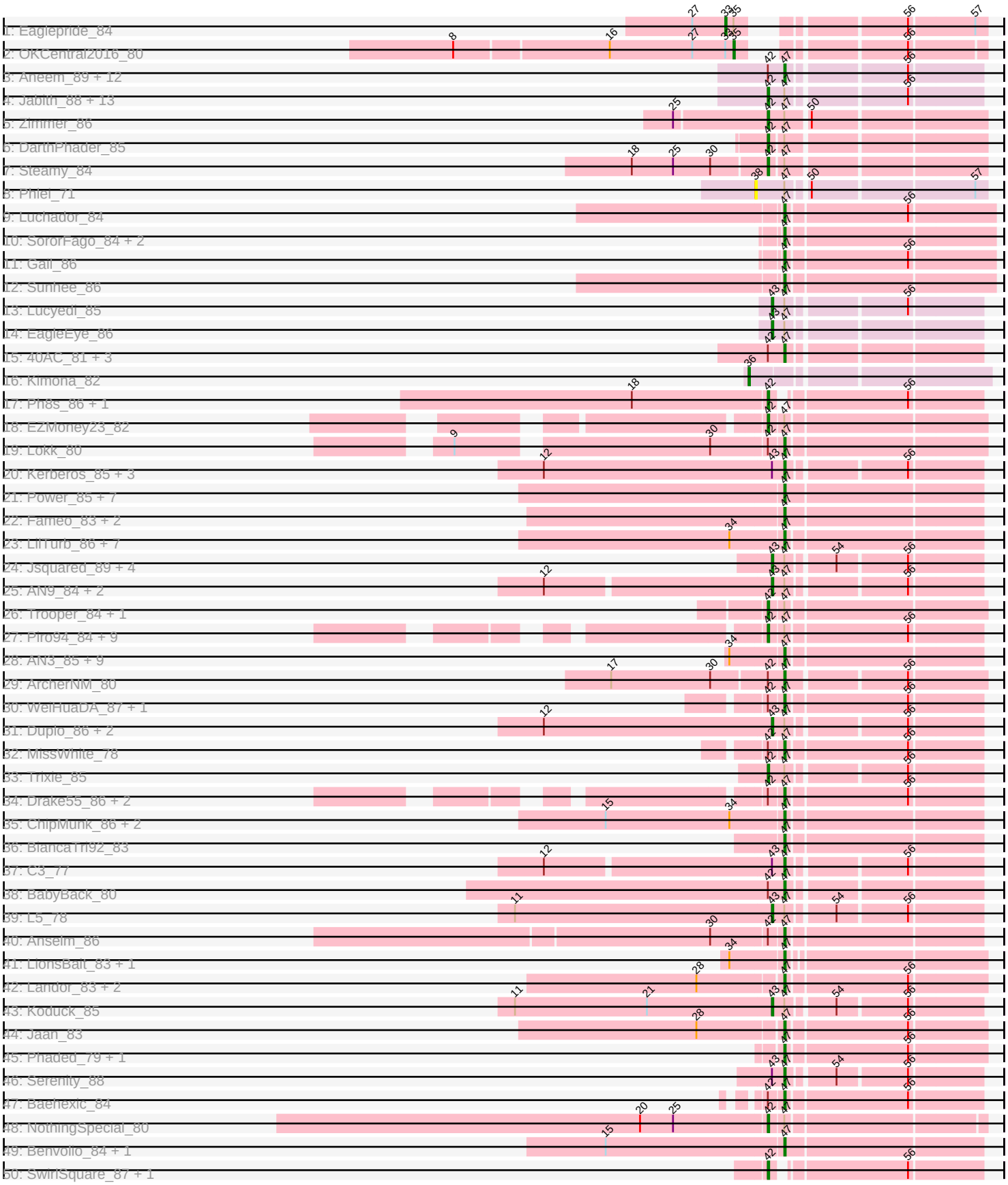
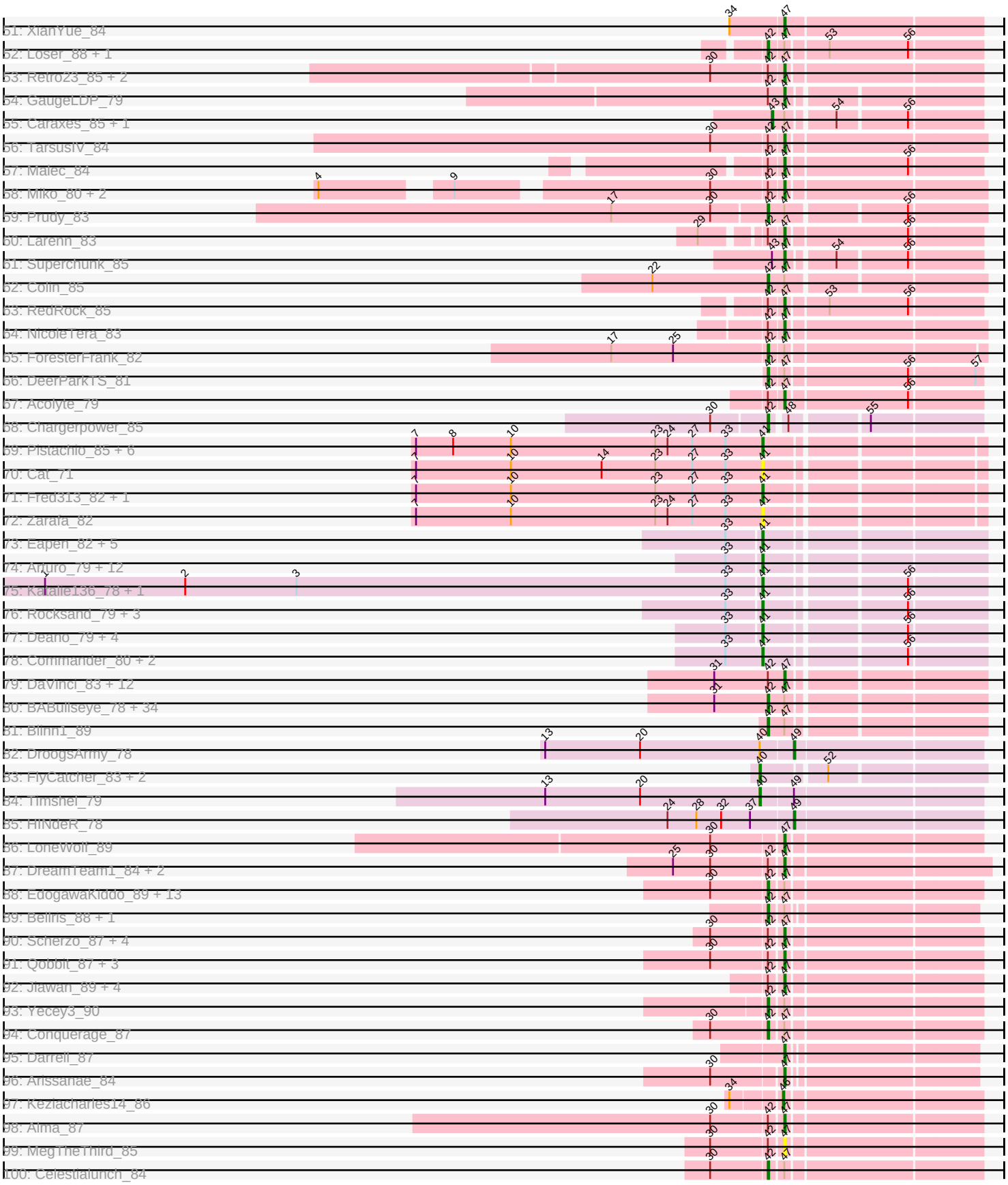
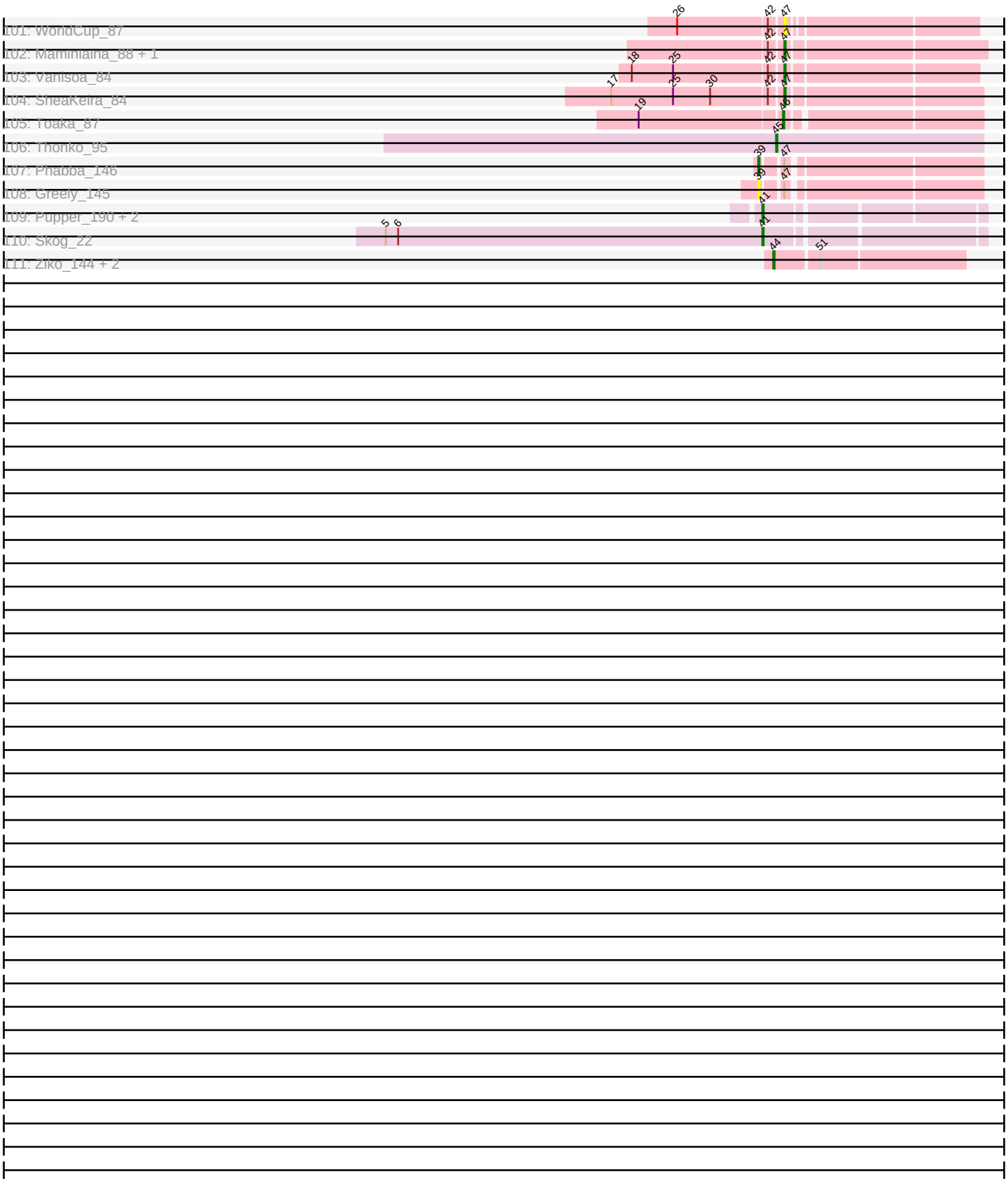
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1: Eaglepride_84
2: OKCentral2016_80
3: Aneem_89 + 12
4: Jabith_88 + 13
5: Zimmer_86
6: DarthPhader_85
7: Steamy_84
8: Phiei_71
9: Luchador_84
10: SororFago_84 + 2
11: Gail_86
12: Sunhee_86
13: Lucyedi_85
14: EagleEye_86
15: 40AC_81 + 3
16: Kimona_82
17: Ph8s_86 + 1
18: EZMoney23_82
19: Lokk_80
20: Kerberos_85 + 3
21: Power_85 + 7
22: Fameo_83 + 2
23: Linturb_86 + 7
24: Jsquared_89 + 4
25: AN9_84 + 2
26: Trooper_84 + 1
27: Piro94_84 + 9
28: AN3_85 + 9
29: ArcherNM_80
30: WeiHuaDA_87 + 1
31: Duplo_86 + 2
32: MissWhite_78
33: Trixie_85
34: Drake55_86 + 2
35: ChipMunk_86 + 2
36: BiancaTh92_83
37: C3_77
38: BabyBack_80
39: L5_78
40: Anselm_86
41: LionsBait_83 + 1
42: Landor_83 + 2
43: Kooduck_85
44: Jaan_83
45: Phaded_79 + 1
46: Serenity_88
47: Baehexic_84
48: NothingSpecial_80
49: Benvolio_84 + 1
50: SwimSquare_87 + 1

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51: XianYue_84
52: Loser_88 + 1
53: Retro23_85 + 2
54: GaugeLDP_79
55: Caraxes_85 + 1
56: TarsusIV_84
57: Malec_84
58: Miko_80 + 2
59: Prudy_83
60: Larenn_83
61: Superchunk_85
62: Colin_85
63: RedRock_85
64: NicoleTera_83
65: ForesterFrank_82
66: DeerParkTS_81
67: Acolyte_79
68: Chargerpower_85
69: Pistachio_85 + 6
70: Cat_71
71: Fred313_82 + 1
72: Zarafa_82
73: Eapen_82 + 5
74: Arturo_79 + 12
75: Kalalie136_78 + 1
76: Rocksand_79 + 3
77: Deano_79 + 4
78: Commander_80 + 2
79: DaVinci_83 + 12
80: BABullseye_78 + 34
81: Blinn1_89
82: DroogsArmy_78
83: FlyCatcher_83 + 2
84: Timshel_79
85: HiNdeR_78
86: LoneWolf_89
87: DreamTeam1_84 + 2
88: EdogawaKiddo_89 + 13
89: Bellris_88 + 1
90: Scherzo_87 + 4
91: Qobbit_87 + 3
92: Jiawan_89 + 4
93: Yecey3_90
94: Conquerage_87
95: Darrell_87
96: Arissanae_84
97: Kezlacharles14_86
98: Alma_87
99: MegTheThird_85
100: Celestialunch_84

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101: WorldCup_87
102: Mamihlaiha_88 + 1
103: Vanisoa_84
104: SheaKeira_84
105: Toaka_87
106: Thonko_95
107: Phabba_146
108: Greely_145
109: Pupper_190 + 2
110: Skog_22
111: Ziko_144 + 2
26
42
47
18
25
17
30
19
45
46
39
41
5
6
44
51

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 347155 Report

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

Pham number 347155 has 319 members, 28 are drafts.

Phages represented in each track:
• Track 1 : Eaglepride_84
• Track 2 : OKCentral2016_80
• Track 3 : Aneem_89, Timothy_88, Salz_84, Ebony_87, Munch_87, Bowtie_84, Kimba_85, Et2Brutus_88, Lucivia_89, Joselito_86, Bachome_86, Insomnia_88, Wolpertinger_87
• Track 4 : Jabith_88, TinyTimmy_86, MaCh_88, Sham4_85, Mulciber_87, Petersenfast_84, Orange_88, Gilberta_86, Hutc2_85, Fibonacci_88, Flaverint_89, Saskia_86, Snape_88, Mabel_88
• Track 5 : Zimmer_86
• Track 6 : DarthPhader_85
• Track 7 : Steamy_84
• Track 8 : Phlei_71
• Track 9 : Luchador_84
• Track 10 : SororFago_84, Iwokeuplikedis_89, Jeeves_86
• Track 11 : Gail_86
• Track 12 : Sunhee_86
• Track 13 : Lucyedi_85
• Track 14 : EagleEye_86
• Track 15 : 40AC_81, Minispark_86, CogOmlette_86, Rahalelujah_88
• Track 16 : Kimona_82
• Track 17 : Ph8s_86, Adzzy_86
• Track 18 : EZMoney23_82
• Track 19 : Lokk_80
• Track 20 : Kerberos_85, DBQu4n_85, Tomathan_85, Pomar16_85
• Track 21 : Power_85, SweetiePie_85, SnapTap_85, QueenBeesly_85, Georgie2_87, FiringLine_85, Crucio_85, SemperFi_85
• Track 22 : Fameo_83, QueenB2_82, Heffalump_82
• Track 23 : LilTurb_86, Turbido_86, Dignity_87, Agape74_87, Smeagan_88, AbbyPaige_87, Leviathan_87, Jerm_87
• Track 24 : Jsquared_89, Quokka_87, MajorMajor_82, Bradman_88, TipsytheTRex_84
• Track 25 : AN9_84, VC3_83, ANI8_84
• Track 26 : Trooper_84, Pukovnik_80
• Track 27 : Piro94_84, Sknot_85, Equemioh13_85, Flare16_85, MiculUcigas_85, Terrific_86, NaSiaTalie_86, Gratitude_85, WideWale_86, HarryHoudini_85
• Track 28 : AN3_85, VA6_85, First_0086, CRB1_86, LadyBird_89, Deloris_87, 20ES_87, JoshKayV_87, BengiVuitton_87, Elephantoon_89

• Track 29 : ArcherNM_80
• Track 30 : WeiHuaDA_87, Kalpine_87
• Track 31 : Duplo_86, StarStuff_85, Travvers_85
• Track 32 : MissWhite_78
• Track 33 : Trixie_85
• Track 34 : Drake55_86, Updawg_86, Centaur_85
• Track 35 : ChipMunk_86, KingCyrus_84, EvilGenius_85
• Track 36 : BiancaTri92_83
• Track 37 : C3_77
• Track 38 : BabyBack_80
• Track 39 : L5_78
• Track 40 : Anselm_86
• Track 41 : LionsBait_83, HippoHollow_83
• Track 42 : Landor_83, Bactobuster_77, IronMan_82
• Track 43 : Koduck_85
• Track 44 : Jaan_83
• Track 45 : Phaded_79, Tristan_81
• Track 46 : Serenity_88
• Track 47 : Baehexic_84
• Track 48 : NothingSpecial_80
• Track 49 : Benvolio_84, Echild_88
• Track 50 : SwirlSquare_87, Che12_87
• Track 51 : XianYue_84
• Track 52 : Loser_88, AnnaL29_87
• Track 53 : Retro23_85, DudeLittle_83, Dalmatian_85
• Track 54 : GaugeLDP_79
• Track 55 : Caraxes_85, Odin_84
• Track 56 : TarsusIV_84
• Track 57 : Malec_84
• Track 58 : Miko_80, Rachaly_82, BobSwaget_79
• Track 59 : Prudy_83
• Track 60 : Larenn_83
• Track 61 : Superchunk_85
• Track 62 : Colin_85
• Track 63 : RedRock_85
• Track 64 : NicoleTera_83
• Track 65 : ForesterFrank_82
• Track 66 : DeerParkTS_81
• Track 67 : Acolyte_79
• Track 68 : Chargerpower_85
• Track 69 : Pistachio_85, SaturnRing_86, Clammy_87, Puppy_86, BlueBird_87, Giroux_88, Bugatti_88
• Track 70 : Cat_71
• Track 71 : Fred313_82, Marchesa_84
• Track 72 : Zarafa_82
• Track 73 : Eapen_82, KekoraPapaka_79, NorthStar_79, SheldonCooper_82, Relief_81, Skipitt_81
• Track 74 : Arturo_79, Eagle_81, Avle17_82, MeeZee_81, Gadost_82, Nemo27_81, Kingmustik0402_82, NotAPhaseMom_81, Sultana_82, Cocoaberry_82, TygerBlood_82, Skadoosh_79, Houdini22_81
• Track 75 : Katalie136_78, Badger_77
• Track 76 : Rocksand_79, Northrop_79, Datway_79, Cindaradix_77
• Track 77 : Deano_79, Obama12_83, Stink_82, Rosa24_78, AvatarAhPeg_82

• Track 78 : Commander_80, Eros_82, RockieBear_82
• Track 79 : DaVinci_83, Pmask_84, McFly_85, DelvinSonDorr_80, SuperCallie99_81, Yokurt_86, Zaka_87, Isiphiwo_81, Artemis2UCLA_86, Priamo_86, ToneTone_84, Garak_88, Tucker_87
• Track 80 : BABullseye_78, Chartreuse_84, CloudWang3_87, Indra_90, Hammer_87, Roksolana_87, Hexamo_86, Kazan_86, EricB_83, Rifter_87, Zulu_88, Neeharika16_84, BlessJoy_87, SuperAwesome_85, Jordennis_83, Koko_88, Gruunaga_86, Candra_86, Hoot_80, Dorothea_85, Wiks_86, SmellyB_85, Blue7_88, Imbriano_86, Lilbunny_86, Kipper29_85, BennyP_87, Gladiator_83, Cookiedough_85, JewelBug_77, Helmet_89, Temprado_88, Newrala_84, VohminGhazi_85, WunderPhul_87
• Track 81 : Blinn1_89
• Track 82 : DroogsArmy_78
• Track 83 : FlyCatcher_83, Sheen_80, Toro_81
• Track 84 : Timshel_79
• Track 85 : HINdeR_78
• Track 86 : LoneWolf_89
• Track 87 : DreamTeam1_84, Klodlith_85, Charm_84
• Track 88 : EdogawaKiddo_89, HortumSL17_90, Tubs_89, Sachima_89, Aliter_82, Fayely_87, PackMan_84, Eidsmoe_87, Myxus_89, EmyBug_86, Lilleskat_89, Spouty_87, Catalina_91, Ayanochan_86
• Track 89 : Bellris_88, Refuge_87
• Track 90 : Scherzo_87, Phonnegut_89, Pioneer_89, Beemo_89, Ugenie5_76
• Track 91 : Qobbit_87, Priya_87, ExplosioNervosa_87, Phaeder_89
• Track 92 : Jiawan_89, RyeScarlet_89, Onglai_88, Hanray_89, Holex_89
• Track 93 : Yecey3_90
• Track 94 : Conquerage_87
• Track 95 : Darrell_87
• Track 96 : Arissanae_84
• Track 97 : Keziacharles14_86
• Track 98 : Alma_87
• Track 99 : MegTheThird_85
• Track 100 : Celestialunch_84
• Track 101 : WorldCup_87
• Track 102 : Maminiaina_88, BogosyJay_88
• Track 103 : Vanisoa_84
• Track 104 : SheaKeira_84
• Track 105 : Toaka_87
• Track 106 : Thonko_95
• Track 107 : Phabba_146
• Track 108 : Greely_145
• Track 109 : Pupper_190, CherryTomatoes_192, SCentae_189
• Track 110 : Skog_22
• Track 111 : Ziko_144, Ronaldo_142, Volt_145

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

The start number called the most often in the published annotations is 47, it was called in 127 of the 291 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• 20ES_87, 40AC_81, AN3_85, AbbyPaige_87, Acolyte_79, Agape74_87, Alma_87, Aneem_89, Anselm_86, ArcherNM_80, Arissanae_84, Artemis2UCLA_86, BabyBack_80, Bachome_86, Bactobuster_77, Baehexic_84, Beemo_89, BengiVuitton_87, Benvolio_84, BiancaTri92_83, BobSwaget_79, BogosyJay_88, Bowtie_84, C3_77, CRB1_86, Centaur_85, Charm_84, ChipMunk_86, CogOmlette_86, Crucio_85, DBQu4n_85, DaVinci_83, Dalmatian_85, Darrell_87, Deloris_87, DelvinSonDorr_80, Dignity_87, Drake55_86, DreamTeam1_84, DudeLittle_83, Ebony_87, Echild_88, Elephantoon_89, Et2Brutus_88, EvilGenius_85, ExplosioNervosa_87, Fameo_83, FiringLine_85, First_0086, Gail_86, Garak_88, GaugeLDP_79, Georgie2_87, Hanray_89, Heffalump_82, HippoHollow_83, Holex_89, Insomnia_88, IronMan_82, Isiphiwo_81, Iwokeuplikedis_89, Jaan_83, Jeeves_86, Jerm_87, Jiawan_89, Joselito_86, JoshKayV_87, Kalpine_87, Kerberos_85, Kimba_85, KingCyrus_84, Klodlith_85, LadyBird_89, Landor_83, Larenn_83, Leviathan_87, LilTurb_86, LionsBait_83, Lokk_80, LoneWolf_89, Luchador_84, Lucivia_89, Malec_84, Maminiaina_88, McFly_85, MegTheThird_85, Miko_80, Minispark_86, MissWhite_78, Munch_87, NicoleTera_83, Onglai_88, Phaded_79, Phaeder_89, Phonnegut_89, Pioneer_89, Pmask_84, Pomar16_85, Power_85, Priamo_86, Priya_87, Qobbit_87, QueenB2_82, QueenBeesly_85, Rachaly_82, Rahalelujah_88, RedRock_85, Retro23_85, RyeScarlet_89, Salz_84, Scherzo_87, SemperFi_85, Serenity_88, SheaKeira_84, Smeagan_88, SnapTap_85, SororFago_84, Sunhee_86, SuperCallie99_81, Superchunk_85, SweetiePie_85, TarsusIV_84, Timothy_88, Tomathan_85, ToneTone_84, Tristan_81, Tucker_87, Turbido_86, Ugenie5_76, Updawg_86, VA6_85, Vanisoa_84, WeiHuaDA_87, Wolpertinger_87, WorldCup_87, XianYue_84, Yokurt_86, Zaka_87,

Genes that have the "Most Annotated" start but do not call it:
• AN9_84, ANI8_84, Aliter_82, AnnaL29_87, Ayanochan_86, BABullseye_78, Bellris_88, BennyP_87, BlessJoy_87, Blinn1_89, Blue7_88, Bradman_88, Candra_86, Caraxes_85, Catalina_91, Celestialunch_84, Chartreuse_84, CloudWang3_87, Colin_85, Conquerage_87, Cookiedough_85, DarthPhader_85, DeerParkTS_81, Dorothea_85, Duplo_86, EZMoney23_82, EagleEye_86, EdogawaKiddo_89, Eidsmoe_87, EmyBug_86, Equemioh13_85, EricB_83, Fayely_87, Fibonacci_88, Flare16_85, Flaverint_89, ForesterFrank_82, Gilberta_86, Gladiator_83, Gratitude_85, Greely_145, Gruunaga_86, Hammer_87, HarryHoudini_85, Helmet_89, Hexamo_86, Hoot_80, HortumSL17_90, Hutc2_85, Imbriano_86, Indra_90, Jabith_88, JewelBug_77, Jordennis_83, Jsquared_89, Kazan_86, Kipper29_85, Koduck_85, Koko_88, L5_78, Lilbunny_86, Lilleskat_89, Loser_88, Lucyedi_85, MaCh_88, Mabel_88, MajorMajor_82, MiculUcigas_85, Mulciber_87, Myxus_89, NaSiaTalie_86, Neeharika16_84, Newrala_84, NothingSpecial_80, Odin_84, Orange_88, PackMan_84, Petersenfast_84, Phabba_146, Phlei_71, Piro94_84, Prudy_83, Pukovnik_80, Quokka_87, Refuge_87, Rifter_87, Roksolana_87, Sachima_89, Saskia_86, Sham4_85, Sknot_85, SmellyB_85, Snape_88, Spouty_87, StarStuff_85, Steamy_84, SuperAwesome_85, Temprado_88, Terrific_86, TinyTimmy_86, TipsytheTRex_84, Travvers_85, Trixie_85, Trooper_84, Tubs_89, VC3_83, VohminGhazi_85, WideWale_86, Wiks_86, WunderPhul_87, Yecey3_90, Zimmer_86, Zulu_88,

Genes that do not have the "Most Annotated" start:
• Adzzy_86, Arturo_79, AvatarAhPeg_82, Avle17_82, Badger_77, BlueBird_87, Bugatti_88, Cat_71, Chargerpower_85, Che12_87, CherryTomatoes_192, Cindaradix_77, Clammy_87, Cocoaberry_82, Commander_80, Datway_79, Deano_79, DroogsArmy_78, Eagle_81, Eaglepride_84, Eapen_82, Eros_82,

FlyCatcher_83, Fred313_82, Gadost_82, Giroux_88, HINdeR_78, Houdini22_81, Katalie136_78, KekoraPapaka_79, Keziacharles14_86, Kimona_82, Kingmustik0402_82, Marchesa_84, MeeZee_81, Nemo27_81, NorthStar_79, Northrop_79, NotAPhaseMom_81, OKCentral2016_80, Obama12_83, Ph8s_86, Pistachio_85, Pupper_190, Puppy_86, Relief_81, RockieBear_82, Rocksand_79, Ronaldo_142, Rosa24_78, SCentae_189, SaturnRing_86, Sheen_80, SheldonCooper_82, Skadoosh_79, Skipitt_81, Skog_22, Stink_82, Sultana_82, SwirlSquare_87, Thonko_95, Timshel_79, Toaka_87, Toro_81, TygerBlood_82, Volt_145, Zarafa_82, Ziko_144,

Summary by start number:

Start 33:
• Found in 46 of 319 (14.4%) of genes in pham
• Manual Annotations of this start: 1 of 291
• Called 2.2% of time when present
• Phage (with cluster) where this start called: Eaglepride_84 (A10),

Start 35:
• Found in 2 of 319 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 291
• Called 50.0% of time when present
• Phage (with cluster) where this start called: OKCentral2016_80 (A10),

Start 36:
• Found in 1 of 319 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 291
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kimona_82 (A19),

Start 38:
• Found in 1 of 319 (0.3%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Phlei_71 (A13),

Start 39:
• Found in 2 of 319 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 291
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Greely_145 (C2), Phabba_146 (C2),

Start 40:
• Found in 5 of 319 (1.6%) of genes in pham
• Manual Annotations of this start: 2 of 291
• Called 80.0% of time when present
• Phage (with cluster) where this start called: FlyCatcher_83 (A7), Sheen_80 (A7), Timshel_79 (A7), Toro_81 (A7),

Start 41:
• Found in 48 of 319 (15.0%) of genes in pham
• Manual Annotations of this start: 39 of 291
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Arturo_79 (A4), AvatarAhPeg_82 (A4), Avle17_82 (A4), Badger_77 (A4), BlueBird_87 (A3), Bugatti_88 (A3), Cat_71 (A3), CherryTomatoes_192 (DO), Cindaradix_77 (A4), Clammy_87 (A3), Cocoaberry_82 (A4), Commander_80 (A4), Datway_79 (A4), Deano_79 (A4), Eagle_81 (A4), Eapen_82 (A4), Eros_82 (A4), Fred313_82 (A3), Gadost_82 (A4), Giroux_88 (A3), Houdini22_81 (A4), Katalie136_78 (A4), KekoraPapaka_79 (A4), Kingmustik0402_82 (A4), Marchesa_84 (A3), MeeZee_81 (A4), Nemo27_81 (A4), NorthStar_79 (A4), Northrop_79 (A4), NotAPhaseMom_81 (A4), Obama12_83 (A4), Pistachio_85 (A3), Pupper_190 (DO), Puppy_86 (A3), Relief_81 (A4), RockieBear_82 (A4), Rocksand_79 (A4), Rosa24_78 (A4), SCentae_189 (DO), SaturnRing_86 (A3), SheldonCooper_82 (A4), Skadoosh_79 (A4), Skipitt_81 (A4), Skog_22 (DO), Stink_82 (A4), Sultana_82 (A4), TygerBlood_82 (A4), Zarafa_82 (A3),

Start 42:
• Found in 176 of 319 (55.2%) of genes in pham
• Manual Annotations of this start: 98 of 291
• Called 55.7% of time when present
• Phage (with cluster) where this start called: Adzzy_86 (A2), Aliter_82 (A9), AnnaL29_87 (A2), Ayanochan_86 (A9), BABullseye_78 (A6), Bellris_88 (A9), BennyP_87 (A6), BlessJoy_87 (A6), Blinn1_89 (A6), Blue7_88 (A6), Candra_86 (A6), Catalina_91 (A9), Celestialunch_84 (A9), Chargerpower_85 (A22), Chartreuse_84 (A6), Che12_87 (A2), CloudWang3_87 (A6), Colin_85 (A2), Conquerage_87 (A9), Cookiedough_85 (A6), DarthPhader_85 (A12), DeerParkTS_81 (A2), Dorothea_85 (A6), EZMoney23_82 (A2), EdogawaKiddo_89 (A9), Eidsmoe_87 (A9), EmyBug_86 (A9), Equemioh13_85 (A2), EricB_83 (A6), Fayely_87 (A9), Fibonacci_88 (A11), Flare16_85 (A2), Flaverint_89 (A11), ForesterFrank_82 (A2), Gilberta_86 (A11), Gladiator_83 (A6), Gratitude_85 (A2), Gruunaga_86 (A6), Hammer_87 (A6), HarryHoudini_85 (A2), Helmet_89 (A6), Hexamo_86 (A6), Hoot_80 (A6), HortumSL17_90 (A9), Hutc2_85 (A11), Imbriano_86 (A6), Indra_90 (A6), Jabith_88 (A11), JewelBug_77 (A6), Jordennis_83 (A6), Kazan_86 (A6), Kipper29_85 (A6), Koko_88 (A6), Lilbunny_86 (A6), Lilleskat_89 (A9), Loser_88 (A2), MaCh_88 (A11), Mabel_88 (A11), MiculUcigas_85 (A2), Mulciber_87 (A11), Myxus_89 (A9), NaSiaTalie_86 (A2), Neeharika16_84 (A6), Newrala_84 (A6), NothingSpecial_80 (A2), Orange_88 (A11), PackMan_84 (A9), Petersenfast_84 (A11), Ph8s_86 (A2), Piro94_84 (A2), Prudy_83 (A2), Pukovnik_80 (A2), Refuge_87 (A12), Rifter_87 (A6), Roksolana_87 (A6), Sachima_89 (A9), Saskia_86 (A11), Sham4_85 (A11), Sknot_85 (A2), SmellyB_85 (A6), Snape_88 (A11), Spouty_87 (A9), Steamy_84 (A12), SuperAwesome_85 (A6), SwirlSquare_87 (A2), Temprado_88 (A6), Terrific_86 (A2), TinyTimmy_86 (A11), Trixie_85 (A2), Trooper_84 (A2), Tubs_89 (A9), VohminGhazi_85 (A6), WideWale_86 (A2), Wiks_86 (A6), WunderPhul_87 (A6), Yecey3_90 (A9), Zimmer_86 (A12), Zulu_88 (A6),

Start 43:
• Found in 24 of 319 (7.5%) of genes in pham
• Manual Annotations of this start: 13 of 291
• Called 70.8% of time when present
• Phage (with cluster) where this start called: AN9_84 (A2), ANI8_84 (A2), Bradman_88 (A2), Caraxes_85 (A2), Duplo_86 (A2), EagleEye_86 (A16), Jsquared_89 (A2), Koduck_85 (A2), L5_78 (A2), Lucyedi_85 (A16), MajorMajor_82 (A2), Odin_84 (A2), Quokka_87 (A2), StarStuff_85 (A2), TipsytheTRex_84 (A2), Travvers_85 (A2), VC3_83 (A2),

Start 44:

• Found in 3 of 319 (0.9%) of genes in pham
• Manual Annotations of this start: 3 of 291
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ronaldo_142 (DP), Volt_145 (DP), Ziko_144 (DP),

Start 45:
• Found in 1 of 319 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 291
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Thonko_95 (B8),

Start 46:
• Found in 2 of 319 (0.6%) of genes in pham
• Manual Annotations of this start: 2 of 291
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Keziacharles14_86 (A9), Toaka_87 (A9),

Start 47:
• Found in 251 of 319 (78.7%) of genes in pham
• Manual Annotations of this start: 127 of 291
• Called 55.0% of time when present
• Phage (with cluster) where this start called: 20ES_87 (A2), 40AC_81 (A17), AN3_85 (A2), AbbyPaige_87 (A2), Acolyte_79 (A2), Agape74_87 (A2), Alma_87 (A9), Aneem_89 (A11), Anselm_86 (A2), ArcherNM_80 (A2), Arissanae_84 (A9), Artemis2UCLA_86 (A6), BabyBack_80 (A2), Bachome_86 (A11), Bactobuster_77 (A2), Baehexic_84 (A2), Beemo_89 (A9), BengiVuitton_87 (A2), Benvolio_84 (A2), BiancaTri92_83 (A2), BobSwaget_79 (A2), BogosyJay_88 (A9), Bowtie_84 (A11), C3_77 (A2), CRB1_86 (A2), Centaur_85 (A2), Charm_84 (A9), ChipMunk_86 (A2), CogOmlette_86 (A9), Crucio_85 (A2), DBQu4n_85 (A2), DaVinci_83 (A6), Dalmatian_85 (A2), Darrell_87 (A9), Deloris_87 (A2), DelvinSonDorr_80 (A6), Dignity_87 (A2), Drake55_86 (A2), DreamTeam1_84 (A9), DudeLittle_83 (A2), Ebony_87 (A11), Echild_88 (A2), Elephantoon_89 (A9), Et2Brutus_88 (A11), EvilGenius_85 (A2), ExplosioNervosa_87 (A9), Fameo_83 (A2), FiringLine_85 (A2), First_0086 (A2), Gail_86 (A14), Garak_88 (A6), GaugeLDP_79 (A2), Georgie2_87 (A2), Hanray_89 (A9), Heffalump_82 (A2), HippoHollow_83 (A2), Holex_89 (A9), Insomnia_88 (A11), IronMan_82 (A2), Isiphiwo_81 (A6), Iwokeuplikedis_89 (A2), Jaan_83 (A2), Jeeves_86 (A14), Jerm_87 (A2), Jiawan_89 (A9), Joselito_86 (A11), JoshKayV_87 (A2), Kalpine_87 (A2), Kerberos_85 (A2), Kimba_85 (A11), KingCyrus_84 (A2), Klodlith_85 (A9), LadyBird_89 (A2), Landor_83 (A2), Larenn_83 (A2), Leviathan_87 (A2), LilTurb_86 (A2), LionsBait_83 (A2), Lokk_80 (A2), LoneWolf_89 (A9), Luchador_84 (A14), Lucivia_89 (A11), Malec_84 (A2), Maminiaina_88 (A9), McFly_85 (A6), MegTheThird_85 (A9), Miko_80 (A2), Minispark_86 (A9), MissWhite_78 (A2), Munch_87 (A11), NicoleTera_83 (A2), Onglai_88 (A9), Phaded_79 (A2), Phaeder_89 (A9), Phonnegut_89 (A9), Pioneer_89 (A9), Pmask_84 (A6), Pomar16_85 (A2), Power_85 (A2), Priamo_86 (A6), Priya_87 (A9), Qobbit_87 (A9), QueenB2_82 (A2), QueenBeesly_85 (A2), Rachaly_82 (A2), Rahalelujah_88 (A9), RedRock_85 (A2), Retro23_85 (A2), RyeScarlet_89 (A9), Salz_84 (A11), Scherzo_87 (A9), SemperFi_85 (A2), Serenity_88 (A2), SheaKeira_84 (A9), Smeagan_88 (A2), SnapTap_85 (A2), SororFago_84 (A14), Sunhee_86 (A14), SuperCallie99_81 (A6), Superchunk_85 (A2), SweetiePie_85 (A2), TarsusIV_84 (A2), Timothy_88 (A11), Tomathan_85 (A2), ToneTone_84 (A6), Tristan_81 (A2), Tucker_87 (A6), Turbido_86 (A2), Ugenie5_76 (A9), Updawg_86 (A2), VA6_85 (A2),

Vanisoa_84 (A9), WeiHuaDA_87 (A2), Wolpertinger_87 (A11), WorldCup_87 (A9), XianYue_84 (A2), Yokurt_86 (A6), Zaka_87 (A6),

Start 49:
• Found in 3 of 319 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 291
• Called 66.7% of time when present
• Phage (with cluster) where this start called: DroogsArmy_78 (A7), HINdeR_78 (A7),

Summary by clusters:

There are 19 clusters represented in this pham: DO, A17, A16, A11, A10, A13, A12, A19, A22, A3, A2, A4, A7, A6, A9, C2, B8, A14, DP,

Info for manual annotations of cluster A10:
•Start number 33 was manually annotated 1 time for cluster A10.
•Start number 35 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A11:
•Start number 42 was manually annotated 14 times for cluster A11.
•Start number 47 was manually annotated 13 times for cluster A11.

Info for manual annotations of cluster A12:
•Start number 42 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A14:
•Start number 47 was manually annotated 5 times for cluster A14.

Info for manual annotations of cluster A16:
•Start number 43 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A19:
•Start number 36 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:
•Start number 42 was manually annotated 25 times for cluster A2.
•Start number 43 was manually annotated 11 times for cluster A2.
•Start number 47 was manually annotated 72 times for cluster A2.

Info for manual annotations of cluster A22:
•Start number 42 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:
•Start number 41 was manually annotated 7 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 41 was manually annotated 28 times for cluster A4.

Info for manual annotations of cluster A6:
•Start number 42 was manually annotated 36 times for cluster A6.
•Start number 47 was manually annotated 11 times for cluster A6.

Info for manual annotations of cluster A7:
•Start number 40 was manually annotated 2 times for cluster A7.
•Start number 49 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A9:
•Start number 42 was manually annotated 18 times for cluster A9.
•Start number 46 was manually annotated 2 times for cluster A9.
•Start number 47 was manually annotated 26 times for cluster A9.

Info for manual annotations of cluster B8:
•Start number 45 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster C2:
•Start number 39 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster DO:
•Start number 41 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DP:
•Start number 44 was manually annotated 3 times for cluster DP.

Gene Information:

Gene: 20ES_87 Start: 48610, Stop: 48476, Start Num: 47
Candidate Starts for 20ES_87:
(34, 48646), (Start: 47 @48610 has 127 MA's),

Gene: 40AC_81 Start: 48267, Stop: 48139, Start Num: 47
Candidate Starts for 40AC_81:
(Start: 42 @48279 has 98 MA's), (Start: 47 @48267 has 127 MA's),

Gene: AN3_85 Start: 46868, Stop: 46734, Start Num: 47
Candidate Starts for AN3_85:
(34, 46904), (Start: 47 @46868 has 127 MA's),

Gene: AN9_84 Start: 47045, Stop: 46908, Start Num: 43
Candidate Starts for AN9_84:
(12, 47204), (Start: 43 @47045 has 13 MA's), (Start: 47 @47036 has 127 MA's), (56, 46958),

Gene: ANI8_84 Start: 47045, Stop: 46908, Start Num: 43
Candidate Starts for ANI8_84:
(12, 47204), (Start: 43 @47045 has 13 MA's), (Start: 47 @47036 has 127 MA's), (56, 46958),

Gene: AbbyPaige_87 Start: 48867, Stop: 48733, Start Num: 47
Candidate Starts for AbbyPaige_87:
(34, 48903), (Start: 47 @48867 has 127 MA's),

Gene: Acolyte_79 Start: 47568, Stop: 47434, Start Num: 47
Candidate Starts for Acolyte_79:
(Start: 42 @47577 has 98 MA's), (Start: 47 @47568 has 127 MA's), (56, 47484),

Gene: Adzzy_86 Start: 47386, Stop: 47249, Start Num: 42
Candidate Starts for Adzzy_86:
(18, 47482), (Start: 42 @47386 has 98 MA's), (56, 47299),

Gene: Agape74_87 Start: 48843, Stop: 48709, Start Num: 47
Candidate Starts for Agape74_87:
(34, 48879), (Start: 47 @48843 has 127 MA's),

Gene: Aliter_82 Start: 46009, Stop: 45866, Start Num: 42
Candidate Starts for Aliter_82:
(30, 46048), (Start: 42 @46009 has 98 MA's), (Start: 47 @46000 has 127 MA's),

Gene: Alma_87 Start: 48839, Stop: 48705, Start Num: 47
Candidate Starts for Alma_87:
(30, 48887), (Start: 42 @48848 has 98 MA's), (Start: 47 @48839 has 127 MA's),

Gene: Aneem_89 Start: 48093, Stop: 47965, Start Num: 47
Candidate Starts for Aneem_89:
(Start: 42 @48105 has 98 MA's), (Start: 47 @48093 has 127 MA's), (56, 48015),

Gene: AnnaL29_87 Start: 49009, Stop: 48866, Start Num: 42
Candidate Starts for AnnaL29_87:
(Start: 42 @49009 has 98 MA's), (Start: 47 @49000 has 127 MA's), (53, 48973), (56, 48916),

Gene: Anselm_86 Start: 48751, Stop: 48617, Start Num: 47
Candidate Starts for Anselm_86:
(30, 48799), (Start: 42 @48760 has 98 MA's), (Start: 47 @48751 has 127 MA's),

Gene: ArcherNM_80 Start: 48138, Stop: 48004, Start Num: 47
Candidate Starts for ArcherNM_80:
(17, 48261), (30, 48189), (Start: 42 @48150 has 98 MA's), (Start: 47 @48138 has 127 MA's), (56, 48057),

Gene: Arissanae_84 Start: 48711, Stop: 48583, Start Num: 47
Candidate Starts for Arissanae_84:
(30, 48759), (Start: 47 @48711 has 127 MA's),

Gene: Artemis2UCLA_86 Start: 46158, Stop: 46027, Start Num: 47
Candidate Starts for Artemis2UCLA_86:
(31, 46209), (Start: 42 @46170 has 98 MA's), (Start: 47 @46158 has 127 MA's),

Gene: Arturo_79 Start: 48170, Stop: 48024, Start Num: 41
Candidate Starts for Arturo_79:
(Start: 33 @48194 has 1 MA's), (Start: 41 @48170 has 39 MA's),

Gene: AvatarAhPeg_82 Start: 48295, Stop: 48149, Start Num: 41
Candidate Starts for AvatarAhPeg_82:
(Start: 33 @48319 has 1 MA's), (Start: 41 @48295 has 39 MA's), (56, 48202),

Gene: Avle17_82 Start: 48036, Stop: 47890, Start Num: 41
Candidate Starts for Avle17_82:
(Start: 33 @48060 has 1 MA's), (Start: 41 @48036 has 39 MA's),

Gene: Ayanochan_86 Start: 48632, Stop: 48489, Start Num: 42
Candidate Starts for Ayanochan_86:
(30, 48671), (Start: 42 @48632 has 98 MA's), (Start: 47 @48623 has 127 MA's),

Gene: BABullseye_78 Start: 44490, Stop: 44347, Start Num: 42
Candidate Starts for BABullseye_78:
(31, 44529), (Start: 42 @44490 has 98 MA's), (Start: 47 @44478 has 127 MA's),

Gene: BabyBack_80 Start: 48059, Stop: 47931, Start Num: 47
Candidate Starts for BabyBack_80:
(Start: 42 @48071 has 98 MA's), (Start: 47 @48059 has 127 MA's),

Gene: Bachome_86 Start: 46976, Stop: 46848, Start Num: 47
Candidate Starts for Bachome_86:
(Start: 42 @46988 has 98 MA's), (Start: 47 @46976 has 127 MA's), (56, 46898),

Gene: Bactobuster_77 Start: 47335, Stop: 47198, Start Num: 47
Candidate Starts for Bactobuster_77:
(28, 47392), (Start: 47 @47335 has 127 MA's), (56, 47251),

Gene: Badger_77 Start: 47660, Stop: 47514, Start Num: 41
Candidate Starts for Badger_77:
(1, 48179), (2, 48077), (3, 47996), (Start: 33 @47684 has 1 MA's), (Start: 41 @47660 has 39 MA's),
(56, 47567),

Gene: Baehexic_84 Start: 48234, Stop: 48100, Start Num: 47
Candidate Starts for Baehexic_84:
(Start: 42 @48243 has 98 MA's), (Start: 47 @48234 has 127 MA's), (56, 48150),

Gene: Beemo_89 Start: 48833, Stop: 48699, Start Num: 47
Candidate Starts for Beemo_89:
(30, 48881), (Start: 42 @48842 has 98 MA's), (Start: 47 @48833 has 127 MA's),

Gene: Bellris_88 Start: 48358, Stop: 48221, Start Num: 42
Candidate Starts for Bellris_88:
(Start: 42 @48358 has 98 MA's), (Start: 47 @48349 has 127 MA's),

Gene: BengiVuitton_87 Start: 48715, Stop: 48581, Start Num: 47
Candidate Starts for BengiVuitton_87:
(34, 48751), (Start: 47 @48715 has 127 MA's),

Gene: BennyP_87 Start: 46335, Stop: 46192, Start Num: 42
Candidate Starts for BennyP_87:
(31, 46374), (Start: 42 @46335 has 98 MA's), (Start: 47 @46323 has 127 MA's),

Gene: Benvolio_84 Start: 48484, Stop: 48347, Start Num: 47
Candidate Starts for Benvolio_84:
(15, 48610), (Start: 47 @48484 has 127 MA's),

Gene: BiancaTri92_83 Start: 48320, Stop: 48186, Start Num: 47
Candidate Starts for BiancaTri92_83:
(Start: 47 @48320 has 127 MA's),

Gene: BlessJoy_87 Start: 46691, Stop: 46548, Start Num: 42
Candidate Starts for BlessJoy_87:
(31, 46730), (Start: 42 @46691 has 98 MA's), (Start: 47 @46679 has 127 MA's),

Gene: Blinn1_89 Start: 47148, Stop: 47005, Start Num: 42
Candidate Starts for Blinn1_89:
(Start: 42 @47148 has 98 MA's), (Start: 47 @47136 has 127 MA's),

Gene: Blue7_88 Start: 46389, Stop: 46246, Start Num: 42
Candidate Starts for Blue7_88:
(31, 46428), (Start: 42 @46389 has 98 MA's), (Start: 47 @46377 has 127 MA's),

Gene: BlueBird_87 Start: 47517, Stop: 47374, Start Num: 41
Candidate Starts for BlueBird_87:
(7, 47769), (8, 47742), (10, 47700), (23, 47595), (24, 47586), (27, 47568), (Start: 33 @47544 has 1 MA's), (Start: 41 @47517 has 39 MA's),

Gene: BobSwaget_79 Start: 46253, Stop: 46116, Start Num: 47
Candidate Starts for BobSwaget_79:
(4, 46547), (9, 46469), (30, 46301), (Start: 42 @46262 has 98 MA's), (Start: 47 @46253 has 127 MA's),

Gene: BogosyJay_88 Start: 48878, Stop: 48741, Start Num: 47
Candidate Starts for BogosyJay_88:
(Start: 42 @48887 has 98 MA's), (Start: 47 @48878 has 127 MA's),

Gene: Bowtie_84 Start: 46700, Stop: 46572, Start Num: 47
Candidate Starts for Bowtie_84:
(Start: 42 @46712 has 98 MA's), (Start: 47 @46700 has 127 MA's), (56, 46622),

Gene: Bradman_88 Start: 47715, Stop: 47578, Start Num: 43
Candidate Starts for Bradman_88:
(Start: 43 @47715 has 13 MA's), (Start: 47 @47706 has 127 MA's), (54, 47676), (56, 47628),

Gene: Bugatti_88 Start: 47517, Stop: 47374, Start Num: 41
Candidate Starts for Bugatti_88:
(7, 47769), (8, 47742), (10, 47700), (23, 47595), (24, 47586), (27, 47568), (Start: 33 @47544 has 1 MA's), (Start: 41 @47517 has 39 MA's),

Gene: C3_77 Start: 47036, Stop: 46908, Start Num: 47
Candidate Starts for C3_77:
(12, 47204), (Start: 43 @47045 has 13 MA's), (Start: 47 @47036 has 127 MA's), (56, 46958),

Gene: CRB1_86 Start: 48863, Stop: 48729, Start Num: 47
Candidate Starts for CRB1_86:
(34, 48899), (Start: 47 @48863 has 127 MA's),

Gene: Candra_86 Start: 46195, Stop: 46052, Start Num: 42
Candidate Starts for Candra_86:
(31, 46234), (Start: 42 @46195 has 98 MA's), (Start: 47 @46183 has 127 MA's),

Gene: Caraxes_85 Start: 47344, Stop: 47207, Start Num: 43
Candidate Starts for Caraxes_85:

(Start: 43 @47344 has 13 MA's), (Start: 47 @47335 has 127 MA's), (54, 47305), (56, 47257),

Gene: Cat_71 Start: 44813, Stop: 44670, Start Num: 41
Candidate Starts for Cat_71:
(7, 45065), (10, 44996), (14, 44930), (23, 44891), (27, 44864), (Start: 33 @44840 has 1 MA's), (Start: 41 @44813 has 39 MA's),

Gene: Catalina_91 Start: 48956, Stop: 48813, Start Num: 42
Candidate Starts for Catalina_91:
(30, 48995), (Start: 42 @48956 has 98 MA's), (Start: 47 @48947 has 127 MA's),

Gene: Celestialunch_84 Start: 48093, Stop: 47950, Start Num: 42
Candidate Starts for Celestialunch_84:
(30, 48132), (Start: 42 @48093 has 98 MA's), (Start: 47 @48084 has 127 MA's),

Gene: Centaur_85 Start: 48112, Stop: 47978, Start Num: 47
Candidate Starts for Centaur_85:
(Start: 42 @48121 has 98 MA's), (Start: 47 @48112 has 127 MA's), (56, 48028),

Gene: Chargerpower_85 Start: 46897, Stop: 46760, Start Num: 42
Candidate Starts for Chargerpower_85:
(30, 46936), (Start: 42 @46897 has 98 MA's), (48, 46888), (55, 46837),

Gene: Charm_84 Start: 48231, Stop: 48091, Start Num: 47
Candidate Starts for Charm_84:
(25, 48306), (30, 48279), (Start: 42 @48240 has 98 MA's), (Start: 47 @48231 has 127 MA's),

Gene: Chartreuse_84 Start: 45496, Stop: 45353, Start Num: 42
Candidate Starts for Chartreuse_84:
(31, 45535), (Start: 42 @45496 has 98 MA's), (Start: 47 @45484 has 127 MA's),

Gene: Che12_87 Start: 47465, Stop: 47328, Start Num: 42
Candidate Starts for Che12_87:
(Start: 42 @47465 has 98 MA's), (56, 47378),

Gene: CherryTomatoes_192 Start: 134867, Stop: 135010, Start Num: 41
Candidate Starts for CherryTomatoes_192:
(Start: 41 @134867 has 39 MA's),

Gene: ChipMunk_86 Start: 49770, Stop: 49636, Start Num: 47
Candidate Starts for ChipMunk_86:
(15, 49896), (34, 49806), (Start: 47 @49770 has 127 MA's),

Gene: Cindaradix_77 Start: 48255, Stop: 48109, Start Num: 41
Candidate Starts for Cindaradix_77:
(Start: 33 @48279 has 1 MA's), (Start: 41 @48255 has 39 MA's), (56, 48162),

Gene: Clammy_87 Start: 47517, Stop: 47374, Start Num: 41
Candidate Starts for Clammy_87:
(7, 47769), (8, 47742), (10, 47700), (23, 47595), (24, 47586), (27, 47568), (Start: 33 @47544 has 1 MA's), (Start: 41 @47517 has 39 MA's),

Gene: CloudWang3_87 Start: 46699, Stop: 46556, Start Num: 42

Candidate Starts for CloudWang3_87:
(31, 46738), (Start: 42 @46699 has 98 MA's), (Start: 47 @46687 has 127 MA's),

Gene: Cocoaberry_82 Start: 48043, Stop: 47897, Start Num: 41
Candidate Starts for Cocoaberry_82:
(Start: 33 @48067 has 1 MA's), (Start: 41 @48043 has 39 MA's),

Gene: CogOmlette_86 Start: 48346, Stop: 48218, Start Num: 47
Candidate Starts for CogOmlette_86:
(Start: 42 @48355 has 98 MA's), (Start: 47 @48346 has 127 MA's),

Gene: Colin_85 Start: 49193, Stop: 49047, Start Num: 42
Candidate Starts for Colin_85:
(22, 49277), (Start: 42 @49193 has 98 MA's), (Start: 47 @49181 has 127 MA's),

Gene: Commander_80 Start: 48043, Stop: 47897, Start Num: 41
Candidate Starts for Commander_80:
(Start: 33 @48070 has 1 MA's), (Start: 41 @48043 has 39 MA's), (56, 47950),

Gene: Conquerage_87 Start: 48617, Stop: 48474, Start Num: 42
Candidate Starts for Conquerage_87:
(30, 48656), (Start: 42 @48617 has 98 MA's), (Start: 47 @48608 has 127 MA's),

Gene: Cookiedough_85 Start: 46803, Stop: 46660, Start Num: 42
Candidate Starts for Cookiedough_85:
(31, 46842), (Start: 42 @46803 has 98 MA's), (Start: 47 @46791 has 127 MA's),

Gene: Crucio_85 Start: 48717, Stop: 48580, Start Num: 47
Candidate Starts for Crucio_85:
(Start: 47 @48717 has 127 MA's),

Gene: DBQu4n_85 Start: 48081, Stop: 47953, Start Num: 47
Candidate Starts for DBQu4n_85:
(12, 48255), (Start: 43 @48090 has 13 MA's), (Start: 47 @48081 has 127 MA's), (56, 48003),

Gene: DaVinci_83 Start: 45538, Stop: 45407, Start Num: 47
Candidate Starts for DaVinci_83:
(31, 45589), (Start: 42 @45550 has 98 MA's), (Start: 47 @45538 has 127 MA's),

Gene: Dalmatian_85 Start: 48536, Stop: 48402, Start Num: 47
Candidate Starts for Dalmatian_85:
(30, 48584), (Start: 42 @48545 has 98 MA's), (Start: 47 @48536 has 127 MA's),

Gene: Darrell_87 Start: 48031, Stop: 47903, Start Num: 47
Candidate Starts for Darrell_87:
(Start: 47 @48031 has 127 MA's),

Gene: DarthPhader_85 Start: 49743, Stop: 49600, Start Num: 42
Candidate Starts for DarthPhader_85:
(Start: 42 @49743 has 98 MA's), (Start: 47 @49734 has 127 MA's),

Gene: Datway_79 Start: 47853, Stop: 47707, Start Num: 41
Candidate Starts for Datway_79:

(Start: 33 @47877 has 1 MA's), (Start: 41 @47853 has 39 MA's), (56, 47760),

Gene: Deano_79 Start: 48050, Stop: 47904, Start Num: 41
Candidate Starts for Deano_79:
(Start: 33 @48074 has 1 MA's), (Start: 41 @48050 has 39 MA's), (56, 47957),

Gene: DeerParkTS_81 Start: 47218, Stop: 47075, Start Num: 42
Candidate Starts for DeerParkTS_81:
(Start: 42 @47218 has 98 MA's), (Start: 47 @47209 has 127 MA's), (56, 47125), (57, 47080),

Gene: Deloris_87 Start: 48408, Stop: 48274, Start Num: 47
Candidate Starts for Deloris_87:
(34, 48444), (Start: 47 @48408 has 127 MA's),

Gene: DelvinSonDorr_80 Start: 45747, Stop: 45616, Start Num: 47
Candidate Starts for DelvinSonDorr_80:
(31, 45798), (Start: 42 @45759 has 98 MA's), (Start: 47 @45747 has 127 MA's),

Gene: Dignity_87 Start: 48950, Stop: 48816, Start Num: 47
Candidate Starts for Dignity_87:
(34, 48986), (Start: 47 @48950 has 127 MA's),

Gene: Dorothea_85 Start: 46796, Stop: 46653, Start Num: 42
Candidate Starts for Dorothea_85:
(31, 46835), (Start: 42 @46796 has 98 MA's), (Start: 47 @46784 has 127 MA's),

Gene: Drake55_86 Start: 48363, Stop: 48229, Start Num: 47
Candidate Starts for Drake55_86:
(Start: 42 @48372 has 98 MA's), (Start: 47 @48363 has 127 MA's), (56, 48279),

Gene: DreamTeam1_84 Start: 48079, Stop: 47939, Start Num: 47
Candidate Starts for DreamTeam1_84:
(25, 48154), (30, 48127), (Start: 42 @48088 has 98 MA's), (Start: 47 @48079 has 127 MA's),

Gene: DroogsArmy_78 Start: 50033, Stop: 49902, Start Num: 49
Candidate Starts for DroogsArmy_78:
(13, 50210), (20, 50141), (Start: 40 @50054 has 2 MA's), (Start: 49 @50033 has 2 MA's),

Gene: DudeLittle_83 Start: 48254, Stop: 48120, Start Num: 47
Candidate Starts for DudeLittle_83:
(30, 48302), (Start: 42 @48263 has 98 MA's), (Start: 47 @48254 has 127 MA's),

Gene: Duplo_86 Start: 48147, Stop: 48010, Start Num: 43
Candidate Starts for Duplo_86:
(12, 48312), (Start: 43 @48147 has 13 MA's), (Start: 47 @48138 has 127 MA's), (56, 48060),

Gene: EZMoney23_82 Start: 47825, Stop: 47679, Start Num: 42
Candidate Starts for EZMoney23_82:
(Start: 42 @47825 has 98 MA's), (Start: 47 @47816 has 127 MA's),

Gene: Eagle_81 Start: 48104, Stop: 47958, Start Num: 41
Candidate Starts for Eagle_81:
(Start: 33 @48128 has 1 MA's), (Start: 41 @48104 has 39 MA's),

Gene: EagleEye_86 Start: 47944, Stop: 47807, Start Num: 43
Candidate Starts for EagleEye_86:
(Start: 43 @47944 has 13 MA's), (Start: 47 @47935 has 127 MA's),

Gene: Eaglepride_84 Start: 47732, Stop: 47583, Start Num: 33
Candidate Starts for Eaglepride_84:
(27, 47756), (Start: 33 @47732 has 1 MA's), (Start: 35 @47726 has 1 MA's), (56, 47636), (57, 47591),

Gene: Eapen_82 Start: 48037, Stop: 47891, Start Num: 41
Candidate Starts for Eapen_82:
(Start: 33 @48061 has 1 MA's), (Start: 41 @48037 has 39 MA's),

Gene: Ebony_87 Start: 47664, Stop: 47536, Start Num: 47
Candidate Starts for Ebony_87:
(Start: 42 @47676 has 98 MA's), (Start: 47 @47664 has 127 MA's), (56, 47586),

Gene: Echild_88 Start: 48508, Stop: 48371, Start Num: 47
Candidate Starts for Echild_88:
(15, 48634), (Start: 47 @48508 has 127 MA's),

Gene: EdogawaKiddo_89 Start: 48919, Stop: 48776, Start Num: 42
Candidate Starts for EdogawaKiddo_89:
(30, 48958), (Start: 42 @48919 has 98 MA's), (Start: 47 @48910 has 127 MA's),

Gene: Eidsmoe_87 Start: 48610, Stop: 48467, Start Num: 42
Candidate Starts for Eidsmoe_87:
(30, 48649), (Start: 42 @48610 has 98 MA's), (Start: 47 @48601 has 127 MA's),

Gene: Elephantoon_89 Start: 48757, Stop: 48626, Start Num: 47
Candidate Starts for Elephantoon_89:
(34, 48790), (Start: 47 @48757 has 127 MA's),

Gene: EmyBug_86 Start: 48612, Stop: 48469, Start Num: 42
Candidate Starts for EmyBug_86:
(30, 48651), (Start: 42 @48612 has 98 MA's), (Start: 47 @48603 has 127 MA's),

Gene: Equemioh13_85 Start: 48350, Stop: 48207, Start Num: 42
Candidate Starts for Equemioh13_85:
(Start: 42 @48350 has 98 MA's), (Start: 47 @48341 has 127 MA's), (56, 48257),

Gene: EricB_83 Start: 45693, Stop: 45550, Start Num: 42
Candidate Starts for EricB_83:
(31, 45732), (Start: 42 @45693 has 98 MA's), (Start: 47 @45681 has 127 MA's),

Gene: Eros_82 Start: 48047, Stop: 47901, Start Num: 41
Candidate Starts for Eros_82:
(Start: 33 @48074 has 1 MA's), (Start: 41 @48047 has 39 MA's), (56, 47954),

Gene: Et2Brutus_88 Start: 47941, Stop: 47813, Start Num: 47
Candidate Starts for Et2Brutus_88:
(Start: 42 @47953 has 98 MA's), (Start: 47 @47941 has 127 MA's), (56, 47863),

Gene: EvilGenius_85 Start: 49771, Stop: 49637, Start Num: 47
Candidate Starts for EvilGenius_85:
(15, 49897), (34, 49807), (Start: 47 @49771 has 127 MA's),

Gene: ExplosioNervosa_87 Start: 48669, Stop: 48535, Start Num: 47
Candidate Starts for ExplosioNervosa_87:
(30, 48717), (Start: 42 @48678 has 98 MA's), (Start: 47 @48669 has 127 MA's),

Gene: Fameo_83 Start: 48269, Stop: 48132, Start Num: 47
Candidate Starts for Fameo_83:
(Start: 47 @48269 has 127 MA's),

Gene: Fayely_87 Start: 48586, Stop: 48443, Start Num: 42
Candidate Starts for Fayely_87:
(30, 48625), (Start: 42 @48586 has 98 MA's), (Start: 47 @48577 has 127 MA's),

Gene: Fibonacci_88 Start: 47959, Stop: 47819, Start Num: 42
Candidate Starts for Fibonacci_88:
(Start: 42 @47959 has 98 MA's), (Start: 47 @47947 has 127 MA's), (56, 47869),

Gene: FiringLine_85 Start: 48657, Stop: 48520, Start Num: 47
Candidate Starts for FiringLine_85:
(Start: 47 @48657 has 127 MA's),

Gene: First_0086 Start: 48510, Stop: 48376, Start Num: 47
Candidate Starts for First_0086:
(34, 48546), (Start: 47 @48510 has 127 MA's),

Gene: Flare16_85 Start: 48165, Stop: 48022, Start Num: 42
Candidate Starts for Flare16_85:
(Start: 42 @48165 has 98 MA's), (Start: 47 @48156 has 127 MA's), (56, 48072),

Gene: Flaverint_89 Start: 48103, Stop: 47963, Start Num: 42
Candidate Starts for Flaverint_89:
(Start: 42 @48103 has 98 MA's), (Start: 47 @48091 has 127 MA's), (56, 48013),

Gene: FlyCatcher_83 Start: 50768, Stop: 50619, Start Num: 40
Candidate Starts for FlyCatcher_83:
(Start: 40 @50768 has 2 MA's), (52, 50726),

Gene: ForesterFrank_82 Start: 48384, Stop: 48241, Start Num: 42
Candidate Starts for ForesterFrank_82:
(17, 48495), (25, 48450), (Start: 42 @48384 has 98 MA's), (Start: 47 @48375 has 127 MA's),

Gene: Fred313_82 Start: 47147, Stop: 47004, Start Num: 41
Candidate Starts for Fred313_82:
(7, 47399), (10, 47330), (23, 47225), (27, 47198), (Start: 33 @47174 has 1 MA's), (Start: 41 @47147 has 39 MA's),

Gene: Gadost_82 Start: 48043, Stop: 47897, Start Num: 41
Candidate Starts for Gadost_82:
(Start: 33 @48067 has 1 MA's), (Start: 41 @48043 has 39 MA's),

Gene: Gail_86 Start: 47979, Stop: 47836, Start Num: 47
Candidate Starts for Gail_86:
(Start: 47 @47979 has 127 MA's), (56, 47895),

Gene: Garak_88 Start: 46620, Stop: 46489, Start Num: 47
Candidate Starts for Garak_88:
(31, 46671), (Start: 42 @46632 has 98 MA's), (Start: 47 @46620 has 127 MA's),

Gene: GaugeLDP_79 Start: 47615, Stop: 47487, Start Num: 47
Candidate Starts for GaugeLDP_79:
(Start: 42 @47627 has 98 MA's), (Start: 47 @47615 has 127 MA's),

Gene: Georgie2_87 Start: 48861, Stop: 48724, Start Num: 47
Candidate Starts for Georgie2_87:
(Start: 47 @48861 has 127 MA's),

Gene: Gilberta_86 Start: 46979, Stop: 46839, Start Num: 42
Candidate Starts for Gilberta_86:
(Start: 42 @46979 has 98 MA's), (Start: 47 @46967 has 127 MA's), (56, 46889),

Gene: Giroux_88 Start: 47516, Stop: 47373, Start Num: 41
Candidate Starts for Giroux_88:
(7, 47768), (8, 47741), (10, 47699), (23, 47594), (24, 47585), (27, 47567), (Start: 33 @47543 has 1 MA's), (Start: 41 @47516 has 39 MA's),

Gene: Gladiator_83 Start: 46355, Stop: 46212, Start Num: 42
Candidate Starts for Gladiator_83:
(31, 46394), (Start: 42 @46355 has 98 MA's), (Start: 47 @46343 has 127 MA's),

Gene: Gratitude_85 Start: 48350, Stop: 48207, Start Num: 42
Candidate Starts for Gratitude_85:
(Start: 42 @48350 has 98 MA's), (Start: 47 @48341 has 127 MA's), (56, 48257),

Gene: Greely_145 Start: 89424, Stop: 89567, Start Num: 39
Candidate Starts for Greely_145:
(Start: 39 @89424 has 1 MA's), (Start: 47 @89436 has 127 MA's),

Gene: Gruunaga_86 Start: 46310, Stop: 46167, Start Num: 42
Candidate Starts for Gruunaga_86:
(31, 46349), (Start: 42 @46310 has 98 MA's), (Start: 47 @46298 has 127 MA's),

Gene: HINdeR_78 Start: 49444, Stop: 49313, Start Num: 49
Candidate Starts for HINdeR_78:
(24, 49534), (28, 49513), (32, 49495), (37, 49474), (Start: 49 @49444 has 2 MA's),

Gene: Hammer_87 Start: 46017, Stop: 45874, Start Num: 42
Candidate Starts for Hammer_87:
(31, 46056), (Start: 42 @46017 has 98 MA's), (Start: 47 @46005 has 127 MA's),

Gene: Hanray_89 Start: 48889, Stop: 48755, Start Num: 47
Candidate Starts for Hanray_89:
(Start: 42 @48898 has 98 MA's), (Start: 47 @48889 has 127 MA's),

Gene: HarryHoudini_85 Start: 48375, Stop: 48232, Start Num: 42
Candidate Starts for HarryHoudini_85:
(Start: 42 @48375 has 98 MA's), (Start: 47 @48366 has 127 MA's), (56, 48282),

Gene: Heffalump_82 Start: 48737, Stop: 48600, Start Num: 47
Candidate Starts for Heffalump_82:
(Start: 47 @48737 has 127 MA's),

Gene: Helmet_89 Start: 46632, Stop: 46489, Start Num: 42
Candidate Starts for Helmet_89:
(31, 46671), (Start: 42 @46632 has 98 MA's), (Start: 47 @46620 has 127 MA's),

Gene: Hexamo_86 Start: 46185, Stop: 46042, Start Num: 42
Candidate Starts for Hexamo_86:
(31, 46224), (Start: 42 @46185 has 98 MA's), (Start: 47 @46173 has 127 MA's),

Gene: HippoHollow_83 Start: 49369, Stop: 49235, Start Num: 47
Candidate Starts for HippoHollow_83:
(34, 49405), (Start: 47 @49369 has 127 MA's),

Gene: Holex_89 Start: 48902, Stop: 48768, Start Num: 47
Candidate Starts for Holex_89:
(Start: 42 @48911 has 98 MA's), (Start: 47 @48902 has 127 MA's),

Gene: Hoot_80 Start: 44010, Stop: 43867, Start Num: 42
Candidate Starts for Hoot_80:
(31, 44049), (Start: 42 @44010 has 98 MA's), (Start: 47 @43998 has 127 MA's),

Gene: HortumSL17_90 Start: 48954, Stop: 48811, Start Num: 42
Candidate Starts for HortumSL17_90:
(30, 48993), (Start: 42 @48954 has 98 MA's), (Start: 47 @48945 has 127 MA's),

Gene: Houdini22_81 Start: 48043, Stop: 47897, Start Num: 41
Candidate Starts for Houdini22_81:
(Start: 33 @48067 has 1 MA's), (Start: 41 @48043 has 39 MA's),

Gene: Hutc2_85 Start: 46843, Stop: 46703, Start Num: 42
Candidate Starts for Hutc2_85:
(Start: 42 @46843 has 98 MA's), (Start: 47 @46831 has 127 MA's), (56, 46753),

Gene: Imbriano_86 Start: 46998, Stop: 46855, Start Num: 42
Candidate Starts for Imbriano_86:
(31, 47037), (Start: 42 @46998 has 98 MA's), (Start: 47 @46986 has 127 MA's),

Gene: Indra_90 Start: 46633, Stop: 46490, Start Num: 42
Candidate Starts for Indra_90:
(31, 46672), (Start: 42 @46633 has 98 MA's), (Start: 47 @46621 has 127 MA's),

Gene: Insomnia_88 Start: 48125, Stop: 47997, Start Num: 47
Candidate Starts for Insomnia_88:
(Start: 42 @48137 has 98 MA's), (Start: 47 @48125 has 127 MA's), (56, 48047),

Gene: IronMan_82 Start: 48859, Stop: 48722, Start Num: 47

Candidate Starts for IronMan_82:
(28, 48916), (Start: 47 @48859 has 127 MA's), (56, 48775),

Gene: Isiphiwo_81 Start: 45709, Stop: 45578, Start Num: 47
Candidate Starts for Isiphiwo_81:
(31, 45760), (Start: 42 @45721 has 98 MA's), (Start: 47 @45709 has 127 MA's),

Gene: Iwokeuplikedis_89 Start: 48834, Stop: 48700, Start Num: 47
Candidate Starts for Iwokeuplikedis_89:
(Start: 47 @48834 has 127 MA's),

Gene: Jaan_83 Start: 48967, Stop: 48830, Start Num: 47
Candidate Starts for Jaan_83:
(28, 49024), (Start: 47 @48967 has 127 MA's), (56, 48883),

Gene: Jabith_88 Start: 48151, Stop: 48011, Start Num: 42
Candidate Starts for Jabith_88:
(Start: 42 @48151 has 98 MA's), (Start: 47 @48139 has 127 MA's), (56, 48061),

Gene: Jeeves_86 Start: 46696, Stop: 46556, Start Num: 47
Candidate Starts for Jeeves_86:
(Start: 47 @46696 has 127 MA's),

Gene: Jerm_87 Start: 48918, Stop: 48784, Start Num: 47
Candidate Starts for Jerm_87:
(34, 48954), (Start: 47 @48918 has 127 MA's),

Gene: JewelBug_77 Start: 44488, Stop: 44333, Start Num: 42
Candidate Starts for JewelBug_77:
(31, 44527), (Start: 42 @44488 has 98 MA's), (Start: 47 @44476 has 127 MA's),

Gene: Jiawan_89 Start: 48919, Stop: 48785, Start Num: 47
Candidate Starts for Jiawan_89:
(Start: 42 @48928 has 98 MA's), (Start: 47 @48919 has 127 MA's),

Gene: Jordennis_83 Start: 46392, Stop: 46249, Start Num: 42
Candidate Starts for Jordennis_83:
(31, 46431), (Start: 42 @46392 has 98 MA's), (Start: 47 @46380 has 127 MA's),

Gene: Joselito_86 Start: 47845, Stop: 47717, Start Num: 47
Candidate Starts for Joselito_86:
(Start: 42 @47857 has 98 MA's), (Start: 47 @47845 has 127 MA's), (56, 47767),

Gene: JoshKayV_87 Start: 49086, Stop: 48952, Start Num: 47
Candidate Starts for JoshKayV_87:
(34, 49122), (Start: 47 @49086 has 127 MA's),

Gene: Jsquared_89 Start: 47958, Stop: 47821, Start Num: 43
Candidate Starts for Jsquared_89:
(Start: 43 @47958 has 13 MA's), (Start: 47 @47949 has 127 MA's), (54, 47919), (56, 47871),

Gene: Kalpine_87 Start: 49082, Stop: 48948, Start Num: 47
Candidate Starts for Kalpine_87:

(Start: 42 @49091 has 98 MA's), (Start: 47 @49082 has 127 MA's), (56, 48998),

Gene: Katalie136_78 Start: 47660, Stop: 47514, Start Num: 41
Candidate Starts for Katalie136_78:
(1, 48179), (2, 48077), (3, 47996), (Start: 33 @47684 has 1 MA's), (Start: 41 @47660 has 39 MA's), (56, 47567),

Gene: Kazan_86 Start: 46165, Stop: 46022, Start Num: 42
Candidate Starts for Kazan_86:
(31, 46204), (Start: 42 @46165 has 98 MA's), (Start: 47 @46153 has 127 MA's),

Gene: KekoraPapaka_79 Start: 48042, Stop: 47896, Start Num: 41
Candidate Starts for KekoraPapaka_79:
(Start: 33 @48066 has 1 MA's), (Start: 41 @48042 has 39 MA's),

Gene: Kerberos_85 Start: 48101, Stop: 47973, Start Num: 47
Candidate Starts for Kerberos_85:
(12, 48275), (Start: 43 @48110 has 13 MA's), (Start: 47 @48101 has 127 MA's), (56, 48023),

Gene: Keziacharles14_86 Start: 49418, Stop: 49284, Start Num: 46
Candidate Starts for Keziacharles14_86:
(34, 49448), (Start: 46 @49418 has 2 MA's),

Gene: Kimba_85 Start: 47148, Stop: 47020, Start Num: 47
Candidate Starts for Kimba_85:
(Start: 42 @47160 has 98 MA's), (Start: 47 @47148 has 127 MA's), (56, 47070),

Gene: Kimona_82 Start: 46840, Stop: 46682, Start Num: 36
Candidate Starts for Kimona_82:
(Start: 36 @46840 has 1 MA's),

Gene: KingCyrus_84 Start: 49784, Stop: 49650, Start Num: 47
Candidate Starts for KingCyrus_84:
(15, 49910), (34, 49820), (Start: 47 @49784 has 127 MA's),

Gene: Kingmustik0402_82 Start: 48031, Stop: 47885, Start Num: 41
Candidate Starts for Kingmustik0402_82:
(Start: 33 @48055 has 1 MA's), (Start: 41 @48031 has 39 MA's),

Gene: Kipper29_85 Start: 46168, Stop: 46025, Start Num: 42
Candidate Starts for Kipper29_85:
(31, 46207), (Start: 42 @46168 has 98 MA's), (Start: 47 @46156 has 127 MA's),

Gene: Klodlith_85 Start: 48301, Stop: 48161, Start Num: 47
Candidate Starts for Klodlith_85:
(25, 48376), (30, 48349), (Start: 42 @48310 has 98 MA's), (Start: 47 @48301 has 127 MA's),

Gene: Koduck_85 Start: 47297, Stop: 47160, Start Num: 43
Candidate Starts for Koduck_85:
(11, 47483), (21, 47387), (Start: 43 @47297 has 13 MA's), (Start: 47 @47288 has 127 MA's), (54, 47258), (56, 47210),

Gene: Koko_88 Start: 47022, Stop: 46879, Start Num: 42

Candidate Starts for Koko_88:
(31, 47061), (Start: 42 @47022 has 98 MA's), (Start: 47 @47010 has 127 MA's),

Gene: L5_78 Start: 47188, Stop: 47051, Start Num: 43
Candidate Starts for L5_78:
(11, 47374), (Start: 43 @47188 has 13 MA's), (Start: 47 @47179 has 127 MA's), (54, 47149), (56, 47101),

Gene: LadyBird_89 Start: 49008, Stop: 48874, Start Num: 47
Candidate Starts for LadyBird_89:
(34, 49044), (Start: 47 @49008 has 127 MA's),

Gene: Landor_83 Start: 48892, Stop: 48755, Start Num: 47
Candidate Starts for Landor_83:
(28, 48949), (Start: 47 @48892 has 127 MA's), (56, 48808),

Gene: Larenn_83 Start: 48362, Stop: 48228, Start Num: 47
Candidate Starts for Larenn_83:
(29, 48407), (Start: 42 @48371 has 98 MA's), (Start: 47 @48362 has 127 MA's), (56, 48278),

Gene: Leviathan_87 Start: 48999, Stop: 48865, Start Num: 47
Candidate Starts for Leviathan_87:
(34, 49035), (Start: 47 @48999 has 127 MA's),

Gene: LilTurb_86 Start: 48795, Stop: 48661, Start Num: 47
Candidate Starts for LilTurb_86:
(34, 48831), (Start: 47 @48795 has 127 MA's),

Gene: Lilbunny_86 Start: 46264, Stop: 46121, Start Num: 42
Candidate Starts for Lilbunny_86:
(31, 46303), (Start: 42 @46264 has 98 MA's), (Start: 47 @46252 has 127 MA's),

Gene: Lilleskat_89 Start: 48908, Stop: 48765, Start Num: 42
Candidate Starts for Lilleskat_89:
(30, 48947), (Start: 42 @48908 has 98 MA's), (Start: 47 @48899 has 127 MA's),

Gene: LionsBait_83 Start: 49309, Stop: 49175, Start Num: 47
Candidate Starts for LionsBait_83:
(34, 49345), (Start: 47 @49309 has 127 MA's),

Gene: Lokk_80 Start: 46874, Stop: 46737, Start Num: 47
Candidate Starts for Lokk_80:
(9, 47090), (30, 46922), (Start: 42 @46883 has 98 MA's), (Start: 47 @46874 has 127 MA's),

Gene: LoneWolf_89 Start: 48940, Stop: 48806, Start Num: 47
Candidate Starts for LoneWolf_89:
(30, 48988), (Start: 47 @48940 has 127 MA's),

Gene: Loser_88 Start: 49259, Stop: 49116, Start Num: 42
Candidate Starts for Loser_88:
(Start: 42 @49259 has 98 MA's), (Start: 47 @49250 has 127 MA's), (53, 49223), (56, 49166),

Gene: Luchador_84 Start: 47960, Stop: 47817, Start Num: 47

Candidate Starts for Luchador_84:
(Start: 47 @47960 has 127 MA's), (56, 47876),

Gene: Lucivia_89 Start: 48124, Stop: 47996, Start Num: 47
Candidate Starts for Lucivia_89:
(Start: 42 @48136 has 98 MA's), (Start: 47 @48124 has 127 MA's), (56, 48046),

Gene: Lucyedi_85 Start: 48143, Stop: 48006, Start Num: 43
Candidate Starts for Lucyedi_85:
(Start: 43 @48143 has 13 MA's), (Start: 47 @48134 has 127 MA's), (56, 48056),

Gene: MaCh_88 Start: 48100, Stop: 47960, Start Num: 42
Candidate Starts for MaCh_88:
(Start: 42 @48100 has 98 MA's), (Start: 47 @48088 has 127 MA's), (56, 48010),

Gene: Mabel_88 Start: 48101, Stop: 47961, Start Num: 42
Candidate Starts for Mabel_88:
(Start: 42 @48101 has 98 MA's), (Start: 47 @48089 has 127 MA's), (56, 48011),

Gene: MajorMajor_82 Start: 46007, Stop: 45870, Start Num: 43
Candidate Starts for MajorMajor_82:
(Start: 43 @46007 has 13 MA's), (Start: 47 @45998 has 127 MA's), (54, 45968), (56, 45920),

Gene: Malec_84 Start: 48932, Stop: 48798, Start Num: 47
Candidate Starts for Malec_84:
(Start: 42 @48941 has 98 MA's), (Start: 47 @48932 has 127 MA's), (56, 48848),

Gene: Maminiaina_88 Start: 48860, Stop: 48723, Start Num: 47
Candidate Starts for Maminiaina_88:
(Start: 42 @48869 has 98 MA's), (Start: 47 @48860 has 127 MA's),

Gene: Marchesa_84 Start: 47349, Stop: 47203, Start Num: 41
Candidate Starts for Marchesa_84:
(7, 47601), (10, 47532), (23, 47427), (27, 47400), (Start: 33 @47376 has 1 MA's), (Start: 41 @47349 has 39 MA's),

Gene: McFly_85 Start: 46492, Stop: 46361, Start Num: 47
Candidate Starts for McFly_85:
(31, 46543), (Start: 42 @46504 has 98 MA's), (Start: 47 @46492 has 127 MA's),

Gene: MeeZee_81 Start: 48036, Stop: 47890, Start Num: 41
Candidate Starts for MeeZee_81:
(Start: 33 @48060 has 1 MA's), (Start: 41 @48036 has 39 MA's),

Gene: MegTheThird_85 Start: 48302, Stop: 48168, Start Num: 47
Candidate Starts for MegTheThird_85:
(30, 48350), (Start: 42 @48311 has 98 MA's), (Start: 47 @48302 has 127 MA's),

Gene: MiculUcigas_85 Start: 48068, Stop: 47925, Start Num: 42
Candidate Starts for MiculUcigas_85:
(Start: 42 @48068 has 98 MA's), (Start: 47 @48059 has 127 MA's), (56, 47975),

Gene: Miko_80 Start: 47639, Stop: 47502, Start Num: 47

Candidate Starts for Miko_80:
(4, 47933), (9, 47855), (30, 47687), (Start: 42 @47648 has 98 MA's), (Start: 47 @47639 has 127 MA's),

Gene: Minispark_86 Start: 48343, Stop: 48215, Start Num: 47
Candidate Starts for Minispark_86:
(Start: 42 @48352 has 98 MA's), (Start: 47 @48343 has 127 MA's),

Gene: MissWhite_78 Start: 44927, Stop: 44793, Start Num: 47
Candidate Starts for MissWhite_78:
(Start: 42 @44936 has 98 MA's), (Start: 47 @44927 has 127 MA's), (56, 44843),

Gene: Mulciber_87 Start: 47956, Stop: 47816, Start Num: 42
Candidate Starts for Mulciber_87:
(Start: 42 @47956 has 98 MA's), (Start: 47 @47944 has 127 MA's), (56, 47866),

Gene: Munch_87 Start: 48093, Stop: 47965, Start Num: 47
Candidate Starts for Munch_87:
(Start: 42 @48105 has 98 MA's), (Start: 47 @48093 has 127 MA's), (56, 48015),

Gene: Myxus_89 Start: 48954, Stop: 48811, Start Num: 42
Candidate Starts for Myxus_89:
(30, 48993), (Start: 42 @48954 has 98 MA's), (Start: 47 @48945 has 127 MA's),

Gene: NaSiaTalie_86 Start: 48355, Stop: 48212, Start Num: 42
Candidate Starts for NaSiaTalie_86:
(Start: 42 @48355 has 98 MA's), (Start: 47 @48346 has 127 MA's), (56, 48262),

Gene: Neeharika16_84 Start: 46254, Stop: 46111, Start Num: 42
Candidate Starts for Neeharika16_84:
(31, 46293), (Start: 42 @46254 has 98 MA's), (Start: 47 @46242 has 127 MA's),

Gene: Nemo27_81 Start: 48038, Stop: 47892, Start Num: 41
Candidate Starts for Nemo27_81:
(Start: 33 @48062 has 1 MA's), (Start: 41 @48038 has 39 MA's),

Gene: Newrala_84 Start: 46600, Stop: 46457, Start Num: 42
Candidate Starts for Newrala_84:
(31, 46639), (Start: 42 @46600 has 98 MA's), (Start: 47 @46588 has 127 MA's),

Gene: NicoleTera_83 Start: 48277, Stop: 48140, Start Num: 47
Candidate Starts for NicoleTera_83:
(Start: 42 @48286 has 98 MA's), (Start: 47 @48277 has 127 MA's),

Gene: NorthStar_79 Start: 48042, Stop: 47896, Start Num: 41
Candidate Starts for NorthStar_79:
(Start: 33 @48066 has 1 MA's), (Start: 41 @48042 has 39 MA's),

Gene: Northrop_79 Start: 48038, Stop: 47892, Start Num: 41
Candidate Starts for Northrop_79:
(Start: 33 @48062 has 1 MA's), (Start: 41 @48038 has 39 MA's), (56, 47945),

Gene: NotAPhaseMom_81 Start: 48043, Stop: 47897, Start Num: 41
Candidate Starts for NotAPhaseMom_81:

(Start: 33 @48067 has 1 MA's), (Start: 41 @48043 has 39 MA's),

Gene: NothingSpecial_80 Start: 48222, Stop: 48079, Start Num: 42
Candidate Starts for NothingSpecial_80:
(20, 48312), (25, 48288), (Start: 42 @48222 has 98 MA's), (Start: 47 @48213 has 127 MA's),

Gene: OKCentral2016_80 Start: 46884, Stop: 46744, Start Num: 35
Candidate Starts for OKCentral2016_80:
(8, 47082), (16, 46974), (27, 46914), (Start: 33 @46890 has 1 MA's), (Start: 35 @46884 has 1 MA's), (56, 46794),

Gene: Obama12_83 Start: 48466, Stop: 48320, Start Num: 41
Candidate Starts for Obama12_83:
(Start: 33 @48490 has 1 MA's), (Start: 41 @48466 has 39 MA's), (56, 48373),

Gene: Odin_84 Start: 47817, Stop: 47680, Start Num: 43
Candidate Starts for Odin_84:
(Start: 43 @47817 has 13 MA's), (Start: 47 @47808 has 127 MA's), (54, 47778), (56, 47730),

Gene: Onglai_88 Start: 47091, Stop: 46957, Start Num: 47
Candidate Starts for Onglai_88:
(Start: 42 @47100 has 98 MA's), (Start: 47 @47091 has 127 MA's),

Gene: Orange_88 Start: 47655, Stop: 47515, Start Num: 42
Candidate Starts for Orange_88:
(Start: 42 @47655 has 98 MA's), (Start: 47 @47643 has 127 MA's), (56, 47565),

Gene: PackMan_84 Start: 46868, Stop: 46725, Start Num: 42
Candidate Starts for PackMan_84:
(30, 46907), (Start: 42 @46868 has 98 MA's), (Start: 47 @46859 has 127 MA's),

Gene: Petersenfast_84 Start: 46536, Stop: 46396, Start Num: 42
Candidate Starts for Petersenfast_84:
(Start: 42 @46536 has 98 MA's), (Start: 47 @46524 has 127 MA's), (56, 46446),

Gene: Ph8s_86 Start: 47599, Stop: 47462, Start Num: 42
Candidate Starts for Ph8s_86:
(18, 47695), (Start: 42 @47599 has 98 MA's), (56, 47512),

Gene: Phabba_146 Start: 88539, Stop: 88682, Start Num: 39
Candidate Starts for Phabba_146:
(Start: 39 @88539 has 1 MA's), (Start: 47 @88551 has 127 MA's),

Gene: Phaded_79 Start: 48851, Stop: 48714, Start Num: 47
Candidate Starts for Phaded_79:
(Start: 47 @48851 has 127 MA's), (56, 48767),

Gene: Phaeder_89 Start: 48820, Stop: 48686, Start Num: 47
Candidate Starts for Phaeder_89:
(30, 48868), (Start: 42 @48829 has 98 MA's), (Start: 47 @48820 has 127 MA's),

Gene: Phlei_71 Start: 45865, Stop: 45713, Start Num: 38
Candidate Starts for Phlei_71:

(38, 45865), (Start: 47 @45844 has 127 MA's), (50, 45832), (57, 45721),

Gene: Phonnegut_89 Start: 48832, Stop: 48698, Start Num: 47
Candidate Starts for Phonnegut_89:
(30, 48880), (Start: 42 @48841 has 98 MA's), (Start: 47 @48832 has 127 MA's),

Gene: Pioneer_89 Start: 48832, Stop: 48698, Start Num: 47
Candidate Starts for Pioneer_89:
(30, 48880), (Start: 42 @48841 has 98 MA's), (Start: 47 @48832 has 127 MA's),

Gene: Piro94_84 Start: 48303, Stop: 48160, Start Num: 42
Candidate Starts for Piro94_84:
(Start: 42 @48303 has 98 MA's), (Start: 47 @48294 has 127 MA's), (56, 48210),

Gene: Pistachio_85 Start: 47064, Stop: 46921, Start Num: 41
Candidate Starts for Pistachio_85:
(7, 47316), (8, 47289), (10, 47247), (23, 47142), (24, 47133), (27, 47115), (Start: 33 @47091 has 1 MA's), (Start: 41 @47064 has 39 MA's),

Gene: Pmask_84 Start: 46789, Stop: 46658, Start Num: 47
Candidate Starts for Pmask_84:
(31, 46840), (Start: 42 @46801 has 98 MA's), (Start: 47 @46789 has 127 MA's),

Gene: Pomar16_85 Start: 48174, Stop: 48046, Start Num: 47
Candidate Starts for Pomar16_85:
(12, 48348), (Start: 43 @48183 has 13 MA's), (Start: 47 @48174 has 127 MA's), (56, 48096),

Gene: Power_85 Start: 48860, Stop: 48723, Start Num: 47
Candidate Starts for Power_85:
(Start: 47 @48860 has 127 MA's),

Gene: Priamo_86 Start: 46033, Stop: 45902, Start Num: 47
Candidate Starts for Priamo_86:
(31, 46084), (Start: 42 @46045 has 98 MA's), (Start: 47 @46033 has 127 MA's),

Gene: Priya_87 Start: 48604, Stop: 48470, Start Num: 47
Candidate Starts for Priya_87:
(30, 48652), (Start: 42 @48613 has 98 MA's), (Start: 47 @48604 has 127 MA's),

Gene: Prudy_83 Start: 48650, Stop: 48504, Start Num: 42
Candidate Starts for Prudy_83:
(17, 48761), (30, 48689), (Start: 42 @48650 has 98 MA's), (Start: 47 @48638 has 127 MA's), (56, 48557),

Gene: Pukovnik_80 Start: 48328, Stop: 48182, Start Num: 42
Candidate Starts for Pukovnik_80:
(Start: 42 @48328 has 98 MA's), (Start: 47 @48319 has 127 MA's),

Gene: Pupper_190 Start: 134729, Stop: 134872, Start Num: 41
Candidate Starts for Pupper_190:
(Start: 41 @134729 has 39 MA's),

Gene: Puppy_86 Start: 47134, Stop: 46991, Start Num: 41

Candidate Starts for Puppy_86:
(7, 47386), (8, 47359), (10, 47317), (23, 47212), (24, 47203), (27, 47185), (Start: 33 @47161 has 1 MA's), (Start: 41 @47134 has 39 MA's),

Gene: Qobbit_87 Start: 48566, Stop: 48432, Start Num: 47
Candidate Starts for Qobbit_87:
(30, 48614), (Start: 42 @48575 has 98 MA's), (Start: 47 @48566 has 127 MA's),

Gene: QueenB2_82 Start: 47950, Stop: 47813, Start Num: 47
Candidate Starts for QueenB2_82:
(Start: 47 @47950 has 127 MA's),

Gene: QueenBeesly_85 Start: 48657, Stop: 48520, Start Num: 47
Candidate Starts for QueenBeesly_85:
(Start: 47 @48657 has 127 MA's),

Gene: Quokka_87 Start: 47716, Stop: 47579, Start Num: 43
Candidate Starts for Quokka_87:
(Start: 43 @47716 has 13 MA's), (Start: 47 @47707 has 127 MA's), (54, 47677), (56, 47629),

Gene: Rachaly_82 Start: 47782, Stop: 47645, Start Num: 47
Candidate Starts for Rachaly_82:
(4, 48076), (9, 47998), (30, 47830), (Start: 42 @47791 has 98 MA's), (Start: 47 @47782 has 127 MA's),

Gene: Rahalelujah_88 Start: 48358, Stop: 48230, Start Num: 47
Candidate Starts for Rahalelujah_88:
(Start: 42 @48367 has 98 MA's), (Start: 47 @48358 has 127 MA's),

Gene: RedRock_85 Start: 48903, Stop: 48769, Start Num: 47
Candidate Starts for RedRock_85:
(Start: 42 @48912 has 98 MA's), (Start: 47 @48903 has 127 MA's), (53, 48876), (56, 48819),

Gene: Refuge_87 Start: 50587, Stop: 50444, Start Num: 42
Candidate Starts for Refuge_87:
(Start: 42 @50587 has 98 MA's), (Start: 47 @50578 has 127 MA's),

Gene: Relief_81 Start: 48039, Stop: 47893, Start Num: 41
Candidate Starts for Relief_81:
(Start: 33 @48063 has 1 MA's), (Start: 41 @48039 has 39 MA's),

Gene: Retro23_85 Start: 48378, Stop: 48244, Start Num: 47
Candidate Starts for Retro23_85:
(30, 48426), (Start: 42 @48387 has 98 MA's), (Start: 47 @48378 has 127 MA's),

Gene: Rifter_87 Start: 45812, Stop: 45669, Start Num: 42
Candidate Starts for Rifter_87:
(31, 45851), (Start: 42 @45812 has 98 MA's), (Start: 47 @45800 has 127 MA's),

Gene: RockieBear_82 Start: 48044, Stop: 47898, Start Num: 41
Candidate Starts for RockieBear_82:
(Start: 33 @48071 has 1 MA's), (Start: 41 @48044 has 39 MA's), (56, 47951),

Gene: Rocksand_79 Start: 48038, Stop: 47892, Start Num: 41

Candidate Starts for Rocksand_79:
(Start: 33 @48062 has 1 MA's), (Start: 41 @48038 has 39 MA's), (56, 47945),

Gene: Roksolana_87 Start: 46528, Stop: 46385, Start Num: 42
Candidate Starts for Roksolana_87:
(31, 46567), (Start: 42 @46528 has 98 MA's), (Start: 47 @46516 has 127 MA's),

Gene: Ronaldo_142 Start: 66482, Stop: 66613, Start Num: 44
Candidate Starts for Ronaldo_142:
(Start: 44 @66482 has 3 MA's), (51, 66512),

Gene: Rosa24_78 Start: 48070, Stop: 47924, Start Num: 41
Candidate Starts for Rosa24_78:
(Start: 33 @48094 has 1 MA's), (Start: 41 @48070 has 39 MA's), (56, 47977),

Gene: RyeScarlet_89 Start: 48809, Stop: 48675, Start Num: 47
Candidate Starts for RyeScarlet_89:
(Start: 42 @48818 has 98 MA's), (Start: 47 @48809 has 127 MA's),

Gene: SCentae_189 Start: 134921, Stop: 135064, Start Num: 41
Candidate Starts for SCentae_189:
(Start: 41 @134921 has 39 MA's),

Gene: Sachima_89 Start: 48856, Stop: 48713, Start Num: 42
Candidate Starts for Sachima_89:
(30, 48895), (Start: 42 @48856 has 98 MA's), (Start: 47 @48847 has 127 MA's),

Gene: Salz_84 Start: 46753, Stop: 46625, Start Num: 47
Candidate Starts for Salz_84:
(Start: 42 @46765 has 98 MA's), (Start: 47 @46753 has 127 MA's), (56, 46675),

Gene: Saskia_86 Start: 47002, Stop: 46862, Start Num: 42
Candidate Starts for Saskia_86:
(Start: 42 @47002 has 98 MA's), (Start: 47 @46990 has 127 MA's), (56, 46912),

Gene: SaturnRing_86 Start: 47517, Stop: 47374, Start Num: 41
Candidate Starts for SaturnRing_86:
(7, 47769), (8, 47742), (10, 47700), (23, 47595), (24, 47586), (27, 47568), (Start: 33 @47544 has 1 MA's), (Start: 41 @47517 has 39 MA's),

Gene: Scherzo_87 Start: 48864, Stop: 48730, Start Num: 47
Candidate Starts for Scherzo_87:
(30, 48912), (Start: 42 @48873 has 98 MA's), (Start: 47 @48864 has 127 MA's),

Gene: SemperFi_85 Start: 48545, Stop: 48408, Start Num: 47
Candidate Starts for SemperFi_85:
(Start: 47 @48545 has 127 MA's),

Gene: Serenity_88 Start: 47747, Stop: 47619, Start Num: 47
Candidate Starts for Serenity_88:
(Start: 43 @47756 has 13 MA's), (Start: 47 @47747 has 127 MA's), (54, 47717), (56, 47669),

Gene: Sham4_85 Start: 46851, Stop: 46711, Start Num: 42

Candidate Starts for Sham4_85:
(Start: 42 @46851 has 98 MA's), (Start: 47 @46839 has 127 MA's), (56, 46761),

Gene: SheaKeira_84 Start: 48104, Stop: 47970, Start Num: 47
Candidate Starts for SheaKeira_84:
(17, 48224), (25, 48179), (30, 48152), (Start: 42 @48113 has 98 MA's), (Start: 47 @48104 has 127 MA's),

Gene: Sheen_80 Start: 50105, Stop: 49956, Start Num: 40
Candidate Starts for Sheen_80:
(Start: 40 @50105 has 2 MA's), (52, 50063),

Gene: SheldonCooper_82 Start: 48480, Stop: 48334, Start Num: 41
Candidate Starts for SheldonCooper_82:
(Start: 33 @48504 has 1 MA's), (Start: 41 @48480 has 39 MA's),

Gene: Skadoosh_79 Start: 48039, Stop: 47893, Start Num: 41
Candidate Starts for Skadoosh_79:
(Start: 33 @48063 has 1 MA's), (Start: 41 @48039 has 39 MA's),

Gene: Skipitt_81 Start: 48036, Stop: 47890, Start Num: 41
Candidate Starts for Skipitt_81:
(Start: 33 @48060 has 1 MA's), (Start: 41 @48036 has 39 MA's),

Gene: Sknot_85 Start: 48162, Stop: 48019, Start Num: 42
Candidate Starts for Sknot_85:
(Start: 42 @48162 has 98 MA's), (Start: 47 @48153 has 127 MA's), (56, 48069),

Gene: Skog_22 Start: 10918, Stop: 11064, Start Num: 41
Candidate Starts for Skog_22:
(5, 10645), (6, 10654), (Start: 41 @10918 has 39 MA's),

Gene: Smeagan_88 Start: 49090, Stop: 48956, Start Num: 47
Candidate Starts for Smeagan_88:
(34, 49126), (Start: 47 @49090 has 127 MA's),

Gene: SmellyB_85 Start: 46159, Stop: 46016, Start Num: 42
Candidate Starts for SmellyB_85:
(31, 46198), (Start: 42 @46159 has 98 MA's), (Start: 47 @46147 has 127 MA's),

Gene: SnapTap_85 Start: 48516, Stop: 48379, Start Num: 47
Candidate Starts for SnapTap_85:
(Start: 47 @48516 has 127 MA's),

Gene: Snape_88 Start: 47644, Stop: 47504, Start Num: 42
Candidate Starts for Snape_88:
(Start: 42 @47644 has 98 MA's), (Start: 47 @47632 has 127 MA's), (56, 47554),

Gene: SororFago_84 Start: 47898, Stop: 47755, Start Num: 47
Candidate Starts for SororFago_84:
(Start: 47 @47898 has 127 MA's),

Gene: Spouty_87 Start: 48612, Stop: 48469, Start Num: 42

Candidate Starts for Spouty_87:
(30, 48651), (Start: 42 @48612 has 98 MA's), (Start: 47 @48603 has 127 MA's),

Gene: StarStuff_85 Start: 48145, Stop: 48008, Start Num: 43
Candidate Starts for StarStuff_85:
(12, 48310), (Start: 43 @48145 has 13 MA's), (Start: 47 @48136 has 127 MA's), (56, 48058),

Gene: Steamy_84 Start: 49557, Stop: 49414, Start Num: 42
Candidate Starts for Steamy_84:
(18, 49653), (25, 49623), (30, 49596), (Start: 42 @49557 has 98 MA's), (Start: 47 @49548 has 127 MA's),

Gene: Stink_82 Start: 48266, Stop: 48120, Start Num: 41
Candidate Starts for Stink_82:
(Start: 33 @48290 has 1 MA's), (Start: 41 @48266 has 39 MA's), (56, 48173),

Gene: Sultana_82 Start: 48039, Stop: 47893, Start Num: 41
Candidate Starts for Sultana_82:
(Start: 33 @48063 has 1 MA's), (Start: 41 @48039 has 39 MA's),

Gene: Sunhee_86 Start: 46322, Stop: 46179, Start Num: 47
Candidate Starts for Sunhee_86:
(Start: 47 @46322 has 127 MA's),

Gene: SuperAwesome_85 Start: 46840, Stop: 46697, Start Num: 42
Candidate Starts for SuperAwesome_85:
(31, 46879), (Start: 42 @46840 has 98 MA's), (Start: 47 @46828 has 127 MA's),

Gene: SuperCallie99_81 Start: 46210, Stop: 46079, Start Num: 47
Candidate Starts for SuperCallie99_81:
(31, 46261), (Start: 42 @46222 has 98 MA's), (Start: 47 @46210 has 127 MA's),

Gene: Superchunk_85 Start: 47335, Stop: 47207, Start Num: 47
Candidate Starts for Superchunk_85:
(Start: 43 @47344 has 13 MA's), (Start: 47 @47335 has 127 MA's), (54, 47305), (56, 47257),

Gene: SweetiePie_85 Start: 48649, Stop: 48512, Start Num: 47
Candidate Starts for SweetiePie_85:
(Start: 47 @48649 has 127 MA's),

Gene: SwirlSquare_87 Start: 47074, Stop: 46937, Start Num: 42
Candidate Starts for SwirlSquare_87:
(Start: 42 @47074 has 98 MA's), (56, 46987),

Gene: TarsusIV_84 Start: 48539, Stop: 48402, Start Num: 47
Candidate Starts for TarsusIV_84:
(30, 48587), (Start: 42 @48548 has 98 MA's), (Start: 47 @48539 has 127 MA's),

Gene: Temprado_88 Start: 46632, Stop: 46489, Start Num: 42
Candidate Starts for Temprado_88:
(31, 46671), (Start: 42 @46632 has 98 MA's), (Start: 47 @46620 has 127 MA's),

Gene: Terrific_86 Start: 48136, Stop: 47993, Start Num: 42

Candidate Starts for Terrific_86:
(Start: 42 @48136 has 98 MA's), (Start: 47 @48127 has 127 MA's), (56, 48043),

Gene: Thonko_95 Start: 65603, Stop: 65454, Start Num: 45
Candidate Starts for Thonko_95:
(Start: 45 @65603 has 1 MA's),

Gene: Timothy_88 Start: 47609, Stop: 47481, Start Num: 47
Candidate Starts for Timothy_88:
(Start: 42 @47621 has 98 MA's), (Start: 47 @47609 has 127 MA's), (56, 47531),

Gene: Timshel_79 Start: 49897, Stop: 49745, Start Num: 40
Candidate Starts for Timshel_79:
(13, 50053), (20, 49984), (Start: 40 @49897 has 2 MA's), (Start: 49 @49876 has 2 MA's),

Gene: TinyTimmy_86 Start: 47350, Stop: 47210, Start Num: 42
Candidate Starts for TinyTimmy_86:
(Start: 42 @47350 has 98 MA's), (Start: 47 @47338 has 127 MA's), (56, 47260),

Gene: TipsytheTRex_84 Start: 47758, Stop: 47621, Start Num: 43
Candidate Starts for TipsytheTRex_84:
(Start: 43 @47758 has 13 MA's), (Start: 47 @47749 has 127 MA's), (54, 47719), (56, 47671),

Gene: Toaka_87 Start: 48704, Stop: 48573, Start Num: 46
Candidate Starts for Toaka_87:
(19, 48803), (Start: 46 @48704 has 2 MA's),

Gene: Tomathan_85 Start: 48214, Stop: 48086, Start Num: 47
Candidate Starts for Tomathan_85:
(12, 48388), (Start: 43 @48223 has 13 MA's), (Start: 47 @48214 has 127 MA's), (56, 48136),

Gene: ToneTone_84 Start: 46180, Stop: 46049, Start Num: 47
Candidate Starts for ToneTone_84:
(31, 46231), (Start: 42 @46192 has 98 MA's), (Start: 47 @46180 has 127 MA's),

Gene: Toro_81 Start: 50768, Stop: 50619, Start Num: 40
Candidate Starts for Toro_81:
(Start: 40 @50768 has 2 MA's), (52, 50726),

Gene: Travvers_85 Start: 48140, Stop: 48003, Start Num: 43
Candidate Starts for Travvers_85:
(12, 48305), (Start: 43 @48140 has 13 MA's), (Start: 47 @48131 has 127 MA's), (56, 48053),

Gene: Tristan_81 Start: 48683, Stop: 48546, Start Num: 47
Candidate Starts for Tristan_81:
(Start: 47 @48683 has 127 MA's), (56, 48599),

Gene: Trixie_85 Start: 49116, Stop: 48976, Start Num: 42
Candidate Starts for Trixie_85:
(Start: 42 @49116 has 98 MA's), (Start: 47 @49104 has 127 MA's), (56, 49026),

Gene: Trooper_84 Start: 48107, Stop: 47961, Start Num: 42
Candidate Starts for Trooper_84:

(Start: 42 @48107 has 98 MA's), (Start: 47 @48098 has 127 MA's),

Gene: Tubs_89 Start: 48829, Stop: 48686, Start Num: 42
Candidate Starts for Tubs_89:
(30, 48868), (Start: 42 @48829 has 98 MA's), (Start: 47 @48820 has 127 MA's),

Gene: Tucker_87 Start: 46383, Stop: 46252, Start Num: 47
Candidate Starts for Tucker_87:
(31, 46434), (Start: 42 @46395 has 98 MA's), (Start: 47 @46383 has 127 MA's),

Gene: Turbido_86 Start: 48811, Stop: 48677, Start Num: 47
Candidate Starts for Turbido_86:
(34, 48847), (Start: 47 @48811 has 127 MA's),

Gene: TygerBlood_82 Start: 48042, Stop: 47896, Start Num: 41
Candidate Starts for TygerBlood_82:
(Start: 33 @48066 has 1 MA's), (Start: 41 @48042 has 39 MA's),

Gene: Ugenie5_76 Start: 46308, Stop: 46174, Start Num: 47
Candidate Starts for Ugenie5_76:
(30, 46356), (Start: 42 @46317 has 98 MA's), (Start: 47 @46308 has 127 MA's),

Gene: Updawg_86 Start: 48341, Stop: 48207, Start Num: 47
Candidate Starts for Updawg_86:
(Start: 42 @48350 has 98 MA's), (Start: 47 @48341 has 127 MA's), (56, 48257),

Gene: VA6_85 Start: 48439, Stop: 48305, Start Num: 47
Candidate Starts for VA6_85:
(34, 48475), (Start: 47 @48439 has 127 MA's),

Gene: VC3_83 Start: 47045, Stop: 46908, Start Num: 43
Candidate Starts for VC3_83:
(12, 47204), (Start: 43 @47045 has 13 MA's), (Start: 47 @47036 has 127 MA's), (56, 46958),

Gene: Vanisoa_84 Start: 49036, Stop: 48905, Start Num: 47
Candidate Starts for Vanisoa_84:
(18, 49141), (25, 49111), (Start: 42 @49045 has 98 MA's), (Start: 47 @49036 has 127 MA's),

Gene: VohminGhazi_85 Start: 46160, Stop: 46017, Start Num: 42
Candidate Starts for VohminGhazi_85:
(31, 46199), (Start: 42 @46160 has 98 MA's), (Start: 47 @46148 has 127 MA's),

Gene: Volt_145 Start: 66646, Stop: 66777, Start Num: 44
Candidate Starts for Volt_145:
(Start: 44 @66646 has 3 MA's), (51, 66676),

Gene: WeiHuaDA_87 Start: 49366, Stop: 49232, Start Num: 47
Candidate Starts for WeiHuaDA_87:
(Start: 42 @49375 has 98 MA's), (Start: 47 @49366 has 127 MA's), (56, 49282),

Gene: WideWale_86 Start: 48350, Stop: 48207, Start Num: 42
Candidate Starts for WideWale_86:
(Start: 42 @48350 has 98 MA's), (Start: 47 @48341 has 127 MA's), (56, 48257),

Gene: Wiks_86 Start: 46263, Stop: 46120, Start Num: 42
Candidate Starts for Wiks_86:
(31, 46302), (Start: 42 @46263 has 98 MA's), (Start: 47 @46251 has 127 MA's),

Gene: Wolpertinger_87 Start: 47958, Stop: 47830, Start Num: 47
Candidate Starts for Wolpertinger_87:
(Start: 42 @47970 has 98 MA's), (Start: 47 @47958 has 127 MA's), (56, 47880),

Gene: WorldCup_87 Start: 48497, Stop: 48369, Start Num: 47
Candidate Starts for WorldCup_87:
(26, 48569), (Start: 42 @48506 has 98 MA's), (Start: 47 @48497 has 127 MA's),

Gene: WunderPhul_87 Start: 46261, Stop: 46118, Start Num: 42
Candidate Starts for WunderPhul_87:
(31, 46300), (Start: 42 @46261 has 98 MA's), (Start: 47 @46249 has 127 MA's),

Gene: XianYue_84 Start: 48596, Stop: 48459, Start Num: 47
Candidate Starts for XianYue_84:
(34, 48632), (Start: 47 @48596 has 127 MA's),

Gene: Yecey3_90 Start: 48586, Stop: 48443, Start Num: 42
Candidate Starts for Yecey3_90:
(Start: 42 @48586 has 98 MA's), (Start: 47 @48577 has 127 MA's),

Gene: Yokurt_86 Start: 46251, Stop: 46120, Start Num: 47
Candidate Starts for Yokurt_86:
(31, 46302), (Start: 42 @46263 has 98 MA's), (Start: 47 @46251 has 127 MA's),

Gene: Zaka_87 Start: 46251, Stop: 46120, Start Num: 47
Candidate Starts for Zaka_87:
(31, 46302), (Start: 42 @46263 has 98 MA's), (Start: 47 @46251 has 127 MA's),

Gene: Zarafa_82 Start: 47363, Stop: 47220, Start Num: 41
Candidate Starts for Zarafa_82:
(7, 47615), (10, 47546), (23, 47441), (24, 47432), (27, 47414), (Start: 33 @47390 has 1 MA's), (Start: 41 @47363 has 39 MA's),

Gene: Ziko_144 Start: 66950, Stop: 67081, Start Num: 44
Candidate Starts for Ziko_144:
(Start: 44 @66950 has 3 MA's), (51, 66980),

Gene: Zimmer_86 Start: 50022, Stop: 49876, Start Num: 42
Candidate Starts for Zimmer_86:
(25, 50088), (Start: 42 @50022 has 98 MA's), (Start: 47 @50010 has 127 MA's), (50, 49995),

Gene: Zulu_88 Start: 46641, Stop: 46498, Start Num: 42
Candidate Starts for Zulu_88:
(31, 46680), (Start: 42 @46641 has 98 MA's), (Start: 47 @46629 has 127 MA's),