStar_96 Start: 52523, Stop: 52843, Start Num: 56

Candidate Starts for BasketStar_96:

(Start: 56 @52523 has 264 MA's), (81, 52703),

Gene: BatStarr_83 Start: 53046, Stop: 53381, Start Num: 57
Candidate Starts for BatStarr_83:
(16, 52773), (Start: 57 @53046 has 27 MA's), (82, 53232),

Gene: Batiatus_105 Start: 57269, Stop: 57595, Start Num: 56
Candidate Starts for Batiatus_105:
(25, 57095), (29, 57131), (47, 57218), (Start: 56 @57269 has 264 MA's), (65, 57392), (89, 57527),

Gene: Bench_149 Start: 75511, Stop: 75858, Start Num: 56
Candidate Starts for Bench_149:
(Start: 46 @75454 has 2 MA's), (Start: 56 @75511 has 264 MA's),

Gene: BenchScraper_96 Start: 50794, Stop: 51114, Start Num: 56
Candidate Starts for BenchScraper_96:
(Start: 56 @50794 has 264 MA's), (81, 50974),

Gene: Bialota_79 Start: 51706, Stop: 52038, Start Num: 57
Candidate Starts for Bialota_79:
(16, 51433), (Start: 57 @51706 has 27 MA's),

Gene: BigBubba_149 Start: 74425, Stop: 74772, Start Num: 56
Candidate Starts for BigBubba_149:
(Start: 46 @74368 has 2 MA's), (Start: 56 @74425 has 264 MA's),

Gene: BillyTP_96 Start: 52593, Stop: 52919, Start Num: 56
Candidate Starts for BillyTP_96:
(Start: 56 @52593 has 264 MA's), (81, 52773),

Gene: Bimmel_37 Start: 23518, Stop: 23859, Start Num: 56
Candidate Starts for Bimmel_37:
(53, 23509), (Start: 54 @23512 has 1 MA's), (Start: 56 @23518 has 264 MA's), (69, 23677),

Gene: Bipolar_106 Start: 58515, Stop: 58841, Start Num: 56
Candidate Starts for Bipolar_106:
(25, 58341), (29, 58377), (47, 58464), (Start: 56 @58515 has 264 MA's), (65, 58638), (89, 58773),

Gene: BlueCrab_109 Start: 58669, Stop: 58995, Start Num: 56
Candidate Starts for BlueCrab_109:
(Start: 56 @58669 has 264 MA's), (65, 58792),

Gene: BlueShadow_92 Start: 52029, Stop: 52349, Start Num: 56
Candidate Starts for BlueShadow_92:
(Start: 56 @52029 has 264 MA's), (81, 52209),

Gene: BobaPhett_108 Start: 59318, Stop: 59644, Start Num: 56
Candidate Starts for BobaPhett_108:
(Start: 56 @59318 has 264 MA's),

Gene: BodEinwohner17_116 Start: 59725, Stop: 60051, Start Num: 56
Candidate Starts for BodEinwohner17_116:
(Start: 56 @59725 has 264 MA's),

Gene: Bosnia_82 Start: 54160, Stop: 54495, Start Num: 57
Candidate Starts for Bosnia_82:
(16, 53887), (Start: 57 @54160 has 27 MA's), (82, 54346),

Gene: BoyNamedSue_82 Start: 52312, Stop: 52647, Start Num: 57
Candidate Starts for BoyNamedSue_82:
(16, 52039), (Start: 57 @52312 has 27 MA's),

Gene: Bridgette_71 Start: 42699, Stop: 43043, Start Num: 56
Candidate Starts for Bridgette_71:
(Start: 56 @42699 has 264 MA's),

Gene: Brocalys_96 Start: 54283, Stop: 54609, Start Num: 56
Candidate Starts for Brocalys_96:
(25, 54109), (29, 54145), (47, 54232), (Start: 56 @54283 has 264 MA's), (65, 54406), (89, 54541),

Gene: Bubbles123_100 Start: 56967, Stop: 57311, Start Num: 56
Candidate Starts for Bubbles123_100:
(25, 56793), (29, 56829), (47, 56916), (Start: 56 @56967 has 264 MA's), (67, 57111), (76, 57135),

Gene: Buck_148 Start: 76107, Stop: 76454, Start Num: 56
Candidate Starts for Buck_148:
(Start: 46 @76050 has 2 MA's), (Start: 56 @76107 has 264 MA's),

Gene: Bunnybear_78 Start: 50882, Stop: 51217, Start Num: 57
Candidate Starts for Bunnybear_78:
(16, 50609), (Start: 57 @50882 has 27 MA's),

Gene: Burwell21_99 Start: 56858, Stop: 57202, Start Num: 56
Candidate Starts for Burwell21_99:
(25, 56684), (29, 56720), (47, 56807), (Start: 56 @56858 has 264 MA's), (67, 57002), (76, 57026),

Gene: ByChance_95 Start: 52655, Stop: 52981, Start Num: 56
Candidate Starts for ByChance_95:
(Start: 56 @52655 has 264 MA's),

Gene: Byougenkin_101 Start: 54217, Stop: 54543, Start Num: 56
Candidate Starts for Byougenkin_101:
(Start: 56 @54217 has 264 MA's),

Gene: Cabrinians_101 Start: 56202, Stop: 56528, Start Num: 56
Candidate Starts for Cabrinians_101:
(25, 56028), (29, 56064), (47, 56151), (Start: 56 @56202 has 264 MA's), (65, 56325), (89, 56460),

Gene: Cactus_154 Start: 75022, Stop: 75369, Start Num: 56
Candidate Starts for Cactus_154:
(Start: 46 @74965 has 2 MA's), (Start: 56 @75022 has 264 MA's),

Gene: CaptainTrips_107 Start: 56860, Stop: 57186, Start Num: 56
Candidate Starts for CaptainTrips_107:
(25, 56686), (29, 56722), (47, 56809), (Start: 56 @56860 has 264 MA's), (65, 56983), (89, 57118),

Gene: Che8_112 Start: 58974, Stop: 59300, Start Num: 56

Candidate Starts for Che8_112:
(Start: 56 @58974 has 264 MA's),

Gene: ChosenOne_147 Start: 74389, Stop: 74736, Start Num: 56
Candidate Starts for ChosenOne_147:
(Start: 46 @74332 has 2 MA's), (Start: 56 @74389 has 264 MA's),

Gene: ChuckDuck_69 Start: 42418, Stop: 42762, Start Num: 56
Candidate Starts for ChuckDuck_69:
(Start: 56 @42418 has 264 MA's),

Gene: Chuckly_102 Start: 53949, Stop: 54293, Start Num: 56
Candidate Starts for Chuckly_102:
(25, 53775), (29, 53811), (47, 53898), (Start: 56 @53949 has 264 MA's), (67, 54093), (76, 54117),

Gene: Chymera_55 Start: 34305, Stop: 34673, Start Num: 56
Candidate Starts for Chymera_55:
(8, 33873), (14, 33963), (27, 34143), (Start: 56 @34305 has 264 MA's), (62, 34353), (79, 34488), (86, 34548),

Gene: Clifton_96 Start: 55258, Stop: 55584, Start Num: 56
Candidate Starts for Clifton_96:
(Start: 56 @55258 has 264 MA's),

Gene: Command613_149 Start: 75444, Stop: 75791, Start Num: 56
Candidate Starts for Command613_149:
(Start: 37 @75348 has 1 MA's), (Start: 46 @75387 has 2 MA's), (Start: 56 @75444 has 264 MA's),

Gene: Contagion_142 Start: 73952, Stop: 74299, Start Num: 56
Candidate Starts for Contagion_142:
(Start: 46 @73895 has 2 MA's), (Start: 56 @73952 has 264 MA's),

Gene: CookieBear_95 Start: 51777, Stop: 52097, Start Num: 56
Candidate Starts for CookieBear_95:
(Start: 56 @51777 has 264 MA's), (81, 51957),

Gene: Cookies_148 Start: 75759, Stop: 76106, Start Num: 56
Candidate Starts for Cookies_148:
(Start: 46 @75702 has 2 MA's), (Start: 56 @75759 has 264 MA's),

Gene: CosmicBrownie_93 Start: 50511, Stop: 50822, Start Num: 58
Candidate Starts for CosmicBrownie_93:
(Start: 58 @50511 has 2 MA's),

Gene: Crescenzo_97 Start: 52946, Stop: 53266, Start Num: 56
Candidate Starts for Crescenzo_97:
(35, 52847), (48, 52895), (Start: 56 @52946 has 264 MA's), (81, 53126),

Gene: Crumble_99 Start: 52956, Stop: 53282, Start Num: 56
Candidate Starts for Crumble_99:
(Start: 56 @52956 has 264 MA's),

Gene: Czyszczonek_146 Start: 74437, Stop: 74841, Start Num: 46

Candidate Starts for Czyszczone1_146:
(Start: 46 @74437 has 2 MA's), (Start: 56 @74494 has 264 MA's),

Gene: DLane_105 Start: 58431, Stop: 58757, Start Num: 56
Candidate Starts for DLane_105:
(25, 58257), (29, 58293), (47, 58380), (Start: 56 @58431 has 264 MA's), (65, 58554), (89, 58689),

Gene: DRBy19_104 Start: 57899, Stop: 58225, Start Num: 56
Candidate Starts for DRBy19_104:
(Start: 56 @57899 has 264 MA's),

Gene: Daenerys_102 Start: 57545, Stop: 57871, Start Num: 56
Candidate Starts for Daenerys_102:
(Start: 56 @57545 has 264 MA's),

Gene: Dante_104 Start: 58406, Stop: 58750, Start Num: 56
Candidate Starts for Dante_104:
(25, 58232), (29, 58268), (47, 58355), (Start: 56 @58406 has 264 MA's), (67, 58550), (76, 58574),

Gene: DarwinJr_100 Start: 53274, Stop: 53627, Start Num: 56
Candidate Starts for DarwinJr_100:
(Start: 56 @53274 has 264 MA's),

Gene: Deb65_97 Start: 55269, Stop: 55595, Start Num: 56
Candidate Starts for Deb65_97:
(Start: 56 @55269 has 264 MA's),

Gene: DillTech15_111 Start: 57330, Stop: 57656, Start Num: 56
Candidate Starts for DillTech15_111:
(25, 57156), (29, 57192), (47, 57279), (Start: 56 @57330 has 264 MA's), (65, 57453), (89, 57588),

Gene: Ding_98 Start: 52235, Stop: 52555, Start Num: 56
Candidate Starts for Ding_98:
(22, 52037), (23, 52046), (24, 52052), (38, 52142), (44, 52166), (Start: 56 @52235 has 264 MA's),

Gene: DoRead_108 Start: 55713, Stop: 56039, Start Num: 56
Candidate Starts for DoRead_108:
(Start: 56 @55713 has 264 MA's), (65, 55836), (89, 55971),

Gene: DoctorDiddles_145 Start: 74489, Stop: 74836, Start Num: 56
Candidate Starts for DoctorDiddles_145:
(Start: 46 @74432 has 2 MA's), (Start: 56 @74489 has 264 MA's),

Gene: Donkeykong_110 Start: 59010, Stop: 59336, Start Num: 56
Candidate Starts for Donkeykong_110:
(25, 58836), (29, 58872), (47, 58959), (Start: 56 @59010 has 264 MA's), (65, 59133), (89, 59268),

Gene: Dumbo_149 Start: 75155, Stop: 75502, Start Num: 56
Candidate Starts for Dumbo_149:
(Start: 46 @75098 has 2 MA's), (Start: 56 @75155 has 264 MA's),

Gene: Easy2Say_148 Start: 75017, Stop: 75364, Start Num: 56
Candidate Starts for Easy2Say_148:

(Start: 46 @74960 has 2 MA's), (Start: 56 @75017 has 264 MA's),

Gene: Eileen_64 Start: 40750, Stop: 41094, Start Num: 56

Candidate Starts for Eileen_64:

(22, 40555), (40, 40678), (Start: 56 @40750 has 264 MA's),

Gene: Eish_109 Start: 57682, Stop: 58008, Start Num: 56

Candidate Starts for Eish_109:

(5, 57169), (6, 57193), (9, 57256), (25, 57508), (47, 57631), (Start: 56 @57682 has 264 MA's),

Gene: EleanorGeorge_108 Start: 59015, Stop: 59341, Start Num: 56

Candidate Starts for EleanorGeorge_108:

(25, 58841), (29, 58877), (47, 58964), (Start: 56 @59015 has 264 MA's), (65, 59138), (89, 59273),

Gene: Elite2014_146 Start: 74388, Stop: 74735, Start Num: 56

Candidate Starts for Elite2014_146:

(Start: 46 @74331 has 2 MA's), (Start: 56 @74388 has 264 MA's),

Gene: Emma_109 Start: 55950, Stop: 56276, Start Num: 56

Candidate Starts for Emma_109:

(25, 55776), (29, 55812), (47, 55899), (Start: 56 @55950 has 264 MA's), (65, 56073), (89, 56208),

Gene: Emmina_148 Start: 74714, Stop: 75061, Start Num: 56

Candidate Starts for Emmina_148:

(Start: 46 @74657 has 2 MA's), (Start: 56 @74714 has 264 MA's),

Gene: Enzomatic_117 Start: 56795, Stop: 57121, Start Num: 56

Candidate Starts for Enzomatic_117:

(5, 56282), (6, 56306), (9, 56369), (25, 56621), (29, 56657), (47, 56744), (Start: 56 @56795 has 264 MA's),

Gene: Eradicator_95 Start: 55231, Stop: 55557, Start Num: 56

Candidate Starts for Eradicator_95:

(Start: 56 @55231 has 264 MA's),

Gene: Estave1_112 Start: 60259, Stop: 60585, Start Num: 56

Candidate Starts for Estave1_112:

(Start: 56 @60259 has 264 MA's),

Gene: Eudoria_79 Start: 49950, Stop: 50285, Start Num: 57

Candidate Starts for Eudoria_79:

(16, 49677), (Start: 57 @49950 has 27 MA's),

Gene: EvePickles_96 Start: 52994, Stop: 53314, Start Num: 56

Candidate Starts for EvePickles_96:

(Start: 56 @52994 has 264 MA's), (81, 53174),

Gene: Eviarto_84 Start: 53021, Stop: 53356, Start Num: 57

Candidate Starts for Eviarto_84:

(16, 52748), (Start: 57 @53021 has 27 MA's), (82, 53207),

Gene: Faja_96 Start: 52066, Stop: 52386, Start Num: 56

Candidate Starts for Faja_96:

(Start: 56 @52066 has 264 MA's), (81, 52246),

Gene: Fastidio_108 Start: 55371, Stop: 55697, Start Num: 56

Candidate Starts for Fastidio_108:

(25, 55197), (29, 55233), (47, 55320), (Start: 56 @55371 has 264 MA's), (65, 55494), (89, 55629),

Gene: Filuzino_105 Start: 58837, Stop: 59163, Start Num: 56

Candidate Starts for Filuzino_105:

(25, 58663), (29, 58699), (47, 58786), (Start: 56 @58837 has 264 MA's), (65, 58960), (89, 59095),

Gene: FireRed_150 Start: 75636, Stop: 75983, Start Num: 56

Candidate Starts for FireRed_150:

(Start: 37 @75540 has 1 MA's), (Start: 46 @75579 has 2 MA's), (Start: 56 @75636 has 264 MA's),

Gene: Florinda_117 Start: 58948, Stop: 59274, Start Num: 56

Candidate Starts for Florinda_117:

(25, 58774), (29, 58810), (47, 58897), (Start: 56 @58948 has 264 MA's), (65, 59071), (89, 59206),

Gene: Flypotenuse_142 Start: 74667, Stop: 75014, Start Num: 56

Candidate Starts for Flypotenuse_142:

(Start: 56 @74667 has 264 MA's),

Gene: FosterFrank_71 Start: 42119, Stop: 42463, Start Num: 56

Candidate Starts for FosterFrank_71:

(15, 41831), (Start: 56 @42119 has 264 MA's),

Gene: FreddyB_113 Start: 57850, Stop: 58176, Start Num: 56

Candidate Starts for FreddyB_113:

(25, 57676), (29, 57712), (47, 57799), (Start: 56 @57850 has 264 MA's), (65, 57973), (89, 58108),

Gene: GAL1_82 Start: 49576, Stop: 49935, Start Num: 56

Candidate Starts for GAL1_82:

(Start: 56 @49576 has 264 MA's), (85, 49810),

Gene: GUmbie_104 Start: 56919, Stop: 57245, Start Num: 56

Candidate Starts for GUmbie_104:

(25, 56745), (29, 56781), (47, 56868), (Start: 56 @56919 has 264 MA's), (65, 57042), (89, 57177),

Gene: Gage_137 Start: 71069, Stop: 71416, Start Num: 56

Candidate Starts for Gage_137:

(Start: 46 @71012 has 2 MA's), (Start: 56 @71069 has 264 MA's),

Gene: Galactic_109 Start: 57393, Stop: 57719, Start Num: 56

Candidate Starts for Galactic_109:

(5, 56880), (6, 56904), (9, 56967), (25, 57219), (29, 57255), (47, 57342), (Start: 56 @57393 has 264 MA's),

Gene: Gandalph_104 Start: 54506, Stop: 54832, Start Num: 56

Candidate Starts for Gandalph_104:

(25, 54332), (29, 54368), (47, 54455), (Start: 56 @54506 has 264 MA's), (65, 54629), (89, 54764),

Gene: Gemini_151 Start: 75068, Stop: 75415, Start Num: 56

Candidate Starts for Gemini_151:

(Start: 46 @75011 has 2 MA's), (Start: 56 @75068 has 264 MA's),

Gene: Geralt_97 Start: 55267, Stop: 55593, Start Num: 56

Candidate Starts for Geralt_97:

(Start: 56 @55267 has 264 MA's),

Gene: GigiOuiOui_99 Start: 55921, Stop: 56247, Start Num: 56

Candidate Starts for GigiOuiOui_99:

(5, 55408), (6, 55432), (9, 55495), (25, 55747), (29, 55783), (47, 55870), (Start: 56 @55921 has 264 MA's), (65, 56044), (89, 56179),

Gene: Girr_103 Start: 57256, Stop: 57582, Start Num: 56

Candidate Starts for Girr_103:

(Start: 56 @57256 has 264 MA's),

Gene: Glexan_150 Start: 75917, Stop: 76264, Start Num: 56

Candidate Starts for Glexan_150:

(Start: 56 @75917 has 264 MA's),

Gene: Globfish_96 Start: 50972, Stop: 51292, Start Num: 56

Candidate Starts for Globfish_96:

(Start: 56 @50972 has 264 MA's), (81, 51152),

Gene: GlobiWarming_74 Start: 42547, Stop: 42891, Start Num: 56

Candidate Starts for GlobiWarming_74:

(51, 42526), (Start: 54 @42541 has 1 MA's), (Start: 56 @42547 has 264 MA's),

Gene: GoldenSpark_150 Start: 74551, Stop: 74898, Start Num: 56

Candidate Starts for GoldenSpark_150:

(Start: 46 @74494 has 2 MA's), (Start: 56 @74551 has 264 MA's),

Gene: Goldilocks_152 Start: 75147, Stop: 75494, Start Num: 56

Candidate Starts for Goldilocks_152:

(Start: 46 @75090 has 2 MA's), (Start: 56 @75147 has 264 MA's),

Gene: Gorge_103 Start: 57487, Stop: 57813, Start Num: 56

Candidate Starts for Gorge_103:

(25, 57313), (29, 57349), (47, 57436), (Start: 56 @57487 has 264 MA's), (65, 57610), (89, 57745),

Gene: GumGum_103 Start: 53268, Stop: 53588, Start Num: 56

Candidate Starts for GumGum_103:

(Start: 56 @53268 has 264 MA's), (81, 53448),

Gene: Guppsters_99 Start: 54367, Stop: 54693, Start Num: 56

Candidate Starts for Guppsters_99:

(Start: 56 @54367 has 264 MA's), (65, 54490), (89, 54625),

Gene: Hades_102 Start: 54518, Stop: 54844, Start Num: 56

Candidate Starts for Hades_102:

(Start: 56 @54518 has 264 MA's),

Gene: Hamulus_105 Start: 56687, Stop: 57013, Start Num: 56

Candidate Starts for Hamulus_105:

(25, 56513), (29, 56549), (47, 56636), (Start: 56 @56687 has 264 MA's), (65, 56810), (89, 56945),

Gene: Harella_153 Start: 76278, Stop: 76625, Start Num: 56

Candidate Starts for Harella_153:

(Start: 56 @76278 has 264 MA's),

Gene: Henrique_69 Start: 42189, Stop: 42533, Start Num: 56

Candidate Starts for Henrique_69:

(36, 42093), (Start: 56 @42189 has 264 MA's),

Gene: Herod_84 Start: 53440, Stop: 53775, Start Num: 57

Candidate Starts for Herod_84:

(16, 53167), (Start: 57 @53440 has 27 MA's), (82, 53626),

Gene: Hestia_90 Start: 50238, Stop: 50558, Start Num: 58

Candidate Starts for Hestia_90:

(20, 49992), (Start: 56 @50226 has 264 MA's), (Start: 58 @50238 has 2 MA's), (70, 50367),

Gene: Highbury_141 Start: 72834, Stop: 73181, Start Num: 56

Candidate Starts for Highbury_141:

(Start: 37 @72738 has 1 MA's), (Start: 46 @72777 has 2 MA's), (Start: 56 @72834 has 264 MA's),

Gene: Hillester_99 Start: 52313, Stop: 52633, Start Num: 56

Candidate Starts for Hillester_99:

(Start: 56 @52313 has 264 MA's), (81, 52493),

Gene: Hlubikazi_102 Start: 55002, Stop: 55328, Start Num: 56

Candidate Starts for Hlubikazi_102:

(5, 54489), (9, 54576), (25, 54828), (29, 54864), (47, 54951), (Start: 56 @55002 has 264 MA's), (65, 55125), (89, 55260),

Gene: Holt_152 Start: 75334, Stop: 75681, Start Num: 56

Candidate Starts for Holt_152:

(Start: 46 @75277 has 2 MA's), (Start: 56 @75334 has 264 MA's),

Gene: Hoonter_148 Start: 74686, Stop: 75033, Start Num: 56

Candidate Starts for Hoonter_148:

(Start: 56 @74686 has 264 MA's),

Gene: Hopecy_144 Start: 75005, Stop: 75352, Start Num: 56

Candidate Starts for Hopecy_144:

(Start: 37 @74909 has 1 MA's), (Start: 46 @74948 has 2 MA's), (Start: 56 @75005 has 264 MA's),

Gene: HufflyPuff_148 Start: 75742, Stop: 76089, Start Num: 56

Candidate Starts for HufflyPuff_148:

(Start: 46 @75685 has 2 MA's), (Start: 56 @75742 has 264 MA's),

Gene: Hum25_86 Start: 42285, Stop: 42626, Start Num: 56

Candidate Starts for Hum25_86:

(Start: 56 @42285 has 264 MA's), (60, 42303), (73, 42438),

Gene: Hyzer_101 Start: 60183, Stop: 60518, Start Num: 57

Candidate Starts for Hyzer_101:

(49, 60138), (Start: 57 @60183 has 27 MA's),

Gene: IHOP_151 Start: 75087, Stop: 75434, Start Num: 56

Candidate Starts for IHOP_151:

(Start: 46 @75030 has 2 MA's), (Start: 56 @75087 has 264 MA's),

Gene: lbOuu_96 Start: 54829, Stop: 55155, Start Num: 56

Candidate Starts for lbOuu_96:

(25, 54655), (29, 54691), (47, 54778), (Start: 56 @54829 has 264 MA's), (65, 54952), (89, 55087),

Gene: lbantik_57 Start: 25161, Stop: 25478, Start Num: 56

Candidate Starts for lbantik_57:

(45, 25107), (Start: 56 @25161 has 264 MA's), (59, 25176), (61, 25185), (74, 25320), (81, 25347), (87, 25392), (88, 25416),

Gene: lbhubesi_103 Start: 55132, Stop: 55458, Start Num: 56

Candidate Starts for lbhubesi_103:

(Start: 56 @55132 has 264 MA's),

Gene: lcee_146 Start: 73588, Stop: 73935, Start Num: 56

Candidate Starts for lcee_146:

(Start: 46 @73531 has 2 MA's), (Start: 56 @73588 has 264 MA's),

Gene: Inca_147 Start: 73489, Stop: 73836, Start Num: 56

Candidate Starts for Inca_147:

(32, 73372), (Start: 37 @73393 has 1 MA's), (Start: 46 @73432 has 2 MA's), (Start: 56 @73489 has 264 MA's),

Gene: Inventum_102 Start: 56555, Stop: 56881, Start Num: 56

Candidate Starts for Inventum_102:

(Start: 56 @56555 has 264 MA's),

Gene: IrishSherpFalk_105 Start: 57329, Stop: 57673, Start Num: 56

Candidate Starts for IrishSherpFalk_105:

(Start: 56 @57329 has 264 MA's), (67, 57473), (76, 57497),

Gene: Isolde_98 Start: 52809, Stop: 53129, Start Num: 56

Candidate Starts for Isolde_98:

(Start: 56 @52809 has 264 MA's), (81, 52989),

Gene: James_108 Start: 59148, Stop: 59474, Start Num: 56

Candidate Starts for James_108:

(25, 58974), (29, 59010), (47, 59097), (Start: 56 @59148 has 264 MA's), (65, 59271), (89, 59406),

Gene: Jarcob_107 Start: 58468, Stop: 58794, Start Num: 56

Candidate Starts for Jarcob_107:

(Start: 56 @58468 has 264 MA's),

Gene: JeTaime_144 Start: 74518, Stop: 74865, Start Num: 56

Candidate Starts for JeTaime_144:

(Start: 46 @74461 has 2 MA's), (Start: 56 @74518 has 264 MA's),

Gene: JellyBread_95 Start: 53015, Stop: 53341, Start Num: 56

Candidate Starts for JellyBread_95:
(Start: 56 @53015 has 264 MA's), (81, 53195),

Gene: Jinglebell_111 Start: 58360, Stop: 58686, Start Num: 56
Candidate Starts for Jinglebell_111:
(Start: 56 @58360 has 264 MA's),

Gene: JoeyJr_107 Start: 58463, Stop: 58789, Start Num: 56
Candidate Starts for JoeyJr_107:
(Start: 56 @58463 has 264 MA's),

Gene: Journey_64 Start: 41500, Stop: 41799, Start Num: 63
Candidate Starts for Journey_64:
(Start: 63 @41500 has 1 MA's),

Gene: Judy_72 Start: 43025, Stop: 43369, Start Num: 56
Candidate Starts for Judy_72:
(Start: 56 @43025 has 264 MA's),

Gene: Juniper1_98 Start: 56030, Stop: 56374, Start Num: 56
Candidate Starts for Juniper1_98:
(Start: 56 @56030 has 264 MA's), (67, 56174), (76, 56198),

Gene: Kabloowy_97 Start: 52731, Stop: 53084, Start Num: 56
Candidate Starts for Kabloowy_97:
(Start: 56 @52731 has 264 MA's),

Gene: Kanye_142 Start: 74872, Stop: 75219, Start Num: 56
Candidate Starts for Kanye_142:
(Start: 46 @74815 has 2 MA's), (Start: 56 @74872 has 264 MA's),

Gene: Karhdo_100 Start: 54911, Stop: 55237, Start Num: 56
Candidate Starts for Karhdo_100:
(Start: 56 @54911 has 264 MA's),

Gene: Karkharias_66 Start: 42195, Stop: 42539, Start Num: 56
Candidate Starts for Karkharias_66:
(Start: 56 @42195 has 264 MA's),

Gene: KayMoney_68 Start: 42631, Stop: 42975, Start Num: 56
Candidate Starts for KayMoney_68:
(Start: 56 @42631 has 264 MA's),

Gene: Kenuha5_96 Start: 56035, Stop: 56361, Start Num: 56
Candidate Starts for Kenuha5_96:
(25, 55861), (29, 55897), (47, 55984), (Start: 56 @56035 has 264 MA's), (65, 56158), (89, 56293),

Gene: Kersh_107 Start: 59723, Stop: 60049, Start Num: 56
Candidate Starts for Kersh_107:
(Start: 56 @59723 has 264 MA's),

Gene: Kimchi_151 Start: 75248, Stop: 75595, Start Num: 56
Candidate Starts for Kimchi_151:

(Start: 46 @75191 has 2 MA's), (Start: 56 @75248 has 264 MA's),

Gene: KingMidas_105 Start: 56917, Stop: 57243, Start Num: 56

Candidate Starts for KingMidas_105:

(25, 56743), (29, 56779), (47, 56866), (Start: 56 @56917 has 264 MA's), (65, 57040), (89, 57175),

Gene: Kita_80 Start: 49959, Stop: 50294, Start Num: 57

Candidate Starts for Kita_80:

(16, 49686), (Start: 57 @49959 has 27 MA's),

Gene: Krakatau_97 Start: 52590, Stop: 52916, Start Num: 56

Candidate Starts for Krakatau_97:

(25, 52416), (29, 52452), (47, 52539), (Start: 56 @52590 has 264 MA's), (65, 52713), (89, 52848),

Gene: KristaRAM_113 Start: 58232, Stop: 58558, Start Num: 56

Candidate Starts for KristaRAM_113:

(Start: 56 @58232 has 264 MA's),

Gene: Kromp_95 Start: 57607, Stop: 57981, Start Num: 52

Candidate Starts for Kromp_95:

(4, 56935), (7, 57178), (10, 57223), (18, 57367), (19, 57382), (26, 57454), (51, 57592), (Start: 52 @57607 has 1 MA's), (66, 57775), (71, 57784),

Gene: Lasker_98 Start: 53398, Stop: 53718, Start Num: 56

Candidate Starts for Lasker_98:

(Start: 56 @53398 has 264 MA's), (81, 53578),

Gene: Lawnathon_100 Start: 52639, Stop: 52959, Start Num: 56

Candidate Starts for Lawnathon_100:

(Start: 56 @52639 has 264 MA's), (81, 52819),

Gene: LeBruni_99 Start: 51926, Stop: 52246, Start Num: 56

Candidate Starts for LeBruni_99:

(Start: 56 @51926 has 264 MA's),

Gene: Leperchaun_106 Start: 57697, Stop: 58023, Start Num: 56

Candidate Starts for Leperchaun_106:

(Start: 56 @57697 has 264 MA's),

Gene: Lilpickle_146 Start: 74388, Stop: 74735, Start Num: 56

Candidate Starts for Lilpickle_146:

(Start: 46 @74331 has 2 MA's), (Start: 56 @74388 has 264 MA's),

Gene: Lizziana_105 Start: 57926, Stop: 58252, Start Num: 56

Candidate Starts for Lizziana_105:

(Start: 56 @57926 has 264 MA's),

Gene: Llama_111 Start: 58003, Stop: 58329, Start Num: 56

Candidate Starts for Llama_111:

(Start: 56 @58003 has 264 MA's),

Gene: Llij_99 Start: 55622, Stop: 55966, Start Num: 56

Candidate Starts for Llij_99:

(25, 55448), (29, 55484), (47, 55571), (Start: 56 @55622 has 264 MA's), (67, 55766), (76, 55790),

Gene: LunaBlu_111 Start: 58815, Stop: 59141, Start Num: 56

Candidate Starts for LunaBlu_111:

(5, 58302), (6, 58326), (9, 58389), (25, 58641), (29, 58677), (47, 58764), (Start: 56 @58815 has 264 MA's), (65, 58938), (89, 59073),

Gene: MISSy_147 Start: 75227, Stop: 75574, Start Num: 56

Candidate Starts for MISSy_147:

(Start: 37 @75131 has 1 MA's), (Start: 46 @75170 has 2 MA's), (Start: 56 @75227 has 264 MA's),

Gene: MPhalcon_148 Start: 75024, Stop: 75371, Start Num: 56

Candidate Starts for MPhalcon_148:

(Start: 37 @74928 has 1 MA's), (Start: 46 @74967 has 2 MA's), (Start: 56 @75024 has 264 MA's),

Gene: MUWow_98 Start: 53802, Stop: 54125, Start Num: 56

Candidate Starts for MUWow_98:

(Start: 56 @53802 has 264 MA's), (Start: 58 @53814 has 2 MA's), (68, 53940),

Gene: MadMen_109 Start: 57291, Stop: 57617, Start Num: 56

Candidate Starts for MadMen_109:

(Start: 56 @57291 has 264 MA's),

Gene: MadamMonkfish_148 Start: 74973, Stop: 75320, Start Num: 56

Candidate Starts for MadamMonkfish_148:

(Start: 46 @74916 has 2 MA's), (Start: 56 @74973 has 264 MA's),

Gene: Madavieve_80 Start: 51628, Stop: 51963, Start Num: 57

Candidate Starts for Madavieve_80:

(17, 51364), (21, 51433), (33, 51514), (49, 51583), (Start: 57 @51628 has 27 MA's),

Gene: Madeline_76 Start: 51284, Stop: 51616, Start Num: 57

Candidate Starts for Madeline_76:

(13, 50948), (16, 51011), (Start: 57 @51284 has 27 MA's),

Gene: Mahavrat_98 Start: 54698, Stop: 55042, Start Num: 56

Candidate Starts for Mahavrat_98:

(Start: 56 @54698 has 264 MA's), (67, 54842), (76, 54866),

Gene: Manasvini_81 Start: 49974, Stop: 50309, Start Num: 57

Candidate Starts for Manasvini_81:

(16, 49701), (Start: 57 @49974 has 27 MA's),

Gene: Manda_149 Start: 75442, Stop: 75789, Start Num: 56

Candidate Starts for Manda_149:

(Start: 37 @75346 has 1 MA's), (Start: 46 @75385 has 2 MA's), (Start: 56 @75442 has 264 MA's),

Gene: Mantra_102 Start: 56533, Stop: 56859, Start Num: 56

Candidate Starts for Mantra_102:

(5, 56020), (9, 56107), (25, 56359), (47, 56482), (Start: 56 @56533 has 264 MA's), (65, 56656), (89, 56791),

Gene: Maravista_102 Start: 58887, Stop: 59231, Start Num: 56

Candidate Starts for Maravista_102:
(Start: 56 @58887 has 264 MA's), (67, 59031), (76, 59055),

Gene: Maridalia_83 Start: 51242, Stop: 51577, Start Num: 57
Candidate Starts for Maridalia_83:
(16, 50969), (Start: 57 @51242 has 27 MA's),

Gene: Marshmallow_149 Start: 76102, Stop: 76506, Start Num: 46
Candidate Starts for Marshmallow_149:
(Start: 46 @76102 has 2 MA's), (Start: 56 @76159 has 264 MA's),

Gene: Martik_103 Start: 58387, Stop: 58713, Start Num: 56
Candidate Starts for Martik_103:
(Start: 56 @58387 has 264 MA's),

Gene: MaterMagnus_96 Start: 52654, Stop: 52974, Start Num: 56
Candidate Starts for MaterMagnus_96:
(Start: 56 @52654 has 264 MA's), (81, 52834),

Gene: Mattes_105 Start: 57605, Stop: 57931, Start Num: 56
Candidate Starts for Mattes_105:
(Start: 56 @57605 has 264 MA's),

Gene: Maxxinista_148 Start: 74634, Stop: 74981, Start Num: 56
Candidate Starts for Maxxinista_148:
(Start: 46 @74577 has 2 MA's), (Start: 56 @74634 has 264 MA's),

Gene: Medindi_110 Start: 58213, Stop: 58539, Start Num: 56
Candidate Starts for Medindi_110:
(25, 58039), (29, 58075), (47, 58162), (Start: 56 @58213 has 264 MA's), (65, 58336), (89, 58471),

Gene: Melissauren88_95 Start: 53888, Stop: 54214, Start Num: 56
Candidate Starts for Melissauren88_95:
(Start: 56 @53888 has 264 MA's), (65, 54011), (89, 54146),

Gene: MidnightRain_102 Start: 53249, Stop: 53569, Start Num: 56
Candidate Starts for MidnightRain_102:
(Start: 56 @53249 has 264 MA's),

Gene: MilanaBonita_98 Start: 55783, Stop: 56109, Start Num: 56
Candidate Starts for MilanaBonita_98:
(25, 55609), (29, 55645), (47, 55732), (Start: 56 @55783 has 264 MA's), (65, 55906), (89, 56041),

Gene: MinionDave_103 Start: 57559, Stop: 57885, Start Num: 56
Candidate Starts for MinionDave_103:
(25, 57385), (29, 57421), (47, 57508), (Start: 56 @57559 has 264 MA's), (65, 57682), (89, 57817),

Gene: Miniwave_140 Start: 74380, Stop: 74727, Start Num: 56
Candidate Starts for Miniwave_140:
(Start: 46 @74323 has 2 MA's), (Start: 56 @74380 has 264 MA's),

Gene: Minnie_99 Start: 58017, Stop: 58361, Start Num: 56
Candidate Starts for Minnie_99:

(25, 57843), (29, 57879), (47, 57966), (Start: 56 @58017 has 264 MA's), (67, 58161), (76, 58185),

Gene: MisterCuddles_104 Start: 57256, Stop: 57582, Start Num: 56

Candidate Starts for MisterCuddles_104:

(Start: 56 @57256 has 264 MA's),

Gene: Modragons_107 Start: 57991, Stop: 58317, Start Num: 56

Candidate Starts for Modragons_107:

(Start: 56 @57991 has 264 MA's),

Gene: Moonbeam_107 Start: 57515, Stop: 57841, Start Num: 56

Candidate Starts for Moonbeam_107:

(25, 57341), (29, 57377), (47, 57464), (Start: 56 @57515 has 264 MA's), (65, 57638), (89, 57773),

Gene: Ms6_107 Start: 53778, Stop: 54104, Start Num: 56

Candidate Starts for Ms6_107:

(25, 53604), (29, 53640), (47, 53727), (Start: 56 @53778 has 264 MA's), (65, 53901), (89, 54036),

Gene: Murica_149 Start: 76472, Stop: 76819, Start Num: 56

Candidate Starts for Murica_149:

(Start: 37 @76376 has 1 MA's), (Start: 46 @76415 has 2 MA's), (Start: 56 @76472 has 264 MA's),

Gene: Murphy_148 Start: 75598, Stop: 75945, Start Num: 56

Candidate Starts for Murphy_148:

(Start: 46 @75541 has 2 MA's), (Start: 56 @75598 has 264 MA's),

Gene: MurphyJoseph_92 Start: 50348, Stop: 50668, Start Num: 56

Candidate Starts for MurphyJoseph_92:

(Start: 56 @50348 has 264 MA's), (81, 50528),

Gene: Mutaforma13_106 Start: 57233, Stop: 57559, Start Num: 56

Candidate Starts for Mutaforma13_106:

(25, 57059), (29, 57095), (47, 57182), (Start: 56 @57233 has 264 MA's), (65, 57356), (89, 57491),

Gene: Myrale_146 Start: 75838, Stop: 76185, Start Num: 56

Candidate Starts for Myrale_146:

(Start: 46 @75781 has 2 MA's), (Start: 56 @75838 has 264 MA's),

Gene: Nala_149 Start: 75313, Stop: 75660, Start Num: 56

Candidate Starts for Nala_149:

(Start: 37 @75217 has 1 MA's), (Start: 46 @75256 has 2 MA's), (Start: 56 @75313 has 264 MA's),

Gene: Neobush_81 Start: 50518, Stop: 50853, Start Num: 57

Candidate Starts for Neobush_81:

(16, 50245), (Start: 57 @50518 has 27 MA's),

Gene: NewHope4_112 Start: 56941, Stop: 57267, Start Num: 56

Candidate Starts for NewHope4_112:

(5, 56428), (6, 56452), (9, 56515), (25, 56767), (29, 56803), (47, 56890), (Start: 56 @56941 has 264 MA's),

Gene: NikkiHotWheels_70 Start: 41859, Stop: 42203, Start Num: 56

Candidate Starts for NikkiHotWheels_70:

(Start: 56 @41859 has 264 MA's), (84, 42075),

Gene: Nimbo_96 Start: 55269, Stop: 55595, Start Num: 56

Candidate Starts for Nimbo_96:

(Start: 56 @55269 has 264 MA's),

Gene: Nimrod_145 Start: 75854, Stop: 76201, Start Num: 56

Candidate Starts for Nimrod_145:

(Start: 46 @75797 has 2 MA's), (Start: 56 @75854 has 264 MA's),

Gene: NoSleep_145 Start: 74074, Stop: 74421, Start Num: 56

Candidate Starts for NoSleep_145:

(Start: 46 @74017 has 2 MA's), (Start: 56 @74074 has 264 MA's),

Gene: NoSwimming_59 Start: 40976, Stop: 41329, Start Num: 56

Candidate Starts for NoSwimming_59:

(Start: 56 @40976 has 264 MA's), (64, 41072), (89, 41240), (90, 41285),

Gene: NormanBulbieJr_102 Start: 57635, Stop: 57961, Start Num: 56

Candidate Starts for NormanBulbieJr_102:

(25, 57461), (29, 57497), (47, 57584), (Start: 56 @57635 has 264 MA's), (65, 57758), (89, 57893),

Gene: Nymphadora_84 Start: 53045, Stop: 53380, Start Num: 57

Candidate Starts for Nymphadora_84:

(16, 52772), (Start: 57 @53045 has 27 MA's), (82, 53231),

Gene: Ochi17_110 Start: 57598, Stop: 57924, Start Num: 56

Candidate Starts for Ochi17_110:

(Start: 56 @57598 has 264 MA's),

Gene: OfUltron_111 Start: 58147, Stop: 58473, Start Num: 56

Candidate Starts for OfUltron_111:

(Start: 56 @58147 has 264 MA's),

Gene: OldBen_101 Start: 56661, Stop: 56987, Start Num: 56

Candidate Starts for OldBen_101:

(Start: 56 @56661 has 264 MA's),

Gene: OrionPax_144 Start: 74532, Stop: 74879, Start Num: 56

Candidate Starts for OrionPax_144:

(Start: 46 @74475 has 2 MA's), (Start: 56 @74532 has 264 MA's),

Gene: PHappiness_104 Start: 57490, Stop: 57816, Start Num: 56

Candidate Starts for PHappiness_104:

(Start: 56 @57490 has 264 MA's),

Gene: PMC_104 Start: 56224, Stop: 56550, Start Num: 56

Candidate Starts for PMC_104:

(1, 55117), (2, 55408), (3, 55471), (5, 55711), (9, 55798), (25, 56050), (29, 56086), (47, 56173), (Start: 56 @56224 has 264 MA's), (65, 56347), (89, 56482),

Gene: Pacc40_101 Start: 58086, Stop: 58412, Start Num: 56

Candidate Starts for Pacc40_101:

(25, 57912), (29, 57948), (47, 58035), (Start: 56 @58086 has 264 MA's),

Gene: Palpatine_143 Start: 75228, Stop: 75575, Start Num: 56

Candidate Starts for Palpatine_143:

(Start: 37 @75132 has 1 MA's), (Start: 46 @75171 has 2 MA's), (Start: 56 @75228 has 264 MA's),

Gene: Paperbeatsrock_144 Start: 75058, Stop: 75405, Start Num: 56

Candidate Starts for Paperbeatsrock_144:

(Start: 46 @75001 has 2 MA's), (Start: 56 @75058 has 264 MA's),

Gene: Pat3_147 Start: 75094, Stop: 75441, Start Num: 56

Candidate Starts for Pat3_147:

(Start: 56 @75094 has 264 MA's),

Gene: Peas_68 Start: 43688, Stop: 44032, Start Num: 56

Candidate Starts for Peas_68:

(31, 43556), (Start: 46 @43634 has 2 MA's), (Start: 56 @43688 has 264 MA's),

Gene: PeggyLeg03_70 Start: 42854, Stop: 43198, Start Num: 56

Candidate Starts for PeggyLeg03_70:

(Start: 56 @42854 has 264 MA's),

Gene: Phaja_151 Start: 75104, Stop: 75451, Start Num: 56

Candidate Starts for Phaja_151:

(Start: 46 @75047 has 2 MA's), (Start: 56 @75104 has 264 MA's),

Gene: Phalconet_106 Start: 57180, Stop: 57506, Start Num: 56

Candidate Starts for Phalconet_106:

(25, 57006), (29, 57042), (47, 57129), (Start: 56 @57180 has 264 MA's), (65, 57303), (89, 57438),

Gene: Phanphagia_109 Start: 58459, Stop: 58803, Start Num: 56

Candidate Starts for Phanphagia_109:

(Start: 56 @58459 has 264 MA's), (67, 58603), (76, 58627),

Gene: Phasih_100 Start: 55657, Stop: 55983, Start Num: 56

Candidate Starts for Phasih_100:

(Start: 56 @55657 has 264 MA's),

Gene: PhatBacter_150 Start: 75636, Stop: 75983, Start Num: 56

Candidate Starts for PhatBacter_150:

(Start: 37 @75540 has 1 MA's), (Start: 46 @75579 has 2 MA's), (Start: 56 @75636 has 264 MA's),

Gene: Phatniss_101 Start: 56036, Stop: 56380, Start Num: 56

Candidate Starts for Phatniss_101:

(25, 55862), (29, 55898), (47, 55985), (Start: 56 @56036 has 264 MA's), (67, 56180), (76, 56204),

Gene: Phaux_147 Start: 75898, Stop: 76245, Start Num: 56

Candidate Starts for Phaux_147:

(Start: 46 @75841 has 2 MA's), (Start: 56 @75898 has 264 MA's),

Gene: PhesterPhotato_109 Start: 57154, Stop: 57480, Start Num: 56

Candidate Starts for PhesterPhotato_109:

(25, 56980), (29, 57016), (47, 57103), (Start: 56 @57154 has 264 MA's), (65, 57277), (89, 57412),

Gene: Philus_108 Start: 58766, Stop: 59092, Start Num: 56

Candidate Starts for Philus_108:

(25, 58592), (29, 58628), (47, 58715), (Start: 56 @58766 has 264 MA's), (65, 58889), (89, 59024),

Gene: Phrank15_100 Start: 52150, Stop: 52461, Start Num: 58

Candidate Starts for Phrank15_100:

(11, 51760), (12, 51793), (22, 51952), (30, 52009), (42, 52078), (Start: 58 @52150 has 2 MA's), (68, 52276), (78, 52303),

Gene: Phrux_143 Start: 74130, Stop: 74477, Start Num: 56

Candidate Starts for Phrux_143:

(Start: 46 @74073 has 2 MA's), (Start: 56 @74130 has 264 MA's),

Gene: Pippy_103 Start: 56195, Stop: 56521, Start Num: 56

Candidate Starts for Pippy_103:

(25, 56021), (29, 56057), (47, 56144), (Start: 56 @56195 has 264 MA's), (65, 56318), (89, 56453),

Gene: Policronamos_145 Start: 75313, Stop: 75660, Start Num: 56

Candidate Starts for Policronamos_145:

(Start: 37 @75217 has 1 MA's), (Start: 46 @75256 has 2 MA's), (Start: 56 @75313 has 264 MA's),

Gene: Polka14_108 Start: 58259, Stop: 58585, Start Num: 56

Candidate Starts for Polka14_108:

(Start: 56 @58259 has 264 MA's),

Gene: Polly_76 Start: 49393, Stop: 49728, Start Num: 57

Candidate Starts for Polly_76:

(16, 49120), (Start: 57 @49393 has 27 MA's),

Gene: Polo2Bam_116 Start: 56795, Stop: 57121, Start Num: 56

Candidate Starts for Polo2Bam_116:

(5, 56282), (6, 56306), (9, 56369), (25, 56621), (29, 56657), (47, 56744), (Start: 56 @56795 has 264 MA's),

Gene: Ponzi_39 Start: 21753, Stop: 22079, Start Num: 56

Candidate Starts for Ponzi_39:

(Start: 56 @21753 has 264 MA's), (87, 21984),

Gene: PopTart_95 Start: 54627, Stop: 54953, Start Num: 56

Candidate Starts for PopTart_95:

(5, 54114), (9, 54201), (25, 54453), (29, 54489), (47, 54576), (Start: 56 @54627 has 264 MA's), (65, 54750), (89, 54885),

Gene: Priscilla_105 Start: 57733, Stop: 58059, Start Num: 56

Candidate Starts for Priscilla_105:

(Start: 56 @57733 has 264 MA's),

Gene: Qualification_146 Start: 75327, Stop: 75674, Start Num: 56

Candidate Starts for Qualification_146:

(Start: 46 @75270 has 2 MA's), (Start: 56 @75327 has 264 MA's),

Gene: RadFad_100 Start: 52313, Stop: 52633, Start Num: 56

Candidate Starts for RadFad_100:
(Start: 56 @52313 has 264 MA's), (81, 52493),

Gene: Radiance_103 Start: 56827, Stop: 57153, Start Num: 56
Candidate Starts for Radiance_103:
(5, 56314), (6, 56338), (9, 56401), (25, 56653), (29, 56689), (47, 56776), (Start: 56 @56827 has 264 MA's),

Gene: Raphaella_96 Start: 51282, Stop: 51608, Start Num: 56
Candidate Starts for Raphaella_96:
(Start: 56 @51282 has 264 MA's), (81, 51462),

Gene: RavenCo17_74 Start: 49279, Stop: 49611, Start Num: 57
Candidate Starts for RavenCo17_74:
(Start: 57 @49279 has 27 MA's), (68, 49411),

Gene: RedBird_105 Start: 58237, Stop: 58563, Start Num: 56
Candidate Starts for RedBird_105:
(Start: 56 @58237 has 264 MA's),

Gene: Richie_99 Start: 53442, Stop: 53762, Start Num: 56
Candidate Starts for Richie_99:
(28, 53286), (35, 53343), (Start: 56 @53442 has 264 MA's), (81, 53622),

Gene: Rimmer_145 Start: 75079, Stop: 75426, Start Num: 56
Candidate Starts for Rimmer_145:
(Start: 46 @75022 has 2 MA's), (Start: 56 @75079 has 264 MA's),

Gene: Rita_104 Start: 58303, Stop: 58629, Start Num: 56
Candidate Starts for Rita_104:
(25, 58129), (29, 58165), (47, 58252), (Start: 56 @58303 has 264 MA's), (65, 58426), (89, 58561),

Gene: RitaG_103 Start: 57292, Stop: 57618, Start Num: 56
Candidate Starts for RitaG_103:
(Start: 56 @57292 has 264 MA's),

Gene: RiverMonster_146 Start: 74984, Stop: 75331, Start Num: 56
Candidate Starts for RiverMonster_146:
(Start: 46 @74927 has 2 MA's), (Start: 56 @74984 has 264 MA's),

Gene: Rockne_108 Start: 56236, Stop: 56562, Start Num: 56
Candidate Starts for Rockne_108:
(1, 55129), (2, 55420), (3, 55483), (5, 55723), (9, 55810), (25, 56062), (29, 56098), (47, 56185), (Start: 56 @56236 has 264 MA's), (65, 56359), (89, 56494),

Gene: RootBeer_55 Start: 38956, Stop: 39309, Start Num: 55
Candidate Starts for RootBeer_55:
(41, 38890), (Start: 55 @38956 has 1 MA's), (75, 39118), (80, 39139),

Gene: Rowa_68 Start: 42116, Stop: 42472, Start Num: 50
Candidate Starts for Rowa_68:
(43, 42074), (Start: 50 @42116 has 1 MA's), (77, 42302), (83, 42326),

Gene: Royals2015_108 Start: 56107, Stop: 56451, Start Num: 56
Candidate Starts for Royals2015_108:
(25, 55933), (29, 55969), (47, 56056), (Start: 56 @56107 has 264 MA's), (67, 56251), (76, 56275),

Gene: Ruby_100 Start: 57258, Stop: 57584, Start Num: 56
Candidate Starts for Ruby_100:
(Start: 56 @57258 has 264 MA's),

Gene: RunningOnE_55 Start: 25257, Stop: 25574, Start Num: 56
Candidate Starts for RunningOnE_55:
(34, 25158), (39, 25173), (Start: 56 @25257 has 264 MA's), (72, 25413), (81, 25443), (87, 25488),

Gene: Sabbb_107 Start: 55263, Stop: 55589, Start Num: 56
Candidate Starts for Sabbb_107:
(25, 55089), (29, 55125), (47, 55212), (Start: 56 @55263 has 264 MA's),

Gene: Saints25_141 Start: 72738, Stop: 73181, Start Num: 37
Candidate Starts for Saints25_141:
(Start: 37 @72738 has 1 MA's), (Start: 46 @72777 has 2 MA's), (Start: 56 @72834 has 264 MA's),

Gene: Sandalphon_103 Start: 58290, Stop: 58634, Start Num: 56
Candidate Starts for Sandalphon_103:
(25, 58116), (29, 58152), (47, 58239), (Start: 56 @58290 has 264 MA's), (67, 58434), (76, 58458),

Gene: Sashimi_96 Start: 51797, Stop: 52117, Start Num: 56
Candidate Starts for Sashimi_96:
(Start: 56 @51797 has 264 MA's), (81, 51977),

Gene: Sassafras_106 Start: 56554, Stop: 56880, Start Num: 56
Candidate Starts for Sassafras_106:
(Start: 56 @56554 has 264 MA's),

Gene: SassyB_95 Start: 54627, Stop: 54953, Start Num: 56
Candidate Starts for SassyB_95:
(5, 54114), (9, 54201), (25, 54453), (29, 54489), (47, 54576), (Start: 56 @54627 has 264 MA's), (65, 54750), (89, 54885),

Gene: Scotia_58 Start: 39984, Stop: 40337, Start Num: 56
Candidate Starts for Scotia_58:
(Start: 56 @39984 has 264 MA's), (64, 40080), (89, 40248), (90, 40293),

Gene: Scottish_105 Start: 56356, Stop: 56682, Start Num: 56
Candidate Starts for Scottish_105:
(25, 56182), (29, 56218), (47, 56305), (Start: 56 @56356 has 264 MA's), (65, 56479), (89, 56614),

Gene: SeaLumen_113 Start: 56795, Stop: 57121, Start Num: 56
Candidate Starts for SeaLumen_113:
(5, 56282), (6, 56306), (9, 56369), (25, 56621), (29, 56657), (47, 56744), (Start: 56 @56795 has 264 MA's),

Gene: Seabastian_111 Start: 58148, Stop: 58474, Start Num: 56
Candidate Starts for Seabastian_111:
(Start: 56 @58148 has 264 MA's),

Gene: Seahorse_101 Start: 56066, Stop: 56386, Start Num: 56

Candidate Starts for Seahorse_101:

(Start: 56 @56066 has 264 MA's), (81, 56246),

Gene: ShamWow_145 Start: 75352, Stop: 75699, Start Num: 56

Candidate Starts for ShamWow_145:

(Start: 46 @75295 has 2 MA's), (Start: 56 @75352 has 264 MA's),

Gene: Shambre1_67 Start: 41812, Stop: 42165, Start Num: 56

Candidate Starts for Shambre1_67:

(Start: 56 @41812 has 264 MA's), (80, 41995),

Gene: Shauna1_106 Start: 58075, Stop: 58419, Start Num: 56

Candidate Starts for Shauna1_106:

(Start: 56 @58075 has 264 MA's), (67, 58219), (76, 58243),

Gene: ShereKhan_145 Start: 75552, Stop: 75899, Start Num: 56

Candidate Starts for ShereKhan_145:

(Start: 46 @75495 has 2 MA's), (Start: 56 @75552 has 264 MA's),

Gene: ShiLan_107 Start: 59324, Stop: 59650, Start Num: 56

Candidate Starts for ShiLan_107:

(Start: 56 @59324 has 264 MA's),

Gene: ShowerHandel_107 Start: 57093, Stop: 57419, Start Num: 56

Candidate Starts for ShowerHandel_107:

(25, 56919), (29, 56955), (47, 57042), (Start: 56 @57093 has 264 MA's), (65, 57216), (89, 57351),

Gene: ShroomBoi_105 Start: 57753, Stop: 58079, Start Num: 56

Candidate Starts for ShroomBoi_105:

(5, 57240), (9, 57327), (25, 57579), (47, 57702), (Start: 56 @57753 has 264 MA's), (65, 57876),

Gene: SiSi_99 Start: 55811, Stop: 56137, Start Num: 56

Candidate Starts for SiSi_99:

(25, 55637), (29, 55673), (47, 55760), (Start: 56 @55811 has 264 MA's), (65, 55934), (89, 56069),

Gene: SonDevVon_104 Start: 52766, Stop: 53086, Start Num: 56

Candidate Starts for SonDevVon_104:

(Start: 56 @52766 has 264 MA's), (81, 52946),

Gene: SophKB_144 Start: 75004, Stop: 75351, Start Num: 56

Candidate Starts for SophKB_144:

(Start: 46 @74947 has 2 MA's), (Start: 56 @75004 has 264 MA's),

Gene: Sotrice96_151 Start: 75718, Stop: 76065, Start Num: 56

Candidate Starts for Sotrice96_151:

(Start: 46 @75661 has 2 MA's), (Start: 56 @75718 has 264 MA's),

Gene: Sparkdehlily_111 Start: 55806, Stop: 56132, Start Num: 56

Candidate Starts for Sparkdehlily_111:

(Start: 56 @55806 has 264 MA's),

Gene: SpicyFrank_97 Start: 51851, Stop: 52171, Start Num: 56
Candidate Starts for SpicyFrank_97:
(Start: 56 @51851 has 264 MA's), (81, 52031),

Gene: Spooks_37 Start: 24524, Stop: 24868, Start Num: 56
Candidate Starts for Spooks_37:
(53, 24515), (Start: 54 @24518 has 1 MA's), (Start: 56 @24524 has 264 MA's),

Gene: Spoonbill_104 Start: 55237, Stop: 55563, Start Num: 56
Candidate Starts for Spoonbill_104:
(Start: 56 @55237 has 264 MA's),

Gene: StAnnes_110 Start: 58889, Stop: 59215, Start Num: 56
Candidate Starts for StAnnes_110:
(25, 58715), (29, 58751), (47, 58838), (Start: 56 @58889 has 264 MA's), (65, 59012), (89, 59147),

Gene: Stank_150 Start: 75344, Stop: 75691, Start Num: 56
Candidate Starts for Stank_150:
(Start: 46 @75287 has 2 MA's), (Start: 56 @75344 has 264 MA's),

Gene: Stark_143 Start: 74150, Stop: 74497, Start Num: 56
Candidate Starts for Stark_143:
(Start: 46 @74093 has 2 MA's), (Start: 56 @74150 has 264 MA's),

Gene: StolenFromERC_148 Start: 74689, Stop: 75036, Start Num: 56
Candidate Starts for StolenFromERC_148:
(Start: 46 @74632 has 2 MA's), (Start: 56 @74689 has 264 MA's),

Gene: Success_39 Start: 23746, Stop: 24093, Start Num: 54
Candidate Starts for Success_39:
(53, 23743), (Start: 54 @23746 has 1 MA's), (Start: 56 @23752 has 264 MA's), (69, 23911),

Gene: SuperGrey_103 Start: 58875, Stop: 59201, Start Num: 56
Candidate Starts for SuperGrey_103:
(25, 58701), (29, 58737), (47, 58824), (Start: 56 @58875 has 264 MA's), (65, 58998), (89, 59133),

Gene: Suscepit_79 Start: 49951, Stop: 50286, Start Num: 57
Candidate Starts for Suscepit_79:
(16, 49678), (Start: 57 @49951 has 27 MA's),

Gene: SwagPiggett_106 Start: 58433, Stop: 58759, Start Num: 56
Candidate Starts for SwagPiggett_106:
(Start: 56 @58433 has 264 MA's),

Gene: TBrady12_151 Start: 74778, Stop: 75125, Start Num: 56
Candidate Starts for TBrady12_151:
(Start: 46 @74721 has 2 MA's), (Start: 56 @74778 has 264 MA's),

Gene: TDanisky_112 Start: 55806, Stop: 56132, Start Num: 56
Candidate Starts for TDanisky_112:
(Start: 56 @55806 has 264 MA's),

Gene: Taj_110 Start: 58080, Stop: 58430, Start Num: 56

Candidate Starts for Taj_110:
(25, 57906), (29, 57942), (47, 58029), (Start: 56 @58080 has 264 MA's), (65, 58203), (89, 58338),

Gene: Tarkin_144 Start: 75417, Stop: 75764, Start Num: 56
Candidate Starts for Tarkin_144:
(Start: 46 @75360 has 2 MA's), (Start: 56 @75417 has 264 MA's),

Gene: Tayonia_79 Start: 49950, Stop: 50285, Start Num: 57
Candidate Starts for Tayonia_79:
(16, 49677), (Start: 57 @49950 has 27 MA's),

Gene: Teaspoon_130 Start: 70361, Stop: 70708, Start Num: 56
Candidate Starts for Teaspoon_130:
(Start: 46 @70304 has 2 MA's), (Start: 56 @70361 has 264 MA's),

Gene: ThankyouJordi_83 Start: 53067, Stop: 53414, Start Num: 57
Candidate Starts for ThankyouJordi_83:
(16, 52794), (Start: 57 @53067 has 27 MA's),

Gene: ThayneTheZag_102 Start: 53366, Stop: 53686, Start Num: 56
Candidate Starts for ThayneTheZag_102:
(22, 53168), (Start: 56 @53366 has 264 MA's), (81, 53546),

Gene: Thimble_138 Start: 70885, Stop: 71232, Start Num: 56
Candidate Starts for Thimble_138:
(Start: 46 @70828 has 2 MA's), (Start: 56 @70885 has 264 MA's),

Gene: Thresher_148 Start: 75611, Stop: 75958, Start Num: 56
Candidate Starts for Thresher_148:
(Start: 37 @75515 has 1 MA's), (Start: 46 @75554 has 2 MA's), (Start: 56 @75611 has 264 MA's),

Gene: Tiff81_90 Start: 50115, Stop: 50435, Start Num: 56
Candidate Starts for Tiff81_90:
(Start: 56 @50115 has 264 MA's), (81, 50295),

Gene: TimTam_84 Start: 53045, Stop: 53380, Start Num: 57
Candidate Starts for TimTam_84:
(16, 52772), (Start: 57 @53045 has 27 MA's), (82, 53231),

Gene: Traaww1_144 Start: 74842, Stop: 75189, Start Num: 56
Candidate Starts for Traaww1_144:
(Start: 56 @74842 has 264 MA's),

Gene: Trumpet_79 Start: 49951, Stop: 50286, Start Num: 57
Candidate Starts for Trumpet_79:
(16, 49678), (Start: 57 @49951 has 27 MA's),

Gene: Tuco_150 Start: 76363, Stop: 76710, Start Num: 56
Candidate Starts for Tuco_150:
(Start: 46 @76306 has 2 MA's), (Start: 56 @76363 has 264 MA's),

Gene: Tweety_109 Start: 58225, Stop: 58551, Start Num: 56
Candidate Starts for Tweety_109:

(25, 58051), (29, 58087), (47, 58174), (Start: 56 @58225 has 264 MA's), (65, 58348), (89, 58483),

Gene: Ukulele_143 Start: 74533, Stop: 74880, Start Num: 56

Candidate Starts for Ukulele_143:

(Start: 37 @74437 has 1 MA's), (Start: 46 @74476 has 2 MA's), (Start: 56 @74533 has 264 MA's),

Gene: VRedHorse_105 Start: 54331, Stop: 54657, Start Num: 56

Candidate Starts for VRedHorse_105:

(Start: 56 @54331 has 264 MA's),

Gene: Veteran_94 Start: 55679, Stop: 56005, Start Num: 56

Candidate Starts for Veteran_94:

(25, 55505), (29, 55541), (47, 55628), (Start: 56 @55679 has 264 MA's), (65, 55802), (89, 55937),

Gene: Wachhund_101 Start: 54046, Stop: 54372, Start Num: 56

Candidate Starts for Wachhund_101:

(Start: 56 @54046 has 264 MA's),

Gene: Wee_109 Start: 58763, Stop: 59089, Start Num: 56

Candidate Starts for Wee_109:

(25, 58589), (29, 58625), (47, 58712), (Start: 56 @58763 has 264 MA's), (65, 58886), (89, 59021),

Gene: WelcomeAyanna_83 Start: 53214, Stop: 53561, Start Num: 57

Candidate Starts for WelcomeAyanna_83:

(16, 52941), (Start: 57 @53214 has 27 MA's),

Gene: Whatsapiecost_99 Start: 52358, Stop: 52702, Start Num: 56

Candidate Starts for Whatsapiecost_99:

(25, 52184), (29, 52220), (47, 52307), (Start: 56 @52358 has 264 MA's), (67, 52502), (76, 52526),

Gene: Whouxphf_108 Start: 58625, Stop: 58951, Start Num: 56

Candidate Starts for Whouxphf_108:

(25, 58451), (29, 58487), (47, 58574), (Start: 56 @58625 has 264 MA's), (65, 58748), (89, 58883),

Gene: Wiggin_149 Start: 74322, Stop: 74669, Start Num: 56

Candidate Starts for Wiggin_149:

(Start: 46 @74265 has 2 MA's), (Start: 56 @74322 has 264 MA's),

Gene: WillSterrel_103 Start: 57362, Stop: 57706, Start Num: 56

Candidate Starts for WillSterrel_103:

(Start: 56 @57362 has 264 MA's), (67, 57506), (76, 57530),

Gene: Willez_144 Start: 73995, Stop: 74342, Start Num: 56

Candidate Starts for Willez_144:

(Start: 46 @73938 has 2 MA's), (Start: 56 @73995 has 264 MA's),

Gene: Windest_101 Start: 51370, Stop: 51690, Start Num: 56

Candidate Starts for Windest_101:

(Start: 56 @51370 has 264 MA's), (81, 51550),

Gene: YoungHarleezy_97 Start: 52603, Stop: 52923, Start Num: 56

Candidate Starts for YoungHarleezy_97:

(Start: 56 @52603 has 264 MA's), (81, 52783),

Gene: Youngblood_150 Start: 75315, Stop: 75662, Start Num: 56
Candidate Starts for Youngblood_150:
(Start: 46 @75258 has 2 MA's), (Start: 56 @75315 has 264 MA's),

Gene: Zameen_79 Start: 49950, Stop: 50285, Start Num: 57
Candidate Starts for Zameen_79:
(16, 49677), (Start: 57 @49950 has 27 MA's),

Gene: Zerg_103 Start: 56837, Stop: 57181, Start Num: 56
Candidate Starts for Zerg_103:
(25, 56663), (29, 56699), (47, 56786), (Start: 56 @56837 has 264 MA's), (67, 56981), (76, 57005),

Gene: Zirinka_79 Start: 51694, Stop: 52026, Start Num: 57
Candidate Starts for Zirinka_79:
(16, 51421), (Start: 57 @51694 has 27 MA's),

Gene: Zizzle_108 Start: 58913, Stop: 59239, Start Num: 56
Candidate Starts for Zizzle_108:
(Start: 56 @58913 has 264 MA's), (65, 59036), (89, 59171),