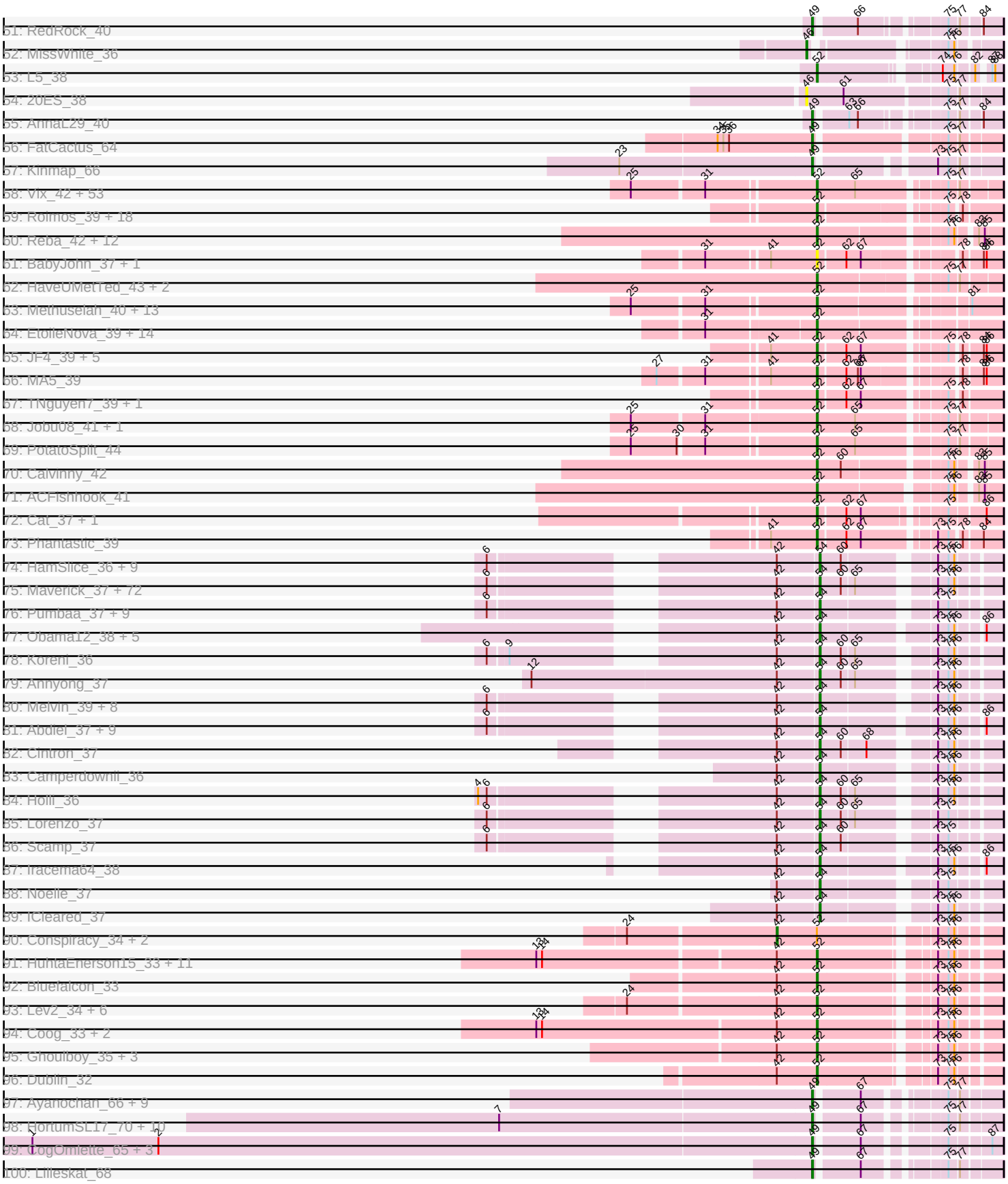
Pham 339158


1: ProMouse_47 + 28
2: Zephyr_45 + 17
3: Scowl_46 + 2
4: Rowdy_41 + 2
5: Twister_37 + 2
6: Chupacabra_37 + 4
7: RhynO_38 + 1
8: Edison31_38
9: Fibonacci_36 + 23
10: Saskia_37
11: Bachome_38
12: Timothy_37
13: 40AC_41
14: Kimona_36
15: Smeagan_41 + 6
16: Loser_40
17: BengiVuitton_37
18: BobSwaget_61 + 3
19: C3_36 + 10
20: Koduck_39
21: Kalpine_39 + 1
22: LionsBait_37
23: SwirlSquare_39
24: TipsytheTRex_66 + 3
25: Phs_40
26: Journey13_36
27: HippoHollow_37
28: Anselm_68 + 4
29: SnapTap_38 + 8
30: Changeling_39
31: Trooper_67
32: Agape74_40 + 1
33: JoshKayV_40
34: First_0037
35: ChipMunk_41 + 1
36: Duplo_41 + 3
37: Odin_37
38: LadyBird_40
39: Adzzy_39
40: ForesterFrank_65
41: CRB1_39
42: AN3_38
43: Serenity_70 + 1
44: Che12_41
45: DeerParkTS_64
46: Superchunk_37 + 1
47: Iwokeuplikedis_41
48: Prudy_64
49: Deloris_36
50: EZMoney23_38

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51: RedRock_40
52: MissWhite_36
53: L5_38
54: 20ES_38
55: AnnaL29_40
56: FatCactus_64
57: Kinmap_66
58: Vix_42 + 53
59: Rolmos_39 + 18
60: Reba_42 + 12
61: BabyJohn_37 + 1
62: HaveUMetTed_43 + 2
63: Methuselah_40 + 13
64: EtoileNova_39 + 14
65: JF4_39 + 5
66: MA5_39
67: TNguyen7_39 + 1
68: Jobu08_41 + 1
69: PotatoSpilt_44
70: Calvinny_42
71: ACFishhook_41
72: Cat_37 + 1
73: Phantastic_39
74: HamSlice_36 + 9
75: Maverick_37 + 72
76: Pumbaa_37 + 9
77: Obama12_38 + 5
78: Koreni_36
79: Annyong_37
80: Melvin_39 + 8
81: Abdiel_37 + 9
82: Cintron_37
83: Camperdownii_36
84: Holli_36
85: Lorenzo_37
86: Scamp_37
87: Iracema64_38
88: Noelle_37
89: ICleared_37
90: Conspiracy_34 + 2
91: HumaEmerson15_33 + 11
92: Bluefalcon_33
93: Lev2_34 + 6
94: Coog_33 + 2
95: Ghouliboy_35 + 3
96: Dublin_32
97: Ayanochan_66 + 9
98: HortumSL17_70 + 10
99: CogOmlette_65 + 3
100: Lilleskat_68

Pham 339158


I01: EdogawaKiddo_69 + 1
I02: Yecey3_70
I03: BogosyJay_68 + 2
I04: WorldCup_65
I05: Darrell_70
I06: Grayson_251
I07: Peregrin_249
I08: Peel_52 + 66
I09: MacKat_47 + 8
I10: Orkel_53 + 3
I11: Mururutumbu_53 + 7
I12: Peanam_55 + 5
I13: Pisa1_52 + 1
I14: Megsy_54
I15: Chavito_56
I16: Validus_57
I17: TingHuaYa_53
I18: YoureAdopted_51
I19: Lea83_65 + 4
I20: Pharb_64
I21: Keshu_67
I22: Hurricane_65
I23: YBond007_61
I24: Bobquesha_3 + 7
I25: Y2_03 + 8
I26: JF1_3
I27: MissDaisy_3
I28: Nolwazi_3
I29: Eponine_3
I30: DanSyl44_3 + 1
I31: OmniCritical_3
I32: Omnicron_36
I33: Edugator_35
I34: Rando14_36
I35: Bryler_56 + 5
I36: Shadow1_58
I37: Tigress9_58
I38: Sunflower1121_59
I39: Ximenita_59
I40: TCliff_65

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 339158 Report

This analysis was run 11/14/26 on database version 672.

Pham number 339158 has 658 members, 45 are drafts.

Phages represented in each track:
• Track 1 : ProMouse_47, Sibs6_46, PattyP_46, Blue_45, Bigchungi_44, Big3_44, DreamCatcher_48, Anglerfish_46, Molly_46, Ichabod_47, McGuire_46, Raid_45, Jorgensen_46, Arlo_43, Snazzy_43, Kanely_46, Altman_47, Nhonho_46, SkiPole_48, PascalRango_46, Petp2012_46, HanShotFirst_44, TwoPeat_46, PSullivan_45, Gandalf20_47, PinkPlastic_44, Barriga_46, Atkinbua_47, Pita2_48
• Track 2 : Zephyr_45, JC27_46, GrecoEtereo_46, Jasper_47, Fenn_47, HarryOW_44, Bruns_44, Forsytheast_45, Corvo_46, MilleFeuille_45, Target_46, SwissCheese_47, Naira_47, Dreamboat_47, Moose_45, Mryolo_43, RidgeCB_45, PherrisBueller_45
• Track 3 : Scowl_46, ConceptII_47, Alsfro_49
• Track 4 : Rowdy_41, Shapes_41, DustyMartin_41
• Track 5 : Twister_37, Topanga_37, WalterMcMickey_37
• Track 6 : Chupacabra_37, Kristoff_38, Goose_38, OKCentral2016_37, Rebeuca_38
• Track 7 : RhynO_38, Eaglepride_39
• Track 8 : Edison31_38
• Track 9 : Fibonacci_36, Petersenfast_36, Sham4_36, Gilberta_37, Kimba_37, Aneem_37, Mabel_37, Mulciber_36, Bud_36, Hutc2_36, Snape_36, Lucivia_37, Joselito_37, MaCh_37, Orange_36, Ebony_37, TinyTimmy_37, Insomnia_37, Flaverint_37, Jabith_37, Et2Brutus_36, Wolpertinger_35, Bowtie_37, Munch_37
• Track 10 : Saskia_37
• Track 11 : Bachome_38
• Track 12 : Timothy_37
• Track 13 : 40AC_41
• Track 14 : Kimona_36
• Track 15 : Smeagan_41, Jerm_40, Turbido_39, Dignity_40, Whabigail7_39, LilTurb_39, Leviathan_40
• Track 16 : Loser_40
• Track 17 : BengiVuitton_37
• Track 18 : BobSwaget_61, Rachaly_64, Miko_62, Lokk_62
• Track 19 : C3_36, AN9_41, Pomar16_41, Naji_41, D29_38, VC3_41, ANI8_41, StarStuff_41, Travvers_41, VA6_38, D32_41
• Track 20 : Koduck_39
• Track 21 : Kalpine_39, Trixie_39
• Track 22 : LionsBait_37
• Track 23 : SwirlSquare_39
• Track 24 : TipsytheTRex_66, Quokka_68, Bradman_69, MajorMajor_68
• Track 25 : Ph8s_40

• Track 26 : Journey13_36
• Track 27 : HippoHollow_37
• Track 28 : Anselm_68, Retro23_68, Fameo_67, Heffalump_66, QueenB2_66
• Track 29 : SnapTap_38, Crucio_38, FiringLine_38, QueenBeesly_38, KingCyrus_41, Georgie2_39, Power_37, SemperFi_39, SweetiePie_38
• Track 30 : Changeling_39
• Track 31 : Trooper_67
• Track 32 : Agape74_40, AbbyPaige_40
• Track 33 : JoshKayV_40
• Track 34 : First_0037
• Track 35 : ChipMunk_41, EvilGenius_41
• Track 36 : Duplo_41, Tomathan_41, DBQu4n_41, Kerberos_41
• Track 37 : Odin_37
• Track 38 : LadyBird_40
• Track 39 : Adzzy_39
• Track 40 : ForesterFrank_65
• Track 41 : CRB1_39
• Track 42 : AN3_38
• Track 43 : Serenity_70, Jsquared_70
• Track 44 : Che12_41
• Track 45 : DeerParkTS_64
• Track 46 : Superchunk_37, Caraxes_37
• Track 47 : Iwokeuplikedis_41
• Track 48 : Prudy_64
• Track 49 : Deloris_36
• Track 50 : EZMoney23_38
• Track 51 : RedRock_40
• Track 52 : MissWhite_36
• Track 53 : L5_38
• Track 54 : 20ES_38
• Track 55 : AnnaL29_40
• Track 56 : FatCactus_64
• Track 57 : Kinmap_66
• Track 58 : Vix_42, Microwolf_42, Aglet_43, MuchMore_45, DaHudson_42, Colbster_42, Grum1_42, AugsMagnumOpus_45, JHC117_42, GtownJaz_42, Grif_42, JenCasNa_43, Montavir_41, Taurus_43, Tiffany_42, MarQuardt_42, GingkoMaracino_42, Mainiac_42, Pembroke_42, Dieselweasel_43, Cullens_42, Stagni_42, Sabia_42, Fernando_42, Snickers_42, Watson_42, Lowa_42, LBerry_43, Bigflo_42, P28Green_43, SoYo_42, Grub_42, Beauxregard13_42, MoneyMay_42, Marie_42, Malinsilva_44, Sabinator_41, Wooldri_44, Hercules11_42, Croquant_43, Lilith_43, StepMih_42, MadMarie_42, Penny1_43, Phoebe_43, Farber_42, Anubis_45, Gwennie_42, LugYA_45, Zetzy_41, Ollie_42, BreSam8_42, PGHhamlin_44, EpicPhail_43
• Track 59 : Roimos_39, Pistachio_40, Heathen_39, Clammy_40, Fred313_39, SaturnRing_39, BlueBird_40, DropBear_39, Kachowdy_39, Goose1X_39, Giroux_40, Idleandcovert_39, HelDan_39, Marchesa_39, Bugatti_40, Scout_39, Zarafa_39, Goose1D_33, Shep_39
• Track 60 : Reba_42, Manu_42, Marius_43, Groupthink_43, PurpleHaze_42, Gemma_41, Pawn_42, Kalb97_43, JeppNRM_43, Phranny_43, Heliosoles_41, PhishRPhriends_40, Kalnoky_43
• Track 61 : BabyJohn_37, Chiqui_37
• Track 62 : HaveUMetTed_43, ClownCar_42, OlanP_41

• Track 63 : Methuselah_40, Soshari_44, Daishi_41, Misomonster_43, Louie6_41, BuzzBuzz_40, LarryKay_42, Spike509_42, Rummer_41, HashRod_43, TinyPebbles_41, KADY_42, Phoxy_42, AgronaGT15_41
• Track 64 : EtoileNova_39, Caviar_38, Texage_37, Margo_38, QuinnKiro_37, Todacoro_38, Veracruz_37, Lambert1_38, Noella_38, ResDef_38, Norbert_37, Hookmount_38, Popcicle_38, Panamaxus_36, Pocahontas_38
• Track 65 : JF4_39, JF2_39, MK4_39, Isca_38, Rockstar_39, B1_36
• Track 66 : MA5_39
• Track 67 : TNguyen7_39, Puppy_40
• Track 68 : Jobu08_41, SoilDragon_42
• Track 69 : PotatoSplit_44
• Track 70 : Calvinny_42
• Track 71 : ACFishhook_41
• Track 72 : Cat_37, BabyRay_39
• Track 73 : Phantastic_39
• Track 74 : HamSlice_36, Wilbur_37, Arturo_35, Sparxx_38, Kingmustik0402_37, Romney_37, Buckaroo_37, Chaph_37, Koan_36, Gadost_37
• Track 75 : Maverick_37, Bartimeaus_37, Bruiser_36, Skadoosh_39, Iceman_38, Ruin_37, SteMason_37, TygerBlood_37, Albee_37, Lunsford_38, Flux_37, Junimo_37, Bombshell_37, TiroTheta9_37, Sabertooth_37, LochMonster_37, KekoraPapaka_38, JoongJeon_37, Millski_36, PeterPeter_37, Broseidon_37, Eapen_37, Avle17_37, Relief_36, CentreCat_37, Thanksgivukkah_37, Nemo27_37, LappelDuVide_37, Lemur_37, Caelakin_37, LittleB_37, Eris_36, Druantia_37, Skipitt_36, JetBlade_37, BubbleTrouble_37, Jaykayelowell_36, Huxley_37, Spino_37, Roosevelt_36, RockieBear_37, KFPoly_37, Cocoaberry_37, Houdini22_37, Taquarus_37, Kyee_37, Baby16_37, Burger_35, NorthStar_36, Phacado_37, Peaches_37, Northrop_38, Shaka_37, Deano_37, Mazhar510_37, Mayonnaise_37, Connomayer_37, Florean_37, SenorClean_37, Dhanush_37, Eros_37, Palestino_36, Wizard007_37, NotAPhaseMom_37, Wander_37, Sultana_37, MeeZee_37, Funston_37, Blackmoor_37, Rocksand_38, Clarenza_37, Phighter1804_37, YoSam321_37
• Track 76 : Pumbaa_37, Phelipe_38, Tinybot_36, Nyxis_37, TroyPia_38, Commander_37, Phontbonne_37, Ulysses_36, LittleGuy_37, Medusa_37
• Track 77 : Obama12_38, SheldonCooper_39, ChampagnePapi_39, LHTSCC_39, BangNhom_38, Cerulean_38
• Track 78 : Koreni_36
• Track 79 : Annyong_37
• Track 80 : Melvin_39, OKaNui_38, Alberto7_38, Kratark_37, Rosa24_37, Kremtemulon_37, TinaFeyge_38, Polymorphads_38, Citius_37
• Track 81 : Abdiel_37, Maxo_38, Morrow_38, Kampy_37, BellusTerra_38, Eurydice_38, Eagle_37, Ohfah_38, LeoAvram_37, Nebs_38
• Track 82 : Cintron_37
• Track 83 : Camperdownii_36
• Track 84 : Holli_36
• Track 85 : Lorenzo_37
• Track 86 : Scamp_37
• Track 87 : Iracema64_38
• Track 88 : Noelle_37
• Track 89 : ICleared_37
• Track 90 : Conspiracy_34, Discoknowium_34, Jovo_34
• Track 91 : HuhtaEnerson15_33, George_32, LittleCherry_33, Bonamassa_33, Archetta_33, Prinashe11_33, Cuco_33, Milcery_33, Twigg_33, Tarynearal_32, Theia_31, Swirley_35

• Track 92 : Bluefalcon_33
• Track 93 : Lev2_34, Aragog_34, AgentM_34, Tiger_34, Phlorence_34, ForGetIt_34, PickleBack_34
• Track 94 : Coog_33, Micasa_35, Midas2_33
• Track 95 : Ghoulboy_35, SydNat_35, Zolita_34, MarysWell_32
• Track 96 : Dublin_32
• Track 97 : Ayanochan_66, ExplosioNervosa_67, Eidsmoe_67, Priya_67, EmyBug_66, Alma_67, Fayely_67, Spouty_67, Qobbit_67, Conquerage_67
• Track 98 : HortumSL17_70, Jiawan_69, Aliter_70, Catalina_71, Hanray_69, Tubs_69, Onglai_68, PackMan_68, Holex_69, Myxus_69, Phaeder_69
• Track 99 : CogOmlette_65, Bellris_67, Minispark_65, Rahalelujah_67
• Track 100 : Lilleskat_68
• Track 101 : EdogawaKiddo_69, Sachima_69
• Track 102 : Yecey3_70
• Track 103 : BogosyJay_68, Maminiaina_68, Elephantoon_67
• Track 104 : WorldCup_65
• Track 105 : Darrell_70
• Track 106 : Grayson_251
• Track 107 : Peregrin_249
• Track 108 : Peel_52, Lokum_53, CREW_52, LindNT_51, Jeckyll_52, Bern_53, Prithvi_53, Atiba_53, Zavala_54, Capricorn_52, Durfee_52, Tachez_52, Mynx_53, Ganymede_53, Deby_52, Piatt_52, MeaningOfLife_53, Ramen_53, Jarvi_52, Rosmarinus_52, Beezoo_54, AlishaPH_52, BaghaKamala_51, Adonis_52, Pokerus_51, Inky_52, Lunahalos_52, TreyKay_53, CallaLilly_52, Kheparia_52, Adephagia_52, Llorens_52, Jayhawk_53, Rapunzel97_53, CaseJules_54, Geraldini_55, Boiiii_52, BGlluviae_52, Hyperbowlee_52, Apocalypse_55, ActinUp_52, BEEST_52, Zabiza_47, Slimphazie_52, Spock_52, Twitch_52, Emerson_53, QuincyRose_51, Sulley_52, BarrelRoll_52, TruffulaTree_52, Topper_52, Dalmuri_52, Tiri_53, Asayake_52, Padfoot_52, Joy99_52, JAWS_52, CheetoDust_51, Blizzard_52, Belladonna_52, Angelica_52, Homura_52, Padpat_54, HedwigODU_52, ShiaSurprise_53, Veliki_53
• Track 109 : MacKat_47, Clipper_55, Efra2_55, TiniBug_53, DartGoblin_54, TaiwanKao_54, Anaya_54, Bella96_53, CrimD_52
• Track 110 : Urkel_53, SamuelLPlaqson_53, DrHayes_53, Anma_53
• Track 111 : Murucutumbu_53, Illumine_55, Dole_55, LaterM_53, Ageofdapage_54, Devera_57, LastHope_55, Stinson_53
• Track 112 : Peanam_55, Dartin_55, Shaobing_55, Richo_55, McMater_55, Niklas_55
• Track 113 : Pisa1_52, Pisa4_46
• Track 114 : Megsy_54
• Track 115 : Chavito_56
• Track 116 : Validus_57
• Track 117 : TingHuaYa_53
• Track 118 : YoureAdopted_51
• Track 119 : Lea83_65, MacnCheese_67, Pixie_64, ShedlockHolmes_66, TribleTrouble_65
• Track 120 : Pharb_64
• Track 121 : Keshu_67
• Track 122 : Hurricane_65
• Track 123 : TBond007_61
• Track 124 : Bobquesha_3, Slarp_3, Cheetobro_3, Mitti_3, Chancellor_3, Patt_3, Qhanda_3, Reptar3000_3

• Track 125 : Y2_03, Fionnbharth_3, Juliette_3, Ruthiejr_3, YasnayaPolyana_3, Malthus_3, Y10_03, Kraw_3, Wintermute_3
• Track 126 : JF1_3
• Track 127 : MissDaisy_3
• Track 128 : Nolwazi_3
• Track 129 : Eponine_3
• Track 130 : DanSyl44_3, Lebo14_3
• Track 131 : OmniCritical_3
• Track 132 : Omnicron_36
• Track 133 : Edugator_35
• Track 134 : Rando14_36
• Track 135 : Bryler_56, Syra333_58, Krueger_59, Cain_56, Tierra_56, Phrank_56
• Track 136 : Shadow1_58
• Track 137 : Tigress9_58
• Track 138 : Sunflower1121_59
• Track 139 : Ximenita_59
• Track 140 : TClif_65

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

The start number called the most often in the published annotations is 52, it was called in 167 of the 613 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ACFishhook_41, Adzzy_39, AgentM_34, Aglet_43, AgronaGT15_41, Anubis_45, Aragog_34, Archetta_33, AugsMagnumOpus_45, B1_36, BabyJohn_37, BabyRay_39, Beauxregard13_42, Bigflo_42, BlueBird_40, Bluefalcon_33, Bonamassa_33, BreSam8_42, Bugatti_40, BuzzBuzz_40, Calvinny_42, Caraxes_37, Cat_37, Caviar_38, Che12_41, Chiqui_37, Clammy_40, ClownCar_42, Colbster_42, Coog_33, Croquant_43, Cuco_33, Cullens_42, DaHudson_42, Daishi_41, Dieselweasel_43, DropBear_39, Dublin_32, DustyMartin_41, Eaglepride_39, EpicPhail_43, EtoileNova_39, Farber_42, Fernando_42, ForGetIt_34, Fred313_39, Gemma_41, George_32, Ghoulboy_35, GingkoMaracino_42, Giroux_40, Goose1D_33, Goose1X_39, Grayson_251, Grif_42, Groupthink_43, Grub_42, Grum1_42, GtownJaz_42, Gwennie_42, HashRod_43, HaveUMetTed_43, Heathen_39, HelDan_39, Heliosoles_41, Hercules11_42, Hookmount_38, HuhtaEnerson15_33, Idleandcovert_39, Isca_38, JF2_39, JF4_39, JHC117_42, JenCasNa_43, JeppNRM_43, Jobu08_41, KADY_42, Kachowdy_39, Kalb97_43, Kalnoky_43, Kimona_36, Koduck_39, L5_38, LBerry_43, Lambert1_38, LarryKay_42, Lev2_34, Lilith_43, LittleCherry_33, Louie6_41, Lowa_42, LugYA_45, MA5_39, MK4_39, MadMarie_42, Mainiac_42, Malinsilva_44, Manu_42, MarQuardt_42, Marchesa_39, Margo_38, Marie_42, Marius_43, MarysWell_32, Methuselah_40, Micasa_35, Microwolf_42, Midas2_33, Milcery_33, Misomonster_43, MoneyMay_42, Montavir_41, MuchMore_45, Noella_38, Norbert_37, Odin_37, OlanP_41, Ollie_42, P28Green_43, PGHhamlin_44, Panamaxus_36, Pawn_42, Pembroke_42, Penny1_43, Peregrin_249, Ph8s_40, Phantastic_39, PhishRPhriends_40, Phlorence_34, Phoebe_43, Phoxy_42, Phranny_43, PickleBack_34, Pistachio_40, Pocahontas_38, Popcicle_38, PotatoSplit_44, Prinashe11_33, Puppy_40, PurpleHaze_42, QuinnKiro_37, Reba_42, ResDef_38, RhynO_38, Rockstar_39, Roimos_39, Rowdy_41, Rummer_41, Sabia_42, Sabinator_41, SaturnRing_39,

Scout_39, Shapes_41, Shep_39, Snickers_42, SoYo_42, SoilDragon_42, Soshari_44, Spike509_42, Stagni_42, StepMih_42, Superchunk_37, SwirlSquare_39, Swirley_35, SydNat_35, TNguyen7_39, Tarynearal_32, Taurus_43, Texage_37, Theia_31, Tiffany_42, Tiger_34, TinyPebbles_41, Todacoro_38, Twigg_33, Veracruz_37, Vix_42, Watson_42, Wooldri_44, Yecey3_70, Zarafa_39, Zetzy_41, Zolita_34,

Genes that have the "Most Annotated" start but do not call it:
• Conspiracy_34, Discoknowium_34, Jovo_34,

Genes that do not have the "Most Annotated" start:
• 20ES_38, 40AC_41, AN3_38, AN9_41, ANI8_41, AbbyPaige_40, Abdiel_37, ActinUp_52, Adephagia_52, Adonis_52, Agape74_40, Ageofdapage_54, Albee_37, Alberto7_38, AlishaPH_52, Aliter_70, Alma_67, Alsfro_49, Altman_47, Anaya_54, Aneem_37, Angelica_52, Anglerfish_46, Anma_53, AnnaL29_40, Annyong_37, Anselm_68, Apocalypse_55, Arlo_43, Arturo_35, Asayake_52, Atiba_53, Atkinbua_47, Avle17_37, Ayanochan_66, BEEST_52, BGlluviae_52, Baby16_37, Bachome_38, BaghaKamala_51, BangNhom_38, BarrelRoll_52, Barriga_46, Bartimeaus_37, Beezoo_54, Bella96_53, Belladonna_52, Bellris_67, BellusTerra_38, BengiVuitton_37, Bern_53, Big3_44, Bigchungi_44, Blackmoor_37, Blizzard_52, Blue_45, BobSwaget_61, Bobquesha_3, BogosyJay_68, Boiiii_52, Bombshell_37, Bowtie_37, Bradman_69, Broseidon_37, Bruiser_36, Bruns_44, Bryler_56, BubbleTrouble_37, Buckaroo_37, Bud_36, Burger_35, C3_36, CRB1_39, CREW_52, Caelakin_37, Cain_56, CallaLilly_52, Camperdownii_36, Capricorn_52, CaseJules_54, Catalina_71, CentreCat_37, Cerulean_38, ChampagnePapi_39, Chancellor_3, Changeling_39, Chaph_37, Chavito_56, CheetoDust_51, Cheetobro_3, ChipMunk_41, Chupacabra_37, Cintron_37, Citius_37, Clarenza_37, Clipper_55, Cocoaberry_37, CogOmlette_65, Commander_37, ConceptII_47, Connomayer_37, Conquerage_67, Corvo_46, CrimD_52, Crucio_38, D29_38, D32_41, DBQu4n_41, Dalmuri_52, DanSyl44_3, Darrell_70, DartGoblin_54, Dartin_55, Deano_37, Deby_52, DeerParkTS_64, Deloris_36, Devera_57, Dhanush_37, Dignity_40, Dole_55, DrHayes_53, DreamCatcher_48, Dreamboat_47, Druantia_37, Duplo_41, Durfee_52, EZMoney23_38, Eagle_37, Eapen_37, Ebony_37, Edison31_38, EdogawaKiddo_69, Edugator_35, Efra2_55, Eidsmoe_67, Elephantoon_67, Emerson_53, EmyBug_66, Eponine_3, Eris_36, Eros_37, Et2Brutus_36, Eurydice_38, EvilGenius_41, ExplosioNervosa_67, Fameo_67, FatCactus_64, Fayely_67, Fenn_47, Fibonacci_36, Fionnbharth_3, FiringLine_38, First_0037, Flaverint_37, Florean_37, Flux_37, ForesterFrank_65, Forsytheast_45, Funston_37, Gadost_37, Gandalf20_47, Ganymede_53, Georgie2_39, Geraldini_55, Gilberta_37, Goose_38, GrecoEtereo_46, HamSlice_36, HanShotFirst_44, Hanray_69, HarryOW_44, HedwigODU_52, Heffalump_66, HippoHollow_37, Holex_69, Holli_36, Homura_52, HortumSL17_70, Houdini22_37, Hurricane_65, Hutc2_36, Huxley_37, Hyperbowlee_52, ICleared_37, Iceman_38, Ichabod_47, Illumine_55, Inky_52, Insomnia_37, Iracema64_38, Iwokeuplikedis_41, JAWS_52, JC27_46, JF1_3, Jabith_37, Jarvi_52, Jasper_47, Jayhawk_53, Jaykayelowell_36, Jeckyll_52, Jerm_40, JetBlade_37, Jiawan_69, JoongJeon_37, Jorgensen_46, Joselito_37, JoshKayV_40, Journey13_36, Joy99_52, Jsquared_70, Juliette_3, Junimo_37, KFPoly_37, Kalpine_39, Kampy_37, Kanely_46, KekoraPapaka_38, Kerberos_41, Keshu_67, Kheparia_52, Kimba_37, KingCyrus_41, Kingmustik0402_37, Kinmap_66, Koan_36, Koreni_36, Kratark_37, Kraw_3, Kremtemulon_37, Kristoff_38, Krueger_59, Kyee_37, LHTSCC_39, LadyBird_40, LappelDuVide_37, LastHope_55, LaterM_53, Lea83_65, Lebo14_3, Lemur_37, LeoAvram_37, Leviathan_40, LilTurb_39, Lilleskat_68, LindNT_51, LionsBait_37,

LittleB_37, LittleGuy_37, Llorens_52, LochMonster_37, Lokk_62, Lokum_53, Lorenzo_37, Loser_40, Lucivia_37, Lunahalos_52, Lunsford_38, MaCh_37, Mabel_37, MacKat_47, MacnCheese_67, MajorMajor_68, Malthus_3, Maminiaina_68, Maverick_37, Maxo_38, Mayonnaise_37, Mazhar510_37, McGuire_46, McMater_55, MeaningOfLife_53, Medusa_37, MeeZee_37, Megsy_54, Melvin_39, Miko_62, MilleFeuille_45, Millski_36, Minispark_65, MissDaisy_3, MissWhite_36, Mitti_3, Molly_46, Moose_45, Morrow_38, Mryolo_43, Mulciber_36, Munch_37, Murucutumbu_53, Mynx_53, Myxus_69, Naira_47, Naji_41, Nebs_38, Nemo27_37, Nhonho_46, Niklas_55, Noelle_37, Nolwazi_3, NorthStar_36, Northrop_38, NotAPhaseMom_37, Nyxis_37, OKCentral2016_37, OKaNui_38, Obama12_38, Ohfah_38, OmniCritical_3, Omnicron_36, Onglai_68, Orange_36, PSullivan_45, PackMan_68, Padfoot_52, Padpat_54, Palestino_36, PascalRango_46, Patt_3, PattyP_46, Peaches_37, Peanam_55, Peel_52, PeterPeter_37, Petersenfast_36, Petp2012_46, Phacado_37, Phaeder_69, Pharb_64, Phelipe_38, PherrisBueller_45, Phighter1804_37, Phontbonne_37, Phrank_56, Piatt_52, PinkPlastic_44, Pisa1_52, Pisa4_46, Pita2_48, Pixie_64, Pokerus_51, Polymorphads_38, Pomar16_41, Power_37, Prithvi_53, Priya_67, ProMouse_47, Prudy_64, Pumbaa_37, Qhanda_3, Qobbit_67, QueenB2_66, QueenBeesly_38, QuincyRose_51, Quokka_68, Rachaly_64, Rahalelujah_67, Raid_45, Ramen_53, Rando14_36, Rapunzel97_53, Rebeuca_38, RedRock_40, Relief_36, Reptar3000_3, Retro23_68, Richo_55, RidgeCB_45, RockieBear_37, Rocksand_38, Romney_37, Roosevelt_36, Rosa24_37, Rosmarinus_52, Ruin_37, Ruthiejr_3, Sabertooth_37, Sachima_69, SamuelLPlaqson_53, Saskia_37, Scamp_37, Scowl_46, SemperFi_39, SenorClean_37, Serenity_70, Shadow1_58, Shaka_37, Sham4_36, Shaobing_55, ShedlockHolmes_66, SheldonCooper_39, ShiaSurprise_53, Sibs6_46, Skadoosh_39, SkiPole_48, Skipitt_36, Slarp_3, Slimphazie_52, Smeagan_41, SnapTap_38, Snape_36, Snazzy_43, Sparxx_38, Spino_37, Spock_52, Spouty_67, StarStuff_41, SteMason_37, Stinson_53, Sulley_52, Sultana_37, Sunflower1121_59, SweetiePie_38, SwissCheese_47, Syra333_58, TBond007_61, TClif_65, Tachez_52, TaiwanKao_54, Taquarus_37, Target_46, Thanksgivukkah_37, Tierra_56, Tigress9_58, Timothy_37, TinaFeyge_38, TingHuaYa_53, TiniBug_53, TinyTimmy_37, Tinybot_36, TipsytheTRex_66, Tiri_53, TiroTheta9_37, Tomathan_41, Topanga_37, Topper_52, Travvers_41, TreyKay_53, TribleTrouble_65, Trixie_39, Trooper_67, TroyPia_38, TruffulaTree_52, Tubs_69, Turbido_39, Twister_37, Twitch_52, TwoPeat_46, TygerBlood_37, Ulysses_36, Urkel_53, VA6_38, VC3_41, Validus_57, Veliki_53, WalterMcMickey_37, Wander_37, Whabigail7_39, Wilbur_37, Wintermute_3, Wizard007_37, Wolpertinger_35, WorldCup_65, Ximenita_59, Y10_03, Y2_03, YasnayaPolyana_3, YoSam321_37, YoureAdopted_51, Zabiza_47, Zavala_54, Zephyr_45,

Summary by start number:

Start 42:
• Found in 159 of 658 (24.2%) of genes in pham
• Manual Annotations of this start: 3 of 613
• Called 1.9% of time when present
• Phage (with cluster) where this start called: Conspiracy_34 (A5), Discoknowium_34 (A5), Jovo_34 (A5),

Start 45:
• Found in 27 of 658 (4.1%) of genes in pham
• Manual Annotations of this start: 22 of 613
• Called 96.3% of time when present

• Phage (with cluster) where this start called: Bobquesha_3 (K4), Chancellor_3 (K4), Cheetobro_3 (K4), DanSyl44_3 (K4), Edugator_35 (K5), Eponine_3 (K4), Fionnbharth_3 (K4), Juliette_3 (K4), Kraw_3 (K4), Lebo14_3 (K4), Malthus_3 (K4), MissDaisy_3 (K4), Mitti_3 (K4), Nolwazi_3 (K4), OmniCritical_3 (K4), Omnicron_36 (K5), Patt_3 (K4), Qhanda_3 (K4), Rando14_36 (K5), Reptar3000_3 (K4), Ruthiejr_3 (K4), Slarp_3 (K4), Wintermute_3 (K4), Y10_03 (K4), Y2_03 (K4), YasnayaPolyana_3 (K4),

Start 46:
• Found in 34 of 658 (5.2%) of genes in pham
• Manual Annotations of this start: 30 of 613
• Called 97.1% of time when present
• Phage (with cluster) where this start called: 20ES_38 (A2), AbbyPaige_40 (A2), Agape74_40 (A2), BengiVuitton_37 (A2), CRB1_39 (A2), ChipMunk_41 (A2), Crucio_38 (A2), Deloris_36 (A2), Dignity_40 (A2), EvilGenius_41 (A2), FiringLine_38 (A2), First_0037 (A2), Georgie2_39 (A2), HippoHollow_37 (A2), Iwokeuplikedis_41 (A2), Jerm_40 (A2), JoshKayV_40 (A2), Kalpine_39 (A2), KingCyrus_41 (A2), LadyBird_40 (A2), Leviathan_40 (A2), LilTurb_39 (A2), LionsBait_37 (A2), MissWhite_36 (A2), Power_37 (A2), QueenBeesly_38 (A2), SemperFi_39 (A2), Smeagan_41 (A2), SnapTap_38 (A2), SweetiePie_38 (A2), Trixie_39 (A2), Turbido_39 (A2), Whabigail7_39 (A2),

Start 47:
• Found in 11 of 658 (1.7%) of genes in pham
• Manual Annotations of this start: 2 of 613
• Called 18.2% of time when present
• Phage (with cluster) where this start called: Journey13_36 (A2), TBond007_61 (K3),

Start 48:
• Found in 15 of 658 (2.3%) of genes in pham
• Manual Annotations of this start: 9 of 613
• Called 60.0% of time when present
• Phage (with cluster) where this start called: Chupacabra_37 (A10), Edison31_38 (A10), Goose_38 (A10), Kristoff_38 (A10), OKCentral2016_37 (A10), Rebeuca_38 (A10), Topanga_37 (A10), Twister_37 (A10), WalterMcMickey_37 (A10),

Start 49:
• Found in 59 of 658 (9.0%) of genes in pham
• Manual Annotations of this start: 53 of 613
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aliter_70 (A9), Alma_67 (A9), AnnaL29_40 (A2), Anselm_68 (A2), Ayanochan_66 (A9), Bellris_67 (A9), BobSwaget_61 (A2), BogosyJay_68 (A9), Bradman_69 (A2), Catalina_71 (A9), Changeling_39 (A2), CogOmlette_65 (A9), Conquerage_67 (A9), Darrell_70 (A9), DeerParkTS_64 (A2), EZMoney23_38 (A2), EdogawaKiddo_69 (A9), Eidsmoe_67 (A9), Elephantoon_67 (A9), EmyBug_66 (A9), ExplosioNervosa_67 (A9), Fameo_67 (A2), FatCactus_64 (A20), Fayely_67 (A9), ForesterFrank_65 (A2), Hanray_69 (A9), Heffalump_66 (A2), Holex_69 (A9), HortumSL17_70 (A9), Jiawan_69 (A9), Jsquared_70 (A2), Kinmap_66 (A21), Lilleskat_68 (A9), Lokk_62 (A2), Loser_40 (A2), MajorMajor_68 (A2), Maminiaina_68 (A9), Miko_62 (A2), Minispark_65 (A9), Myxus_69 (A9), Onglai_68 (A9), PackMan_68 (A9), Phaeder_69 (A9), Priya_67 (A9), Prudy_64 (A2), Qobbit_67 (A9), QueenB2_66 (A2), Quokka_68 (A2), Rachaly_64 (A2), Rahalelujah_67 (A9), RedRock_40 (A2), Retro23_68 (A2), Sachima_69 (A9),

Serenity_70 (A2), Spouty_67 (A9), TipsytheTRex_66 (A2), Trooper_67 (A2), Tubs_69 (A9), WorldCup_65 (A9),

Start 50:
• Found in 112 of 658 (17.0%) of genes in pham
• Manual Annotations of this start: 105 of 613
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ActinUp_52 (K1), Adephagia_52 (K1), Adonis_52 (K1), Ageofdapage_54 (K1), AlishaPH_52 (K1), Anaya_54 (K1), Angelica_52 (K1), Anma_53 (K1), Apocalypse_55 (K1), Asayake_52 (K1), Atiba_53 (K1), BEEST_52 (K1), BGlluviae_52 (K1), BaghaKamala_51 (K1), BarrelRoll_52 (K1), Beezoo_54 (K1), Bella96_53 (K1), Belladonna_52 (K1), Bern_53 (K1), Blizzard_52 (K1), Boiiii_52 (K1), Bryler_56 (K6), CREW_52 (K1), Cain_56 (K6), CallaLilly_52 (K1), Capricorn_52 (K1), CaseJules_54 (K1), Chavito_56 (K1), CheetoDust_51 (K1), Clipper_55 (K1), CrimD_52 (K1), Dalmuri_52 (K1), DartGoblin_54 (K1), Dartin_55 (K1), Deby_52 (K1), Devera_57 (K1), Dole_55 (K1), DrHayes_53 (K1), Durfee_52 (K1), Efra2_55 (K1), Emerson_53 (K1), Ganymede_53 (K1), Geraldini_55 (K1), HedwigODU_52 (K1), Homura_52 (K1), Hyperbowlee_52 (K1), Illumine_55 (K1), Inky_52 (K1), JAWS_52 (K1), Jarvi_52 (K1), Jayhawk_53 (K1), Jeckyll_52 (K1), Joy99_52 (K1), Kheparia_52 (K1), Krueger_59 (K6), LastHope_55 (K1), LaterM_53 (K1), LindNT_51 (K1), Llorens_52 (K1), Lokum_53 (K1), Lunahalos_52 (K1), MacKat_47 (K1), McMater_55 (K1), MeaningOfLife_53 (K1), Megsy_54 (K1), Murucutumbu_53 (K1), Mynx_53 (K1), Niklas_55 (K1), Padfoot_52 (K1), Padpat_54 (K1), Peanam_55 (K1), Peel_52 (K1), Phrank_56 (K6), Piatt_52 (K1), Pisa1_52 (K1), Pisa4_46 (K1), Pokerus_51 (K1), Prithvi_53 (K1), QuincyRose_51 (K1), Ramen_53 (K1), Rapunzel97_53 (K1), Richo_55 (K1), Rosmarinus_52 (K1), SamuelLPlaqson_53 (K1), Shadow1_58 (K6), Shaobing_55 (K1), ShiaSurprise_53 (K1), Slimphazie_52 (K1), Spock_52 (K1), Stinson_53 (K1), Sulley_52 (K1), Sunflower1121_59 (K6), Syra333_58 (K6), TClif_65 (K6), Tachez_52 (K1), TaiwanKao_54 (K1), Tierra_56 (K6), Tigress9_58 (K6), TingHuaYa_53 (K1), TiniBug_53 (K1), Tiri_53 (K1), Topper_52 (K1), TreyKay_53 (K1), TruffulaTree_52 (K1), Twitch_52 (K1), Urkel_53 (K1), Validus_57 (K1), Veliki_53 (K1), Ximenita_59 (K6), YoureAdopted_51 (K1), Zabiza_47 (K1), Zavala_54 (K1),

Start 51:
• Found in 52 of 658 (7.9%) of genes in pham
• Manual Annotations of this start: 50 of 613
• Called 98.1% of time when present
• Phage (with cluster) where this start called: AN3_38 (A2), AN9_41 (A2), ANI8_41 (A2), Aneem_37 (A11), Bachome_38 (A11), Bowtie_37 (A11), Bud_36 (A11), C3_36 (A2), D29_38 (A2), D32_41 (A2), DBQu4n_41 (A2), Duplo_41 (A2), Ebony_37 (A11), Et2Brutus_36 (A11), Fibonacci_36 (A11), Flaverint_37 (A11), Gilberta_37 (A11), Hurricane_65 (K3), Hutc2_36 (A11), Insomnia_37 (A11), Jabith_37 (A11), Joselito_37 (A11), Kerberos_41 (A2), Keshu_67 (K3), Kimba_37 (A11), Lea83_65 (K3), Lucivia_37 (A11), MaCh_37 (A11), Mabel_37 (A11), MacnCheese_67 (K3), Mulciber_36 (A11), Munch_37 (A11), Naji_41 (A2), Orange_36 (A11), Petersenfast_36 (A11), Pharb_64 (K3), Pixie_64 (K3), Pomar16_41 (A2), Saskia_37 (A11), Sham4_36 (A11), ShedlockHolmes_66 (K3), Snape_36 (A11), StarStuff_41 (A2), Timothy_37 (A11), TinyTimmy_37 (A11), Tomathan_41 (A2), Travvers_41 (A2), TribleTrouble_65 (K3), VA6_38 (A2), VC3_41 (A2), Wolpertinger_35 (A11),

Start 52:
• Found in 186 of 658 (28.3%) of genes in pham

• Manual Annotations of this start: 167 of 613
• Called 98.4% of time when present
• Phage (with cluster) where this start called: ACFishhook_41 (A3), Adzzy_39 (A2), AgentM_34 (A5), Aglet_43 (A3), AgronaGT15_41 (A3), Anubis_45 (A3), Aragog_34 (A5), Archetta_33 (A5), AugsMagnumOpus_45 (A3), B1_36 (A3), BabyJohn_37 (A3), BabyRay_39 (A3), Beauxregard13_42 (A3), Bigflo_42 (A3), BlueBird_40 (A3), Bluefalcon_33 (A5), Bonamassa_33 (A5), BreSam8_42 (A3), Bugatti_40 (A3), BuzzBuzz_40 (A3), Calvinny_42 (A3), Caraxes_37 (A2), Cat_37 (A3), Caviar_38 (A3), Che12_41 (A2), Chiqui_37 (A3), Clammy_40 (A3), ClownCar_42 (A3), Colbster_42 (A3), Coog_33 (A5), Croquant_43 (A3), Cuco_33 (A5), Cullens_42 (A3), DaHudson_42 (A3), Daishi_41 (A3), Dieselweasel_43 (A3), DropBear_39 (A3), Dublin_32 (A5), DustyMartin_41 (A10), Eaglepride_39 (A10), EpicPhail_43 (A3), EtoileNova_39 (A3), Farber_42 (A3), Fernando_42 (A3), ForGetIt_34 (A5), Fred313_39 (A3), Gemma_41 (A3), George_32 (A5), Ghoulboy_35 (A5), GingkoMaracino_42 (A3), Giroux_40 (A3), Goose1D_33 (A3), Goose1X_39 (A3), Grayson_251 (CB), Grif_42 (A3), Groupthink_43 (A3), Grub_42 (A3), Grum1_42 (A3), GtownJaz_42 (A3), Gwennie_42 (A3), HashRod_43 (A3), HaveUMetTed_43 (A3), Heathen_39 (A3), HelDan_39 (A3), Heliosoles_41 (A3), Hercules11_42 (A3), Hookmount_38 (A3), HuhtaEnerson15_33 (A5), Idleandcovert_39 (A3), Isca_38 (A3), JF2_39 (A3), JF4_39 (A3), JHC117_42 (A3), JenCasNa_43 (A3), JeppNRM_43 (A3), Jobu08_41 (A3), KADY_42 (A3), Kachowdy_39 (A3), Kalb97_43 (A3), Kalnoky_43 (A3), Kimona_36 (A19), Koduck_39 (A2), L5_38 (A2), LBerry_43 (A3), Lambert1_38 (A3), LarryKay_42 (A3), Lev2_34 (A5), Lilith_43 (A3), LittleCherry_33 (A5), Louie6_41 (A3), Lowa_42 (A3), LugYA_45 (A3), MA5_39 (A3), MK4_39 (A3), MadMarie_42 (A3), Mainiac_42 (A3), Malinsilva_44 (A3), Manu_42 (A3), MarQuardt_42 (A3), Marchesa_39 (A3), Margo_38 (A3), Marie_42 (A3), Marius_43 (A3), MarysWell_32 (A5), Methuselah_40 (A3), Micasa_35 (A5), Microwolf_42 (A3), Midas2_33 (A5), Milcery_33 (A5), Misomonster_43 (A3), MoneyMay_42 (A3), Montavir_41 (A3), MuchMore_45 (A3), Noella_38 (A3), Norbert_37 (A3), Odin_37 (A2), OlanP_41 (A3), Ollie_42 (A3), P28Green_43 (A3), PGHhamlin_44 (A3), Panamaxus_36 (A3), Pawn_42 (A3), Pembroke_42 (A3), Penny1_43 (A3), Peregrin_249 (CB), Ph8s_40 (A2), Phantastic_39 (A3), PhishRPhriends_40 (A3), Phlorence_34 (A5), Phoebe_43 (A3), Phoxy_42 (A3), Phranny_43 (A3), PickleBack_34 (A5), Pistachio_40 (A3), Pocahontas_38 (A3), Popcicle_38 (A3), PotatoSplit_44 (A3), Prinashe11_33 (A5), Puppy_40 (A3), PurpleHaze_42 (A3), QuinnKiro_37 (A3), Reba_42 (A3), ResDef_38 (A3), RhynO_38 (A10), Rockstar_39 (A3), Roimos_39 (A3), Rowdy_41 (A10), Rummer_41 (A3), Sabia_42 (A3), Sabinator_41 (A3), SaturnRing_39 (A3), Scout_39 (A3), Shapes_41 (A10), Shep_39 (A3), Snickers_42 (A3), SoYo_42 (A3), SoilDragon_42 (A3), Soshari_44 (A3), Spike509_42 (A3), Stagni_42 (A3), StepMih_42 (A3), Superchunk_37 (A2), SwirlSquare_39 (A2), Swirley_35 (A5), SydNat_35 (A5), TNguyen7_39 (A3), Tarynearal_32 (A5), Taurus_43 (A3), Texage_37 (A3), Theia_31 (A5), Tiffany_42 (A3), Tiger_34 (A5), TinyPebbles_41 (A3), Todacoro_38 (A3), Twigg_33 (A5), Veracruz_37 (A3), Vix_42 (A3), Watson_42 (A3), Wooldri_44 (A3), Yecey3_70 (A9), Zarafa_39 (A3), Zetzy_41 (A3), Zolita_34 (A5),

Start 53:
• Found in 1 of 658 (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: 40AC_41 (A17),

Start 54:

• Found in 128 of 658 (19.5%) of genes in pham
• Manual Annotations of this start: 121 of 613
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abdiel_37 (A4), Albee_37 (A4), Alberto7_38 (A4), Annyong_37 (A4), Arturo_35 (A4), Avle17_37 (A4), Baby16_37 (A4), BangNhom_38 (A4), Bartimeaus_37 (A4), BellusTerra_38 (A4), Blackmoor_37 (A4), Bombshell_37 (A4), Broseidon_37 (A4), Bruiser_36 (A4), BubbleTrouble_37 (A4), Buckaroo_37 (A4), Burger_35 (A4), Caelakin_37 (A4), Camperdownii_36 (A4), CentreCat_37 (A4), Cerulean_38 (A4), ChampagnePapi_39 (A4), Chaph_37 (A4), Cintron_37 (A4), Citius_37 (A4), Clarenza_37 (A4), Cocoaberry_37 (A4), Commander_37 (A4), Connomayer_37 (A4), Deano_37 (A4), Dhanush_37 (A4), Druantia_37 (A4), Eagle_37 (A4), Eapen_37 (A4), Eris_36 (A4), Eros_37 (A4), Eurydice_38 (A4), Florean_37 (A4), Flux_37 (A4), Funston_37 (A4), Gadost_37 (A4), HamSlice_36 (A4), Holli_36 (A4), Houdini22_37 (A4), Huxley_37 (A4), ICleared_37 (A4), Iceman_38 (A4), Iracema64_38 (A4), Jaykayelowell_36 (A4), JetBlade_37 (A4), JoongJeon_37 (A4), Junimo_37 (A4), KFPoly_37 (A4), Kampy_37 (A4), KekoraPapaka_38 (A4), Kingmustik0402_37 (A4), Koan_36 (A4), Koreni_36 (A4), Kratark_37 (A4), Kremtemulon_37 (A4), Kyee_37 (A4), LHTSCC_39 (A4), LappelDuVide_37 (A4), Lemur_37 (A4), LeoAvram_37 (A4), LittleB_37 (A4), LittleGuy_37 (A4), LochMonster_37 (A4), Lorenzo_37 (A4), Lunsford_38 (A4), Maverick_37 (A4), Maxo_38 (A4), Mayonnaise_37 (A4), Mazhar510_37 (A4), Medusa_37 (A4), MeeZee_37 (A4), Melvin_39 (A4), Millski_36 (A4), Morrow_38 (A4), Nebs_38 (A4), Nemo27_37 (A4), Noelle_37 (A4), NorthStar_36 (A4), Northrop_38 (A4), NotAPhaseMom_37 (A4), Nyxis_37 (A4), OKaNui_38 (A4), Obama12_38 (A4), Ohfah_38 (A4), Palestino_36 (A4), Peaches_37 (A4), PeterPeter_37 (A4), Phacado_37 (A4), Phelipe_38 (A4), Phighter1804_37 (A4), Phontbonne_37 (A4), Polymorphads_38 (A4), Pumbaa_37 (A4), Relief_36 (A4), RockieBear_37 (A4), Rocksand_38 (A4), Romney_37 (A4), Roosevelt_36 (A4), Rosa24_37 (A4), Ruin_37 (A4), Sabertooth_37 (A4), Scamp_37 (A4), SenorClean_37 (A4), Shaka_37 (A4), SheldonCooper_39 (A4), Skadoosh_39 (A4), Skipitt_36 (A4), Sparxx_38 (A4), Spino_37 (A4), SteMason_37 (A4), Sultana_37 (A4), Taquarus_37 (A4), Thanksgivukkah_37 (A4), TinaFeyge_38 (A4), Tinybot_36 (A4), TiroTheta9_37 (A4), TroyPia_38 (A4), TygerBlood_37 (A4), Ulysses_36 (A4), Wander_37 (A4), Wilbur_37 (A4), Wizard007_37 (A4), YoSam321_37 (A4),

Start 55:
• Found in 51 of 658 (7.8%) of genes in pham
• Manual Annotations of this start: 50 of 613
• Called 98.0% of time when present
• Phage (with cluster) where this start called: Alsfro_49 (A1), Altman_47 (A1), Anglerfish_46 (A1), Arlo_43 (A1), Atkinbua_47 (A1), Barriga_46 (A1), Big3_44 (A1), Bigchungi_44 (A1), Blue_45 (A1), Bruns_44 (A1), ConceptII_47 (A1), Corvo_46 (A1), DreamCatcher_48 (A1), Dreamboat_47 (A1), Fenn_47 (A1), Forsytheast_45 (A1), Gandalf20_47 (A1), GrecoEtereo_46 (A1), HanShotFirst_44 (A1), HarryOW_44 (A1), Ichabod_47 (A1), JC27_46 (A1), Jasper_47 (A1), Jorgensen_46 (A1), Kanely_46 (A1), McGuire_46 (A1), MilleFeuille_45 (A1), Molly_46 (A1), Moose_45 (A1), Mryolo_43 (A1), Naira_47 (A1), Nhonho_46 (A1), PSullivan_45 (A1), PascalRango_46 (A1), PattyP_46 (A1), Petp2012_46 (A1), PherrisBueller_45 (A1), PinkPlastic_44 (A1), Pita2_48 (A1), ProMouse_47 (A1), Raid_45 (A1), RidgeCB_45 (A1), Scowl_46 (A1), Sibs6_46 (A1), SkiPole_48 (A1), Snazzy_43 (A1), SwissCheese_47 (A1), Target_46 (A1), TwoPeat_46 (A1), Zephyr_45 (A1),

Start 58:

• Found in 11 of 658 (1.7%) of genes in pham
• Manual Annotations of this start: 1 of 613
• Called 9.1% of time when present
• Phage (with cluster) where this start called: JF1_3 (K4),

Summary by clusters:

There are 18 clusters represented in this pham: A20, A21, A17, A11, A10, CB, A19, A3, A1, K1, A2, A5, A4, K5, K4, A9, K3, K6,

Info for manual annotations of cluster A1:
•Start number 55 was manually annotated 50 times for cluster A1.

Info for manual annotations of cluster A10:
•Start number 48 was manually annotated 9 times for cluster A10.
•Start number 52 was manually annotated 2 times for cluster A10.

Info for manual annotations of cluster A11:
•Start number 51 was manually annotated 27 times for cluster A11.

Info for manual annotations of cluster A19:
•Start number 52 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 46 was manually annotated 30 times for cluster A2.
•Start number 47 was manually annotated 1 time for cluster A2.
•Start number 49 was manually annotated 21 times for cluster A2.
•Start number 51 was manually annotated 15 times for cluster A2.
•Start number 52 was manually annotated 9 times for cluster A2.

Info for manual annotations of cluster A20:
•Start number 49 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A21:
•Start number 49 was manually annotated 1 time for cluster A21.

Info for manual annotations of cluster A3:
•Start number 52 was manually annotated 124 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 54 was manually annotated 121 times for cluster A4.

Info for manual annotations of cluster A5:
•Start number 42 was manually annotated 3 times for cluster A5.
•Start number 52 was manually annotated 28 times for cluster A5.

Info for manual annotations of cluster A9:
•Start number 49 was manually annotated 30 times for cluster A9.
•Start number 52 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster CB:
•Start number 52 was manually annotated 2 times for cluster CB.

Info for manual annotations of cluster K1:
•Start number 50 was manually annotated 94 times for cluster K1.

Info for manual annotations of cluster K3:
•Start number 47 was manually annotated 1 time for cluster K3.
•Start number 51 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:
•Start number 45 was manually annotated 19 times for cluster K4.
•Start number 58 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K5:
•Start number 45 was manually annotated 3 times for cluster K5.

Info for manual annotations of cluster K6:
•Start number 50 was manually annotated 11 times for cluster K6.

Gene Information:

Gene: 20ES_38 Start: 27875, Stop: 27690, Start Num: 46
Candidate Starts for 20ES_38:
(Start: 46 @27875 has 30 MA's), (61, 27836), (75, 27737), (77, 27728),

Gene: 40AC_41 Start: 29813, Stop: 29652, Start Num: 53
Candidate Starts for 40AC_41:
(Start: 46 @29825 has 30 MA's), (53, 29813), (61, 29786), (75, 29696),

Gene: ACFishhook_41 Start: 28759, Stop: 28598, Start Num: 52
Candidate Starts for ACFishhook_41:
(Start: 52 @28759 has 167 MA's), (75, 28642), (76, 28636), (83, 28621), (85, 28615),

Gene: AN3_38 Start: 28249, Stop: 28097, Start Num: 51
Candidate Starts for AN3_38:
(Start: 51 @28249 has 50 MA's), (73, 28147), (75, 28138), (86, 28114),

Gene: AN9_41 Start: 28234, Stop: 28082, Start Num: 51
Candidate Starts for AN9_41:
(16, 28501), (20, 28459), (Start: 51 @28234 has 50 MA's), (73, 28132), (75, 28123), (86, 28099),

Gene: ANI8_41 Start: 28234, Stop: 28082, Start Num: 51
Candidate Starts for ANI8_41:
(16, 28501), (20, 28459), (Start: 51 @28234 has 50 MA's), (73, 28132), (75, 28123), (86, 28099),

Gene: AbbyPaige_40 Start: 28584, Stop: 28411, Start Num: 46
Candidate Starts for AbbyPaige_40:
(Start: 46 @28584 has 30 MA's), (59, 28554), (68, 28524), (75, 28458),

Gene: Abdiel_37 Start: 28112, Stop: 27954, Start Num: 54
Candidate Starts for Abdiel_37:

(6, 28403), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (73, 28007), (75, 27998), (76, 27992), (86, 27971),

Gene: ActinUp_52 Start: 38569, Stop: 38739, Start Num: 50
Candidate Starts for ActinUp_52:
(Start: 50 @38569 has 105 MA's), (73, 38683), (75, 38692), (76, 38698), (86, 38722),

Gene: Adephagia_52 Start: 38566, Stop: 38736, Start Num: 50
Candidate Starts for Adephagia_52:
(Start: 50 @38566 has 105 MA's), (73, 38680), (75, 38689), (76, 38695), (86, 38719),

Gene: Adonis_52 Start: 38810, Stop: 38980, Start Num: 50
Candidate Starts for Adonis_52:
(Start: 50 @38810 has 105 MA's), (73, 38924), (75, 38933), (76, 38939), (86, 38963),

Gene: Adzzy_39 Start: 26707, Stop: 26552, Start Num: 52
Candidate Starts for Adzzy_39:
(Start: 52 @26707 has 167 MA's), (74, 26602), (76, 26590), (82, 26575), (87, 26563), (88, 26560),

Gene: Agape74_40 Start: 28569, Stop: 28396, Start Num: 46
Candidate Starts for Agape74_40:
(Start: 46 @28569 has 30 MA's), (59, 28539), (68, 28509), (75, 28443),

Gene: AgentM_34 Start: 27388, Stop: 27230, Start Num: 52
Candidate Starts for AgentM_34:
(24, 27580), (Start: 42 @27430 has 3 MA's), (Start: 52 @27388 has 167 MA's), (73, 27283), (75, 27274), (76, 27268),

Gene: Ageofdapage_54 Start: 39552, Stop: 39722, Start Num: 50
Candidate Starts for Ageofdapage_54:
(Start: 50 @39552 has 105 MA's), (73, 39666), (75, 39675),

Gene: Aglet_43 Start: 28867, Stop: 28700, Start Num: 52
Candidate Starts for Aglet_43:
(25, 29047), (31, 28975), (Start: 52 @28867 has 167 MA's), (65, 28828), (75, 28747), (77, 28738),

Gene: AgronaGT15_41 Start: 28685, Stop: 28518, Start Num: 52
Candidate Starts for AgronaGT15_41:
(25, 28865), (31, 28793), (Start: 52 @28685 has 167 MA's), (81, 28550),

Gene: Albee_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Albee_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Alberto7_38 Start: 28451, Stop: 28299, Start Num: 54
Candidate Starts for Alberto7_38:
(6, 28742), (Start: 42 @28493 has 3 MA's), (Start: 54 @28451 has 121 MA's), (73, 28352), (75, 28343), (76, 28337),

Gene: AlishaPH_52 Start: 38839, Stop: 38997, Start Num: 50
Candidate Starts for AlishaPH_52:
(Start: 50 @38839 has 105 MA's), (73, 38941), (75, 38950), (76, 38956), (86, 38980),

Gene: Aliter_70 Start: 40977, Stop: 40822, Start Num: 49
Candidate Starts for Aliter_70:
(7, 41301), (Start: 49 @40977 has 53 MA's), (67, 40935), (75, 40869), (77, 40860),

Gene: Alma_67 Start: 40956, Stop: 40801, Start Num: 49
Candidate Starts for Alma_67:
(Start: 49 @40956 has 53 MA's), (67, 40914), (75, 40848), (77, 40839),

Gene: Alsfro_49 Start: 35106, Stop: 34978, Start Num: 55
Candidate Starts for Alsfro_49:
(Start: 55 @35106 has 50 MA's), (56, 35097), (60, 35085), (64, 35073), (71, 35004), (73, 34995),

Gene: Altman_47 Start: 35338, Stop: 35216, Start Num: 55
Candidate Starts for Altman_47:
(Start: 55 @35338 has 50 MA's), (66, 35299), (71, 35242), (73, 35233),

Gene: Anaya_54 Start: 39085, Stop: 39258, Start Num: 50
Candidate Starts for Anaya_54:
(Start: 50 @39085 has 105 MA's), (73, 39199),

Gene: Aneem_37 Start: 27432, Stop: 27277, Start Num: 51
Candidate Starts for Aneem_37:
(18, 27702), (29, 27579), (32, 27540), (Start: 51 @27432 has 50 MA's), (75, 27318), (76, 27312), (87, 27288),

Gene: Angelica_52 Start: 38715, Stop: 38885, Start Num: 50
Candidate Starts for Angelica_52:
(Start: 50 @38715 has 105 MA's), (73, 38829), (75, 38838), (76, 38844), (86, 38868),

Gene: Anglerfish_46 Start: 34888, Stop: 34763, Start Num: 55
Candidate Starts for Anglerfish_46:
(Start: 55 @34888 has 50 MA's), (66, 34849), (71, 34789), (73, 34780),

Gene: Anma_53 Start: 39464, Stop: 39634, Start Num: 50
Candidate Starts for Anma_53:
(Start: 50 @39464 has 105 MA's), (73, 39578), (79, 39602),

Gene: AnnaL29_40 Start: 29084, Stop: 28926, Start Num: 49
Candidate Starts for AnnaL29_40:
(Start: 49 @29084 has 53 MA's), (63, 29054), (66, 29045), (75, 28973), (77, 28964), (84, 28946),

Gene: Annyong_37 Start: 28112, Stop: 27960, Start Num: 54
Candidate Starts for Annyong_37:
(12, 28409), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (60, 28091), (65, 28079), (73, 28013), (75, 28004), (76, 27998),

Gene: Anselm_68 Start: 41870, Stop: 41697, Start Num: 49
Candidate Starts for Anselm_68:
(Start: 49 @41870 has 53 MA's), (75, 41744), (77, 41735),

Gene: Anubis_45 Start: 28752, Stop: 28585, Start Num: 52
Candidate Starts for Anubis_45:

(25, 28932), (31, 28860), (Start: 52 @28752 has 167 MA's), (65, 28713), (75, 28632), (77, 28623),

Gene: Apocalypse_55 Start: 39503, Stop: 39673, Start Num: 50
Candidate Starts for Apocalypse_55:
(Start: 50 @39503 has 105 MA's), (73, 39617), (75, 39626), (76, 39632), (86, 39656),

Gene: Aragog_34 Start: 27418, Stop: 27260, Start Num: 52
Candidate Starts for Aragog_34:
(24, 27610), (Start: 42 @27460 has 3 MA's), (Start: 52 @27418 has 167 MA's), (73, 27313), (75, 27304), (76, 27298),

Gene: Archetta_33 Start: 27354, Stop: 27196, Start Num: 52
Candidate Starts for Archetta_33:
(13, 27636), (14, 27630), (Start: 42 @27396 has 3 MA's), (Start: 52 @27354 has 167 MA's), (73, 27249), (75, 27240), (76, 27234),

Gene: Arlo_43 Start: 34235, Stop: 34110, Start Num: 55
Candidate Starts for Arlo_43:
(Start: 55 @34235 has 50 MA's), (66, 34196), (71, 34136), (73, 34127),

Gene: Arturo_35 Start: 28170, Stop: 28018, Start Num: 54
Candidate Starts for Arturo_35:
(6, 28461), (Start: 42 @28212 has 3 MA's), (Start: 54 @28170 has 121 MA's), (60, 28149), (73, 28071), (75, 28062), (76, 28056),

Gene: Asayake_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Asayake_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: Atiba_53 Start: 38529, Stop: 38699, Start Num: 50
Candidate Starts for Atiba_53:
(Start: 50 @38529 has 105 MA's), (73, 38643), (75, 38652), (76, 38658), (86, 38682),

Gene: Atkinbua_47 Start: 34991, Stop: 34866, Start Num: 55
Candidate Starts for Atkinbua_47:
(Start: 55 @34991 has 50 MA's), (66, 34952), (71, 34892), (73, 34883),

Gene: AugsMagnumOpus_45 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for AugsMagnumOpus_45:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Avle17_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Avle17_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Ayanochan_66 Start: 40739, Stop: 40584, Start Num: 49
Candidate Starts for Ayanochan_66:
(Start: 49 @40739 has 53 MA's), (67, 40697), (75, 40631), (77, 40622),

Gene: B1_36 Start: 27743, Stop: 27579, Start Num: 52
Candidate Starts for B1_36:

(41, 27791), (Start: 52 @27743 has 167 MA's), (62, 27716), (67, 27701), (75, 27626), (78, 27617), (84, 27599), (86, 27596),

Gene: BEEST_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for BEEST_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: BGlluviae_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for BGlluviae_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Baby16_37 Start: 28122, Stop: 27970, Start Num: 54
Candidate Starts for Baby16_37:
(6, 28413), (Start: 42 @28164 has 3 MA's), (Start: 54 @28122 has 121 MA's), (60, 28101), (65, 28089), (73, 28023), (75, 28014), (76, 28008),

Gene: BabyJohn_37 Start: 28513, Stop: 28352, Start Num: 52
Candidate Starts for BabyJohn_37:
(31, 28621), (41, 28561), (Start: 52 @28513 has 167 MA's), (62, 28486), (67, 28471), (78, 28390), (84, 28372), (86, 28369),

Gene: BabyRay_39 Start: 28442, Stop: 28278, Start Num: 52
Candidate Starts for BabyRay_39:
(Start: 52 @28442 has 167 MA's), (62, 28415), (67, 28400), (75, 28328), (86, 28295),

Gene: Bachome_38 Start: 27420, Stop: 27265, Start Num: 51
Candidate Starts for Bachome_38:
(18, 27690), (19, 27657), (29, 27567), (32, 27528), (Start: 51 @27420 has 50 MA's), (75, 27306), (76, 27300), (87, 27276),

Gene: BaghaKamala_51 Start: 37929, Stop: 38099, Start Num: 50
Candidate Starts for BaghaKamala_51:
(Start: 50 @37929 has 105 MA's), (73, 38043), (75, 38052), (76, 38058), (86, 38082),

Gene: BangNhom_38 Start: 28413, Stop: 28255, Start Num: 54
Candidate Starts for BangNhom_38:
(Start: 42 @28455 has 3 MA's), (Start: 54 @28413 has 121 MA's), (73, 28308), (75, 28299), (76, 28293), (86, 28272),

Gene: BarrelRoll_52 Start: 38552, Stop: 38722, Start Num: 50
Candidate Starts for BarrelRoll_52:
(Start: 50 @38552 has 105 MA's), (73, 38666), (75, 38675), (76, 38681), (86, 38705),

Gene: Barriga_46 Start: 34493, Stop: 34368, Start Num: 55
Candidate Starts for Barriga_46:
(Start: 55 @34493 has 50 MA's), (66, 34454), (71, 34394), (73, 34385),

Gene: Bartimeaus_37 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Bartimeaus_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: Beauxregard13_42 Start: 28869, Stop: 28699, Start Num: 52

Candidate Starts for Beauxregard13_42:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: Beezoo_54 Start: 39527, Stop: 39697, Start Num: 50
Candidate Starts for Beezoo_54:
(Start: 50 @39527 has 105 MA's), (73, 39641), (75, 39650), (76, 39656), (86, 39680),

Gene: Bella96_53 Start: 39309, Stop: 39479, Start Num: 50
Candidate Starts for Bella96_53:
(Start: 50 @39309 has 105 MA's), (73, 39423),

Gene: Belladonna_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Belladonna_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Bellris_67 Start: 40467, Stop: 40309, Start Num: 49
Candidate Starts for Bellris_67:
(1, 41280), (2, 41148), (Start: 49 @40467 has 53 MA's), (67, 40425), (75, 40356), (87, 40320),

Gene: BellusTerra_38 Start: 28112, Stop: 27954, Start Num: 54
Candidate Starts for BellusTerra_38:
(6, 28403), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (73, 28007), (75, 27998), (76, 27992), (86, 27971),

Gene: BengiVuitton_37 Start: 27840, Stop: 27661, Start Num: 46
Candidate Starts for BengiVuitton_37:
(Start: 46 @27840 has 30 MA's), (63, 27795), (75, 27708), (77, 27699), (84, 27681),

Gene: Bern_53 Start: 37518, Stop: 37688, Start Num: 50
Candidate Starts for Bern_53:
(Start: 50 @37518 has 105 MA's), (73, 37632), (75, 37641), (76, 37647), (86, 37671),

Gene: Big3_44 Start: 34810, Stop: 34685, Start Num: 55
Candidate Starts for Big3_44:
(Start: 55 @34810 has 50 MA's), (66, 34771), (71, 34711), (73, 34702),

Gene: Bigchungi_44 Start: 33937, Stop: 33812, Start Num: 55
Candidate Starts for Bigchungi_44:
(Start: 55 @33937 has 50 MA's), (66, 33898), (71, 33838), (73, 33829),

Gene: Bigflo_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Bigflo_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: Blackmoor_37 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Blackmoor_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: Blizzard_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Blizzard_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: Blue_45 Start: 35132, Stop: 35007, Start Num: 55
Candidate Starts for Blue_45:
(Start: 55 @35132 has 50 MA's), (66, 35093), (71, 35033), (73, 35024),

Gene: BlueBird_40 Start: 28368, Stop: 28207, Start Num: 52
Candidate Starts for BlueBird_40:
(Start: 52 @28368 has 167 MA's), (75, 28254), (78, 28245),

Gene: Bluefalcon_33 Start: 27477, Stop: 27319, Start Num: 52
Candidate Starts for Bluefalcon_33:
(Start: 42 @27519 has 3 MA's), (Start: 52 @27477 has 167 MA's), (73, 27372), (75, 27363), (76, 27357),

Gene: BobSwaget_61 Start: 39908, Stop: 39744, Start Num: 49
Candidate Starts for BobSwaget_61:
(Start: 49 @39908 has 53 MA's), (77, 39782),

Gene: Bobquesha_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Bobquesha_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: BogosyJay_68 Start: 41031, Stop: 40873, Start Num: 49
Candidate Starts for BogosyJay_68:
(23, 41232), (Start: 49 @41031 has 53 MA's), (67, 40989), (75, 40920), (77, 40911),

Gene: Boiiii_52 Start: 38883, Stop: 39053, Start Num: 50
Candidate Starts for Boiiii_52:
(Start: 50 @38883 has 105 MA's), (73, 38997), (75, 39006), (76, 39012), (86, 39036),

Gene: Bombshell_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Bombshell_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Bonamassa_33 Start: 27148, Stop: 26990, Start Num: 52
Candidate Starts for Bonamassa_33:
(13, 27430), (14, 27424), (Start: 42 @27190 has 3 MA's), (Start: 52 @27148 has 167 MA's), (73, 27043), (75, 27034), (76, 27028),

Gene: Bowtie_37 Start: 27439, Stop: 27284, Start Num: 51
Candidate Starts for Bowtie_37:
(18, 27709), (29, 27586), (32, 27547), (Start: 51 @27439 has 50 MA's), (75, 27325), (76, 27319), (87, 27295),

Gene: Bradman_69 Start: 40626, Stop: 40474, Start Num: 49
Candidate Starts for Bradman_69:
(7, 40950), (Start: 49 @40626 has 53 MA's), (73, 40524), (75, 40515), (84, 40494),

Gene: BreSam8_42 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for BreSam8_42:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: Broseidon_37 Start: 28113, Stop: 27961, Start Num: 54

Candidate Starts for Broseidon_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: Bruiser_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Bruiser_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Bruns_44 Start: 34427, Stop: 34302, Start Num: 55
Candidate Starts for Bruns_44:
(Start: 55 @34427 has 50 MA's), (56, 34418), (60, 34406), (64, 34394), (71, 34328), (73, 34319),

Gene: Bryler_56 Start: 38331, Stop: 38504, Start Num: 50
Candidate Starts for Bryler_56:
(21, 38100), (22, 38127), (28, 38184), (Start: 50 @38331 has 105 MA's), (63, 38364), (75, 38457), (79, 38472),

Gene: BubbleTrouble_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for BubbleTrouble_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Buckaroo_37 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for Buckaroo_37:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (73, 28016), (75, 28007), (76, 28001),

Gene: Bud_36 Start: 26994, Stop: 26839, Start Num: 51
Candidate Starts for Bud_36:
(18, 27264), (29, 27141), (32, 27102), (Start: 51 @26994 has 50 MA's), (75, 26880), (76, 26874), (87, 26850),

Gene: Bugatti_40 Start: 28368, Stop: 28207, Start Num: 52
Candidate Starts for Bugatti_40:
(Start: 52 @28368 has 167 MA's), (75, 28254), (78, 28245),

Gene: Burger_35 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Burger_35:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: BuzzBuzz_40 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for BuzzBuzz_40:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (81, 28729),

Gene: C3_36 Start: 28234, Stop: 28082, Start Num: 51
Candidate Starts for C3_36:
(16, 28501), (20, 28459), (Start: 51 @28234 has 50 MA's), (73, 28132), (75, 28123), (86, 28099),

Gene: CRB1_39 Start: 28360, Stop: 28175, Start Num: 46
Candidate Starts for CRB1_39:
(33, 28453), (Start: 46 @28360 has 30 MA's), (61, 28321), (75, 28222), (77, 28213),

Gene: CREW_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for CREW_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Caelakin_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Caelakin_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Cain_56 Start: 38319, Stop: 38492, Start Num: 50
Candidate Starts for Cain_56:
(21, 38088), (22, 38115), (28, 38172), (Start: 50 @38319 has 105 MA's), (63, 38352), (75, 38445), (79, 38460),

Gene: CallaLilly_52 Start: 38607, Stop: 38777, Start Num: 50
Candidate Starts for CallaLilly_52:
(Start: 50 @38607 has 105 MA's), (73, 38721), (75, 38730), (76, 38736), (86, 38760),

Gene: Calvinny_42 Start: 28687, Stop: 28523, Start Num: 52
Candidate Starts for Calvinny_42:
(Start: 52 @28687 has 167 MA's), (60, 28663), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: Camperdownii_36 Start: 27805, Stop: 27653, Start Num: 54
Candidate Starts for Camperdownii_36:
(Start: 42 @27847 has 3 MA's), (Start: 54 @27805 has 121 MA's), (73, 27706), (75, 27697), (76, 27691),

Gene: Capricorn_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Capricorn_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Caraxes_37 Start: 26594, Stop: 26436, Start Num: 52
Candidate Starts for Caraxes_37:
(Start: 52 @26594 has 167 MA's), (67, 26549), (76, 26477), (87, 26447), (88, 26444),

Gene: CaseJules_54 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for CaseJules_54:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: Cat_37 Start: 28055, Stop: 27891, Start Num: 52
Candidate Starts for Cat_37:
(Start: 52 @28055 has 167 MA's), (62, 28028), (67, 28013), (75, 27941), (86, 27908),

Gene: Catalina_71 Start: 41050, Stop: 40895, Start Num: 49
Candidate Starts for Catalina_71:
(7, 41374), (Start: 49 @41050 has 53 MA's), (67, 41008), (75, 40942), (77, 40933),

Gene: Caviar_38 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Caviar_38:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: CentreCat_37 Start: 28114, Stop: 27962, Start Num: 54

Candidate Starts for CentreCat_37:
(6, 28405), (Start: 42 @28156 has 3 MA's), (Start: 54 @28114 has 121 MA's), (60, 28093), (65, 28081), (73, 28015), (75, 28006), (76, 28000),

Gene: Cerulean_38 Start: 28414, Stop: 28256, Start Num: 54
Candidate Starts for Cerulean_38:
(Start: 42 @28456 has 3 MA's), (Start: 54 @28414 has 121 MA's), (73, 28309), (75, 28300), (76, 28294), (86, 28273),

Gene: ChampagnePapi_39 Start: 28413, Stop: 28255, Start Num: 54
Candidate Starts for ChampagnePapi_39:
(Start: 42 @28455 has 3 MA's), (Start: 54 @28413 has 121 MA's), (73, 28308), (75, 28299), (76, 28293), (86, 28272),

Gene: Chancellor_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Chancellor_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Changeling_39 Start: 29036, Stop: 28875, Start Num: 49
Candidate Starts for Changeling_39:
(Start: 49 @29036 has 53 MA's), (67, 28994), (75, 28922), (77, 28913), (84, 28895),

Gene: Chaph_37 Start: 28122, Stop: 27970, Start Num: 54
Candidate Starts for Chaph_37:
(6, 28413), (Start: 42 @28164 has 3 MA's), (Start: 54 @28122 has 121 MA's), (60, 28101), (73, 28023), (75, 28014), (76, 28008),

Gene: Chavito_56 Start: 39989, Stop: 40159, Start Num: 50
Candidate Starts for Chavito_56:
(Start: 50 @39989 has 105 MA's), (62, 40019), (73, 40100), (79, 40124),

Gene: Che12_41 Start: 27298, Stop: 27137, Start Num: 52
Candidate Starts for Che12_41:
(44, 27310), (Start: 52 @27298 has 167 MA's), (76, 27178), (87, 27148), (88, 27145),

Gene: CheetoDust_51 Start: 37972, Stop: 38142, Start Num: 50
Candidate Starts for CheetoDust_51:
(Start: 50 @37972 has 105 MA's), (73, 38086), (75, 38095), (76, 38101), (86, 38125),

Gene: Cheetobro_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Cheetobro_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: ChipMunk_41 Start: 30014, Stop: 29841, Start Num: 46
Candidate Starts for ChipMunk_41:
(Start: 46 @30014 has 30 MA's), (57, 29990), (59, 29984),

Gene: Chiqui_37 Start: 28522, Stop: 28361, Start Num: 52
Candidate Starts for Chiqui_37:
(31, 28630), (41, 28570), (Start: 52 @28522 has 167 MA's), (62, 28495), (67, 28480), (78, 28399), (84, 28381), (86, 28378),

Gene: Chupacabra_37 Start: 28075, Stop: 27917, Start Num: 48

Candidate Starts for Chupacabra_37:
(Start: 48 @28075 has 9 MA's), (76, 27955),

Gene: Cintron_37 Start: 28177, Stop: 28025, Start Num: 54
Candidate Starts for Cintron_37:
(Start: 42 @28219 has 3 MA's), (Start: 54 @28177 has 121 MA's), (60, 28156), (68, 28132), (73, 28078), (75, 28069), (76, 28063),

Gene: Citius_37 Start: 28132, Stop: 27974, Start Num: 54
Candidate Starts for Citius_37:
(6, 28423), (Start: 42 @28174 has 3 MA's), (Start: 54 @28132 has 121 MA's), (73, 28027), (75, 28018), (76, 28012),

Gene: Clammy_40 Start: 28368, Stop: 28207, Start Num: 52
Candidate Starts for Clammy_40:
(Start: 52 @28368 has 167 MA's), (75, 28254), (78, 28245),

Gene: Clarenza_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for Clarenza_37:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: Clipper_55 Start: 39146, Stop: 39319, Start Num: 50
Candidate Starts for Clipper_55:
(Start: 50 @39146 has 105 MA's), (73, 39260),

Gene: ClownCar_42 Start: 28680, Stop: 28516, Start Num: 52
Candidate Starts for ClownCar_42:
(Start: 52 @28680 has 167 MA's), (75, 28563), (77, 28554),

Gene: Cocoaberry_37 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for Cocoaberry_37:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (65, 28082), (73, 28016), (75, 28007), (76, 28001),

Gene: CogOmlette_65 Start: 40464, Stop: 40306, Start Num: 49
Candidate Starts for CogOmlette_65:
(1, 41277), (2, 41145), (Start: 49 @40464 has 53 MA's), (67, 40422), (75, 40353), (87, 40317),

Gene: Colbster_42 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for Colbster_42:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: Commander_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Commander_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (73, 28011), (75, 28002),

Gene: ConceptII_47 Start: 35507, Stop: 35379, Start Num: 55
Candidate Starts for ConceptII_47:
(Start: 55 @35507 has 50 MA's), (56, 35498), (60, 35486), (64, 35474), (71, 35405), (73, 35396),

Gene: Connomayer_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Connomayer_37:

(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Conquerage_67 Start: 40725, Stop: 40570, Start Num: 49
Candidate Starts for Conquerage_67:
(Start: 49 @40725 has 53 MA's), (67, 40683), (75, 40617), (77, 40608),

Gene: Conspiracy_34 Start: 27260, Stop: 27060, Start Num: 42
Candidate Starts for Conspiracy_34:
(24, 27410), (Start: 42 @27260 has 3 MA's), (Start: 52 @27218 has 167 MA's), (73, 27113), (75, 27104), (76, 27098),

Gene: Coog_33 Start: 27188, Stop: 27030, Start Num: 52
Candidate Starts for Coog_33:
(13, 27476), (14, 27470), (Start: 42 @27230 has 3 MA's), (Start: 52 @27188 has 167 MA's), (73, 27083), (75, 27074), (76, 27068),

Gene: Corvo_46 Start: 35367, Stop: 35242, Start Num: 55
Candidate Starts for Corvo_46:
(Start: 55 @35367 has 50 MA's), (56, 35358), (60, 35346), (64, 35334), (71, 35268), (73, 35259),

Gene: CrimD_52 Start: 38799, Stop: 38972, Start Num: 50
Candidate Starts for CrimD_52:
(Start: 50 @38799 has 105 MA's), (73, 38913),

Gene: Croquant_43 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for Croquant_43:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (65, 28825), (75, 28744), (77, 28735),

Gene: Crucio_38 Start: 28097, Stop: 27924, Start Num: 46
Candidate Starts for Crucio_38:
(Start: 46 @28097 has 30 MA's), (57, 28073), (59, 28067), (75, 27971),

Gene: Cuco_33 Start: 27147, Stop: 26989, Start Num: 52
Candidate Starts for Cuco_33:
(13, 27429), (14, 27423), (Start: 42 @27189 has 3 MA's), (Start: 52 @27147 has 167 MA's), (73, 27042), (75, 27033), (76, 27027),

Gene: Cullens_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Cullens_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: D29_38 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for D29_38:
(16, 28402), (20, 28360), (Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: D32_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for D32_41:
(16, 28402), (20, 28360), (Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: DBQu4n_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for DBQu4n_41:
(Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: DaHudson_42 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for DaHudson_42:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Daishi_41 Start: 27705, Stop: 27538, Start Num: 52
Candidate Starts for Daishi_41:
(25, 27885), (31, 27813), (Start: 52 @27705 has 167 MA's), (81, 27570),

Gene: Dalmuri_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Dalmuri_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: DanSyl44_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for DanSyl44_3:
(39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Darrell_70 Start: 41552, Stop: 41397, Start Num: 49
Candidate Starts for Darrell_70:
(23, 41750), (Start: 49 @41552 has 53 MA's), (73, 41450), (75, 41441), (76, 41435),

Gene: DartGoblin_54 Start: 39281, Stop: 39451, Start Num: 50
Candidate Starts for DartGoblin_54:
(Start: 50 @39281 has 105 MA's), (73, 39395),

Gene: Dartin_55 Start: 39264, Stop: 39437, Start Num: 50
Candidate Starts for Dartin_55:
(Start: 50 @39264 has 105 MA's), (56, 39276), (65, 39303), (73, 39378), (79, 39402),

Gene: Deano_37 Start: 28119, Stop: 27967, Start Num: 54
Candidate Starts for Deano_37:
(6, 28410), (Start: 42 @28161 has 3 MA's), (Start: 54 @28119 has 121 MA's), (60, 28098), (65, 28086),
(73, 28020), (75, 28011), (76, 28005),

Gene: Deby_52 Start: 38743, Stop: 38913, Start Num: 50
Candidate Starts for Deby_52:
(Start: 50 @38743 has 105 MA's), (73, 38857), (75, 38866), (76, 38872), (86, 38896),

Gene: DeerParkTS_64 Start: 40810, Stop: 40640, Start Num: 49
Candidate Starts for DeerParkTS_64:
(Start: 49 @40810 has 53 MA's), (75, 40687), (77, 40678), (84, 40660),

Gene: Deloris_36 Start: 27509, Stop: 27330, Start Num: 46
Candidate Starts for Deloris_36:
(Start: 46 @27509 has 30 MA's), (63, 27464), (75, 27377), (77, 27368), (84, 27350),

Gene: Devera_57 Start: 39316, Stop: 39486, Start Num: 50
Candidate Starts for Devera_57:
(Start: 50 @39316 has 105 MA's), (73, 39430), (75, 39439),

Gene: Dhanush_37 Start: 28114, Stop: 27962, Start Num: 54
Candidate Starts for Dhanush_37:

(6, 28405), (Start: 42 @28156 has 3 MA's), (Start: 54 @28114 has 121 MA's), (60, 28093), (65, 28081), (73, 28015), (75, 28006), (76, 28000),

Gene: Dieselweasel_43 Start: 28868, Stop: 28701, Start Num: 52
Candidate Starts for Dieselweasel_43:
(25, 29048), (31, 28976), (Start: 52 @28868 has 167 MA's), (65, 28829), (75, 28748), (77, 28739),

Gene: Dignity_40 Start: 28649, Stop: 28476, Start Num: 46
Candidate Starts for Dignity_40:
(Start: 46 @28649 has 30 MA's), (59, 28619), (68, 28589),

Gene: Discoknowium_34 Start: 27469, Stop: 27269, Start Num: 42
Candidate Starts for Discoknowium_34:
(24, 27619), (Start: 42 @27469 has 3 MA's), (Start: 52 @27427 has 167 MA's), (73, 27322), (75, 27313), (76, 27307),

Gene: Dole_55 Start: 39319, Stop: 39489, Start Num: 50
Candidate Starts for Dole_55:
(Start: 50 @39319 has 105 MA's), (73, 39433), (75, 39442),

Gene: DrHayes_53 Start: 39464, Stop: 39634, Start Num: 50
Candidate Starts for DrHayes_53:
(Start: 50 @39464 has 105 MA's), (73, 39578), (79, 39602),

Gene: DreamCatcher_48 Start: 35874, Stop: 35749, Start Num: 55
Candidate Starts for DreamCatcher_48:
(Start: 55 @35874 has 50 MA's), (66, 35835), (71, 35775), (73, 35766),

Gene: Dreamboat_47 Start: 34567, Stop: 34439, Start Num: 55
Candidate Starts for Dreamboat_47:
(Start: 55 @34567 has 50 MA's), (56, 34558), (60, 34546), (64, 34534), (71, 34465), (73, 34456),

Gene: DropBear_39 Start: 28435, Stop: 28274, Start Num: 52
Candidate Starts for DropBear_39:
(Start: 52 @28435 has 167 MA's), (75, 28321), (78, 28312),

Gene: Druantia_37 Start: 28114, Stop: 27962, Start Num: 54
Candidate Starts for Druantia_37:
(6, 28405), (Start: 42 @28156 has 3 MA's), (Start: 54 @28114 has 121 MA's), (60, 28093), (65, 28081), (73, 28015), (75, 28006), (76, 28000),

Gene: Dublin_32 Start: 27119, Stop: 26961, Start Num: 52
Candidate Starts for Dublin_32:
(Start: 42 @27161 has 3 MA's), (Start: 52 @27119 has 167 MA's), (73, 27014), (75, 27005), (76, 26999),

Gene: Duplo_41 Start: 28173, Stop: 28021, Start Num: 51
Candidate Starts for Duplo_41:
(Start: 51 @28173 has 50 MA's), (73, 28071), (75, 28062), (86, 28038),

Gene: Durfee_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Durfee_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: DustyMartin_41 Start: 27874, Stop: 27713, Start Num: 52
Candidate Starts for DustyMartin_41:
(Start: 48 @27877 has 9 MA's), (Start: 52 @27874 has 167 MA's), (73, 27766), (75, 27757),

Gene: EZMoney23_38 Start: 28376, Stop: 28215, Start Num: 49
Candidate Starts for EZMoney23_38:
(Start: 49 @28376 has 53 MA's), (77, 28253),

Gene: Eagle_37 Start: 28136, Stop: 27978, Start Num: 54
Candidate Starts for Eagle_37:
(6, 28427), (Start: 42 @28178 has 3 MA's), (Start: 54 @28136 has 121 MA's), (73, 28031), (75, 28022), (76, 28016), (86, 27995),

Gene: Eaglepride_39 Start: 28184, Stop: 28023, Start Num: 52
Candidate Starts for Eaglepride_39:
(Start: 48 @28187 has 9 MA's), (Start: 52 @28184 has 167 MA's), (73, 28076), (75, 28067), (76, 28061),

Gene: Eapen_37 Start: 28109, Stop: 27957, Start Num: 54
Candidate Starts for Eapen_37:
(6, 28400), (Start: 42 @28151 has 3 MA's), (Start: 54 @28109 has 121 MA's), (60, 28088), (65, 28076), (73, 28010), (75, 28001), (76, 27995),

Gene: Ebony_37 Start: 27394, Stop: 27239, Start Num: 51
Candidate Starts for Ebony_37:
(18, 27664), (29, 27541), (32, 27502), (Start: 51 @27394 has 50 MA's), (75, 27280), (76, 27274), (87, 27250),

Gene: Edison31_38 Start: 28283, Stop: 28125, Start Num: 48
Candidate Starts for Edison31_38:
(38, 28346), (Start: 48 @28283 has 9 MA's), (65, 28247), (76, 28163),

Gene: EdogawaKiddo_69 Start: 41017, Stop: 40862, Start Num: 49
Candidate Starts for EdogawaKiddo_69:
(Start: 49 @41017 has 53 MA's), (67, 40975), (75, 40909), (77, 40900),

Gene: Edugator_35 Start: 30175, Stop: 30339, Start Num: 45
Candidate Starts for Edugator_35:
(40, 30136), (41, 30139), (Start: 45 @30175 has 22 MA's), (Start: 55 @30187 has 50 MA's), (60, 30202), (63, 30208), (65, 30214), (66, 30217), (73, 30286), (76, 30301),

Gene: Efra2_55 Start: 38400, Stop: 38573, Start Num: 50
Candidate Starts for Efra2_55:
(Start: 50 @38400 has 105 MA's), (73, 38514),

Gene: Eidsmoe_67 Start: 40717, Stop: 40562, Start Num: 49
Candidate Starts for Eidsmoe_67:
(Start: 49 @40717 has 53 MA's), (67, 40675), (75, 40609), (77, 40600),

Gene: Elephantoon_67 Start: 40355, Stop: 40197, Start Num: 49
Candidate Starts for Elephantoon_67:
(23, 40556), (Start: 49 @40355 has 53 MA's), (67, 40313), (75, 40244), (77, 40235),

Gene: Emerson_53 Start: 38563, Stop: 38733, Start Num: 50
Candidate Starts for Emerson_53:
(Start: 50 @38563 has 105 MA's), (73, 38677), (75, 38686), (76, 38692), (86, 38716),

Gene: EmyBug_66 Start: 40719, Stop: 40564, Start Num: 49
Candidate Starts for EmyBug_66:
(Start: 49 @40719 has 53 MA's), (67, 40677), (75, 40611), (77, 40602),

Gene: EpicPhail_43 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for EpicPhail_43:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: Eponine_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Eponine_3:
(3, 121), (5, 139), (10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Eris_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Eris_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Eros_37 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Eros_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: Et2Brutus_36 Start: 27354, Stop: 27199, Start Num: 51
Candidate Starts for Et2Brutus_36:
(18, 27624), (29, 27501), (32, 27462), (Start: 51 @27354 has 50 MA's), (75, 27240), (76, 27234), (87, 27210),

Gene: EtoileNova_39 Start: 28527, Stop: 28360, Start Num: 52
Candidate Starts for EtoileNova_39:
(31, 28635), (Start: 52 @28527 has 167 MA's),

Gene: Eurydice_38 Start: 28111, Stop: 27953, Start Num: 54
Candidate Starts for Eurydice_38:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (73, 28006), (75, 27997), (76, 27991), (86, 27970),

Gene: EvilGenius_41 Start: 30018, Stop: 29845, Start Num: 46
Candidate Starts for EvilGenius_41:
(Start: 46 @30018 has 30 MA's), (57, 29994), (59, 29988),

Gene: ExplosioNervosa_67 Start: 40785, Stop: 40630, Start Num: 49
Candidate Starts for ExplosioNervosa_67:
(Start: 49 @40785 has 53 MA's), (67, 40743), (75, 40677), (77, 40668),

Gene: Fameo_67 Start: 41968, Stop: 41795, Start Num: 49
Candidate Starts for Fameo_67:
(Start: 49 @41968 has 53 MA's), (75, 41842), (77, 41833),

Gene: Farber_42 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for Farber_42:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: FatCactus_64 Start: 40301, Stop: 40134, Start Num: 49
Candidate Starts for FatCactus_64:
(34, 40400), (35, 40394), (36, 40388), (Start: 49 @40301 has 53 MA's), (75, 40181), (77, 40172),

Gene: Fayely_67 Start: 40686, Stop: 40531, Start Num: 49
Candidate Starts for Fayely_67:
(Start: 49 @40686 has 53 MA's), (67, 40644), (75, 40578), (77, 40569),

Gene: Fenn_47 Start: 36614, Stop: 36486, Start Num: 55
Candidate Starts for Fenn_47:
(Start: 55 @36614 has 50 MA's), (56, 36605), (60, 36593), (64, 36581), (71, 36512), (73, 36503),

Gene: Fernando_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Fernando_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: Fibonacci_36 Start: 26986, Stop: 26831, Start Num: 51
Candidate Starts for Fibonacci_36:
(18, 27256), (29, 27133), (32, 27094), (Start: 51 @26986 has 50 MA's), (75, 26872), (76, 26866), (87, 26842),

Gene: Fionnbharth_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Fionnbharth_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: FiringLine_38 Start: 28078, Stop: 27905, Start Num: 46
Candidate Starts for FiringLine_38:
(Start: 46 @28078 has 30 MA's), (57, 28054), (59, 28048), (75, 27952),

Gene: First_0037 Start: 27751, Stop: 27566, Start Num: 46
Candidate Starts for First_0037:
(Start: 46 @27751 has 30 MA's), (61, 27712), (75, 27613), (77, 27604),

Gene: Flaverint_37 Start: 27433, Stop: 27278, Start Num: 51
Candidate Starts for Flaverint_37:
(18, 27703), (29, 27580), (32, 27541), (Start: 51 @27433 has 50 MA's), (75, 27319), (76, 27313), (87, 27289),

Gene: Florean_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Florean_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: Flux_37 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Flux_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: ForGetIt_34 Start: 27243, Stop: 27085, Start Num: 52
Candidate Starts for ForGetIt_34:
(24, 27435), (Start: 42 @27285 has 3 MA's), (Start: 52 @27243 has 167 MA's), (73, 27138), (75, 27129), (76, 27123),

Gene: ForesterFrank_65 Start: 41870, Stop: 41709, Start Num: 49
Candidate Starts for ForesterFrank_65:
(Start: 49 @41870 has 53 MA's), (77, 41747),

Gene: Forsytheast_45 Start: 34645, Stop: 34520, Start Num: 55
Candidate Starts for Forsytheast_45:
(Start: 55 @34645 has 50 MA's), (56, 34636), (60, 34624), (64, 34612), (71, 34546), (73, 34537),

Gene: Fred313_39 Start: 28120, Stop: 27959, Start Num: 52
Candidate Starts for Fred313_39:
(Start: 52 @28120 has 167 MA's), (75, 28006), (78, 27997),

Gene: Funston_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Funston_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Gadost_37 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for Gadost_37:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (73, 28016), (75, 28007), (76, 28001),

Gene: Gandalf20_47 Start: 35644, Stop: 35519, Start Num: 55
Candidate Starts for Gandalf20_47:
(Start: 55 @35644 has 50 MA's), (66, 35605), (71, 35545), (73, 35536),

Gene: Ganymede_53 Start: 38945, Stop: 39115, Start Num: 50
Candidate Starts for Ganymede_53:
(Start: 50 @38945 has 105 MA's), (73, 39059), (75, 39068), (76, 39074), (86, 39098),

Gene: Gemma_41 Start: 28683, Stop: 28519, Start Num: 52
Candidate Starts for Gemma_41:
(Start: 52 @28683 has 167 MA's), (75, 28563), (76, 28557), (83, 28542), (85, 28536),

Gene: George_32 Start: 27148, Stop: 26990, Start Num: 52
Candidate Starts for George_32:
(13, 27430), (14, 27424), (Start: 42 @27190 has 3 MA's), (Start: 52 @27148 has 167 MA's), (73, 27043), (75, 27034), (76, 27028),

Gene: Georgie2_39 Start: 28123, Stop: 27950, Start Num: 46
Candidate Starts for Georgie2_39:
(Start: 46 @28123 has 30 MA's), (57, 28099), (59, 28093), (75, 27997),

Gene: Geraldini_55 Start: 39616, Stop: 39786, Start Num: 50
Candidate Starts for Geraldini_55:
(Start: 50 @39616 has 105 MA's), (73, 39730), (75, 39739), (76, 39745), (86, 39769),

Gene: Ghoulboy_35 Start: 27747, Stop: 27589, Start Num: 52

Candidate Starts for Ghoulboy_35:
(Start: 42 @27789 has 3 MA's), (Start: 52 @27747 has 167 MA's), (73, 27642), (75, 27633), (76, 27627),

Gene: Gilberta_37 Start: 27423, Stop: 27268, Start Num: 51
Candidate Starts for Gilberta_37:
(18, 27693), (29, 27570), (32, 27531), (Start: 51 @27423 has 50 MA's), (75, 27309), (76, 27303), (87, 27279),

Gene: GingkoMaracino_42 Start: 28752, Stop: 28585, Start Num: 52
Candidate Starts for GingkoMaracino_42:
(25, 28932), (31, 28860), (Start: 52 @28752 has 167 MA's), (65, 28713), (75, 28632), (77, 28623),

Gene: Giroux_40 Start: 28367, Stop: 28206, Start Num: 52
Candidate Starts for Giroux_40:
(Start: 52 @28367 has 167 MA's), (75, 28253), (78, 28244),

Gene: Goose_38 Start: 27879, Stop: 27721, Start Num: 48
Candidate Starts for Goose_38:
(Start: 48 @27879 has 9 MA's), (76, 27759),

Gene: Goose1D_33 Start: 24568, Stop: 24407, Start Num: 52
Candidate Starts for Goose1D_33:
(Start: 52 @24568 has 167 MA's), (75, 24454), (78, 24445),

Gene: Goose1X_39 Start: 27710, Stop: 27549, Start Num: 52
Candidate Starts for Goose1X_39:
(Start: 52 @27710 has 167 MA's), (75, 27596), (78, 27587),

Gene: Grayson_251 Start: 118509, Stop: 118658, Start Num: 52
Candidate Starts for Grayson_251:
(Start: 52 @118509 has 167 MA's), (63, 118542), (80, 118623), (86, 118641),

Gene: GrecoEtereo_46 Start: 34972, Stop: 34847, Start Num: 55
Candidate Starts for GrecoEtereo_46:
(Start: 55 @34972 has 50 MA's), (56, 34963), (60, 34951), (64, 34939), (71, 34873), (73, 34864),

Gene: Grif_42 Start: 28940, Stop: 28773, Start Num: 52
Candidate Starts for Grif_42:
(25, 29120), (31, 29048), (Start: 52 @28940 has 167 MA's), (65, 28901), (75, 28820), (77, 28811),

Gene: Groupthink_43 Start: 28687, Stop: 28523, Start Num: 52
Candidate Starts for Groupthink_43:
(Start: 52 @28687 has 167 MA's), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: Grub_42 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for Grub_42:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Grum1_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Grum1_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: GtownJaz_42 Start: 28867, Stop: 28700, Start Num: 52
Candidate Starts for GtownJaz_42:
(25, 29047), (31, 28975), (Start: 52 @28867 has 167 MA's), (65, 28828), (75, 28747), (77, 28738),

Gene: Gwennie_42 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for Gwennie_42:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: HamSlice_36 Start: 28109, Stop: 27957, Start Num: 54
Candidate Starts for HamSlice_36:
(6, 28400), (Start: 42 @28151 has 3 MA's), (Start: 54 @28109 has 121 MA's), (60, 28088), (73, 28010), (75, 28001), (76, 27995),

Gene: HanShotFirst_44 Start: 33997, Stop: 33872, Start Num: 55
Candidate Starts for HanShotFirst_44:
(Start: 55 @33997 has 50 MA's), (66, 33958), (71, 33898), (73, 33889),

Gene: Hanray_69 Start: 41049, Stop: 40894, Start Num: 49
Candidate Starts for Hanray_69:
(7, 41373), (Start: 49 @41049 has 53 MA's), (67, 41007), (75, 40941), (77, 40932),

Gene: HarryOW_44 Start: 34144, Stop: 34019, Start Num: 55
Candidate Starts for HarryOW_44:
(Start: 55 @34144 has 50 MA's), (56, 34135), (60, 34123), (64, 34111), (71, 34045), (73, 34036),

Gene: HashRod_43 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for HashRod_43:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (81, 28729),

Gene: HaveUMetTed_43 Start: 28681, Stop: 28517, Start Num: 52
Candidate Starts for HaveUMetTed_43:
(Start: 52 @28681 has 167 MA's), (75, 28564), (77, 28555),

Gene: Heathen_39 Start: 28176, Stop: 28015, Start Num: 52
Candidate Starts for Heathen_39:
(Start: 52 @28176 has 167 MA's), (75, 28062), (78, 28053),

Gene: HedwigODU_52 Start: 38569, Stop: 38739, Start Num: 50
Candidate Starts for HedwigODU_52:
(Start: 50 @38569 has 105 MA's), (73, 38683), (75, 38692), (76, 38698), (86, 38722),

Gene: Heffalump_66 Start: 42436, Stop: 42263, Start Num: 49
Candidate Starts for Heffalump_66:
(Start: 49 @42436 has 53 MA's), (75, 42310), (77, 42301),

Gene: HelDan_39 Start: 28428, Stop: 28267, Start Num: 52
Candidate Starts for HelDan_39:
(Start: 52 @28428 has 167 MA's), (75, 28314), (78, 28305),

Gene: Heliosoles_41 Start: 28690, Stop: 28523, Start Num: 52
Candidate Starts for Heliosoles_41:
(Start: 52 @28690 has 167 MA's), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: Hercules11_42 Start: 28874, Stop: 28707, Start Num: 52
Candidate Starts for Hercules11_42:
(25, 29054), (31, 28982), (Start: 52 @28874 has 167 MA's), (65, 28835), (75, 28754), (77, 28745),

Gene: HippoHollow_37 Start: 29433, Stop: 29254, Start Num: 46
Candidate Starts for HippoHollow_37:
(Start: 46 @29433 has 30 MA's), (61, 29394), (77, 29292),

Gene: Holex_69 Start: 41065, Stop: 40910, Start Num: 49
Candidate Starts for Holex_69:
(7, 41389), (Start: 49 @41065 has 53 MA's), (67, 41023), (75, 40957), (77, 40948),

Gene: Holli_36 Start: 27901, Stop: 27749, Start Num: 54
Candidate Starts for Holli_36:
(4, 28201), (6, 28192), (Start: 42 @27943 has 3 MA's), (Start: 54 @27901 has 121 MA's), (60, 27880), (65, 27868), (73, 27802), (75, 27793), (76, 27787),

Gene: Homura_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Homura_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Hookmount_38 Start: 28524, Stop: 28357, Start Num: 52
Candidate Starts for Hookmount_38:
(31, 28632), (Start: 52 @28524 has 167 MA's),

Gene: HortumSL17_70 Start: 41049, Stop: 40894, Start Num: 49
Candidate Starts for HortumSL17_70:
(7, 41373), (Start: 49 @41049 has 53 MA's), (67, 41007), (75, 40941), (77, 40932),

Gene: Houdini22_37 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for Houdini22_37:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (65, 28082), (73, 28016), (75, 28007), (76, 28001),

Gene: HuhtaEnerson15_33 Start: 27139, Stop: 26981, Start Num: 52
Candidate Starts for HuhtaEnerson15_33:
(13, 27421), (14, 27415), (Start: 42 @27181 has 3 MA's), (Start: 52 @27139 has 167 MA's), (73, 27034), (75, 27025), (76, 27019),

Gene: Hurricane_65 Start: 43122, Stop: 43292, Start Num: 51
Candidate Starts for Hurricane_65:
(Start: 47 @43113 has 2 MA's), (Start: 51 @43122 has 50 MA's), (60, 43146), (75, 43251), (76, 43257),

Gene: Hutc2_36 Start: 26986, Stop: 26831, Start Num: 51
Candidate Starts for Hutc2_36:
(18, 27256), (29, 27133), (32, 27094), (Start: 51 @26986 has 50 MA's), (75, 26872), (76, 26866), (87, 26842),

Gene: Huxley_37 Start: 28172, Stop: 28020, Start Num: 54
Candidate Starts for Huxley_37:
(6, 28463), (Start: 42 @28214 has 3 MA's), (Start: 54 @28172 has 121 MA's), (60, 28151), (65, 28139), (73, 28073), (75, 28064), (76, 28058),

Gene: Hyperbowlee_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Hyperbowlee_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: ICleared_37 Start: 28143, Stop: 27991, Start Num: 54
Candidate Starts for ICleared_37:
(Start: 42 @28185 has 3 MA's), (Start: 54 @28143 has 121 MA's), (73, 28044), (75, 28035), (76, 28029),

Gene: Iceman_38 Start: 28400, Stop: 28248, Start Num: 54
Candidate Starts for Iceman_38:
(6, 28691), (Start: 42 @28442 has 3 MA's), (Start: 54 @28400 has 121 MA's), (60, 28379), (65, 28367), (73, 28301), (75, 28292), (76, 28286),

Gene: Ichabod_47 Start: 35000, Stop: 34878, Start Num: 55
Candidate Starts for Ichabod_47:
(Start: 55 @35000 has 50 MA's), (66, 34961), (71, 34904), (73, 34895),

Gene: Idleandcovert_39 Start: 28368, Stop: 28207, Start Num: 52
Candidate Starts for Idleandcovert_39:
(Start: 52 @28368 has 167 MA's), (75, 28254), (78, 28245),

Gene: Illumine_55 Start: 39318, Stop: 39488, Start Num: 50
Candidate Starts for Illumine_55:
(Start: 50 @39318 has 105 MA's), (73, 39432), (75, 39441),

Gene: Inky_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Inky_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Insomnia_37 Start: 27491, Stop: 27336, Start Num: 51
Candidate Starts for Insomnia_37:
(18, 27761), (29, 27638), (32, 27599), (Start: 51 @27491 has 50 MA's), (75, 27377), (76, 27371), (87, 27347),

Gene: Iracema64_38 Start: 28375, Stop: 28217, Start Num: 54
Candidate Starts for Iracema64_38:
(Start: 42 @28417 has 3 MA's), (Start: 54 @28375 has 121 MA's), (73, 28270), (75, 28261), (76, 28255), (86, 28234),

Gene: Isca_38 Start: 27992, Stop: 27828, Start Num: 52
Candidate Starts for Isca_38:
(41, 28040), (Start: 52 @27992 has 167 MA's), (62, 27965), (67, 27950), (75, 27875), (78, 27866), (84, 27848), (86, 27845),

Gene: Iwokeuplikedis_41 Start: 28186, Stop: 28013, Start Num: 46
Candidate Starts for Iwokeuplikedis_41:
(Start: 46 @28186 has 30 MA's), (64, 28141), (75, 28060), (77, 28051),

Gene: JAWS_52 Start: 38558, Stop: 38728, Start Num: 50
Candidate Starts for JAWS_52:
(Start: 50 @38558 has 105 MA's), (73, 38672), (75, 38681), (76, 38687), (86, 38711),

Gene: JC27_46 Start: 35060, Stop: 34935, Start Num: 55
Candidate Starts for JC27_46:
(Start: 55 @35060 has 50 MA's), (56, 35051), (60, 35039), (64, 35027), (71, 34961), (73, 34952),

Gene: JF1_3 Start: 505, Stop: 645, Start Num: 58
Candidate Starts for JF1_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: JF2_39 Start: 27743, Stop: 27579, Start Num: 52
Candidate Starts for JF2_39:
(41, 27791), (Start: 52 @27743 has 167 MA's), (62, 27716), (67, 27701), (75, 27626), (78, 27617), (84, 27599), (86, 27596),

Gene: JF4_39 Start: 27743, Stop: 27579, Start Num: 52
Candidate Starts for JF4_39:
(41, 27791), (Start: 52 @27743 has 167 MA's), (62, 27716), (67, 27701), (75, 27626), (78, 27617), (84, 27599), (86, 27596),

Gene: JHC117_42 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for JHC117_42:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (65, 28825), (75, 28744), (77, 28735),

Gene: Jabith_37 Start: 27492, Stop: 27337, Start Num: 51
Candidate Starts for Jabith_37:
(18, 27762), (29, 27639), (32, 27600), (Start: 51 @27492 has 50 MA's), (75, 27378), (76, 27372), (87, 27348),

Gene: Jarvi_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Jarvi_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Jasper_47 Start: 34453, Stop: 34325, Start Num: 55
Candidate Starts for Jasper_47:
(Start: 55 @34453 has 50 MA's), (56, 34444), (60, 34432), (64, 34420), (71, 34351), (73, 34342),

Gene: Jayhawk_53 Start: 38567, Stop: 38737, Start Num: 50
Candidate Starts for Jayhawk_53:
(Start: 50 @38567 has 105 MA's), (73, 38681), (75, 38690), (76, 38696), (86, 38720),

Gene: Jaykayelowell_36 Start: 28107, Stop: 27955, Start Num: 54
Candidate Starts for Jaykayelowell_36:
(6, 28398), (Start: 42 @28149 has 3 MA's), (Start: 54 @28107 has 121 MA's), (60, 28086), (65, 28074), (73, 28008), (75, 27999), (76, 27993),

Gene: Jeckyll_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Jeckyll_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: JenCasNa_43 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for JenCasNa_43:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: JeppNRM_43 Start: 28688, Stop: 28521, Start Num: 52

Candidate Starts for JeppNRM_43:
(Start: 52 @28688 has 167 MA's), (75, 28565), (76, 28559), (83, 28544), (85, 28538),

Gene: Jerm_40 Start: 28642, Stop: 28469, Start Num: 46
Candidate Starts for Jerm_40:
(Start: 46 @28642 has 30 MA's), (59, 28612), (68, 28582),

Gene: JetBlade_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for JetBlade_37:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: Jiawan_69 Start: 41081, Stop: 40926, Start Num: 49
Candidate Starts for Jiawan_69:
(7, 41405), (Start: 49 @41081 has 53 MA's), (67, 41039), (75, 40973), (77, 40964),

Gene: Jobu08_41 Start: 28695, Stop: 28528, Start Num: 52
Candidate Starts for Jobu08_41:
(25, 28878), (31, 28806), (Start: 52 @28695 has 167 MA's), (65, 28656), (75, 28575), (77, 28566),

Gene: JoongJeon_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for JoongJeon_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Jorgensen_46 Start: 34754, Stop: 34629, Start Num: 55
Candidate Starts for Jorgensen_46:
(Start: 55 @34754 has 50 MA's), (66, 34715), (71, 34655), (73, 34646),

Gene: Joselito_37 Start: 27432, Stop: 27277, Start Num: 51
Candidate Starts for Joselito_37:
(18, 27702), (29, 27579), (32, 27540), (Start: 51 @27432 has 50 MA's), (75, 27318), (76, 27312), (87, 27288),

Gene: JoshKayV_40 Start: 28605, Stop: 28432, Start Num: 46
Candidate Starts for JoshKayV_40:
(Start: 46 @28605 has 30 MA's), (59, 28575), (66, 28554), (75, 28479),

Gene: Journey13_36 Start: 27473, Stop: 27315, Start Num: 47
Candidate Starts for Journey13_36:
(Start: 47 @27473 has 2 MA's), (75, 27362), (76, 27356), (86, 27332),

Gene: Jovo_34 Start: 27541, Stop: 27341, Start Num: 42
Candidate Starts for Jovo_34:
(24, 27691), (Start: 42 @27541 has 3 MA's), (Start: 52 @27499 has 167 MA's), (73, 27394), (75, 27385), (76, 27379),

Gene: Joy99_52 Start: 38613, Stop: 38783, Start Num: 50
Candidate Starts for Joy99_52:
(Start: 50 @38613 has 105 MA's), (73, 38727), (75, 38736), (76, 38742), (86, 38766),

Gene: Jsquared_70 Start: 40783, Stop: 40631, Start Num: 49
Candidate Starts for Jsquared_70:

(7, 41107), (Start: 49 @40783 has 53 MA's), (73, 40681), (75, 40672), (84, 40651),

Gene: Juliette_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Juliette_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Junimo_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Junimo_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: KADY_42 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for KADY_42:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (81, 28729),

Gene: KFPoly_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for KFPoly_37:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: Kachowdy_39 Start: 28428, Stop: 28267, Start Num: 52
Candidate Starts for Kachowdy_39:
(Start: 52 @28428 has 167 MA's), (75, 28314), (78, 28305),

Gene: Kalb97_43 Start: 28686, Stop: 28522, Start Num: 52
Candidate Starts for Kalb97_43:
(Start: 52 @28686 has 167 MA's), (75, 28566), (76, 28560), (83, 28545), (85, 28539),

Gene: Kalnoky_43 Start: 28684, Stop: 28523, Start Num: 52
Candidate Starts for Kalnoky_43:
(Start: 52 @28684 has 167 MA's), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: Kalpine_39 Start: 29026, Stop: 28853, Start Num: 46
Candidate Starts for Kalpine_39:
(Start: 46 @29026 has 30 MA's), (57, 29002), (66, 28975), (70, 28933),

Gene: Kampy_37 Start: 28113, Stop: 27955, Start Num: 54
Candidate Starts for Kampy_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (73, 28008), (75, 27999), (76, 27993), (86, 27972),

Gene: Kanely_46 Start: 35114, Stop: 34992, Start Num: 55
Candidate Starts for Kanely_46:
(Start: 55 @35114 has 50 MA's), (66, 35075), (71, 35018), (73, 35009),

Gene: KekoraPapaka_38 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for KekoraPapaka_38:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Kerberos_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for Kerberos_41:
(Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: Keshu_67 Start: 43220, Stop: 43390, Start Num: 51
Candidate Starts for Keshu_67:
(Start: 47 @43211 has 2 MA's), (Start: 51 @43220 has 50 MA's), (60, 43244), (75, 43349),

Gene: Kheparia_52 Start: 36557, Stop: 36727, Start Num: 50
Candidate Starts for Kheparia_52:
(Start: 50 @36557 has 105 MA's), (73, 36671), (75, 36680), (76, 36686), (86, 36710),

Gene: Kimba_37 Start: 27395, Stop: 27240, Start Num: 51
Candidate Starts for Kimba_37:
(18, 27665), (29, 27542), (32, 27503), (Start: 51 @27395 has 50 MA's), (75, 27281), (76, 27275), (87, 27251),

Gene: Kimona_36 Start: 26496, Stop: 26332, Start Num: 52
Candidate Starts for Kimona_36:
(Start: 52 @26496 has 167 MA's), (63, 26463), (66, 26454), (73, 26391), (74, 26388), (86, 26349),

Gene: KingCyrus_41 Start: 30013, Stop: 29840, Start Num: 46
Candidate Starts for KingCyrus_41:
(Start: 46 @30013 has 30 MA's), (57, 29989), (59, 29983), (75, 29887),

Gene: Kingmustik0402_37 Start: 28103, Stop: 27951, Start Num: 54
Candidate Starts for Kingmustik0402_37:
(6, 28394), (Start: 42 @28145 has 3 MA's), (Start: 54 @28103 has 121 MA's), (60, 28082), (73, 28004), (75, 27995), (76, 27989),

Gene: Kinmap_66 Start: 39769, Stop: 39608, Start Num: 49
Candidate Starts for Kinmap_66:
(23, 39967), (Start: 49 @39769 has 53 MA's), (73, 39664), (75, 39655), (77, 39646),

Gene: Koan_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Koan_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (73, 28012), (75, 28003), (76, 27997),

Gene: Koduck_39 Start: 27286, Stop: 27131, Start Num: 52
Candidate Starts for Koduck_39:
(44, 27298), (Start: 52 @27286 has 167 MA's), (74, 27181), (76, 27169), (82, 27154), (87, 27142), (88, 27139),

Gene: Koreni_36 Start: 27792, Stop: 27640, Start Num: 54
Candidate Starts for Koreni_36:
(6, 28083), (9, 28065), (Start: 42 @27834 has 3 MA's), (Start: 54 @27792 has 121 MA's), (60, 27771), (65, 27759), (73, 27693), (75, 27684), (76, 27678),

Gene: Kratark_37 Start: 28053, Stop: 27901, Start Num: 54
Candidate Starts for Kratark_37:
(6, 28344), (Start: 42 @28095 has 3 MA's), (Start: 54 @28053 has 121 MA's), (73, 27954), (75, 27945), (76, 27939),

Gene: Kraw_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Kraw_3:

(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Kremtemulon_37 Start: 28065, Stop: 27913, Start Num: 54
Candidate Starts for Kremtemulon_37:
(6, 28356), (Start: 42 @28107 has 3 MA's), (Start: 54 @28065 has 121 MA's), (73, 27966), (75, 27957), (76, 27951),

Gene: Kristoff_38 Start: 28447, Stop: 28289, Start Num: 48
Candidate Starts for Kristoff_38:
(Start: 48 @28447 has 9 MA's), (76, 28327),

Gene: Krueger_59 Start: 39310, Stop: 39483, Start Num: 50
Candidate Starts for Krueger_59:
(21, 39079), (22, 39106), (28, 39163), (Start: 50 @39310 has 105 MA's), (63, 39343), (75, 39436), (79, 39451),

Gene: Kyee_37 Start: 28109, Stop: 27957, Start Num: 54
Candidate Starts for Kyee_37:
(6, 28400), (Start: 42 @28151 has 3 MA's), (Start: 54 @28109 has 121 MA's), (60, 28088), (65, 28076), (73, 28010), (75, 28001), (76, 27995),

Gene: L5_38 Start: 27243, Stop: 27091, Start Num: 52
Candidate Starts for L5_38:
(Start: 52 @27243 has 167 MA's), (74, 27138), (76, 27126), (82, 27111), (87, 27102), (88, 27099),

Gene: LBerry_43 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for LBerry_43:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: LHTSCC_39 Start: 28413, Stop: 28255, Start Num: 54
Candidate Starts for LHTSCC_39:
(Start: 42 @28455 has 3 MA's), (Start: 54 @28413 has 121 MA's), (73, 28308), (75, 28299), (76, 28293), (86, 28272),

Gene: LadyBird_40 Start: 28319, Stop: 28134, Start Num: 46
Candidate Starts for LadyBird_40:
(Start: 46 @28319 has 30 MA's), (61, 28280), (75, 28181), (77, 28172), (84, 28154),

Gene: Lambert1_38 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Lambert1_38:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: LappelDuVide_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for LappelDuVide_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: LarryKay_42 Start: 28866, Stop: 28699, Start Num: 52
Candidate Starts for LarryKay_42:
(25, 29046), (31, 28974), (Start: 52 @28866 has 167 MA's), (81, 28731),

Gene: LastHope_55 Start: 37751, Stop: 37921, Start Num: 50
Candidate Starts for LastHope_55:

(Start: 50 @37751 has 105 MA's), (73, 37865), (75, 37874),

Gene: LaterM_53 Start: 39443, Stop: 39613, Start Num: 50
Candidate Starts for LaterM_53:
(Start: 50 @39443 has 105 MA's), (73, 39557), (75, 39566),

Gene: Lea83_65 Start: 43157, Stop: 43327, Start Num: 51
Candidate Starts for Lea83_65:
(Start: 47 @43148 has 2 MA's), (Start: 51 @43157 has 50 MA's), (60, 43181), (75, 43286), (76, 43292),

Gene: Lebo14_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Lebo14_3:
(39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Lemur_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for Lemur_37:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: LeoAvram_37 Start: 28111, Stop: 27953, Start Num: 54
Candidate Starts for LeoAvram_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (73, 28006), (75, 27997), (76, 27991), (86, 27970),

Gene: Lev2_34 Start: 27131, Stop: 26973, Start Num: 52
Candidate Starts for Lev2_34:
(24, 27323), (Start: 42 @27173 has 3 MA's), (Start: 52 @27131 has 167 MA's), (73, 27026), (75, 27017), (76, 27011),

Gene: Leviathan_40 Start: 28698, Stop: 28525, Start Num: 46
Candidate Starts for Leviathan_40:
(Start: 46 @28698 has 30 MA's), (59, 28668), (68, 28638),

Gene: LilTurb_39 Start: 28531, Stop: 28358, Start Num: 46
Candidate Starts for LilTurb_39:
(Start: 46 @28531 has 30 MA's), (59, 28501), (68, 28471),

Gene: Lilith_43 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for Lilith_43:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: Lilleskat_68 Start: 40833, Stop: 40678, Start Num: 49
Candidate Starts for Lilleskat_68:
(Start: 49 @40833 has 53 MA's), (67, 40791), (75, 40725), (77, 40716),

Gene: LindNT_51 Start: 38772, Stop: 38942, Start Num: 50
Candidate Starts for LindNT_51:
(Start: 50 @38772 has 105 MA's), (73, 38886), (75, 38895), (76, 38901), (86, 38925),

Gene: LionsBait_37 Start: 29438, Stop: 29259, Start Num: 46
Candidate Starts for LionsBait_37:
(Start: 46 @29438 has 30 MA's), (77, 29297),

Gene: LittleB_37 Start: 28112, Stop: 27960, Start Num: 54
Candidate Starts for LittleB_37:
(6, 28403), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (60, 28091), (65, 28079), (73, 28013), (75, 28004), (76, 27998),

Gene: LittleCherry_33 Start: 27149, Stop: 26991, Start Num: 52
Candidate Starts for LittleCherry_33:
(13, 27431), (14, 27425), (Start: 42 @27191 has 3 MA's), (Start: 52 @27149 has 167 MA's), (73, 27044), (75, 27035), (76, 27029),

Gene: LittleGuy_37 Start: 28010, Stop: 27858, Start Num: 54
Candidate Starts for LittleGuy_37:
(6, 28301), (Start: 42 @28052 has 3 MA's), (Start: 54 @28010 has 121 MA's), (73, 27911), (75, 27902),

Gene: Llorens_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Llorens_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: LochMonster_37 Start: 28150, Stop: 27998, Start Num: 54
Candidate Starts for LochMonster_37:
(6, 28441), (Start: 42 @28192 has 3 MA's), (Start: 54 @28150 has 121 MA's), (60, 28129), (65, 28117), (73, 28051), (75, 28042), (76, 28036),

Gene: Lokk_62 Start: 40532, Stop: 40368, Start Num: 49
Candidate Starts for Lokk_62:
(Start: 49 @40532 has 53 MA's), (77, 40406),

Gene: Lokum_53 Start: 38685, Stop: 38855, Start Num: 50
Candidate Starts for Lokum_53:
(Start: 50 @38685 has 105 MA's), (73, 38799), (75, 38808), (76, 38814), (86, 38838),

Gene: Lorenzo_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Lorenzo_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003),

Gene: Loser_40 Start: 29024, Stop: 28866, Start Num: 49
Candidate Starts for Loser_40:
(Start: 49 @29024 has 53 MA's), (66, 28985), (75, 28913), (77, 28904), (84, 28886),

Gene: Louie6_41 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Louie6_41:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (81, 28730),

Gene: Lowa_42 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for Lowa_42:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Lucivia_37 Start: 27481, Stop: 27326, Start Num: 51
Candidate Starts for Lucivia_37:
(18, 27751), (29, 27628), (32, 27589), (Start: 51 @27481 has 50 MA's), (75, 27367), (76, 27361), (87, 27337),

Gene: LugYA_45 Start: 28866, Stop: 28699, Start Num: 52
Candidate Starts for LugYA_45:
(25, 29046), (31, 28974), (Start: 52 @28866 has 167 MA's), (65, 28827), (75, 28746), (77, 28737),

Gene: Lunahalos_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Lunahalos_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Lunsford_38 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for Lunsford_38:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: MA5_39 Start: 27872, Stop: 27711, Start Num: 52
Candidate Starts for MA5_39:
(27, 28025), (31, 27980), (41, 27920), (Start: 52 @27872 has 167 MA's), (62, 27845), (66, 27833), (67, 27830), (78, 27749), (84, 27731), (86, 27728),

Gene: MK4_39 Start: 27977, Stop: 27813, Start Num: 52
Candidate Starts for MK4_39:
(41, 28025), (Start: 52 @27977 has 167 MA's), (62, 27950), (67, 27935), (75, 27860), (78, 27851), (84, 27833), (86, 27830),

Gene: MaCh_37 Start: 27419, Stop: 27264, Start Num: 51
Candidate Starts for MaCh_37:
(18, 27689), (29, 27566), (32, 27527), (Start: 51 @27419 has 50 MA's), (75, 27305), (76, 27299), (87, 27275),

Gene: Mabel_37 Start: 27404, Stop: 27249, Start Num: 51
Candidate Starts for Mabel_37:
(18, 27674), (29, 27551), (32, 27512), (Start: 51 @27404 has 50 MA's), (75, 27290), (76, 27284), (87, 27260),

Gene: MacKat_47 Start: 34030, Stop: 34203, Start Num: 50
Candidate Starts for MacKat_47:
(Start: 50 @34030 has 105 MA's), (73, 34144),

Gene: MacnCheese_67 Start: 43739, Stop: 43909, Start Num: 51
Candidate Starts for MacnCheese_67:
(Start: 47 @43730 has 2 MA's), (Start: 51 @43739 has 50 MA's), (60, 43763), (75, 43868), (76, 43874),

Gene: MadMarie_42 Start: 28868, Stop: 28701, Start Num: 52
Candidate Starts for MadMarie_42:
(25, 29048), (31, 28976), (Start: 52 @28868 has 167 MA's), (65, 28829), (75, 28748), (77, 28739),

Gene: Mainiac_42 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for Mainiac_42:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: MajorMajor_68 Start: 40626, Stop: 40474, Start Num: 49
Candidate Starts for MajorMajor_68:
(7, 40950), (Start: 49 @40626 has 53 MA's), (73, 40524), (75, 40515), (84, 40494),

Gene: Malinsilva_44 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for Malinsilva_44:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Malthus_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Malthus_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Maminiaina_68 Start: 41013, Stop: 40855, Start Num: 49
Candidate Starts for Maminiaina_68:
(23, 41214), (Start: 49 @41013 has 53 MA's), (67, 40971), (75, 40902), (77, 40893),

Gene: Manu_42 Start: 28687, Stop: 28523, Start Num: 52
Candidate Starts for Manu_42:
(Start: 52 @28687 has 167 MA's), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: MarQuardt_42 Start: 28867, Stop: 28700, Start Num: 52
Candidate Starts for MarQuardt_42:
(25, 29047), (31, 28975), (Start: 52 @28867 has 167 MA's), (65, 28828), (75, 28747), (77, 28738),

Gene: Marchesa_39 Start: 28426, Stop: 28265, Start Num: 52
Candidate Starts for Marchesa_39:
(Start: 52 @28426 has 167 MA's), (75, 28312), (78, 28303),

Gene: Margo_38 Start: 28549, Stop: 28382, Start Num: 52
Candidate Starts for Margo_38:
(31, 28657), (Start: 52 @28549 has 167 MA's),

Gene: Marie_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Marie_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: Marius_43 Start: 28684, Stop: 28523, Start Num: 52
Candidate Starts for Marius_43:
(Start: 52 @28684 has 167 MA's), (75, 28567), (76, 28561), (83, 28546), (85, 28540),

Gene: MarysWell_32 Start: 27197, Stop: 27039, Start Num: 52
Candidate Starts for MarysWell_32:
(Start: 42 @27239 has 3 MA's), (Start: 52 @27197 has 167 MA's), (73, 27092), (75, 27083), (76, 27077),

Gene: Maverick_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Maverick_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Maxo_38 Start: 28113, Stop: 27955, Start Num: 54
Candidate Starts for Maxo_38:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (73, 28008), (75, 27999), (76, 27993), (86, 27972),

Gene: Mayonnaise_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Mayonnaise_37:

(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Mazhar510_37 Start: 28112, Stop: 27960, Start Num: 54
Candidate Starts for Mazhar510_37:
(6, 28403), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (60, 28091), (65, 28079), (73, 28013), (75, 28004), (76, 27998),

Gene: McGuire_46 Start: 34548, Stop: 34423, Start Num: 55
Candidate Starts for McGuire_46:
(Start: 55 @34548 has 50 MA's), (66, 34509), (71, 34449), (73, 34440),

Gene: McMater_55 Start: 39264, Stop: 39437, Start Num: 50
Candidate Starts for McMater_55:
(Start: 50 @39264 has 105 MA's), (56, 39276), (65, 39303), (73, 39378), (79, 39402),

Gene: MeaningOfLife_53 Start: 39439, Stop: 39609, Start Num: 50
Candidate Starts for MeaningOfLife_53:
(Start: 50 @39439 has 105 MA's), (73, 39553), (75, 39562), (76, 39568), (86, 39592),

Gene: Medusa_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Medusa_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (73, 28011), (75, 28002),

Gene: MeeZee_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for MeeZee_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Megsy_54 Start: 38837, Stop: 39010, Start Num: 50
Candidate Starts for Megsy_54:
(Start: 50 @38837 has 105 MA's), (59, 38858), (73, 38951),

Gene: Melvin_39 Start: 28109, Stop: 27957, Start Num: 54
Candidate Starts for Melvin_39:
(6, 28400), (Start: 42 @28151 has 3 MA's), (Start: 54 @28109 has 121 MA's), (73, 28010), (75, 28001), (76, 27995),

Gene: Methuselah_40 Start: 28860, Stop: 28693, Start Num: 52
Candidate Starts for Methuselah_40:
(25, 29040), (31, 28968), (Start: 52 @28860 has 167 MA's), (81, 28725),

Gene: Micasa_35 Start: 27470, Stop: 27312, Start Num: 52
Candidate Starts for Micasa_35:
(13, 27758), (14, 27752), (Start: 42 @27512 has 3 MA's), (Start: 52 @27470 has 167 MA's), (73, 27365), (75, 27356), (76, 27350),

Gene: Microwolf_42 Start: 28867, Stop: 28700, Start Num: 52
Candidate Starts for Microwolf_42:
(25, 29047), (31, 28975), (Start: 52 @28867 has 167 MA's), (65, 28828), (75, 28747), (77, 28738),

Gene: Midas2_33 Start: 27188, Stop: 27030, Start Num: 52
Candidate Starts for Midas2_33:

(13, 27476), (14, 27470), (Start: 42 @27230 has 3 MA's), (Start: 52 @27188 has 167 MA's), (73, 27083), (75, 27074), (76, 27068),

Gene: Miko_62 Start: 41310, Stop: 41146, Start Num: 49
Candidate Starts for Miko_62:
(Start: 49 @41310 has 53 MA's), (77, 41184),

Gene: Milcery_33 Start: 27153, Stop: 26995, Start Num: 52
Candidate Starts for Milcery_33:
(13, 27435), (14, 27429), (Start: 42 @27195 has 3 MA's), (Start: 52 @27153 has 167 MA's), (73, 27048), (75, 27039), (76, 27033),

Gene: MilleFeuille_45 Start: 34818, Stop: 34690, Start Num: 55
Candidate Starts for MilleFeuille_45:
(Start: 55 @34818 has 50 MA's), (56, 34809), (60, 34797), (64, 34785), (71, 34716), (73, 34707),

Gene: Millski_36 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for Millski_36:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (65, 28082), (73, 28016), (75, 28007), (76, 28001),

Gene: Minispark_65 Start: 40461, Stop: 40303, Start Num: 49
Candidate Starts for Minispark_65:
(1, 41274), (2, 41142), (Start: 49 @40461 has 53 MA's), (67, 40419), (75, 40350), (87, 40314),

Gene: Misomonster_43 Start: 28863, Stop: 28696, Start Num: 52
Candidate Starts for Misomonster_43:
(25, 29043), (31, 28971), (Start: 52 @28863 has 167 MA's), (81, 28728),

Gene: MissDaisy_3 Start: 424, Stop: 591, Start Num: 45
Candidate Starts for MissDaisy_3:
(8, 163), (39, 370), (Start: 45 @424 has 22 MA's), (68, 481), (73, 538), (76, 553), (86, 574), (87, 580),

Gene: MissWhite_36 Start: 26565, Stop: 26407, Start Num: 46
Candidate Starts for MissWhite_36:
(Start: 46 @26565 has 30 MA's), (75, 26451), (76, 26445),

Gene: Mitti_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Mitti_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Molly_46 Start: 34148, Stop: 34023, Start Num: 55
Candidate Starts for Molly_46:
(Start: 55 @34148 has 50 MA's), (66, 34109), (71, 34049), (73, 34040),

Gene: MoneyMay_42 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for MoneyMay_42:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: Montavir_41 Start: 28866, Stop: 28699, Start Num: 52
Candidate Starts for Montavir_41:
(25, 29046), (31, 28974), (Start: 52 @28866 has 167 MA's), (65, 28827), (75, 28746), (77, 28737),

Gene: Moose_45 Start: 34645, Stop: 34520, Start Num: 55
Candidate Starts for Moose_45:
(Start: 55 @34645 has 50 MA's), (56, 34636), (60, 34624), (64, 34612), (71, 34546), (73, 34537),

Gene: Morrow_38 Start: 28117, Stop: 27959, Start Num: 54
Candidate Starts for Morrow_38:
(6, 28408), (Start: 42 @28159 has 3 MA's), (Start: 54 @28117 has 121 MA's), (73, 28012), (75, 28003), (76, 27997), (86, 27976),

Gene: Mryolo_43 Start: 34123, Stop: 33995, Start Num: 55
Candidate Starts for Mryolo_43:
(Start: 55 @34123 has 50 MA's), (56, 34114), (60, 34102), (64, 34090), (71, 34021), (73, 34012),

Gene: MuchMore_45 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for MuchMore_45:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Mulciber_36 Start: 26983, Stop: 26828, Start Num: 51
Candidate Starts for Mulciber_36:
(18, 27253), (29, 27130), (32, 27091), (Start: 51 @26983 has 50 MA's), (75, 26869), (76, 26863), (87, 26839),

Gene: Munch_37 Start: 27432, Stop: 27277, Start Num: 51
Candidate Starts for Munch_37:
(18, 27702), (29, 27579), (32, 27540), (Start: 51 @27432 has 50 MA's), (75, 27318), (76, 27312), (87, 27288),

Gene: Murucutumbu_53 Start: 39542, Stop: 39712, Start Num: 50
Candidate Starts for Murucutumbu_53:
(Start: 50 @39542 has 105 MA's), (73, 39656), (75, 39665),

Gene: Mynx_53 Start: 38888, Stop: 39058, Start Num: 50
Candidate Starts for Mynx_53:
(Start: 50 @38888 has 105 MA's), (73, 39002), (75, 39011), (76, 39017), (86, 39041),

Gene: Myxus_69 Start: 41049, Stop: 40894, Start Num: 49
Candidate Starts for Myxus_69:
(7, 41373), (Start: 49 @41049 has 53 MA's), (67, 41007), (75, 40941), (77, 40932),

Gene: Naira_47 Start: 36661, Stop: 36533, Start Num: 55
Candidate Starts for Naira_47:
(Start: 55 @36661 has 50 MA's), (56, 36652), (60, 36640), (64, 36628), (71, 36559), (73, 36550),

Gene: Naji_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for Naji_41:
(16, 28402), (20, 28360), (Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: Nebs_38 Start: 28111, Stop: 27953, Start Num: 54
Candidate Starts for Nebs_38:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (73, 28006), (75, 27997), (76, 27991), (86, 27970),

Gene: Nemo27_37 Start: 28110, Stop: 27958, Start Num: 54

Candidate Starts for Nemo27_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: Nhonho_46 Start: 35237, Stop: 35112, Start Num: 55
Candidate Starts for Nhonho_46:
(Start: 55 @35237 has 50 MA's), (66, 35198), (71, 35138), (73, 35129),

Gene: Niklas_55 Start: 39325, Stop: 39498, Start Num: 50
Candidate Starts for Niklas_55:
(Start: 50 @39325 has 105 MA's), (56, 39337), (65, 39364), (73, 39439), (79, 39463),

Gene: Noella_38 Start: 28524, Stop: 28357, Start Num: 52
Candidate Starts for Noella_38:
(31, 28632), (Start: 52 @28524 has 167 MA's),

Gene: Noelle_37 Start: 28170, Stop: 28018, Start Num: 54
Candidate Starts for Noelle_37:
(Start: 42 @28212 has 3 MA's), (Start: 54 @28170 has 121 MA's), (73, 28071), (75, 28062),

Gene: Nolwazi_3 Start: 479, Stop: 646, Start Num: 45
Candidate Starts for Nolwazi_3:
(8, 164), (39, 425), (Start: 45 @479 has 22 MA's), (66, 527), (68, 536), (73, 593), (76, 608), (86, 629), (87, 635),

Gene: Norbert_37 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Norbert_37:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: NorthStar_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for NorthStar_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Northrop_38 Start: 28107, Stop: 27955, Start Num: 54
Candidate Starts for Northrop_38:
(6, 28398), (Start: 42 @28149 has 3 MA's), (Start: 54 @28107 has 121 MA's), (60, 28086), (65, 28074), (73, 28008), (75, 27999), (76, 27993),

Gene: NotAPhaseMom_37 Start: 28115, Stop: 27963, Start Num: 54
Candidate Starts for NotAPhaseMom_37:
(6, 28406), (Start: 42 @28157 has 3 MA's), (Start: 54 @28115 has 121 MA's), (60, 28094), (65, 28082), (73, 28016), (75, 28007), (76, 28001),

Gene: Nyxis_37 Start: 28004, Stop: 27852, Start Num: 54
Candidate Starts for Nyxis_37:
(6, 28295), (Start: 42 @28046 has 3 MA's), (Start: 54 @28004 has 121 MA's), (73, 27905), (75, 27896),

Gene: OKCentral2016_37 Start: 27782, Stop: 27624, Start Num: 48
Candidate Starts for OKCentral2016_37:
(Start: 48 @27782 has 9 MA's), (76, 27662),

Gene: OKaNui_38 Start: 28164, Stop: 28012, Start Num: 54

Candidate Starts for OKaNui_38:
(6, 28455), (Start: 42 @28206 has 3 MA's), (Start: 54 @28164 has 121 MA's), (73, 28065), (75, 28056), (76, 28050),

Gene: Obama12_38 Start: 28415, Stop: 28257, Start Num: 54
Candidate Starts for Obama12_38:
(Start: 42 @28457 has 3 MA's), (Start: 54 @28415 has 121 MA's), (73, 28310), (75, 28301), (76, 28295), (86, 28274),

Gene: Odin_37 Start: 26764, Stop: 26603, Start Num: 52
Candidate Starts for Odin_37:
(Start: 52 @26764 has 167 MA's), (74, 26656), (76, 26644), (87, 26614), (88, 26611),

Gene: Ohfah_38 Start: 28111, Stop: 27953, Start Num: 54
Candidate Starts for Ohfah_38:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (73, 28006), (75, 27997), (76, 27991), (86, 27970),

Gene: OlanP_41 Start: 28869, Stop: 28705, Start Num: 52
Candidate Starts for OlanP_41:
(Start: 52 @28869 has 167 MA's), (75, 28752), (77, 28743),

Gene: Ollie_42 Start: 28737, Stop: 28570, Start Num: 52
Candidate Starts for Ollie_42:
(25, 28917), (31, 28845), (Start: 52 @28737 has 167 MA's), (65, 28698), (75, 28617), (77, 28608),

Gene: OmniCritical_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for OmniCritical_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (87, 634),

Gene: Omnicron_36 Start: 29081, Stop: 29239, Start Num: 45
Candidate Starts for Omnicron_36:
(Start: 45 @29081 has 22 MA's), (63, 29114), (73, 29186), (76, 29201), (87, 29228),

Gene: Onglai_68 Start: 39253, Stop: 39098, Start Num: 49
Candidate Starts for Onglai_68:
(7, 39577), (Start: 49 @39253 has 53 MA's), (67, 39211), (75, 39145), (77, 39136),

Gene: Orange_36 Start: 26981, Stop: 26826, Start Num: 51
Candidate Starts for Orange_36:
(18, 27251), (29, 27128), (32, 27089), (Start: 51 @26981 has 50 MA's), (75, 26867), (76, 26861), (87, 26837),

Gene: P28Green_43 Start: 28868, Stop: 28701, Start Num: 52
Candidate Starts for P28Green_43:
(25, 29048), (31, 28976), (Start: 52 @28868 has 167 MA's), (65, 28829), (75, 28748), (77, 28739),

Gene: PGHhamlin_44 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for PGHhamlin_44:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: PSullivan_45 Start: 34113, Stop: 33988, Start Num: 55
Candidate Starts for PSullivan_45:

(Start: 55 @34113 has 50 MA's), (66, 34074), (71, 34014), (73, 34005),

Gene: PackMan_68 Start: 40924, Stop: 40769, Start Num: 49
Candidate Starts for PackMan_68:
(7, 41248), (Start: 49 @40924 has 53 MA's), (67, 40882), (75, 40816), (77, 40807),

Gene: Padfoot_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Padfoot_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: Padpat_54 Start: 38563, Stop: 38733, Start Num: 50
Candidate Starts for Padpat_54:
(Start: 50 @38563 has 105 MA's), (73, 38677), (75, 38686), (76, 38692), (86, 38716),

Gene: Palestino_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Palestino_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Panamaxus_36 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Panamaxus_36:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: PascalRango_46 Start: 34612, Stop: 34487, Start Num: 55
Candidate Starts for PascalRango_46:
(Start: 55 @34612 has 50 MA's), (66, 34573), (71, 34513), (73, 34504),

Gene: Patt_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Patt_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: PattyP_46 Start: 34495, Stop: 34370, Start Num: 55
Candidate Starts for PattyP_46:
(Start: 55 @34495 has 50 MA's), (66, 34456), (71, 34396), (73, 34387),

Gene: Pawn_42 Start: 28691, Stop: 28524, Start Num: 52
Candidate Starts for Pawn_42:
(Start: 52 @28691 has 167 MA's), (75, 28568), (76, 28562), (83, 28547), (85, 28541),

Gene: Peaches_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Peaches_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: Peanam_55 Start: 39283, Stop: 39456, Start Num: 50
Candidate Starts for Peanam_55:
(Start: 50 @39283 has 105 MA's), (56, 39295), (65, 39322), (73, 39397), (79, 39421),

Gene: Peel_52 Start: 38686, Stop: 38856, Start Num: 50
Candidate Starts for Peel_52:
(Start: 50 @38686 has 105 MA's), (73, 38800), (75, 38809), (76, 38815), (86, 38839),

Gene: Pembroke_42 Start: 28867, Stop: 28700, Start Num: 52

Candidate Starts for Pembroke_42:
(25, 29047), (31, 28975), (Start: 52 @28867 has 167 MA's), (65, 28828), (75, 28747), (77, 28738),

Gene: Penny1_43 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for Penny1_43:
(25, 29049), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: Peregrin_249 Start: 119772, Stop: 119921, Start Num: 52
Candidate Starts for Peregrin_249:
(Start: 48 @119766 has 9 MA's), (Start: 52 @119772 has 167 MA's), (63, 119805), (86, 119904),

Gene: PeterPeter_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for PeterPeter_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Petersenfast_36 Start: 26988, Stop: 26833, Start Num: 51
Candidate Starts for Petersenfast_36:
(18, 27258), (29, 27135), (32, 27096), (Start: 51 @26988 has 50 MA's), (75, 26874), (76, 26868), (87, 26844),

Gene: Petp2012_46 Start: 35107, Stop: 34982, Start Num: 55
Candidate Starts for Petp2012_46:
(Start: 55 @35107 has 50 MA's), (66, 35068), (71, 35008), (73, 34999),

Gene: Ph8s_40 Start: 27348, Stop: 27193, Start Num: 52
Candidate Starts for Ph8s_40:
(Start: 52 @27348 has 167 MA's), (75, 27240), (76, 27234), (84, 27213), (87, 27204), (88, 27201),

Gene: Phacado_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Phacado_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: Phaeder_69 Start: 40924, Stop: 40769, Start Num: 49
Candidate Starts for Phaeder_69:
(7, 41248), (Start: 49 @40924 has 53 MA's), (67, 40882), (75, 40816), (77, 40807),

Gene: Phantastic_39 Start: 28008, Stop: 27844, Start Num: 52
Candidate Starts for Phantastic_39:
(41, 28056), (Start: 52 @28008 has 167 MA's), (62, 27981), (67, 27966), (73, 27900), (75, 27891), (78, 27882), (84, 27864),

Gene: Pharb_64 Start: 42469, Stop: 42639, Start Num: 51
Candidate Starts for Pharb_64:
(Start: 47 @42460 has 2 MA's), (Start: 51 @42469 has 50 MA's), (75, 42598), (76, 42604),

Gene: Phelipe_38 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Phelipe_38:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (73, 28012), (75, 28003),

Gene: PherrisBueller_45 Start: 34086, Stop: 33958, Start Num: 55
Candidate Starts for PherrisBueller_45:

(Start: 55 @34086 has 50 MA's), (56, 34077), (60, 34065), (64, 34053), (71, 33984), (73, 33975),

Gene: Phighter1804_37 Start: 28153, Stop: 28001, Start Num: 54
Candidate Starts for Phighter1804_37:
(6, 28444), (Start: 42 @28195 has 3 MA's), (Start: 54 @28153 has 121 MA's), (60, 28132), (65, 28120), (73, 28054), (75, 28045), (76, 28039),

Gene: PhishRPhriends_40 Start: 27865, Stop: 27701, Start Num: 52
Candidate Starts for PhishRPhriends_40:
(Start: 52 @27865 has 167 MA's), (75, 27745), (76, 27739), (83, 27724), (85, 27718),

Gene: Phlorence_34 Start: 27418, Stop: 27260, Start Num: 52
Candidate Starts for Phlorence_34:
(24, 27610), (Start: 42 @27460 has 3 MA's), (Start: 52 @27418 has 167 MA's), (73, 27313), (75, 27304), (76, 27298),

Gene: Phoebe_43 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for Phoebe_43:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Phontbonne_37 Start: 28005, Stop: 27853, Start Num: 54
Candidate Starts for Phontbonne_37:
(6, 28296), (Start: 42 @28047 has 3 MA's), (Start: 54 @28005 has 121 MA's), (73, 27906), (75, 27897),

Gene: Phoxy_42 Start: 28861, Stop: 28694, Start Num: 52
Candidate Starts for Phoxy_42:
(25, 29041), (31, 28969), (Start: 52 @28861 has 167 MA's), (81, 28726),

Gene: Phrank_56 Start: 38309, Stop: 38482, Start Num: 50
Candidate Starts for Phrank_56:
(21, 38078), (22, 38105), (28, 38162), (Start: 50 @38309 has 105 MA's), (63, 38342), (75, 38435), (79, 38450),

Gene: Phranny_43 Start: 28673, Stop: 28509, Start Num: 52
Candidate Starts for Phranny_43:
(Start: 52 @28673 has 167 MA's), (75, 28553), (76, 28547), (83, 28532), (85, 28526),

Gene: Piatt_52 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for Piatt_52:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: PickleBack_34 Start: 27132, Stop: 26974, Start Num: 52
Candidate Starts for PickleBack_34:
(24, 27324), (Start: 42 @27174 has 3 MA's), (Start: 52 @27132 has 167 MA's), (73, 27027), (75, 27018), (76, 27012),

Gene: PinkPlastic_44 Start: 34317, Stop: 34192, Start Num: 55
Candidate Starts for PinkPlastic_44:
(Start: 55 @34317 has 50 MA's), (66, 34278), (71, 34218), (73, 34209),

Gene: Pisa1_52 Start: 39540, Stop: 39710, Start Num: 50
Candidate Starts for Pisa1_52:
(Start: 50 @39540 has 105 MA's), (63, 39573), (73, 39654), (75, 39663),

Gene: Pisa4_46 Start: 34909, Stop: 35079, Start Num: 50
Candidate Starts for Pisa4_46:
(Start: 50 @34909 has 105 MA's), (63, 34942), (73, 35023), (75, 35032),

Gene: Pistachio_40 Start: 27915, Stop: 27754, Start Num: 52
Candidate Starts for Pistachio_40:
(Start: 52 @27915 has 167 MA's), (75, 27801), (78, 27792),

Gene: Pita2_48 Start: 35610, Stop: 35485, Start Num: 55
Candidate Starts for Pita2_48:
(Start: 55 @35610 has 50 MA's), (66, 35571), (71, 35511), (73, 35502),

Gene: Pixie_64 Start: 42642, Stop: 42812, Start Num: 51
Candidate Starts for Pixie_64:
(Start: 47 @42633 has 2 MA's), (Start: 51 @42642 has 50 MA's), (60, 42666), (75, 42771), (76, 42777),

Gene: Pocahontas_38 Start: 28520, Stop: 28353, Start Num: 52
Candidate Starts for Pocahontas_38:
(31, 28628), (Start: 52 @28520 has 167 MA's),

Gene: Pokerus_51 Start: 38616, Stop: 38786, Start Num: 50
Candidate Starts for Pokerus_51:
(Start: 50 @38616 has 105 MA's), (73, 38730), (75, 38739), (76, 38745), (86, 38769),

Gene: Polymorphads_38 Start: 28104, Stop: 27952, Start Num: 54
Candidate Starts for Polymorphads_38:
(6, 28395), (Start: 42 @28146 has 3 MA's), (Start: 54 @28104 has 121 MA's), (73, 28005), (75, 27996), (76, 27990),

Gene: Pomar16_41 Start: 28176, Stop: 28024, Start Num: 51
Candidate Starts for Pomar16_41:
(16, 28443), (20, 28401), (Start: 51 @28176 has 50 MA's), (73, 28074), (75, 28065), (86, 28041),

Gene: Popcicle_38 Start: 28520, Stop: 28353, Start Num: 52
Candidate Starts for Popcicle_38:
(31, 28628), (Start: 52 @28520 has 167 MA's),

Gene: PotatoSplit_44 Start: 28869, Stop: 28699, Start Num: 52
Candidate Starts for PotatoSplit_44:
(25, 29049), (30, 29001), (31, 28977), (Start: 52 @28869 has 167 MA's), (65, 28830), (75, 28746), (77, 28737),

Gene: Power_37 Start: 28131, Stop: 27958, Start Num: 46
Candidate Starts for Power_37:
(Start: 46 @28131 has 30 MA's), (57, 28107), (59, 28101), (75, 28005),

Gene: Prinashe11_33 Start: 27116, Stop: 26958, Start Num: 52
Candidate Starts for Prinashe11_33:
(13, 27398), (14, 27392), (Start: 42 @27158 has 3 MA's), (Start: 52 @27116 has 167 MA's), (73, 27011), (75, 27002), (76, 26996),

Gene: Prithvi_53 Start: 38772, Stop: 38942, Start Num: 50

Candidate Starts for Prithvi_53:
(Start: 50 @38772 has 105 MA's), (73, 38886), (75, 38895), (76, 38901), (86, 38925),

Gene: Priya_67 Start: 40720, Stop: 40565, Start Num: 49
Candidate Starts for Priya_67:
(Start: 49 @40720 has 53 MA's), (67, 40678), (75, 40612), (77, 40603),

Gene: ProMouse_47 Start: 35318, Stop: 35193, Start Num: 55
Candidate Starts for ProMouse_47:
(Start: 55 @35318 has 50 MA's), (66, 35279), (71, 35219), (73, 35210),

Gene: Prudy_64 Start: 41825, Stop: 41661, Start Num: 49
Candidate Starts for Prudy_64:
(Start: 49 @41825 has 53 MA's), (68, 41777), (77, 41699), (84, 41681),

Gene: Pumbaa_37 Start: 28056, Stop: 27904, Start Num: 54
Candidate Starts for Pumbaa_37:
(6, 28347), (Start: 42 @28098 has 3 MA's), (Start: 54 @28056 has 121 MA's), (73, 27957), (75, 27948),

Gene: Puppy_40 Start: 27988, Stop: 27824, Start Num: 52
Candidate Starts for Puppy_40:
(Start: 52 @27988 has 167 MA's), (62, 27961), (67, 27946), (75, 27871), (78, 27862),

Gene: PurpleHaze_42 Start: 28686, Stop: 28522, Start Num: 52
Candidate Starts for PurpleHaze_42:
(Start: 52 @28686 has 167 MA's), (75, 28566), (76, 28560), (83, 28545), (85, 28539),

Gene: Qhanda_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Qhanda_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Qobbit_67 Start: 40682, Stop: 40527, Start Num: 49
Candidate Starts for Qobbit_67:
(Start: 49 @40682 has 53 MA's), (67, 40640), (75, 40574), (77, 40565),

Gene: QueenB2_66 Start: 41649, Stop: 41476, Start Num: 49
Candidate Starts for QueenB2_66:
(Start: 49 @41649 has 53 MA's), (75, 41523), (77, 41514),

Gene: QueenBeesly_38 Start: 28078, Stop: 27905, Start Num: 46
Candidate Starts for QueenBeesly_38:
(Start: 46 @28078 has 30 MA's), (57, 28054), (59, 28048), (75, 27952),

Gene: QuincyRose_51 Start: 38945, Stop: 39115, Start Num: 50
Candidate Starts for QuincyRose_51:
(Start: 50 @38945 has 105 MA's), (73, 39059), (75, 39068), (76, 39074), (86, 39098),

Gene: QuinnKiro_37 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for QuinnKiro_37:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: Quokka_68 Start: 40626, Stop: 40474, Start Num: 49
Candidate Starts for Quokka_68:

(7, 40950), (Start: 49 @40626 has 53 MA's), (73, 40524), (75, 40515), (84, 40494),

Gene: Rachaly_64 Start: 41455, Stop: 41291, Start Num: 49
Candidate Starts for Rachaly_64:
(Start: 49 @41455 has 53 MA's), (77, 41329),

Gene: Rahalelujah_67 Start: 40476, Stop: 40318, Start Num: 49
Candidate Starts for Rahalelujah_67:
(1, 41289), (2, 41157), (Start: 49 @40476 has 53 MA's), (67, 40434), (75, 40365), (87, 40329),

Gene: Raid_45 Start: 34895, Stop: 34770, Start Num: 55
Candidate Starts for Raid_45:
(Start: 55 @34895 has 50 MA's), (66, 34856), (71, 34796), (73, 34787),

Gene: Ramen_53 Start: 38571, Stop: 38741, Start Num: 50
Candidate Starts for Ramen_53:
(Start: 50 @38571 has 105 MA's), (73, 38685), (75, 38694), (76, 38700), (86, 38724),

Gene: Rando14_36 Start: 29035, Stop: 29193, Start Num: 45
Candidate Starts for Rando14_36:
(Start: 45 @29035 has 22 MA's), (63, 29068), (64, 29071), (73, 29140), (76, 29155), (87, 29182),

Gene: Rapunzel97_53 Start: 38567, Stop: 38737, Start Num: 50
Candidate Starts for Rapunzel97_53:
(Start: 50 @38567 has 105 MA's), (73, 38681), (75, 38690), (76, 38696), (86, 38720),

Gene: Reba_42 Start: 28346, Stop: 28182, Start Num: 52
Candidate Starts for Reba_42:
(Start: 52 @28346 has 167 MA's), (75, 28226), (76, 28220), (83, 28205), (85, 28199),

Gene: Rebeuca_38 Start: 28448, Stop: 28290, Start Num: 48
Candidate Starts for Rebeuca_38:
(Start: 48 @28448 has 9 MA's), (76, 28328),

Gene: RedRock_40 Start: 29240, Stop: 29082, Start Num: 49
Candidate Starts for RedRock_40:
(Start: 49 @29240 has 53 MA's), (66, 29201), (75, 29129), (77, 29120), (84, 29102),

Gene: Relief_36 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Relief_36:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Reptar3000_3 Start: 477, Stop: 644, Start Num: 45
Candidate Starts for Reptar3000_3:
(8, 162), (39, 423), (Start: 45 @477 has 22 MA's), (68, 534), (73, 591), (76, 606), (86, 627), (87, 633),

Gene: ResDef_38 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for ResDef_38:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: Retro23_68 Start: 41863, Stop: 41690, Start Num: 49
Candidate Starts for Retro23_68:

(Start: 49 @41863 has 53 MA's), (75, 41737), (77, 41728),

Gene: RhynO_38 Start: 27966, Stop: 27805, Start Num: 52
Candidate Starts for RhynO_38:
(Start: 48 @27969 has 9 MA's), (Start: 52 @27966 has 167 MA's), (73, 27858), (75, 27849), (76, 27843),

Gene: Richo_55 Start: 39264, Stop: 39437, Start Num: 50
Candidate Starts for Richo_55:
(Start: 50 @39264 has 105 MA's), (56, 39276), (65, 39303), (73, 39378), (79, 39402),

Gene: RidgeCB_45 Start: 34456, Stop: 34328, Start Num: 55
Candidate Starts for RidgeCB_45:
(Start: 55 @34456 has 50 MA's), (56, 34447), (60, 34435), (64, 34423), (71, 34354), (73, 34345),

Gene: RockieBear_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for RockieBear_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Rocksand_38 Start: 28107, Stop: 27955, Start Num: 54
Candidate Starts for Rocksand_38:
(6, 28398), (Start: 42 @28149 has 3 MA's), (Start: 54 @28107 has 121 MA's), (60, 28086), (65, 28074), (73, 28008), (75, 27999), (76, 27993),

Gene: Rockstar_39 Start: 27984, Stop: 27820, Start Num: 52
Candidate Starts for Rockstar_39:
(41, 28032), (Start: 52 @27984 has 167 MA's), (62, 27957), (67, 27942), (75, 27867), (78, 27858), (84, 27840), (86, 27837),

Gene: Roimos_39 Start: 28344, Stop: 28183, Start Num: 52
Candidate Starts for Roimos_39:
(Start: 52 @28344 has 167 MA's), (75, 28230), (78, 28221),

Gene: Romney_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Romney_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (73, 28012), (75, 28003), (76, 27997),

Gene: Roosevelt_36 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Roosevelt_36:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (65, 28080), (73, 28014), (75, 28005), (76, 27999),

Gene: Rosa24_37 Start: 28145, Stop: 27987, Start Num: 54
Candidate Starts for Rosa24_37:
(6, 28436), (Start: 42 @28187 has 3 MA's), (Start: 54 @28145 has 121 MA's), (73, 28040), (75, 28031), (76, 28025),

Gene: Rosmarinus_52 Start: 38672, Stop: 38842, Start Num: 50
Candidate Starts for Rosmarinus_52:
(Start: 50 @38672 has 105 MA's), (73, 38786), (75, 38795), (76, 38801), (86, 38825),

Gene: Rowdy_41 Start: 27874, Stop: 27713, Start Num: 52
Candidate Starts for Rowdy_41:
(Start: 48 @27877 has 9 MA's), (Start: 52 @27874 has 167 MA's), (73, 27766), (75, 27757),

Gene: Ruin_37 Start: 28107, Stop: 27955, Start Num: 54
Candidate Starts for Ruin_37:
(6, 28398), (Start: 42 @28149 has 3 MA's), (Start: 54 @28107 has 121 MA's), (60, 28086), (65, 28074), (73, 28008), (75, 27999), (76, 27993),

Gene: Rummer_41 Start: 28864, Stop: 28694, Start Num: 52
Candidate Starts for Rummer_41:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (81, 28726),

Gene: Ruthiejr_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Ruthiejr_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Sabertooth_37 Start: 28110, Stop: 27958, Start Num: 54
Candidate Starts for Sabertooth_37:
(6, 28401), (Start: 42 @28152 has 3 MA's), (Start: 54 @28110 has 121 MA's), (60, 28089), (65, 28077), (73, 28011), (75, 28002), (76, 27996),

Gene: Sabia_42 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for Sabia_42:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: Sabinator_41 Start: 28864, Stop: 28697, Start Num: 52
Candidate Starts for Sabinator_41:
(25, 29044), (31, 28972), (Start: 52 @28864 has 167 MA's), (65, 28825), (75, 28744), (77, 28735),

Gene: Sachima_69 Start: 40950, Stop: 40795, Start Num: 49
Candidate Starts for Sachima_69:
(Start: 49 @40950 has 53 MA's), (67, 40908), (75, 40842), (77, 40833),

Gene: SamuelLPlaqson_53 Start: 39464, Stop: 39634, Start Num: 50
Candidate Starts for SamuelLPlaqson_53:
(Start: 50 @39464 has 105 MA's), (73, 39578), (79, 39602),

Gene: Saskia_37 Start: 27184, Stop: 27029, Start Num: 51
Candidate Starts for Saskia_37:
(11, 27496), (17, 27457), (29, 27331), (32, 27292), (Start: 51 @27184 has 50 MA's), (75, 27070), (76, 27064), (87, 27040),

Gene: SaturnRing_39 Start: 28368, Stop: 28207, Start Num: 52
Candidate Starts for SaturnRing_39:
(Start: 52 @28368 has 167 MA's), (75, 28254), (78, 28245),

Gene: Scamp_37 Start: 28113, Stop: 27961, Start Num: 54
Candidate Starts for Scamp_37:
(6, 28404), (Start: 42 @28155 has 3 MA's), (Start: 54 @28113 has 121 MA's), (60, 28092), (73, 28014), (75, 28005),

Gene: Scout_39 Start: 27675, Stop: 27514, Start Num: 52

Candidate Starts for Scout_39:
(Start: 52 @27675 has 167 MA's), (75, 27561), (78, 27552),

Gene: Scowl_46 Start: 35390, Stop: 35262, Start Num: 55
Candidate Starts for Scowl_46:
(Start: 55 @35390 has 50 MA's), (56, 35381), (60, 35369), (64, 35357), (71, 35288), (73, 35279),

Gene: SemperFi_39 Start: 28346, Stop: 28173, Start Num: 46
Candidate Starts for SemperFi_39:
(Start: 46 @28346 has 30 MA's), (57, 28322), (59, 28316), (75, 28220),

Gene: SenorClean_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for SenorClean_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Serenity_70 Start: 40850, Stop: 40698, Start Num: 49
Candidate Starts for Serenity_70:
(7, 41174), (Start: 49 @40850 has 53 MA's), (73, 40748), (75, 40739), (84, 40718),

Gene: Shadow1_58 Start: 39153, Stop: 39326, Start Num: 50
Candidate Starts for Shadow1_58:
(Start: 50 @39153 has 105 MA's), (75, 39279), (79, 39294),

Gene: Shaka_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Shaka_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Sham4_36 Start: 26987, Stop: 26832, Start Num: 51
Candidate Starts for Sham4_36:
(18, 27257), (29, 27134), (32, 27095), (Start: 51 @26987 has 50 MA's), (75, 26873), (76, 26867), (87, 26843),

Gene: Shaobing_55 Start: 39301, Stop: 39474, Start Num: 50
Candidate Starts for Shaobing_55:
(Start: 50 @39301 has 105 MA's), (56, 39313), (65, 39340), (73, 39415), (79, 39439),

Gene: Shapes_41 Start: 27874, Stop: 27713, Start Num: 52
Candidate Starts for Shapes_41:
(Start: 48 @27877 has 9 MA's), (Start: 52 @27874 has 167 MA's), (73, 27766), (75, 27757),

Gene: ShedlockHolmes_66 Start: 43161, Stop: 43331, Start Num: 51
Candidate Starts for ShedlockHolmes_66:
(Start: 47 @43152 has 2 MA's), (Start: 51 @43161 has 50 MA's), (60, 43185), (75, 43290), (76, 43296),

Gene: SheldonCooper_39 Start: 28414, Stop: 28256, Start Num: 54
Candidate Starts for SheldonCooper_39:
(Start: 42 @28456 has 3 MA's), (Start: 54 @28414 has 121 MA's), (73, 28309), (75, 28300), (76, 28294), (86, 28273),

Gene: Shep_39 Start: 27389, Stop: 27228, Start Num: 52
Candidate Starts for Shep_39:

(Start: 52 @27389 has 167 MA's), (75, 27275), (78, 27266),

Gene: ShiaSurprise_53 Start: 38881, Stop: 39051, Start Num: 50
Candidate Starts for ShiaSurprise_53:
(Start: 50 @38881 has 105 MA's), (73, 38995), (75, 39004), (76, 39010), (86, 39034),

Gene: Sibs6_46 Start: 33745, Stop: 33620, Start Num: 55
Candidate Starts for Sibs6_46:
(Start: 55 @33745 has 50 MA's), (66, 33706), (71, 33646), (73, 33637),

Gene: Skadoosh_39 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Skadoosh_39:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: SkiPole_48 Start: 35478, Stop: 35353, Start Num: 55
Candidate Starts for SkiPole_48:
(Start: 55 @35478 has 50 MA's), (66, 35439), (71, 35379), (73, 35370),

Gene: Skipitt_36 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for Skipitt_36:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: Slarp_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Slarp_3:
(8, 163), (39, 424), (Start: 45 @478 has 22 MA's), (68, 535), (73, 592), (76, 607), (86, 628), (87, 634),

Gene: Slimphazie_52 Start: 38567, Stop: 38737, Start Num: 50
Candidate Starts for Slimphazie_52:
(Start: 50 @38567 has 105 MA's), (73, 38681), (75, 38690), (76, 38696), (86, 38720),

Gene: Smeagan_41 Start: 28785, Stop: 28612, Start Num: 46
Candidate Starts for Smeagan_41:
(Start: 46 @28785 has 30 MA's), (59, 28755), (68, 28725),

Gene: SnapTap_38 Start: 28157, Stop: 27984, Start Num: 46
Candidate Starts for SnapTap_38:
(Start: 46 @28157 has 30 MA's), (57, 28133), (59, 28127), (75, 28031),

Gene: Snape_36 Start: 26985, Stop: 26830, Start Num: 51
Candidate Starts for Snape_36:
(18, 27255), (29, 27132), (32, 27093), (Start: 51 @26985 has 50 MA's), (75, 26871), (76, 26865), (87, 26841),

Gene: Snazzy_43 Start: 34169, Stop: 34044, Start Num: 55
Candidate Starts for Snazzy_43:
(Start: 55 @34169 has 50 MA's), (66, 34130), (71, 34070), (73, 34061),

Gene: Snickers_42 Start: 28839, Stop: 28672, Start Num: 52
Candidate Starts for Snickers_42:
(25, 29019), (31, 28947), (Start: 52 @28839 has 167 MA's), (65, 28800), (75, 28719), (77, 28710),

Gene: SoYo_42 Start: 28777, Stop: 28610, Start Num: 52
Candidate Starts for SoYo_42:
(25, 28957), (31, 28885), (Start: 52 @28777 has 167 MA's), (65, 28738), (75, 28657), (77, 28648),

Gene: SoilDragon_42 Start: 28311, Stop: 28144, Start Num: 52
Candidate Starts for SoilDragon_42:
(25, 28494), (31, 28422), (Start: 52 @28311 has 167 MA's), (65, 28272), (75, 28191), (77, 28182),

Gene: Soshari_44 Start: 28860, Stop: 28693, Start Num: 52
Candidate Starts for Soshari_44:
(25, 29040), (31, 28968), (Start: 52 @28860 has 167 MA's), (81, 28725),

Gene: Sparxx_38 Start: 28106, Stop: 27954, Start Num: 54
Candidate Starts for Sparxx_38:
(6, 28397), (Start: 42 @28148 has 3 MA's), (Start: 54 @28106 has 121 MA's), (60, 28085), (73, 28007), (75, 27998), (76, 27992),

Gene: Spike509_42 Start: 28861, Stop: 28694, Start Num: 52
Candidate Starts for Spike509_42:
(25, 29041), (31, 28969), (Start: 52 @28861 has 167 MA's), (81, 28726),

Gene: Spino_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Spino_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Spock_52 Start: 38685, Stop: 38855, Start Num: 50
Candidate Starts for Spock_52:
(Start: 50 @38685 has 105 MA's), (73, 38799), (75, 38808), (76, 38814), (86, 38838),

Gene: Spouty_67 Start: 40719, Stop: 40564, Start Num: 49
Candidate Starts for Spouty_67:
(Start: 49 @40719 has 53 MA's), (67, 40677), (75, 40611), (77, 40602),

Gene: Stagni_42 Start: 28868, Stop: 28701, Start Num: 52
Candidate Starts for Stagni_42:
(25, 29048), (31, 28976), (Start: 52 @28868 has 167 MA's), (65, 28829), (75, 28748), (77, 28739),

Gene: StarStuff_41 Start: 28138, Stop: 27986, Start Num: 51
Candidate Starts for StarStuff_41:
(16, 28405), (20, 28363), (Start: 51 @28138 has 50 MA's), (73, 28036), (75, 28027), (86, 28003),

Gene: SteMason_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for SteMason_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: StepMih_42 Start: 28859, Stop: 28692, Start Num: 52
Candidate Starts for StepMih_42:
(25, 29039), (31, 28967), (Start: 52 @28859 has 167 MA's), (65, 28820), (75, 28739), (77, 28730),

Gene: Stinson_53 Start: 39065, Stop: 39235, Start Num: 50
Candidate Starts for Stinson_53:

(Start: 50 @39065 has 105 MA's), (73, 39179), (75, 39188),

Gene: Sulley_52 Start: 38730, Stop: 38900, Start Num: 50
Candidate Starts for Sulley_52:
(Start: 50 @38730 has 105 MA's), (73, 38844), (75, 38853), (76, 38859), (86, 38883),

Gene: Sultana_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Sultana_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Sunflower1121_59 Start: 39299, Stop: 39472, Start Num: 50
Candidate Starts for Sunflower1121_59:
(Start: 50 @39299 has 105 MA's), (79, 39440),

Gene: Superchunk_37 Start: 26594, Stop: 26436, Start Num: 52
Candidate Starts for Superchunk_37:
(Start: 52 @26594 has 167 MA's), (67, 26549), (76, 26477), (87, 26447), (88, 26444),

Gene: SweetiePie_38 Start: 28157, Stop: 27984, Start Num: 46
Candidate Starts for SweetiePie_38:
(Start: 46 @28157 has 30 MA's), (57, 28133), (59, 28127), (75, 28031),

Gene: SwirlSquare_39 Start: 26961, Stop: 26803, Start Num: 52
Candidate Starts for SwirlSquare_39:
(Start: 52 @26961 has 167 MA's), (72, 26859), (74, 26853), (76, 26841), (82, 26826), (87, 26814), (88, 26811),

Gene: Swirley_35 Start: 27480, Stop: 27319, Start Num: 52
Candidate Starts for Swirley_35:
(13, 27762), (14, 27756), (Start: 42 @27522 has 3 MA's), (Start: 52 @27480 has 167 MA's), (73, 27372), (75, 27363), (76, 27357),

Gene: SwissCheese_47 Start: 35145, Stop: 35020, Start Num: 55
Candidate Starts for SwissCheese_47:
(Start: 55 @35145 has 50 MA's), (56, 35136), (60, 35124), (64, 35112), (71, 35046), (73, 35037),

Gene: SydNat_35 Start: 27756, Stop: 27598, Start Num: 52
Candidate Starts for SydNat_35:
(Start: 42 @27798 has 3 MA's), (Start: 52 @27756 has 167 MA's), (73, 27651), (75, 27642), (76, 27636),

Gene: Syra333_58 Start: 39319, Stop: 39492, Start Num: 50
Candidate Starts for Syra333_58:
(21, 39088), (22, 39115), (28, 39172), (Start: 50 @39319 has 105 MA's), (63, 39352), (75, 39445), (79, 39460),

Gene: TBond007_61 Start: 42632, Stop: 42811, Start Num: 47
Candidate Starts for TBond007_61:
(Start: 47 @42632 has 2 MA's), (Start: 51 @42641 has 50 MA's), (60, 42665), (75, 42770), (76, 42776),

Gene: TClif_65 Start: 42755, Stop: 42907, Start Num: 50
Candidate Starts for TClif_65:

(Start: 47 @42749 has 2 MA's), (Start: 50 @42755 has 105 MA's), (62, 42788), (72, 42860), (75, 42872), (76, 42878), (84, 42893), (86, 42896),

Gene: TNguyen7_39 Start: 28335, Stop: 28171, Start Num: 52
Candidate Starts for TNguyen7_39:
(Start: 52 @28335 has 167 MA's), (62, 28308), (67, 28293), (75, 28218), (78, 28209),

Gene: Tachez_52 Start: 38529, Stop: 38699, Start Num: 50
Candidate Starts for Tachez_52:
(Start: 50 @38529 has 105 MA's), (73, 38643), (75, 38652), (76, 38658), (86, 38682),

Gene: TaiwanKao_54 Start: 38828, Stop: 39001, Start Num: 50
Candidate Starts for TaiwanKao_54:
(Start: 50 @38828 has 105 MA's), (73, 38942),

Gene: Taquarus_37 Start: 28114, Stop: 27962, Start Num: 54
Candidate Starts for Taquarus_37:
(6, 28405), (Start: 42 @28156 has 3 MA's), (Start: 54 @28114 has 121 MA's), (60, 28093), (65, 28081), (73, 28015), (75, 28006), (76, 28000),

Gene: Target_46 Start: 33718, Stop: 33593, Start Num: 55
Candidate Starts for Target_46:
(Start: 55 @33718 has 50 MA's), (56, 33709), (60, 33697), (64, 33685), (71, 33619), (73, 33610),

Gene: Tarynearal_32 Start: 27146, Stop: 26988, Start Num: 52
Candidate Starts for Tarynearal_32:
(13, 27428), (14, 27422), (Start: 42 @27188 has 3 MA's), (Start: 52 @27146 has 167 MA's), (73, 27041), (75, 27032), (76, 27026),

Gene: Taurus_43 Start: 28865, Stop: 28698, Start Num: 52
Candidate Starts for Taurus_43:
(25, 29045), (31, 28973), (Start: 52 @28865 has 167 MA's), (65, 28826), (75, 28745), (77, 28736),

Gene: Texage_37 Start: 28524, Stop: 28357, Start Num: 52
Candidate Starts for Texage_37:
(31, 28632), (Start: 52 @28524 has 167 MA's),

Gene: Thanksgivukkah_37 Start: 28112, Stop: 27960, Start Num: 54
Candidate Starts for Thanksgivukkah_37:
(6, 28403), (Start: 42 @28154 has 3 MA's), (Start: 54 @28112 has 121 MA's), (60, 28091), (65, 28079), (73, 28013), (75, 28004), (76, 27998),

Gene: Theia_31 Start: 27170, Stop: 27012, Start Num: 52
Candidate Starts for Theia_31:
(13, 27452), (14, 27446), (Start: 42 @27212 has 3 MA's), (Start: 52 @27170 has 167 MA's), (73, 27065), (75, 27056), (76, 27050),

Gene: Tierra_56 Start: 39120, Stop: 39293, Start Num: 50
Candidate Starts for Tierra_56:
(21, 38889), (22, 38916), (28, 38973), (Start: 50 @39120 has 105 MA's), (63, 39153), (75, 39246), (79, 39261),

Gene: Tiffany_42 Start: 28751, Stop: 28584, Start Num: 52

Candidate Starts for Tiffany_42:
(25, 28931), (31, 28859), (Start: 52 @28751 has 167 MA's), (65, 28712), (75, 28631), (77, 28622),

Gene: Tiger_34 Start: 27209, Stop: 27051, Start Num: 52
Candidate Starts for Tiger_34:
(24, 27401), (Start: 42 @27251 has 3 MA's), (Start: 52 @27209 has 167 MA's), (73, 27104), (75, 27095), (76, 27089),

Gene: Tigress9_58 Start: 39310, Stop: 39483, Start Num: 50
Candidate Starts for Tigress9_58:
(Start: 50 @39310 has 105 MA's), (63, 39343), (75, 39436), (79, 39451),

Gene: Timothy_37 Start: 27345, Stop: 27190, Start Num: 51
Candidate Starts for Timothy_37:
(15, 27627), (18, 27615), (29, 27492), (32, 27453), (Start: 51 @27345 has 50 MA's), (75, 27231), (76, 27225), (87, 27201),

Gene: TinaFeyge_38 Start: 28106, Stop: 27954, Start Num: 54
Candidate Starts for TinaFeyge_38:
(6, 28397), (Start: 42 @28148 has 3 MA's), (Start: 54 @28106 has 121 MA's), (73, 28007), (75, 27998), (76, 27992),

Gene: TingHuaYa_53 Start: 37613, Stop: 37783, Start Num: 50
Candidate Starts for TingHuaYa_53:
(Start: 50 @37613 has 105 MA's), (73, 37727), (75, 37736), (86, 37766),

Gene: TiniBug_53 Start: 39460, Stop: 39630, Start Num: 50
Candidate Starts for TiniBug_53:
(Start: 50 @39460 has 105 MA's), (73, 39574),

Gene: TinyPebbles_41 Start: 28866, Stop: 28699, Start Num: 52
Candidate Starts for TinyPebbles_41:
(25, 29046), (31, 28974), (Start: 52 @28866 has 167 MA's), (81, 28731),

Gene: TinyTimmy_37 Start: 27388, Stop: 27233, Start Num: 51
Candidate Starts for TinyTimmy_37:
(18, 27658), (29, 27535), (32, 27496), (Start: 51 @27388 has 50 MA's), (75, 27274), (76, 27268), (87, 27244),

Gene: Tinybot_36 Start: 28141, Stop: 27989, Start Num: 54
Candidate Starts for Tinybot_36:
(6, 28432), (Start: 42 @28183 has 3 MA's), (Start: 54 @28141 has 121 MA's), (73, 28042), (75, 28033),

Gene: TipsytheTRex_66 Start: 40825, Stop: 40673, Start Num: 49
Candidate Starts for TipsytheTRex_66:
(7, 41149), (Start: 49 @40825 has 53 MA's), (73, 40723), (75, 40714), (84, 40693),

Gene: Tiri_53 Start: 38859, Stop: 39029, Start Num: 50
Candidate Starts for Tiri_53:
(Start: 50 @38859 has 105 MA's), (73, 38973), (75, 38982), (76, 38988), (86, 39012),

Gene: TiroTheta9_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for TiroTheta9_37:

(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: Todacoro_38 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Todacoro_38:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: Tomathan_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for Tomathan_41:
(Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: Topanga_37 Start: 28285, Stop: 28127, Start Num: 48
Candidate Starts for Topanga_37:
(38, 28348), (Start: 48 @28285 has 9 MA's), (65, 28249), (73, 28180), (75, 28171), (76, 28165),

Gene: Topper_52 Start: 38684, Stop: 38854, Start Num: 50
Candidate Starts for Topper_52:
(Start: 50 @38684 has 105 MA's), (73, 38798), (75, 38807), (76, 38813), (86, 38837),

Gene: Travvers_41 Start: 28135, Stop: 27983, Start Num: 51
Candidate Starts for Travvers_41:
(16, 28402), (20, 28360), (Start: 51 @28135 has 50 MA's), (73, 28033), (75, 28024), (86, 28000),

Gene: TreyKay_53 Start: 38772, Stop: 38942, Start Num: 50
Candidate Starts for TreyKay_53:
(Start: 50 @38772 has 105 MA's), (73, 38886), (75, 38895), (76, 38901), (86, 38925),

Gene: TribleTrouble_65 Start: 43641, Stop: 43811, Start Num: 51
Candidate Starts for TribleTrouble_65:
(Start: 47 @43632 has 2 MA's), (Start: 51 @43641 has 50 MA's), (60, 43665), (75, 43770), (76, 43776),

Gene: Trixie_39 Start: 28891, Stop: 28718, Start Num: 46
Candidate Starts for Trixie_39:
(Start: 46 @28891 has 30 MA's), (57, 28867), (66, 28840), (70, 28798),

Gene: Trooper_67 Start: 41763, Stop: 41599, Start Num: 49
Candidate Starts for Trooper_67:
(Start: 49 @41763 has 53 MA's), (67, 41721), (75, 41646), (77, 41637), (84, 41619),

Gene: TroyPia_38 Start: 28109, Stop: 27957, Start Num: 54
Candidate Starts for TroyPia_38:
(6, 28400), (Start: 42 @28151 has 3 MA's), (Start: 54 @28109 has 121 MA's), (73, 28010), (75, 28001),

Gene: TruffulaTree_52 Start: 38563, Stop: 38733, Start Num: 50
Candidate Starts for TruffulaTree_52:
(Start: 50 @38563 has 105 MA's), (73, 38677), (75, 38686), (76, 38692), (86, 38716),

Gene: Tubs_69 Start: 40924, Stop: 40769, Start Num: 49
Candidate Starts for Tubs_69:
(7, 41248), (Start: 49 @40924 has 53 MA's), (67, 40882), (75, 40816), (77, 40807),

Gene: Turbido_39 Start: 28525, Stop: 28352, Start Num: 46
Candidate Starts for Turbido_39:

(Start: 46 @28525 has 30 MA's), (59, 28495), (68, 28465),

Gene: Twigg_33 Start: 27119, Stop: 26961, Start Num: 52
Candidate Starts for Twigg_33:
(13, 27401), (14, 27395), (Start: 42 @27161 has 3 MA's), (Start: 52 @27119 has 167 MA's), (73, 27014), (75, 27005), (76, 26999),

Gene: Twister_37 Start: 28196, Stop: 28038, Start Num: 48
Candidate Starts for Twister_37:
(38, 28259), (Start: 48 @28196 has 9 MA's), (65, 28160), (73, 28091), (75, 28082), (76, 28076),

Gene: Twitch_52 Start: 38686, Stop: 38856, Start Num: 50
Candidate Starts for Twitch_52:
(Start: 50 @38686 has 105 MA's), (73, 38800), (75, 38809), (76, 38815), (86, 38839),

Gene: TwoPeat_46 Start: 34905, Stop: 34780, Start Num: 55
Candidate Starts for TwoPeat_46:
(Start: 55 @34905 has 50 MA's), (66, 34866), (71, 34806), (73, 34797),

Gene: TygerBlood_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for TygerBlood_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Ulysses_36 Start: 27791, Stop: 27639, Start Num: 54
Candidate Starts for Ulysses_36:
(6, 28082), (Start: 42 @27833 has 3 MA's), (Start: 54 @27791 has 121 MA's), (73, 27692), (75, 27683),

Gene: Urkel_53 Start: 39464, Stop: 39634, Start Num: 50
Candidate Starts for Urkel_53:
(Start: 50 @39464 has 105 MA's), (73, 39578), (79, 39602),

Gene: VA6_38 Start: 28246, Stop: 28094, Start Num: 51
Candidate Starts for VA6_38:
(16, 28513), (20, 28471), (Start: 51 @28246 has 50 MA's), (73, 28144), (75, 28135), (86, 28111),

Gene: VC3_41 Start: 28234, Stop: 28082, Start Num: 51
Candidate Starts for VC3_41:
(16, 28501), (20, 28459), (Start: 51 @28234 has 50 MA's), (73, 28132), (75, 28123), (86, 28099),

Gene: Validus_57 Start: 39481, Stop: 39654, Start Num: 50
Candidate Starts for Validus_57:
(Start: 50 @39481 has 105 MA's), (73, 39595),

Gene: Veliki_53 Start: 38549, Stop: 38719, Start Num: 50
Candidate Starts for Veliki_53:
(Start: 50 @38549 has 105 MA's), (73, 38663), (75, 38672), (76, 38678), (86, 38702),

Gene: Veracruz_37 Start: 28523, Stop: 28356, Start Num: 52
Candidate Starts for Veracruz_37:
(31, 28631), (Start: 52 @28523 has 167 MA's),

Gene: Vix_42 Start: 28948, Stop: 28781, Start Num: 52

Candidate Starts for Vix_42:
(25, 29128), (31, 29056), (Start: 52 @28948 has 167 MA's), (65, 28909), (75, 28828), (77, 28819),

Gene: WalterMcMickey_37 Start: 28196, Stop: 28038, Start Num: 48
Candidate Starts for WalterMcMickey_37:
(38, 28259), (Start: 48 @28196 has 9 MA's), (65, 28160), (73, 28091), (75, 28082), (76, 28076),

Gene: Wander_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Wander_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (65, 28078), (73, 28012), (75, 28003), (76, 27997),

Gene: Watson_42 Start: 28858, Stop: 28691, Start Num: 52
Candidate Starts for Watson_42:
(25, 29038), (31, 28966), (Start: 52 @28858 has 167 MA's), (65, 28819), (75, 28738), (77, 28729),

Gene: Whabigail7_39 Start: 28513, Stop: 28340, Start Num: 46
Candidate Starts for Whabigail7_39:
(Start: 46 @28513 has 30 MA's), (59, 28483), (68, 28453),

Gene: Wilbur_37 Start: 28111, Stop: 27959, Start Num: 54
Candidate Starts for Wilbur_37:
(6, 28402), (Start: 42 @28153 has 3 MA's), (Start: 54 @28111 has 121 MA's), (60, 28090), (73, 28012), (75, 28003), (76, 27997),

Gene: Wintermute_3 Start: 477, Stop: 644, Start Num: 45
Candidate Starts for Wintermute_3:
(10, 171), (Start: 45 @477 has 22 MA's), (Start: 58 @504 has 1 MA's), (73, 591), (76, 606), (87, 633),

Gene: Wizard007_37 Start: 28116, Stop: 27964, Start Num: 54
Candidate Starts for Wizard007_37:
(6, 28407), (Start: 42 @28158 has 3 MA's), (Start: 54 @28116 has 121 MA's), (60, 28095), (65, 28083), (73, 28017), (75, 28008), (76, 28002),

Gene: Wolpertinger_35 Start: 26988, Stop: 26833, Start Num: 51
Candidate Starts for Wolpertinger_35:
(18, 27258), (29, 27135), (32, 27096), (Start: 51 @26988 has 50 MA's), (75, 26874), (76, 26868), (87, 26844),

Gene: Wooldri_44 Start: 28777, Stop: 28610, Start Num: 52
Candidate Starts for Wooldri_44:
(25, 28957), (31, 28885), (Start: 52 @28777 has 167 MA's), (65, 28738), (75, 28657), (77, 28648),

Gene: WorldCup_65 Start: 40470, Stop: 40312, Start Num: 49
Candidate Starts for WorldCup_65:
(1, 41283), (Start: 49 @40470 has 53 MA's), (67, 40428), (75, 40359), (87, 40323),

Gene: Ximenita_59 Start: 39319, Stop: 39489, Start Num: 50
Candidate Starts for Ximenita_59:
(Start: 50 @39319 has 105 MA's), (60, 39343), (75, 39442), (79, 39457),

Gene: Y10_03 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Y10_03:

(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Y2_03 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for Y2_03:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: YasnayaPolyana_3 Start: 478, Stop: 645, Start Num: 45
Candidate Starts for YasnayaPolyana_3:
(10, 172), (Start: 45 @478 has 22 MA's), (Start: 58 @505 has 1 MA's), (73, 592), (76, 607), (87, 634),

Gene: Yecey3_70 Start: 40900, Stop: 40739, Start Num: 52
Candidate Starts for Yecey3_70:
(26, 41071), (37, 40972), (43, 40924), (Start: 52 @40900 has 167 MA's), (67, 40858), (69, 40834), (77, 40777),

Gene: YoSam321_37 Start: 28108, Stop: 27956, Start Num: 54
Candidate Starts for YoSam321_37:
(6, 28399), (Start: 42 @28150 has 3 MA's), (Start: 54 @28108 has 121 MA's), (60, 28087), (65, 28075), (73, 28009), (75, 28000), (76, 27994),

Gene: YoureAdopted_51 Start: 38687, Stop: 38857, Start Num: 50
Candidate Starts for YoureAdopted_51:
(Start: 50 @38687 has 105 MA's), (62, 38717), (73, 38801), (75, 38810), (76, 38816), (86, 38840),

Gene: Zabiza_47 Start: 34874, Stop: 35044, Start Num: 50
Candidate Starts for Zabiza_47:
(Start: 50 @34874 has 105 MA's), (73, 34988), (75, 34997), (76, 35003), (86, 35027),

Gene: Zarafa_39 Start: 28437, Stop: 28276, Start Num: 52
Candidate Starts for Zarafa_39:
(Start: 52 @28437 has 167 MA's), (75, 28323), (78, 28314),

Gene: Zavala_54 Start: 38848, Stop: 39018, Start Num: 50
Candidate Starts for Zavala_54:
(Start: 50 @38848 has 105 MA's), (73, 38962), (75, 38971), (76, 38977), (86, 39001),

Gene: Zephyr_45 Start: 34728, Stop: 34600, Start Num: 55
Candidate Starts for Zephyr_45:
(Start: 55 @34728 has 50 MA's), (56, 34719), (60, 34707), (64, 34695), (71, 34626), (73, 34617),

Gene: Zetzy_41 Start: 28429, Stop: 28262, Start Num: 52
Candidate Starts for Zetzy_41:
(25, 28609), (31, 28537), (Start: 52 @28429 has 167 MA's), (65, 28390), (75, 28309), (77, 28300),

Gene: Zolita_34 Start: 27760, Stop: 27602, Start Num: 52
Candidate Starts for Zolita_34:
(Start: 42 @27802 has 3 MA's), (Start: 52 @27760 has 167 MA's), (73, 27655), (75, 27646), (76, 27640),