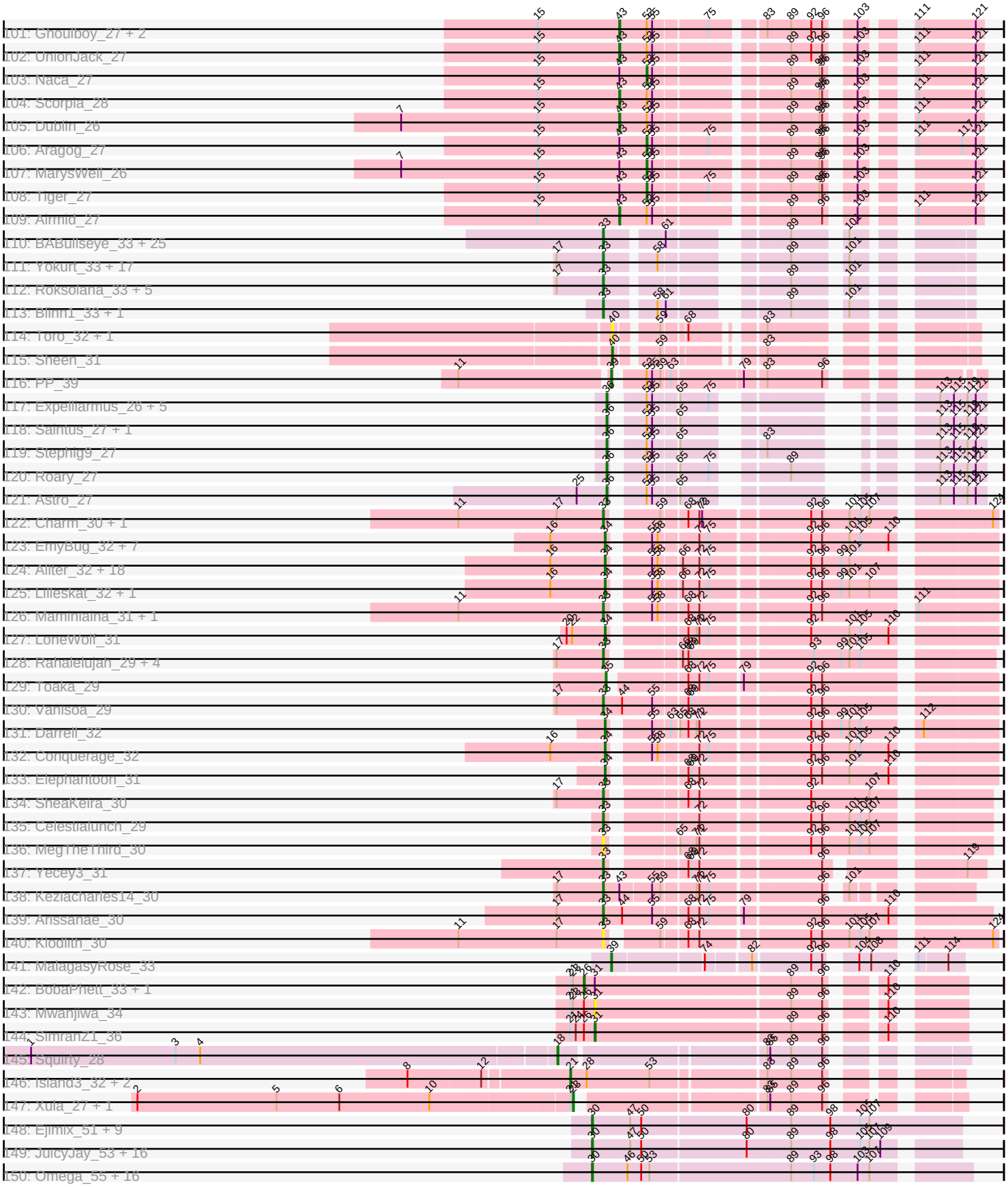
Pham 347054


1: Bachome_30 + 22
2: Kimba_30 + 3
3: Saskia_30
4: DarthPhader_31
5: Pharaoh_30
6: Zimmer_32
7: Phiei_25
8: Gail_30
9: Jeeves_30
10: SororFago_30
11: Sunnee_30
12: Luchador_32
13: Anon_30
14: Boohoo_32 + 21
15: Elle_30
16: LogiBear_32
17: Nedarya_31
18: EagleEye_32 + 2
19: 40AC_33
20: MyraDee_28
21: Kimona_27
22: Baehexic_31 + 2
23: Equemion13_32 + 8
24: TipsytheTRex_29
25: Bradman_29 + 2
26: Iwokeuplikedis_31
27: Jerm_32 + 4
28: Pukovnik_32
29: BengiVuitton_31 + 1
30: KingCyrus_32 + 3
31: BobSwaget_33 + 2
32: LionsBait_31 + 1
33: Kalpine_33
34: TarsusIV_30
35: Leogania_32
36: Adzzy_31 + 1
37: WeiHuaDA_35
38: Trixie_33
39: SnapTap_30 + 12
40: MissWhite_30
41: L5_30 + 1
42: Agape74_32 + 3
43: Colin_33
44: BiancaTh92_32
45: Benvolio_30 + 1
46: Drake55_32 + 2
47: Serenity_29
48: BabyBack_32 + 1
49: CRB1_30 + 1
50: NothingSpecial_32

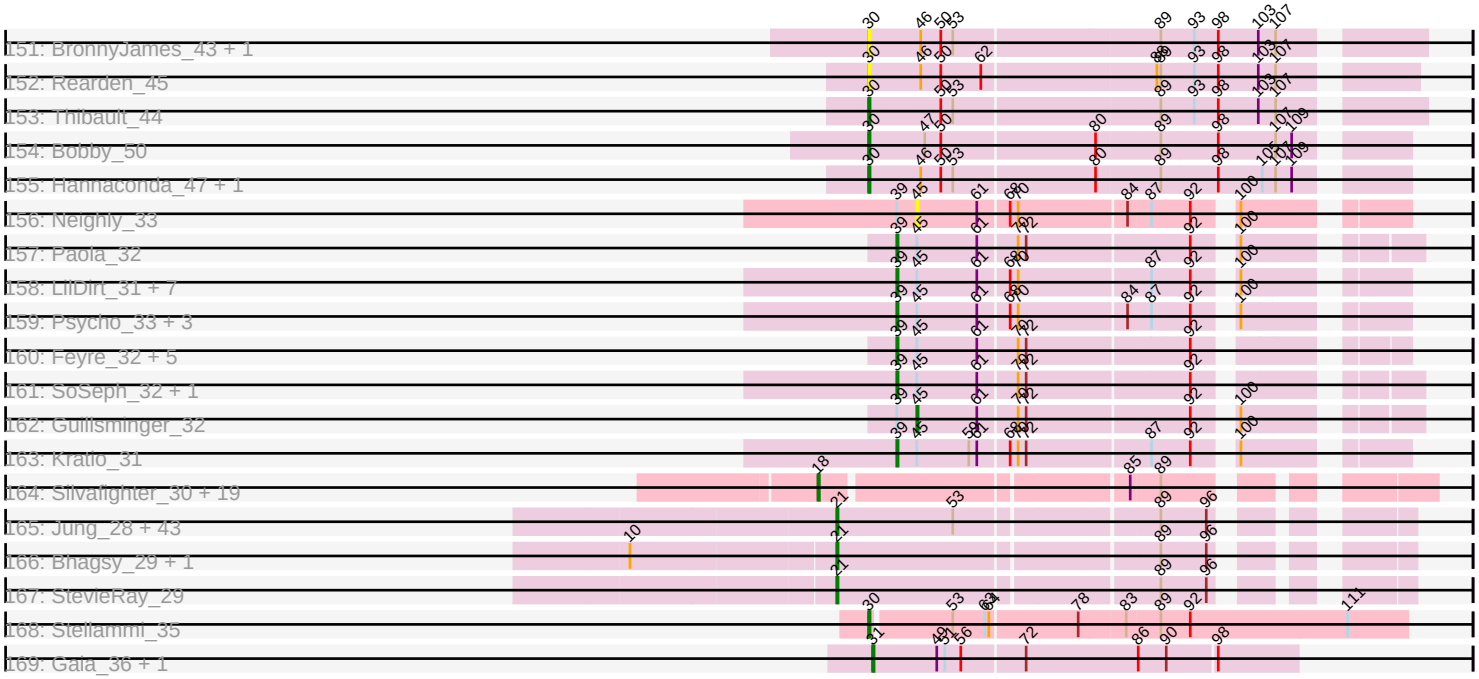
Pham 347054


51: Acolyte_30
52: 20ES_30
53: Malec_31
54: NicoleTera_34
55: Power_30 + 1
56: LadyBird_30
57: EZMoney23_34
58: SwimSquare_31
59: Trooper_30
60: Miko_33
61: Che12_32
62: Jsquared_29
63: Journey13_28
64: Leviathan_32
65: XianYue_30
66: Anthony_29
67: FatCactus_28
68: Kinmap_30
69: Chargerpower_31
70: LBerry_32 + 59
71: Texage_30 + 13
72: Kalb97_33 + 16
73: Rockstar_30 + 1
74: Fred313_30 + 12
75: TinyPebbles_32 + 4
76: Jobu08_32 + 1
77: Pistachio_31 + 8
78: Gemma_32
79: Veracruz_30
80: Phantastic_30
81: B1_28 + 3
82: BabyJohn_29 + 1
83: SoliDragon_32
84: MA5_30
85: BabyRay_30
86: Zetzy_31
87: MarQuardt_32
88: KADY_33
89: Grum1_32
90: Mllcery_27 + 4
91: Jabiru_27 + 5
92: Florence4_28
93: Micasa_27
94: Midas2_27 + 5
95: Thela_25
96: PickleBack_27 + 3
97: Bluefalcon_26
98: Lev2_27 + 3
99: Florence1_27
100: Bonamassa_27

Pham 347054


101: Ghoulboy_27 + 2
102: UnionJack_27
103: Naca_27
104: Scorpia_28
105: Dublin_26
106: Aragog_27
107: MarysWell_26
108: Tiger_27
109: Airmid_27
110: BABullseye_33 + 25
111: Yokurt_33 + 17
112: Roksolana_33 + 5
113: Blinn1_33 + 1
114: Toro_32 + 1
115: Sheen_31
116: PP_39
117: Expelliarmus_26 + 5
118: Saimus_27 + 1
119: Stephig9_27
120: Roary_27
121: Astro_27
122: Charm_30 + 1
123: EmyBug_32 + 7
124: Aliter_32 + 18
125: Lileskat_32 + 1
126: Maminiaina_31 + 1
127: LoneWolf_31
128: Ranalelujah_29 + 4
129: Toaka_29
130: Vanisoa_29
131: Darrell_32
132: Conquerage_32
133: Elephantoon_31
134: SneaKeira_30
135: Celestialunch_29
136: MegTheThird_30
137: Yecey3_31
138: KeziaCharles14_30
139: Anissanae_30
140: Klodilth_30
141: MalagasyRose_33
142: BobaPhett_33 + 1
143: Mwanjiwa_34
144: SimranZ1_36
145: Squirty_28
146: Island3_32 + 2
147: Xula_27 + 1
148: Ejimix_51 + 9
149: JuicyJay_53 + 16
150: Omega_55 + 16

Pham 347054


151: BronnyJames_43 + 1
152: Rearden_45
153: Thibault_44
154: Bobby_50
155: Hannaconda_47 + 1
156: Neighly_33
157: Paola_32
158: LilDirt_31 + 7
159: Psycho_33 + 3
160: Feyre_32 + 5
161: SoSeph_32 + 1
162: Gullsminger_32
163: Kratio_31
164: Silvaflighter_30 + 19
165: Jung_28 + 43
166: Bhagsy_29 + 1
167: StevieRay_29
168: Stellammi_35
169: Gaia_36 + 1

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 347054 Report

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

Pham number 347054 has 617 members, 53 are drafts.

Phages represented in each track:
• Track 1 : Bachome_30, Aneem_30, Flaverint_30, Salz_30, Hutc2_30, Orange_30, Ebony_30, Fibonacci_30, Sham4_30, Insomnia_30, Joselito_30, Jabith_30, Et2Brutus_29, Wolpertinger_29, MaCh_30, Bud_30, Mulciber_30, Petersenfast_30, Snape_30, Munch_30, Lucivia_30, Timothy_30, Gilberta_30
• Track 2 : Kimba_30, Bowtie_30, Mabel_30, TinyTimmy_30
• Track 3 : Saskia_30
• Track 4 : DarthPhader_31
• Track 5 : Pharaoh_30
• Track 6 : Zimmer_32
• Track 7 : Phlei_25
• Track 8 : Gail_30
• Track 9 : Jeeves_30
• Track 10 : SororFago_30
• Track 11 : Sunhee_30
• Track 12 : Luchador_32
• Track 13 : Anon_30
• Track 14 : Boohoo_32, Strosahl_32, DekHockey33_32, Oofda_32, ReMo_32, Anaysia_32, Remus_32, Rosalind_32, ShayRa_33, JSwag_32, Warrior24_32, Soups_32, MinecraftSteve_33, Waits_32, KatherineG_32, Nebulosus_32, Battleship_33, Ravana_32, Switzerland_32, LastResort_32, Epsocamisio_32, Looper_33
• Track 15 : Elle_30
• Track 16 : LogiBear_32
• Track 17 : Nedarya_31
• Track 18 : EagleEye_32, PainterBoy_31, Lucyedi_31
• Track 19 : 40AC_33
• Track 20 : MyraDee_28
• Track 21 : Kimona_27
• Track 22 : Baehexic_31, NaSiaTalie_30, Piro94_31
• Track 23 : Equemioh13_32, Gratitude_32, Sknot_30, MiculUcigas_30, WideWale_32, Terrific_32, Centaur_32, Updawg_32, Flare16_30
• Track 24 : TipsytheTRex_29
• Track 25 : Bradman_29, MajorMajor_29, Quokka_28
• Track 26 : Iwokeuplikedis_31
• Track 27 : Jerm_32, Turbido_32, Whabigail7_32, LilTurb_32, Smeagan_32
• Track 28 : Pukovnik_32
• Track 29 : BengiVuitton_31, Deloris_31

• Track 30 : KingCyrus_32, JoshKayV_32, EvilGenius_32, ChipMunk_32
• Track 31 : BobSwaget_33, Lokk_33, Rachaly_33
• Track 32 : LionsBait_31, HippoHollow_31
• Track 33 : Kalpine_33
• Track 34 : TarsusIV_30
• Track 35 : Leogania_32
• Track 36 : Adzzy_31, Ph8s_31
• Track 37 : WeiHuaDA_35
• Track 38 : Trixie_33
• Track 39 : SnapTap_30, Heffalump_32, Crucio_30, FiringLine_30, QueenBeesly_30, Anselm_30, SemperFi_32, SweetiePie_30, QueenB2_30, DudeLittle_30, Fameo_30, Retro23_30, Dalmatian_30
• Track 40 : MissWhite_30
• Track 41 : L5_30, Koduck_31
• Track 42 : Agape74_32, Dignity_32, AbbyPaige_32, Bugsy_32
• Track 43 : Colin_33
• Track 44 : BiancaTri92_32
• Track 45 : Benvolio_30, Echild_30
• Track 46 : Drake55_32, Larenn_31, HarryHoudini_32
• Track 47 : Serenity_29
• Track 48 : BabyBack_32, GaugeLDP_32
• Track 49 : CRB1_30, First_0030
• Track 50 : NothingSpecial_32
• Track 51 : Acolyte_30
• Track 52 : 20ES_30
• Track 53 : Malec_31
• Track 54 : NicoleTera_34
• Track 55 : Power_30, Georgie2_31
• Track 56 : LadyBird_30
• Track 57 : EZMoney23_34
• Track 58 : SwirlSquare_31
• Track 59 : Trooper_30
• Track 60 : Miko_33
• Track 61 : Che12_32
• Track 62 : Jsquared_29
• Track 63 : Journey13_28
• Track 64 : Leviathan_32
• Track 65 : XianYue_30
• Track 66 : Anthony_29
• Track 67 : FatCactus_28
• Track 68 : Kinmap_30
• Track 69 : Chargerpower_31
• Track 70 : LBerry_32, Sabinator_32, Hercules11_32, Montavir_31, Phoxy_32, Mainiac_32, Cullens_32, Gwennie_32, Watson_32, Soshari_34, Stagni_32, Sabia_32, AgronaGT15_32, Lilith_32, Dieselweasel_32, MuchMore_34, Vix_32, Anubis_34, Spike509_32, Rummer_32, SoYo_32, AugsMagnumOpus_34, Grub_32, Phoebe_32, Methuselah_31, Beauxregard13_32, Marie_32, Malinsilva_34, Bxz2_31, LugYA_34, MadMarie_32, StepMih_32, Penny1_32, Grif_32, Farber_32, EpicPhail_32, Wooldri_34, Louie6_32, Aglet_32, Tiffany_32, GingkoMaracino_32, Microwolf_32, Pembroke_32, HashRod_33, Fernando_32, PGHhamlin_34, Croquant_33, PotatoSplit_33, DaHudson_32, Snickers_32, Bigflo_32, Colbster_32, Lowa_32, P28Green_32, JHC117_32, JenCasNa_32, GtownJaz_32, BreSam8_32, MoneyMay_32, Taurus_32

• Track 71 : Texage_30, Margo_31, QuinnKiro_30, Lambert1_31, Norbert_30, Todacoro_31, Caviar_31, Panamaxus_30, Noella_31, ResDef_31, Hookmount_31, Pocahontas_31, Popcicle_31, EtoileNova_31
• Track 72 : Kalb97_33, Reba_33, Manu_33, PurpleHaze_32, ACFishhook_32, Pawn_32, Kalnoky_33, JeppNRM_33, Marius_33, Groupthink_33, ClownCar_32, Calvinny_32, HaveUMetTed_33, OlanP_32, Phranny_33, Heliosoles_32, PhishRPhriends_31
• Track 73 : Rockstar_30, Isca_30
• Track 74 : Fred313_30, Goose1D_30, Heathen_30, Roimos_30, Goose1X_30, Kachowdy_30, HelDan_30, Zarafa_30, Marchesa_30, Cat_28, Scout_30, Shep_30, DropBear_30
• Track 75 : TinyPebbles_32, BuzzBuzz_31, LarryKay_32, Misomonster_34, Daishi_31
• Track 76 : Jobu08_32, Ollie_32
• Track 77 : Pistachio_31, BlueBird_31, Giroux_31, Idleandcovert_30, Puppy_31, Clammy_31, SaturnRing_30, Bugatti_31, TNguyen7_30
• Track 78 : Gemma_32
• Track 79 : Veracruz_30
• Track 80 : Phantastic_30
• Track 81 : B1_28, MK4_30, JF4_30, JF2_30
• Track 82 : BabyJohn_29, Chiqui_29
• Track 83 : SoilDragon_32
• Track 84 : MA5_30
• Track 85 : BabyRay_30
• Track 86 : Zetzy_31
• Track 87 : MarQuardt_32
• Track 88 : KADY_33
• Track 89 : Grum1_32
• Track 90 : Milcery_27, Tarynearal_26, Twigg_27, HuhtaEnerson15_27, Prinashe11_27
• Track 91 : Jabiru_27, Archetta_27, PetterN_28, Chadwick_28, ElTiger69_27, Benedict_27
• Track 92 : Florence4_28
• Track 93 : Micasa_27
• Track 94 : Midas2_27, Swirley_27, George_26, LittleCherry_27, Cuco_27, Coog_27
• Track 95 : Theia_25
• Track 96 : PickleBack_27, Phlorence_27, AgentM_27, Discoknowium_27
• Track 97 : Bluefalcon_26
• Track 98 : Lev2_27, ForGetIt_27, Jovo_27, Conspiracy_27
• Track 99 : Florence1_27
• Track 100 : Bonamassa_27
• Track 101 : Ghoulboy_27, Zolita_26, SydNat_27
• Track 102 : UnionJack_27
• Track 103 : Naca_27
• Track 104 : Scorpia_28
• Track 105 : Dublin_26
• Track 106 : Aragog_27
• Track 107 : MarysWell_26
• Track 108 : Tiger_27
• Track 109 : Airmid_27
• Track 110 : BABullseye_33, Newrala_33, Chartreuse_33, Dorothea_33, Kipper29_33, Imbriano_33, DaVinci_33, Candra_33, Hoot_33, EricB_33, SuperAwesome_33, McFly_33, Polyphemus_33, BennyP_33, GreedyLawyer_33,

Cookiedough_33, Neeharika16_33, Isiphiwo_33, VohminGhazi_33, SuperCallie99_33, JewelBug_33, Pmask_33, DelvinSonDorr_32, Kazan_33, Jordennis_33, SmellyB_33
• Track 111 : Yokurt_33, Helmet_33, Gruunaga_33, Temprado_33, Indra_33, Garak_34, Zaka_33, Jeffabunny_33, Lilbunny_33, WunderPhul_33, BlessJoy_33, Zulu_33, Wiks_33, Rifter_33, Hammer_33, CloudWang3_33, Gladiator_33, Blue7_33
• Track 112 : Roksolana_33, Artemis2UCLA_33, Hexamo_33, Tucker_33, Koko_33, ToneTone_31
• Track 113 : Blinn1_33, Priamo_33
• Track 114 : Toro_32, FlyCatcher_33
• Track 115 : Sheen_31
• Track 116 : PP_39
• Track 117 : Expelliarmus_26, Dixon_27, Smeadley_27, Caitlin_27, Groundhog_26, NearlyHeadless_27
• Track 118 : Saintus_27, Danforth_26
• Track 119 : Stephig9_27
• Track 120 : Roary_27
• Track 121 : Astro_27
• Track 122 : Charm_30, DreamTeam1_30
• Track 123 : EmyBug_32, Eidsmoe_32, Ayanochan_32, Alma_32, Spouty_32, Qobbit_32, Priya_32, ExplosioNervosa_32
• Track 124 : Aliter_32, Pioneer_32, Fayely_32, Myxus_32, Hanray_32, Beemo_32, Holex_32, Sachima_32, Catalina_33, EdogawaKiddo_32, Jiawan_32, HortumSL17_32, PackMan_32, Phaeder_32, RyeScarlet_32, Tubs_32, Ugenie5_29, Phonnegut_32, Scherzo_32
• Track 125 : Lilleskat_32, Onglai_31
• Track 126 : Maminiaina_31, BogosyJay_31
• Track 127 : LoneWolf_31
• Track 128 : Rahalelujah_29, CogOmlette_28, Bellris_29, Minispark_28, WorldCup_28
• Track 129 : Toaka_29
• Track 130 : Vanisoa_29
• Track 131 : Darrell_32
• Track 132 : Conquerage_32
• Track 133 : Elephantoon_31
• Track 134 : SheaKeira_30
• Track 135 : Celestialunch_29
• Track 136 : MegTheThird_30
• Track 137 : Yecey3_31
• Track 138 : Keziacharles14_30
• Track 139 : Arissanae_30
• Track 140 : Klodlith_30
• Track 141 : MalagasyRose_33
• Track 142 : BobaPhett_33, Topiatin_36
• Track 143 : Mwanjiwa_34
• Track 144 : SimranZ1_36
• Track 145 : Squirty_28
• Track 146 : Island3_32, Bogie_31, Brujita_32
• Track 147 : Xula_27, QueenHazel_28
• Track 148 : Ejimix_51, Halley_51, HokkenD_44, EricMillard_51, Beem_51, ThreeRngTarjay_49, Hughesyang_49, Bagrid_50, Yeet_49, BAKA_55
• Track 149 : JuicyJay_53, Pound_53, Wanda_57, Xiaokay_46, Minerva_57, Klein_51, Duke13_54, Bombitas_48, Dove_48, DmpstrDiver_52, Constella_43,

Kalah2_51, Schatzie_48, NihilNomen_50, Optimus_56, Phoebus_50, Odette_51
• Track 150 : Omega_55, Nekros_49, Gonephishing_52, Nibley_45, Superphikiman_50, Lucky2013_50, Redno2_49, Ariel_50, LittleE_55, Porcelain_49, MiaZeal_50, Hidrated_49, Squint_49, Courthouse_50, Marleymoo_52, Dallas_53, Zelink_52
• Track 151 : BronnyJames_43, Shaboozey_43
• Track 152 : Rearden_45
• Track 153 : Thibault_44
• Track 154 : Bobby_50
• Track 155 : Hannaconda_47, KashFlow_44
• Track 156 : Neighly_33
• Track 157 : Paola_32
• Track 158 : LilDirt_31, Collard_32, BananenDer11_32, DoubleChamp_32, Edugator_32, InvictusManeo_32, ViviJ_31, Agent47_32
• Track 159 : Psycho_33, AlleyCat_33, Larva_33, Dadosky_33
• Track 160 : Feyre_32, OkiRoe_32, Waterfoul_32, Gengar_32, Thyatira_32, Miryou_32
• Track 161 : SoSeph_32, Heftyboy_32
• Track 162 : Guillsminger_32
• Track 163 : Kratio_31
• Track 164 : Silvafighter_30, Tessdabest_29, Parmesanjohn_30, Pipsqueaks_30, Andies_27, MichelleMyBell_28, Chewbacca_30, Rebel_27, Phloss_27, Smurph_30, Snekmaggedon_27, Shweta_27, SpongeBob_27, Gex_30, Melville_30, Magsby_30, Schnauzer_30, Carcharodon_30, Xerxes_30, Jamie19_27
• Track 165 : Jung_28, Gavriela_29, GreaseLightnin_29, Shipwreck_31, Ksquared_29, Phegasus_29, Fishburne_29, Techage_29, BronnyJr_29, Brusacoram_29, Sonah_29, Pygmy_31, Jebeks_29, Etoile_29, Zilizebeth_29, CactusJack_29, Kari_29, Juniormint_29, Atcoo_29, Bartholomew_28, Glaske_29, Venti_29, Dynamo_29, Polkaroo_29, Necropolis_29, Mangethe_29, StressBall_29, Majeke_29, HUHilltop_29, FirstPlacePfu_29, Vidya_29, Camster_29, Chubbello_29, Phalm_29, KilKor_29, Phineas_29, Langerak_29, Bunnies_29, Megiddo_29, Donovan_29, Malithi_29, Thespis_29, Arib1_29, GaloreK_29
• Track 166 : Bhagsy_29, PeanutPie_29
• Track 167 : StevieRay_29
• Track 168 : Stellammi_35
• Track 169 : Gaia_36, Nebkiss_37

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

The start number called the most often in the published annotations is 38, it was called in 122 of the 564 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ACFishhook_32, Aglet_32, AgronaGT15_32, Anubis_34, AugsMagnumOpus_34, B1_28, BabyJohn_29, BabyRay_30, Beauxregard13_32, Bigflo_32, BlueBird_31, BreSam8_32, Bugatti_31, BuzzBuzz_31, Bxz2_31, Calvinny_32, Cat_28, Caviar_31, Chiqui_29, Clammy_31, ClownCar_32, Colbster_32, Croquant_33, Cullens_32, DaHudson_32, Daishi_31, Dieselweasel_32, DropBear_30, EpicPhail_32, EtoileNova_31, Farber_32, Fernando_32, Fred313_30, GingkoMaracino_32, Giroux_31, Goose1D_30, Goose1X_30, Grif_32, Groupthink_33, Grub_32,

Grum1_32, GtownJaz_32, Gwennie_32, HashRod_33, HaveUMetTed_33, Heathen_30, HelDan_30, Heliosoles_32, Hercules11_32, Hookmount_31, Idleandcovert_30, Isca_30, JF2_30, JF4_30, JHC117_32, JenCasNa_32, JeppNRM_33, Jobu08_32, Kachowdy_30, Kalb97_33, Kalnoky_33, LBerry_32, Lambert1_31, LarryKay_32, Lilith_32, Louie6_32, Lowa_32, LugYA_34, MA5_30, MK4_30, MadMarie_32, Mainiac_32, Malinsilva_34, Manu_33, MarQuardt_32, Marchesa_30, Margo_31, Marie_32, Marius_33, Methuselah_31, Microwolf_32, Misomonster_34, MoneyMay_32, Montavir_31, MuchMore_34, Noella_31, Norbert_30, OlanP_32, Ollie_32, P28Green_32, PGHhamlin_34, Panamaxus_30, Pawn_32, Pembroke_32, Penny1_32, Phantastic_30, PhishRPhriends_31, Phoebe_32, Phoxy_32, Phranny_33, Pistachio_31, Pocahontas_31, Popcicle_31, PotatoSplit_33, Puppy_31, PurpleHaze_32, QuinnKiro_30, Reba_33, ResDef_31, Rockstar_30, Roimos_30, Rummer_32, Sabia_32, Sabinator_32, SaturnRing_30, Scout_30, Shep_30, Snickers_32, SoYo_32, SoilDragon_32, Soshari_34, Spike509_32, Stagni_32, StepMih_32, TNguyen7_30, Taurus_32, Texage_30, Tiffany_32, TinyPebbles_32, Todacoro_31, Vix_32, Watson_32, Wooldri_34, Zarafa_30, Zetzy_31,

Genes that have the "Most Annotated" start but do not call it:
• Gemma_32, KADY_33, Veracruz_30,

Genes that do not have the "Most Annotated" start:
• 20ES_30, 40AC_33, AbbyPaige_32, Acolyte_30, Adzzy_31, Agape74_32, Agent47_32, AgentM_27, Airmid_27, Aliter_32, AlleyCat_33, Alma_32, Anaysia_32, Andies_27, Aneem_30, Anon_30, Anselm_30, Anthony_29, Aragog_27, Archetta_27, Arib1_29, Ariel_50, Arissanae_30, Artemis2UCLA_33, Astro_27, Atcoo_29, Ayanochan_32, BABullseye_33, BAKA_55, BabyBack_32, Bachome_30, Baehexic_31, Bagrid_50, BananenDer11_32, Bartholomew_28, Battleship_33, Beem_51, Beemo_32, Bellris_29, Benedict_27, BengiVuitton_31, BennyP_33, Benvolio_30, Bhagsy_29, BiancaTri92_32, BlessJoy_33, Blinn1_33, Blue7_33, Bluefalcon_26, BobSwaget_33, BobaPhett_33, Bobby_50, Bogie_31, BogosyJay_31, Bombitas_48, Bonamassa_27, Boohoo_32, Bowtie_30, Bradman_29, BronnyJames_43, BronnyJr_29, Brujita_32, Brusacoram_29, Bud_30, Bugsy_32, Bunnies_29, CRB1_30, CactusJack_29, Caitlin_27, Camster_29, Candra_33, Carcharodon_30, Catalina_33, Celestialunch_29, Centaur_32, Chadwick_28, Chargerpower_31, Charm_30, Chartreuse_33, Che12_32, Chewbacca_30, ChipMunk_32, Chubbello_29, CloudWang3_33, CogOmlette_28, Colin_33, Collard_32, Conquerage_32, Conspiracy_27, Constella_43, Coog_27, Cookiedough_33, Courthouse_50, Crucio_30, Cuco_27, DaVinci_33, Dadosky_33, Dallas_53, Dalmatian_30, Danforth_26, Darrell_32, DarthPhader_31, DekHockey33_32, Deloris_31, DelvinSonDorr_32, Dignity_32, Discoknowium_27, Dixon_27, DmpstrDiver_52, Donovan_29, Dorothea_33, DoubleChamp_32, Dove_48, Drake55_32, DreamTeam1_30, Dublin_26, DudeLittle_30, Duke13_54, Dynamo_29, EZMoney23_34, EagleEye_32, Ebony_30, Echild_30, EdogawaKiddo_32, Edugator_32, Eidsmoe_32, Ejimix_51, ElTiger69_27, Elephantoon_31, Elle_30, EmyBug_32, Epsocamisio_32, Equemioh13_32, EricB_33, EricMillard_51, Et2Brutus_29, Etoile_29, EvilGenius_32, Expelliarmus_26, ExplosioNervosa_32, Fameo_30, FatCactus_28, Fayely_32, Feyre_32, Fibonacci_30, FiringLine_30, FirstPlacePfu_29, First_0030, Fishburne_29, Flare16_30, Flaverint_30, Florence1_27, Florence4_28, FlyCatcher_33, ForGetIt_27, Gaia_36, Gail_30, GaloreK_29, Garak_34, GaugeLDP_32, Gavriela_29, Gengar_32, George_26, Georgie2_31, Gex_30, Ghoulboy_27, Gilberta_30, Gladiator_33, Glaske_29, Gonephishing_52, Gratitude_32, GreaseLightnin_29, GreedyLawyer_33,

Groundhog_26, Gruunaga_33, Guillsminger_32, HUHilltop_29, Halley_51, Hammer_33, Hannaconda_47, Hanray_32, HarryHoudini_32, Heffalump_32, Heftyboy_32, Helmet_33, Hexamo_33, Hidrated_49, HippoHollow_31, HokkenD_44, Holex_32, Hoot_33, HortumSL17_32, Hughesyang_49, HuhtaEnerson15_27, Hutc2_30, Imbriano_33, Indra_33, Insomnia_30, InvictusManeo_32, Isiphiwo_33, Island3_32, Iwokeuplikedis_31, JSwag_32, Jabiru_27, Jabith_30, Jamie19_27, Jebeks_29, Jeeves_30, Jeffabunny_33, Jerm_32, JewelBug_33, Jiawan_32, Jordennis_33, Joselito_30, JoshKayV_32, Journey13_28, Jovo_27, Jsquared_29, JuicyJay_53, Jung_28, Juniormint_29, Kalah2_51, Kalpine_33, Kari_29, KashFlow_44, KatherineG_32, Kazan_33, Keziacharles14_30, KilKor_29, Kimba_30, Kimona_27, KingCyrus_32, Kinmap_30, Kipper29_33, Klein_51, Klodlith_30, Koduck_31, Koko_33, Kratio_31, Ksquared_29, L5_30, LadyBird_30, Langerak_29, Larenn_31, Larva_33, LastResort_32, Leogania_32, Lev2_27, Leviathan_32, LilDirt_31, LilTurb_32, Lilbunny_33, Lilleskat_32, LionsBait_31, LittleCherry_27, LittleE_55, LogiBear_32, Lokk_33, LoneWolf_31, Looper_33, Luchador_32, Lucivia_30, Lucky2013_50, Lucyedi_31, MaCh_30, Mabel_30, Magsby_30, Majeke_29, MajorMajor_29, MalagasyRose_33, Malec_31, Malithi_29, Maminiaina_31, Mangethe_29, Marleymoo_52, MarysWell_26, McFly_33, MegTheThird_30, Megiddo_29, Melville_30, MiaZeal_50, Micasa_27, MichelleMyBell_28, MiculUcigas_30, Midas2_27, Miko_33, Milcery_27, MinecraftSteve_33, Minerva_57, Minispark_28, Miryou_32, MissWhite_30, Mulciber_30, Munch_30, Mwanjiwa_34, MyraDee_28, Myxus_32, NaSiaTalie_30, Naca_27, NearlyHeadless_27, Nebkiss_37, Nebulosus_32, Necropolis_29, Nedarya_31, Neeharika16_33, Neighly_33, Nekros_49, Newrala_33, Nibley_45, NicoleTera_34, NihilNomen_50, NothingSpecial_32, Odette_51, OkiRoe_32, Omega_55, Onglai_31, Oofda_32, Optimus_56, Orange_30, PP_39, PackMan_32, PainterBoy_31, Paola_32, Parmesanjohn_30, PeanutPie_29, Petersenfast_30, PetterN_28, Ph8s_31, Phaeder_32, Phalm_29, Pharaoh_30, Phegasus_29, Phineas_29, Phlei_25, Phlorence_27, Phloss_27, Phoebus_50, Phonnegut_32, PickleBack_27, Pioneer_32, Pipsqueaks_30, Piro94_31, Pmask_33, Polkaroo_29, Polyphemus_33, Porcelain_49, Pound_53, Power_30, Priamo_33, Prinashe11_27, Priya_32, Psycho_33, Pukovnik_32, Pygmy_31, Qobbit_32, QueenB2_30, QueenBeesly_30, QueenHazel_28, Quokka_28, Rachaly_33, Rahalelujah_29, Ravana_32, ReMo_32, Rearden_45, Rebel_27, Redno2_49, Remus_32, Retro23_30, Rifter_33, Roary_27, Roksolana_33, Rosalind_32, RyeScarlet_32, Sachima_32, Saintus_27, Salz_30, Saskia_30, Schatzie_48, Scherzo_32, Schnauzer_30, Scorpia_28, SemperFi_32, Serenity_29, Shaboozey_43, Sham4_30, ShayRa_33, SheaKeira_30, Sheen_31, Shipwreck_31, Shweta_27, Silvafighter_30, SimranZ1_36, Sknot_30, Smeadley_27, Smeagan_32, SmellyB_33, Smurph_30, SnapTap_30, Snape_30, Snekmaggedon_27, SoSeph_32, Sonah_29, SororFago_30, Soups_32, SpongeBob_27, Spouty_32, Squint_49, Squirty_28, Stellammi_35, Stephig9_27, StevieRay_29, StressBall_29, Strosahl_32, Sunhee_30, SuperAwesome_33, SuperCallie99_33, Superphikiman_50, SweetiePie_30, SwirlSquare_31, Swirley_27, Switzerland_32, SydNat_27, TarsusIV_30, Tarynearal_26, Techage_29, Temprado_33, Terrific_32, Tessdabest_29, Theia_25, Thespis_29, Thibault_44, ThreeRngTarjay_49, Thyatira_32, Tiger_27, Timothy_30, TinyTimmy_30, TipsytheTRex_29, Toaka_29, ToneTone_31, Topiatin_36, Toro_32, Trixie_33, Trooper_30, Tubs_32, Tucker_33, Turbido_32, Twigg_27, Ugenie5_29, UnionJack_27, Updawg_32, Vanisoa_29, Venti_29, Vidya_29, ViviJ_31, VohminGhazi_33, Waits_32, Wanda_57, Warrior24_32, Waterfoul_32, WeiHuaDA_35, Whabigail7_32, WideWale_32, Wiks_33, Wolpertinger_29, WorldCup_28, WunderPhul_33, Xerxes_30, XianYue_30, Xiaokay_46, Xula_27, Yecey3_31, Yeet_49, Yokurt_33, Zaka_33, Zelink_52, Zilizebeth_29, Zimmer_32,

Zolita_26, Zulu_33,

Summary by start number:

Start 15:
• Found in 41 of 617 (6.6%) of genes in pham
• Manual Annotations of this start: 2 of 564
• Called 4.9% of time when present
• Phage (with cluster) where this start called: Bonamassa_27 (A5), Theia_25 (A5),

Start 18:
• Found in 21 of 617 (3.4%) of genes in pham
• Manual Annotations of this start: 20 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Andies_27 (N), Carcharodon_30 (N), Chewbacca_30 (N), Gex_30 (N), Jamie19_27 (N), Magsby_30 (N), Melville_30 (N), MichelleMyBell_28 (N), Parmesanjohn_30 (N), Phloss_27 (N), Pipsqueaks_30 (N), Rebel_27 (N), Schnauzer_30 (N), Shweta_27 (N), Silvafighter_30 (N), Smurph_30 (N), Snekmaggedon_27 (N), SpongeBob_27 (N), Squirty_28 (F3), Tessdabest_29 (N), Xerxes_30 (N),

Start 19:
• Found in 138 of 617 (22.4%) of genes in pham
• Manual Annotations of this start: 3 of 564
• Called 2.2% of time when present
• Phage (with cluster) where this start called: Gemma_32 (A3), KADY_33 (A3), Veracruz_30 (A3),

Start 21:
• Found in 56 of 617 (9.1%) of genes in pham
• Manual Annotations of this start: 45 of 564
• Called 89.3% of time when present
• Phage (with cluster) where this start called: Arib1_29 (P1), Atcoo_29 (P1), Bartholomew_28 (P1), Bhagsy_29 (P1), Bogie_31 (P1), BronnyJr_29 (P1), Brujita_32 (I1), Brusacoram_29 (P1), Bunnies_29 (P1), CactusJack_29 (P1), Camster_29 (P1), Chubbello_29 (P1), Donovan_29 (P1), Dynamo_29 (P1), Etoile_29 (P1), FirstPlacePfu_29 (P1), Fishburne_29 (P1), GaloreK_29 (P1), Gavriela_29 (P1), Glaske_29 (P1), GreaseLightnin_29 (P1), HUHilltop_29 (P1), Island3_32 (I1), Jebeks_29 (P1), Jung_28 (P1), Juniormint_29 (P1), Kari_29 (P1), KilKor_29 (P1), Ksquared_29 (P1), Langerak_29 (P1), Majeke_29 (P1), Malithi_29 (P1), Mangethe_29 (P1), Megiddo_29 (P1), Necropolis_29 (P1), PeanutPie_29 (P1), Phalm_29 (P1), Phegasus_29 (P1), Phineas_29 (P1), Polkaroo_29 (P1), Pygmy_31 (P1), Shipwreck_31 (P1), Sonah_29 (P1), StevieRay_29 (P1), StressBall_29 (P1), Techage_29 (P1), Thespis_29 (P1), Venti_29 (P1), Vidya_29 (P1), Zilizebeth_29 (P1),

Start 23:
• Found in 5 of 617 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 564
• Called 40.0% of time when present
• Phage (with cluster) where this start called: QueenHazel_28 (I1), Xula_27 (I1),

Start 24:

• Found in 20 of 617 (3.2%) of genes in pham
• Manual Annotations of this start: 16 of 564
• Called 95.0% of time when present
• Phage (with cluster) where this start called: 20ES_30 (A2), Acolyte_30 (A2), BengiVuitton_31 (A2), BiancaTri92_32 (A2), CRB1_30 (A2), ChipMunk_32 (A2), Deloris_31 (A2), EvilGenius_32 (A2), First_0030 (A2), Georgie2_31 (A2), JoshKayV_32 (A2), KingCyrus_32 (A2), Leogania_32 (A2), MyraDee_28 (A18), NothingSpecial_32 (A2), Pharaoh_30 (A12), Power_30 (A2), TarsusIV_30 (A2), Trooper_30 (A2),

Start 26:
• Found in 4 of 617 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 564
• Called 50.0% of time when present
• Phage (with cluster) where this start called: BobaPhett_33 (F1), Topiatin_36 (F1),

Start 30:
• Found in 52 of 617 (8.4%) of genes in pham
• Manual Annotations of this start: 42 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ariel_50 (J), BAKA_55 (J), Bagrid_50 (J), Beem_51 (J), Bobby_50 (J), Bombitas_48 (J), BronnyJames_43 (J), Constella_43 (J), Courthouse_50 (J), Dallas_53 (J), DmpstrDiver_52 (J), Dove_48 (J), Duke13_54 (J), Ejimix_51 (J), EricMillard_51 (J), Gonephishing_52 (J), Halley_51 (J), Hannaconda_47 (J), Hidrated_49 (J), HokkenD_44 (J), Hughesyang_49 (J), JuicyJay_53 (J), Kalah2_51 (J), KashFlow_44 (J), Klein_51 (J), LittleE_55 (J), Lucky2013_50 (J), Marleymoo_52 (J), MiaZeal_50 (J), Minerva_57 (J), Nekros_49 (J), Nibley_45 (J), NihilNomen_50 (J), Odette_51 (J), Omega_55 (J), Optimus_56 (J), Phoebus_50 (J), Porcelain_49 (J), Pound_53 (J), Rearden_45 (J), Redno2_49 (J), Schatzie_48 (J), Shaboozey_43 (J), Squint_49 (J), Stellammi_35 (UNK), Superphikiman_50 (J), Thibault_44 (J), ThreeRngTarjay_49 (J), Wanda_57 (J), Xiaokay_46 (J), Yeet_49 (J), Zelink_52 (J),

Start 31:
• Found in 6 of 617 (1.0%) of genes in pham
• Manual Annotations of this start: 3 of 564
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Gaia_36 (X), Mwanjiwa_34 (F1), Nebkiss_37 (X), SimranZ1_36 (F1),

Start 32:
• Found in 33 of 617 (5.3%) of genes in pham
• Manual Annotations of this start: 28 of 564
• Called 84.8% of time when present
• Phage (with cluster) where this start called: Adzzy_31 (A2), Aneem_30 (A11), Bachome_30 (A11), Bud_30 (A11), Ebony_30 (A11), Et2Brutus_29 (A11), FatCactus_28 (A20), Fibonacci_30 (A11), Flaverint_30 (A11), Gilberta_30 (A11), Hutc2_30 (A11), Insomnia_30 (A11), Jabith_30 (A11), Joselito_30 (A11), Lucivia_30 (A11), MaCh_30 (A11), Mulciber_30 (A11), Munch_30 (A11), Orange_30 (A11), Petersenfast_30 (A11), Ph8s_31 (A2), Salz_30 (A11), Saskia_30 (A11), Sham4_30 (A11), Snape_30 (A11), SwirlSquare_31 (A2), Timothy_30 (A11), Wolpertinger_29 (A11),

Start 33:
• Found in 131 of 617 (21.2%) of genes in pham
• Manual Annotations of this start: 121 of 564
• Called 98.5% of time when present
• Phage (with cluster) where this start called: AbbyPaige_32 (A2), Agape74_32 (A2), Anaysia_32 (A15), Anon_30 (A15), Anthony_29 (A20), Arissanae_30 (A9), Artemis2UCLA_33 (A6), BABullseye_33 (A6), Battleship_33 (A15), Bellris_29 (A9), BennyP_33 (A6), BlessJoy_33 (A6), Blinn1_33 (A6), Blue7_33 (A6), BogosyJay_31 (A9), Boohoo_32 (A15), Bowtie_30 (A11), Bugsy_32 (A2), Candra_33 (A6), Celestialunch_29 (A9), Chargerpower_31 (A22), Charm_30 (A9), Chartreuse_33 (A6), Che12_32 (A2), CloudWang3_33 (A6), CogOmlette_28 (A9), Colin_33 (A2), Cookiedough_33 (A6), DaVinci_33 (A6), DarthPhader_31 (A12), DekHockey33_32 (A15), DelvinSonDorr_32 (A6), Dignity_32 (A2), Dorothea_33 (A6), DreamTeam1_30 (A9), EagleEye_32 (A16), Elle_30 (A15), Epsocamisio_32 (A15), EricB_33 (A6), Gail_30 (A14), Garak_34 (A6), Gladiator_33 (A6), GreedyLawyer_33 (A6), Gruunaga_33 (A6), Hammer_33 (A6), Helmet_33 (A6), Hexamo_33 (A6), Hoot_33 (A6), Imbriano_33 (A6), Indra_33 (A6), Isiphiwo_33 (A6), JSwag_32 (A15), Jeeves_30 (A14), Jeffabunny_33 (A6), Jerm_32 (A2), JewelBug_33 (A6), Jordennis_33 (A6), KatherineG_32 (A15), Kazan_33 (A6), Keziacharles14_30 (A9), Kimba_30 (A11), Kinmap_30 (A21), Kipper29_33 (A6), Klodlith_30 (A9), Koduck_31 (A2), Koko_33 (A6), L5_30 (A2), LastResort_32 (A15), Leviathan_32 (A2), LilTurb_32 (A2), Lilbunny_33 (A6), LogiBear_32 (A15), Looper_33 (A15), Luchador_32 (A14), Lucyedi_31 (A16), Mabel_30 (A11), Maminiaina_31 (A9), McFly_33 (A6), MegTheThird_30 (A9), MinecraftSteve_33 (A15), Minispark_28 (A9), Nebulosus_32 (A15), Nedarya_31 (A15), Neeharika16_33 (A6), Newrala_33 (A6), Oofda_32 (A15), PainterBoy_31 (A16), Pmask_33 (A6), Polyphemus_33 (A6), Priamo_33 (A6), Rahalelujah_29 (A9), Ravana_32 (A15), ReMo_32 (A15), Remus_32 (A15), Rifter_33 (A6), Roksolana_33 (A6), Rosalind_32 (A15), ShayRa_33 (A15), SheaKeira_30 (A9), Smeagan_32 (A2), SmellyB_33 (A6), SororFago_30 (A14), Soups_32 (A15), Strosahl_32 (A15), Sunhee_30 (A14), SuperAwesome_33 (A6), SuperCallie99_33 (A6), Switzerland_32 (A15), Temprado_33 (A6), TinyTimmy_30 (A11), ToneTone_31 (A6), Trixie_33 (A2), Tucker_33 (A6), Turbido_32 (A2), Vanisoa_29 (A9), VohminGhazi_33 (A6), Waits_32 (A15), Warrior24_32 (A15), WeiHuaDA_35 (A2), Whabigail7_32 (A2), Wiks_33 (A6), WorldCup_28 (A9), WunderPhul_33 (A6), XianYue_30 (A2), Yecey3_31 (A9), Yokurt_33 (A6), Zaka_33 (A6), Zimmer_32 (A12), Zulu_33 (A6),

Start 34:
• Found in 33 of 617 (5.3%) of genes in pham
• Manual Annotations of this start: 33 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aliter_32 (A9), Alma_32 (A9), Ayanochan_32 (A9), Beemo_32 (A9), Catalina_33 (A9), Conquerage_32 (A9), Darrell_32 (A9), EdogawaKiddo_32 (A9), Eidsmoe_32 (A9), Elephantoon_31 (A9), EmyBug_32 (A9), ExplosioNervosa_32 (A9), Fayely_32 (A9), Hanray_32 (A9), Holex_32 (A9), HortumSL17_32 (A9), Jiawan_32 (A9), Lilleskat_32 (A9), LoneWolf_31 (A9), Myxus_32 (A9), Onglai_31 (A9), PackMan_32 (A9), Phaeder_32 (A9), Phonnegut_32 (A9), Pioneer_32 (A9), Priya_32 (A9), Qobbit_32 (A9), RyeScarlet_32 (A9), Sachima_32 (A9), Scherzo_32 (A9), Spouty_32 (A9), Tubs_32 (A9), Ugenie5_29 (A9),

Start 35:
• Found in 1 of 617 (0.2%) of genes in pham

• Manual Annotations of this start: 1 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Toaka_29 (A9),

Start 36:
• Found in 11 of 617 (1.8%) of genes in pham
• Manual Annotations of this start: 11 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astro_27 (A8), Caitlin_27 (A8), Danforth_26 (A8), Dixon_27 (A8), Expelliarmus_26 (A8), Groundhog_26 (A8), NearlyHeadless_27 (A8), Roary_27 (A8), Saintus_27 (A8), Smeadley_27 (A8), Stephig9_27 (A8),

Start 37:
• Found in 30 of 617 (4.9%) of genes in pham
• Manual Annotations of this start: 2 of 564
• Called 6.7% of time when present
• Phage (with cluster) where this start called: Journey13_28 (A2), MissWhite_30 (A2),

Start 38:
• Found in 138 of 617 (22.4%) of genes in pham
• Manual Annotations of this start: 122 of 564
• Called 97.8% of time when present
• Phage (with cluster) where this start called: ACFishhook_32 (A3), Aglet_32 (A3), AgronaGT15_32 (A3), Anubis_34 (A3), AugsMagnumOpus_34 (A3), B1_28 (A3), BabyJohn_29 (A3), BabyRay_30 (A3), Beauxregard13_32 (A3), Bigflo_32 (A3), BlueBird_31 (A3), BreSam8_32 (A3), Bugatti_31 (A3), BuzzBuzz_31 (A3), Bxz2_31 (A3), Calvinny_32 (A3), Cat_28 (A3), Caviar_31 (A3), Chiqui_29 (A3), Clammy_31 (A3), ClownCar_32 (A3), Colbster_32 (A3), Croquant_33 (A3), Cullens_32 (A3), DaHudson_32 (A3), Daishi_31 (A3), Dieselweasel_32 (A3), DropBear_30 (A3), EpicPhail_32 (A3), EtoileNova_31 (A3), Farber_32 (A3), Fernando_32 (A3), Fred313_30 (A3), GingkoMaracino_32 (A3), Giroux_31 (A3), Goose1D_30 (A3), Goose1X_30 (A3), Grif_32 (A3), Groupthink_33 (A3), Grub_32 (A3), Grum1_32 (A3), GtownJaz_32 (A3), Gwennie_32 (A3), HashRod_33 (A3), HaveUMetTed_33 (A3), Heathen_30 (A3), HelDan_30 (A3), Heliosoles_32 (A3), Hercules11_32 (A3), Hookmount_31 (A3), Idleandcovert_30 (A3), Isca_30 (A3), JF2_30 (A3), JF4_30 (A3), JHC117_32 (A3), JenCasNa_32 (A3), JeppNRM_33 (A3), Jobu08_32 (A3), Kachowdy_30 (A3), Kalb97_33 (A3), Kalnoky_33 (A3), LBerry_32 (A3), Lambert1_31 (A3), LarryKay_32 (A3), Lilith_32 (A3), Louie6_32 (A3), Lowa_32 (A3), LugYA_34 (A3), MA5_30 (A3), MK4_30 (A3), MadMarie_32 (A3), Mainiac_32 (A3), Malinsilva_34 (A3), Manu_33 (A3), MarQuardt_32 (A3), Marchesa_30 (A3), Margo_31 (A3), Marie_32 (A3), Marius_33 (A3), Methuselah_31 (A3), Microwolf_32 (A3), Misomonster_34 (A3), MoneyMay_32 (A3), Montavir_31 (A3), MuchMore_34 (A3), Noella_31 (A3), Norbert_30 (A3), OlanP_32 (A3), Ollie_32 (A3), P28Green_32 (A3), PGHhamlin_34 (A3), Panamaxus_30 (A3), Pawn_32 (A3), Pembroke_32 (A3), Penny1_32 (A3), Phantastic_30 (A3), PhishRPhriends_31 (A3), Phoebe_32 (A3), Phoxy_32 (A3), Phranny_33 (A3), Pistachio_31 (A3), Pocahontas_31 (A3), Popcicle_31 (A3), PotatoSplit_33 (A3), Puppy_31 (A3), PurpleHaze_32 (A3), QuinnKiro_30 (A3), Reba_33 (A3), ResDef_31 (A3), Rockstar_30 (A3), Roimos_30 (A3), Rummer_32 (A3), Sabia_32 (A3), Sabinator_32 (A3), SaturnRing_30 (A3), Scout_30 (A3), Shep_30 (A3), Snickers_32 (A3), SoYo_32 (A3), SoilDragon_32 (A3), Soshari_34 (A3), Spike509_32 (A3), Stagni_32 (A3), StepMih_32 (A3), TNguyen7_30 (A3), Taurus_32 (A3), Texage_30 (A3), Tiffany_32 (A3), TinyPebbles_32 (A3),

Todacoro_31 (A3), Vix_32 (A3), Watson_32 (A3), Wooldri_34 (A3), Zarafa_30 (A3), Zetzy_31 (A3),

Start 39:
• Found in 59 of 617 (9.6%) of genes in pham
• Manual Annotations of this start: 51 of 564
• Called 94.9% of time when present
• Phage (with cluster) where this start called: 40AC_33 (A17), Agent47_32 (K5), AlleyCat_33 (K5), BabyBack_32 (A2), Baehexic_31 (A2), BananenDer11_32 (K5), Benvolio_30 (A2), Bradman_29 (A2), Centaur_32 (A2), Collard_32 (K5), Dadosky_33 (K5), DoubleChamp_32 (K5), Drake55_32 (A2), EZMoney23_34 (A2), Echild_30 (A2), Edugator_32 (K5), Equemioh13_32 (A2), Feyre_32 (K5), Flare16_30 (A2), GaugeLDP_32 (A2), Gengar_32 (K5), Gratitude_32 (A2), HarryHoudini_32 (A2), Heftyboy_32 (K5), InvictusManeo_32 (K5), Iwokeuplikedis_31 (A2), Jsquared_29 (A2), Kratio_31 (K5), LadyBird_30 (A2), Larenn_31 (A2), Larva_33 (K5), LilDirt_31 (K5), MajorMajor_29 (A2), MalagasyRose_33 (AG), Malec_31 (A2), MiculUcigas_30 (A2), Miryou_32 (K5), NaSiaTalie_30 (A2), NicoleTera_34 (A2), OkiRoe_32 (K5), PP_39 (A7), Paola_32 (K5), Piro94_31 (A2), Psycho_33 (K5), Pukovnik_32 (A2), Quokka_28 (A2), Serenity_29 (A2), Sknot_30 (A2), SoSeph_32 (K5), Terrific_32 (A2), Thyatira_32 (K5), TipsytheTRex_29 (A2), Updawg_32 (A2), ViviJ_31 (K5), Waterfoul_32 (K5), WideWale_32 (A2),

Start 40:
• Found in 3 of 617 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 564
• Called 100.0% of time when present
• Phage (with cluster) where this start called: FlyCatcher_33 (A7), Sheen_31 (A7), Toro_32 (A7),

Start 42:
• Found in 1 of 617 (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: Phlei_25 (A13),

Start 43:
• Found in 43 of 617 (7.0%) of genes in pham
• Manual Annotations of this start: 28 of 564
• Called 65.1% of time when present
• Phage (with cluster) where this start called: AgentM_27 (A5), Airmid_27 (A5), Archetta_27 (A5), Benedict_27 (A5), Bluefalcon_26 (A5), Chadwick_28 (A5), Conspiracy_27 (A5), Discoknowium_27 (A5), Dublin_26 (A5), ElTiger69_27 (A5), ForGetIt_27 (A5), Ghoulboy_27 (A5), HuhtaEnerson15_27 (A5), Jabiru_27 (A5), Jovo_27 (A5), Lev2_27 (A5), Micasa_27 (A5), Milcery_27 (A5), PetterN_28 (A5), Phlorence_27 (A5), PickleBack_27 (A5), Prinashe11_27 (A5), Scorpia_28 (A5), SydNat_27 (A5), Tarynearal_26 (A5), Twigg_27 (A5), UnionJack_27 (A5), Zolita_26 (A5),

Start 45:
• Found in 25 of 617 (4.1%) of genes in pham
• Manual Annotations of this start: 2 of 564
• Called 12.0% of time when present

• Phage (with cluster) where this start called: Guillsminger_32 (K5), Kimona_27 (A19), Neighly_33 (K3),

Start 52:
• Found in 117 of 617 (19.0%) of genes in pham
• Manual Annotations of this start: 27 of 564
• Called 23.9% of time when present
• Phage (with cluster) where this start called: Anselm_30 (A2), Aragog_27 (A5), BobSwaget_33 (A2), Coog_27 (A5), Crucio_30 (A2), Cuco_27 (A5), Dalmatian_30 (A2), DudeLittle_30 (A2), Fameo_30 (A2), FiringLine_30 (A2), Florence1_27 (A5), George_26 (A5), Heffalump_32 (A2), LittleCherry_27 (A5), Lokk_33 (A2), MarysWell_26 (A5), Midas2_27 (A5), Miko_33 (A2), Naca_27 (A5), QueenB2_30 (A2), QueenBeesly_30 (A2), Rachaly_33 (A2), Retro23_30 (A2), SemperFi_32 (A2), SnapTap_30 (A2), SweetiePie_30 (A2), Swirley_27 (A5), Tiger_27 (A5),

Start 53:
• Found in 72 of 617 (11.7%) of genes in pham
• Manual Annotations of this start: 2 of 564
• Called 2.8% of time when present
• Phage (with cluster) where this start called: HippoHollow_31 (A2), LionsBait_31 (A2),

Start 55:
• Found in 147 of 617 (23.8%) of genes in pham
• No Manual Annotations of this start.
• Called 0.7% of time when present
• Phage (with cluster) where this start called: Florence4_28 (A5),

Start 59:
• Found in 53 of 617 (8.6%) of genes in pham
• Manual Annotations of this start: 1 of 564
• Called 1.9% of time when present
• Phage (with cluster) where this start called: Kalpine_33 (A2),

Summary by clusters:

There are 30 clusters represented in this pham: K3, K5, A15, A14, A17, A16, A11, A13, A12, I1, A19, A18, A3, A2, A5, A7, A6, A9, A8, P1, AG, F1, J, N, X, UNK, A20, A21, A22, F3,

Info for manual annotations of cluster A11:
•Start number 32 was manually annotated 24 times for cluster A11.
•Start number 33 was manually annotated 4 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 24 was manually annotated 1 time for cluster A12.
•Start number 33 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:
•Start number 33 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A15:

•Start number 33 was manually annotated 25 times for cluster A15.

Info for manual annotations of cluster A16:
•Start number 33 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:
•Start number 24 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:
•Start number 45 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 24 was manually annotated 14 times for cluster A2.
•Start number 32 was manually annotated 3 times for cluster A2.
•Start number 33 was manually annotated 17 times for cluster A2.
•Start number 37 was manually annotated 2 times for cluster A2.
•Start number 39 was manually annotated 28 times for cluster A2.
•Start number 52 was manually annotated 17 times for cluster A2.
•Start number 53 was manually annotated 2 times for cluster A2.
•Start number 59 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:
•Start number 32 was manually annotated 1 time for cluster A20.
•Start number 33 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A21:
•Start number 33 was manually annotated 1 time for cluster A21.

Info for manual annotations of cluster A22:
•Start number 33 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:
•Start number 19 was manually annotated 3 times for cluster A3.
•Start number 38 was manually annotated 122 times for cluster A3.

Info for manual annotations of cluster A5:
•Start number 15 was manually annotated 2 times for cluster A5.
•Start number 43 was manually annotated 28 times for cluster A5.
•Start number 52 was manually annotated 10 times for cluster A5.

Info for manual annotations of cluster A6:
•Start number 33 was manually annotated 50 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 39 was manually annotated 1 time for cluster A7.
•Start number 40 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:
•Start number 36 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:
•Start number 33 was manually annotated 12 times for cluster A9.

•Start number 34 was manually annotated 33 times for cluster A9.
•Start number 35 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AG:
•Start number 39 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster F1:
•Start number 26 was manually annotated 1 time for cluster F1.
•Start number 31 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F3:
•Start number 18 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster I1:
•Start number 21 was manually annotated 2 times for cluster I1.
•Start number 23 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:
•Start number 30 was manually annotated 41 times for cluster J.

Info for manual annotations of cluster K5:
•Start number 39 was manually annotated 21 times for cluster K5.
•Start number 45 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster N:
•Start number 18 was manually annotated 19 times for cluster N.

Info for manual annotations of cluster P1:
•Start number 21 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster UNK:
•Start number 30 was manually annotated 1 time for cluster UNK.

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

Gene Information:

Gene: 20ES_30 Start: 22455, Stop: 22796, Start Num: 24
Candidate Starts for 20ES_30:
(9, 22299), (Start: 24 @22455 has 16 MA's), (61, 22527), (67, 22545), (96, 22674),

Gene: 40AC_33 Start: 24651, Stop: 24977, Start Num: 39
Candidate Starts for 40AC_33:
(11, 24492), (Start: 39 @24651 has 51 MA's), (Start: 52 @24678 has 27 MA's), (55, 24684), (62, 24699), (75, 24738), (76, 24741), (77, 24744), (95, 24852), (116, 24954),

Gene: ACFishhook_32 Start: 23128, Stop: 23430, Start Num: 38
Candidate Starts for ACFishhook_32:
(Start: 19 @23083 has 3 MA's), (Start: 38 @23128 has 122 MA's), (79, 23236),

Gene: AbbyPaige_32 Start: 22929, Stop: 23267, Start Num: 33
Candidate Starts for AbbyPaige_32:
(11, 22770), (Start: 33 @22929 has 121 MA's), (Start: 52 @22965 has 27 MA's), (55, 22971), (72, 23016), (75, 23025), (96, 23139), (102, 23154), (116, 23238),

Gene: Acolyte_30 Start: 22997, Stop: 23335, Start Num: 24
Candidate Starts for Acolyte_30:
(Start: 24 @22997 has 16 MA's), (55, 23057), (64, 23078), (67, 23087), (70, 23096), (75, 23111), (115, 23309),

Gene: Adzzy_31 Start: 21176, Stop: 21445, Start Num: 32
Candidate Starts for Adzzy_31:
(Start: 32 @21176 has 28 MA's), (56, 21215), (Start: 59 @21221 has 1 MA's), (72, 21257),

Gene: Agape74_32 Start: 22905, Stop: 23243, Start Num: 33
Candidate Starts for Agape74_32:
(11, 22746), (Start: 33 @22905 has 121 MA's), (Start: 52 @22941 has 27 MA's), (55, 22947), (72, 22992), (75, 23001), (96, 23115), (102, 23130), (116, 23214),

Gene: Agent47_32 Start: 28434, Stop: 28763, Start Num: 39
Candidate Starts for Agent47_32:
(Start: 39 @28434 has 51 MA's), (Start: 45 @28449 has 2 MA's), (61, 28494), (68, 28515), (70, 28521), (87, 28614), (92, 28641), (100, 28662),

Gene: AgentM_27 Start: 22303, Stop: 22623, Start Num: 43
Candidate Starts for AgentM_27:
(Start: 15 @22213 has 2 MA's), (Start: 43 @22303 has 28 MA's), (Start: 52 @22333 has 27 MA's), (55, 22339), (75, 22393), (89, 22465), (95, 22495), (96, 22498), (103, 22519), (111, 22552), (117, 22600), (121, 22615),

Gene: Aglet_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for Aglet_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: AgronaGT15_32 Start: 22871, Stop: 23173, Start Num: 38
Candidate Starts for AgronaGT15_32:
(17, 22823), (Start: 19 @22826 has 3 MA's), (Start: 38 @22871 has 122 MA's), (54, 22901),

Gene: Airmid_27 Start: 21544, Stop: 21864, Start Num: 43
Candidate Starts for Airmid_27:
(Start: 15 @21454 has 2 MA's), (Start: 43 @21544 has 28 MA's), (Start: 52 @21574 has 27 MA's), (55, 21580), (89, 21706), (96, 21739), (103, 21760), (111, 21793), (121, 21856),

Gene: Aliter_32 Start: 23936, Stop: 24304, Start Num: 34
Candidate Starts for Aliter_32:
(16, 23876), (Start: 34 @23936 has 33 MA's), (55, 23972), (58, 23978), (66, 23999), (72, 24017), (75, 24026), (92, 24125), (96, 24137), (99, 24158), (101, 24167),

Gene: AlleyCat_33 Start: 28365, Stop: 28694, Start Num: 39
Candidate Starts for AlleyCat_33:
(Start: 39 @28365 has 51 MA's), (Start: 45 @28380 has 2 MA's), (61, 28425), (68, 28446), (70, 28452), (84, 28530), (87, 28545), (92, 28572), (100, 28593),

Gene: Alma_32 Start: 24051, Stop: 24419, Start Num: 34
Candidate Starts for Alma_32:
(16, 23991), (Start: 34 @24051 has 33 MA's), (55, 24087), (58, 24093), (72, 24132), (75, 24141), (92, 24240), (96, 24252), (101, 24282), (105, 24294), (110, 24324),

Gene: Anaysia_32 Start: 21408, Stop: 21749, Start Num: 33
Candidate Starts for Anaysia_32:
(Start: 33 @21408 has 121 MA's), (62, 21474), (66, 21486), (113, 21696), (120, 21732), (122, 21738),

Gene: Andies_27 Start: 23908, Stop: 24288, Start Num: 18
Candidate Starts for Andies_27:
(Start: 18 @23908 has 20 MA's), (85, 24118), (89, 24139),

Gene: Aneem_30 Start: 23073, Stop: 23396, Start Num: 32
Candidate Starts for Aneem_30:
(Start: 32 @23073 has 28 MA's), (Start: 37 @23082 has 2 MA's), (68, 23142), (72, 23154), (83, 23196), (96, 23253),

Gene: Anon_30 Start: 21972, Stop: 22313, Start Num: 33
Candidate Starts for Anon_30:
(Start: 33 @21972 has 121 MA's), (62, 22038), (77, 22083), (113, 22260), (120, 22296), (122, 22302),

Gene: Anselm_30 Start: 22585, Stop: 22872, Start Num: 52
Candidate Starts for Anselm_30:
(13, 22426), (Start: 52 @22585 has 27 MA's), (96, 22750), (103, 22771), (117, 22849),

Gene: Anthony_29 Start: 20938, Stop: 21222, Start Num: 33
Candidate Starts for Anthony_29:
(Start: 32 @20935 has 28 MA's), (Start: 33 @20938 has 121 MA's), (56, 20992), (63, 21007), (91, 21112),

Gene: Anubis_34 Start: 22849, Stop: 23151, Start Num: 38
Candidate Starts for Anubis_34:
(17, 22801), (Start: 19 @22804 has 3 MA's), (Start: 38 @22849 has 122 MA's), (54, 22879),

Gene: Aragog_27 Start: 22363, Stop: 22653, Start Num: 52
Candidate Starts for Aragog_27:
(Start: 15 @22243 has 2 MA's), (Start: 43 @22333 has 28 MA's), (Start: 52 @22363 has 27 MA's), (55, 22369), (75, 22423), (89, 22495), (95, 22525), (96, 22528), (103, 22549), (111, 22582), (117, 22630), (121, 22645),

Gene: Archetta_27 Start: 22126, Stop: 22446, Start Num: 43
Candidate Starts for Archetta_27:
(Start: 15 @22036 has 2 MA's), (Start: 43 @22126 has 28 MA's), (Start: 52 @22156 has 27 MA's), (55, 22162), (89, 22288), (96, 22321), (103, 22342), (111, 22375), (115, 22414), (121, 22438),

Gene: Arib1_29 Start: 25491, Stop: 25850, Start Num: 21
Candidate Starts for Arib1_29:
(Start: 21 @25491 has 45 MA's), (Start: 53 @25578 has 2 MA's), (89, 25716), (96, 25749),

Gene: Ariel_50 Start: 40019, Stop: 40405, Start Num: 30
Candidate Starts for Ariel_50:

(Start: 30 @40019 has 42 MA's), (46, 40058), (50, 40073), (Start: 53 @40082 has 2 MA's), (89, 40229), (93, 40253), (98, 40271), (103, 40301), (107, 40313),

Gene: Arissanae_30 Start: 22064, Stop: 22444, Start Num: 33
Candidate Starts for Arissanae_30:
(17, 22013), (Start: 33 @22064 has 121 MA's), (44, 22085), (55, 22118), (68, 22151), (72, 22163), (75, 22172), (79, 22205), (96, 22283), (110, 22355),

Gene: Artemis2UCLA_33 Start: 22110, Stop: 22406, Start Num: 33
Candidate Starts for Artemis2UCLA_33:
(17, 22059), (Start: 33 @22110 has 121 MA's), (89, 22263), (101, 22308),

Gene: Astro_27 Start: 21234, Stop: 21515, Start Num: 36
Candidate Starts for Astro_27:
(25, 21201), (Start: 36 @21234 has 11 MA's), (Start: 52 @21261 has 27 MA's), (55, 21267), (65, 21291), (113, 21468), (115, 21483), (119, 21495), (121, 21504),

Gene: Atcoo_29 Start: 25974, Stop: 26333, Start Num: 21
Candidate Starts for Atcoo_29:
(Start: 21 @25974 has 45 MA's), (Start: 53 @26061 has 2 MA's), (89, 26199), (96, 26232),

Gene: AugsMagnumOpus_34 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for AugsMagnumOpus_34:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: Ayanochan_32 Start: 24041, Stop: 24409, Start Num: 34
Candidate Starts for Ayanochan_32:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (101, 24272), (105, 24284), (110, 24314),

Gene: B1_28 Start: 22213, Stop: 22515, Start Num: 38
Candidate Starts for B1_28:
(14, 22114), (Start: 19 @22171 has 3 MA's), (Start: 38 @22213 has 122 MA's), (79, 22321), (92, 22387), (96, 22399),

Gene: BABullseye_33 Start: 22286, Stop: 22582, Start Num: 33
Candidate Starts for BABullseye_33:
(Start: 33 @22286 has 121 MA's), (61, 22340), (89, 22439), (101, 22484),

Gene: BAKA_55 Start: 43842, Stop: 44237, Start Num: 30
Candidate Starts for BAKA_55:
(Start: 30 @43842 has 42 MA's), (47, 43884), (50, 43896), (80, 44007), (89, 44052), (98, 44094), (105, 44127), (107, 44136),

Gene: BabyBack_32 Start: 24024, Stop: 24350, Start Num: 39
Candidate Starts for BabyBack_32:
(Start: 39 @24024 has 51 MA's), (Start: 52 @24051 has 27 MA's), (55, 24057), (62, 24072), (76, 24114), (77, 24117), (96, 24228), (116, 24327),

Gene: BabyJohn_29 Start: 22795, Stop: 23097, Start Num: 38
Candidate Starts for BabyJohn_29:
(Start: 19 @22753 has 3 MA's), (Start: 38 @22795 has 122 MA's), (57, 22831), (96, 22981),

Gene: BabyRay_30 Start: 22773, Stop: 23075, Start Num: 38
Candidate Starts for BabyRay_30:
(Start: 19 @22731 has 3 MA's), (Start: 38 @22773 has 122 MA's), (79, 22881),

Gene: Bachome_30 Start: 23064, Stop: 23387, Start Num: 32
Candidate Starts for Bachome_30:
(Start: 32 @23064 has 28 MA's), (Start: 37 @23073 has 2 MA's), (68, 23133), (72, 23145), (83, 23187), (96, 23244),

Gene: Baehexic_31 Start: 22907, Stop: 23236, Start Num: 39
Candidate Starts for Baehexic_31:
(11, 22748), (Start: 39 @22907 has 51 MA's), (Start: 52 @22934 has 27 MA's), (55, 22940), (75, 22994), (82, 23039), (116, 23207),

Gene: Bagrid_50 Start: 43175, Stop: 43570, Start Num: 30
Candidate Starts for Bagrid_50:
(Start: 30 @43175 has 42 MA's), (47, 43217), (50, 43229), (80, 43340), (89, 43385), (98, 43427), (105, 43460), (107, 43469),

Gene: BananenDer11_32 Start: 28395, Stop: 28724, Start Num: 39
Candidate Starts for BananenDer11_32:
(Start: 39 @28395 has 51 MA's), (Start: 45 @28410 has 2 MA's), (61, 28455), (68, 28476), (70, 28482), (87, 28575), (92, 28602), (100, 28623),

Gene: Bartholomew_28 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Bartholomew_28:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Battleship_33 Start: 21520, Stop: 21861, Start Num: 33
Candidate Starts for Battleship_33:
(Start: 33 @21520 has 121 MA's), (62, 21586), (66, 21598), (113, 21808), (120, 21844), (122, 21850),

Gene: Beauxregard13_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for Beauxregard13_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: Beem_51 Start: 43741, Stop: 44136, Start Num: 30
Candidate Starts for Beem_51:
(Start: 30 @43741 has 42 MA's), (47, 43783), (50, 43795), (80, 43906), (89, 43951), (98, 43993), (105, 44026), (107, 44035),

Gene: Beemo_32 Start: 24042, Stop: 24410, Start Num: 34
Candidate Starts for Beemo_32:
(16, 23982), (Start: 34 @24042 has 33 MA's), (55, 24078), (58, 24084), (66, 24105), (72, 24123), (75, 24132), (92, 24231), (96, 24243), (99, 24264), (101, 24273),

Gene: Bellris_29 Start: 21862, Stop: 22227, Start Num: 33
Candidate Starts for Bellris_29:
(17, 21811), (Start: 33 @21862 has 121 MA's), (66, 21925), (68, 21931), (69, 21934), (93, 22054), (99, 22084), (101, 22093), (105, 22105),

Gene: Benedict_27 Start: 21547, Stop: 21867, Start Num: 43
Candidate Starts for Benedict_27:

(Start: 15 @21457 has 2 MA's), (Start: 43 @21547 has 28 MA's), (Start: 52 @21577 has 27 MA's), (55, 21583), (89, 21709), (96, 21742), (103, 21763), (111, 21796), (115, 21835), (121, 21859),

Gene: BengiVuitton_31 Start: 22849, Stop: 23190, Start Num: 24
Candidate Starts for BengiVuitton_31:
(Start: 24 @22849 has 16 MA's), (55, 22909), (61, 22921), (67, 22939), (96, 23068),

Gene: BennyP_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for BennyP_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Benvolio_30 Start: 22524, Stop: 22853, Start Num: 39
Candidate Starts for Benvolio_30:
(11, 22365), (Start: 39 @22524 has 51 MA's), (Start: 52 @22551 has 27 MA's), (55, 22557), (72, 22602), (75, 22611), (96, 22725), (102, 22740), (116, 22824),

Gene: Bhagsy_29 Start: 25483, Stop: 25842, Start Num: 21
Candidate Starts for Bhagsy_29:
(10, 25339), (Start: 21 @25483 has 45 MA's), (89, 25708), (96, 25741),

Gene: BiancaTri92_32 Start: 24210, Stop: 24560, Start Num: 24
Candidate Starts for BiancaTri92_32:
(9, 24051), (Start: 24 @24210 has 16 MA's), (61, 24282), (65, 24294), (95, 24426), (110, 24471),

Gene: Bigflo_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for Bigflo_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: BlessJoy_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for BlessJoy_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Blinn1_33 Start: 22279, Stop: 22575, Start Num: 33
Candidate Starts for Blinn1_33:
(Start: 33 @22279 has 121 MA's), (58, 22327), (61, 22333), (89, 22432), (101, 22477),

Gene: Blue7_33 Start: 22200, Stop: 22496, Start Num: 33
Candidate Starts for Blue7_33:
(17, 22149), (Start: 33 @22200 has 121 MA's), (58, 22248), (89, 22353), (101, 22398),

Gene: BlueBird_31 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for BlueBird_31:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: Bluefalcon_26 Start: 22383, Stop: 22703, Start Num: 43
Candidate Starts for Bluefalcon_26:
(Start: 15 @22293 has 2 MA's), (Start: 43 @22383 has 28 MA's), (Start: 52 @22413 has 27 MA's), (55, 22419), (83, 22521), (89, 22545), (92, 22566), (96, 22578), (103, 22599), (111, 22632), (121, 22695),

Gene: BobSwaget_33 Start: 24051, Stop: 24338, Start Num: 52
Candidate Starts for BobSwaget_33:
(13, 23892), (Start: 52 @24051 has 27 MA's), (96, 24216), (103, 24237), (117, 24315),

Gene: BobaPhett_33 Start: 28968, Stop: 29327, Start Num: 26
Candidate Starts for BobaPhett_33:
(Start: 21 @28953 has 45 MA's), (Start: 23 @28956 has 2 MA's), (Start: 26 @28968 has 1 MA's), (Start: 31 @28980 has 3 MA's), (89, 29187), (96, 29220), (110, 29262),

Gene: Bobby_50 Start: 42341, Stop: 42715, Start Num: 30
Candidate Starts for Bobby_50:
(Start: 30 @42341 has 42 MA's), (47, 42383), (50, 42395), (80, 42506), (89, 42551), (98, 42593), (107, 42635), (109, 42647),

Gene: Bogie_31 Start: 27268, Stop: 27627, Start Num: 21
Candidate Starts for Bogie_31:
(8, 27100), (12, 27178), (Start: 21 @27268 has 45 MA's), (28, 27286), (Start: 53 @27355 has 2 MA's), (83, 27469), (89, 27493), (96, 27526),

Gene: BogosyJay_31 Start: 23567, Stop: 23932, Start Num: 33
Candidate Starts for BogosyJay_31:
(11, 23408), (Start: 33 @23567 has 121 MA's), (55, 23603), (58, 23609), (68, 23636), (72, 23648), (92, 23756), (96, 23768), (111, 23852),

Gene: Bombitas_48 Start: 43335, Stop: 43730, Start Num: 30
Candidate Starts for Bombitas_48:
(Start: 30 @43335 has 42 MA's), (47, 43377), (50, 43389), (80, 43500), (89, 43545), (98, 43587), (105, 43620), (107, 43629), (109, 43641),

Gene: Bonamassa_27 Start: 22134, Stop: 22544, Start Num: 15
Candidate Starts for Bonamassa_27:
(Start: 15 @22134 has 2 MA's), (Start: 43 @22224 has 28 MA's), (Start: 52 @22254 has 27 MA's), (55, 22260), (83, 22362), (89, 22386), (92, 22407), (96, 22419), (103, 22440), (111, 22473), (117, 22521), (121, 22536),

Gene: Boohoo_32 Start: 21408, Stop: 21749, Start Num: 33
Candidate Starts for Boohoo_32:
(Start: 33 @21408 has 121 MA's), (62, 21474), (66, 21486), (113, 21696), (120, 21732), (122, 21738),

Gene: Bowtie_30 Start: 23076, Stop: 23396, Start Num: 33
Candidate Starts for Bowtie_30:
(Start: 32 @23073 has 28 MA's), (Start: 33 @23076 has 121 MA's), (Start: 37 @23082 has 2 MA's), (68, 23142), (72, 23154), (83, 23196), (96, 23253),

Gene: Bradman_29 Start: 21322, Stop: 21645, Start Num: 39
Candidate Starts for Bradman_29:
(17, 21274), (Start: 39 @21322 has 51 MA's), (Start: 52 @21349 has 27 MA's), (55, 21355), (Start: 59 @21364 has 1 MA's), (81, 21451),

Gene: BreSam8_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for BreSam8_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: BronnyJames_43 Start: 37604, Stop: 37990, Start Num: 30
Candidate Starts for BronnyJames_43:

(Start: 30 @37604 has 42 MA's), (46, 37643), (50, 37658), (Start: 53 @37667 has 2 MA's), (89, 37814), (93, 37838), (98, 37856), (103, 37886), (107, 37898),

Gene: BronnyJr_29 Start: 25950, Stop: 26309, Start Num: 21
Candidate Starts for BronnyJr_29:
(Start: 21 @25950 has 45 MA's), (Start: 53 @26037 has 2 MA's), (89, 26175), (96, 26208),

Gene: Brujita_32 Start: 27623, Stop: 27982, Start Num: 21
Candidate Starts for Brujita_32:
(8, 27455), (12, 27533), (Start: 21 @27623 has 45 MA's), (28, 27641), (Start: 53 @27710 has 2 MA's), (83, 27824), (89, 27848), (96, 27881),

Gene: Brusacoram_29 Start: 25480, Stop: 25839, Start Num: 21
Candidate Starts for Brusacoram_29:
(Start: 21 @25480 has 45 MA's), (Start: 53 @25567 has 2 MA's), (89, 25705), (96, 25738),

Gene: Bud_30 Start: 23079, Stop: 23402, Start Num: 32
Candidate Starts for Bud_30:
(Start: 32 @23079 has 28 MA's), (Start: 37 @23088 has 2 MA's), (68, 23148), (72, 23160), (83, 23202), (96, 23259),

Gene: Bugatti_31 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for Bugatti_31:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: Bugsy_32 Start: 22928, Stop: 23266, Start Num: 33
Candidate Starts for Bugsy_32:
(11, 22769), (Start: 33 @22928 has 121 MA's), (Start: 52 @22964 has 27 MA's), (55, 22970), (72, 23015), (75, 23024), (96, 23138), (102, 23153), (116, 23237),

Gene: Bunnies_29 Start: 25501, Stop: 25860, Start Num: 21
Candidate Starts for Bunnies_29:
(Start: 21 @25501 has 45 MA's), (Start: 53 @25588 has 2 MA's), (89, 25726), (96, 25759),

Gene: BuzzBuzz_31 Start: 23047, Stop: 23352, Start Num: 38
Candidate Starts for BuzzBuzz_31:
(17, 22999), (Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (54, 23077), (111, 23287),

Gene: Bxz2_31 Start: 23057, Stop: 23359, Start Num: 38
Candidate Starts for Bxz2_31:
(17, 23009), (Start: 19 @23012 has 3 MA's), (Start: 38 @23057 has 122 MA's), (54, 23087),

Gene: CRB1_30 Start: 22412, Stop: 22753, Start Num: 24
Candidate Starts for CRB1_30:
(9, 22256), (Start: 24 @22412 has 16 MA's), (61, 22484), (67, 22502), (96, 22631),

Gene: CactusJack_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for CactusJack_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Caitlin_27 Start: 21230, Stop: 21511, Start Num: 36

Candidate Starts for Caitlin_27:
(Start: 36 @21230 has 11 MA's), (Start: 52 @21257 has 27 MA's), (55, 21263), (65, 21287), (75, 21317), (113, 21464), (115, 21479), (119, 21491), (121, 21500),

Gene: Calvinny_32 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Calvinny_32:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: Camster_29 Start: 25517, Stop: 25876, Start Num: 21
Candidate Starts for Camster_29:
(Start: 21 @25517 has 45 MA's), (Start: 53 @25604 has 2 MA's), (89, 25742), (96, 25775),

Gene: Candra_33 Start: 22249, Stop: 22545, Start Num: 33
Candidate Starts for Candra_33:
(Start: 33 @22249 has 121 MA's), (61, 22303), (89, 22402), (101, 22447),

Gene: Carcharodon_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Carcharodon_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: Cat_28 Start: 22389, Stop: 22691, Start Num: 38
Candidate Starts for Cat_28:
(14, 22290), (Start: 19 @22347 has 3 MA's), (Start: 38 @22389 has 122 MA's), (57, 22425), (79, 22497),

Gene: Catalina_33 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Catalina_33:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Caviar_31 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for Caviar_31:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Celestialunch_29 Start: 21950, Stop: 22312, Start Num: 33
Candidate Starts for Celestialunch_29:
(Start: 33 @21950 has 121 MA's), (72, 22031), (92, 22139), (96, 22151), (101, 22181), (105, 22193), (107, 22202),

Gene: Centaur_32 Start: 22885, Stop: 23214, Start Num: 39
Candidate Starts for Centaur_32:
(11, 22726), (Start: 39 @22885 has 51 MA's), (Start: 52 @22912 has 27 MA's), (55, 22918), (75, 22972), (96, 23086), (102, 23101), (116, 23185),

Gene: Chadwick_28 Start: 21515, Stop: 21835, Start Num: 43
Candidate Starts for Chadwick_28:
(Start: 15 @21425 has 2 MA's), (Start: 43 @21515 has 28 MA's), (Start: 52 @21545 has 27 MA's), (55, 21551), (89, 21677), (96, 21710), (103, 21731), (111, 21764), (115, 21803), (121, 21827),

Gene: Chargerpower_31 Start: 21744, Stop: 22049, Start Num: 33
Candidate Starts for Chargerpower_31:
(Start: 33 @21744 has 121 MA's),

Gene: Charm_30 Start: 21952, Stop: 22320, Start Num: 33
Candidate Starts for Charm_30:
(11, 21793), (17, 21901), (Start: 33 @21952 has 121 MA's), (Start: 59 @21997 has 1 MA's), (68, 22021), (72, 22033), (73, 22036), (92, 22141), (96, 22153), (101, 22183), (105, 22195), (107, 22204), (124, 22315),

Gene: Chartreuse_33 Start: 22160, Stop: 22456, Start Num: 33
Candidate Starts for Chartreuse_33:
(Start: 33 @22160 has 121 MA's), (61, 22214), (89, 22313), (101, 22358),

Gene: Che12_32 Start: 21345, Stop: 21671, Start Num: 33
Candidate Starts for Che12_32:
(17, 21294), (Start: 33 @21345 has 121 MA's), (64, 21414), (105, 21558), (110, 21579), (123, 21657),

Gene: Chewbacca_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Chewbacca_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: ChipMunk_32 Start: 22832, Stop: 23176, Start Num: 24
Candidate Starts for ChipMunk_32:
(9, 22673), (Start: 24 @22832 has 16 MA's), (27, 22841), (64, 22913), (67, 22922), (95, 23048),

Gene: Chiqui_29 Start: 22795, Stop: 23097, Start Num: 38
Candidate Starts for Chiqui_29:
(Start: 19 @22753 has 3 MA's), (Start: 38 @22795 has 122 MA's), (57, 22831), (96, 22981),

Gene: Chubbello_29 Start: 25484, Stop: 25843, Start Num: 21
Candidate Starts for Chubbello_29:
(Start: 21 @25484 has 45 MA's), (Start: 53 @25571 has 2 MA's), (89, 25709), (96, 25742),

Gene: Clammy_31 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for Clammy_31:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: CloudWang3_33 Start: 22210, Stop: 22506, Start Num: 33
Candidate Starts for CloudWang3_33:
(17, 22159), (Start: 33 @22210 has 121 MA's), (58, 22258), (89, 22363), (101, 22408),

Gene: ClownCar_32 Start: 23039, Stop: 23341, Start Num: 38
Candidate Starts for ClownCar_32:
(Start: 19 @22994 has 3 MA's), (Start: 38 @23039 has 122 MA's), (79, 23147),

Gene: CogOmlette_28 Start: 21862, Stop: 22227, Start Num: 33
Candidate Starts for CogOmlette_28:
(17, 21811), (Start: 33 @21862 has 121 MA's), (66, 21925), (68, 21931), (69, 21934), (93, 22054), (99, 22084), (101, 22093), (105, 22105),

Gene: Colbster_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for Colbster_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: Colin_33 Start: 24125, Stop: 24478, Start Num: 33
Candidate Starts for Colin_33:
(11, 23966), (Start: 33 @24125 has 121 MA's), (Start: 59 @24170 has 1 MA's), (72, 24206), (96, 24326), (97, 24332), (99, 24347), (105, 24368), (117, 24455),

Gene: Collard_32 Start: 28395, Stop: 28724, Start Num: 39
Candidate Starts for Collard_32:
(Start: 39 @28395 has 51 MA's), (Start: 45 @28410 has 2 MA's), (61, 28455), (68, 28476), (70, 28482), (87, 28575), (92, 28602), (100, 28623),

Gene: Conquerage_32 Start: 24038, Stop: 24406, Start Num: 34
Candidate Starts for Conquerage_32:
(16, 23978), (Start: 34 @24038 has 33 MA's), (55, 24074), (58, 24080), (72, 24119), (75, 24128), (92, 24227), (96, 24239), (101, 24269), (105, 24281), (110, 24311),

Gene: Conspiracy_27 Start: 22133, Stop: 22453, Start Num: 43
Candidate Starts for Conspiracy_27:
(Start: 15 @22043 has 2 MA's), (Start: 43 @22133 has 28 MA's), (Start: 52 @22163 has 27 MA's), (55, 22169), (89, 22295), (95, 22325), (96, 22328), (103, 22349), (111, 22382), (117, 22430), (121, 22445),

Gene: Constella_43 Start: 39899, Stop: 40273, Start Num: 30
Candidate Starts for Constella_43:
(Start: 30 @39899 has 42 MA's), (47, 39941), (50, 39953), (80, 40064), (89, 40109), (98, 40151), (105, 40184), (107, 40193), (109, 40205),

Gene: Coog_27 Start: 22303, Stop: 22593, Start Num: 52
Candidate Starts for Coog_27:
(Start: 15 @22183 has 2 MA's), (Start: 43 @22273 has 28 MA's), (Start: 52 @22303 has 27 MA's), (55, 22309), (83, 22411), (89, 22435), (92, 22456), (96, 22468), (103, 22489), (111, 22522), (117, 22570), (121, 22585),

Gene: Cookiedough_33 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for Cookiedough_33:
(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: Courthouse_50 Start: 40423, Stop: 40809, Start Num: 30
Candidate Starts for Courthouse_50:
(Start: 30 @40423 has 42 MA's), (46, 40462), (50, 40477), (Start: 53 @40486 has 2 MA's), (89, 40633), (93, 40657), (98, 40675), (103, 40705), (107, 40717),

Gene: Croquant_33 Start: 22961, Stop: 23263, Start Num: 38
Candidate Starts for Croquant_33:
(17, 22913), (Start: 19 @22916 has 3 MA's), (Start: 38 @22961 has 122 MA's), (54, 22991),

Gene: Crucio_30 Start: 22350, Stop: 22637, Start Num: 52
Candidate Starts for Crucio_30:
(13, 22191), (Start: 52 @22350 has 27 MA's), (96, 22515), (103, 22536), (117, 22614),

Gene: Cuco_27 Start: 22253, Stop: 22543, Start Num: 52
Candidate Starts for Cuco_27:
(Start: 15 @22133 has 2 MA's), (Start: 43 @22223 has 28 MA's), (Start: 52 @22253 has 27 MA's), (55, 22259), (83, 22361), (89, 22385), (92, 22406), (96, 22418), (103, 22439), (111, 22472), (117, 22520), (121, 22535),

Gene: Cullens_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for Cullens_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: DaHudson_32 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for DaHudson_32:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: DaVinci_33 Start: 22214, Stop: 22510, Start Num: 33
Candidate Starts for DaVinci_33:
(Start: 33 @22214 has 121 MA's), (61, 22268), (89, 22367), (101, 22412),

Gene: Dadosky_33 Start: 28366, Stop: 28695, Start Num: 39
Candidate Starts for Dadosky_33:
(Start: 39 @28366 has 51 MA's), (Start: 45 @28381 has 2 MA's), (61, 28426), (68, 28447), (70, 28453), (84, 28531), (87, 28546), (92, 28573), (100, 28594),

Gene: Daishi_31 Start: 21888, Stop: 22193, Start Num: 38
Candidate Starts for Daishi_31:
(17, 21840), (Start: 19 @21843 has 3 MA's), (Start: 38 @21888 has 122 MA's), (54, 21918), (111, 22128),

Gene: Dallas_53 Start: 43296, Stop: 43670, Start Num: 30
Candidate Starts for Dallas_53:
(Start: 30 @43296 has 42 MA's), (46, 43335), (50, 43350), (Start: 53 @43359 has 2 MA's), (89, 43506), (93, 43530), (98, 43548), (103, 43578), (107, 43590),

Gene: Dalmatian_30 Start: 22557, Stop: 22844, Start Num: 52
Candidate Starts for Dalmatian_30:
(13, 22398), (Start: 52 @22557 has 27 MA's), (96, 22722), (103, 22743), (117, 22821),

Gene: Danforth_26 Start: 21212, Stop: 21493, Start Num: 36
Candidate Starts for Danforth_26:
(Start: 36 @21212 has 11 MA's), (Start: 52 @21239 has 27 MA's), (55, 21245), (65, 21269), (113, 21446), (115, 21461), (119, 21473), (121, 21482),

Gene: Darrell_32 Start: 24002, Stop: 24370, Start Num: 34
Candidate Starts for Darrell_32:
(Start: 34 @24002 has 33 MA's), (55, 24038), (63, 24056), (65, 24062), (68, 24071), (71, 24080), (72, 24083), (92, 24191), (96, 24203), (99, 24224), (101, 24233), (105, 24245), (112, 24293),

Gene: DarthPhader_31 Start: 24013, Stop: 24369, Start Num: 33
Candidate Starts for DarthPhader_31:
(11, 23854), (Start: 33 @24013 has 121 MA's), (55, 24049), (72, 24094), (79, 24136), (93, 24205), (96, 24214), (101, 24244), (105, 24256), (107, 24265), (119, 24349),

Gene: DekHockey33_32 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for DekHockey33_32:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: Deloris_31 Start: 22849, Stop: 23190, Start Num: 24
Candidate Starts for Deloris_31:

(Start: 24 @22849 has 16 MA's), (55, 22909), (61, 22921), (67, 22939), (96, 23068),

Gene: DelvinSonDorr_32 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for DelvinSonDorr_32:
(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: Dieselweasel_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for Dieselweasel_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: Dignity_32 Start: 22873, Stop: 23211, Start Num: 33
Candidate Starts for Dignity_32:
(11, 22714), (Start: 33 @22873 has 121 MA's), (Start: 52 @22909 has 27 MA's), (55, 22915), (72, 22960), (75, 22969), (96, 23083), (102, 23098), (116, 23182),

Gene: Discoknowium_27 Start: 22342, Stop: 22662, Start Num: 43
Candidate Starts for Discoknowium_27:
(Start: 15 @22252 has 2 MA's), (Start: 43 @22342 has 28 MA's), (Start: 52 @22372 has 27 MA's), (55, 22378), (75, 22432), (89, 22504), (95, 22534), (96, 22537), (103, 22558), (111, 22591), (117, 22639), (121, 22654),

Gene: Dixon_27 Start: 21231, Stop: 21512, Start Num: 36
Candidate Starts for Dixon_27:
(Start: 36 @21231 has 11 MA's), (Start: 52 @21258 has 27 MA's), (55, 21264), (65, 21288), (75, 21318), (113, 21465), (115, 21480), (119, 21492), (121, 21501),

Gene: DmpstrDiver_52 Start: 43289, Stop: 43663, Start Num: 30
Candidate Starts for DmpstrDiver_52:
(Start: 30 @43289 has 42 MA's), (47, 43331), (50, 43343), (80, 43454), (89, 43499), (98, 43541), (105, 43574), (107, 43583), (109, 43595),

Gene: Donovan_29 Start: 25474, Stop: 25833, Start Num: 21
Candidate Starts for Donovan_29:
(Start: 21 @25474 has 45 MA's), (Start: 53 @25561 has 2 MA's), (89, 25699), (96, 25732),

Gene: Dorothea_33 Start: 22214, Stop: 22510, Start Num: 33
Candidate Starts for Dorothea_33:
(Start: 33 @22214 has 121 MA's), (61, 22268), (89, 22367), (101, 22412),

Gene: DoubleChamp_32 Start: 28395, Stop: 28724, Start Num: 39
Candidate Starts for DoubleChamp_32:
(Start: 39 @28395 has 51 MA's), (Start: 45 @28410 has 2 MA's), (61, 28455), (68, 28476), (70, 28482), (87, 28575), (92, 28602), (100, 28623),

Gene: Dove_48 Start: 42823, Stop: 43197, Start Num: 30
Candidate Starts for Dove_48:
(Start: 30 @42823 has 42 MA's), (47, 42865), (50, 42877), (80, 42988), (89, 43033), (98, 43075), (105, 43108), (107, 43117), (109, 43129),

Gene: Drake55_32 Start: 22902, Stop: 23225, Start Num: 39
Candidate Starts for Drake55_32:
(11, 22743), (Start: 39 @22902 has 51 MA's), (Start: 52 @22929 has 27 MA's), (55, 22935), (75, 22989), (96, 23103), (116, 23202),

Gene: DreamTeam1_30 Start: 21951, Stop: 22319, Start Num: 33
Candidate Starts for DreamTeam1_30:
(11, 21792), (17, 21900), (Start: 33 @21951 has 121 MA's), (Start: 59 @21996 has 1 MA's), (68, 22020), (72, 22032), (73, 22035), (92, 22140), (96, 22152), (101, 22182), (105, 22194), (107, 22203), (124, 22314),

Gene: DropBear_30 Start: 22585, Stop: 22887, Start Num: 38
Candidate Starts for DropBear_30:
(14, 22486), (Start: 19 @22543 has 3 MA's), (Start: 38 @22585 has 122 MA's), (57, 22621), (79, 22693),

Gene: Dublin_26 Start: 22192, Stop: 22512, Start Num: 43
Candidate Starts for Dublin_26:
(7, 21952), (Start: 15 @22102 has 2 MA's), (Start: 43 @22192 has 28 MA's), (Start: 52 @22222 has 27 MA's), (55, 22228), (89, 22354), (95, 22384), (96, 22387), (103, 22408), (111, 22441), (121, 22504),

Gene: DudeLittle_30 Start: 22559, Stop: 22846, Start Num: 52
Candidate Starts for DudeLittle_30:
(13, 22400), (Start: 52 @22559 has 27 MA's), (96, 22724), (103, 22745), (117, 22823),

Gene: Duke13_54 Start: 43607, Stop: 44002, Start Num: 30
Candidate Starts for Duke13_54:
(Start: 30 @43607 has 42 MA's), (47, 43649), (50, 43661), (80, 43772), (89, 43817), (98, 43859), (105, 43892), (107, 43901), (109, 43913),

Gene: Dynamo_29 Start: 25896, Stop: 26255, Start Num: 21
Candidate Starts for Dynamo_29:
(Start: 21 @25896 has 45 MA's), (Start: 53 @25983 has 2 MA's), (89, 26121), (96, 26154),

Gene: EZMoney23_34 Start: 24442, Stop: 24765, Start Num: 39
Candidate Starts for EZMoney23_34:
(11, 24283), (Start: 39 @24442 has 51 MA's), (Start: 52 @24469 has 27 MA's), (55, 24475), (62, 24490), (76, 24532), (96, 24643), (116, 24742),

Gene: EagleEye_32 Start: 23189, Stop: 23464, Start Num: 33
Candidate Starts for EagleEye_32:
(Start: 33 @23189 has 121 MA's), (55, 23231), (61, 23243), (65, 23255), (75, 23285), (83, 23318), (89, 23342),

Gene: Ebony_30 Start: 23116, Stop: 23439, Start Num: 32
Candidate Starts for Ebony_30:
(Start: 32 @23116 has 28 MA's), (Start: 37 @23125 has 2 MA's), (68, 23185), (72, 23197), (83, 23239), (96, 23296),

Gene: Echild_30 Start: 22524, Stop: 22853, Start Num: 39
Candidate Starts for Echild_30:
(11, 22365), (Start: 39 @22524 has 51 MA's), (Start: 52 @22551 has 27 MA's), (55, 22557), (72, 22602), (75, 22611), (96, 22725), (102, 22740), (116, 22824),

Gene: EdogawaKiddo_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for EdogawaKiddo_32:

(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Edugator_32 Start: 28365, Stop: 28694, Start Num: 39
Candidate Starts for Edugator_32:
(Start: 39 @28365 has 51 MA's), (Start: 45 @28380 has 2 MA's), (61, 28425), (68, 28446), (70, 28452), (87, 28545), (92, 28572), (100, 28593),

Gene: Eidsmoe_32 Start: 24074, Stop: 24442, Start Num: 34
Candidate Starts for Eidsmoe_32:
(16, 24014), (Start: 34 @24074 has 33 MA's), (55, 24110), (58, 24116), (72, 24155), (75, 24164), (92, 24263), (96, 24275), (101, 24305), (105, 24317), (110, 24347),

Gene: Ejimix_51 Start: 44526, Stop: 44921, Start Num: 30
Candidate Starts for Ejimix_51:
(Start: 30 @44526 has 42 MA's), (47, 44568), (50, 44580), (80, 44691), (89, 44736), (98, 44778), (105, 44811), (107, 44820),

Gene: ElTiger69_27 Start: 21545, Stop: 21865, Start Num: 43
Candidate Starts for ElTiger69_27:
(Start: 15 @21455 has 2 MA's), (Start: 43 @21545 has 28 MA's), (Start: 52 @21575 has 27 MA's), (55, 21581), (89, 21707), (96, 21740), (103, 21761), (111, 21794), (115, 21833), (121, 21857),

Gene: Elephantoon_31 Start: 23447, Stop: 23815, Start Num: 34
Candidate Starts for Elephantoon_31:
(Start: 34 @23447 has 33 MA's), (68, 23516), (69, 23519), (72, 23528), (92, 23636), (96, 23648), (101, 23678), (110, 23720),

Gene: Elle_30 Start: 21306, Stop: 21647, Start Num: 33
Candidate Starts for Elle_30:
(11, 21150), (Start: 33 @21306 has 121 MA's), (51, 21348), (Start: 59 @21366 has 1 MA's), (62, 21372), (77, 21417), (113, 21594), (120, 21630), (122, 21636),

Gene: EmyBug_32 Start: 24074, Stop: 24442, Start Num: 34
Candidate Starts for EmyBug_32:
(16, 24014), (Start: 34 @24074 has 33 MA's), (55, 24110), (58, 24116), (72, 24155), (75, 24164), (92, 24263), (96, 24275), (101, 24305), (105, 24317), (110, 24347),

Gene: EpicPhail_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for EpicPhail_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: Epsocamisio_32 Start: 21405, Stop: 21746, Start Num: 33
Candidate Starts for Epsocamisio_32:
(Start: 33 @21405 has 121 MA's), (62, 21471), (66, 21483), (113, 21693), (120, 21729), (122, 21735),

Gene: Equemioh13_32 Start: 22888, Stop: 23217, Start Num: 39
Candidate Starts for Equemioh13_32:
(11, 22729), (Start: 39 @22888 has 51 MA's), (Start: 52 @22915 has 27 MA's), (55, 22921), (75, 22975), (96, 23089), (102, 23104), (116, 23188),

Gene: EricB_33 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for EricB_33:

(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: EricMillard_51 Start: 44027, Stop: 44422, Start Num: 30
Candidate Starts for EricMillard_51:
(Start: 30 @44027 has 42 MA's), (47, 44069), (50, 44081), (80, 44192), (89, 44237), (98, 44279), (105, 44312), (107, 44321),

Gene: Et2Brutus_29 Start: 23076, Stop: 23399, Start Num: 32
Candidate Starts for Et2Brutus_29:
(Start: 32 @23076 has 28 MA's), (Start: 37 @23085 has 2 MA's), (68, 23145), (72, 23157), (83, 23199), (96, 23256),

Gene: Etoile_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Etoile_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: EtoileNova_31 Start: 23063, Stop: 23365, Start Num: 38
Candidate Starts for EtoileNova_31:
(Start: 19 @23018 has 3 MA's), (Start: 38 @23063 has 122 MA's), (54, 23093), (Start: 59 @23102 has 1 MA's), (75, 23144), (79, 23171),

Gene: EvilGenius_32 Start: 22841, Stop: 23185, Start Num: 24
Candidate Starts for EvilGenius_32:
(9, 22682), (Start: 24 @22841 has 16 MA's), (27, 22850), (64, 22922), (67, 22931), (95, 23057),

Gene: Expelliarmus_26 Start: 21198, Stop: 21479, Start Num: 36
Candidate Starts for Expelliarmus_26:
(Start: 36 @21198 has 11 MA's), (Start: 52 @21225 has 27 MA's), (55, 21231), (65, 21255), (75, 21285), (113, 21432), (115, 21447), (119, 21459), (121, 21468),

Gene: ExplosioNervosa_32 Start: 24077, Stop: 24445, Start Num: 34
Candidate Starts for ExplosioNervosa_32:
(16, 24017), (Start: 34 @24077 has 33 MA's), (55, 24113), (58, 24119), (72, 24158), (75, 24167), (92, 24266), (96, 24278), (101, 24308), (105, 24320), (110, 24350),

Gene: Fameo_30 Start: 22528, Stop: 22815, Start Num: 52
Candidate Starts for Fameo_30:
(13, 22369), (Start: 52 @22528 has 27 MA's), (96, 22693), (103, 22714), (117, 22792),

Gene: Farber_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for Farber_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: FatCactus_28 Start: 20868, Stop: 21134, Start Num: 32
Candidate Starts for FatCactus_28:
(11, 20712), (17, 20820), (Start: 32 @20868 has 28 MA's), (65, 20925), (75, 20955), (91, 21024),

Gene: Fayely_32 Start: 24041, Stop: 24409, Start Num: 34
Candidate Starts for Fayely_32:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (66, 24104), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (99, 24263), (101, 24272),

Gene: Fernando_32 Start: 22962, Stop: 23264, Start Num: 38

Candidate Starts for Fernando_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: Feyre_32 Start: 28282, Stop: 28608, Start Num: 39
Candidate Starts for Feyre_32:
(Start: 39 @28282 has 51 MA's), (Start: 45 @28297 has 2 MA's), (61, 28342), (70, 28369), (72, 28375), (92, 28489),

Gene: Fibonacci_30 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Fibonacci_30:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: FiringLine_30 Start: 22350, Stop: 22637, Start Num: 52
Candidate Starts for FiringLine_30:
(13, 22191), (Start: 52 @22350 has 27 MA's), (96, 22515), (103, 22536), (117, 22614),

Gene: First_0030 Start: 22516, Stop: 22857, Start Num: 24
Candidate Starts for First_0030:
(9, 22360), (Start: 24 @22516 has 16 MA's), (61, 22588), (67, 22606), (96, 22735),

Gene: FirstPlacePfu_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for FirstPlacePfu_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Fishburne_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Fishburne_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Flare16_30 Start: 22446, Stop: 22775, Start Num: 39
Candidate Starts for Flare16_30:
(11, 22287), (Start: 39 @22446 has 51 MA's), (Start: 52 @22473 has 27 MA's), (55, 22479), (75, 22533), (96, 22647), (102, 22662), (116, 22746),

Gene: Flaverint_30 Start: 23067, Stop: 23390, Start Num: 32
Candidate Starts for Flaverint_30:
(Start: 32 @23067 has 28 MA's), (Start: 37 @23076 has 2 MA's), (68, 23136), (72, 23148), (83, 23190), (96, 23247),

Gene: Florence1_27 Start: 22045, Stop: 22335, Start Num: 52
Candidate Starts for Florence1_27:
(Start: 43 @22015 has 28 MA's), (Start: 52 @22045 has 27 MA's), (55, 22051), (89, 22177), (92, 22198), (96, 22210), (103, 22231), (111, 22264), (121, 22327),

Gene: Florence4_28 Start: 22051, Stop: 22335, Start Num: 55
Candidate Starts for Florence4_28:
(Start: 43 @22015 has 28 MA's), (Start: 52 @22045 has 27 MA's), (55, 22051), (89, 22177), (92, 22198), (96, 22210), (103, 22231), (111, 22264), (121, 22327),

Gene: FlyCatcher_33 Start: 25243, Stop: 25533, Start Num: 40
Candidate Starts for FlyCatcher_33:
(Start: 40 @25243 has 1 MA's), (Start: 59 @25279 has 1 MA's), (68, 25300), (83, 25360),

Gene: ForGetIt_27 Start: 22158, Stop: 22478, Start Num: 43
Candidate Starts for ForGetIt_27:
(Start: 15 @22068 has 2 MA's), (Start: 43 @22158 has 28 MA's), (Start: 52 @22188 has 27 MA's), (55, 22194), (89, 22320), (95, 22350), (96, 22353), (103, 22374), (111, 22407), (117, 22455), (121, 22470),

Gene: Fred313_30 Start: 22270, Stop: 22572, Start Num: 38
Candidate Starts for Fred313_30:
(14, 22171), (Start: 19 @22228 has 3 MA's), (Start: 38 @22270 has 122 MA's), (57, 22306), (79, 22378),

Gene: Gaia_36 Start: 31870, Stop: 32178, Start Num: 31
Candidate Starts for Gaia_36:
(Start: 31 @31870 has 3 MA's), (49, 31918), (51, 31924), (56, 31936), (72, 31981), (86, 32065), (90, 32086), (98, 32119),

Gene: Gail_30 Start: 21666, Stop: 22022, Start Num: 33
Candidate Starts for Gail_30:
(11, 21507), (Start: 33 @21666 has 121 MA's), (55, 21702), (58, 21708), (68, 21735), (75, 21756), (92, 21855), (101, 21897),

Gene: GaloreK_29 Start: 25481, Stop: 25840, Start Num: 21
Candidate Starts for GaloreK_29:
(Start: 21 @25481 has 45 MA's), (Start: 53 @25568 has 2 MA's), (89, 25706), (96, 25739),

Gene: Garak_34 Start: 22214, Stop: 22510, Start Num: 33
Candidate Starts for Garak_34:
(17, 22163), (Start: 33 @22214 has 121 MA's), (58, 22262), (89, 22367), (101, 22412),

Gene: GaugeLDP_32 Start: 23699, Stop: 24025, Start Num: 39
Candidate Starts for GaugeLDP_32:
(Start: 39 @23699 has 51 MA's), (Start: 52 @23726 has 27 MA's), (55, 23732), (62, 23747), (76, 23789), (77, 23792), (96, 23903), (116, 24002),

Gene: Gavriela_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for Gavriela_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Gemma_32 Start: 22998, Stop: 23345, Start Num: 19
Candidate Starts for Gemma_32:
(Start: 19 @22998 has 3 MA's), (Start: 38 @23043 has 122 MA's), (79, 23151),

Gene: Gengar_32 Start: 28392, Stop: 28718, Start Num: 39
Candidate Starts for Gengar_32:
(Start: 39 @28392 has 51 MA's), (Start: 45 @28407 has 2 MA's), (61, 28452), (70, 28479), (72, 28485), (92, 28599),

Gene: George_26 Start: 22254, Stop: 22544, Start Num: 52
Candidate Starts for George_26:
(Start: 15 @22134 has 2 MA's), (Start: 43 @22224 has 28 MA's), (Start: 52 @22254 has 27 MA's), (55, 22260), (83, 22362), (89, 22386), (92, 22407), (96, 22419), (103, 22440), (111, 22473), (117, 22521), (121, 22536),

Gene: Georgie2_31 Start: 22341, Stop: 22682, Start Num: 24

Candidate Starts for Georgie2_31:
(Start: 24 @22341 has 16 MA's), (64, 22422), (67, 22431), (95, 22557), (117, 22659),

Gene: Gex_30 Start: 24736, Stop: 25116, Start Num: 18
Candidate Starts for Gex_30:
(Start: 18 @24736 has 20 MA's), (85, 24946), (89, 24967),

Gene: Ghoulboy_27 Start: 22473, Stop: 22793, Start Num: 43
Candidate Starts for Ghoulboy_27:
(Start: 15 @22383 has 2 MA's), (Start: 43 @22473 has 28 MA's), (Start: 52 @22503 has 27 MA's), (55, 22509), (75, 22563), (83, 22611), (89, 22635), (92, 22656), (96, 22668), (103, 22689), (111, 22722), (121, 22785),

Gene: Gilberta_30 Start: 23064, Stop: 23387, Start Num: 32
Candidate Starts for Gilberta_30:
(Start: 32 @23064 has 28 MA's), (Start: 37 @23073 has 2 MA's), (68, 23133), (72, 23145), (83, 23187), (96, 23244),

Gene: GingkoMaracino_32 Start: 22849, Stop: 23151, Start Num: 38
Candidate Starts for GingkoMaracino_32:
(17, 22801), (Start: 19 @22804 has 3 MA's), (Start: 38 @22849 has 122 MA's), (54, 22879),

Gene: Giroux_31 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for Giroux_31:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: Gladiator_33 Start: 22200, Stop: 22496, Start Num: 33
Candidate Starts for Gladiator_33:
(17, 22149), (Start: 33 @22200 has 121 MA's), (58, 22248), (89, 22353), (101, 22398),

Gene: Glaske_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for Glaske_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Gonephishing_52 Start: 41701, Stop: 42087, Start Num: 30
Candidate Starts for Gonephishing_52:
(Start: 30 @41701 has 42 MA's), (46, 41740), (50, 41755), (Start: 53 @41764 has 2 MA's), (89, 41911), (93, 41935), (98, 41953), (103, 41983), (107, 41995),

Gene: Goose1D_30 Start: 21780, Stop: 22082, Start Num: 38
Candidate Starts for Goose1D_30:
(14, 21681), (Start: 19 @21738 has 3 MA's), (Start: 38 @21780 has 122 MA's), (57, 21816), (79, 21888),

Gene: Goose1X_30 Start: 21852, Stop: 22154, Start Num: 38
Candidate Starts for Goose1X_30:
(14, 21753), (Start: 19 @21810 has 3 MA's), (Start: 38 @21852 has 122 MA's), (57, 21888), (79, 21960),

Gene: Gratitude_32 Start: 22888, Stop: 23217, Start Num: 39
Candidate Starts for Gratitude_32:

(11, 22729), (Start: 39 @22888 has 51 MA's), (Start: 52 @22915 has 27 MA's), (55, 22921), (75, 22975), (96, 23089), (102, 23104), (116, 23188),

Gene: GreaseLightnin_29 Start: 25736, Stop: 26095, Start Num: 21
Candidate Starts for GreaseLightnin_29:
(Start: 21 @25736 has 45 MA's), (Start: 53 @25823 has 2 MA's), (89, 25961), (96, 25994),

Gene: GreedyLawyer_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for GreedyLawyer_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Grif_32 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for Grif_32:
(17, 22998), (Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (54, 23076),

Gene: Groundhog_26 Start: 21199, Stop: 21480, Start Num: 36
Candidate Starts for Groundhog_26:
(Start: 36 @21199 has 11 MA's), (Start: 52 @21226 has 27 MA's), (55, 21232), (65, 21256), (75, 21286), (113, 21433), (115, 21448), (119, 21460), (121, 21469),

Gene: Groupthink_33 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Groupthink_33:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: Grub_32 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for Grub_32:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: Grum1_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for Grum1_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992), (68, 23022), (79, 23070),

Gene: Gruunaga_33 Start: 22200, Stop: 22496, Start Num: 33
Candidate Starts for Gruunaga_33:
(17, 22149), (Start: 33 @22200 has 121 MA's), (58, 22248), (89, 22353), (101, 22398),

Gene: GtownJaz_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for GtownJaz_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: Guillsminger_32 Start: 28379, Stop: 28699, Start Num: 45
Candidate Starts for Guillsminger_32:
(Start: 39 @28364 has 51 MA's), (Start: 45 @28379 has 2 MA's), (61, 28424), (70, 28451), (72, 28457), (92, 28571), (100, 28592),

Gene: Gwennie_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for Gwennie_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: HUHilltop_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for HUHilltop_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Halley_51 Start: 43740, Stop: 44135, Start Num: 30
Candidate Starts for Halley_51:
(Start: 30 @43740 has 42 MA's), (47, 43782), (50, 43794), (80, 43905), (89, 43950), (98, 43992), (105, 44025), (107, 44034),

Gene: Hammer_33 Start: 22215, Stop: 22511, Start Num: 33
Candidate Starts for Hammer_33:
(17, 22164), (Start: 33 @22215 has 121 MA's), (58, 22263), (89, 22368), (101, 22413),

Gene: Hannaconda_47 Start: 38249, Stop: 38623, Start Num: 30
Candidate Starts for Hannaconda_47:
(Start: 30 @38249 has 42 MA's), (46, 38288), (50, 38303), (Start: 53 @38312 has 2 MA's), (80, 38414), (89, 38459), (98, 38501), (105, 38534), (107, 38543), (109, 38555),

Gene: Hanray_32 Start: 24012, Stop: 24380, Start Num: 34
Candidate Starts for Hanray_32:
(16, 23952), (Start: 34 @24012 has 33 MA's), (55, 24048), (58, 24054), (66, 24075), (72, 24093), (75, 24102), (92, 24201), (96, 24213), (99, 24234), (101, 24243),

Gene: HarryHoudini_32 Start: 22905, Stop: 23228, Start Num: 39
Candidate Starts for HarryHoudini_32:
(11, 22746), (Start: 39 @22905 has 51 MA's), (Start: 52 @22932 has 27 MA's), (55, 22938), (75, 22992), (96, 23106), (116, 23205),

Gene: HashRod_33 Start: 23050, Stop: 23352, Start Num: 38
Candidate Starts for HashRod_33:
(17, 23002), (Start: 19 @23005 has 3 MA's), (Start: 38 @23050 has 122 MA's), (54, 23080),

Gene: HaveUMetTed_33 Start: 23040, Stop: 23342, Start Num: 38
Candidate Starts for HaveUMetTed_33:
(Start: 19 @22995 has 3 MA's), (Start: 38 @23040 has 122 MA's), (79, 23148),

Gene: Heathen_30 Start: 22326, Stop: 22628, Start Num: 38
Candidate Starts for Heathen_30:
(14, 22227), (Start: 19 @22284 has 3 MA's), (Start: 38 @22326 has 122 MA's), (57, 22362), (79, 22434),

Gene: Heffalump_32 Start: 24270, Stop: 24557, Start Num: 52
Candidate Starts for Heffalump_32:
(13, 24111), (Start: 52 @24270 has 27 MA's), (96, 24435), (103, 24456), (117, 24534),

Gene: Heftyboy_32 Start: 28510, Stop: 28845, Start Num: 39
Candidate Starts for Heftyboy_32:
(Start: 39 @28510 has 51 MA's), (Start: 45 @28525 has 2 MA's), (61, 28570), (70, 28597), (72, 28603), (92, 28717),

Gene: HelDan_30 Start: 22578, Stop: 22880, Start Num: 38
Candidate Starts for HelDan_30:
(14, 22479), (Start: 19 @22536 has 3 MA's), (Start: 38 @22578 has 122 MA's), (57, 22614), (79, 22686),

Gene: Heliosoles_32 Start: 23047, Stop: 23349, Start Num: 38

Candidate Starts for Heliosoles_32:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: Helmet_33 Start: 22214, Stop: 22510, Start Num: 33
Candidate Starts for Helmet_33:
(17, 22163), (Start: 33 @22214 has 121 MA's), (58, 22262), (89, 22367), (101, 22412),

Gene: Hercules11_32 Start: 22970, Stop: 23272, Start Num: 38
Candidate Starts for Hercules11_32:
(17, 22922), (Start: 19 @22925 has 3 MA's), (Start: 38 @22970 has 122 MA's), (54, 23000),

Gene: Hexamo_33 Start: 22182, Stop: 22478, Start Num: 33
Candidate Starts for Hexamo_33:
(17, 22131), (Start: 33 @22182 has 121 MA's), (89, 22335), (101, 22380),

Gene: Hidrated_49 Start: 43539, Stop: 43925, Start Num: 30
Candidate Starts for Hidrated_49:
(Start: 30 @43539 has 42 MA's), (46, 43578), (50, 43593), (Start: 53 @43602 has 2 MA's), (89, 43749), (93, 43773), (98, 43791), (103, 43821), (107, 43833),

Gene: HippoHollow_31 Start: 24199, Stop: 24483, Start Num: 53
Candidate Starts for HippoHollow_31:
(Start: 52 @24196 has 27 MA's), (Start: 53 @24199 has 2 MA's), (96, 24361), (117, 24460),

Gene: HokkenD_44 Start: 42009, Stop: 42404, Start Num: 30
Candidate Starts for HokkenD_44:
(Start: 30 @42009 has 42 MA's), (47, 42051), (50, 42063), (80, 42174), (89, 42219), (98, 42261), (105, 42294), (107, 42303),

Gene: Holex_32 Start: 24012, Stop: 24380, Start Num: 34
Candidate Starts for Holex_32:
(16, 23952), (Start: 34 @24012 has 33 MA's), (55, 24048), (58, 24054), (66, 24075), (72, 24093), (75, 24102), (92, 24201), (96, 24213), (99, 24234), (101, 24243),

Gene: Hookmount_31 Start: 23060, Stop: 23362, Start Num: 38
Candidate Starts for Hookmount_31:
(Start: 19 @23015 has 3 MA's), (Start: 38 @23060 has 122 MA's), (54, 23090), (Start: 59 @23099 has 1 MA's), (75, 23141), (79, 23168),

Gene: Hoot_33 Start: 22192, Stop: 22488, Start Num: 33
Candidate Starts for Hoot_33:
(Start: 33 @22192 has 121 MA's), (61, 22246), (89, 22345), (101, 22390),

Gene: HortumSL17_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for HortumSL17_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Hughesyang_49 Start: 43669, Stop: 44064, Start Num: 30
Candidate Starts for Hughesyang_49:
(Start: 30 @43669 has 42 MA's), (47, 43711), (50, 43723), (80, 43834), (89, 43879), (98, 43921), (105, 43954), (107, 43963),

Gene: HuhtaEnerson15_27 Start: 22224, Stop: 22544, Start Num: 43
Candidate Starts for HuhtaEnerson15_27:
(Start: 15 @22134 has 2 MA's), (Start: 43 @22224 has 28 MA's), (Start: 52 @22254 has 27 MA's), (55, 22260), (83, 22362), (89, 22386), (92, 22407), (96, 22419), (103, 22440), (111, 22473), (117, 22521), (121, 22536),

Gene: Hutc2_30 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Hutc2_30:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: Idleandcovert_30 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for Idleandcovert_30:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: Imbriano_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for Imbriano_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Indra_33 Start: 22215, Stop: 22511, Start Num: 33
Candidate Starts for Indra_33:
(17, 22164), (Start: 33 @22215 has 121 MA's), (58, 22263), (89, 22368), (101, 22413),

Gene: Insomnia_30 Start: 23125, Stop: 23448, Start Num: 32
Candidate Starts for Insomnia_30:
(Start: 32 @23125 has 28 MA's), (Start: 37 @23134 has 2 MA's), (68, 23194), (72, 23206), (83, 23248), (96, 23305),

Gene: InvictusManeo_32 Start: 28438, Stop: 28767, Start Num: 39
Candidate Starts for InvictusManeo_32:
(Start: 39 @28438 has 51 MA's), (Start: 45 @28453 has 2 MA's), (61, 28498), (68, 28519), (70, 28525), (87, 28618), (92, 28645), (100, 28666),

Gene: Isca_30 Start: 22462, Stop: 22764, Start Num: 38
Candidate Starts for Isca_30:
(14, 22363), (Start: 19 @22420 has 3 MA's), (Start: 38 @22462 has 122 MA's), (79, 22570),

Gene: Isiphiwo_33 Start: 22284, Stop: 22580, Start Num: 33
Candidate Starts for Isiphiwo_33:
(Start: 33 @22284 has 121 MA's), (61, 22338), (89, 22437), (101, 22482),

Gene: Island3_32 Start: 27623, Stop: 27982, Start Num: 21
Candidate Starts for Island3_32:
(8, 27455), (12, 27533), (Start: 21 @27623 has 45 MA's), (28, 27641), (Start: 53 @27710 has 2 MA's), (83, 27824), (89, 27848), (96, 27881),

Gene: Iwokeuplikedis_31 Start: 22164, Stop: 22496, Start Num: 39
Candidate Starts for Iwokeuplikedis_31:
(Start: 39 @22164 has 51 MA's), (Start: 52 @22191 has 27 MA's), (55, 22197), (76, 22254), (79, 22287), (116, 22464), (118, 22467),

Gene: JF2_30 Start: 22213, Stop: 22515, Start Num: 38

Candidate Starts for JF2_30:
(14, 22114), (Start: 19 @22171 has 3 MA's), (Start: 38 @22213 has 122 MA's), (79, 22321), (92, 22387), (96, 22399),

Gene: JF4_30 Start: 22213, Stop: 22515, Start Num: 38
Candidate Starts for JF4_30:
(14, 22114), (Start: 19 @22171 has 3 MA's), (Start: 38 @22213 has 122 MA's), (79, 22321), (92, 22387), (96, 22399),

Gene: JHC117_32 Start: 22961, Stop: 23263, Start Num: 38
Candidate Starts for JHC117_32:
(17, 22913), (Start: 19 @22916 has 3 MA's), (Start: 38 @22961 has 122 MA's), (54, 22991),

Gene: JSwag_32 Start: 21391, Stop: 21732, Start Num: 33
Candidate Starts for JSwag_32:
(Start: 33 @21391 has 121 MA's), (62, 21457), (66, 21469), (113, 21679), (120, 21715), (122, 21721),

Gene: Jabiru_27 Start: 21595, Stop: 21915, Start Num: 43
Candidate Starts for Jabiru_27:
(Start: 15 @21505 has 2 MA's), (Start: 43 @21595 has 28 MA's), (Start: 52 @21625 has 27 MA's), (55, 21631), (89, 21757), (96, 21790), (103, 21811), (111, 21844), (115, 21883), (121, 21907),

Gene: Jabith_30 Start: 23125, Stop: 23448, Start Num: 32
Candidate Starts for Jabith_30:
(Start: 32 @23125 has 28 MA's), (Start: 37 @23134 has 2 MA's), (68, 23194), (72, 23206), (83, 23248), (96, 23305),

Gene: Jamie19_27 Start: 23790, Stop: 24170, Start Num: 18
Candidate Starts for Jamie19_27:
(Start: 18 @23790 has 20 MA's), (85, 24000), (89, 24021),

Gene: Jebeks_29 Start: 25470, Stop: 25829, Start Num: 21
Candidate Starts for Jebeks_29:
(Start: 21 @25470 has 45 MA's), (Start: 53 @25557 has 2 MA's), (89, 25695), (96, 25728),

Gene: Jeeves_30 Start: 21688, Stop: 21981, Start Num: 33
Candidate Starts for Jeeves_30:
(11, 21529), (Start: 33 @21688 has 121 MA's), (46, 21697), (83, 21832),

Gene: Jeffabunny_33 Start: 22234, Stop: 22530, Start Num: 33
Candidate Starts for Jeffabunny_33:
(17, 22183), (Start: 33 @22234 has 121 MA's), (58, 22282), (89, 22387), (101, 22432),

Gene: JenCasNa_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for JenCasNa_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: JeppNRM_33 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for JeppNRM_33:
(Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (79, 23154),

Gene: Jerm_32 Start: 22865, Stop: 23203, Start Num: 33
Candidate Starts for Jerm_32:

(Start: 33 @22865 has 121 MA's), (Start: 52 @22901 has 27 MA's), (55, 22907), (72, 22952), (96, 23075), (102, 23090), (116, 23174),

Gene: JewelBug_33 Start: 22218, Stop: 22514, Start Num: 33
Candidate Starts for JewelBug_33:
(Start: 33 @22218 has 121 MA's), (61, 22272), (89, 22371), (101, 22416),

Gene: Jiawan_32 Start: 24044, Stop: 24412, Start Num: 34
Candidate Starts for Jiawan_32:
(16, 23984), (Start: 34 @24044 has 33 MA's), (55, 24080), (58, 24086), (66, 24107), (72, 24125), (75, 24134), (92, 24233), (96, 24245), (99, 24266), (101, 24275),

Gene: Jobu08_32 Start: 23035, Stop: 23337, Start Num: 38
Candidate Starts for Jobu08_32:
(17, 22987), (Start: 19 @22990 has 3 MA's), (Start: 38 @23035 has 122 MA's), (54, 23065), (Start: 59 @23074 has 1 MA's),

Gene: Jordennis_33 Start: 22203, Stop: 22499, Start Num: 33
Candidate Starts for Jordennis_33:
(Start: 33 @22203 has 121 MA's), (61, 22257), (89, 22356), (101, 22401),

Gene: Joselito_30 Start: 23073, Stop: 23396, Start Num: 32
Candidate Starts for Joselito_30:
(Start: 32 @23073 has 28 MA's), (Start: 37 @23082 has 2 MA's), (68, 23142), (72, 23154), (83, 23196), (96, 23253),

Gene: JoshKayV_32 Start: 22835, Stop: 23179, Start Num: 24
Candidate Starts for JoshKayV_32:
(9, 22676), (Start: 24 @22835 has 16 MA's), (27, 22844), (64, 22916), (67, 22925), (95, 23051),

Gene: Journey13_28 Start: 21581, Stop: 21907, Start Num: 37
Candidate Starts for Journey13_28:
(Start: 37 @21581 has 2 MA's), (Start: 52 @21611 has 27 MA's), (55, 21617), (79, 21707), (96, 21785), (116, 21884),

Gene: Jovo_27 Start: 22414, Stop: 22734, Start Num: 43
Candidate Starts for Jovo_27:
(Start: 15 @22324 has 2 MA's), (Start: 43 @22414 has 28 MA's), (Start: 52 @22444 has 27 MA's), (55, 22450), (89, 22576), (95, 22606), (96, 22609), (103, 22630), (111, 22663), (117, 22711), (121, 22726),

Gene: Jsquared_29 Start: 21395, Stop: 21718, Start Num: 39
Candidate Starts for Jsquared_29:
(17, 21347), (Start: 39 @21395 has 51 MA's), (Start: 52 @21422 has 27 MA's), (55, 21428), (Start: 59 @21437 has 1 MA's),

Gene: JuicyJay_53 Start: 45516, Stop: 45890, Start Num: 30
Candidate Starts for JuicyJay_53:
(Start: 30 @45516 has 42 MA's), (47, 45558), (50, 45570), (80, 45681), (89, 45726), (98, 45768), (105, 45801), (107, 45810), (109, 45822),

Gene: Jung_28 Start: 25447, Stop: 25806, Start Num: 21
Candidate Starts for Jung_28:
(Start: 21 @25447 has 45 MA's), (Start: 53 @25534 has 2 MA's), (89, 25672), (96, 25705),

Gene: Juniormint_29 Start: 25523, Stop: 25882, Start Num: 21
Candidate Starts for Juniormint_29:
(Start: 21 @25523 has 45 MA's), (Start: 53 @25610 has 2 MA's), (89, 25748), (96, 25781),

Gene: KADY_33 Start: 23002, Stop: 23352, Start Num: 19
Candidate Starts for KADY_33:
(17, 22999), (Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (54, 23077), (111, 23287),

Gene: Kachowdy_30 Start: 22578, Stop: 22880, Start Num: 38
Candidate Starts for Kachowdy_30:
(14, 22479), (Start: 19 @22536 has 3 MA's), (Start: 38 @22578 has 122 MA's), (57, 22614), (79, 22686),

Gene: Kalah2_51 Start: 44095, Stop: 44490, Start Num: 30
Candidate Starts for Kalah2_51:
(Start: 30 @44095 has 42 MA's), (47, 44137), (50, 44149), (80, 44260), (89, 44305), (98, 44347), (105, 44380), (107, 44389), (109, 44401),

Gene: Kalb97_33 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for Kalb97_33:
(Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (79, 23154),

Gene: Kalnoky_33 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Kalnoky_33:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: Kalpine_33 Start: 24261, Stop: 24569, Start Num: 59
Candidate Starts for Kalpine_33:
(11, 24057), (Start: 33 @24216 has 121 MA's), (Start: 59 @24261 has 1 MA's), (72, 24297), (75, 24306), (83, 24360), (96, 24417), (97, 24423), (105, 24459), (117, 24546),

Gene: Kari_29 Start: 25482, Stop: 25841, Start Num: 21
Candidate Starts for Kari_29:
(Start: 21 @25482 has 45 MA's), (Start: 53 @25569 has 2 MA's), (89, 25707), (96, 25740),

Gene: KashFlow_44 Start: 37870, Stop: 38244, Start Num: 30
Candidate Starts for KashFlow_44:
(Start: 30 @37870 has 42 MA's), (46, 37909), (50, 37924), (Start: 53 @37933 has 2 MA's), (80, 38035), (89, 38080), (98, 38122), (105, 38155), (107, 38164), (109, 38176),

Gene: KatherineG_32 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for KatherineG_32:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: Kazan_33 Start: 22219, Stop: 22515, Start Num: 33
Candidate Starts for Kazan_33:
(Start: 33 @22219 has 121 MA's), (61, 22273), (89, 22372), (101, 22417),

Gene: Keziacharles14_30 Start: 22093, Stop: 22422, Start Num: 33
Candidate Starts for Keziacharles14_30:

(17, 22042), (Start: 33 @22093 has 121 MA's), (Start: 43 @22111 has 28 MA's), (55, 22144), (Start: 59 @22153 has 1 MA's), (71, 22186), (72, 22189), (75, 22198), (96, 22309), (101, 22321),

Gene: KilKor_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for KilKor_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Kimba_30 Start: 23128, Stop: 23448, Start Num: 33
Candidate Starts for Kimba_30:
(Start: 32 @23125 has 28 MA's), (Start: 33 @23128 has 121 MA's), (Start: 37 @23134 has 2 MA's), (68, 23194), (72, 23206), (83, 23248), (96, 23305),

Gene: Kimona_27 Start: 20435, Stop: 20734, Start Num: 45
Candidate Starts for Kimona_27:
(Start: 15 @20345 has 2 MA's), (29, 20402), (Start: 45 @20435 has 2 MA's), (57, 20468), (85, 20564), (96, 20618),

Gene: KingCyrus_32 Start: 22832, Stop: 23176, Start Num: 24
Candidate Starts for KingCyrus_32:
(9, 22673), (Start: 24 @22832 has 16 MA's), (27, 22841), (64, 22913), (67, 22922), (95, 23048),

Gene: Kinmap_30 Start: 22035, Stop: 22355, Start Num: 33
Candidate Starts for Kinmap_30:
(Start: 33 @22035 has 121 MA's), (65, 22092), (72, 22113), (106, 22248),

Gene: Kipper29_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for Kipper29_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Klein_51 Start: 43328, Stop: 43702, Start Num: 30
Candidate Starts for Klein_51:
(Start: 30 @43328 has 42 MA's), (47, 43370), (50, 43382), (80, 43493), (89, 43538), (98, 43580), (105, 43613), (107, 43622), (109, 43634),

Gene: Klodlith_30 Start: 21951, Stop: 22319, Start Num: 33
Candidate Starts for Klodlith_30:
(11, 21792), (17, 21900), (Start: 33 @21951 has 121 MA's), (Start: 59 @21996 has 1 MA's), (68, 22020), (72, 22032), (92, 22140), (96, 22152), (101, 22182), (105, 22194), (107, 22203), (124, 22314),

Gene: Koduck_31 Start: 21634, Stop: 21939, Start Num: 33
Candidate Starts for Koduck_31:
(17, 21586), (Start: 33 @21634 has 121 MA's), (49, 21670), (101, 21838), (105, 21850), (106, 21853), (110, 21871),

Gene: Koko_33 Start: 22551, Stop: 22847, Start Num: 33
Candidate Starts for Koko_33:
(17, 22500), (Start: 33 @22551 has 121 MA's), (89, 22704), (101, 22749),

Gene: Kratio_31 Start: 28069, Stop: 28398, Start Num: 39
Candidate Starts for Kratio_31:
(Start: 39 @28069 has 51 MA's), (Start: 45 @28084 has 2 MA's), (Start: 59 @28123 has 1 MA's), (61, 28129), (68, 28150), (70, 28156), (72, 28162), (87, 28249), (92, 28276), (100, 28297),

Gene: Ksquared_29 Start: 25501, Stop: 25860, Start Num: 21
Candidate Starts for Ksquared_29:
(Start: 21 @25501 has 45 MA's), (Start: 53 @25588 has 2 MA's), (89, 25726), (96, 25759),

Gene: L5_30 Start: 21588, Stop: 21893, Start Num: 33
Candidate Starts for L5_30:
(17, 21540), (Start: 33 @21588 has 121 MA's), (49, 21624), (101, 21792), (105, 21804), (106, 21807), (110, 21825),

Gene: LBerry_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for LBerry_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: LadyBird_30 Start: 22403, Stop: 22726, Start Num: 39
Candidate Starts for LadyBird_30:
(11, 22244), (Start: 39 @22403 has 51 MA's), (Start: 52 @22430 has 27 MA's), (55, 22436), (75, 22490), (82, 22535), (96, 22604), (102, 22619), (116, 22703),

Gene: Lambert1_31 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for Lambert1_31:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Langerak_29 Start: 25469, Stop: 25828, Start Num: 21
Candidate Starts for Langerak_29:
(Start: 21 @25469 has 45 MA's), (Start: 53 @25556 has 2 MA's), (89, 25694), (96, 25727),

Gene: Larenn_31 Start: 22700, Stop: 23023, Start Num: 39
Candidate Starts for Larenn_31:
(11, 22541), (Start: 39 @22700 has 51 MA's), (Start: 52 @22727 has 27 MA's), (55, 22733), (75, 22787), (96, 22901), (116, 23000),

Gene: LarryKay_32 Start: 23049, Stop: 23354, Start Num: 38
Candidate Starts for LarryKay_32:
(17, 23001), (Start: 19 @23004 has 3 MA's), (Start: 38 @23049 has 122 MA's), (54, 23079), (111, 23289),

Gene: Larva_33 Start: 28233, Stop: 28562, Start Num: 39
Candidate Starts for Larva_33:
(Start: 39 @28233 has 51 MA's), (Start: 45 @28248 has 2 MA's), (61, 28293), (68, 28314), (70, 28320), (84, 28398), (87, 28413), (92, 28440), (100, 28461),

Gene: LastResort_32 Start: 21408, Stop: 21749, Start Num: 33
Candidate Starts for LastResort_32:
(Start: 33 @21408 has 121 MA's), (62, 21474), (66, 21486), (113, 21696), (120, 21732), (122, 21738),

Gene: Leogania_32 Start: 24566, Stop: 24916, Start Num: 24
Candidate Starts for Leogania_32:
(Start: 24 @24566 has 16 MA's), (61, 24638), (65, 24650), (82, 24716), (95, 24782), (110, 24827),

Gene: Lev2_27 Start: 22046, Stop: 22366, Start Num: 43
Candidate Starts for Lev2_27:

(Start: 15 @21956 has 2 MA's), (Start: 43 @22046 has 28 MA's), (Start: 52 @22076 has 27 MA's), (55, 22082), (89, 22208), (95, 22238), (96, 22241), (103, 22262), (111, 22295), (117, 22343), (121, 22358),

Gene: Leviathan_32 Start: 22921, Stop: 23259, Start Num: 33
Candidate Starts for Leviathan_32:
(Start: 33 @22921 has 121 MA's), (Start: 52 @22957 has 27 MA's), (55, 22963), (75, 23017), (96, 23131), (102, 23146), (116, 23230),

Gene: LilDirt_31 Start: 28195, Stop: 28524, Start Num: 39
Candidate Starts for LilDirt_31:
(Start: 39 @28195 has 51 MA's), (Start: 45 @28210 has 2 MA's), (61, 28255), (68, 28276), (70, 28282), (87, 28375), (92, 28402), (100, 28423),

Gene: LilTurb_32 Start: 22924, Stop: 23262, Start Num: 33
Candidate Starts for LilTurb_32:
(Start: 33 @22924 has 121 MA's), (Start: 52 @22960 has 27 MA's), (55, 22966), (72, 23011), (96, 23134), (102, 23149), (116, 23233),

Gene: Lilbunny_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for Lilbunny_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Lilith_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for Lilith_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: Lilleskat_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Lilleskat_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239), (107, 24260),

Gene: LionsBait_31 Start: 24193, Stop: 24477, Start Num: 53
Candidate Starts for LionsBait_31:
(Start: 52 @24190 has 27 MA's), (Start: 53 @24193 has 2 MA's), (96, 24355), (117, 24454),

Gene: LittleCherry_27 Start: 22255, Stop: 22545, Start Num: 52
Candidate Starts for LittleCherry_27:
(Start: 15 @22135 has 2 MA's), (Start: 43 @22225 has 28 MA's), (Start: 52 @22255 has 27 MA's), (55, 22261), (83, 22363), (89, 22387), (92, 22408), (96, 22420), (103, 22441), (111, 22474), (117, 22522), (121, 22537),

Gene: LittleE_55 Start: 43568, Stop: 43954, Start Num: 30
Candidate Starts for LittleE_55:
(Start: 30 @43568 has 42 MA's), (46, 43607), (50, 43622), (Start: 53 @43631 has 2 MA's), (89, 43778), (93, 43802), (98, 43820), (103, 43850), (107, 43862),

Gene: LogiBear_32 Start: 22667, Stop: 22957, Start Num: 33
Candidate Starts for LogiBear_32:
(Start: 33 @22667 has 121 MA's), (48, 22694), (49, 22700), (67, 22736), (71, 22748), (73, 22754), (83, 22787),

Gene: Lokk_33 Start: 24070, Stop: 24357, Start Num: 52
Candidate Starts for Lokk_33:

(13, 23911), (Start: 52 @24070 has 27 MA's), (96, 24235), (103, 24256), (117, 24334),

Gene: LoneWolf_31 Start: 23601, Stop: 23969, Start Num: 34
Candidate Starts for LoneWolf_31:
(20, 23559), (22, 23565), (Start: 34 @23601 has 33 MA's), (68, 23670), (71, 23679), (72, 23682), (75, 23691), (92, 23790), (101, 23832), (105, 23844), (110, 23874),

Gene: Looper_33 Start: 21405, Stop: 21746, Start Num: 33
Candidate Starts for Looper_33:
(Start: 33 @21405 has 121 MA's), (62, 21471), (66, 21483), (113, 21693), (120, 21729), (122, 21735),

Gene: Louie6_32 Start: 23050, Stop: 23352, Start Num: 38
Candidate Starts for Louie6_32:
(17, 23002), (Start: 19 @23005 has 3 MA's), (Start: 38 @23050 has 122 MA's), (54, 23080),

Gene: Lowa_32 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for Lowa_32:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: Luchador_32 Start: 22915, Stop: 23271, Start Num: 33
Candidate Starts for Luchador_32:
(11, 22756), (Start: 33 @22915 has 121 MA's), (55, 22951), (68, 22984), (75, 23005), (92, 23104), (96, 23116), (101, 23146), (107, 23167),

Gene: Lucivia_30 Start: 23122, Stop: 23445, Start Num: 32
Candidate Starts for Lucivia_30:
(Start: 32 @23122 has 28 MA's), (Start: 37 @23131 has 2 MA's), (68, 23191), (72, 23203), (83, 23245), (96, 23302),

Gene: Lucky2013_50 Start: 40559, Stop: 40945, Start Num: 30
Candidate Starts for Lucky2013_50:
(Start: 30 @40559 has 42 MA's), (46, 40598), (50, 40613), (Start: 53 @40622 has 2 MA's), (89, 40769), (93, 40793), (98, 40811), (103, 40841), (107, 40853),

Gene: Lucyedi_31 Start: 23189, Stop: 23464, Start Num: 33
Candidate Starts for Lucyedi_31:
(Start: 33 @23189 has 121 MA's), (55, 23231), (61, 23243), (65, 23255), (75, 23285), (83, 23318), (89, 23342),

Gene: LugYA_34 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for LugYA_34:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: MA5_30 Start: 22141, Stop: 22443, Start Num: 38
Candidate Starts for MA5_30:
(Start: 19 @22099 has 3 MA's), (Start: 38 @22141 has 122 MA's), (57, 22177), (96, 22327),

Gene: MK4_30 Start: 22447, Stop: 22749, Start Num: 38
Candidate Starts for MK4_30:
(14, 22348), (Start: 19 @22405 has 3 MA's), (Start: 38 @22447 has 122 MA's), (79, 22555), (92, 22621), (96, 22633),

Gene: MaCh_30 Start: 23064, Stop: 23387, Start Num: 32

Candidate Starts for MaCh_30:
(Start: 32 @23064 has 28 MA's), (Start: 37 @23073 has 2 MA's), (68, 23133), (72, 23145), (83, 23187), (96, 23244),

Gene: Mabel_30 Start: 23128, Stop: 23448, Start Num: 33
Candidate Starts for Mabel_30:
(Start: 32 @23125 has 28 MA's), (Start: 33 @23128 has 121 MA's), (Start: 37 @23134 has 2 MA's), (68, 23194), (72, 23206), (83, 23248), (96, 23305),

Gene: MadMarie_32 Start: 22965, Stop: 23267, Start Num: 38
Candidate Starts for MadMarie_32:
(17, 22917), (Start: 19 @22920 has 3 MA's), (Start: 38 @22965 has 122 MA's), (54, 22995),

Gene: Magsby_30 Start: 24737, Stop: 25117, Start Num: 18
Candidate Starts for Magsby_30:
(Start: 18 @24737 has 20 MA's), (85, 24947), (89, 24968),

Gene: Mainiac_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for Mainiac_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: Majeke_29 Start: 25491, Stop: 25850, Start Num: 21
Candidate Starts for Majeke_29:
(Start: 21 @25491 has 45 MA's), (Start: 53 @25578 has 2 MA's), (89, 25716), (96, 25749),

Gene: MajorMajor_29 Start: 21322, Stop: 21645, Start Num: 39
Candidate Starts for MajorMajor_29:
(17, 21274), (Start: 39 @21322 has 51 MA's), (Start: 52 @21349 has 27 MA's), (55, 21355), (Start: 59 @21364 has 1 MA's), (81, 21451),

Gene: MalagasyRose_33 Start: 27132, Stop: 27446, Start Num: 39
Candidate Starts for MalagasyRose_33:
(Start: 39 @27132 has 51 MA's), (74, 27225), (82, 27267), (92, 27324), (96, 27336), (104, 27357), (108, 27369), (111, 27399), (114, 27429),

Gene: Malec_31 Start: 22705, Stop: 23028, Start Num: 39
Candidate Starts for Malec_31:
(11, 22546), (Start: 39 @22705 has 51 MA's), (Start: 52 @22732 has 27 MA's), (55, 22738), (Start: 59 @22747 has 1 MA's), (75, 22792), (95, 22903), (116, 23005),

Gene: Malinsilva_34 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for Malinsilva_34:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: Malithi_29 Start: 25410, Stop: 25769, Start Num: 21
Candidate Starts for Malithi_29:
(Start: 21 @25410 has 45 MA's), (Start: 53 @25497 has 2 MA's), (89, 25635), (96, 25668),

Gene: Maminiaina_31 Start: 23549, Stop: 23914, Start Num: 33
Candidate Starts for Maminiaina_31:
(11, 23390), (Start: 33 @23549 has 121 MA's), (55, 23585), (58, 23591), (68, 23618), (72, 23630), (92, 23738), (96, 23750), (111, 23834),

Gene: Mangethe_29 Start: 25491, Stop: 25850, Start Num: 21
Candidate Starts for Mangethe_29:
(Start: 21 @25491 has 45 MA's), (Start: 53 @25578 has 2 MA's), (89, 25716), (96, 25749),

Gene: Manu_33 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Manu_33:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: MarQuardt_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for MarQuardt_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994), (63, 23012),

Gene: Marchesa_30 Start: 22576, Stop: 22878, Start Num: 38
Candidate Starts for Marchesa_30:
(14, 22477), (Start: 19 @22534 has 3 MA's), (Start: 38 @22576 has 122 MA's), (57, 22612), (79, 22684),

Gene: Margo_31 Start: 23085, Stop: 23387, Start Num: 38
Candidate Starts for Margo_31:
(Start: 19 @23040 has 3 MA's), (Start: 38 @23085 has 122 MA's), (54, 23115), (Start: 59 @23124 has 1 MA's), (75, 23166), (79, 23193),

Gene: Marie_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for Marie_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: Marius_33 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Marius_33:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: Marleymoo_52 Start: 43437, Stop: 43823, Start Num: 30
Candidate Starts for Marleymoo_52:
(Start: 30 @43437 has 42 MA's), (46, 43476), (50, 43491), (Start: 53 @43500 has 2 MA's), (89, 43647), (93, 43671), (98, 43689), (103, 43719), (107, 43731),

Gene: MarysWell_26 Start: 22303, Stop: 22593, Start Num: 52
Candidate Starts for MarysWell_26:
(7, 22033), (Start: 15 @22183 has 2 MA's), (Start: 43 @22273 has 28 MA's), (Start: 52 @22303 has 27 MA's), (55, 22309), (89, 22435), (95, 22465), (96, 22468), (103, 22489), (121, 22585),

Gene: McFly_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for McFly_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: MegTheThird_30 Start: 21950, Stop: 22312, Start Num: 33
Candidate Starts for MegTheThird_30:
(Start: 33 @21950 has 121 MA's), (65, 22010), (71, 22028), (72, 22031), (92, 22139), (96, 22151), (101, 22181), (105, 22193), (107, 22202),

Gene: Megiddo_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for Megiddo_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Melville_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Melville_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: Methuselah_31 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for Methuselah_31:
(17, 22998), (Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (54, 23076),

Gene: MiaZeal_50 Start: 40234, Stop: 40620, Start Num: 30
Candidate Starts for MiaZeal_50:
(Start: 30 @40234 has 42 MA's), (46, 40273), (50, 40288), (Start: 53 @40297 has 2 MA's), (89, 40444), (93, 40468), (98, 40486), (103, 40516), (107, 40528),

Gene: Micasa_27 Start: 22199, Stop: 22519, Start Num: 43
Candidate Starts for Micasa_27:
(Start: 15 @22109 has 2 MA's), (Start: 43 @22199 has 28 MA's), (Start: 52 @22229 has 27 MA's), (55, 22235), (83, 22337), (89, 22361), (95, 22391), (96, 22394), (103, 22415), (121, 22511),

Gene: MichelleMyBell_28 Start: 23728, Stop: 24108, Start Num: 18
Candidate Starts for MichelleMyBell_28:
(Start: 18 @23728 has 20 MA's), (85, 23938), (89, 23959),

Gene: Microwolf_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for Microwolf_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: MiculUcigas_30 Start: 22445, Stop: 22774, Start Num: 39
Candidate Starts for MiculUcigas_30:
(11, 22286), (Start: 39 @22445 has 51 MA's), (Start: 52 @22472 has 27 MA's), (55, 22478), (75, 22532), (96, 22646), (102, 22661), (116, 22745),

Gene: Midas2_27 Start: 22303, Stop: 22593, Start Num: 52
Candidate Starts for Midas2_27:
(Start: 15 @22183 has 2 MA's), (Start: 43 @22273 has 28 MA's), (Start: 52 @22303 has 27 MA's), (55, 22309), (83, 22411), (89, 22435), (92, 22456), (96, 22468), (103, 22489), (111, 22522), (117, 22570), (121, 22585),

Gene: Miko_33 Start: 24038, Stop: 24325, Start Num: 52
Candidate Starts for Miko_33:
(13, 23879), (Start: 52 @24038 has 27 MA's), (96, 24203), (103, 24224),

Gene: Milcery_27 Start: 22229, Stop: 22549, Start Num: 43
Candidate Starts for Milcery_27:
(Start: 15 @22139 has 2 MA's), (Start: 43 @22229 has 28 MA's), (Start: 52 @22259 has 27 MA's), (55, 22265), (83, 22367), (89, 22391), (92, 22412), (96, 22424), (103, 22445), (111, 22478), (117, 22526), (121, 22541),

Gene: MinecraftSteve_33 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for MinecraftSteve_33:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: Minerva_57 Start: 45156, Stop: 45551, Start Num: 30

Candidate Starts for Minerva_57:
(Start: 30 @45156 has 42 MA's), (47, 45198), (50, 45210), (80, 45321), (89, 45366), (98, 45408), (105, 45441), (107, 45450), (109, 45462),

Gene: Minispark_28 Start: 21862, Stop: 22227, Start Num: 33
Candidate Starts for Minispark_28:
(17, 21811), (Start: 33 @21862 has 121 MA's), (66, 21925), (68, 21931), (69, 21934), (93, 22054), (99, 22084), (101, 22093), (105, 22105),

Gene: Miryou_32 Start: 28349, Stop: 28684, Start Num: 39
Candidate Starts for Miryou_32:
(Start: 39 @28349 has 51 MA's), (Start: 45 @28364 has 2 MA's), (61, 28409), (70, 28436), (72, 28442), (92, 28556),

Gene: Misomonster_34 Start: 23046, Stop: 23351, Start Num: 38
Candidate Starts for Misomonster_34:
(17, 22998), (Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (54, 23076), (111, 23286),

Gene: MissWhite_30 Start: 21529, Stop: 21855, Start Num: 37
Candidate Starts for MissWhite_30:
(Start: 37 @21529 has 2 MA's), (Start: 39 @21532 has 51 MA's), (Start: 52 @21559 has 27 MA's), (55, 21565), (71, 21607), (79, 21655), (96, 21733), (116, 21832),

Gene: MoneyMay_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for MoneyMay_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: Montavir_31 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for Montavir_31:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: MuchMore_34 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for MuchMore_34:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: Mulciber_30 Start: 23067, Stop: 23390, Start Num: 32
Candidate Starts for Mulciber_30:
(Start: 32 @23067 has 28 MA's), (Start: 37 @23076 has 2 MA's), (68, 23136), (72, 23148), (83, 23190), (96, 23247),

Gene: Munch_30 Start: 23073, Stop: 23396, Start Num: 32
Candidate Starts for Munch_30:
(Start: 32 @23073 has 28 MA's), (Start: 37 @23082 has 2 MA's), (68, 23142), (72, 23154), (83, 23196), (96, 23253),

Gene: Mwanjiwa_34 Start: 28924, Stop: 29271, Start Num: 31
Candidate Starts for Mwanjiwa_34:
(Start: 21 @28897 has 45 MA's), (Start: 23 @28900 has 2 MA's), (Start: 26 @28912 has 1 MA's), (Start: 31 @28924 has 3 MA's), (89, 29131), (96, 29164), (110, 29206),

Gene: MyraDee_28 Start: 20416, Stop: 20760, Start Num: 24
Candidate Starts for MyraDee_28:

(Start: 24 @20416 has 16 MA's), (76, 20533), (111, 20689),

Gene: Myxus_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Myxus_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: NaSiaTalie_30 Start: 22443, Stop: 22772, Start Num: 39
Candidate Starts for NaSiaTalie_30:
(11, 22284), (Start: 39 @22443 has 51 MA's), (Start: 52 @22470 has 27 MA's), (55, 22476), (75, 22530), (82, 22575), (116, 22743),

Gene: Naca_27 Start: 22111, Stop: 22401, Start Num: 52
Candidate Starts for Naca_27:
(Start: 15 @21991 has 2 MA's), (Start: 43 @22081 has 28 MA's), (Start: 52 @22111 has 27 MA's), (55, 22117), (89, 22243), (95, 22273), (96, 22276), (103, 22297), (111, 22330), (121, 22393),

Gene: NearlyHeadless_27 Start: 21248, Stop: 21529, Start Num: 36
Candidate Starts for NearlyHeadless_27:
(Start: 36 @21248 has 11 MA's), (Start: 52 @21275 has 27 MA's), (55, 21281), (65, 21305), (75, 21335), (113, 21482), (115, 21497), (119, 21509), (121, 21518),

Gene: Nebkiss_37 Start: 31571, Stop: 31879, Start Num: 31
Candidate Starts for Nebkiss_37:
(Start: 31 @31571 has 3 MA's), (49, 31619), (51, 31625), (56, 31637), (72, 31682), (86, 31766), (90, 31787), (98, 31820),

Gene: Nebulosus_32 Start: 21405, Stop: 21746, Start Num: 33
Candidate Starts for Nebulosus_32:
(Start: 33 @21405 has 121 MA's), (62, 21471), (66, 21483), (113, 21693), (120, 21729), (122, 21735),

Gene: Necropolis_29 Start: 25482, Stop: 25841, Start Num: 21
Candidate Starts for Necropolis_29:
(Start: 21 @25482 has 45 MA's), (Start: 53 @25569 has 2 MA's), (89, 25707), (96, 25740),

Gene: Nedarya_31 Start: 22021, Stop: 22362, Start Num: 33
Candidate Starts for Nedarya_31:
(Start: 33 @22021 has 121 MA's), (51, 22063), (62, 22087), (71, 22114), (77, 22132), (111, 22285), (120, 22345), (122, 22351),

Gene: Neeharika16_33 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for Neeharika16_33:
(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: Neighly_33 Start: 28247, Stop: 28561, Start Num: 45
Candidate Starts for Neighly_33:
(Start: 39 @28232 has 51 MA's), (Start: 45 @28247 has 2 MA's), (61, 28292), (68, 28313), (70, 28319), (84, 28397), (87, 28412), (92, 28439), (100, 28460),

Gene: Nekros_49 Start: 42641, Stop: 43027, Start Num: 30
Candidate Starts for Nekros_49:
(Start: 30 @42641 has 42 MA's), (46, 42680), (50, 42695), (Start: 53 @42704 has 2 MA's), (89, 42851), (93, 42875), (98, 42893), (103, 42923), (107, 42935),

Gene: Newrala_33 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for Newrala_33:
(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: Nibley_45 Start: 38663, Stop: 39037, Start Num: 30
Candidate Starts for Nibley_45:
(Start: 30 @38663 has 42 MA's), (46, 38702), (50, 38717), (Start: 53 @38726 has 2 MA's), (89, 38873), (93, 38897), (98, 38915), (103, 38945), (107, 38957),

Gene: NicoleTera_34 Start: 24306, Stop: 24629, Start Num: 39
Candidate Starts for NicoleTera_34:
(11, 24147), (Start: 39 @24306 has 51 MA's), (Start: 52 @24333 has 27 MA's), (55, 24339), (62, 24354), (72, 24384), (79, 24429), (116, 24606),

Gene: NihilNomen_50 Start: 43826, Stop: 44221, Start Num: 30
Candidate Starts for NihilNomen_50:
(Start: 30 @43826 has 42 MA's), (47, 43868), (50, 43880), (80, 43991), (89, 44036), (98, 44078), (105, 44111), (107, 44120), (109, 44132),

Gene: Noella_31 Start: 23060, Stop: 23362, Start Num: 38
Candidate Starts for Noella_31:
(Start: 19 @23015 has 3 MA's), (Start: 38 @23060 has 122 MA's), (54, 23090), (Start: 59 @23099 has 1 MA's), (75, 23141), (79, 23168),

Gene: Norbert_30 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for Norbert_30:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: NothingSpecial_32 Start: 24442, Stop: 24783, Start Num: 24
Candidate Starts for NothingSpecial_32:
(9, 24283), (Start: 24 @24442 has 16 MA's), (117, 24760),

Gene: Odette_51 Start: 43068, Stop: 43442, Start Num: 30
Candidate Starts for Odette_51:
(Start: 30 @43068 has 42 MA's), (47, 43110), (50, 43122), (80, 43233), (89, 43278), (98, 43320), (105, 43353), (107, 43362), (109, 43374),

Gene: OkiRoe_32 Start: 28365, Stop: 28691, Start Num: 39
Candidate Starts for OkiRoe_32:
(Start: 39 @28365 has 51 MA's), (Start: 45 @28380 has 2 MA's), (61, 28425), (70, 28452), (72, 28458), (92, 28572),

Gene: OlanP_32 Start: 23227, Stop: 23529, Start Num: 38
Candidate Starts for OlanP_32:
(Start: 19 @23182 has 3 MA's), (Start: 38 @23227 has 122 MA's), (79, 23335),

Gene: Ollie_32 Start: 22833, Stop: 23135, Start Num: 38
Candidate Starts for Ollie_32:
(17, 22785), (Start: 19 @22788 has 3 MA's), (Start: 38 @22833 has 122 MA's), (54, 22863), (Start: 59 @22872 has 1 MA's),

Gene: Omega_55 Start: 44873, Stop: 45259, Start Num: 30
Candidate Starts for Omega_55:
(Start: 30 @44873 has 42 MA's), (46, 44912), (50, 44927), (Start: 53 @44936 has 2 MA's), (89, 45083), (93, 45107), (98, 45125), (103, 45155), (107, 45167),

Gene: Onglai_31 Start: 22342, Stop: 22710, Start Num: 34
Candidate Starts for Onglai_31:
(16, 22282), (Start: 34 @22342 has 33 MA's), (55, 22378), (58, 22384), (66, 22405), (72, 22423), (75, 22432), (92, 22531), (96, 22543), (99, 22564), (101, 22573), (107, 22594),

Gene: Oofda_32 Start: 21379, Stop: 21720, Start Num: 33
Candidate Starts for Oofda_32:
(Start: 33 @21379 has 121 MA's), (62, 21445), (66, 21457), (113, 21667), (120, 21703), (122, 21709),

Gene: Optimus_56 Start: 44741, Stop: 45136, Start Num: 30
Candidate Starts for Optimus_56:
(Start: 30 @44741 has 42 MA's), (47, 44783), (50, 44795), (80, 44906), (89, 44951), (98, 44993), (105, 45026), (107, 45035), (109, 45047),

Gene: Orange_30 Start: 23073, Stop: 23396, Start Num: 32
Candidate Starts for Orange_30:
(Start: 32 @23073 has 28 MA's), (Start: 37 @23082 has 2 MA's), (68, 23142), (72, 23154), (83, 23196), (96, 23253),

Gene: P28Green_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for P28Green_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: PGHhamlin_34 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for PGHhamlin_34:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: PP_39 Start: 28078, Stop: 28395, Start Num: 39
Candidate Starts for PP_39:
(11, 27919), (Start: 39 @28078 has 51 MA's), (Start: 52 @28105 has 27 MA's), (55, 28111), (Start: 59 @28120 has 1 MA's), (63, 28129), (79, 28201), (83, 28222), (96, 28279),

Gene: PackMan_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for PackMan_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: PainterBoy_31 Start: 23126, Stop: 23401, Start Num: 33
Candidate Starts for PainterBoy_31:
(Start: 33 @23126 has 121 MA's), (55, 23168), (61, 23180), (65, 23192), (75, 23222), (83, 23255), (89, 23279),

Gene: Panamaxus_30 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for Panamaxus_30:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Paola_32 Start: 28364, Stop: 28699, Start Num: 39

Candidate Starts for Paola_32:
(Start: 39 @28364 has 51 MA's), (Start: 45 @28379 has 2 MA's), (61, 28424), (70, 28451), (72, 28457), (92, 28571), (100, 28592),

Gene: Parmesanjohn_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Parmesanjohn_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: Pawn_32 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Pawn_32:
(Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (79, 23155),

Gene: PeanutPie_29 Start: 25483, Stop: 25842, Start Num: 21
Candidate Starts for PeanutPie_29:
(10, 25339), (Start: 21 @25483 has 45 MA's), (89, 25708), (96, 25741),

Gene: Pembroke_32 Start: 22964, Stop: 23266, Start Num: 38
Candidate Starts for Pembroke_32:
(17, 22916), (Start: 19 @22919 has 3 MA's), (Start: 38 @22964 has 122 MA's), (54, 22994),

Gene: Penny1_32 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for Penny1_32:
(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: Petersenfast_30 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Petersenfast_30:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: PetterN_28 Start: 21515, Stop: 21835, Start Num: 43
Candidate Starts for PetterN_28:
(Start: 15 @21425 has 2 MA's), (Start: 43 @21515 has 28 MA's), (Start: 52 @21545 has 27 MA's), (55, 21551), (89, 21677), (96, 21710), (103, 21731), (111, 21764), (115, 21803), (121, 21827),

Gene: Ph8s_31 Start: 21176, Stop: 21445, Start Num: 32
Candidate Starts for Ph8s_31:
(Start: 32 @21176 has 28 MA's), (56, 21215), (Start: 59 @21221 has 1 MA's), (72, 21257),

Gene: Phaeder_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Phaeder_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Phalm_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for Phalm_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Phantastic_30 Start: 22482, Stop: 22784, Start Num: 38
Candidate Starts for Phantastic_30:
(Start: 19 @22446 has 3 MA's), (Start: 38 @22482 has 122 MA's), (Start: 59 @22521 has 1 MA's), (79, 22590),

Gene: Pharaoh_30 Start: 23508, Stop: 23873, Start Num: 24

Candidate Starts for Pharaoh_30:
(Start: 24 @23508 has 16 MA's), (41, 23544), (51, 23559), (67, 23598), (82, 23658), (91, 23706), (110, 23769),

Gene: Phegasus_29 Start: 25491, Stop: 25850, Start Num: 21
Candidate Starts for Phegasus_29:
(Start: 21 @25491 has 45 MA's), (Start: 53 @25578 has 2 MA's), (89, 25716), (96, 25749),

Gene: Phineas_29 Start: 25856, Stop: 26215, Start Num: 21
Candidate Starts for Phineas_29:
(Start: 21 @25856 has 45 MA's), (Start: 53 @25943 has 2 MA's), (89, 26081), (96, 26114),

Gene: PhishRPhriends_31 Start: 22231, Stop: 22533, Start Num: 38
Candidate Starts for PhishRPhriends_31:
(Start: 19 @22186 has 3 MA's), (Start: 38 @22231 has 122 MA's), (79, 22339),

Gene: Phlei_25 Start: 24001, Stop: 24303, Start Num: 42
Candidate Starts for Phlei_25:
(42, 24001), (63, 24055), (72, 24082),

Gene: Phlorence_27 Start: 22333, Stop: 22653, Start Num: 43
Candidate Starts for Phlorence_27:
(Start: 15 @22243 has 2 MA's), (Start: 43 @22333 has 28 MA's), (Start: 52 @22363 has 27 MA's), (55, 22369), (75, 22423), (89, 22495), (95, 22525), (96, 22528), (103, 22549), (111, 22582), (117, 22630), (121, 22645),

Gene: Phloss_27 Start: 24167, Stop: 24547, Start Num: 18
Candidate Starts for Phloss_27:
(Start: 18 @24167 has 20 MA's), (85, 24377), (89, 24398),

Gene: Phoebe_32 Start: 22961, Stop: 23263, Start Num: 38
Candidate Starts for Phoebe_32:
(17, 22913), (Start: 19 @22916 has 3 MA's), (Start: 38 @22961 has 122 MA's), (54, 22991),

Gene: Phoebus_50 Start: 44027, Stop: 44422, Start Num: 30
Candidate Starts for Phoebus_50:
(Start: 30 @44027 has 42 MA's), (47, 44069), (50, 44081), (80, 44192), (89, 44237), (98, 44279), (105, 44312), (107, 44321), (109, 44333),

Gene: Phonnegut_32 Start: 24041, Stop: 24409, Start Num: 34
Candidate Starts for Phonnegut_32:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (66, 24104), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (99, 24263), (101, 24272),

Gene: Phoxy_32 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Phoxy_32:
(17, 22999), (Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (54, 23077),

Gene: Phranny_33 Start: 23039, Stop: 23341, Start Num: 38
Candidate Starts for Phranny_33:
(Start: 19 @22994 has 3 MA's), (Start: 38 @23039 has 122 MA's), (79, 23147),

Gene: PickleBack_27 Start: 22047, Stop: 22367, Start Num: 43

Candidate Starts for PickleBack_27:
(Start: 15 @21957 has 2 MA's), (Start: 43 @22047 has 28 MA's), (Start: 52 @22077 has 27 MA's), (55, 22083), (75, 22137), (89, 22209), (95, 22239), (96, 22242), (103, 22263), (111, 22296), (117, 22344), (121, 22359),

Gene: Pioneer_32 Start: 24041, Stop: 24409, Start Num: 34
Candidate Starts for Pioneer_32:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (66, 24104), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (99, 24263), (101, 24272),

Gene: Pipsqueaks_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Pipsqueaks_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: Piro94_31 Start: 22904, Stop: 23233, Start Num: 39
Candidate Starts for Piro94_31:
(11, 22745), (Start: 39 @22904 has 51 MA's), (Start: 52 @22931 has 27 MA's), (55, 22937), (75, 22991), (82, 23036), (116, 23204),

Gene: Pistachio_31 Start: 22071, Stop: 22373, Start Num: 38
Candidate Starts for Pistachio_31:
(14, 21969), (Start: 19 @22026 has 3 MA's), (Start: 38 @22071 has 122 MA's), (54, 22101), (Start: 59 @22110 has 1 MA's),

Gene: Pmask_33 Start: 22207, Stop: 22503, Start Num: 33
Candidate Starts for Pmask_33:
(Start: 33 @22207 has 121 MA's), (61, 22261), (89, 22360), (101, 22405),

Gene: Pocahontas_31 Start: 23056, Stop: 23358, Start Num: 38
Candidate Starts for Pocahontas_31:
(Start: 19 @23011 has 3 MA's), (Start: 38 @23056 has 122 MA's), (54, 23086), (Start: 59 @23095 has 1 MA's), (75, 23137), (79, 23164),

Gene: Polkaroo_29 Start: 25501, Stop: 25860, Start Num: 21
Candidate Starts for Polkaroo_29:
(Start: 21 @25501 has 45 MA's), (Start: 53 @25588 has 2 MA's), (89, 25726), (96, 25759),

Gene: Polyphemus_33 Start: 22205, Stop: 22501, Start Num: 33
Candidate Starts for Polyphemus_33:
(Start: 33 @22205 has 121 MA's), (61, 22259), (89, 22358), (101, 22403),

Gene: Popcicle_31 Start: 23056, Stop: 23358, Start Num: 38
Candidate Starts for Popcicle_31:
(Start: 19 @23011 has 3 MA's), (Start: 38 @23056 has 122 MA's), (54, 23086), (Start: 59 @23095 has 1 MA's), (75, 23137), (79, 23164),

Gene: Porcelain_49 Start: 40234, Stop: 40620, Start Num: 30
Candidate Starts for Porcelain_49:
(Start: 30 @40234 has 42 MA's), (46, 40273), (50, 40288), (Start: 53 @40297 has 2 MA's), (89, 40444), (93, 40468), (98, 40486), (103, 40516), (107, 40528),

Gene: PotatoSplit_33 Start: 22963, Stop: 23265, Start Num: 38
Candidate Starts for PotatoSplit_33:

(17, 22915), (Start: 19 @22918 has 3 MA's), (Start: 38 @22963 has 122 MA's), (54, 22993),

Gene: Pound_53 Start: 45604, Stop: 45999, Start Num: 30
Candidate Starts for Pound_53:
(Start: 30 @45604 has 42 MA's), (47, 45646), (50, 45658), (80, 45769), (89, 45814), (98, 45856), (105, 45889), (107, 45898), (109, 45910),

Gene: Power_30 Start: 22350, Stop: 22691, Start Num: 24
Candidate Starts for Power_30:
(Start: 24 @22350 has 16 MA's), (64, 22431), (67, 22440), (95, 22566), (117, 22668),

Gene: Priamo_33 Start: 22256, Stop: 22552, Start Num: 33
Candidate Starts for Priamo_33:
(Start: 33 @22256 has 121 MA's), (58, 22304), (61, 22310), (89, 22409), (101, 22454),

Gene: Prinashe11_27 Start: 22192, Stop: 22512, Start Num: 43
Candidate Starts for Prinashe11_27:
(Start: 15 @22102 has 2 MA's), (Start: 43 @22192 has 28 MA's), (Start: 52 @22222 has 27 MA's), (55, 22228), (83, 22330), (89, 22354), (92, 22375), (96, 22387), (103, 22408), (111, 22441), (117, 22489), (121, 22504),

Gene: Priya_32 Start: 24075, Stop: 24443, Start Num: 34
Candidate Starts for Priya_32:
(16, 24015), (Start: 34 @24075 has 33 MA's), (55, 24111), (58, 24117), (72, 24156), (75, 24165), (92, 24264), (96, 24276), (101, 24306), (105, 24318), (110, 24348),

Gene: Psycho_33 Start: 28363, Stop: 28692, Start Num: 39
Candidate Starts for Psycho_33:
(Start: 39 @28363 has 51 MA's), (Start: 45 @28378 has 2 MA's), (61, 28423), (68, 28444), (70, 28450), (84, 28528), (87, 28543), (92, 28570), (100, 28591),

Gene: Pukovnik_32 Start: 23927, Stop: 24250, Start Num: 39
Candidate Starts for Pukovnik_32:
(11, 23768), (Start: 39 @23927 has 51 MA's), (Start: 52 @23954 has 27 MA's), (55, 23960), (76, 24017), (95, 24125), (96, 24128), (101, 24140), (116, 24227),

Gene: Puppy_31 Start: 22141, Stop: 22443, Start Num: 38
Candidate Starts for Puppy_31:
(14, 22039), (Start: 19 @22096 has 3 MA's), (Start: 38 @22141 has 122 MA's), (54, 22171), (Start: 59 @22180 has 1 MA's),

Gene: PurpleHaze_32 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for PurpleHaze_32:
(Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (79, 23154),

Gene: Pygmy_31 Start: 27324, Stop: 27683, Start Num: 21
Candidate Starts for Pygmy_31:
(Start: 21 @27324 has 45 MA's), (Start: 53 @27411 has 2 MA's), (89, 27549), (96, 27582),

Gene: Qobbit_32 Start: 24038, Stop: 24406, Start Num: 34
Candidate Starts for Qobbit_32:
(16, 23978), (Start: 34 @24038 has 33 MA's), (55, 24074), (58, 24080), (72, 24119), (75, 24128), (92, 24227), (96, 24239), (101, 24269), (105, 24281), (110, 24311),

Gene: QueenB2_30 Start: 22468, Stop: 22755, Start Num: 52
Candidate Starts for QueenB2_30:
(13, 22309), (Start: 52 @22468 has 27 MA's), (96, 22633), (103, 22654), (117, 22732),

Gene: QueenBeesly_30 Start: 22350, Stop: 22637, Start Num: 52
Candidate Starts for QueenBeesly_30:
(13, 22191), (Start: 52 @22350 has 27 MA's), (96, 22515), (103, 22536), (117, 22614),

Gene: QueenHazel_28 Start: 25657, Stop: 26001, Start Num: 23
Candidate Starts for QueenHazel_28:
(2, 25192), (5, 25345), (6, 25414), (10, 25510), (Start: 21 @25654 has 45 MA's), (Start: 23 @25657 has 2 MA's), (83, 25840), (85, 25843), (89, 25864), (96, 25897),

Gene: QuinnKiro_30 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for QuinnKiro_30:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Quokka_28 Start: 21322, Stop: 21645, Start Num: 39
Candidate Starts for Quokka_28:
(17, 21274), (Start: 39 @21322 has 51 MA's), (Start: 52 @21349 has 27 MA's), (55, 21355), (Start: 59 @21364 has 1 MA's), (81, 21451),

Gene: Rachaly_33 Start: 24066, Stop: 24353, Start Num: 52
Candidate Starts for Rachaly_33:
(13, 23907), (Start: 52 @24066 has 27 MA's), (96, 24231), (103, 24252), (117, 24330),

Gene: Rahalelujah_29 Start: 21862, Stop: 22227, Start Num: 33
Candidate Starts for Rahalelujah_29:
(17, 21811), (Start: 33 @21862 has 121 MA's), (66, 21925), (68, 21931), (69, 21934), (93, 22054), (99, 22084), (101, 22093), (105, 22105),

Gene: Ravana_32 Start: 21369, Stop: 21710, Start Num: 33
Candidate Starts for Ravana_32:
(Start: 33 @21369 has 121 MA's), (62, 21435), (66, 21447), (113, 21657), (120, 21693), (122, 21699),

Gene: ReMo_32 Start: 21405, Stop: 21746, Start Num: 33
Candidate Starts for ReMo_32:
(Start: 33 @21405 has 121 MA's), (62, 21471), (66, 21483), (113, 21693), (120, 21729), (122, 21735),

Gene: Rearden_45 Start: 39845, Stop: 40225, Start Num: 30
Candidate Starts for Rearden_45:
(Start: 30 @39845 has 42 MA's), (46, 39884), (50, 39899), (62, 39929), (88, 40052), (89, 40055), (93, 40079), (98, 40097), (103, 40127), (107, 40139),

Gene: Reba_33 Start: 22712, Stop: 23014, Start Num: 38
Candidate Starts for Reba_33:
(Start: 19 @22667 has 3 MA's), (Start: 38 @22712 has 122 MA's), (79, 22820),

Gene: Rebel_27 Start: 23579, Stop: 23959, Start Num: 18
Candidate Starts for Rebel_27:
(Start: 18 @23579 has 20 MA's), (85, 23789), (89, 23810),

Gene: Redno2_49 Start: 40812, Stop: 41186, Start Num: 30
Candidate Starts for Redno2_49:
(Start: 30 @40812 has 42 MA's), (46, 40851), (50, 40866), (Start: 53 @40875 has 2 MA's), (89, 41022), (93, 41046), (98, 41064), (103, 41094), (107, 41106),

Gene: Remus_32 Start: 21369, Stop: 21710, Start Num: 33
Candidate Starts for Remus_32:
(Start: 33 @21369 has 121 MA's), (62, 21435), (66, 21447), (113, 21657), (120, 21693), (122, 21699),

Gene: ResDef_31 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for ResDef_31:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Retro23_30 Start: 22558, Stop: 22845, Start Num: 52
Candidate Starts for Retro23_30:
(13, 22399), (Start: 52 @22558 has 27 MA's), (96, 22723), (103, 22744), (117, 22822),

Gene: Rifter_33 Start: 22199, Stop: 22495, Start Num: 33
Candidate Starts for Rifter_33:
(17, 22148), (Start: 33 @22199 has 121 MA's), (58, 22247), (89, 22352), (101, 22397),

Gene: Roary_27 Start: 21197, Stop: 21478, Start Num: 36
Candidate Starts for Roary_27:
(Start: 36 @21197 has 11 MA's), (Start: 52 @21224 has 27 MA's), (55, 21230), (65, 21254), (75, 21284), (89, 21341), (113, 21431), (115, 21446), (119, 21458), (121, 21467),

Gene: Rockstar_30 Start: 22455, Stop: 22757, Start Num: 38
Candidate Starts for Rockstar_30:
(14, 22356), (Start: 19 @22413 has 3 MA's), (Start: 38 @22455 has 122 MA's), (79, 22563),

Gene: Roimos_30 Start: 22494, Stop: 22796, Start Num: 38
Candidate Starts for Roimos_30:
(14, 22395), (Start: 19 @22452 has 3 MA's), (Start: 38 @22494 has 122 MA's), (57, 22530), (79, 22602),

Gene: Roksolana_33 Start: 22227, Stop: 22523, Start Num: 33
Candidate Starts for Roksolana_33:
(17, 22176), (Start: 33 @22227 has 121 MA's), (89, 22380), (101, 22425),

Gene: Rosalind_32 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for Rosalind_32:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: Rummer_32 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Rummer_32:
(17, 22999), (Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (54, 23077),

Gene: RyeScarlet_32 Start: 24012, Stop: 24380, Start Num: 34
Candidate Starts for RyeScarlet_32:
(16, 23952), (Start: 34 @24012 has 33 MA's), (55, 24048), (58, 24054), (66, 24075), (72, 24093), (75, 24102), (92, 24201), (96, 24213), (99, 24234), (101, 24243),

Gene: Sabia_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for Sabia_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: Sabinator_32 Start: 22961, Stop: 23263, Start Num: 38
Candidate Starts for Sabinator_32:
(17, 22913), (Start: 19 @22916 has 3 MA's), (Start: 38 @22961 has 122 MA's), (54, 22991),

Gene: Sachima_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Sachima_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Saintus_27 Start: 21213, Stop: 21494, Start Num: 36
Candidate Starts for Saintus_27:
(Start: 36 @21213 has 11 MA's), (Start: 52 @21240 has 27 MA's), (55, 21246), (65, 21270), (113, 21447), (115, 21462), (119, 21474), (121, 21483),

Gene: Salz_30 Start: 23064, Stop: 23387, Start Num: 32
Candidate Starts for Salz_30:
(Start: 32 @23064 has 28 MA's), (Start: 37 @23073 has 2 MA's), (68, 23133), (72, 23145), (83, 23187), (96, 23244),

Gene: Saskia_30 Start: 23067, Stop: 23390, Start Num: 32
Candidate Starts for Saskia_30:
(Start: 32 @23067 has 28 MA's), (Start: 33 @23070 has 121 MA's), (Start: 37 @23076 has 2 MA's), (68, 23136), (72, 23148), (83, 23190), (96, 23247),

Gene: SaturnRing_30 Start: 22524, Stop: 22826, Start Num: 38
Candidate Starts for SaturnRing_30:
(14, 22422), (Start: 19 @22479 has 3 MA's), (Start: 38 @22524 has 122 MA's), (54, 22554), (Start: 59 @22563 has 1 MA's),

Gene: Schatzie_48 Start: 42816, Stop: 43190, Start Num: 30
Candidate Starts for Schatzie_48:
(Start: 30 @42816 has 42 MA's), (47, 42858), (50, 42870), (80, 42981), (89, 43026), (98, 43068), (105, 43101), (107, 43110), (109, 43122),

Gene: Scherzo_32 Start: 24041, Stop: 24409, Start Num: 34
Candidate Starts for Scherzo_32:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (66, 24104), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (99, 24263), (101, 24272),

Gene: Schnauzer_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Schnauzer_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: Scorpia_28 Start: 21518, Stop: 21838, Start Num: 43
Candidate Starts for Scorpia_28:
(Start: 15 @21428 has 2 MA's), (Start: 43 @21518 has 28 MA's), (Start: 52 @21548 has 27 MA's), (55, 21554), (89, 21680), (95, 21710), (96, 21713), (103, 21734), (111, 21767), (121, 21830),

Gene: Scout_30 Start: 21825, Stop: 22127, Start Num: 38
Candidate Starts for Scout_30:
(14, 21726), (Start: 19 @21783 has 3 MA's), (Start: 38 @21825 has 122 MA's), (57, 21861), (79, 21933),

Gene: SemperFi_32 Start: 22767, Stop: 23054, Start Num: 52
Candidate Starts for SemperFi_32:
(13, 22608), (Start: 52 @22767 has 27 MA's), (96, 22932), (103, 22953), (117, 23031),

Gene: Serenity_29 Start: 21447, Stop: 21770, Start Num: 39
Candidate Starts for Serenity_29:
(17, 21399), (Start: 39 @21447 has 51 MA's), (Start: 52 @21474 has 27 MA's), (55, 21480), (76, 21537), (81, 21576), (116, 21747),

Gene: Shaboozey_43 Start: 37604, Stop: 37990, Start Num: 30
Candidate Starts for Shaboozey_43:
(Start: 30 @37604 has 42 MA's), (46, 37643), (50, 37658), (Start: 53 @37667 has 2 MA's), (89, 37814), (93, 37838), (98, 37856), (103, 37886), (107, 37898),

Gene: Sham4_30 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Sham4_30:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: ShayRa_33 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for ShayRa_33:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: SheaKeira_30 Start: 21980, Stop: 22342, Start Num: 33
Candidate Starts for SheaKeira_30:
(17, 21929), (Start: 33 @21980 has 121 MA's), (68, 22049), (72, 22061), (92, 22169), (107, 22232),

Gene: Sheen_31 Start: 25298, Stop: 25588, Start Num: 40
Candidate Starts for Sheen_31:
(Start: 40 @25298 has 1 MA's), (Start: 59 @25334 has 1 MA's), (83, 25415),

Gene: Shep_30 Start: 21540, Stop: 21842, Start Num: 38
Candidate Starts for Shep_30:
(14, 21441), (Start: 19 @21498 has 3 MA's), (Start: 38 @21540 has 122 MA's), (57, 21576), (79, 21648),

Gene: Shipwreck_31 Start: 27299, Stop: 27658, Start Num: 21
Candidate Starts for Shipwreck_31:
(Start: 21 @27299 has 45 MA's), (Start: 53 @27386 has 2 MA's), (89, 27524), (96, 27557),

Gene: Shweta_27 Start: 23918, Stop: 24298, Start Num: 18
Candidate Starts for Shweta_27:
(Start: 18 @23918 has 20 MA's), (85, 24128), (89, 24149),

Gene: Silvafighter_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Silvafighter_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: SimranZ1_36 Start: 29091, Stop: 29438, Start Num: 31
Candidate Starts for SimranZ1_36:
(Start: 21 @29064 has 45 MA's), (Start: 24 @29070 has 16 MA's), (Start: 26 @29079 has 1 MA's), (Start: 31 @29091 has 3 MA's), (89, 29298), (96, 29331), (110, 29373),

Gene: Sknot_30 Start: 22446, Stop: 22775, Start Num: 39
Candidate Starts for Sknot_30:
(11, 22287), (Start: 39 @22446 has 51 MA's), (Start: 52 @22473 has 27 MA's), (55, 22479), (75, 22533), (96, 22647), (102, 22662), (116, 22746),

Gene: Smeadley_27 Start: 21230, Stop: 21511, Start Num: 36
Candidate Starts for Smeadley_27:
(Start: 36 @21230 has 11 MA's), (Start: 52 @21257 has 27 MA's), (55, 21263), (65, 21287), (75, 21317), (113, 21464), (115, 21479), (119, 21491), (121, 21500),

Gene: Smeagan_32 Start: 22924, Stop: 23262, Start Num: 33
Candidate Starts for Smeagan_32:
(Start: 33 @22924 has 121 MA's), (Start: 52 @22960 has 27 MA's), (55, 22966), (72, 23011), (96, 23134), (102, 23149), (116, 23233),

Gene: SmellyB_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for SmellyB_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Smurph_30 Start: 24740, Stop: 25120, Start Num: 18
Candidate Starts for Smurph_30:
(Start: 18 @24740 has 20 MA's), (85, 24950), (89, 24971),

Gene: SnapTap_30 Start: 22410, Stop: 22697, Start Num: 52
Candidate Starts for SnapTap_30:
(13, 22251), (Start: 52 @22410 has 27 MA's), (96, 22575), (103, 22596), (117, 22674),

Gene: Snape_30 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Snape_30:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: Snekmaggedon_27 Start: 23790, Stop: 24170, Start Num: 18
Candidate Starts for Snekmaggedon_27:
(Start: 18 @23790 has 20 MA's), (85, 24000), (89, 24021),

Gene: Snickers_32 Start: 22937, Stop: 23239, Start Num: 38
Candidate Starts for Snickers_32:
(17, 22889), (Start: 19 @22892 has 3 MA's), (Start: 38 @22937 has 122 MA's), (54, 22967),

Gene: SoSeph_32 Start: 28510, Stop: 28845, Start Num: 39
Candidate Starts for SoSeph_32:
(Start: 39 @28510 has 51 MA's), (Start: 45 @28525 has 2 MA's), (61, 28570), (70, 28597), (72, 28603), (92, 28717),

Gene: SoYo_32 Start: 22874, Stop: 23176, Start Num: 38
Candidate Starts for SoYo_32:
(17, 22826), (Start: 19 @22829 has 3 MA's), (Start: 38 @22874 has 122 MA's), (54, 22904),

Gene: SoilDragon_32 Start: 22651, Stop: 22953, Start Num: 38
Candidate Starts for SoilDragon_32:
(17, 22603), (Start: 19 @22606 has 3 MA's), (Start: 38 @22651 has 122 MA's), (54, 22681), (Start: 59 @22690 has 1 MA's),

Gene: Sonah_29 Start: 25472, Stop: 25831, Start Num: 21
Candidate Starts for Sonah_29:
(Start: 21 @25472 has 45 MA's), (Start: 53 @25559 has 2 MA's), (89, 25697), (96, 25730),

Gene: SororFago_30 Start: 21704, Stop: 21997, Start Num: 33
Candidate Starts for SororFago_30:
(11, 21545), (Start: 33 @21704 has 121 MA's),

Gene: Soshari_34 Start: 23046, Stop: 23348, Start Num: 38
Candidate Starts for Soshari_34:
(17, 22998), (Start: 19 @23001 has 3 MA's), (Start: 38 @23046 has 122 MA's), (54, 23076),

Gene: Soups_32 Start: 21527, Stop: 21868, Start Num: 33
Candidate Starts for Soups_32:
(Start: 33 @21527 has 121 MA's), (62, 21593), (66, 21605), (113, 21815), (120, 21851), (122, 21857),

Gene: Spike509_32 Start: 23047, Stop: 23349, Start Num: 38
Candidate Starts for Spike509_32:
(17, 22999), (Start: 19 @23002 has 3 MA's), (Start: 38 @23047 has 122 MA's), (54, 23077),

Gene: SpongeBob_27 Start: 23790, Stop: 24170, Start Num: 18
Candidate Starts for SpongeBob_27:
(Start: 18 @23790 has 20 MA's), (85, 24000), (89, 24021),

Gene: Spouty_32 Start: 24074, Stop: 24442, Start Num: 34
Candidate Starts for Spouty_32:
(16, 24014), (Start: 34 @24074 has 33 MA's), (55, 24110), (58, 24116), (72, 24155), (75, 24164), (92, 24263), (96, 24275), (101, 24305), (105, 24317), (110, 24347),

Gene: Squint_49 Start: 40353, Stop: 40739, Start Num: 30
Candidate Starts for Squint_49:
(Start: 30 @40353 has 42 MA's), (46, 40392), (50, 40407), (Start: 53 @40416 has 2 MA's), (89, 40563), (93, 40587), (98, 40605), (103, 40635), (107, 40647),

Gene: Squirty_28 Start: 24272, Stop: 24643, Start Num: 18
Candidate Starts for Squirty_28:
(1, 23714), (3, 23873), (4, 23900), (Start: 18 @24272 has 20 MA's), (83, 24479), (85, 24482), (89, 24503), (96, 24536),

Gene: Stagni_32 Start: 22965, Stop: 23267, Start Num: 38
Candidate Starts for Stagni_32:
(17, 22917), (Start: 19 @22920 has 3 MA's), (Start: 38 @22965 has 122 MA's), (54, 22995),

Gene: Stellammi_35 Start: 29050, Stop: 29436, Start Num: 30
Candidate Starts for Stellammi_35:
(Start: 30 @29050 has 42 MA's), (Start: 53 @29107 has 2 MA's), (63, 29131), (64, 29134), (78, 29197), (83, 29230), (89, 29254), (92, 29275), (111, 29392),

Gene: StepMih_32 Start: 22956, Stop: 23258, Start Num: 38
Candidate Starts for StepMih_32:
(17, 22908), (Start: 19 @22911 has 3 MA's), (Start: 38 @22956 has 122 MA's), (54, 22986),

Gene: Stephig9_27 Start: 21212, Stop: 21493, Start Num: 36
Candidate Starts for Stephig9_27:
(Start: 36 @21212 has 11 MA's), (Start: 52 @21239 has 27 MA's), (55, 21245), (65, 21269), (83, 21332), (113, 21446), (115, 21461), (119, 21473), (121, 21482),

Gene: StevieRay_29 Start: 25461, Stop: 25820, Start Num: 21
Candidate Starts for StevieRay_29:
(Start: 21 @25461 has 45 MA's), (89, 25686), (96, 25719),

Gene: StressBall_29 Start: 25744, Stop: 26103, Start Num: 21
Candidate Starts for StressBall_29:
(Start: 21 @25744 has 45 MA's), (Start: 53 @25831 has 2 MA's), (89, 25969), (96, 26002),

Gene: Strosahl_32 Start: 21369, Stop: 21710, Start Num: 33
Candidate Starts for Strosahl_32:
(Start: 33 @21369 has 121 MA's), (62, 21435), (66, 21447), (113, 21657), (120, 21693), (122, 21699),

Gene: Sunhee_30 Start: 21708, Stop: 22064, Start Num: 33
Candidate Starts for Sunhee_30:
(11, 21549), (Start: 33 @21708 has 121 MA's), (55, 21744), (76, 21801), (92, 21897), (93, 21900), (96, 21909), (101, 21939),

Gene: SuperAwesome_33 Start: 22206, Stop: 22502, Start Num: 33
Candidate Starts for SuperAwesome_33:
(Start: 33 @22206 has 121 MA's), (61, 22260), (89, 22359), (101, 22404),

Gene: SuperCallie99_33 Start: 22205, Stop: 22501, Start Num: 33
Candidate Starts for SuperCallie99_33:
(Start: 33 @22205 has 121 MA's), (61, 22259), (89, 22358), (101, 22403),

Gene: Superphikiman_50 Start: 40425, Stop: 40811, Start Num: 30
Candidate Starts for Superphikiman_50:
(Start: 30 @40425 has 42 MA's), (46, 40464), (50, 40479), (Start: 53 @40488 has 2 MA's), (89, 40635), (93, 40659), (98, 40677), (103, 40707), (107, 40719),

Gene: SweetiePie_30 Start: 22410, Stop: 22697, Start Num: 52
Candidate Starts for SweetiePie_30:
(13, 22251), (Start: 52 @22410 has 27 MA's), (96, 22575), (103, 22596), (117, 22674),

Gene: SwirlSquare_31 Start: 21246, Stop: 21536, Start Num: 32
Candidate Starts for SwirlSquare_31:
(17, 21198), (Start: 32 @21246 has 28 MA's), (58, 21306), (60, 21312), (75, 21357), (83, 21390),

Gene: Swirley_27 Start: 22230, Stop: 22520, Start Num: 52
Candidate Starts for Swirley_27:
(Start: 15 @22110 has 2 MA's), (Start: 43 @22200 has 28 MA's), (Start: 52 @22230 has 27 MA's), (55, 22236), (83, 22338), (89, 22362), (92, 22383), (96, 22395), (103, 22416), (111, 22449), (117, 22497), (121, 22512),

Gene: Switzerland_32 Start: 21520, Stop: 21861, Start Num: 33
Candidate Starts for Switzerland_32:
(Start: 33 @21520 has 121 MA's), (62, 21586), (66, 21598), (113, 21808), (120, 21844), (122, 21850),

Gene: SydNat_27 Start: 22485, Stop: 22805, Start Num: 43
Candidate Starts for SydNat_27:
(Start: 15 @22395 has 2 MA's), (Start: 43 @22485 has 28 MA's), (Start: 52 @22515 has 27 MA's), (55, 22521), (75, 22575), (83, 22623), (89, 22647), (92, 22668), (96, 22680), (103, 22701), (111, 22734), (121, 22797),

Gene: TNguyen7_30 Start: 22492, Stop: 22794, Start Num: 38
Candidate Starts for TNguyen7_30:
(14, 22390), (Start: 19 @22447 has 3 MA's), (Start: 38 @22492 has 122 MA's), (54, 22522), (Start: 59 @22531 has 1 MA's),

Gene: TarsusIV_30 Start: 22501, Stop: 22845, Start Num: 24
Candidate Starts for TarsusIV_30:
(Start: 24 @22501 has 16 MA's), (55, 22561), (61, 22573), (67, 22591), (75, 22615), (82, 22651), (96, 22720),

Gene: Tarynearal_26 Start: 22222, Stop: 22542, Start Num: 43
Candidate Starts for Tarynearal_26:
(Start: 15 @22132 has 2 MA's), (Start: 43 @22222 has 28 MA's), (Start: 52 @22252 has 27 MA's), (55, 22258), (83, 22360), (89, 22384), (92, 22405), (96, 22417), (103, 22438), (111, 22471), (117, 22519), (121, 22534),

Gene: Taurus_32 Start: 22962, Stop: 23264, Start Num: 38
Candidate Starts for Taurus_32:
(17, 22914), (Start: 19 @22917 has 3 MA's), (Start: 38 @22962 has 122 MA's), (54, 22992),

Gene: Techage_29 Start: 25476, Stop: 25835, Start Num: 21
Candidate Starts for Techage_29:
(Start: 21 @25476 has 45 MA's), (Start: 53 @25563 has 2 MA's), (89, 25701), (96, 25734),

Gene: Temprado_33 Start: 22214, Stop: 22510, Start Num: 33
Candidate Starts for Temprado_33:
(17, 22163), (Start: 33 @22214 has 121 MA's), (58, 22262), (89, 22367), (101, 22412),

Gene: Terrific_32 Start: 22900, Stop: 23229, Start Num: 39
Candidate Starts for Terrific_32:
(11, 22741), (Start: 39 @22900 has 51 MA's), (Start: 52 @22927 has 27 MA's), (55, 22933), (75, 22987), (96, 23101), (102, 23116), (116, 23200),

Gene: Tessdabest_29 Start: 24737, Stop: 25117, Start Num: 18
Candidate Starts for Tessdabest_29:
(Start: 18 @24737 has 20 MA's), (85, 24947), (89, 24968),

Gene: Texage_30 Start: 23060, Stop: 23362, Start Num: 38
Candidate Starts for Texage_30:
(Start: 19 @23015 has 3 MA's), (Start: 38 @23060 has 122 MA's), (54, 23090), (Start: 59 @23099 has 1 MA's), (75, 23141), (79, 23168),

Gene: Theia_25 Start: 22156, Stop: 22566, Start Num: 15
Candidate Starts for Theia_25:
(Start: 15 @22156 has 2 MA's), (Start: 43 @22246 has 28 MA's), (Start: 52 @22276 has 27 MA's), (55, 22282), (89, 22408), (95, 22438), (96, 22441), (103, 22462), (121, 22558),

Gene: Thespis_29 Start: 25480, Stop: 25839, Start Num: 21
Candidate Starts for Thespis_29:
(Start: 21 @25480 has 45 MA's), (Start: 53 @25567 has 2 MA's), (89, 25705), (96, 25738),

Gene: Thibault_44 Start: 40998, Stop: 41384, Start Num: 30
Candidate Starts for Thibault_44:
(Start: 30 @40998 has 42 MA's), (50, 41052), (Start: 53 @41061 has 2 MA's), (89, 41208), (93, 41232), (98, 41250), (103, 41280), (107, 41292),

Gene: ThreeRngTarjay_49 Start: 43904, Stop: 44299, Start Num: 30
Candidate Starts for ThreeRngTarjay_49:
(Start: 30 @43904 has 42 MA's), (47, 43946), (50, 43958), (80, 44069), (89, 44114), (98, 44156), (105, 44189), (107, 44198),

Gene: Thyatira_32 Start: 28364, Stop: 28699, Start Num: 39
Candidate Starts for Thyatira_32:
(Start: 39 @28364 has 51 MA's), (Start: 45 @28379 has 2 MA's), (61, 28424), (70, 28451), (72, 28457), (92, 28571),

Gene: Tiffany_32 Start: 22857, Stop: 23159, Start Num: 38
Candidate Starts for Tiffany_32:
(17, 22809), (Start: 19 @22812 has 3 MA's), (Start: 38 @22857 has 122 MA's), (54, 22887),

Gene: Tiger_27 Start: 22154, Stop: 22444, Start Num: 52
Candidate Starts for Tiger_27:
(Start: 15 @22034 has 2 MA's), (Start: 43 @22124 has 28 MA's), (Start: 52 @22154 has 27 MA's), (55, 22160), (75, 22214), (89, 22286), (95, 22316), (96, 22319), (103, 22340), (121, 22436),

Gene: Timothy_30 Start: 23067, Stop: 23390, Start Num: 32
Candidate Starts for Timothy_30:
(Start: 32 @23067 has 28 MA's), (Start: 37 @23076 has 2 MA's), (68, 23136), (72, 23148), (83, 23190), (96, 23247),

Gene: TinyPebbles_32 Start: 23049, Stop: 23354, Start Num: 38
Candidate Starts for TinyPebbles_32:
(17, 23001), (Start: 19 @23004 has 3 MA's), (Start: 38 @23049 has 122 MA's), (54, 23079), (111, 23289),

Gene: TinyTimmy_30 Start: 23113, Stop: 23433, Start Num: 33
Candidate Starts for TinyTimmy_30:
(Start: 32 @23110 has 28 MA's), (Start: 33 @23113 has 121 MA's), (Start: 37 @23119 has 2 MA's), (68, 23179), (72, 23191), (83, 23233), (96, 23290),

Gene: TipsytheTRex_29 Start: 21554, Stop: 21877, Start Num: 39
Candidate Starts for TipsytheTRex_29:
(17, 21506), (Start: 39 @21554 has 51 MA's), (Start: 52 @21581 has 27 MA's), (55, 21587), (Start: 59 @21596 has 1 MA's), (71, 21629), (76, 21644),

Gene: Toaka_29 Start: 22167, Stop: 22535, Start Num: 35
Candidate Starts for Toaka_29:
(Start: 35 @22167 has 1 MA's), (68, 22236), (72, 22248), (75, 22257), (79, 22290), (92, 22356), (96, 22368),

Gene: Todacoro_31 Start: 23059, Stop: 23361, Start Num: 38
Candidate Starts for Todacoro_31:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: ToneTone_31 Start: 22140, Stop: 22436, Start Num: 33
Candidate Starts for ToneTone_31:
(17, 22089), (Start: 33 @22140 has 121 MA's), (89, 22293), (101, 22338),

Gene: Topiatin_36 Start: 29465, Stop: 29824, Start Num: 26
Candidate Starts for Topiatin_36:
(Start: 21 @29450 has 45 MA's), (Start: 23 @29453 has 2 MA's), (Start: 26 @29465 has 1 MA's), (Start: 31 @29477 has 3 MA's), (89, 29684), (96, 29717), (110, 29759),

Gene: Toro_32 Start: 25243, Stop: 25533, Start Num: 40
Candidate Starts for Toro_32:
(Start: 40 @25243 has 1 MA's), (Start: 59 @25279 has 1 MA's), (68, 25300), (83, 25360),

Gene: Trixie_33 Start: 24085, Stop: 24438, Start Num: 33
Candidate Starts for Trixie_33:
(11, 23926), (Start: 33 @24085 has 121 MA's), (Start: 59 @24130 has 1 MA's), (75, 24175), (83, 24229), (96, 24286), (97, 24292), (99, 24307), (105, 24328), (117, 24415),

Gene: Trooper_30 Start: 22271, Stop: 22612, Start Num: 24
Candidate Starts for Trooper_30:
(9, 22112), (Start: 24 @22271 has 16 MA's), (55, 22331), (61, 22343), (67, 22361), (82, 22421),

Gene: Tubs_32 Start: 24008, Stop: 24376, Start Num: 34
Candidate Starts for Tubs_32:
(16, 23948), (Start: 34 @24008 has 33 MA's), (55, 24044), (58, 24050), (66, 24071), (72, 24089), (75, 24098), (92, 24197), (96, 24209), (99, 24230), (101, 24239),

Gene: Tucker_33 Start: 22226, Stop: 22522, Start Num: 33
Candidate Starts for Tucker_33:
(17, 22175), (Start: 33 @22226 has 121 MA's), (89, 22379), (101, 22424),

Gene: Turbido_32 Start: 22927, Stop: 23265, Start Num: 33
Candidate Starts for Turbido_32:
(Start: 33 @22927 has 121 MA's), (Start: 52 @22963 has 27 MA's), (55, 22969), (72, 23014), (96, 23137), (102, 23152), (116, 23236),

Gene: Twigg_27 Start: 22195, Stop: 22515, Start Num: 43
Candidate Starts for Twigg_27:
(Start: 15 @22105 has 2 MA's), (Start: 43 @22195 has 28 MA's), (Start: 52 @22225 has 27 MA's), (55, 22231), (83, 22333), (89, 22357), (92, 22378), (96, 22390), (103, 22411), (111, 22444), (117, 22492), (121, 22507),

Gene: Ugenie5_29 Start: 24041, Stop: 24409, Start Num: 34

Candidate Starts for Ugenie5_29:
(16, 23981), (Start: 34 @24041 has 33 MA's), (55, 24077), (58, 24083), (66, 24104), (72, 24122), (75, 24131), (92, 24230), (96, 24242), (99, 24263), (101, 24272),

Gene: UnionJack_27 Start: 21253, Stop: 21573, Start Num: 43
Candidate Starts for UnionJack_27:
(Start: 15 @21163 has 2 MA's), (Start: 43 @21253 has 28 MA's), (Start: 52 @21283 has 27 MA's), (55, 21289), (89, 21415), (92, 21436), (96, 21448), (103, 21469), (111, 21502), (121, 21565),

Gene: Updawg_32 Start: 22888, Stop: 23217, Start Num: 39
Candidate Starts for Updawg_32:
(11, 22729), (Start: 39 @22888 has 51 MA's), (Start: 52 @22915 has 27 MA's), (55, 22921), (75, 22975), (96, 23089), (102, 23104), (116, 23188),

Gene: Vanisoa_29 Start: 21862, Stop: 22248, Start Num: 33
Candidate Starts for Vanisoa_29:
(17, 21811), (Start: 33 @21862 has 121 MA's), (44, 21883), (55, 21916), (68, 21949), (69, 21952), (92, 22069), (96, 22081),

Gene: Venti_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Venti_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Veracruz_30 Start: 23014, Stop: 23361, Start Num: 19
Candidate Starts for Veracruz_30:
(Start: 19 @23014 has 3 MA's), (Start: 38 @23059 has 122 MA's), (54, 23089), (Start: 59 @23098 has 1 MA's), (75, 23140), (79, 23167),

Gene: Vidya_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Vidya_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: ViviJ_31 Start: 28195, Stop: 28524, Start Num: 39
Candidate Starts for ViviJ_31:
(Start: 39 @28195 has 51 MA's), (Start: 45 @28210 has 2 MA's), (61, 28255), (68, 28276), (70, 28282), (87, 28375), (92, 28402), (100, 28423),

Gene: Vix_32 Start: 23045, Stop: 23347, Start Num: 38
Candidate Starts for Vix_32:
(17, 22997), (Start: 19 @23000 has 3 MA's), (Start: 38 @23045 has 122 MA's), (54, 23075),

Gene: VohminGhazi_33 Start: 22213, Stop: 22509, Start Num: 33
Candidate Starts for VohminGhazi_33:
(Start: 33 @22213 has 121 MA's), (61, 22267), (89, 22366), (101, 22411),

Gene: Waits_32 Start: 21375, Stop: 21716, Start Num: 33
Candidate Starts for Waits_32:
(Start: 33 @21375 has 121 MA's), (62, 21441), (66, 21453), (113, 21663), (120, 21699), (122, 21705),

Gene: Wanda_57 Start: 43615, Stop: 44010, Start Num: 30
Candidate Starts for Wanda_57:
(Start: 30 @43615 has 42 MA's), (47, 43657), (50, 43669), (80, 43780), (89, 43825), (98, 43867), (105, 43900), (107, 43909), (109, 43921),

Gene: Warrior24_32 Start: 21379, Stop: 21720, Start Num: 33
Candidate Starts for Warrior24_32:
(Start: 33 @21379 has 121 MA's), (62, 21445), (66, 21457), (113, 21667), (120, 21703), (122, 21709),

Gene: Waterfoul_32 Start: 28388, Stop: 28723, Start Num: 39
Candidate Starts for Waterfoul_32:
(Start: 39 @28388 has 51 MA's), (Start: 45 @28403 has 2 MA's), (61, 28448), (70, 28475), (72, 28481), (92, 28595),

Gene: Watson_32 Start: 22955, Stop: 23257, Start Num: 38
Candidate Starts for Watson_32:
(17, 22907), (Start: 19 @22910 has 3 MA's), (Start: 38 @22955 has 122 MA's), (54, 22985),

Gene: WeiHuaDA_35 Start: 24756, Stop: 25109, Start Num: 33
Candidate Starts for WeiHuaDA_35:
(11, 24597), (Start: 33 @24756 has 121 MA's), (Start: 59 @24801 has 1 MA's), (75, 24846), (83, 24900), (96, 24957), (99, 24978), (105, 24999), (117, 25086),

Gene: Whabigail7_32 Start: 22915, Stop: 23253, Start Num: 33
Candidate Starts for Whabigail7_32:
(Start: 33 @22915 has 121 MA's), (Start: 52 @22951 has 27 MA's), (55, 22957), (72, 23002), (96, 23125), (102, 23140), (116, 23224),

Gene: WideWale_32 Start: 22888, Stop: 23217, Start Num: 39
Candidate Starts for WideWale_32:
(11, 22729), (Start: 39 @22888 has 51 MA's), (Start: 52 @22915 has 27 MA's), (55, 22921), (75, 22975), (96, 23089), (102, 23104), (116, 23188),

Gene: Wiks_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for Wiks_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Wolpertinger_29 Start: 23070, Stop: 23393, Start Num: 32
Candidate Starts for Wolpertinger_29:
(Start: 32 @23070 has 28 MA's), (Start: 37 @23079 has 2 MA's), (68, 23139), (72, 23151), (83, 23193), (96, 23250),

Gene: Wooldri_34 Start: 22874, Stop: 23176, Start Num: 38
Candidate Starts for Wooldri_34:
(17, 22826), (Start: 19 @22829 has 3 MA's), (Start: 38 @22874 has 122 MA's), (54, 22904),

Gene: WorldCup_28 Start: 21862, Stop: 22227, Start Num: 33
Candidate Starts for WorldCup_28:
(17, 21811), (Start: 33 @21862 has 121 MA's), (66, 21925), (68, 21931), (69, 21934), (93, 22054), (99, 22084), (101, 22093), (105, 22105),

Gene: WunderPhul_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for WunderPhul_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Xerxes_30 Start: 24737, Stop: 25117, Start Num: 18
Candidate Starts for Xerxes_30:

(Start: 18 @24737 has 20 MA's), (85, 24947), (89, 24968),

Gene: XianYue_30 Start: 22369, Stop: 22722, Start Num: 33
Candidate Starts for XianYue_30:
(Start: 33 @22369 has 121 MA's), (46, 22378), (Start: 59 @22414 has 1 MA's), (72, 22450), (73, 22453), (93, 22561), (105, 22612), (107, 22621), (117, 22699),

Gene: Xiaokay_46 Start: 40662, Stop: 41036, Start Num: 30
Candidate Starts for Xiaokay_46:
(Start: 30 @40662 has 42 MA's), (47, 40704), (50, 40716), (80, 40827), (89, 40872), (98, 40914), (105, 40947), (107, 40956), (109, 40968),

Gene: Xula_27 Start: 25181, Stop: 25525, Start Num: 23
Candidate Starts for Xula_27:
(2, 24716), (5, 24869), (6, 24938), (10, 25034), (Start: 21 @25178 has 45 MA's), (Start: 23 @25181 has 2 MA's), (83, 25364), (85, 25367), (89, 25388), (96, 25421),

Gene: Yecey3_31 Start: 22095, Stop: 22433, Start Num: 33
Candidate Starts for Yecey3_31:
(Start: 33 @22095 has 121 MA's), (68, 22164), (69, 22167), (72, 22176), (96, 22296), (119, 22413),

Gene: Yeet_49 Start: 43036, Stop: 43431, Start Num: 30
Candidate Starts for Yeet_49:
(Start: 30 @43036 has 42 MA's), (47, 43078), (50, 43090), (80, 43201), (89, 43246), (98, 43288), (105, 43321), (107, 43330),

Gene: Yokurt_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for Yokurt_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Zaka_33 Start: 22208, Stop: 22504, Start Num: 33
Candidate Starts for Zaka_33:
(17, 22157), (Start: 33 @22208 has 121 MA's), (58, 22256), (89, 22361), (101, 22406),

Gene: Zarafa_30 Start: 22587, Stop: 22889, Start Num: 38
Candidate Starts for Zarafa_30:
(14, 22488), (Start: 19 @22545 has 3 MA's), (Start: 38 @22587 has 122 MA's), (57, 22623), (79, 22695),

Gene: Zelink_52 Start: 44851, Stop: 45225, Start Num: 30
Candidate Starts for Zelink_52:
(Start: 30 @44851 has 42 MA's), (46, 44890), (50, 44905), (Start: 53 @44914 has 2 MA's), (89, 45061), (93, 45085), (98, 45103), (103, 45133), (107, 45145),

Gene: Zetzy_31 Start: 22500, Stop: 22805, Start Num: 38
Candidate Starts for Zetzy_31:
(17, 22452), (Start: 19 @22455 has 3 MA's), (Start: 38 @22500 has 122 MA's), (54, 22530), (Start: 59 @22539 has 1 MA's), (68, 22560), (92, 22674),

Gene: Zilizebeth_29 Start: 25485, Stop: 25844, Start Num: 21
Candidate Starts for Zilizebeth_29:
(Start: 21 @25485 has 45 MA's), (Start: 53 @25572 has 2 MA's), (89, 25710), (96, 25743),

Gene: Zimmer_32 Start: 24617, Stop: 24979, Start Num: 33
Candidate Starts for Zimmer_32:
(Start: 33 @24617 has 121 MA's), (46, 24626), (55, 24653), (Start: 59 @24662 has 1 MA's), (69, 24689), (75, 24707), (93, 24809), (94, 24812), (96, 24818), (99, 24839), (101, 24848), (105, 24860), (107, 24869),

Gene: Zolita_26 Start: 22486, Stop: 22806, Start Num: 43
Candidate Starts for Zolita_26:
(Start: 15 @22396 has 2 MA's), (Start: 43 @22486 has 28 MA's), (Start: 52 @22516 has 27 MA's), (55, 22522), (75, 22576), (83, 22624), (89, 22648), (92, 22669), (96, 22681), (103, 22702), (111, 22735), (121, 22798),

Gene: Zulu_33 Start: 22207, Stop: 22503, Start Num: 33
Candidate Starts for Zulu_33:
(17, 22156), (Start: 33 @22207 has 121 MA's), (58, 22255), (89, 22360), (101, 22405),