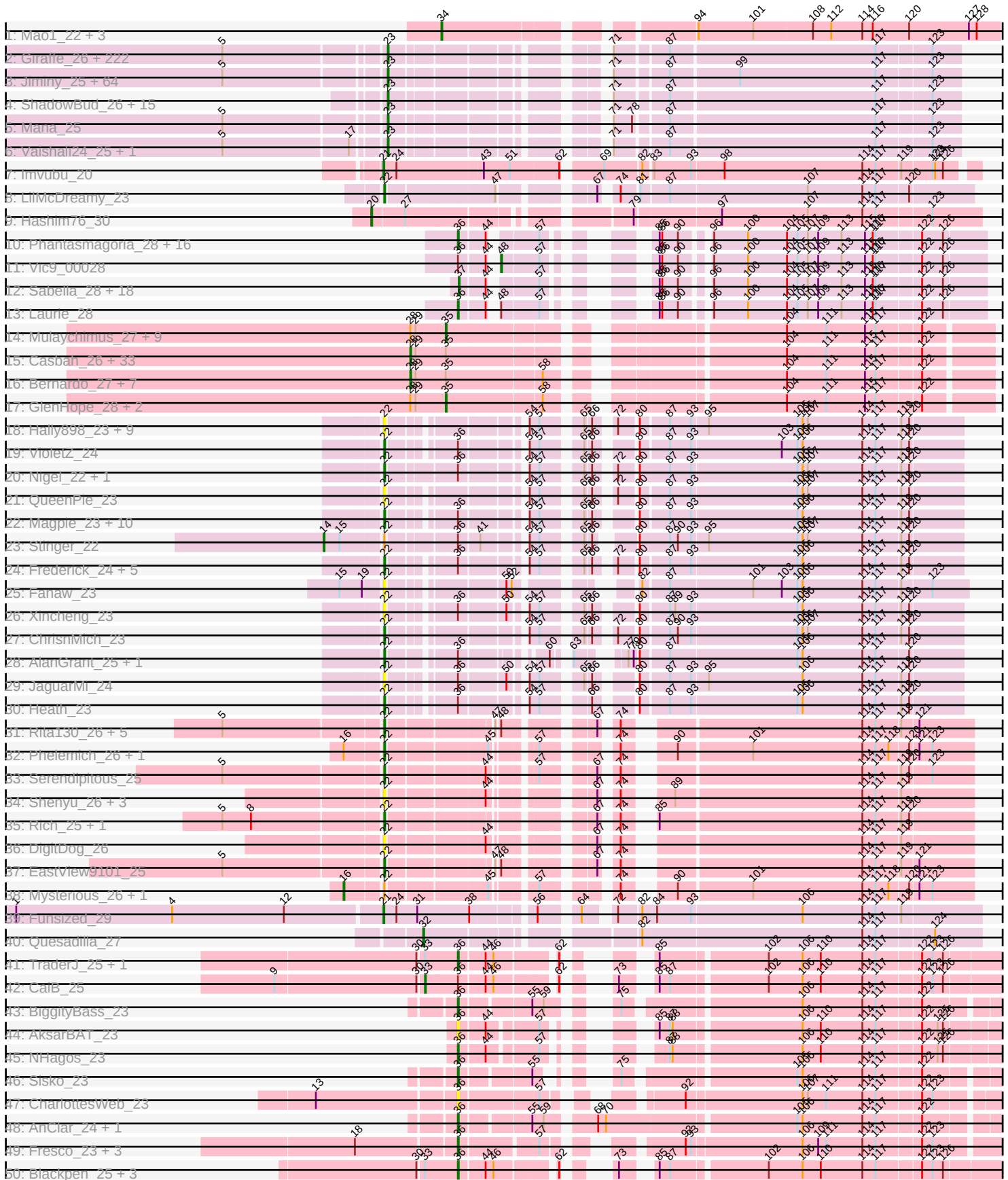
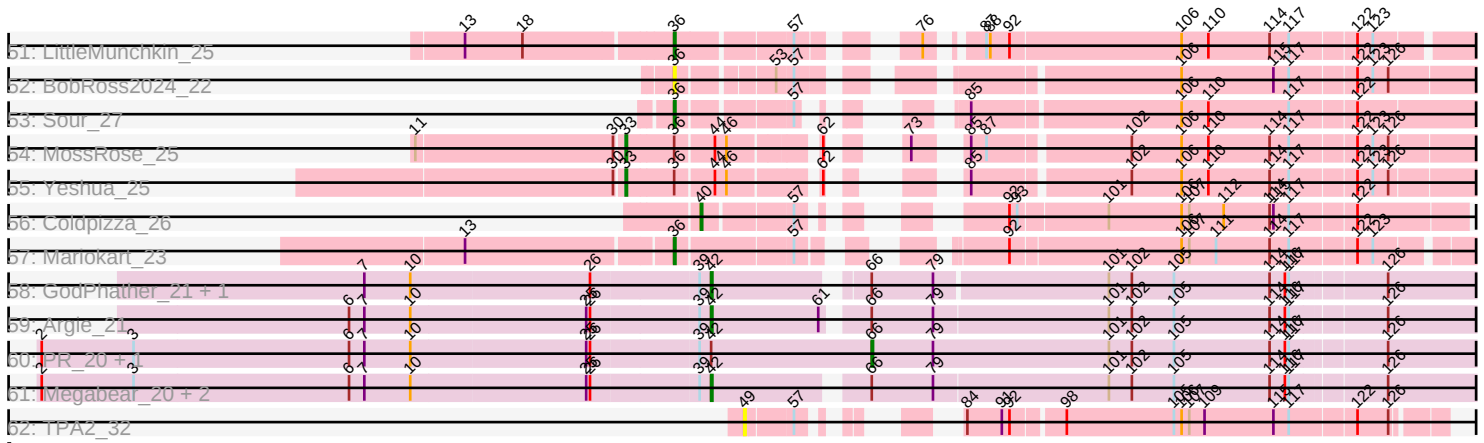


Pham 275782



Pham 275782



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 275782 Report

This analysis was run 02/07/26 on database version 634.

Pham number 275782 has 501 members, 67 are drafts.

Phages represented in each track:

- Track 1 : Mao1_22, Mask_23, Dori_23, Sejanus_23
- Track 2 : Giraffe_26, Haimas_26, Serpentine_0026, Banjo_25, Iridoclysis_26, Mikota_26, Nacho_0026, Pops_26, Chunky_26, Adriana_26, Mcshane_25, Nicole21_26, FremontTroll_26, Hetaeria_26, Kimbrough_26, Lumine_25, Potter_25, Oosterbaan_26, Selr12_26, Inchworm_26, Matalotodo_26, Valjean_26, OliverWalter_26, SilverBell_26, Triad_26, Olive_26, UncleHowie_26, Usavi_26, Gyarad_0026, EmpTee_26, Eugenia_26, Mulan_25, Prickles_26, FluffyNinja_26, Pherdinand_26, LuckyMarjie_25, Riverton_25, AngelCake_26, Altwerkus_25, DirtJuice_26, Basato_27, Frankicide_26, Toni_25, Morty_26, Thunderbird_25, Boehler_26, KLUcky39_26, Cher_25, Haleema_25, Buckeye_26, HenryJackson_25, Gwilliam_26, Pipsqueak_26, SDcharge11_26, Etaye_26, Antonia_25, Gareth_25, Plmatters_26, Swish_26, Newman_26, Waterdiva_26, Kwadwo_25, Schueller_25, Simielle_25, Manad_25, Squid_26, RedRaider89_26, Cornobble_25, Freya_25, Olak_25, ABU_26, Hamish_26, TooFast2Furious_27, Scoot17C_26, ThreeOh3D2_26, BlackStallion_26, Murdoc_26, Mecca_25, Yoshand_26, LostAndPhound_25, Schadenfreude_25, Scrick_26, MitKao_26, DolOn_27, Lulumae_25, Bishoperium_25, Mutante_25, Serendipity_26, BoogieWoogie_25, Orion_26, Sigman_26, Roy17_26, Lulwa_26, Xavier_25, CheetO_26, Emiris_26, Spartan300_26, Cobra_26, Megatron_26, Dingo_26, LeeLot_26, KlimbOn_26, PhrodoBaggins_25, PinheadLarry_26, Beaglebox_25, Sophia_25, Jillium_25, Lopsy_25, Grand2040_25, Chorkpop_26, Mosaic_25, ProfessorX_26, Solosis_25, Jesabah_26, Maru_25, Virapocalypse_26, Crownjwl_26, Burr_25, Roliet_26, Mesmerelda_25, Harvey_26, Kikipoo_26, Telesworld_25, SassyCat97_25, Hertubise_26, Dati_26, QueenBeane_26, DaddyDaniels_26, Childish_25, Fozzie_25, MiniBoss_26, Omniscient_26, Ricotta_25, Badfish_26, Held_26, JangoPhett_26, Lego3393_26, Horchata_26, Bluephacebaby_25, FleetyMac_25, KingVeVeVe_26, Nyala_25, Colbert_26, Phareon_26, AbsoluteMadLad_25, Kahve_25, Pacifista_25, Fang_26, LeiMonet_26, Inverness_26, YouGoGlencoco_26, ShiVal_26, Cosmolli16_25, LemonSlice_26, Chipette_27, DonSanchon_25, Legolas_25, Cannibal_26, HSavage_26, HighStump_25, TallGrassMM_26, Eremos_26, Morgushi_26, IsaacEli_26, Dice_25, LasagnaCat_26, Carthage_24, Zelda_26, JacAttac_26, MRabcd_25, Riggan_26, Dione_25, Lasso_26, UAch1_26, Mesh1_26, Sheila_26, Samaymay_26, Happabalu_26, Timmi_25, True_25, Katniss_26, Squiggle_26, TomBombadil_26, Lehmann_26, Phipps_26, AltPhacts_26, Daffy_26, Craff_26, Kloppinator_26, PhatCats2014_26, Soto_26, DoesntMatter_26, Zaider_27, Piglet_0025, Daka_26, Roscoe_27, CamL_26, Phunky_26, Phamished_26, Weher20_26, Suffolk_26, FugateOSU_25, Vaticameos_26, SallyH_26, Orfeu_25,

Podrick_26, FriarPreacher_26, Vista_26, CampRoach_26, Tooj_26, RedMaple_25, Melc17_26, Surely_26, Aelin_25, Jiraiya_25, Tomlara_26, Placalicious_25, Slatt_26, Chuni_25, PG1_26, Vortex_26, Chah_27, Vivaldi_26

• Track 3 : Jiminy_25, Flake_27, SirBeauregard_25, Larson_27, Phergie_25, DuchessDung_24, DelRivs_25, Phleuron_25, Rimu_26, Aleia_26, CaspiBoi_25, MrPhizzler_26, Oline_25, Maskar_25, Nathan_26, Derpp_25, Cornbread_25, Magic8_26, TyrionL_25, Zonia_26, Hocus_25, Trypo_26, OSmaximus_26, Veritas_25, Plata_26, Swiphy_26, Doddsville_26, Duggie_25, MichaelPhcott_25, Kailash_26, JakeO_25, JDog_25, Chute_25, Pinkman_25, PhrankReynolds_25, MelsMeow_25, Windsor_25, Keitherie_26, Ashraf_25, ImtiyazSitla_25, Virgeve_25, Mag7_25, Durga_26, Gwennie1_26, HogWash_25, ElvisPhasley_26, Phenghiskhan_25, Coletti_26, BlacksBerry_25, GeneCoco_26, Soile_26, Iridessa_26, Longacauda_25, Wallhey_25, BatteryCK_25, Apizium_25, Kwksand96_25, Khan1_26, Brilliant_26, Hartsy_26, Struggle_25, PhatLouie_26, Chaelin_25, Labeouficaum_25, CharlieGBrown_25

• Track 4 : ShadowBud_26, Thora_26, Megamind20_26, Numberten_26, Andre_26, Charles1_26, Orwigg_25, Quisquillae_26, Gophee_26, PallasAthena_26, Puhltonio_26, Skippy_26, Fringe_26, BlueHusk_26, Aonishiki_26, Anderson_26

• Track 5 : Mana_25

• Track 6 : Vaishali24_25, Robyn_25

• Track 7 : Imvubu_20

• Track 8 : LilMcDreamy_23

• Track 9 : Hashim76_30

• Track 10 : Phantasmagoria_28, Allegro_28, LizLemon_28, Godines_28, Kheth_28, Coffee_28, TA17A_29, Kolhan_28, Rhinoforte_28, Opia_28, Lars_28, Bananafish_28, Boyle_28, Holeinone_28, Blocker23_28, Qyrzula_26, ItsyBitsy1_28

• Track 11 : Vic9_00028

• Track 12 : Sabella_28, Faze9_28, Brownie5_28, Rosebush_28, Kaleb_28, West99_28, Calamitous_28, LilSmirk_28, Tinciduntolum_29, Tres_28, Arbiter_28, MasterPo_28, Eaglehorse_28, Hedgerow_28, PrinceCharming_28, Glass_28, Ares_28, Lephleur_28, FrenchFry_28

• Track 13 : Laurie_28

• Track 14 : Mulaychimus_27, SwainyDoc_27, Ben11_26, Olivio_26, Chandler_27, Chentzyk_26, Marlia_27, SlippinJimmy_27, Rita1961_27, Compostia_28

• Track 15 : Casbah_26, Baloo_27, Briakila_27, Phayeta_27, TinyTerror_27, LestyG_27, Yinz_27, MmasiCarm_27, Chalmers_27, RagingRooster_27, RomaT_27, Audrey_27, Phaedruss_25, ChaChing_27, Athena_28, Glubnar_28, Corofin_27, Tydolla_27, HarveySr_27, Marley1013_27, Daisy_27, Devonte_27, Philly_26, Gervas_27, Halfpint_26, OrangeOswald_27, Abinghost_27, Deenasa_27, Nozo_27, Obutu_27, Morty007_27, Mortcellus_26, SynergyX_27, Kamiyu_27

• Track 16 : Bernardo_27, Phlyer_27, Neos5_27, Yahalom_27, Heathcliff_27, Akoma_27, Gadjet_28, Pipefish_27

• Track 17 : GlenHope_28, Kronus_26, Shenandoah_27

• Track 18 : Hally898_23, Antihero_23, Renkei_23, Ahwei_23, Poster_23, Lambano_23, Epah_23, GinPorsche_23, LittleDigger_23, Nanao_23

• Track 19 : VioletZ_24

• Track 20 : Nigel_22, JAMaL_24

• Track 21 : QueenPie_23

• Track 22 : Magpie_23, Hangman_24, Waleliano_24, BrownCNA_25, Mudslide_24, Mithril_24, Hydro_24, Lolalove_24, JoyceMaria_24, Zemanar_25, Austelle_25

• Track 23 : Stinger_22

• Track 24 : Frederick_24, RawrgerThat_24, Prince_24, Fortunato_24, Apex_24, BobbyK_24

- Track 25 : Fanaw_23
- Track 26 : Xincheng_23
- Track 27 : ChrisnMich_23
- Track 28 : AlanGrant_25, Vincenzo_25
- Track 29 : JaguarMi_24
- Track 30 : Heath_23
- Track 31 : Rita130_26, Acadian_26, Donny_26, Suigeneris_26, SirJeffery_26, Reccee_27
- Track 32 : Phelemich_26, Nehemiah_25
- Track 33 : Serendipitous_25
- Track 34 : Shenyu_26, KarasumaRum_28, Nangang_26, StinkyVeggy_28
- Track 35 : Rich_25, Baee_25
- Track 36 : DigitDog_26
- Track 37 : EastView9101_25
- Track 38 : Mysterious_26, Reprobate_26
- Track 39 : Funsized_29
- Track 40 : Quesadilla_27
- Track 41 : TraderJ_25, Wooper_25
- Track 42 : CaiB_25
- Track 43 : BiggityBass_23
- Track 44 : AksarBAT_23
- Track 45 : NHagos_23
- Track 46 : Sisko_23
- Track 47 : CharlottesWeb_23
- Track 48 : AnClar_24, Yago84_23
- Track 49 : Fresco_23, Axumite_23, Shatter_23, Ligma_23
- Track 50 : Blackpen_25, MakoManhole_25, AnarQue_25, FelixTres_25
- Track 51 : LittleMunchkin_25
- Track 52 : BobRoss2024_22
- Track 53 : Sour_27
- Track 54 : MossRose_25
- Track 55 : Yeshua_25
- Track 56 : Coldpizza_26
- Track 57 : Mariokart_23
- Track 58 : GodPhather_21, Jeon_20
- Track 59 : Argie_21
- Track 60 : PR_20, D12_20
- Track 61 : Megabear_20, Taptic_20, Cepens_20
- Track 62 : TPA2_32

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

The start number called the most often in the published annotations is 23, it was called in 279 of the 434 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ABU_26, AbsoluteMadLad_25, Adriana_26, Aelin_25, Aleia_26, AltPhacts_26, Altwerkus_25, Anderson_26, Andre_26, AngelCake_26, Antonia_25, Aonishiki_26, Apizium_25, Ashraf_25, Badfish_26, Banjo_25, Basato_27, BatteryCK_25, Beaglebox_25, Bishoperium_25, BlackStallion_26, BlackBerry_25, BlueHusk_26,

Bluephacebaby_25, Boehler_26, BoogieWoogie_25, Brilliant_26, Buckeye_26, Burr_25, CamL_26, CampRoach_26, Cannibal_26, Carthage_24, CaspiBoi_25, Chaelin_25, Chah_27, Charles1_26, CharlieGBrown_25, CheetO_26, Cher_25, Childish_25, Chipette_27, Chorkpop_26, Chuni_25, Chunky_26, Chute_25, Cobra_26, Colbert_26, Coletti_26, Cornbread_25, Cornobble_25, Cosmolli16_25, Craff_26, Crownjwl_26, DaddyDaniels_26, Daffy_26, Daka_26, Dati_26, DelRivs_25, Derpp_25, Dice_25, Dingo_26, Dione_25, DirtJuice_26, Doddsville_26, DoesntMatter_26, DolOn_27, DonSancho_25, DuchessDung_24, Duggie_25, Durga_26, ElvisPhasley_26, Emiris_26, EmpTee_26, Eremos_26, Etaye_26, Eugenia_26, Fang_26, Flake_27, FleetyMac_25, FluffyNinja_26, Fozzie_25, Frankicide_26, FremontTroll_26, Freya_25, FriarPreacher_26, Fringe_26, FugateOSU_25, Gareth_25, GeneCoco_26, Giraffe_26, Gophee_26, Grand2040_25, Gwennie1_26, Gwilliam_26, Gyarad_0026, HSavage_26, Haimas_26, Haleema_25, Hamish_26, Happabalu_26, Hartsy_26, Harvey_26, Held_26, HenryJackson_25, Hertubise_26, Hetaeria_26, HighStump_25, Hocus_25, HogWash_25, Horchata_26, ImtiyazSitla_25, Inchworm_26, Inverness_26, Iridessa_26, Iridoclysis_26, IsaacEli_26, JDog_25, JacAttac_26, JakeO_25, JangoPhett_26, Jesabah_26, Jillium_25, Jiminy_25, Jiraiya_25, KLucky39_26, Kahve_25, Kailash_26, Katniss_26, Keitherie_26, Khan1_26, Kikipoo_26, Kimbrough_26, KingVeVeVe_26, KlimbOn_26, Kloppinator_26, Kwadwo_25, Kwksand96_25, Labeouficaum_25, Larson_27, LasagnaCat_26, Lasso_26, LeeLot_26, Lego3393_26, Legolas_25, Lehmann_26, LeiMonet_26, LemonSlice_26, Longacauda_25, Lopsy_25, LostAndPhound_25, LuckyMarjie_25, Lulumae_25, Lulwa_26, Lumine_25, MRabcd_25, Mag7_25, Magic8_26, Mana_25, Manad_25, Maru_25, Maskar_25, Matalotodo_26, Mcshane_25, Mecca_25, Megamind20_26, Megatron_26, Melc17_26, MelsMeow_25, Mesh1_26, Mesmerelda_25, MichaelPhcott_25, Mikota_26, MiniBoss_26, MitKao_26, Morgushi_26, Morty_26, Mosaic_25, MrPhizzler_26, Mulan_25, Murdoc_26, Mutante_25, Nacho_0026, Nathan_26, Newman_26, Nicole21_26, Numberten_26, Nyala_25, OSmaximus_26, Olak_25, Oline_25, Olive_26, OliverWalter_26, Omniscient_26, Oosterbaan_26, Orfeu_25, Orion_26, Orwigg_25, PG1_26, Pacifista_25, PallasAthena_26, Phamished_26, Phareon_26, PhatCats2014_26, PhatLouie_26, PhenghisKhan_25, Pherdinand_26, Phergie_25, Phipps_26, Phleuron_25, PhrankReynolds_25, PhrodoBaggins_25, Phunky_26, Piglet_0025, PinheadLarry_26, Pinkman_25, Pipsqueak_26, Placalicious_25, Plata_26, Plmatters_26, Podrick_26, Pops_26, Potter_25, Prickles_26, ProfessorX_26, Puhltonio_26, QueenBeane_26, Quisquilliae_26, RedMaple_25, RedRaider89_26, Ricotta_25, Riggan_26, Rimu_26, Riverton_25, Robyn_25, Roliet_26, Roscoe_27, Roy17_26, SDcharge11_26, SallyH_26, Samaymay_26, SassyCat97_25, Schadenfreude_25, Schueller_25, Scoot17C_26, Scrick_26, Selr12_26, Serendipity_26, Serpentine_0026, ShadowBud_26, Sheila_26, ShiVal_26, Sigman_26, SilverBell_26, Simielle_25, SirBeauregard_25, Skippy_26, Slatt_26, Soile_26, Solosis_25, Sophia_25, Soto_26, Spartan300_26, Squid_26, Squiggle_26, Struggle_25, Suffolk_26, Surely_26, Swiphy_26, Swish_26, TallGrassMM_26, Telesworld_25, Thora_26, ThreeOh3D2_26, Thunderbird_25, Timmi_25, TomBombadil_26, Tomlarah_26, Toni_25, TooFast2Furius_27, Tooj_26, Triad_26, True_25, Trypo_26, TyrionL_25, UAch1_26, UncleHowie_26, Usavi_26, Vaishali24_25, Valjean_26, Vaticameos_26, Veritas_25, Virapocalypse_26, Virgeve_25, Vista_26, Vivaldi_26, Vortex_26, Wallhey_25, Waterdiva_26, Weher20_26, Windsor_25, Xavier_25, Yoshand_26, YouGoGlencoco_26, Zaider_27, Zelda_26, Zonia_26,

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

-

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

- Abinghost_27, Acadian_26, Ahwei_23, Akoma_27, AksarBAT_23, AlanGrant_25, Allegro_28, AnClar_24, AnarQue_25, Antihero_23, Apex_24, Arbiter_28, Ares_28, Argie_21, Athena_28, Audrey_27, Austelle_25, Axumite_23, Bae_25, Baloo_27, Bananafish_28, Ben11_26, Bernardo_27, BiggityBass_23, Blackpen_25, Blocker23_28, BobRoss2024_22, BobbyK_24, Boyle_28, Briakila_27, BrownCNA_25, Brownie5_28, CaiB_25, Calamitous_28, Casbah_26, Cepens_20, ChaChing_27, Chalmers_27, Chandler_27, CharlottesWeb_23, Chentzyk_26, ChrisnMich_23, Coffee_28, Coldpizza_26, Compostia_28, Corofin_27, D12_20, Daisy_27, Deenasa_27, Devonte_27, DigitDog_26, Donny_26, Dori_23, Eaglehorse_28, EastView9101_25, Epah_23, Fanaw_23, Faze9_28, FelixTres_25, Fortunato_24, Frederick_24, FrenchFry_28, Fresco_23, Funsized_29, Gadget_28, Gervas_27, GinPorsche_23, Glass_28, GlenHope_28, Glubnar_28, GodPhather_21, Godines_28, Halfpint_26, Hally898_23, Hangman_24, HarveySr_27, Hashim76_30, Heath_23, Heathcliff_27, Hedgerow_28, Holeinone_28, Hydro_24, Imvubu_20, ItsyBitsy1_28, JAMaL_24, JaguarMi_24, Jeon_20, JoyceMaria_24, Kaleb_28, Kamiyu_27, KarasumaRum_28, Kheth_28, Kolhan_28, Kronus_26, Lambano_23, Lars_28, Laurie_28, Lepheleur_28, LestyG_27, Ligma_23, LilMcDreamy_23, LilSmirk_28, LittleDigger_23, LittleMunchkin_25, LizLemon_28, Lolalove_24, Magpie_23, MakoManhole_25, Mao1_22, Mariokart_23, Marley1013_27, Marlia_27, Mask_23, MasterPo_28, Megabear_20, Mithril_24, MmasiCarm_27, Mortcellus_26, Morty007_27, MossRose_25, Mudslide_24, Mulaychimus_27, Mysterious_26, NHagos_23, Nanao_23, Nangang_26, Nehemiah_25, Neos5_27, Nigel_22, Nozo_27, Obutu_27, Olivio_26, Opia_28, OrangeOswald_27, PR_20, Phaedrus_25, Phantasmagoria_28, Phayeta_27, Phelemich_26, Philly_26, Phlyer_27, Pipefish_27, Poster_23, PrinceCharming_28, Prince_24, QueenPie_23, Quesadilla_27, Qyrzula_26, RagingRooster_27, RawrgerThat_24, Reccee_27, Renkei_23, Reprobate_26, Rhinoforte_28, Rich_25, Rita130_26, Rita1961_27, RomaT_27, Rosebush_28, Sabella_28, Sejanus_23, Serendipitous_25, Shatter_23, Shenandoah_27, Shenyu_26, SirJeffery_26, Sisko_23, SlippinJimmy_27, Sour_27, Stinger_22, StinkyVeggy_28, Suigeneris_26, SwainyDoc_27, SynergyX_27, TA17A_29, TPA2_32, Taptic_20, Tinciduntolum_29, TinyTerror_27, TraderJ_25, Tres_28, Tydolla_27, Vic9_00028, Vincenzo_25, VioletZ_24, Waleliano_24, West99_28, Wooper_25, Xincheng_23, Yago84_23, Yahalom_27, Yeshua_25, Yinz_27, Zemanar_25,

Summary by start number:

Start 14:

- Found in 1 of 501 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stinger_22 (B4),

Start 16:

- Found in 4 of 501 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 434
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mysterious_26 (B5), Reprobate_26 (B5),

Start 20:

- Found in 1 of 501 (0.2%) of genes in pham

- Manual Annotations of this start: 1 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hashim76_30 (B13),

Start 21:

- Found in 2 of 501 (0.4%) of genes in pham
- Manual Annotations of this start: 2 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Funsized_29 (B9), Imvubu_20 (B10),

Start 22:

- Found in 59 of 501 (11.8%) of genes in pham
- Manual Annotations of this start: 32 of 434
- Called 94.9% of time when present
- Phage (with cluster) where this start called: Acadian_26 (B5), Ahwei_23 (B4), AlanGrant_25 (B4), Antihero_23 (B4), Apex_24 (B4), Austelle_25 (B4), Baee_25 (B5), BobbyK_24 (B4), BrownCNA_25 (B4), ChrisnMich_23 (B4), DigitDog_26 (B5), Donny_26 (B5), EastView9101_25 (B5), Epah_23 (B4), Fanaw_23 (B4), Fortunato_24 (B4), Frederick_24 (B4), GinPorsche_23 (B4), Hally898_23 (B4), Hangman_24 (B4), Heath_23 (B4), Hydro_24 (B4), JAMaL_24 (B4), JaguarMi_24 (B4), JoyceMaria_24 (B4), KarasumaRum_28 (B5), Lambano_23 (B4), LilMcDreamy_23 (B12), LittleDigger_23 (B4), Lolalove_24 (B4), Magpie_23 (B4), Mithril_24 (B4), Mudslide_24 (B4), Nanao_23 (B4), Nangang_26 (B5), Nehemiah_25 (B5), Nigel_22 (B4), Phelemich_26 (B5), Poster_23 (B4), Prince_24 (B4), QueenPie_23 (B4), RawrgerThat_24 (B4), Reccee_27 (B5), Renkei_23 (B4), Rich_25 (B5), Rita130_26 (B5), Serendipitous_25 (B5), Shenyu_26 (B5), SirJeffery_26 (B5), StinkyVeggy_28 (B5), Suigeneris_26 (B5), Vincenzo_25 (B4), VioletZ_24 (B4), Waleliano_24 (B4), Xincheng_23 (B4), Zemanar_25 (B4),

Start 23:

- Found in 307 of 501 (61.3%) of genes in pham
- Manual Annotations of this start: 279 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ABU_26 (B1), AbsoluteMadLad_25 (B1), Adriana_26 (B1), Aelin_25 (B1), Aleia_26 (B1), AltPhacts_26 (B1), Altwerkus_25 (B1), Anderson_26 (B1), Andre_26 (B1), AngelCake_26 (B1), Antonia_25 (B1), Aonishiki_26 (B1), Apizium_25 (B1), Ashraf_25 (B1), Badfish_26 (B1), Banjo_25 (B1), Basato_27 (B1), BatteryCK_25 (B1), Beaglebox_25 (B1), Bishoperium_25 (B1), BlackStallion_26 (B1), BlacksBerry_25 (B1), BlueHusk_26 (B1), Bluephacebaby_25 (B1), Boehler_26 (B1), BoogieWoogie_25 (B1), Brilliant_26 (B1), Buckeye_26 (B1), Burr_25 (B1), CamL_26 (B1), CampRoach_26 (B1), Cannibal_26 (B1), Carthage_24 (B1), Caspiroi_25 (B1), Chaelin_25 (B1), Chah_27 (B1), Charles1_26 (B1), CharlieGBrown_25 (B1), CheetO_26 (B1), Cher_25 (B1), Childish_25 (B1), Chipette_27 (B1), Chorkpop_26 (B1), Chuni_25 (B1), Chunky_26 (B1), Chute_25 (B1), Cobra_26 (B1), Colbert_26 (B1), Coletti_26 (B1), Cornbread_25 (B1), Cornobble_25 (B1), Cosmolli16_25 (B1), Craff_26 (B1), Crownjwl_26 (B1), DaddyDaniels_26 (B1), Daffy_26 (B1), Daka_26 (B1), Dati_26 (B1), DelRivs_25 (B1), Derpp_25 (B1), Dice_25 (B1), Dingo_26 (B1), Dione_25 (B1), DirtJuice_26 (B1), Doddsville_26 (B1), DoesntMatter_26 (B1), DolOn_27 (B1), DonSancho_25 (B1), DuchessDung_24 (B1), Duggie_25 (B1), Durga_26 (B1), ElvisPhasley_26 (B1), Emiris_26 (B1), EmpTee_26 (B1), Eremos_26 (B1), Etaye_26 (B1), Eugenia_26 (B1), Fang_26 (B1), Flake_27 (B1), FleetyMac_25 (B1), FluffyNinja_26 (B1), Fozzie_25 (B1), Frankicide_26 (B1), FremontTroll_26 (B1), Freya_25 (B1), FriarPreacher_26

(B1), Fringe_26 (B1), FugateOSU_25 (B1), Gareth_25 (B1), GeneCoco_26 (B1), Giraffe_26 (B1), Gophee_26 (B1), Grand2040_25 (B1), Gwennie1_26 (B1), Gwilliam_26 (B1), Gyara_0026 (B1), HSavage_26 (B1), Haimas_26 (B1), Haleema_25 (B1), Hamish_26 (B1), Happabalu_26 (B1), Hartsy_26 (B1), Harvey_26 (B1), Held_26 (B1), HenryJackson_25 (B1), Hertubise_26 (B1), Hetaeria_26 (B1), HighStump_25 (B1), Hocus_25 (B1), HogWash_25 (B1), Horchata_26 (B1), ImtiyazSitla_25 (B1), Inchworm_26 (B1), Inverness_26 (B1), Iridessa_26 (B1), Iridoclysis_26 (B1), IsaacEli_26 (B1), JDog_25 (B1), JacAttac_26 (B1), JakeO_25 (B1), JangoPhett_26 (B1), Jesabah_26 (B1), Jillium_25 (B1), Jiminy_25 (B1), Jiraiya_25 (B1), KLUcky39_26 (B1), Kahve_25 (B1), Kailash_26 (B1), Katniss_26 (B1), Keitherie_26 (B1), Khan1_26 (B1), Kikipoo_26 (B1), Kimbrough_26 (B1), KingVeVeVe_26 (B1), KlimbOn_26 (B1), Kloppinator_26 (B1), Kwadwo_25 (B1), Kwksand96_25 (B1), Labeouficaum_25 (B1), Larson_27 (B1), LasagnaCat_26 (B1), Lasso_26 (B1), LeeLot_26 (B1), Lego3393_26 (B1), Legolas_25 (B1), Lehmann_26 (B1), LeiMonet_26 (B1), LemonSlice_26 (B1), Longacauda_25 (B1), Lopsy_25 (B1), LostAndPhound_25 (B1), LuckyMarjie_25 (B1), Lulumae_25 (B1), Lulwa_26 (B1), Lumine_25 (B1), MRabcd_25 (B1), Mag7_25 (B1), Magic8_26 (B1), Mana_25 (B1), Manad_25 (B1), Maru_25 (B1), Maskar_25 (B1), Matalotodo_26 (B1), McShane_25 (B1), Mecca_25 (B1), Megamind20_26 (B1), Megatron_26 (B1), Melc17_26 (B1), MelsMeow_25 (B1), Mesh1_26 (B1), Mesmerelda_25 (B1), MichaelPhcott_25 (B1), Mikota_26 (B1), MiniBoss_26 (B1), MitKao_26 (B1), Morgushi_26 (B1), Morty_26 (B1), Mosaic_25 (B1), MrPhizzler_26 (B1), Mulan_25 (B1), Murdoc_26 (B1), Mutante_25 (B1), Nacho_0026 (B1), Nathan_26 (B1), Newman_26 (B1), Nicole21_26 (B1), Numberten_26 (B1), Nyala_25 (B1), OSmaximus_26 (B1), Olak_25 (B1), Oline_25 (B1), Olive_26 (B1), OliverWalter_26 (B1), Omniscient_26 (B1), Oosterbaan_26 (B1), Orfeu_25 (B1), Orion_26 (B1), Orwigg_25 (B1), PG1_26 (B1), Pacifista_25 (B1), PallasAthena_26 (B1), Phamished_26 (B1), Phareon_26 (B1), PhatCats2014_26 (B1), PhatLouie_26 (B1), PhenghisKhan_25 (B1), Pherdinand_26 (B1), Phergie_25 (B1), Phipps_26 (B1), Phleuron_25 (B1), PhrankReynolds_25 (B1), PhrodoBaggins_25 (B1), Phunky_26 (B1), Piglet_0025 (B1), PinheadLarry_26 (B1), Pinkman_25 (B1), Pipsqueak_26 (B1), Placalicious_25 (B1), Plata_26 (B1), Plmatters_26 (B1), Podrick_26 (B1), Pops_26 (B1), Potter_25 (B1), Prickles_26 (B1), ProfessorX_26 (B1), Puhltonio_26 (B1), QueenBeane_26 (B1), Quisquillae_26 (B1), RedMaple_25 (B1), RedRaider89_26 (B1), Ricotta_25 (B1), Riggan_26 (B1), Rimu_26 (B1), Riverton_25 (B1), Robyn_25 (B1), Roliet_26 (B1), Roscoe_27 (B1), Roy17_26 (B1), SDcharge11_26 (B1), SallyH_26 (B1), Samaymay_26 (B1), SassyCat97_25 (B1), Schadenfreude_25 (B1), Schueller_25 (B1), Scoot17C_26 (B1), Scrick_26 (B1), Selr12_26 (B1), Serendipity_26 (B1), Serpentine_0026 (B1), ShadowBud_26 (B1), Sheila_26 (B1), ShiVal_26 (B1), Sigman_26 (B1), SilverBell_26 (B1), Simielle_25 (B1), SirBeauregard_25 (B1), Skippy_26 (B1), Slatt_26 (B1), Soile_26 (B1), Solosis_25 (B1), Sophia_25 (B1), Soto_26 (B1), Spartan300_26 (B1), Squid_26 (B1), Squiggle_26 (B1), Struggle_25 (B1), Suffolk_26 (B1), Surely_26 (B1), Swiphy_26 (B1), Swish_26 (B1), TallGrassMM_26 (B1), Telesworld_25 (B1), Thora_26 (B1), ThreeOh3D2_26 (B1), Thunderbird_25 (B1), Timmi_25 (B1), TomBombadil_26 (B1), Tomlarah_26 (B1), Toni_25 (B1), TooFast2Furius_27 (B1), Tooj_26 (B1), Triad_26 (B1), True_25 (B1), Trypo_26 (B1), TyrionL_25 (B1), UAch1_26 (B1), UncleHowie_26 (B1), Usavi_26 (B1), Vaishali24_25 (B1), Valjean_26 (B1), Vaticameos_26 (B1), Veritas_25 (B1), Virapocalypse_26 (B1), Virgeve_25 (B1), Vista_26 (B1), Vivaldi_26 (B1), Vortex_26 (B1), Wallhey_25 (B1), Waterdiva_26 (B1), Weher20_26 (B1), Windsor_25 (B1), Xavier_25 (B1), Yoshand_26 (B1), YouGoGlencoco_26 (B1), Zaidler_27 (B1), Zelda_26 (B1), Zonia_26 (B1),

Start 28:

- Found in 55 of 501 (11.0%) of genes in pham
- Manual Annotations of this start: 42 of 434
- Called 76.4% of time when present
- Phage (with cluster) where this start called: Abinghost_27 (B3), Akoma_27 (B3), Athena_28 (B3), Audrey_27 (B3), Baloo_27 (B3), Bernardo_27 (B3), Briakila_27 (B3), Casbah_26 (B3), ChaChing_27 (B3), Chalmers_27 (B3), Corofin_27 (B3), Daisy_27 (B3), Deenasa_27 (B3), Devonte_27 (B3), Gadget_28 (B3), Gervas_27 (B3), Glubnar_28 (B3), Halfpint_26 (B3), HarveySr_27 (B3), Heathcliff_27 (B3), Kamiyu_27 (B3), LestyG_27 (B3), Marley1013_27 (B3), MmasiCarm_27 (B3), Mortcellus_26 (B3), Morty007_27 (B3), Neos5_27 (B3), Nozo_27 (B3), Obutu_27 (B3), OrangeOswald_27 (B3), Phaëdrus_25 (B3), Phayeta_27 (B3), Philly_26 (B3), Phlyer_27 (B3), Pipefish_27 (B3), RagingRooster_27 (B3), RomaT_27 (B3), SynergyX_27 (B3), TinyTerror_27 (B3), Tydolla_27 (B3), Yahalom_27 (B3), Yinz_27 (B3),

Start 32:

- Found in 1 of 501 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Quesadilla_27 (B9),

Start 33:

- Found in 9 of 501 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 434
- Called 33.3% of time when present
- Phage (with cluster) where this start called: CaiB_25 (DR), MossRose_25 (DR), Yeshua_25 (DR),

Start 34:

- Found in 4 of 501 (0.8%) of genes in pham
- Manual Annotations of this start: 4 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dori_23 (AD), Mao1_22 (AD), Mask_23 (AD), Sejanus_23 (AD),

Start 35:

- Found in 55 of 501 (11.0%) of genes in pham
- Manual Annotations of this start: 7 of 434
- Called 23.6% of time when present
- Phage (with cluster) where this start called: Ben11_26 (B3), Chandler_27 (B3), Chentzyk_26 (B3), Compostia_28 (B3), GlenHope_28 (B3), Kronus_26 (B3), Marlia_27 (B3), Mulaychimus_27 (B3), Olivio_26 (B3), Rita1961_27 (B3), Shenandoah_27 (B3), SlippinJimmy_27 (B3), SwainyDoc_27 (B3),

Start 36:

- Found in 69 of 501 (13.8%) of genes in pham
- Manual Annotations of this start: 33 of 434
- Called 56.5% of time when present
- Phage (with cluster) where this start called: AksarBAT_23 (DR), Allegro_28 (B2), AnClar_24 (DR), AnarQue_25 (DR), Axumite_23 (DR), Bananafish_28 (B2), BiggityBass_23 (DR), Blackpen_25 (DR), Blocker23_28 (B2), BobRoss2024_22 (DR), Boyle_28 (B2), CharlottesWeb_23 (DR), Coffee_28 (B2), FelixTres_25 (DR), Fresco_23 (DR), Godines_28 (B2), Holeinone_28 (B2), ItsyBitsy1_28 (B2), Kheth_28 (B2), Kolhan_28 (B2), Lars_28 (B2), Laurie_28 (B2), Ligma_23 (DR),

LittleMunchkin_25 (DR), LizLemon_28 (B2), MakoManhole_25 (DR), Mariokart_23 (DR), NHagos_23 (DR), Opia_28 (B2), Phantasmagoria_28 (B2), Qyrzula_26 (B2), Rhinoforte_28 (B2), Shatter_23 (DR), Sisko_23 (DR), Sour_27 (DR), TA17A_29 (B2), TraderJ_25 (DR), Wooper_25 (DR), Yago84_23 (DR),

Start 37:

- Found in 19 of 501 (3.8%) of genes in pham
- Manual Annotations of this start: 17 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arbiter_28 (B2), Ares_28 (B2), Brownie5_28 (B2), Calamitous_28 (B2), Eaglehorse_28 (B2), Faze9_28 (B2), FrenchFry_28 (B2), Glass_28 (B2), Hedgerow_28 (B2), Kaleb_28 (B2), Lephleur_28 (B2), LilSmirk_28 (B2), MasterPo_28 (B2), PrinceCharming_28 (B2), Rosebush_28 (B2), Sabella_28 (B2), Tinciduntolum_29 (B2), Tres_28 (B2), West99_28 (B2),

Start 40:

- Found in 1 of 501 (0.2%) of genes in pham
- Manual Annotations of this start: 1 of 434
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Coldpizza_26 (DR),

Start 42:

- Found in 8 of 501 (1.6%) of genes in pham
- Manual Annotations of this start: 6 of 434
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Argie_21 (W), Cepens_20 (W), GodPhather_21 (W), Jeon_20 (W), Megabear_20 (W), Taptic_20 (W),

Start 48:

- Found in 9 of 501 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 434
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Vic9_00028 (B2),

Start 49:

- Found in 1 of 501 (0.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2_32 (singleton),

Start 66:

- Found in 44 of 501 (8.8%) of genes in pham
- Manual Annotations of this start: 2 of 434
- Called 4.5% of time when present
- Phage (with cluster) where this start called: D12_20 (W), PR_20 (W),

Summary by clusters:

There are 13 clusters represented in this pham: singleton, B2, B4, B5, B10, B12, B1, W, B3, AD, DR, B9, B13,

Info for manual annotations of cluster AD:

- Start number 34 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster B1:

- Start number 23 was manually annotated 279 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 21 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B12:

- Start number 22 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 20 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B2:

- Start number 36 was manually annotated 18 times for cluster B2.
- Start number 37 was manually annotated 17 times for cluster B2.
- Start number 48 was manually annotated 1 time for cluster B2.

Info for manual annotations of cluster B3:

- Start number 28 was manually annotated 42 times for cluster B3.
- Start number 35 was manually annotated 7 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 14 was manually annotated 1 time for cluster B4.
- Start number 22 was manually annotated 23 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 16 was manually annotated 2 times for cluster B5.
- Start number 22 was manually annotated 8 times for cluster B5.

Info for manual annotations of cluster B9:

- Start number 21 was manually annotated 1 time for cluster B9.
- Start number 32 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster DR:

- Start number 33 was manually annotated 3 times for cluster DR.
- Start number 36 was manually annotated 15 times for cluster DR.
- Start number 40 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster W:

- Start number 42 was manually annotated 6 times for cluster W.
- Start number 66 was manually annotated 2 times for cluster W.

Gene Information:

Gene: ABU_26 Start: 19142, Stop: 19705, Start Num: 23

Candidate Starts for ABU_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: Abinghost_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for Abinghost_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (104, 20145), (111, 20190), (115, 20235), (117, 20247), (122, 20295),

Gene: AbsoluteMadLad_25 Start: 19143, Stop: 19706, Start Num: 23

Candidate Starts for AbsoluteMadLad_25:

(5, 18972), (Start: 23 @19143 has 279 MA's), (71, 19329), (87, 19383), (117, 19614), (123, 19674),

Gene: Acadian_26 Start: 19859, Stop: 20425, Start Num: 22

Candidate Starts for Acadian_26:

(5, 19685), (Start: 22 @19859 has 32 MA's), (47, 19964), (Start: 48 @19967 has 1 MA's), (67, 20045), (74, 20057), (114, 20303), (117, 20318), (119, 20345), (121, 20363),

Gene: Adriana_26 Start: 19145, Stop: 19705, Start Num: 23

Candidate Starts for Adriana_26:

(5, 18974), (Start: 23 @19145 has 279 MA's), (71, 19331), (87, 19385), (117, 19616), (123, 19676),

Gene: Aelin_25 Start: 18708, Stop: 19268, Start Num: 23

Candidate Starts for Aelin_25:

(5, 18537), (Start: 23 @18708 has 279 MA's), (71, 18894), (87, 18948), (117, 19179), (123, 19239),

Gene: Ahwei_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for Ahwei_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Akoma_27 Start: 19777, Stop: 20370, Start Num: 28

Candidate Starts for Akoma_27:

(Start: 28 @19777 has 42 MA's), (29, 19783), (Start: 35 @19816 has 7 MA's), (58, 19921), (104, 20146), (111, 20191), (115, 20236), (117, 20248), (122, 20296),

Gene: AksarBAT_23 Start: 17612, Stop: 18112, Start Num: 36

Candidate Starts for AksarBAT_23:

(Start: 36 @17612 has 33 MA's), (44, 17639), (57, 17687), (85, 17744), (87, 17756), (88, 17759), (106, 17897), (110, 17918), (114, 17966), (117, 17981), (122, 18029), (125, 18047), (126, 18053),

Gene: AlanGrant_25 Start: 20564, Stop: 21106, Start Num: 22

Candidate Starts for AlanGrant_25:

(Start: 22 @20564 has 32 MA's), (Start: 36 @20627 has 33 MA's), (60, 20696), (63, 20705), (77, 20738), (79, 20744), (80, 20747), (87, 20777), (105, 20921), (106, 20927), (114, 20996), (117, 21011), (120, 21047),

Gene: Aleia_26 Start: 18721, Stop: 19284, Start Num: 23

Candidate Starts for Aleia_26:

(5, 18550), (Start: 23 @18721 has 279 MA's), (71, 18907), (87, 18961), (99, 19036), (117, 19192), (123, 19252),

Gene: Allegro_28 Start: 21319, Stop: 21804, Start Num: 36

Candidate Starts for Allegro_28:

(Start: 36 @21319 has 33 MA's), (44, 21346), (57, 21388), (85, 21454), (86, 21457), (90, 21475), (96, 21499), (100, 21538), (104, 21583), (105, 21595), (107, 21607), (109, 21619), (113, 21646), (115, 21673), (116, 21682), (117, 21685), (122, 21733), (126, 21757),

Gene: AltPhacts_26 Start: 19137, Stop: 19697, Start Num: 23
Candidate Starts for AltPhacts_26:
(5, 18966), (Start: 23 @19137 has 279 MA's), (71, 19323), (87, 19377), (117, 19608), (123, 19668),

Gene: Altwerkus_25 Start: 18837, Stop: 19397, Start Num: 23
Candidate Starts for Altwerkus_25:
(5, 18666), (Start: 23 @18837 has 279 MA's), (71, 19023), (87, 19077), (117, 19308), (123, 19368),

Gene: AnClar_24 Start: 19894, Stop: 20457, Start Num: 36
Candidate Starts for AnClar_24:
(Start: 36 @19894 has 33 MA's), (55, 19966), (59, 19978), (68, 20026), (70, 20035), (105, 20242),
(106, 20248), (114, 20317), (117, 20332), (122, 20380),

Gene: AnarQue_25 Start: 19081, Stop: 19596, Start Num: 36
Candidate Starts for AnarQue_25:
(30, 19039), (Start: 33 @19045 has 3 MA's), (Start: 36 @19081 has 33 MA's), (44, 19108), (46, 19117),
(62, 19174), (73, 19195), (85, 19219), (87, 19231), (102, 19333), (106, 19372), (110, 19393), (114,
19441), (117, 19456), (122, 19504), (123, 19516), (126, 19528),

Gene: Anderson_26 Start: 19136, Stop: 19699, Start Num: 23
Candidate Starts for Anderson_26:
(Start: 23 @19136 has 279 MA's), (71, 19322), (87, 19376), (117, 19607), (123, 19667),

Gene: Andre_26 Start: 19134, Stop: 19697, Start Num: 23
Candidate Starts for Andre_26:
(Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: AngelCake_26 Start: 19148, Stop: 19711, Start Num: 23
Candidate Starts for AngelCake_26:
(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: Antihero_23 Start: 18773, Stop: 19333, Start Num: 22
Candidate Starts for Antihero_23:
(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's),
(72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107,
19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Antonia_25 Start: 18708, Stop: 19268, Start Num: 23
Candidate Starts for Antonia_25:
(5, 18537), (Start: 23 @18708 has 279 MA's), (71, 18894), (87, 18948), (117, 19179), (123, 19239),

Gene: Aonishiki_26 Start: 19164, Stop: 19727, Start Num: 23
Candidate Starts for Aonishiki_26:
(Start: 23 @19164 has 279 MA's), (71, 19350), (87, 19404), (117, 19635), (123, 19695),

Gene: Apex_24 Start: 19986, Stop: 20546, Start Num: 22
Candidate Starts for Apex_24:
(Start: 22 @19986 has 32 MA's), (Start: 36 @20046 has 33 MA's), (54, 20103), (57, 20112), (65,
20148), (Start: 66 @20154 has 2 MA's), (72, 20169), (80, 20187), (87, 20217), (93, 20241), (105,
20361), (106, 20367), (114, 20436), (117, 20451), (119, 20478), (120, 20487),

Gene: Apizium_25 Start: 18895, Stop: 19458, Start Num: 23
Candidate Starts for Apizium_25:

(5, 18724), (Start: 23 @18895 has 279 MA's), (71, 19081), (87, 19135), (99, 19210), (117, 19366), (123, 19426),

Gene: Arbiter_28 Start: 21405, Stop: 21890, Start Num: 37

Candidate Starts for Arbiter_28:

(Start: 37 @21405 has 17 MA's), (44, 21432), (57, 21474), (85, 21540), (86, 21543), (90, 21561), (96, 21585), (100, 21624), (104, 21669), (105, 21681), (107, 21693), (109, 21705), (113, 21732), (115, 21759), (116, 21768), (117, 21771), (122, 21819), (126, 21843),

Gene: Ares_28 Start: 21321, Stop: 21806, Start Num: 37

Candidate Starts for Ares_28:

(Start: 37 @21321 has 17 MA's), (44, 21348), (57, 21390), (85, 21456), (86, 21459), (90, 21477), (96, 21501), (100, 21540), (104, 21585), (105, 21597), (107, 21609), (109, 21621), (113, 21648), (115, 21675), (116, 21684), (117, 21687), (122, 21735), (126, 21759),

Gene: Argie_21 Start: 18900, Stop: 19478, Start Num: 42

Candidate Starts for Argie_21:

(6, 18624), (7, 18636), (10, 18672), (25, 18807), (26, 18810), (39, 18891), (Start: 42 @18900 has 6 MA's), (61, 18984), (Start: 66 @19011 has 2 MA's), (79, 19059), (101, 19194), (102, 19212), (105, 19245), (114, 19320), (116, 19332), (117, 19335), (126, 19404),

Gene: Ashraf_25 Start: 18699, Stop: 19262, Start Num: 23

Candidate Starts for Ashraf_25:

(5, 18528), (Start: 23 @18699 has 279 MA's), (71, 18885), (87, 18939), (99, 19014), (117, 19170), (123, 19230),

Gene: Athena_28 Start: 20539, Stop: 21132, Start Num: 28

Candidate Starts for Athena_28:

(Start: 28 @20539 has 42 MA's), (29, 20545), (Start: 35 @20578 has 7 MA's), (104, 20908), (111, 20953), (115, 20998), (117, 21010), (122, 21058),

Gene: Audrey_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for Audrey_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (104, 20145), (111, 20190), (115, 20235), (117, 20247), (122, 20295),

Gene: Austelle_25 Start: 20442, Stop: 21002, Start Num: 22

Candidate Starts for Austelle_25:

(Start: 22 @20442 has 32 MA's), (Start: 36 @20502 has 33 MA's), (54, 20559), (57, 20568), (65, 20604), (Start: 66 @20610 has 2 MA's), (80, 20643), (87, 20673), (93, 20697), (105, 20817), (106, 20823), (114, 20892), (117, 20907), (119, 20934), (120, 20943),

Gene: Axumite_23 Start: 17682, Stop: 18221, Start Num: 36

Candidate Starts for Axumite_23:

(18, 17577), (Start: 36 @17682 has 33 MA's), (57, 17760), (92, 17868), (93, 17874), (106, 17997), (109, 18015), (111, 18024), (114, 18066), (117, 18081), (122, 18129), (123, 18141),

Gene: Badfish_26 Start: 19167, Stop: 19727, Start Num: 23

Candidate Starts for Badfish_26:

(5, 18996), (Start: 23 @19167 has 279 MA's), (71, 19353), (87, 19407), (117, 19638), (123, 19698),

Gene: Baee_25 Start: 19615, Stop: 20181, Start Num: 22

Candidate Starts for Baee_25:

(5, 19441), (8, 19474), (Start: 22 @19615 has 32 MA's), (67, 19801), (74, 19813), (85, 19831), (114, 20059), (117, 20074), (119, 20101), (120, 20110),

Gene: Baloo_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for Baloo_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (104, 20145), (111, 20190), (115, 20235), (117, 20247), (122, 20295),

Gene: Bananafish_28 Start: 21316, Stop: 21801, Start Num: 36

Candidate Starts for Bananafish_28:

(Start: 36 @21316 has 33 MA's), (44, 21343), (57, 21385), (85, 21451), (86, 21454), (90, 21472), (96, 21496), (100, 21535), (104, 21580), (105, 21592), (107, 21604), (109, 21616), (113, 21643), (115, 21670), (116, 21679), (117, 21682), (122, 21730), (126, 21754),

Gene: Banjo_25 Start: 18844, Stop: 19407, Start Num: 23

Candidate Starts for Banjo_25:

(5, 18673), (Start: 23 @18844 has 279 MA's), (71, 19030), (87, 19084), (117, 19315), (123, 19375),

Gene: Basato_27 Start: 19369, Stop: 19932, Start Num: 23

Candidate Starts for Basato_27:

(5, 19198), (Start: 23 @19369 has 279 MA's), (71, 19555), (87, 19609), (117, 19840), (123, 19900),

Gene: BatteryCK_25 Start: 18721, Stop: 19284, Start Num: 23

Candidate Starts for BatteryCK_25:

(5, 18550), (Start: 23 @18721 has 279 MA's), (71, 18907), (87, 18961), (99, 19036), (117, 19192), (123, 19252),

Gene: Beaglebox_25 Start: 18864, Stop: 19427, Start Num: 23

Candidate Starts for Beaglebox_25:

(5, 18693), (Start: 23 @18864 has 279 MA's), (71, 19050), (87, 19104), (117, 19335), (123, 19395),

Gene: Ben11_26 Start: 19637, Stop: 20191, Start Num: 35

Candidate Starts for Ben11_26:

(Start: 28 @19598 has 42 MA's), (29, 19604), (Start: 35 @19637 has 7 MA's), (104, 19967), (111, 20012), (115, 20057), (117, 20069), (122, 20117),

Gene: Bernardo_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for Bernardo_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (58, 19920), (104, 20145), (111, 20190), (115, 20235), (117, 20247), (122, 20295),

Gene: BiggityBass_23 Start: 19979, Stop: 20494, Start Num: 36

Candidate Starts for BiggityBass_23:

(Start: 36 @19979 has 33 MA's), (55, 20051), (59, 20063), (75, 20105), (106, 20285), (114, 20354), (117, 20369), (122, 20417),

Gene: Bishoperium_25 Start: 18850, Stop: 19413, Start Num: 23

Candidate Starts for Bishoperium_25:

(5, 18679), (Start: 23 @18850 has 279 MA's), (71, 19036), (87, 19090), (117, 19321), (123, 19381),

Gene: BlackStallion_26 Start: 19155, Stop: 19718, Start Num: 23

Candidate Starts for BlackStallion_26:

(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: Blackpen_25 Start: 18499, Stop: 19014, Start Num: 36

Candidate Starts for Blackpen_25:

(30, 18457), (Start: 33 @18463 has 3 MA's), (Start: 36 @18499 has 33 MA's), (44, 18526), (46, 18535), (62, 18592), (73, 18613), (85, 18637), (87, 18649), (102, 18751), (106, 18790), (110, 18811), (114, 18859), (117, 18874), (122, 18922), (123, 18934), (126, 18946),

Gene: BlacksBerry_25 Start: 18859, Stop: 19422, Start Num: 23

Candidate Starts for BlacksBerry_25:

(5, 18688), (Start: 23 @18859 has 279 MA's), (71, 19045), (87, 19099), (99, 19174), (117, 19330), (123, 19390),

Gene: Blocker23_28 Start: 21437, Stop: 21922, Start Num: 36

Candidate Starts for Blocker23_28:

(Start: 36 @21437 has 33 MA's), (44, 21464), (57, 21506), (85, 21572), (86, 21575), (90, 21593), (96, 21617), (100, 21656), (104, 21701), (105, 21713), (107, 21725), (109, 21737), (113, 21764), (115, 21791), (116, 21800), (117, 21803), (122, 21851), (126, 21875),

Gene: BlueHusk_26 Start: 18652, Stop: 19215, Start Num: 23

Candidate Starts for BlueHusk_26:

(Start: 23 @18652 has 279 MA's), (71, 18838), (87, 18892), (117, 19123), (123, 19183),

Gene: Bluephacebaby_25 Start: 18850, Stop: 19413, Start Num: 23

Candidate Starts for Bluephacebaby_25:

(5, 18679), (Start: 23 @18850 has 279 MA's), (71, 19036), (87, 19090), (117, 19321), (123, 19381),

Gene: BobRoss2024_22 Start: 17442, Stop: 17978, Start Num: 36

Candidate Starts for BobRoss2024_22:

(Start: 36 @17442 has 33 MA's), (53, 17505), (57, 17517), (106, 17754), (115, 17826), (117, 17838), (122, 17886), (123, 17898), (126, 17910),

Gene: BobbyK_24 Start: 19805, Stop: 20365, Start Num: 22

Candidate Starts for BobbyK_24:

(Start: 22 @19805 has 32 MA's), (Start: 36 @19865 has 33 MA's), (54, 19922), (57, 19931), (65, 19967), (Start: 66 @19973 has 2 MA's), (72, 19988), (80, 20006), (87, 20036), (93, 20060), (105, 20180), (106, 20186), (114, 20255), (117, 20270), (119, 20297), (120, 20306),

Gene: Boehler_26 Start: 19160, Stop: 19720, Start Num: 23

Candidate Starts for Boehler_26:

(5, 18989), (Start: 23 @19160 has 279 MA's), (71, 19346), (87, 19400), (117, 19631), (123, 19691),

Gene: BoogieWoogie_25 Start: 18837, Stop: 19400, Start Num: 23

Candidate Starts for BoogieWoogie_25:

(5, 18666), (Start: 23 @18837 has 279 MA's), (71, 19023), (87, 19077), (117, 19308), (123, 19368),

Gene: Boyle_28 Start: 21438, Stop: 21923, Start Num: 36

Candidate Starts for Boyle_28:

(Start: 36 @21438 has 33 MA's), (44, 21465), (57, 21507), (85, 21573), (86, 21576), (90, 21594), (96, 21618), (100, 21657), (104, 21702), (105, 21714), (107, 21726), (109, 21738), (113, 21765), (115, 21792), (116, 21801), (117, 21804), (122, 21852), (126, 21876),

Gene: Briakila_27 Start: 20541, Stop: 21134, Start Num: 28

Candidate Starts for Briakila_27:

(Start: 28 @20541 has 42 MA's), (29, 20547), (Start: 35 @20580 has 7 MA's), (104, 20910), (111, 20955), (115, 21000), (117, 21012), (122, 21060),

Gene: Brilliant_26 Start: 18855, Stop: 19418, Start Num: 23

Candidate Starts for Brilliant_26:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (99, 19170), (117, 19326), (123, 19386),

Gene: BrownCNA_25 Start: 20057, Stop: 20617, Start Num: 22

Candidate Starts for BrownCNA_25:

(Start: 22 @20057 has 32 MA's), (Start: 36 @20117 has 33 MA's), (54, 20174), (57, 20183), (65, 20219), (Start: 66 @20225 has 2 MA's), (80, 20258), (87, 20288), (93, 20312), (105, 20432), (106, 20438), (114, 20507), (117, 20522), (119, 20549), (120, 20558),

Gene: Brownie5_28 Start: 21438, Stop: 21923, Start Num: 37

Candidate Starts for Brownie5_28:

(Start: 37 @21438 has 17 MA's), (44, 21465), (57, 21507), (85, 21573), (86, 21576), (90, 21594), (96, 21618), (100, 21657), (104, 21702), (105, 21714), (107, 21726), (109, 21738), (113, 21765), (115, 21792), (116, 21801), (117, 21804), (122, 21852), (126, 21876),

Gene: Buckeye_26 Start: 19174, Stop: 19734, Start Num: 23

Candidate Starts for Buckeye_26:

(5, 19003), (Start: 23 @19174 has 279 MA's), (71, 19360), (87, 19414), (117, 19645), (123, 19705),

Gene: Burr_25 Start: 18849, Stop: 19412, Start Num: 23

Candidate Starts for Burr_25:

(5, 18678), (Start: 23 @18849 has 279 MA's), (71, 19035), (87, 19089), (117, 19320), (123, 19380),

Gene: CaiB_25 Start: 19031, Stop: 19582, Start Num: 33

Candidate Starts for CaiB_25:

(9, 18866), (30, 19025), (Start: 33 @19031 has 3 MA's), (Start: 36 @19067 has 33 MA's), (44, 19094), (46, 19103), (62, 19160), (73, 19181), (85, 19205), (87, 19217), (102, 19319), (106, 19358), (110, 19379), (114, 19427), (117, 19442), (122, 19490), (123, 19502), (126, 19514),

Gene: Calamitous_28 Start: 21318, Stop: 21803, Start Num: 37

Candidate Starts for Calamitous_28:

(Start: 37 @21318 has 17 MA's), (44, 21345), (57, 21387), (85, 21453), (86, 21456), (90, 21474), (96, 21498), (100, 21537), (104, 21582), (105, 21594), (107, 21606), (109, 21618), (113, 21645), (115, 21672), (116, 21681), (117, 21684), (122, 21732), (126, 21756),

Gene: CamL_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for CamL_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: CampRoach_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for CampRoach_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: Cannibal_26 Start: 19134, Stop: 19697, Start Num: 23

Candidate Starts for Cannibal_26:

(5, 18963), (Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: Carthage_24 Start: 18060, Stop: 18623, Start Num: 23

Candidate Starts for Carthage_24:

(5, 17889), (Start: 23 @18060 has 279 MA's), (71, 18246), (87, 18300), (117, 18531), (123, 18591),

Gene: Casbah_26 Start: 19628, Stop: 20221, Start Num: 28

Candidate Starts for Casbah_26:

(Start: 28 @19628 has 42 MA's), (29, 19634), (Start: 35 @19667 has 7 MA's), (104, 19997), (111, 20042), (115, 20087), (117, 20099), (122, 20147),

Gene: Caspiboi_25 Start: 18854, Stop: 19417, Start Num: 23

Candidate Starts for Caspiboi_25:

(5, 18683), (Start: 23 @18854 has 279 MA's), (71, 19040), (87, 19094), (99, 19169), (117, 19325), (123, 19385),

Gene: Cepens_20 Start: 18624, Stop: 19199, Start Num: 42

Candidate Starts for Cepens_20:

(2, 18108), (3, 18180), (6, 18348), (7, 18360), (10, 18396), (25, 18531), (26, 18534), (39, 18615), (Start: 42 @18624 has 6 MA's), (Start: 66 @18732 has 2 MA's), (79, 18780), (101, 18915), (102, 18933), (105, 18966), (114, 19041), (116, 19053), (117, 19056), (126, 19125),

Gene: ChaChing_27 Start: 19791, Stop: 20384, Start Num: 28

Candidate Starts for ChaChing_27:

(Start: 28 @19791 has 42 MA's), (29, 19797), (Start: 35 @19830 has 7 MA's), (104, 20160), (111, 20205), (115, 20250), (117, 20262), (122, 20310),

Gene: Chaelin_25 Start: 18834, Stop: 19397, Start Num: 23

Candidate Starts for Chaelin_25:

(5, 18663), (Start: 23 @18834 has 279 MA's), (71, 19020), (87, 19074), (99, 19149), (117, 19305), (123, 19365),

Gene: Chah_27 Start: 19168, Stop: 19731, Start Num: 23

Candidate Starts for Chah_27:

(5, 18997), (Start: 23 @19168 has 279 MA's), (71, 19354), (87, 19408), (117, 19639), (123, 19699),

Gene: Chalmers_27 Start: 20582, Stop: 21175, Start Num: 28

Candidate Starts for Chalmers_27:

(Start: 28 @20582 has 42 MA's), (29, 20588), (Start: 35 @20621 has 7 MA's), (104, 20951), (111, 20996), (115, 21041), (117, 21053), (122, 21101),

Gene: Chandler_27 Start: 20589, Stop: 21143, Start Num: 35

Candidate Starts for Chandler_27:

(Start: 28 @20550 has 42 MA's), (29, 20556), (Start: 35 @20589 has 7 MA's), (104, 20919), (111, 20964), (115, 21009), (117, 21021), (122, 21069),

Gene: Charles1_26 Start: 19133, Stop: 19696, Start Num: 23

Candidate Starts for Charles1_26:

(Start: 23 @19133 has 279 MA's), (71, 19319), (87, 19373), (117, 19604), (123, 19664),

Gene: CharlieGBrown_25 Start: 18719, Stop: 19282, Start Num: 23

Candidate Starts for CharlieGBrown_25:

(5, 18548), (Start: 23 @18719 has 279 MA's), (71, 18905), (87, 18959), (99, 19034), (117, 19190), (123, 19250),

Gene: CharlottesWeb_23 Start: 17577, Stop: 18101, Start Num: 36

Candidate Starts for CharlottesWeb_23:

(13, 17427), (Start: 36 @17577 has 33 MA's), (57, 17661), (92, 17763), (106, 17892), (107, 17898), (111, 17919), (114, 17961), (117, 17976), (122, 18024), (123, 18036),

Gene: CheetO_26 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for CheetO_26:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Chentzyk_26 Start: 19685, Stop: 20239, Start Num: 35

Candidate Starts for Chentzyk_26:

(Start: 28 @19646 has 42 MA's), (29, 19652), (Start: 35 @19685 has 7 MA's), (104, 20015), (111, 20060), (115, 20105), (117, 20117), (122, 20165),

Gene: Cher_25 Start: 18873, Stop: 19436, Start Num: 23

Candidate Starts for Cher_25:

(5, 18702), (Start: 23 @18873 has 279 MA's), (71, 19059), (87, 19113), (117, 19344), (123, 19404),

Gene: Childish_25 Start: 18861, Stop: 19424, Start Num: 23

Candidate Starts for Childish_25:

(5, 18690), (Start: 23 @18861 has 279 MA's), (71, 19047), (87, 19101), (117, 19332), (123, 19392),

Gene: Chipette_27 Start: 19370, Stop: 19930, Start Num: 23

Candidate Starts for Chipette_27:

(5, 19199), (Start: 23 @19370 has 279 MA's), (71, 19556), (87, 19610), (117, 19841), (123, 19901),

Gene: Chorkpop_26 Start: 18872, Stop: 19435, Start Num: 23

Candidate Starts for Chorkpop_26:

(5, 18701), (Start: 23 @18872 has 279 MA's), (71, 19058), (87, 19112), (117, 19343), (123, 19403),

Gene: ChrisnMich_23 Start: 18762, Stop: 19322, Start Num: 22

Candidate Starts for ChrisnMich_23:

(Start: 22 @18762 has 32 MA's), (54, 18879), (57, 18888), (65, 18924), (Start: 66 @18930 has 2 MA's), (72, 18945), (80, 18963), (87, 18993), (90, 19002), (93, 19017), (105, 19137), (106, 19143), (107, 19149), (114, 19212), (117, 19227), (119, 19254), (120, 19263),

Gene: Chuni_25 Start: 19166, Stop: 19729, Start Num: 23

Candidate Starts for Chuni_25:

(5, 18995), (Start: 23 @19166 has 279 MA's), (71, 19352), (87, 19406), (117, 19637), (123, 19697),

Gene: Chunky_26 Start: 19160, Stop: 19720, Start Num: 23

Candidate Starts for Chunky_26:

(5, 18989), (Start: 23 @19160 has 279 MA's), (71, 19346), (87, 19400), (117, 19631), (123, 19691),

Gene: Chute_25 Start: 19185, Stop: 19748, Start Num: 23

Candidate Starts for Chute_25:

(5, 19014), (Start: 23 @19185 has 279 MA's), (71, 19371), (87, 19425), (99, 19500), (117, 19656), (123, 19716),

Gene: Cobra_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for Cobra_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Coffee_28 Start: 21430, Stop: 21915, Start Num: 36

Candidate Starts for Coffee_28:

(Start: 36 @21430 has 33 MA's), (44, 21457), (57, 21499), (85, 21565), (86, 21568), (90, 21586), (96, 21610), (100, 21649), (104, 21694), (105, 21706), (107, 21718), (109, 21730), (113, 21757), (115, 21784), (116, 21793), (117, 21796), (122, 21844), (126, 21868),

Gene: Colbert_26 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Colbert_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Coldpizza_26 Start: 21916, Stop: 22410, Start Num: 40

Candidate Starts for Coldpizza_26:

(Start: 40 @21916 has 1 MA's), (57, 21979), (92, 22066), (93, 22072), (101, 22138), (106, 22195), (107, 22201), (112, 22228), (114, 22264), (115, 22267), (117, 22279), (122, 22327),

Gene: Coletti_26 Start: 19185, Stop: 19748, Start Num: 23

Candidate Starts for Coletti_26:

(5, 19014), (Start: 23 @19185 has 279 MA's), (71, 19371), (87, 19425), (99, 19500), (117, 19656), (123, 19716),

Gene: Compostia_28 Start: 20248, Stop: 20802, Start Num: 35

Candidate Starts for Compostia_28:

(Start: 28 @20209 has 42 MA's), (29, 20215), (Start: 35 @20248 has 7 MA's), (104, 20578), (111, 20623), (115, 20668), (117, 20680), (122, 20728),

Gene: Cornbread_25 Start: 18866, Stop: 19429, Start Num: 23

Candidate Starts for Cornbread_25:

(5, 18695), (Start: 23 @18866 has 279 MA's), (71, 19052), (87, 19106), (99, 19181), (117, 19337), (123, 19397),

Gene: Cornobble_25 Start: 18708, Stop: 19271, Start Num: 23

Candidate Starts for Cornobble_25:

(5, 18537), (Start: 23 @18708 has 279 MA's), (71, 18894), (87, 18948), (117, 19179), (123, 19239),

Gene: Corofin_27 Start: 19801, Stop: 20394, Start Num: 28

Candidate Starts for Corofin_27:

(Start: 28 @19801 has 42 MA's), (29, 19807), (Start: 35 @19840 has 7 MA's), (104, 20170), (111, 20215), (115, 20260), (117, 20272), (122, 20320),

Gene: Cosmolli16_25 Start: 18867, Stop: 19430, Start Num: 23

Candidate Starts for Cosmolli16_25:

(5, 18696), (Start: 23 @18867 has 279 MA's), (71, 19053), (87, 19107), (117, 19338), (123, 19398),

Gene: Craff_26 Start: 19154, Stop: 19717, Start Num: 23

Candidate Starts for Craff_26:

(5, 18983), (Start: 23 @19154 has 279 MA's), (71, 19340), (87, 19394), (117, 19625), (123, 19685),

Gene: Crownjwl_26 Start: 18921, Stop: 19481, Start Num: 23

Candidate Starts for Crownjwl_26:

(5, 18750), (Start: 23 @18921 has 279 MA's), (71, 19107), (87, 19161), (117, 19392), (123, 19452),

Gene: D12_20 Start: 18743, Stop: 19213, Start Num: 66

Candidate Starts for D12_20:

(2, 18101), (3, 18173), (6, 18341), (7, 18353), (10, 18389), (25, 18524), (26, 18527), (39, 18608),
(Start: 42 @18617 has 6 MA's), (Start: 66 @18743 has 2 MA's), (79, 18791), (101, 18929), (102,
18947), (105, 18980), (114, 19055), (116, 19067), (117, 19070), (126, 19139),

Gene: DaddyDaniels_26 Start: 18846, Stop: 19406, Start Num: 23

Candidate Starts for DaddyDaniels_26:

(5, 18675), (Start: 23 @18846 has 279 MA's), (71, 19032), (87, 19086), (117, 19317), (123, 19377),

Gene: Daffy_26 Start: 18873, Stop: 19436, Start Num: 23

Candidate Starts for Daffy_26:

(5, 18702), (Start: 23 @18873 has 279 MA's), (71, 19059), (87, 19113), (117, 19344), (123, 19404),

Gene: Daisy_27 Start: 19797, Stop: 20390, Start Num: 28

Candidate Starts for Daisy_27:

(Start: 28 @19797 has 42 MA's), (29, 19803), (Start: 35 @19836 has 7 MA's), (104, 20166), (111,
20211), (115, 20256), (117, 20268), (122, 20316),

Gene: Daka_26 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Daka_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Dati_26 Start: 18863, Stop: 19426, Start Num: 23

Candidate Starts for Dati_26:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (117, 19334), (123, 19394),

Gene: Deenasa_27 Start: 20539, Stop: 21132, Start Num: 28

Candidate Starts for Deenasa_27:

(Start: 28 @20539 has 42 MA's), (29, 20545), (Start: 35 @20578 has 7 MA's), (104, 20908), (111,
20953), (115, 20998), (117, 21010), (122, 21058),

Gene: DelRivs_25 Start: 18862, Stop: 19425, Start Num: 23

Candidate Starts for DelRivs_25:

(5, 18691), (Start: 23 @18862 has 279 MA's), (71, 19048), (87, 19102), (99, 19177), (117, 19333),
(123, 19393),

Gene: Derpp_25 Start: 18709, Stop: 19272, Start Num: 23

Candidate Starts for Derpp_25:

(5, 18538), (Start: 23 @18709 has 279 MA's), (71, 18895), (87, 18949), (99, 19024), (117, 19180),
(123, 19240),

Gene: Devonte_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for Devonte_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (104, 20145), (111,
20190), (115, 20235), (117, 20247), (122, 20295),

Gene: Dice_25 Start: 18850, Stop: 19413, Start Num: 23

Candidate Starts for Dice_25:

(5, 18679), (Start: 23 @18850 has 279 MA's), (71, 19036), (87, 19090), (117, 19321), (123, 19381),

Gene: DigitDog_26 Start: 19451, Stop: 20020, Start Num: 22

Candidate Starts for DigitDog_26:

(Start: 22 @19451 has 32 MA's), (44, 19553), (67, 19640), (74, 19652), (114, 19898), (117, 19913),
(119, 19940),

Gene: Dingo_26 Start: 19134, Stop: 19694, Start Num: 23

Candidate Starts for Dingo_26:

(5, 18963), (Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: Dione_25 Start: 18851, Stop: 19414, Start Num: 23

Candidate Starts for Dione_25:

(5, 18680), (Start: 23 @18851 has 279 MA's), (71, 19037), (87, 19091), (117, 19322), (123, 19382),

Gene: DirtJuice_26 Start: 19136, Stop: 19699, Start Num: 23

Candidate Starts for DirtJuice_26:

(5, 18965), (Start: 23 @19136 has 279 MA's), (71, 19322), (87, 19376), (117, 19607), (123, 19667),

Gene: Doddsville_26 Start: 18863, Stop: 19426, Start Num: 23

Candidate Starts for Doddsville_26:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (99, 19178), (117, 19334),
(123, 19394),

Gene: DoesntMatter_26 Start: 19132, Stop: 19695, Start Num: 23

Candidate Starts for DoesntMatter_26:

(5, 18961), (Start: 23 @19132 has 279 MA's), (71, 19318), (87, 19372), (117, 19603), (123, 19663),

Gene: DolOn_27 Start: 19383, Stop: 19943, Start Num: 23

Candidate Starts for DolOn_27:

(5, 19212), (Start: 23 @19383 has 279 MA's), (71, 19569), (87, 19623), (117, 19854), (123, 19914),

Gene: DonSanchon_25 Start: 18849, Stop: 19412, Start Num: 23

Candidate Starts for DonSanchon_25:

(5, 18678), (Start: 23 @18849 has 279 MA's), (71, 19035), (87, 19089), (117, 19320), (123, 19380),

Gene: Donny_26 Start: 19864, Stop: 20430, Start Num: 22

Candidate Starts for Donny_26:

(5, 19690), (Start: 22 @19864 has 32 MA's), (47, 19969), (Start: 48 @19972 has 1 MA's), (67, 20050),
(74, 20062), (114, 20308), (117, 20323), (119, 20350), (121, 20368),

Gene: Dori_23 Start: 16796, Stop: 17389, Start Num: 34

Candidate Starts for Dori_23:

(Start: 34 @16796 has 4 MA's), (94, 17045), (101, 17108), (108, 17174), (112, 17195), (114, 17231),
(116, 17243), (120, 17285), (127, 17354), (128, 17363),

Gene: DuchessDung_24 Start: 18000, Stop: 18563, Start Num: 23

Candidate Starts for DuchessDung_24:

(5, 17829), (Start: 23 @18000 has 279 MA's), (71, 18186), (87, 18240), (99, 18315), (117, 18471),
(123, 18531),

Gene: Duggie_25 Start: 18865, Stop: 19428, Start Num: 23

Candidate Starts for Duggie_25:

(5, 18694), (Start: 23 @18865 has 279 MA's), (71, 19051), (87, 19105), (99, 19180), (117, 19336),
(123, 19396),

Gene: Durga_26 Start: 19162, Stop: 19725, Start Num: 23

Candidate Starts for Durga_26:

(5, 18991), (Start: 23 @19162 has 279 MA's), (71, 19348), (87, 19402), (99, 19477), (117, 19633), (123, 19693),

Gene: Eaglehorse_28 Start: 21339, Stop: 21824, Start Num: 37

Candidate Starts for Eaglehorse_28:

(Start: 37 @21339 has 17 MA's), (44, 21366), (57, 21408), (85, 21474), (86, 21477), (90, 21495), (96, 21519), (100, 21558), (104, 21603), (105, 21615), (107, 21627), (109, 21639), (113, 21666), (115, 21693), (116, 21702), (117, 21705), (122, 21753), (126, 21777),

Gene: EastView9101_25 Start: 19511, Stop: 20077, Start Num: 22

Candidate Starts for EastView9101_25:

(5, 19337), (Start: 22 @19511 has 32 MA's), (47, 19616), (Start: 48 @19619 has 1 MA's), (67, 19697), (74, 19709), (114, 19955), (117, 19970), (119, 19997), (121, 20015),

Gene: ElvisPhasley_26 Start: 19181, Stop: 19744, Start Num: 23

Candidate Starts for ElvisPhasley_26:

(5, 19010), (Start: 23 @19181 has 279 MA's), (71, 19367), (87, 19421), (99, 19496), (117, 19652), (123, 19712),

Gene: Emiris_26 Start: 19143, Stop: 19703, Start Num: 23

Candidate Starts for Emiris_26:

(5, 18972), (Start: 23 @19143 has 279 MA's), (71, 19329), (87, 19383), (117, 19614), (123, 19674),

Gene: EmpTee_26 Start: 19149, Stop: 19712, Start Num: 23

Candidate Starts for EmpTee_26:

(5, 18978), (Start: 23 @19149 has 279 MA's), (71, 19335), (87, 19389), (117, 19620), (123, 19680),

Gene: Epah_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for Epah_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Eremos_26 Start: 19149, Stop: 19709, Start Num: 23

Candidate Starts for Eremos_26:

(5, 18978), (Start: 23 @19149 has 279 MA's), (71, 19335), (87, 19389), (117, 19620), (123, 19680),

Gene: Etaye_26 Start: 19135, Stop: 19698, Start Num: 23

Candidate Starts for Etaye_26:

(5, 18964), (Start: 23 @19135 has 279 MA's), (71, 19321), (87, 19375), (117, 19606), (123, 19666),

Gene: Eugenia_26 Start: 19162, Stop: 19722, Start Num: 23

Candidate Starts for Eugenia_26:

(5, 18991), (Start: 23 @19162 has 279 MA's), (71, 19348), (87, 19402), (117, 19633), (123, 19693),

Gene: Fanaw_23 Start: 19468, Stop: 20022, Start Num: 22

Candidate Starts for Fanaw_23:

(15, 19426), (19, 19450), (Start: 22 @19468 has 32 MA's), (50, 19573), (52, 19579), (82, 19660), (87, 19687), (101, 19780), (103, 19813), (105, 19831), (106, 19837), (114, 19906), (117, 19921), (119, 19948), (123, 19981),

Gene: Fang_26 Start: 19163, Stop: 19723, Start Num: 23

Candidate Starts for Fang_26:

(5, 18992), (Start: 23 @19163 has 279 MA's), (71, 19349), (87, 19403), (117, 19634), (123, 19694),

Gene: Faze9_28 Start: 21435, Stop: 21920, Start Num: 37

Candidate Starts for Faze9_28:

(Start: 37 @21435 has 17 MA's), (44, 21462), (57, 21504), (85, 21570), (86, 21573), (90, 21591), (96, 21615), (100, 21654), (104, 21699), (105, 21711), (107, 21723), (109, 21735), (113, 21762), (115, 21789), (116, 21798), (117, 21801), (122, 21849), (126, 21873),

Gene: FelixTres_25 Start: 19070, Stop: 19585, Start Num: 36

Candidate Starts for FelixTres_25:

(30, 19028), (Start: 33 @19034 has 3 MA's), (Start: 36 @19070 has 33 MA's), (44, 19097), (46, 19106), (62, 19163), (73, 19184), (85, 19208), (87, 19220), (102, 19322), (106, 19361), (110, 19382), (114, 19430), (117, 19445), (122, 19493), (123, 19505), (126, 19517),

Gene: Flake_27 Start: 19185, Stop: 19748, Start Num: 23

Candidate Starts for Flake_27:

(5, 19014), (Start: 23 @19185 has 279 MA's), (71, 19371), (87, 19425), (99, 19500), (117, 19656), (123, 19716),

Gene: FleetyMac_25 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for FleetyMac_25:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: FluffyNinja_26 Start: 19155, Stop: 19718, Start Num: 23

Candidate Starts for FluffyNinja_26:

(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: Fortunato_24 Start: 19799, Stop: 20359, Start Num: 22

Candidate Starts for Fortunato_24:

(Start: 22 @19799 has 32 MA's), (Start: 36 @19859 has 33 MA's), (54, 19916), (57, 19925), (65, 19961), (Start: 66 @19967 has 2 MA's), (72, 19982), (80, 20000), (87, 20030), (93, 20054), (105, 20174), (106, 20180), (114, 20249), (117, 20264), (119, 20291), (120, 20300),

Gene: Fozzie_25 Start: 19158, Stop: 19721, Start Num: 23

Candidate Starts for Fozzie_25:

(5, 18987), (Start: 23 @19158 has 279 MA's), (71, 19344), (87, 19398), (117, 19629), (123, 19689),

Gene: Frankicide_26 Start: 19149, Stop: 19712, Start Num: 23

Candidate Starts for Frankicide_26:

(5, 18978), (Start: 23 @19149 has 279 MA's), (71, 19335), (87, 19389), (117, 19620), (123, 19680),

Gene: Frederick_24 Start: 19808, Stop: 20368, Start Num: 22

Candidate Starts for Frederick_24:

(Start: 22 @19808 has 32 MA's), (Start: 36 @19868 has 33 MA's), (54, 19925), (57, 19934), (65, 19970), (Start: 66 @19976 has 2 MA's), (72, 19991), (80, 20009), (87, 20039), (93, 20063), (105, 20183), (106, 20189), (114, 20258), (117, 20273), (119, 20300), (120, 20309),

Gene: FremontTroll_26 Start: 18846, Stop: 19409, Start Num: 23

Candidate Starts for FremontTroll_26:

(5, 18675), (Start: 23 @18846 has 279 MA's), (71, 19032), (87, 19086), (117, 19317), (123, 19377),

Gene: FrenchFry_28 Start: 21438, Stop: 21923, Start Num: 37

Candidate Starts for FrenchFry_28:

(Start: 37 @21438 has 17 MA's), (44, 21465), (57, 21507), (85, 21573), (86, 21576), (90, 21594), (96, 21618), (100, 21657), (104, 21702), (105, 21714), (107, 21726), (109, 21738), (113, 21765), (115, 21792), (116, 21801), (117, 21804), (122, 21852), (126, 21876),

Gene: Fresco_23 Start: 17682, Stop: 18221, Start Num: 36

Candidate Starts for Fresco_23:

(18, 17577), (Start: 36 @17682 has 33 MA's), (57, 17760), (92, 17868), (93, 17874), (106, 17997), (109, 18015), (111, 18024), (114, 18066), (117, 18081), (122, 18129), (123, 18141),

Gene: Freya_25 Start: 18844, Stop: 19404, Start Num: 23

Candidate Starts for Freya_25:

(5, 18673), (Start: 23 @18844 has 279 MA's), (71, 19030), (87, 19084), (117, 19315), (123, 19375),

Gene: FriarPreacher_26 Start: 19169, Stop: 19732, Start Num: 23

Candidate Starts for FriarPreacher_26:

(5, 18998), (Start: 23 @19169 has 279 MA's), (71, 19355), (87, 19409), (117, 19640), (123, 19700),

Gene: Fringe_26 Start: 19134, Stop: 19697, Start Num: 23

Candidate Starts for Fringe_26:

(Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: FugateOSU_25 Start: 18855, Stop: 19415, Start Num: 23

Candidate Starts for FugateOSU_25:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (117, 19326), (123, 19386),

Gene: Funsized_29 Start: 22234, Stop: 22848, Start Num: 21

Candidate Starts for Funsized_29:

(1, 21817), (4, 21997), (12, 22126), (Start: 21 @22234 has 2 MA's), (24, 22249), (31, 22273), (38, 22330), (56, 22387), (64, 22420), (72, 22444), (82, 22468), (84, 22483), (93, 22522), (106, 22648), (114, 22717), (117, 22732), (119, 22759),

Gene: Gadget_28 Start: 19786, Stop: 20379, Start Num: 28

Candidate Starts for Gadget_28:

(Start: 28 @19786 has 42 MA's), (29, 19792), (Start: 35 @19825 has 7 MA's), (58, 19930), (104, 20155), (111, 20200), (115, 20245), (117, 20257), (122, 20305),

Gene: Gareth_25 Start: 18852, Stop: 19415, Start Num: 23

Candidate Starts for Gareth_25:

(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: GeneCoco_26 Start: 19154, Stop: 19717, Start Num: 23

Candidate Starts for GeneCoco_26:

(5, 18983), (Start: 23 @19154 has 279 MA's), (71, 19340), (87, 19394), (99, 19469), (117, 19625), (123, 19685),

Gene: Gervas_27 Start: 19760, Stop: 20353, Start Num: 28

Candidate Starts for Gervas_27:

(Start: 28 @19760 has 42 MA's), (29, 19766), (Start: 35 @19799 has 7 MA's), (104, 20129), (111, 20174), (115, 20219), (117, 20231), (122, 20279),

Gene: GinPorsche_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for GinPorsche_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Giraffe_26 Start: 18857, Stop: 19420, Start Num: 23

Candidate Starts for Giraffe_26:

(5, 18686), (Start: 23 @18857 has 279 MA's), (71, 19043), (87, 19097), (117, 19328), (123, 19388),

Gene: Glass_28 Start: 21438, Stop: 21923, Start Num: 37

Candidate Starts for Glass_28:

(Start: 37 @21438 has 17 MA's), (44, 21465), (57, 21507), (85, 21573), (86, 21576), (90, 21594), (96, 21618), (100, 21657), (104, 21702), (105, 21714), (107, 21726), (109, 21738), (113, 21765), (115, 21792), (116, 21801), (117, 21804), (122, 21852), (126, 21876),

Gene: GlenHope_28 Start: 19808, Stop: 20362, Start Num: 35

Candidate Starts for GlenHope_28:

(Start: 28 @19769 has 42 MA's), (29, 19775), (Start: 35 @19808 has 7 MA's), (58, 19913), (104, 20138), (111, 20183), (115, 20228), (117, 20240), (122, 20288),

Gene: Glubnar_28 Start: 19781, Stop: 20374, Start Num: 28

Candidate Starts for Glubnar_28:

(Start: 28 @19781 has 42 MA's), (29, 19787), (Start: 35 @19820 has 7 MA's), (104, 20150), (111, 20195), (115, 20240), (117, 20252), (122, 20300),

Gene: GodPhather_21 Start: 18903, Stop: 19472, Start Num: 42

Candidate Starts for GodPhather_21:

(7, 18639), (10, 18675), (26, 18813), (39, 18894), (Start: 42 @18903 has 6 MA's), (Start: 66 @19008 has 2 MA's), (79, 19056), (101, 19188), (102, 19206), (105, 19239), (114, 19314), (116, 19326), (117, 19329), (126, 19398),

Gene: Godines_28 Start: 21330, Stop: 21815, Start Num: 36

Candidate Starts for Godines_28:

(Start: 36 @21330 has 33 MA's), (44, 21357), (57, 21399), (85, 21465), (86, 21468), (90, 21486), (96, 21510), (100, 21549), (104, 21594), (105, 21606), (107, 21618), (109, 21630), (113, 21657), (115, 21684), (116, 21693), (117, 21696), (122, 21744), (126, 21768),

Gene: Gophee_26 Start: 19136, Stop: 19699, Start Num: 23

Candidate Starts for Gophee_26:

(Start: 23 @19136 has 279 MA's), (71, 19322), (87, 19376), (117, 19607), (123, 19667),

Gene: Grand2040_25 Start: 18872, Stop: 19435, Start Num: 23

Candidate Starts for Grand2040_25:

(5, 18701), (Start: 23 @18872 has 279 MA's), (71, 19058), (87, 19112), (117, 19343), (123, 19403),

Gene: Gwennie1_26 Start: 19194, Stop: 19757, Start Num: 23

Candidate Starts for Gwennie1_26:

(5, 19023), (Start: 23 @19194 has 279 MA's), (71, 19380), (87, 19434), (99, 19509), (117, 19665), (123, 19725),

Gene: Gwilliam_26 Start: 19145, Stop: 19708, Start Num: 23

Candidate Starts for Gwilliam_26:

(5, 18974), (Start: 23 @19145 has 279 MA's), (71, 19331), (87, 19385), (117, 19616), (123, 19676),

Gene: Gyarad_0026 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for Gyarad_0026:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: HSavage_26 Start: 19155, Stop: 19718, Start Num: 23

Candidate Starts for HSavage_26:

(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: Haimas_26 Start: 19150, Stop: 19710, Start Num: 23

Candidate Starts for Haimas_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Haleema_25 Start: 18872, Stop: 19435, Start Num: 23

Candidate Starts for Haleema_25:

(5, 18701), (Start: 23 @18872 has 279 MA's), (71, 19058), (87, 19112), (117, 19343), (123, 19403),

Gene: Halfpint_26 Start: 19601, Stop: 20194, Start Num: 28

Candidate Starts for Halfpint_26:

(Start: 28 @19601 has 42 MA's), (29, 19607), (Start: 35 @19640 has 7 MA's), (104, 19970), (111, 20015), (115, 20060), (117, 20072), (122, 20120),

Gene: Hally898_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for Hally898_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Hamish_26 Start: 19142, Stop: 19702, Start Num: 23

Candidate Starts for Hamish_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: Hangman_24 Start: 19800, Stop: 20360, Start Num: 22

Candidate Starts for Hangman_24:

(Start: 22 @19800 has 32 MA's), (Start: 36 @19860 has 33 MA's), (54, 19917), (57, 19926), (65, 19962), (Start: 66 @19968 has 2 MA's), (80, 20001), (87, 20031), (93, 20055), (105, 20175), (106, 20181), (114, 20250), (117, 20265), (119, 20292), (120, 20301),

Gene: Happabalu_26 Start: 18864, Stop: 19427, Start Num: 23

Candidate Starts for Happabalu_26:

(5, 18693), (Start: 23 @18864 has 279 MA's), (71, 19050), (87, 19104), (117, 19335), (123, 19395),

Gene: Hartsy_26 Start: 19165, Stop: 19728, Start Num: 23

Candidate Starts for Hartsy_26:

(5, 18994), (Start: 23 @19165 has 279 MA's), (71, 19351), (87, 19405), (99, 19480), (117, 19636), (123, 19696),

Gene: Harvey_26 Start: 19171, Stop: 19731, Start Num: 23

Candidate Starts for Harvey_26:

(5, 19000), (Start: 23 @19171 has 279 MA's), (71, 19357), (87, 19411), (117, 19642), (123, 19702),

Gene: HarveySr_27 Start: 19756, Stop: 20349, Start Num: 28

Candidate Starts for HarveySr_27:

(Start: 28 @19756 has 42 MA's), (29, 19762), (Start: 35 @19795 has 7 MA's), (104, 20125), (111, 20170), (115, 20215), (117, 20227), (122, 20275),

Gene: Hashim76_30 Start: 19673, Stop: 20305, Start Num: 20

Candidate Starts for Hashim76_30:

(Start: 20 @19673 has 1 MA's), (27, 19709), (79, 19919), (97, 20012), (107, 20111), (114, 20174), (117, 20189), (123, 20249),

Gene: Heath_23 Start: 19431, Stop: 19991, Start Num: 22

Candidate Starts for Heath_23:

(Start: 22 @19431 has 32 MA's), (Start: 36 @19491 has 33 MA's), (54, 19548), (57, 19557), (Start: 66 @19599 has 2 MA's), (80, 19632), (87, 19662), (93, 19686), (105, 19806), (106, 19812), (114, 19881), (117, 19896), (119, 19923), (120, 19932),

Gene: Heathcliff_27 Start: 19738, Stop: 20331, Start Num: 28

Candidate Starts for Heathcliff_27:

(Start: 28 @19738 has 42 MA's), (29, 19744), (Start: 35 @19777 has 7 MA's), (58, 19882), (104, 20107), (111, 20152), (115, 20197), (117, 20209), (122, 20257),

Gene: Hedgerow_28 Start: 21420, Stop: 21905, Start Num: 37

Candidate Starts for Hedgerow_28:

(Start: 37 @21420 has 17 MA's), (44, 21447), (57, 21489), (85, 21555), (86, 21558), (90, 21576), (96, 21600), (100, 21639), (104, 21684), (105, 21696), (107, 21708), (109, 21720), (113, 21747), (115, 21774), (116, 21783), (117, 21786), (122, 21834), (126, 21858),

Gene: Held_26 Start: 18856, Stop: 19419, Start Num: 23

Candidate Starts for Held_26:

(5, 18685), (Start: 23 @18856 has 279 MA's), (71, 19042), (87, 19096), (117, 19327), (123, 19387),

Gene: HenryJackson_25 Start: 18872, Stop: 19435, Start Num: 23

Candidate Starts for HenryJackson_25:

(5, 18701), (Start: 23 @18872 has 279 MA's), (71, 19058), (87, 19112), (117, 19343), (123, 19403),

Gene: Hertubise_26 Start: 19164, Stop: 19724, Start Num: 23

Candidate Starts for Hertubise_26:

(5, 18993), (Start: 23 @19164 has 279 MA's), (71, 19350), (87, 19404), (117, 19635), (123, 19695),

Gene: Hetaeria_26 Start: 19165, Stop: 19728, Start Num: 23

Candidate Starts for Hetaeria_26:

(5, 18994), (Start: 23 @19165 has 279 MA's), (71, 19351), (87, 19405), (117, 19636), (123, 19696),

Gene: HighStump_25 Start: 18855, Stop: 19418, Start Num: 23

Candidate Starts for HighStump_25:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (117, 19326), (123, 19386),

Gene: Hocus_25 Start: 18858, Stop: 19421, Start Num: 23

Candidate Starts for Hocus_25:

(5, 18687), (Start: 23 @18858 has 279 MA's), (71, 19044), (87, 19098), (99, 19173), (117, 19329), (123, 19389),

Gene: HogWash_25 Start: 19152, Stop: 19715, Start Num: 23

Candidate Starts for HogWash_25:

(5, 18981), (Start: 23 @19152 has 279 MA's), (71, 19338), (87, 19392), (99, 19467), (117, 19623), (123, 19683),

Gene: Holeinone_28 Start: 21315, Stop: 21800, Start Num: 36

Candidate Starts for Holeinone_28:

(Start: 36 @21315 has 33 MA's), (44, 21342), (57, 21384), (85, 21450), (86, 21453), (90, 21471), (96, 21495), (100, 21534), (104, 21579), (105, 21591), (107, 21603), (109, 21615), (113, 21642), (115, 21669), (116, 21678), (117, 21681), (122, 21729), (126, 21753),

Gene: Horchata_26 Start: 19134, Stop: 19697, Start Num: 23

Candidate Starts for Horchata_26:

(5, 18963), (Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: Hydro_24 Start: 19805, Stop: 20365, Start Num: 22

Candidate Starts for Hydro_24:

(Start: 22 @19805 has 32 MA's), (Start: 36 @19865 has 33 MA's), (54, 19922), (57, 19931), (65, 19967), (Start: 66 @19973 has 2 MA's), (80, 20006), (87, 20036), (93, 20060), (105, 20180), (106, 20186), (114, 20255), (117, 20270), (119, 20297), (120, 20306),

Gene: ImtiyazSitla_25 Start: 18699, Stop: 19262, Start Num: 23

Candidate Starts for ImtiyazSitla_25:

(5, 18528), (Start: 23 @18699 has 279 MA's), (71, 18885), (87, 18939), (99, 19014), (117, 19170), (123, 19230),

Gene: Imvubu_20 Start: 16898, Stop: 17533, Start Num: 21

Candidate Starts for Imvubu_20:

(Start: 21 @16898 has 2 MA's), (24, 16913), (43, 17009), (51, 17039), (62, 17093), (69, 17129), (82, 17168), (83, 17177), (93, 17219), (98, 17255), (114, 17414), (117, 17429), (119, 17456), (123, 17489), (124, 17492), (126, 17501),

Gene: Inchworm_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for Inchworm_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: Inverness_26 Start: 19155, Stop: 19718, Start Num: 23

Candidate Starts for Inverness_26:

(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: Iridessa_26 Start: 18841, Stop: 19404, Start Num: 23

Candidate Starts for Iridessa_26:

(5, 18670), (Start: 23 @18841 has 279 MA's), (71, 19027), (87, 19081), (99, 19156), (117, 19312), (123, 19372),

Gene: Iridoclysis_26 Start: 19129, Stop: 19692, Start Num: 23

Candidate Starts for Iridoclysis_26:

(5, 18958), (Start: 23 @19129 has 279 MA's), (71, 19315), (87, 19369), (117, 19600), (123, 19660),

Gene: IsaacEli_26 Start: 19159, Stop: 19722, Start Num: 23

Candidate Starts for IsaacEli_26:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: ItsyBitsy1_28 Start: 21308, Stop: 21793, Start Num: 36

Candidate Starts for ItsyBitsy1_28:

(Start: 36 @21308 has 33 MA's), (44, 21335), (57, 21377), (85, 21443), (86, 21446), (90, 21464), (96, 21488), (100, 21527), (104, 21572), (105, 21584), (107, 21596), (109, 21608), (113, 21635), (115, 21662), (116, 21671), (117, 21674), (122, 21722), (126, 21746),

Gene: JAMaL_24 Start: 19969, Stop: 20541, Start Num: 22

Candidate Starts for JAMaL_24:

(Start: 22 @19969 has 32 MA's), (Start: 36 @20038 has 33 MA's), (54, 20095), (57, 20104), (65, 20140), (Start: 66 @20146 has 2 MA's), (72, 20161), (80, 20179), (87, 20212), (93, 20236), (105, 20356), (106, 20362), (107, 20368), (114, 20431), (117, 20446), (119, 20473), (120, 20482),

Gene: JDog_25 Start: 18865, Stop: 19428, Start Num: 23

Candidate Starts for JDog_25:

(5, 18694), (Start: 23 @18865 has 279 MA's), (71, 19051), (87, 19105), (99, 19180), (117, 19336), (123, 19396),

Gene: JacAttac_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for JacAttac_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: JaguarMi_24 Start: 19267, Stop: 19827, Start Num: 22

Candidate Starts for JaguarMi_24:

(Start: 22 @19267 has 32 MA's), (Start: 36 @19327 has 33 MA's), (50, 19372), (54, 19384), (57, 19393), (65, 19429), (Start: 66 @19435 has 2 MA's), (80, 19468), (87, 19498), (93, 19522), (95, 19540), (106, 19648), (114, 19717), (117, 19732), (119, 19759), (120, 19768),

Gene: JakeO_25 Start: 18865, Stop: 19428, Start Num: 23

Candidate Starts for JakeO_25:

(5, 18694), (Start: 23 @18865 has 279 MA's), (71, 19051), (87, 19105), (99, 19180), (117, 19336), (123, 19396),

Gene: JangoPhett_26 Start: 19139, Stop: 19702, Start Num: 23

Candidate Starts for JangoPhett_26:

(5, 18968), (Start: 23 @19139 has 279 MA's), (71, 19325), (87, 19379), (117, 19610), (123, 19670),

Gene: Jeon_20 Start: 18645, Stop: 19214, Start Num: 42

Candidate Starts for Jeon_20:

(7, 18381), (10, 18417), (26, 18555), (39, 18636), (Start: 42 @18645 has 6 MA's), (Start: 66 @18750 has 2 MA's), (79, 18798), (101, 18930), (102, 18948), (105, 18981), (114, 19056), (116, 19068), (117, 19071), (126, 19140),

Gene: Jesabah_26 Start: 18867, Stop: 19430, Start Num: 23

Candidate Starts for Jesabah_26:

(5, 18696), (Start: 23 @18867 has 279 MA's), (71, 19053), (87, 19107), (117, 19338), (123, 19398),

Gene: Jillium_25 Start: 18865, Stop: 19428, Start Num: 23

Candidate Starts for Jillium_25:

(5, 18694), (Start: 23 @18865 has 279 MA's), (71, 19051), (87, 19105), (117, 19336), (123, 19396),

Gene: Jiminy_25 Start: 18703, Stop: 19266, Start Num: 23

Candidate Starts for Jiminy_25:

(5, 18532), (Start: 23 @18703 has 279 MA's), (71, 18889), (87, 18943), (99, 19018), (117, 19174), (123, 19234),

Gene: Jiraiya_25 Start: 18863, Stop: 19423, Start Num: 23

Candidate Starts for Jiraiya_25:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (117, 19334), (123, 19394),

Gene: JoyceMaria_24 Start: 19806, Stop: 20366, Start Num: 22

Candidate Starts for JoyceMaria_24:

(Start: 22 @19806 has 32 MA's), (Start: 36 @19866 has 33 MA's), (54, 19923), (57, 19932), (65, 19968), (Start: 66 @19974 has 2 MA's), (80, 20007), (87, 20037), (93, 20061), (105, 20181), (106, 20187), (114, 20256), (117, 20271), (119, 20298), (120, 20307),

Gene: KLucky39_26 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for KLucky39_26:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Kahve_25 Start: 18869, Stop: 19432, Start Num: 23

Candidate Starts for Kahve_25:

(5, 18698), (Start: 23 @18869 has 279 MA's), (71, 19055), (87, 19109), (117, 19340), (123, 19400),

Gene: Kailash_26 Start: 19177, Stop: 19740, Start Num: 23

Candidate Starts for Kailash_26:

(5, 19006), (Start: 23 @19177 has 279 MA's), (71, 19363), (87, 19417), (99, 19492), (117, 19648), (123, 19708),

Gene: Kaleb_28 Start: 21435, Stop: 21920, Start Num: 37

Candidate Starts for Kaleb_28:

(Start: 37 @21435 has 17 MA's), (44, 21462), (57, 21504), (85, 21570), (86, 21573), (90, 21591), (96, 21615), (100, 21654), (104, 21699), (105, 21711), (107, 21723), (109, 21735), (113, 21762), (115, 21789), (116, 21798), (117, 21801), (122, 21849), (126, 21873),

Gene: Kamiyu_27 Start: 19745, Stop: 20338, Start Num: 28

Candidate Starts for Kamiyu_27:

(Start: 28 @19745 has 42 MA's), (29, 19751), (Start: 35 @19784 has 7 MA's), (104, 20114), (111, 20159), (115, 20204), (117, 20216), (122, 20264),

Gene: KarasumaRum_28 Start: 19984, Stop: 20553, Start Num: 22

Candidate Starts for KarasumaRum_28:

(Start: 22 @19984 has 32 MA's), (44, 20086), (67, 20173), (74, 20185), (89, 20221), (114, 20431), (117, 20446), (119, 20473),

Gene: Katniss_26 Start: 19167, Stop: 19727, Start Num: 23

Candidate Starts for Katniss_26:

(5, 18996), (Start: 23 @19167 has 279 MA's), (71, 19353), (87, 19407), (117, 19638), (123, 19698),

Gene: Keitherie_26 Start: 19187, Stop: 19750, Start Num: 23

Candidate Starts for Keitherie_26:

(5, 19016), (Start: 23 @19187 has 279 MA's), (71, 19373), (87, 19427), (99, 19502), (117, 19658), (123, 19718),

Gene: Khan1_26 Start: 18883, Stop: 19446, Start Num: 23

Candidate Starts for Khan1_26:

(5, 18712), (Start: 23 @18883 has 279 MA's), (71, 19069), (87, 19123), (99, 19198), (117, 19354), (123, 19414),

Gene: Kheth_28 Start: 21320, Stop: 21805, Start Num: 36

Candidate Starts for Kheth_28:

(Start: 36 @21320 has 33 MA's), (44, 21347), (57, 21389), (85, 21455), (86, 21458), (90, 21476), (96, 21500), (100, 21539), (104, 21584), (105, 21596), (107, 21608), (109, 21620), (113, 21647), (115, 21674), (116, 21683), (117, 21686), (122, 21734), (126, 21758),

Gene: Kikipoo_26 Start: 19159, Stop: 19722, Start Num: 23

Candidate Starts for Kikipoo_26:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: Kimbrough_26 Start: 18861, Stop: 19424, Start Num: 23

Candidate Starts for Kimbrough_26:

(5, 18690), (Start: 23 @18861 has 279 MA's), (71, 19047), (87, 19101), (117, 19332), (123, 19392),

Gene: KingVeVeVe_26 Start: 19138, Stop: 19698, Start Num: 23

Candidate Starts for KingVeVeVe_26:

(5, 18967), (Start: 23 @19138 has 279 MA's), (71, 19324), (87, 19378), (117, 19609), (123, 19669),

Gene: KlimbOn_26 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for KlimbOn_26:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Kloppinator_26 Start: 19167, Stop: 19730, Start Num: 23

Candidate Starts for Kloppinator_26:

(5, 18996), (Start: 23 @19167 has 279 MA's), (71, 19353), (87, 19407), (117, 19638), (123, 19698),

Gene: Kolhan_28 Start: 21317, Stop: 21802, Start Num: 36

Candidate Starts for Kolhan_28:

(Start: 36 @21317 has 33 MA's), (44, 21344), (57, 21386), (85, 21452), (86, 21455), (90, 21473), (96, 21497), (100, 21536), (104, 21581), (105, 21593), (107, 21605), (109, 21617), (113, 21644), (115, 21671), (116, 21680), (117, 21683), (122, 21731), (126, 21755),

Gene: Kronus_26 Start: 20398, Stop: 20952, Start Num: 35

Candidate Starts for Kronus_26:

(Start: 28 @20359 has 42 MA's), (29, 20365), (Start: 35 @20398 has 7 MA's), (58, 20503), (104, 20728), (111, 20773), (115, 20818), (117, 20830), (122, 20878),

Gene: Kwadwo_25 Start: 18851, Stop: 19414, Start Num: 23

Candidate Starts for Kwadwo_25:

(5, 18680), (Start: 23 @18851 has 279 MA's), (71, 19037), (87, 19091), (117, 19322), (123, 19382),

Gene: Kwksand96_25 Start: 18713, Stop: 19276, Start Num: 23

Candidate Starts for Kwksand96_25:

(5, 18542), (Start: 23 @18713 has 279 MA's), (71, 18899), (87, 18953), (99, 19028), (117, 19184), (123, 19244),

Gene: Labeouficaum_25 Start: 18709, Stop: 19272, Start Num: 23

Candidate Starts for Labeouficaum_25:

(5, 18538), (Start: 23 @18709 has 279 MA's), (71, 18895), (87, 18949), (99, 19024), (117, 19180), (123, 19240),

Gene: Lambano_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for Lambano_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Lars_28 Start: 21437, Stop: 21922, Start Num: 36

Candidate Starts for Lars_28:

(Start: 36 @21437 has 33 MA's), (44, 21464), (57, 21506), (85, 21572), (86, 21575), (90, 21593), (96, 21617), (100, 21656), (104, 21701), (105, 21713), (107, 21725), (109, 21737), (113, 21764), (115, 21791), (116, 21800), (117, 21803), (122, 21851), (126, 21875),

Gene: Larson_27 Start: 19185, Stop: 19748, Start Num: 23

Candidate Starts for Larson_27:

(5, 19014), (Start: 23 @19185 has 279 MA's), (71, 19371), (87, 19425), (99, 19500), (117, 19656), (123, 19716),

Gene: LasagnaCat_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for LasagnaCat_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Lasso_26 Start: 19126, Stop: 19689, Start Num: 23

Candidate Starts for Lasso_26:

(5, 18955), (Start: 23 @19126 has 279 MA's), (71, 19312), (87, 19366), (117, 19597), (123, 19657),

Gene: Laurie_28 Start: 21315, Stop: 21800, Start Num: 36

Candidate Starts for Laurie_28:

(Start: 36 @21315 has 33 MA's), (44, 21342), (Start: 48 @21345 has 1 MA's), (57, 21384), (85, 21450), (86, 21453), (90, 21471), (96, 21495), (100, 21534), (104, 21579), (105, 21591), (107, 21603), (109, 21615), (113, 21642), (115, 21669), (116, 21678), (117, 21681), (122, 21729), (126, 21753),

Gene: LeeLot_26 Start: 19151, Stop: 19714, Start Num: 23

Candidate Starts for LeeLot_26:

(5, 18980), (Start: 23 @19151 has 279 MA's), (71, 19337), (87, 19391), (117, 19622), (123, 19682),

Gene: Lego3393_26 Start: 19163, Stop: 19723, Start Num: 23

Candidate Starts for Lego3393_26:

(5, 18992), (Start: 23 @19163 has 279 MA's), (71, 19349), (87, 19403), (117, 19634), (123, 19694),

Gene: Legolas_25 Start: 18867, Stop: 19430, Start Num: 23

Candidate Starts for Legolas_25:

(5, 18696), (Start: 23 @18867 has 279 MA's), (71, 19053), (87, 19107), (117, 19338), (123, 19398),

Gene: Lehmann_26 Start: 18693, Stop: 19256, Start Num: 23

Candidate Starts for Lehmann_26:

(5, 18522), (Start: 23 @18693 has 279 MA's), (71, 18879), (87, 18933), (117, 19164), (123, 19224),

Gene: LeiMonet_26 Start: 18858, Stop: 19421, Start Num: 23

Candidate Starts for LeiMonet_26:

(5, 18687), (Start: 23 @18858 has 279 MA's), (71, 19044), (87, 19098), (117, 19329), (123, 19389),

Gene: LemonSlice_26 Start: 18858, Stop: 19418, Start Num: 23

Candidate Starts for LemonSlice_26:

(5, 18687), (Start: 23 @18858 has 279 MA's), (71, 19044), (87, 19098), (117, 19329), (123, 19389),

Gene: Lephleur_28 Start: 21321, Stop: 21806, Start Num: 37

Candidate Starts for Lephleur_28:

(Start: 37 @21321 has 17 MA's), (44, 21348), (57, 21390), (85, 21456), (86, 21459), (90, 21477), (96, 21501), (100, 21540), (104, 21585), (105, 21597), (107, 21609), (109, 21621), (113, 21648), (115, 21675), (116, 21684), (117, 21687), (122, 21735), (126, 21759),

Gene: LestyG_27 Start: 19780, Stop: 20373, Start Num: 28

Candidate Starts for LestyG_27:

(Start: 28 @19780 has 42 MA's), (29, 19786), (Start: 35 @19819 has 7 MA's), (104, 20149), (111, 20194), (115, 20239), (117, 20251), (122, 20299),

Gene: Ligma_23 Start: 17682, Stop: 18221, Start Num: 36

Candidate Starts for Ligma_23:

(18, 17577), (Start: 36 @17682 has 33 MA's), (57, 17760), (92, 17868), (93, 17874), (106, 17997), (109, 18015), (111, 18024), (114, 18066), (117, 18081), (122, 18129), (123, 18141),

Gene: LilMcDreamy_23 Start: 19777, Stop: 20370, Start Num: 22

Candidate Starts for LilMcDreamy_23:

(Start: 22 @19777 has 32 MA's), (47, 19888), (67, 19969), (74, 19981), (81, 19999), (87, 20029), (107, 20185), (114, 20248), (117, 20263), (120, 20299),

Gene: LilSmirk_28 Start: 21318, Stop: 21803, Start Num: 37

Candidate Starts for LilSmirk_28:

(Start: 37 @21318 has 17 MA's), (44, 21345), (57, 21387), (85, 21453), (86, 21456), (90, 21474), (96, 21498), (100, 21537), (104, 21582), (105, 21594), (107, 21606), (109, 21618), (113, 21645), (115, 21672), (116, 21681), (117, 21684), (122, 21732), (126, 21756),

Gene: LittleDigger_23 Start: 18780, Stop: 19340, Start Num: 22

Candidate Starts for LittleDigger_23:

(Start: 22 @18780 has 32 MA's), (54, 18897), (57, 18906), (65, 18942), (Start: 66 @18948 has 2 MA's), (72, 18963), (80, 18981), (87, 19011), (93, 19035), (95, 19053), (105, 19155), (106, 19161), (107, 19167), (114, 19230), (117, 19245), (119, 19272), (120, 19281),

Gene: LittleMunchkin_25 Start: 20512, Stop: 21039, Start Num: 36

Candidate Starts for LittleMunchkin_25:

(13, 20359), (18, 20404), (Start: 36 @20512 has 33 MA's), (57, 20593), (76, 20650), (87, 20677), (88, 20680), (92, 20695), (106, 20827), (110, 20848), (114, 20896), (117, 20911), (122, 20959), (123, 20971),

Gene: LizLemon_28 Start: 21437, Stop: 21922, Start Num: 36

Candidate Starts for LizLemon_28:

(Start: 36 @21437 has 33 MA's), (44, 21464), (57, 21506), (85, 21572), (86, 21575), (90, 21593), (96, 21617), (100, 21656), (104, 21701), (105, 21713), (107, 21725), (109, 21737), (113, 21764), (115, 21791), (116, 21800), (117, 21803), (122, 21851), (126, 21875),

Gene: Lolalove_24 Start: 19802, Stop: 20362, Start Num: 22

Candidate Starts for Lolalove_24:

(Start: 22 @19802 has 32 MA's), (Start: 36 @19862 has 33 MA's), (54, 19919), (57, 19928), (65, 19964), (Start: 66 @19970 has 2 MA's), (80, 20003), (87, 20033), (93, 20057), (105, 20177), (106, 20183), (114, 20252), (117, 20267), (119, 20294), (120, 20303),

Gene: Longacauda_25 Start: 18853, Stop: 19416, Start Num: 23

Candidate Starts for Longacauda_25:

(5, 18682), (Start: 23 @18853 has 279 MA's), (71, 19039), (87, 19093), (99, 19168), (117, 19324), (123, 19384),

Gene: Lopsy_25 Start: 18709, Stop: 19272, Start Num: 23

Candidate Starts for Lopsy_25:

(5, 18538), (Start: 23 @18709 has 279 MA's), (71, 18895), (87, 18949), (117, 19180), (123, 19240),

Gene: LostAndPhound_25 Start: 18860, Stop: 19423, Start Num: 23

Candidate Starts for LostAndPhound_25:

(5, 18689), (Start: 23 @18860 has 279 MA's), (71, 19046), (87, 19100), (117, 19331), (123, 19391),

Gene: LuckyMarjie_25 Start: 18873, Stop: 19433, Start Num: 23

Candidate Starts for LuckyMarjie_25:

(5, 18702), (Start: 23 @18873 has 279 MA's), (71, 19059), (87, 19113), (117, 19344), (123, 19404),

Gene: Lulumae_25 Start: 18851, Stop: 19414, Start Num: 23

Candidate Starts for Lulumae_25:

(5, 18680), (Start: 23 @18851 has 279 MA's), (71, 19037), (87, 19091), (117, 19322), (123, 19382),

Gene: Lulwa_26 Start: 19138, Stop: 19701, Start Num: 23

Candidate Starts for Lulwa_26:

(5, 18967), (Start: 23 @19138 has 279 MA's), (71, 19324), (87, 19378), (117, 19609), (123, 19669),

Gene: Lumine_25 Start: 18847, Stop: 19410, Start Num: 23

Candidate Starts for Lumine_25:

(5, 18676), (Start: 23 @18847 has 279 MA's), (71, 19033), (87, 19087), (117, 19318), (123, 19378),

Gene: MRabcd_25 Start: 18852, Stop: 19412, Start Num: 23

Candidate Starts for MRabcd_25:

(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: Mag7_25 Start: 18727, Stop: 19290, Start Num: 23

Candidate Starts for Mag7_25:

(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198), (123, 19258),

Gene: Magic8_26 Start: 19165, Stop: 19728, Start Num: 23

Candidate Starts for Magic8_26:

(5, 18994), (Start: 23 @19165 has 279 MA's), (71, 19351), (87, 19405), (99, 19480), (117, 19636), (123, 19696),

Gene: Magpie_23 Start: 19625, Stop: 20185, Start Num: 22

Candidate Starts for Magpie_23:

(Start: 22 @19625 has 32 MA's), (Start: 36 @19685 has 33 MA's), (54, 19742), (57, 19751), (65, 19787), (Start: 66 @19793 has 2 MA's), (80, 19826), (87, 19856), (93, 19880), (105, 20000), (106, 20006), (114, 20075), (117, 20090), (119, 20117), (120, 20126),

Gene: MakoManhole_25 Start: 19085, Stop: 19600, Start Num: 36

Candidate Starts for MakoManhole_25:

(30, 19043), (Start: 33 @19049 has 3 MA's), (Start: 36 @19085 has 33 MA's), (44, 19112), (46, 19121), (62, 19178), (73, 19199), (85, 19223), (87, 19235), (102, 19337), (106, 19376), (110, 19397), (114, 19445), (117, 19460), (122, 19508), (123, 19520), (126, 19532),

Gene: Mana_25 Start: 18854, Stop: 19417, Start Num: 23

Candidate Starts for Mana_25:

(5, 18683), (Start: 23 @18854 has 279 MA's), (71, 19040), (78, 19061), (87, 19094), (117, 19325), (123, 19385),

Gene: Manad_25 Start: 18704, Stop: 19264, Start Num: 23

Candidate Starts for Manad_25:

(5, 18533), (Start: 23 @18704 has 279 MA's), (71, 18890), (87, 18944), (117, 19175), (123, 19235),

Gene: Mao1_22 Start: 17208, Stop: 17801, Start Num: 34

Candidate Starts for Mao1_22:

(Start: 34 @17208 has 4 MA's), (94, 17457), (101, 17520), (108, 17586), (112, 17607), (114, 17643), (116, 17655), (120, 17697), (127, 17766), (128, 17775),

Gene: Mariokart_23 Start: 17576, Stop: 18100, Start Num: 36

Candidate Starts for Mariokart_23:

(13, 17426), (Start: 36 @17576 has 33 MA's), (57, 17660), (92, 17762), (106, 17891), (107, 17897), (111, 17918), (114, 17960), (117, 17975), (122, 18023), (123, 18035),

Gene: Marley1013_27 Start: 20561, Stop: 21154, Start Num: 28

Candidate Starts for Marley1013_27:

(Start: 28 @20561 has 42 MA's), (29, 20567), (Start: 35 @20600 has 7 MA's), (104, 20930), (111, 20975), (115, 21020), (117, 21032), (122, 21080),

Gene: Marlia_27 Start: 19799, Stop: 20353, Start Num: 35

Candidate Starts for Marlia_27:

(Start: 28 @19760 has 42 MA's), (29, 19766), (Start: 35 @19799 has 7 MA's), (104, 20129), (111, 20174), (115, 20219), (117, 20231), (122, 20279),

Gene: Maru_25 Start: 18853, Stop: 19416, Start Num: 23

Candidate Starts for Maru_25:

(5, 18682), (Start: 23 @18853 has 279 MA's), (71, 19039), (87, 19093), (117, 19324), (123, 19384),

Gene: Mask_23 Start: 17201, Stop: 17794, Start Num: 34

Candidate Starts for Mask_23:

(Start: 34 @17201 has 4 MA's), (94, 17450), (101, 17513), (108, 17579), (112, 17600), (114, 17636), (116, 17648), (120, 17690), (127, 17759), (128, 17768),

Gene: Maskar_25 Start: 18699, Stop: 19262, Start Num: 23

Candidate Starts for Maskar_25:

(5, 18528), (Start: 23 @18699 has 279 MA's), (71, 18885), (87, 18939), (99, 19014), (117, 19170), (123, 19230),

Gene: MasterPo_28 Start: 21318, Stop: 21803, Start Num: 37

Candidate Starts for MasterPo_28:

(Start: 37 @21318 has 17 MA's), (44, 21345), (57, 21387), (85, 21453), (86, 21456), (90, 21474), (96, 21498), (100, 21537), (104, 21582), (105, 21594), (107, 21606), (109, 21618), (113, 21645), (115, 21672), (116, 21681), (117, 21684), (122, 21732), (126, 21756),

Gene: Matalotodo_26 Start: 19146, Stop: 19709, Start Num: 23

Candidate Starts for Matalotodo_26:

(5, 18975), (Start: 23 @19146 has 279 MA's), (71, 19332), (87, 19386), (117, 19617), (123, 19677),

Gene: Mcshane_25 Start: 18849, Stop: 19412, Start Num: 23

Candidate Starts for Mcshane_25:

(5, 18678), (Start: 23 @18849 has 279 MA's), (71, 19035), (87, 19089), (117, 19320), (123, 19380),

Gene: Mecca_25 Start: 18846, Stop: 19409, Start Num: 23

Candidate Starts for Mecca_25:

(5, 18675), (Start: 23 @18846 has 279 MA's), (71, 19032), (87, 19086), (117, 19317), (123, 19377),

Gene: Megabear_20 Start: 18567, Stop: 19142, Start Num: 42

Candidate Starts for Megabear_20:

(2, 18051), (3, 18123), (6, 18291), (7, 18303), (10, 18339), (25, 18474), (26, 18477), (39, 18558),
(Start: 42 @18567 has 6 MA's), (Start: 66 @18675 has 2 MA's), (79, 18723), (101, 18858), (102, 18876),
(105, 18909), (114, 18984), (116, 18996), (117, 18999), (126, 19068),

Gene: Megamind20_26 Start: 18868, Stop: 19431, Start Num: 23

Candidate Starts for Megamind20_26:

(Start: 23 @18868 has 279 MA's), (71, 19054), (87, 19108), (117, 19339), (123, 19399),

Gene: Megatron_26 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Megatron_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Melc17_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for Melc17_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: MelsMeow_25 Start: 18727, Stop: 19290, Start Num: 23

Candidate Starts for MelsMeow_25:

(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198),
(123, 19258),

Gene: Mesh1_26 Start: 19158, Stop: 19721, Start Num: 23

Candidate Starts for Mesh1_26:

(5, 18987), (Start: 23 @19158 has 279 MA's), (71, 19344), (87, 19398), (117, 19629), (123, 19689),

Gene: Mesmerelda_25 Start: 18852, Stop: 19415, Start Num: 23

Candidate Starts for Mesmerelda_25:

(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: MichaelPhcott_25 Start: 18727, Stop: 19290, Start Num: 23

Candidate Starts for MichaelPhcott_25:

(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198),
(123, 19258),

Gene: Mikota_26 Start: 19134, Stop: 19697, Start Num: 23

Candidate Starts for Mikota_26:

(5, 18963), (Start: 23 @19134 has 279 MA's), (71, 19320), (87, 19374), (117, 19605), (123, 19665),

Gene: MiniBoss_26 Start: 19137, Stop: 19700, Start Num: 23

Candidate Starts for MiniBoss_26:

(5, 18966), (Start: 23 @19137 has 279 MA's), (71, 19323), (87, 19377), (117, 19608), (123, 19668),

Gene: MitKao_26 Start: 18855, Stop: 19418, Start Num: 23

Candidate Starts for MitKao_26:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (117, 19326), (123, 19386),

Gene: Mithril_24 Start: 19806, Stop: 20366, Start Num: 22

Candidate Starts for Mithril_24:

(Start: 22 @19806 has 32 MA's), (Start: 36 @19866 has 33 MA's), (54, 19923), (57, 19932), (65, 19968), (Start: 66 @19974 has 2 MA's), (80, 20007), (87, 20037), (93, 20061), (105, 20181), (106, 20187), (114, 20256), (117, 20271), (119, 20298), (120, 20307),

Gene: MmasiCarm_27 Start: 19771, Stop: 20364, Start Num: 28

Candidate Starts for MmasiCarm_27:

(Start: 28 @19771 has 42 MA's), (29, 19777), (Start: 35 @19810 has 7 MA's), (104, 20140), (111, 20185), (115, 20230), (117, 20242), (122, 20290),

Gene: Morgushi_26 Start: 18860, Stop: 19420, Start Num: 23

Candidate Starts for Morgushi_26:

(5, 18689), (Start: 23 @18860 has 279 MA's), (71, 19046), (87, 19100), (117, 19331), (123, 19391),

Gene: Mortcellus_26 Start: 20414, Stop: 21007, Start Num: 28

Candidate Starts for Mortcellus_26:

(Start: 28 @20414 has 42 MA's), (29, 20420), (Start: 35 @20453 has 7 MA's), (104, 20783), (111, 20828), (115, 20873), (117, 20885), (122, 20933),

Gene: Morty_26 Start: 19159, Stop: 19722, Start Num: 23

Candidate Starts for Morty_26:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: Morty007_27 Start: 20561, Stop: 21154, Start Num: 28

Candidate Starts for Morty007_27:

(Start: 28 @20561 has 42 MA's), (29, 20567), (Start: 35 @20600 has 7 MA's), (104, 20930), (111, 20975), (115, 21020), (117, 21032), (122, 21080),

Gene: Mosaic_25 Start: 18861, Stop: 19424, Start Num: 23

Candidate Starts for Mosaic_25:

(5, 18690), (Start: 23 @18861 has 279 MA's), (71, 19047), (87, 19101), (117, 19332), (123, 19392),

Gene: MossRose_25 Start: 19028, Stop: 19579, Start Num: 33

Candidate Starts for MossRose_25:

(11, 18872), (30, 19022), (Start: 33 @19028 has 3 MA's), (Start: 36 @19064 has 33 MA's), (44, 19091), (46, 19100), (62, 19157), (73, 19178), (85, 19202), (87, 19214), (102, 19316), (106, 19355), (110, 19376), (114, 19424), (117, 19439), (122, 19487), (123, 19499), (126, 19511),

Gene: MrPhizzler_26 Start: 18860, Stop: 19423, Start Num: 23

Candidate Starts for MrPhizzler_26:

(5, 18689), (Start: 23 @18860 has 279 MA's), (71, 19046), (87, 19100), (99, 19175), (117, 19331), (123, 19391),

Gene: Mudslide_24 Start: 20053, Stop: 20613, Start Num: 22

Candidate Starts for Mudslide_24:

(Start: 22 @20053 has 32 MA's), (Start: 36 @20113 has 33 MA's), (54, 20170), (57, 20179), (65, 20215), (Start: 66 @20221 has 2 MA's), (80, 20254), (87, 20284), (93, 20308), (105, 20428), (106, 20434), (114, 20503), (117, 20518), (119, 20545), (120, 20554),

Gene: Mulan_25 Start: 18855, Stop: 19418, Start Num: 23

Candidate Starts for Mulan_25:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (117, 19326), (123, 19386),

Gene: Mulaychimus_27 Start: 19792, Stop: 20346, Start Num: 35

Candidate Starts for Mulaychimus_27:

(Start: 28 @19753 has 42 MA's), (29, 19759), (Start: 35 @19792 has 7 MA's), (104, 20122), (111, 20167), (115, 20212), (117, 20224), (122, 20272),

Gene: Murdoc_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for Murdoc_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: Mutante_25 Start: 18858, Stop: 19421, Start Num: 23

Candidate Starts for Mutante_25:

(5, 18687), (Start: 23 @18858 has 279 MA's), (71, 19044), (87, 19098), (117, 19329), (123, 19389),

Gene: Mysterious_26 Start: 20072, Stop: 20680, Start Num: 16

Candidate Starts for Mysterious_26:

(Start: 16 @20072 has 2 MA's), (Start: 22 @20111 has 32 MA's), (45, 20216), (57, 20252), (74, 20312), (90, 20351), (101, 20432), (114, 20558), (117, 20573), (118, 20588), (120, 20609), (121, 20618), (123, 20633),

Gene: NHagos_23 Start: 17615, Stop: 18115, Start Num: 36

Candidate Starts for NHagos_23:

(Start: 36 @17615 has 33 MA's), (44, 17642), (57, 17690), (87, 17759), (88, 17762), (106, 17900), (110, 17921), (114, 17969), (117, 17984), (122, 18032), (125, 18050), (126, 18056),

Gene: Nacho_0026 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for Nacho_0026:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Nanao_23 Start: 18772, Stop: 19332, Start Num: 22

Candidate Starts for Nanao_23:

(Start: 22 @18772 has 32 MA's), (54, 18889), (57, 18898), (65, 18934), (Start: 66 @18940 has 2 MA's), (72, 18955), (80, 18973), (87, 19003), (93, 19027), (95, 19045), (105, 19147), (106, 19153), (107, 19159), (114, 19222), (117, 19237), (119, 19264), (120, 19273),

Gene: Nangang_26 Start: 19812, Stop: 20381, Start Num: 22

Candidate Starts for Nangang_26:

(Start: 22 @19812 has 32 MA's), (44, 19914), (67, 20001), (74, 20013), (89, 20049), (114, 20259), (117, 20274), (119, 20301),

Gene: Nathan_26 Start: 19177, Stop: 19740, Start Num: 23

Candidate Starts for Nathan_26:

(5, 19006), (Start: 23 @19177 has 279 MA's), (71, 19363), (87, 19417), (99, 19492), (117, 19648), (123, 19708),

Gene: Nehemiah_25 Start: 20111, Stop: 20680, Start Num: 22

Candidate Starts for Nehemiah_25:

(Start: 16 @20072 has 2 MA's), (Start: 22 @20111 has 32 MA's), (45, 20216), (57, 20252), (74, 20312), (90, 20351), (101, 20432), (114, 20558), (117, 20573), (118, 20588), (120, 20609), (121, 20618), (123, 20633),

Gene: Neos5_27 Start: 20568, Stop: 21161, Start Num: 28

Candidate Starts for Neos5_27:

(Start: 28 @20568 has 42 MA's), (29, 20574), (Start: 35 @20607 has 7 MA's), (58, 20712), (104, 20937), (111, 20982), (115, 21027), (117, 21039), (122, 21087),

Gene: Newman_26 Start: 19147, Stop: 19707, Start Num: 23

Candidate Starts for Newman_26:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Nicole21_26 Start: 19139, Stop: 19702, Start Num: 23

Candidate Starts for Nicole21_26:

(5, 18968), (Start: 23 @19139 has 279 MA's), (71, 19325), (87, 19379), (117, 19610), (123, 19670),

Gene: Nigel_22 Start: 18656, Stop: 19228, Start Num: 22

Candidate Starts for Nigel_22:

(Start: 22 @18656 has 32 MA's), (Start: 36 @18725 has 33 MA's), (54, 18782), (57, 18791), (65, 18827), (Start: 66 @18833 has 2 MA's), (72, 18848), (80, 18866), (87, 18899), (93, 18923), (105, 19043), (106, 19049), (107, 19055), (114, 19118), (117, 19133), (119, 19160), (120, 19169),

Gene: Nozo_27 Start: 20538, Stop: 21131, Start Num: 28

Candidate Starts for Nozo_27:

(Start: 28 @20538 has 42 MA's), (29, 20544), (Start: 35 @20577 has 7 MA's), (104, 20907), (111, 20952), (115, 20997), (117, 21009), (122, 21057),

Gene: Numberten_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for Numberten_26:

(Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Nyala_25 Start: 18850, Stop: 19413, Start Num: 23

Candidate Starts for Nyala_25:

(5, 18679), (Start: 23 @18850 has 279 MA's), (71, 19036), (87, 19090), (117, 19321), (123, 19381),

Gene: OSmaximus_26 Start: 19176, Stop: 19739, Start Num: 23

Candidate Starts for OSmaximus_26:

(5, 19005), (Start: 23 @19176 has 279 MA's), (71, 19362), (87, 19416), (99, 19491), (117, 19647), (123, 19707),

Gene: Obutu_27 Start: 19771, Stop: 20364, Start Num: 28

Candidate Starts for Obutu_27:

(Start: 28 @19771 has 42 MA's), (29, 19777), (Start: 35 @19810 has 7 MA's), (104, 20140), (111, 20185), (115, 20230), (117, 20242), (122, 20290),

Gene: Olak_25 Start: 18851, Stop: 19414, Start Num: 23

Candidate Starts for Olak_25:

(5, 18680), (Start: 23 @18851 has 279 MA's), (71, 19037), (87, 19091), (117, 19322), (123, 19382),

Gene: Oline_25 Start: 18713, Stop: 19276, Start Num: 23

Candidate Starts for Oline_25:

(5, 18542), (Start: 23 @18713 has 279 MA's), (71, 18899), (87, 18953), (99, 19028), (117, 19184), (123, 19244),

Gene: Olive_26 Start: 19140, Stop: 19703, Start Num: 23

Candidate Starts for Olive_26:

(5, 18969), (Start: 23 @19140 has 279 MA's), (71, 19326), (87, 19380), (117, 19611), (123, 19671),

Gene: OliverWalter_26 Start: 19156, Stop: 19719, Start Num: 23

Candidate Starts for OliverWalter_26:

(5, 18985), (Start: 23 @19156 has 279 MA's), (71, 19342), (87, 19396), (117, 19627), (123, 19687),

Gene: Olivio_26 Start: 19664, Stop: 20218, Start Num: 35

Candidate Starts for Olivio_26:

(Start: 28 @19625 has 42 MA's), (29, 19631), (Start: 35 @19664 has 7 MA's), (104, 19994), (111, 20039), (115, 20084), (117, 20096), (122, 20144),

Gene: Omniscient_26 Start: 19159, Stop: 19722, Start Num: 23

Candidate Starts for Omniscient_26:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: Oosterbaan_26 Start: 19151, Stop: 19711, Start Num: 23

Candidate Starts for Oosterbaan_26:

(5, 18980), (Start: 23 @19151 has 279 MA's), (71, 19337), (87, 19391), (117, 19622), (123, 19682),

Gene: Opia_28 Start: 21317, Stop: 21802, Start Num: 36

Candidate Starts for Opia_28:

(Start: 36 @21317 has 33 MA's), (44, 21344), (57, 21386), (85, 21452), (86, 21455), (90, 21473), (96, 21497), (100, 21536), (104, 21581), (105, 21593), (107, 21605), (109, 21617), (113, 21644), (115, 21671), (116, 21680), (117, 21683), (122, 21731), (126, 21755),

Gene: OrangeOswald_27 Start: 19776, Stop: 20369, Start Num: 28

Candidate Starts for OrangeOswald_27:

(Start: 28 @19776 has 42 MA's), (29, 19782), (Start: 35 @19815 has 7 MA's), (104, 20145), (111, 20190), (115, 20235), (117, 20247), (122, 20295),

Gene: Orfeu_25 Start: 18852, Stop: 19415, Start Num: 23

Candidate Starts for Orfeu_25:

(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: Orion_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for Orion_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: Orwigg_25 Start: 18846, Stop: 19409, Start Num: 23

Candidate Starts for Orwigg_25:

(Start: 23 @18846 has 279 MA's), (71, 19032), (87, 19086), (117, 19317), (123, 19377),

Gene: PG1_26 Start: 19161, Stop: 19724, Start Num: 23

Candidate Starts for PG1_26:

(5, 18990), (Start: 23 @19161 has 279 MA's), (71, 19347), (87, 19401), (117, 19632), (123, 19692),

Gene: PR_20 Start: 18720, Stop: 19190, Start Num: 66

Candidate Starts for PR_20:

(2, 18078), (3, 18150), (6, 18318), (7, 18330), (10, 18366), (25, 18501), (26, 18504), (39, 18585), (Start: 42 @18594 has 6 MA's), (Start: 66 @18720 has 2 MA's), (79, 18768), (101, 18906), (102, 18924), (105, 18957), (114, 19032), (116, 19044), (117, 19047), (126, 19116),

Gene: Pacifista_25 Start: 18852, Stop: 19415, Start Num: 23
Candidate Starts for Pacifista_25:
(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: PallasAthena_26 Start: 18860, Stop: 19423, Start Num: 23
Candidate Starts for PallasAthena_26:
(Start: 23 @18860 has 279 MA's), (71, 19046), (87, 19100), (117, 19331), (123, 19391),

Gene: Phaedrus_25 Start: 19692, Stop: 20285, Start Num: 28
Candidate Starts for Phaedrus_25:
(Start: 28 @19692 has 42 MA's), (29, 19698), (Start: 35 @19731 has 7 MA's), (104, 20061), (111, 20106), (115, 20151), (117, 20163), (122, 20211),

Gene: Phamished_26 Start: 19156, Stop: 19719, Start Num: 23
Candidate Starts for Phamished_26:
(5, 18985), (Start: 23 @19156 has 279 MA's), (71, 19342), (87, 19396), (117, 19627), (123, 19687),

Gene: Phantasmagoria_28 Start: 21313, Stop: 21798, Start Num: 36
Candidate Starts for Phantasmagoria_28:
(Start: 36 @21313 has 33 MA's), (44, 21340), (57, 21382), (85, 21448), (86, 21451), (90, 21469), (96, 21493), (100, 21532), (104, 21577), (105, 21589), (107, 21601), (109, 21613), (113, 21640), (115, 21667), (116, 21676), (117, 21679), (122, 21727), (126, 21751),

Gene: Phareon_26 Start: 18856, Stop: 19419, Start Num: 23
Candidate Starts for Phareon_26:
(5, 18685), (Start: 23 @18856 has 279 MA's), (71, 19042), (87, 19096), (117, 19327), (123, 19387),

Gene: PhatCats2014_26 Start: 19166, Stop: 19726, Start Num: 23
Candidate Starts for PhatCats2014_26:
(5, 18995), (Start: 23 @19166 has 279 MA's), (71, 19352), (87, 19406), (117, 19637), (123, 19697),

Gene: PhatLouie_26 Start: 19148, Stop: 19711, Start Num: 23
Candidate Starts for PhatLouie_26:
(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (99, 19463), (117, 19619), (123, 19679),

Gene: Phayeta_27 Start: 19652, Stop: 20245, Start Num: 28
Candidate Starts for Phayeta_27:
(Start: 28 @19652 has 42 MA's), (29, 19658), (Start: 35 @19691 has 7 MA's), (104, 20021), (111, 20066), (115, 20111), (117, 20123), (122, 20171),

Gene: Phelemich_26 Start: 20107, Stop: 20676, Start Num: 22
Candidate Starts for Phelemich_26:
(Start: 16 @20068 has 2 MA's), (Start: 22 @20107 has 32 MA's), (45, 20212), (57, 20248), (74, 20308), (90, 20347), (101, 20428), (114, 20554), (117, 20569), (118, 20584), (120, 20605), (121, 20614), (123, 20629),

Gene: PhenghisKhan_25 Start: 18727, Stop: 19290, Start Num: 23
Candidate Starts for PhenghisKhan_25:
(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198), (123, 19258),

Gene: Pherdinand_26 Start: 19156, Stop: 19719, Start Num: 23

Candidate Starts for Pherdinand_26:

(5, 18985), (Start: 23 @19156 has 279 MA's), (71, 19342), (87, 19396), (117, 19627), (123, 19687),

Gene: Phergie_25 Start: 18721, Stop: 19284, Start Num: 23

Candidate Starts for Phergie_25:

(5, 18550), (Start: 23 @18721 has 279 MA's), (71, 18907), (87, 18961), (99, 19036), (117, 19192), (123, 19252),

Gene: Philly_26 Start: 19642, Stop: 20235, Start Num: 28

Candidate Starts for Philly_26:

(Start: 28 @19642 has 42 MA's), (29, 19648), (Start: 35 @19681 has 7 MA's), (104, 20011), (111, 20056), (115, 20101), (117, 20113), (122, 20161),

Gene: Phipps_26 Start: 19126, Stop: 19689, Start Num: 23

Candidate Starts for Phipps_26:

(5, 18955), (Start: 23 @19126 has 279 MA's), (71, 19312), (87, 19366), (117, 19597), (123, 19657),

Gene: Phleuron_25 Start: 18727, Stop: 19290, Start Num: 23

Candidate Starts for Phleuron_25:

(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198), (123, 19258),

Gene: Phlyer_27 Start: 20511, Stop: 21104, Start Num: 28

Candidate Starts for Phlyer_27:

(Start: 28 @20511 has 42 MA's), (29, 20517), (Start: 35 @20550 has 7 MA's), (58, 20655), (104, 20880), (111, 20925), (115, 20970), (117, 20982), (122, 21030),

Gene: PhrankReynolds_25 Start: 18727, Stop: 19290, Start Num: 23

Candidate Starts for PhrankReynolds_25:

(5, 18556), (Start: 23 @18727 has 279 MA's), (71, 18913), (87, 18967), (99, 19042), (117, 19198), (123, 19258),

Gene: PhrodoBaggins_25 Start: 19144, Stop: 19707, Start Num: 23

Candidate Starts for PhrodoBaggins_25:

(5, 18973), (Start: 23 @19144 has 279 MA's), (71, 19330), (87, 19384), (117, 19615), (123, 19675),

Gene: Phunky_26 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Phunky_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Piglet_0025 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Piglet_0025:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: PinheadLarry_26 Start: 18867, Stop: 19430, Start Num: 23

Candidate Starts for PinheadLarry_26:

(5, 18696), (Start: 23 @18867 has 279 MA's), (71, 19053), (87, 19107), (117, 19338), (123, 19398),

Gene: Pinkman_25 Start: 18707, Stop: 19270, Start Num: 23

Candidate Starts for Pinkman_25:

(5, 18536), (Start: 23 @18707 has 279 MA's), (71, 18893), (87, 18947), (99, 19022), (117, 19178), (123, 19238),

Gene: Pipefish_27 Start: 20661, Stop: 21251, Start Num: 28

Candidate Starts for Pipefish_27:

(Start: 28 @20661 has 42 MA's), (29, 20667), (Start: 35 @20700 has 7 MA's), (58, 20805), (104, 21027), (111, 21072), (115, 21117), (117, 21129), (122, 21177),

Gene: Pipsqueak_26 Start: 19156, Stop: 19716, Start Num: 23

Candidate Starts for Pipsqueak_26:

(5, 18985), (Start: 23 @19156 has 279 MA's), (71, 19342), (87, 19396), (117, 19627), (123, 19687),

Gene: Placalicious_25 Start: 18849, Stop: 19409, Start Num: 23

Candidate Starts for Placalicious_25:

(5, 18678), (Start: 23 @18849 has 279 MA's), (71, 19035), (87, 19089), (117, 19320), (123, 19380),

Gene: Plata_26 Start: 18863, Stop: 19426, Start Num: 23

Candidate Starts for Plata_26:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (99, 19178), (117, 19334), (123, 19394),

Gene: Plmatters_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for Plmatters_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Podrick_26 Start: 19145, Stop: 19708, Start Num: 23

Candidate Starts for Podrick_26:

(5, 18974), (Start: 23 @19145 has 279 MA's), (71, 19331), (87, 19385), (117, 19616), (123, 19676),

Gene: Pops_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for Pops_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Poster_23 Start: 18773, Stop: 19333, Start Num: 22

Candidate Starts for Poster_23:

(Start: 22 @18773 has 32 MA's), (54, 18890), (57, 18899), (65, 18935), (Start: 66 @18941 has 2 MA's), (72, 18956), (80, 18974), (87, 19004), (93, 19028), (95, 19046), (105, 19148), (106, 19154), (107, 19160), (114, 19223), (117, 19238), (119, 19265), (120, 19274),

Gene: Potter_25 Start: 18863, Stop: 19426, Start Num: 23

Candidate Starts for Potter_25:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (117, 19334), (123, 19394),

Gene: Prickles_26 Start: 19142, Stop: 19705, Start Num: 23

Candidate Starts for Prickles_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: Prince_24 Start: 19965, Stop: 20525, Start Num: 22

Candidate Starts for Prince_24:

(Start: 22 @19965 has 32 MA's), (Start: 36 @20025 has 33 MA's), (54, 20082), (57, 20091), (65, 20127), (Start: 66 @20133 has 2 MA's), (72, 20148), (80, 20166), (87, 20196), (93, 20220), (105, 20340), (106, 20346), (114, 20415), (117, 20430), (119, 20457), (120, 20466),

Gene: PrinceCharming_28 Start: 21434, Stop: 21919, Start Num: 37

Candidate Starts for PrinceCharming_28:

(Start: 37 @21434 has 17 MA's), (44, 21461), (57, 21503), (85, 21569), (86, 21572), (90, 21590), (96, 21614), (100, 21653), (104, 21698), (105, 21710), (107, 21722), (109, 21734), (113, 21761), (115, 21788), (116, 21797), (117, 21800), (122, 21848), (126, 21872),

Gene: ProfessorX_26 Start: 19140, Stop: 19703, Start Num: 23

Candidate Starts for ProfessorX_26:

(5, 18969), (Start: 23 @19140 has 279 MA's), (71, 19326), (87, 19380), (117, 19611), (123, 19671),

Gene: Puhltonio_26 Start: 19157, Stop: 19720, Start Num: 23

Candidate Starts for Puhltonio_26:

(Start: 23 @19157 has 279 MA's), (71, 19343), (87, 19397), (117, 19628), (123, 19688),

Gene: QueenBeane_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for QueenBeane_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: QueenPie_23 Start: 19969, Stop: 20529, Start Num: 22

Candidate Starts for QueenPie_23:

(Start: 22 @19969 has 32 MA's), (54, 20086), (57, 20095), (65, 20131), (Start: 66 @20137 has 2 MA's), (72, 20152), (80, 20170), (87, 20200), (93, 20224), (105, 20344), (106, 20350), (107, 20356), (114, 20419), (117, 20434), (119, 20461), (120, 20470),

Gene: Quesadilla_27 Start: 21307, Stop: 21885, Start Num: 32

Candidate Starts for Quesadilla_27:

(Start: 32 @21307 has 1 MA's), (82, 21505), (114, 21754), (117, 21769), (124, 21832),

Gene: Quisquiliae_26 Start: 19164, Stop: 19727, Start Num: 23

Candidate Starts for Quisquiliae_26:

(Start: 23 @19164 has 279 MA's), (71, 19350), (87, 19404), (117, 19635), (123, 19695),

Gene: Qyrzula_26 Start: 21403, Stop: 21888, Start Num: 36

Candidate Starts for Qyrzula_26:

(Start: 36 @21403 has 33 MA's), (44, 21430), (57, 21472), (85, 21538), (86, 21541), (90, 21559), (96, 21583), (100, 21622), (104, 21667), (105, 21679), (107, 21691), (109, 21703), (113, 21730), (115, 21757), (116, 21766), (117, 21769), (122, 21817), (126, 21841),

Gene: RagingRooster_27 Start: 19777, Stop: 20370, Start Num: 28

Candidate Starts for RagingRooster_27:

(Start: 28 @19777 has 42 MA's), (29, 19783), (Start: 35 @19816 has 7 MA's), (104, 20146), (111, 20191), (115, 20236), (117, 20248), (122, 20296),

Gene: RawrgerThat_24 Start: 19802, Stop: 20362, Start Num: 22

Candidate Starts for RawrgerThat_24:

(Start: 22 @19802 has 32 MA's), (Start: 36 @19862 has 33 MA's), (54, 19919), (57, 19928), (65, 19964), (Start: 66 @19970 has 2 MA's), (72, 19985), (80, 20003), (87, 20033), (93, 20057), (105, 20177), (106, 20183), (114, 20252), (117, 20267), (119, 20294), (120, 20303),

Gene: Reccee_27 Start: 20040, Stop: 20606, Start Num: 22

Candidate Starts for Reccee_27:

(5, 19866), (Start: 22 @20040 has 32 MA's), (47, 20145), (Start: 48 @20148 has 1 MA's), (67, 20226), (74, 20238), (114, 20484), (117, 20499), (119, 20526), (121, 20544),

Gene: RedMaple_25 Start: 19159, Stop: 19719, Start Num: 23

Candidate Starts for RedMaple_25:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: RedRaider89_26 Start: 19379, Stop: 19939, Start Num: 23

Candidate Starts for RedRaider89_26:

(5, 19208), (Start: 23 @19379 has 279 MA's), (71, 19565), (87, 19619), (117, 19850), (123, 19910),

Gene: Renkei_23 Start: 18780, Stop: 19340, Start Num: 22

Candidate Starts for Renkei_23:

(Start: 22 @18780 has 32 MA's), (54, 18897), (57, 18906), (65, 18942), (Start: 66 @18948 has 2 MA's), (72, 18963), (80, 18981), (87, 19011), (93, 19035), (95, 19053), (105, 19155), (106, 19161), (107, 19167), (114, 19230), (117, 19245), (119, 19272), (120, 19281),

Gene: Reprobate_26 Start: 20073, Stop: 20681, Start Num: 16

Candidate Starts for Reprobate_26:

(Start: 16 @20073 has 2 MA's), (Start: 22 @20112 has 32 MA's), (45, 20217), (57, 20253), (74, 20313), (90, 20352), (101, 20433), (114, 20559), (117, 20574), (118, 20589), (120, 20610), (121, 20619), (123, 20634),

Gene: Rhinoforte_28 Start: 21434, Stop: 21919, Start Num: 36

Candidate Starts for Rhinoforte_28:

(Start: 36 @21434 has 33 MA's), (44, 21461), (57, 21503), (85, 21569), (86, 21572), (90, 21590), (96, 21614), (100, 21653), (104, 21698), (105, 21710), (107, 21722), (109, 21734), (113, 21761), (115, 21788), (116, 21797), (117, 21800), (122, 21848), (126, 21872),

Gene: Rich_25 Start: 19612, Stop: 20178, Start Num: 22

Candidate Starts for Rich_25:

(5, 19438), (8, 19471), (Start: 22 @19612 has 32 MA's), (67, 19798), (74, 19810), (85, 19828), (114, 20056), (117, 20071), (119, 20098), (120, 20107),

Gene: Ricotta_25 Start: 18871, Stop: 19434, Start Num: 23

Candidate Starts for Ricotta_25:

(5, 18700), (Start: 23 @18871 has 279 MA's), (71, 19057), (87, 19111), (117, 19342), (123, 19402),

Gene: Riggan_26 Start: 19131, Stop: 19694, Start Num: 23

Candidate Starts for Riggan_26:

(5, 18960), (Start: 23 @19131 has 279 MA's), (71, 19317), (87, 19371), (117, 19602), (123, 19662),

Gene: Rimu_26 Start: 18880, Stop: 19443, Start Num: 23

Candidate Starts for Rimu_26:

(5, 18709), (Start: 23 @18880 has 279 MA's), (71, 19066), (87, 19120), (99, 19195), (117, 19351), (123, 19411),

Gene: Rita130_26 Start: 19860, Stop: 20426, Start Num: 22

Candidate Starts for Rita130_26:

(5, 19686), (Start: 22 @19860 has 32 MA's), (47, 19965), (Start: 48 @19968 has 1 MA's), (67, 20046), (74, 20058), (114, 20304), (117, 20319), (119, 20346), (121, 20364),

Gene: Rita1961_27 Start: 19811, Stop: 20365, Start Num: 35

Candidate Starts for Rita1961_27:

(Start: 28 @19772 has 42 MA's), (29, 19778), (Start: 35 @19811 has 7 MA's), (104, 20141), (111, 20186), (115, 20231), (117, 20243), (122, 20291),

Gene: Riverton_25 Start: 19155, Stop: 19718, Start Num: 23
Candidate Starts for Riverton_25:
(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: Robyn_25 Start: 18722, Stop: 19285, Start Num: 23
Candidate Starts for Robyn_25:
(5, 18551), (17, 18692), (Start: 23 @18722 has 279 MA's), (71, 18908), (87, 18962), (117, 19193),
(123, 19253),

Gene: Roliet_26 Start: 19147, Stop: 19710, Start Num: 23
Candidate Starts for Roliet_26:
(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: RomaT_27 Start: 20562, Stop: 21155, Start Num: 28
Candidate Starts for RomaT_27:
(Start: 28 @20562 has 42 MA's), (29, 20568), (Start: 35 @20601 has 7 MA's), (104, 20931), (111, 20976), (115, 21021), (117, 21033), (122, 21081),

Gene: Roscoe_27 Start: 19389, Stop: 19949, Start Num: 23
Candidate Starts for Roscoe_27:
(5, 19218), (Start: 23 @19389 has 279 MA's), (71, 19575), (87, 19629), (117, 19860), (123, 19920),

Gene: Rosebush_28 Start: 21435, Stop: 21920, Start Num: 37
Candidate Starts for Rosebush_28:
(Start: 37 @21435 has 17 MA's), (44, 21462), (57, 21504), (85, 21570), (86, 21573), (90, 21591), (96, 21615), (100, 21654), (104, 21699), (105, 21711), (107, 21723), (109, 21735), (113, 21762), (115, 21789), (116, 21798), (117, 21801), (122, 21849), (126, 21873),

Gene: Roy17_26 Start: 18851, Stop: 19414, Start Num: 23
Candidate Starts for Roy17_26:
(5, 18680), (Start: 23 @18851 has 279 MA's), (71, 19037), (87, 19091), (117, 19322), (123, 19382),

Gene: SDcharge11_26 Start: 19129, Stop: 19689, Start Num: 23
Candidate Starts for SDcharge11_26:
(5, 18958), (Start: 23 @19129 has 279 MA's), (71, 19315), (87, 19369), (117, 19600), (123, 19660),

Gene: Sabella_28 Start: 21321, Stop: 21806, Start Num: 37
Candidate Starts for Sabella_28:
(Start: 37 @21321 has 17 MA's), (44, 21348), (57, 21390), (85, 21456), (86, 21459), (90, 21477), (96, 21501), (100, 21540), (104, 21585), (105, 21597), (107, 21609), (109, 21621), (113, 21648), (115, 21675), (116, 21684), (117, 21687), (122, 21735), (126, 21759),

Gene: SallyH_26 Start: 19161, Stop: 19724, Start Num: 23
Candidate Starts for SallyH_26:
(5, 18990), (Start: 23 @19161 has 279 MA's), (71, 19347), (87, 19401), (117, 19632), (123, 19692),

Gene: Samaymay_26 Start: 19148, Stop: 19711, Start Num: 23
Candidate Starts for Samaymay_26:
(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: SassyCat97_25 Start: 18857, Stop: 19420, Start Num: 23
Candidate Starts for SassyCat97_25:
(5, 18686), (Start: 23 @18857 has 279 MA's), (71, 19043), (87, 19097), (117, 19328), (123, 19388),

Gene: Schadenfreude_25 Start: 18705, Stop: 19268, Start Num: 23

Candidate Starts for Schadenfreude_25:

(5, 18534), (Start: 23 @18705 has 279 MA's), (71, 18891), (87, 18945), (117, 19176), (123, 19236),

Gene: Schueller_25 Start: 18848, Stop: 19411, Start Num: 23

Candidate Starts for Schueller_25:

(5, 18677), (Start: 23 @18848 has 279 MA's), (71, 19034), (87, 19088), (117, 19319), (123, 19379),

Gene: Scoot17C_26 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Scoot17C_26:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: Scrick_26 Start: 18875, Stop: 19438, Start Num: 23

Candidate Starts for Scrick_26:

(5, 18704), (Start: 23 @18875 has 279 MA's), (71, 19061), (87, 19115), (117, 19346), (123, 19406),

Gene: Sejanus_23 Start: 18142, Stop: 18735, Start Num: 34

Candidate Starts for Sejanus_23:

(Start: 34 @18142 has 4 MA's), (94, 18391), (101, 18454), (108, 18520), (112, 18541), (114, 18577), (116, 18589), (120, 18631), (127, 18700), (128, 18709),

Gene: Selr12_26 Start: 18872, Stop: 19435, Start Num: 23

Candidate Starts for Selr12_26:

(5, 18701), (Start: 23 @18872 has 279 MA's), (71, 19058), (87, 19112), (117, 19343), (123, 19403),

Gene: Serendipitous_25 Start: 19669, Stop: 20238, Start Num: 22

Candidate Starts for Serendipitous_25:

(5, 19495), (Start: 22 @19669 has 32 MA's), (44, 19771), (57, 19810), (67, 19858), (74, 19870), (114, 20116), (117, 20131), (119, 20158), (120, 20167), (123, 20191),

Gene: Serendipity_26 Start: 19170, Stop: 19730, Start Num: 23

Candidate Starts for Serendipity_26:

(5, 18999), (Start: 23 @19170 has 279 MA's), (71, 19356), (87, 19410), (117, 19641), (123, 19701),

Gene: Serpentine_0026 Start: 19150, Stop: 19713, Start Num: 23

Candidate Starts for Serpentine_0026:

(5, 18979), (Start: 23 @19150 has 279 MA's), (71, 19336), (87, 19390), (117, 19621), (123, 19681),

Gene: ShadowBud_26 Start: 19164, Stop: 19727, Start Num: 23

Candidate Starts for ShadowBud_26:

(Start: 23 @19164 has 279 MA's), (71, 19350), (87, 19404), (117, 19635), (123, 19695),

Gene: Shatter_23 Start: 17682, Stop: 18221, Start Num: 36

Candidate Starts for Shatter_23:

(18, 17577), (Start: 36 @17682 has 33 MA's), (57, 17760), (92, 17868), (93, 17874), (106, 17997), (109, 18015), (111, 18024), (114, 18066), (117, 18081), (122, 18129), (123, 18141),

Gene: Sheila_26 Start: 19142, Stop: 19705, Start Num: 23

Candidate Starts for Sheila_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: Shenandoah_27 Start: 19794, Stop: 20348, Start Num: 35

Candidate Starts for Shenandoah_27:

(Start: 28 @19755 has 42 MA's), (29, 19761), (Start: 35 @19794 has 7 MA's), (58, 19899), (104, 20124), (111, 20169), (115, 20214), (117, 20226), (122, 20274),

Gene: Shenyu_26 Start: 19812, Stop: 20381, Start Num: 22

Candidate Starts for Shenyu_26:

(Start: 22 @19812 has 32 MA's), (44, 19914), (67, 20001), (74, 20013), (89, 20049), (114, 20259), (117, 20274), (119, 20301),

Gene: ShiVal_26 Start: 19142, Stop: 19705, Start Num: 23

Candidate Starts for ShiVal_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: Sigman_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for Sigman_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: SilverBell_26 Start: 19165, Stop: 19728, Start Num: 23

Candidate Starts for SilverBell_26:

(5, 18994), (Start: 23 @19165 has 279 MA's), (71, 19351), (87, 19405), (117, 19636), (123, 19696),

Gene: Simielle_25 Start: 18840, Stop: 19403, Start Num: 23

Candidate Starts for Simielle_25:

(5, 18669), (Start: 23 @18840 has 279 MA's), (71, 19026), (87, 19080), (117, 19311), (123, 19371),

Gene: SirBeauregard_25 Start: 18834, Stop: 19397, Start Num: 23

Candidate Starts for SirBeauregard_25:

(5, 18663), (Start: 23 @18834 has 279 MA's), (71, 19020), (87, 19074), (99, 19149), (117, 19305), (123, 19365),

Gene: SirJeffery_26 Start: 19855, Stop: 20421, Start Num: 22

Candidate Starts for SirJeffery_26:

(5, 19681), (Start: 22 @19855 has 32 MA's), (47, 19960), (Start: 48 @19963 has 1 MA's), (67, 20041), (74, 20053), (114, 20299), (117, 20314), (119, 20341), (121, 20359),

Gene: Sisko_23 Start: 17967, Stop: 18464, Start Num: 36

Candidate Starts for Sisko_23:

(Start: 36 @17967 has 33 MA's), (55, 18039), (75, 18075), (105, 18249), (106, 18255), (114, 18324), (117, 18339), (122, 18387),

Gene: Skippy_26 Start: 19136, Stop: 19699, Start Num: 23

Candidate Starts for Skippy_26:

(Start: 23 @19136 has 279 MA's), (71, 19322), (87, 19376), (117, 19607), (123, 19667),

Gene: Slatt_26 Start: 19164, Stop: 19727, Start Num: 23

Candidate Starts for Slatt_26:

(5, 18993), (Start: 23 @19164 has 279 MA's), (71, 19350), (87, 19404), (117, 19635), (123, 19695),

Gene: SlippinJimmy_27 Start: 20580, Stop: 21134, Start Num: 35

Candidate Starts for SlippinJimmy_27:

(Start: 28 @20541 has 42 MA's), (29, 20547), (Start: 35 @20580 has 7 MA's), (104, 20910), (111, 20955), (115, 21000), (117, 21012), (122, 21060),

Gene: Soile_26 Start: 18862, Stop: 19425, Start Num: 23

Candidate Starts for Soile_26:

(5, 18691), (Start: 23 @18862 has 279 MA's), (71, 19048), (87, 19102), (99, 19177), (117, 19333), (123, 19393),

Gene: Solosis_25 Start: 18867, Stop: 19427, Start Num: 23

Candidate Starts for Solosis_25:

(5, 18696), (Start: 23 @18867 has 279 MA's), (71, 19053), (87, 19107), (117, 19338), (123, 19398),

Gene: Sophia_25 Start: 18860, Stop: 19423, Start Num: 23

Candidate Starts for Sophia_25:

(5, 18689), (Start: 23 @18860 has 279 MA's), (71, 19046), (87, 19100), (117, 19331), (123, 19391),

Gene: Soto_26 Start: 19144, Stop: 19707, Start Num: 23

Candidate Starts for Soto_26:

(5, 18973), (Start: 23 @19144 has 279 MA's), (71, 19330), (87, 19384), (117, 19615), (123, 19675),

Gene: Sour_27 Start: 21685, Stop: 22194, Start Num: 36

Candidate Starts for Sour_27:

(Start: 36 @21685 has 33 MA's), (57, 21763), (85, 21817), (106, 21973), (110, 21994), (117, 22057), (122, 22105),

Gene: Spartan300_26 Start: 19145, Stop: 19708, Start Num: 23

Candidate Starts for Spartan300_26:

(5, 18974), (Start: 23 @19145 has 279 MA's), (71, 19331), (87, 19385), (117, 19616), (123, 19676),

Gene: Squid_26 Start: 18857, Stop: 19420, Start Num: 23

Candidate Starts for Squid_26:

(5, 18686), (Start: 23 @18857 has 279 MA's), (71, 19043), (87, 19097), (117, 19328), (123, 19388),

Gene: Squiggle_26 Start: 18854, Stop: 19417, Start Num: 23

Candidate Starts for Squiggle_26:

(5, 18683), (Start: 23 @18854 has 279 MA's), (71, 19040), (87, 19094), (117, 19325), (123, 19385),

Gene: Stinger_22 Start: 18290, Stop: 18919, Start Num: 14

Candidate Starts for Stinger_22:

(Start: 14 @18290 has 1 MA's), (15, 18308), (Start: 22 @18350 has 32 MA's), (Start: 36 @18419 has 33 MA's), (41, 18440), (54, 18476), (57, 18485), (65, 18521), (Start: 66 @18527 has 2 MA's), (80, 18557), (87, 18590), (90, 18599), (93, 18614), (95, 18632), (105, 18734), (106, 18740), (107, 18746), (114, 18809), (117, 18824), (119, 18851), (120, 18860),

Gene: StinkyVeggy_28 Start: 19984, Stop: 20553, Start Num: 22

Candidate Starts for StinkyVeggy_28:

(Start: 22 @19984 has 32 MA's), (44, 20086), (67, 20173), (74, 20185), (89, 20221), (114, 20431), (117, 20446), (119, 20473),

Gene: Struggle_25 Start: 18701, Stop: 19264, Start Num: 23

Candidate Starts for Struggle_25:

(5, 18530), (Start: 23 @18701 has 279 MA's), (71, 18887), (87, 18941), (99, 19016), (117, 19172), (123, 19232),

Gene: Suffolk_26 Start: 19147, Stop: 19710, Start Num: 23

Candidate Starts for Suffolk_26:

(5, 18976), (Start: 23 @19147 has 279 MA's), (71, 19333), (87, 19387), (117, 19618), (123, 19678),

Gene: Suigeneris_26 Start: 19864, Stop: 20430, Start Num: 22

Candidate Starts for Suigeneris_26:

(5, 19690), (Start: 22 @19864 has 32 MA's), (47, 19969), (Start: 48 @19972 has 1 MA's), (67, 20050), (74, 20062), (114, 20308), (117, 20323), (119, 20350), (121, 20368),

Gene: Surely_26 Start: 19159, Stop: 19722, Start Num: 23

Candidate Starts for Surely_26:

(5, 18988), (Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: SwainyDoc_27 Start: 19813, Stop: 20367, Start Num: 35

Candidate Starts for SwainyDoc_27:

(Start: 28 @19774 has 42 MA's), (29, 19780), (Start: 35 @19813 has 7 MA's), (104, 20143), (111, 20188), (115, 20233), (117, 20245), (122, 20293),

Gene: Swiphy_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for Swiphy_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (99, 19463), (117, 19619), (123, 19679),

Gene: Swish_26 Start: 19142, Stop: 19705, Start Num: 23

Candidate Starts for Swish_26:

(5, 18971), (Start: 23 @19142 has 279 MA's), (71, 19328), (87, 19382), (117, 19613), (123, 19673),

Gene: SynergyX_27 Start: 19777, Stop: 20370, Start Num: 28

Candidate Starts for SynergyX_27:

(Start: 28 @19777 has 42 MA's), (29, 19783), (Start: 35 @19816 has 7 MA's), (104, 20146), (111, 20191), (115, 20236), (117, 20248), (122, 20296),

Gene: TA17A_29 Start: 21314, Stop: 21799, Start Num: 36

Candidate Starts for TA17A_29:

(Start: 36 @21314 has 33 MA's), (44, 21341), (57, 21383), (85, 21449), (86, 21452), (90, 21470), (96, 21494), (100, 21533), (104, 21578), (105, 21590), (107, 21602), (109, 21614), (113, 21641), (115, 21668), (116, 21677), (117, 21680), (122, 21728), (126, 21752),

Gene: TPA2_32 Start: 20033, Stop: 20467, Start Num: 49

Candidate Starts for TPA2_32:

(49, 20033), (57, 20066), (84, 20117), (91, 20144), (92, 20150), (98, 20186), (105, 20270), (106, 20276), (107, 20282), (109, 20294), (115, 20348), (117, 20360), (122, 20408), (126, 20432),

Gene: TallGrassMM_26 Start: 18874, Stop: 19437, Start Num: 23

Candidate Starts for TallGrassMM_26:

(5, 18703), (Start: 23 @18874 has 279 MA's), (71, 19060), (87, 19114), (117, 19345), (123, 19405),

Gene: Taptic_20 Start: 18567, Stop: 19142, Start Num: 42

Candidate Starts for Taptic_20:

(2, 18051), (3, 18123), (6, 18291), (7, 18303), (10, 18339), (25, 18474), (26, 18477), (39, 18558), (Start: 42 @18567 has 6 MA's), (Start: 66 @18675 has 2 MA's), (79, 18723), (101, 18858), (102, 18876), (105, 18909), (114, 18984), (116, 18996), (117, 18999), (126, 19068),

Gene: Telesworld_25 Start: 18853, Stop: 19416, Start Num: 23

Candidate Starts for Telesworld_25:

(5, 18682), (Start: 23 @18853 has 279 MA's), (71, 19039), (87, 19093), (117, 19324), (123, 19384),

Gene: Thora_26 Start: 19159, Stop: 19719, Start Num: 23

Candidate Starts for Thora_26:

(Start: 23 @19159 has 279 MA's), (71, 19345), (87, 19399), (117, 19630), (123, 19690),

Gene: ThreeOh3D2_26 Start: 19157, Stop: 19717, Start Num: 23

Candidate Starts for ThreeOh3D2_26:

(5, 18986), (Start: 23 @19157 has 279 MA's), (71, 19343), (87, 19397), (117, 19628), (123, 19688),

Gene: Thunderbird_25 Start: 18857, Stop: 19417, Start Num: 23

Candidate Starts for Thunderbird_25:

(5, 18686), (Start: 23 @18857 has 279 MA's), (71, 19043), (87, 19097), (117, 19328), (123, 19388),

Gene: Timmi_25 Start: 18868, Stop: 19428, Start Num: 23

Candidate Starts for Timmi_25:

(5, 18697), (Start: 23 @18868 has 279 MA's), (71, 19054), (87, 19108), (117, 19339), (123, 19399),

Gene: Tinciduntolum_29 Start: 21437, Stop: 21922, Start Num: 37

Candidate Starts for Tinciduntolum_29:

(Start: 37 @21437 has 17 MA's), (44, 21464), (57, 21506), (85, 21572), (86, 21575), (90, 21593), (96, 21617), (100, 21656), (104, 21701), (105, 21713), (107, 21725), (109, 21737), (113, 21764), (115, 21791), (116, 21800), (117, 21803), (122, 21851), (126, 21875),

Gene: TinyTerror_27 Start: 19774, Stop: 20367, Start Num: 28

Candidate Starts for TinyTerror_27:

(Start: 28 @19774 has 42 MA's), (29, 19780), (Start: 35 @19813 has 7 MA's), (104, 20143), (111, 20188), (115, 20233), (117, 20245), (122, 20293),

Gene: TomBombadil_26 Start: 19153, Stop: 19713, Start Num: 23

Candidate Starts for TomBombadil_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Tomlarah_26 Start: 19143, Stop: 19706, Start Num: 23

Candidate Starts for Tomlarah_26:

(5, 18972), (Start: 23 @19143 has 279 MA's), (71, 19329), (87, 19383), (117, 19614), (123, 19674),

Gene: Toni_25 Start: 18852, Stop: 19415, Start Num: 23

Candidate Starts for Toni_25:

(5, 18681), (Start: 23 @18852 has 279 MA's), (71, 19038), (87, 19092), (117, 19323), (123, 19383),

Gene: TooFast2Furius_27 Start: 19389, Stop: 19949, Start Num: 23

Candidate Starts for TooFast2Furius_27:

(5, 19218), (Start: 23 @19389 has 279 MA's), (71, 19575), (87, 19629), (117, 19860), (123, 19920),

Gene: Tooj_26 Start: 19154, Stop: 19717, Start Num: 23

Candidate Starts for Tooj_26:

(5, 18983), (Start: 23 @19154 has 279 MA's), (71, 19340), (87, 19394), (117, 19625), (123, 19685),

Gene: TraderJ_25 Start: 19070, Stop: 19585, Start Num: 36

Candidate Starts for TraderJ_25:

(30, 19028), (Start: 33 @19034 has 3 MA's), (Start: 36 @19070 has 33 MA's), (44, 19097), (46, 19106), (62, 19166), (85, 19208), (102, 19322), (106, 19361), (110, 19382), (114, 19430), (117, 19445), (122,

19493), (123, 19505), (126, 19517),

Gene: Tres_28 Start: 21318, Stop: 21803, Start Num: 37

Candidate Starts for Tres_28:

(Start: 37 @21318 has 17 MA's), (44, 21345), (57, 21387), (85, 21453), (86, 21456), (90, 21474), (96, 21498), (100, 21537), (104, 21582), (105, 21594), (107, 21606), (109, 21618), (113, 21645), (115, 21672), (116, 21681), (117, 21684), (122, 21732), (126, 21756),

Gene: Triad_26 Start: 18023, Stop: 18586, Start Num: 23

Candidate Starts for Triad_26:

(5, 17852), (Start: 23 @18023 has 279 MA's), (71, 18209), (87, 18263), (117, 18494), (123, 18554),

Gene: True_25 Start: 18856, Stop: 19419, Start Num: 23

Candidate Starts for True_25:

(5, 18685), (Start: 23 @18856 has 279 MA's), (71, 19042), (87, 19096), (117, 19327), (123, 19387),

Gene: Trypo_26 Start: 19145, Stop: 19708, Start Num: 23

Candidate Starts for Trypo_26:

(5, 18974), (Start: 23 @19145 has 279 MA's), (71, 19331), (87, 19385), (99, 19460), (117, 19616), (123, 19676),

Gene: Tydolla_27 Start: 20514, Stop: 21107, Start Num: 28

Candidate Starts for Tydolla_27:

(Start: 28 @20514 has 42 MA's), (29, 20520), (Start: 35 @20553 has 7 MA's), (104, 20883), (111, 20928), (115, 20973), (117, 20985), (122, 21033),

Gene: TyrionL_25 Start: 18709, Stop: 19272, Start Num: 23

Candidate Starts for TyrionL_25:

(5, 18538), (Start: 23 @18709 has 279 MA's), (71, 18895), (87, 18949), (99, 19024), (117, 19180), (123, 19240),

Gene: UAch1_26 Start: 19165, Stop: 19728, Start Num: 23

Candidate Starts for UAch1_26:

(5, 18994), (Start: 23 @19165 has 279 MA's), (71, 19351), (87, 19405), (117, 19636), (123, 19696),

Gene: UncleHowie_26 Start: 18855, Stop: 19418, Start Num: 23

Candidate Starts for UncleHowie_26:

(5, 18684), (Start: 23 @18855 has 279 MA's), (71, 19041), (87, 19095), (117, 19326), (123, 19386),

Gene: Usavi_26 Start: 19156, Stop: 19719, Start Num: 23

Candidate Starts for Usavi_26:

(5, 18985), (Start: 23 @19156 has 279 MA's), (71, 19342), (87, 19396), (117, 19627), (123, 19687),

Gene: Vaishali24_25 Start: 18814, Stop: 19377, Start Num: 23

Candidate Starts for Vaishali24_25:

(5, 18643), (17, 18784), (Start: 23 @18814 has 279 MA's), (71, 19000), (87, 19054), (117, 19285), (123, 19345),

Gene: Valjean_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for Valjean_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: Vaticameos_26 Start: 18846, Stop: 19409, Start Num: 23

Candidate Starts for Vaticameos_26:

(5, 18675), (Start: 23 @18846 has 279 MA's), (71, 19032), (87, 19086), (117, 19317), (123, 19377),

Gene: Veritas_25 Start: 18715, Stop: 19278, Start Num: 23

Candidate Starts for Veritas_25:

(5, 18544), (Start: 23 @18715 has 279 MA's), (71, 18901), (87, 18955), (99, 19030), (117, 19186), (123, 19246),

Gene: Vic9_00028 Start: 21795, Stop: 22250, Start Num: 48

Candidate Starts for Vic9_00028:

(Start: 36 @21765 has 33 MA's), (44, 21792), (Start: 48 @21795 has 1 MA's), (57, 21834), (85, 21900), (86, 21903), (90, 21921), (96, 21945), (100, 21984), (104, 22029), (105, 22041), (107, 22053), (109, 22065), (113, 22092), (115, 22119), (116, 22128), (117, 22131), (122, 22179), (126, 22203),

Gene: Vincenzo_25 Start: 20564, Stop: 21106, Start Num: 22

Candidate Starts for Vincenzo_25:

(Start: 22 @20564 has 32 MA's), (Start: 36 @20627 has 33 MA's), (60, 20696), (63, 20705), (77, 20738), (79, 20744), (80, 20747), (87, 20777), (105, 20921), (106, 20927), (114, 20996), (117, 21011), (120, 21047),

Gene: VioletZ_24 Start: 19861, Stop: 20421, Start Num: 22

Candidate Starts for VioletZ_24:

(Start: 22 @19861 has 32 MA's), (Start: 36 @19921 has 33 MA's), (54, 19978), (57, 19987), (65, 20023), (Start: 66 @20029 has 2 MA's), (80, 20062), (87, 20092), (93, 20116), (103, 20218), (105, 20236), (106, 20242), (114, 20311), (117, 20326), (119, 20353), (120, 20362),

Gene: Virapocalypse_26 Start: 19139, Stop: 19702, Start Num: 23

Candidate Starts for Virapocalypse_26:

(5, 18968), (Start: 23 @19139 has 279 MA's), (71, 19325), (87, 19379), (117, 19610), (123, 19670),

Gene: Virgeve_25 Start: 18881, Stop: 19444, Start Num: 23

Candidate Starts for Virgeve_25:

(5, 18710), (Start: 23 @18881 has 279 MA's), (71, 19067), (87, 19121), (99, 19196), (117, 19352), (123, 19412),

Gene: Vista_26 Start: 19153, Stop: 19716, Start Num: 23

Candidate Starts for Vista_26:

(5, 18982), (Start: 23 @19153 has 279 MA's), (71, 19339), (87, 19393), (117, 19624), (123, 19684),

Gene: Vivaldi_26 Start: 19183, Stop: 19743, Start Num: 23

Candidate Starts for Vivaldi_26:

(5, 19012), (Start: 23 @19183 has 279 MA's), (71, 19369), (87, 19423), (117, 19654), (123, 19714),

Gene: Vortex_26 Start: 18863, Stop: 19423, Start Num: 23

Candidate Starts for Vortex_26:

(5, 18692), (Start: 23 @18863 has 279 MA's), (71, 19049), (87, 19103), (117, 19334), (123, 19394),

Gene: Waleliano_24 Start: 19800, Stop: 20360, Start Num: 22

Candidate Starts for Waleliano_24:

(Start: 22 @19800 has 32 MA's), (Start: 36 @19860 has 33 MA's), (54, 19917), (57, 19926), (65, 19962), (Start: 66 @19968 has 2 MA's), (80, 20001), (87, 20031), (93, 20055), (105, 20175), (106, 20181), (114, 20250), (117, 20265), (119, 20292), (120, 20301),

Gene: Wallhey_25 Start: 18713, Stop: 19276, Start Num: 23

Candidate Starts for Wallhey_25:

(5, 18542), (Start: 23 @18713 has 279 MA's), (71, 18899), (87, 18953), (99, 19028), (117, 19184), (123, 19244),

Gene: Waterdiva_26 Start: 19148, Stop: 19711, Start Num: 23

Candidate Starts for Waterdiva_26:

(5, 18977), (Start: 23 @19148 has 279 MA's), (71, 19334), (87, 19388), (117, 19619), (123, 19679),

Gene: Weher20_26 Start: 19141, Stop: 19704, Start Num: 23

Candidate Starts for Weher20_26:

(5, 18970), (Start: 23 @19141 has 279 MA's), (71, 19327), (87, 19381), (117, 19612), (123, 19672),

Gene: West99_28 Start: 21438, Stop: 21923, Start Num: 37

Candidate Starts for West99_28:

(Start: 37 @21438 has 17 MA's), (44, 21465), (57, 21507), (85, 21573), (86, 21576), (90, 21594), (96, 21618), (100, 21657), (104, 21702), (105, 21714), (107, 21726), (109, 21738), (113, 21765), (115, 21792), (116, 21801), (117, 21804), (122, 21852), (126, 21876),

Gene: Windsor_25 Start: 18833, Stop: 19396, Start Num: 23

Candidate Starts for Windsor_25:

(5, 18662), (Start: 23 @18833 has 279 MA's), (71, 19019), (87, 19073), (99, 19148), (117, 19304), (123, 19364),

Gene: Wooper_25 Start: 19076, Stop: 19591, Start Num: 36

Candidate Starts for Wooper_25:

(30, 19034), (Start: 33 @19040 has 3 MA's), (Start: 36 @19076 has 33 MA's), (44, 19103), (46, 19112), (62, 19172), (85, 19214), (102, 19328), (106, 19367), (110, 19388), (114, 19436), (117, 19451), (122, 19499), (123, 19511), (126, 19523),

Gene: Xavier_25 Start: 18866, Stop: 19429, Start Num: 23

Candidate Starts for Xavier_25:

(5, 18695), (Start: 23 @18866 has 279 MA's), (71, 19052), (87, 19106), (117, 19337), (123, 19397),

Gene: Xincheng_23 Start: 19261, Stop: 19821, Start Num: 22

Candidate Starts for Xincheng_23:

(Start: 22 @19261 has 32 MA's), (Start: 36 @19321 has 33 MA's), (50, 19366), (54, 19378), (57, 19387), (65, 19423), (Start: 66 @19429 has 2 MA's), (80, 19462), (87, 19492), (89, 19498), (93, 19516), (105, 19636), (106, 19642), (114, 19711), (117, 19726), (119, 19753), (120, 19762),

Gene: Yago84_23 Start: 17975, Stop: 18538, Start Num: 36

Candidate Starts for Yago84_23:

(Start: 36 @17975 has 33 MA's), (55, 18047), (59, 18059), (68, 18107), (70, 18116), (105, 18323), (106, 18329), (114, 18398), (117, 18413), (122, 18461),

Gene: Yahalom_27 Start: 19789, Stop: 20382, Start Num: 28

Candidate Starts for Yahalom_27:

(Start: 28 @19789 has 42 MA's), (29, 19795), (Start: 35 @19828 has 7 MA's), (58, 19933), (104, 20158), (111, 20203), (115, 20248), (117, 20260), (122, 20308),

Gene: Yeshua_25 Start: 19017, Stop: 19568, Start Num: 33

Candidate Starts for Yeshua_25:

(30, 19011), (Start: 33 @19017 has 3 MA's), (Start: 36 @19053 has 33 MA's), (44, 19080), (46, 19089), (62, 19149), (85, 19191), (102, 19305), (106, 19344), (110, 19365), (114, 19413), (117, 19428), (122, 19476), (123, 19488), (126, 19500),

Gene: Yinz_27 Start: 19815, Stop: 20408, Start Num: 28

Candidate Starts for Yinz_27:

(Start: 28 @19815 has 42 MA's), (29, 19821), (Start: 35 @19854 has 7 MA's), (104, 20184), (111, 20229), (115, 20274), (117, 20286), (122, 20334),

Gene: Yoshand_26 Start: 19155, Stop: 19718, Start Num: 23

Candidate Starts for Yoshand_26:

(5, 18984), (Start: 23 @19155 has 279 MA's), (71, 19341), (87, 19395), (117, 19626), (123, 19686),

Gene: YouGoGlencoco_26 Start: 19144, Stop: 19707, Start Num: 23

Candidate Starts for YouGoGlencoco_26:

(5, 18973), (Start: 23 @19144 has 279 MA's), (71, 19330), (87, 19384), (117, 19615), (123, 19675),

Gene: Zaider_27 Start: 19380, Stop: 19943, Start Num: 23

Candidate Starts for Zaider_27:

(5, 19209), (Start: 23 @19380 has 279 MA's), (71, 19566), (87, 19620), (117, 19851), (123, 19911),

Gene: Zelda_26 Start: 19149, Stop: 19712, Start Num: 23

Candidate Starts for Zelda_26:

(5, 18978), (Start: 23 @19149 has 279 MA's), (71, 19335), (87, 19389), (117, 19620), (123, 19680),

Gene: Zemanar_25 Start: 19800, Stop: 20360, Start Num: 22

Candidate Starts for Zemanar_25:

(Start: 22 @19800 has 32 MA's), (Start: 36 @19860 has 33 MA's), (54, 19917), (57, 19926), (65, 19962), (Start: 66 @19968 has 2 MA's), (80, 20001), (87, 20031), (93, 20055), (105, 20175), (106, 20181), (114, 20250), (117, 20265), (119, 20292), (120, 20301),

Gene: Zonia_26 Start: 19163, Stop: 19726, Start Num: 23

Candidate Starts for Zonia_26:

(5, 18992), (Start: 23 @19163 has 279 MA's), (71, 19349), (87, 19403), (99, 19478), (117, 19634), (123, 19694),