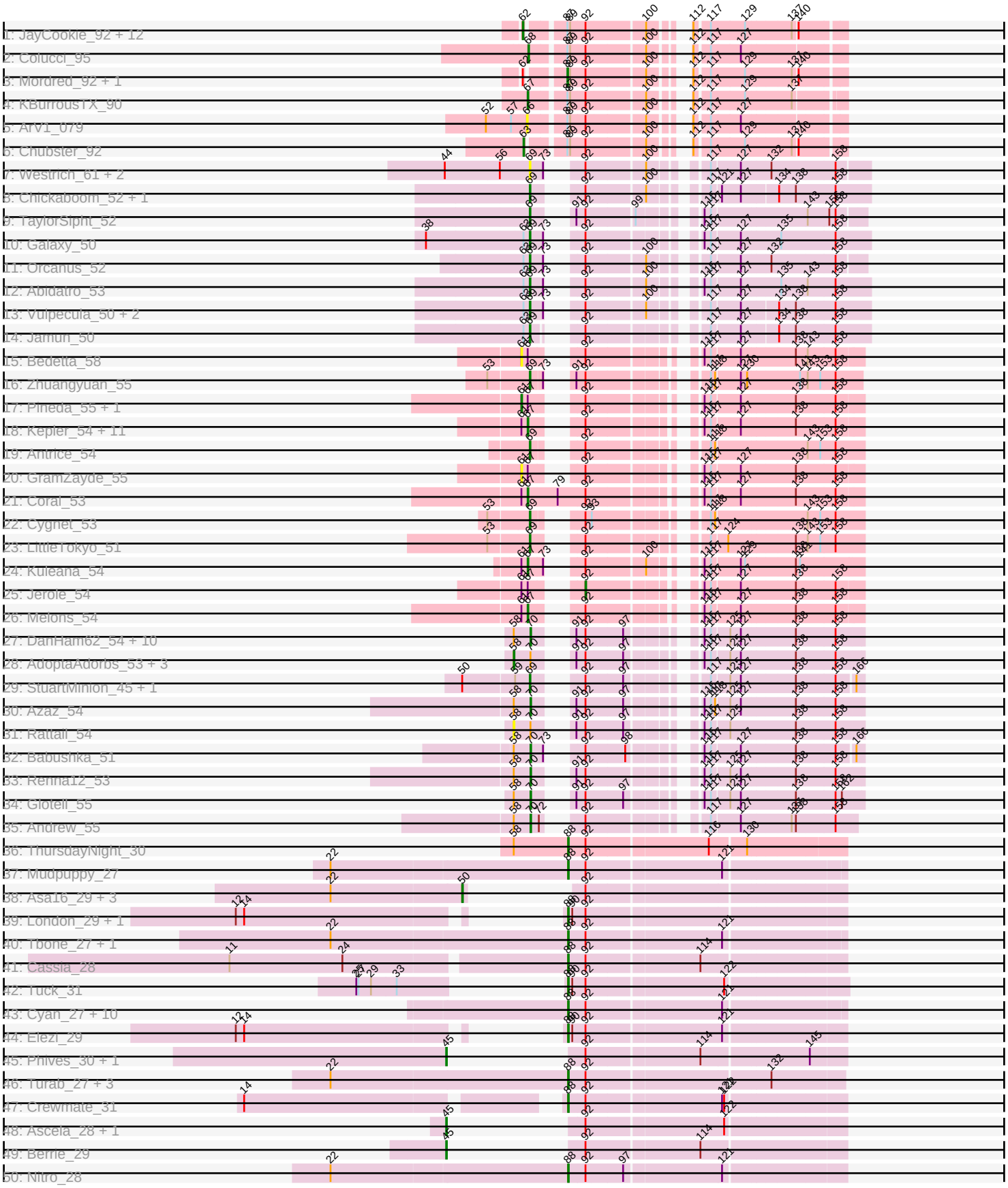
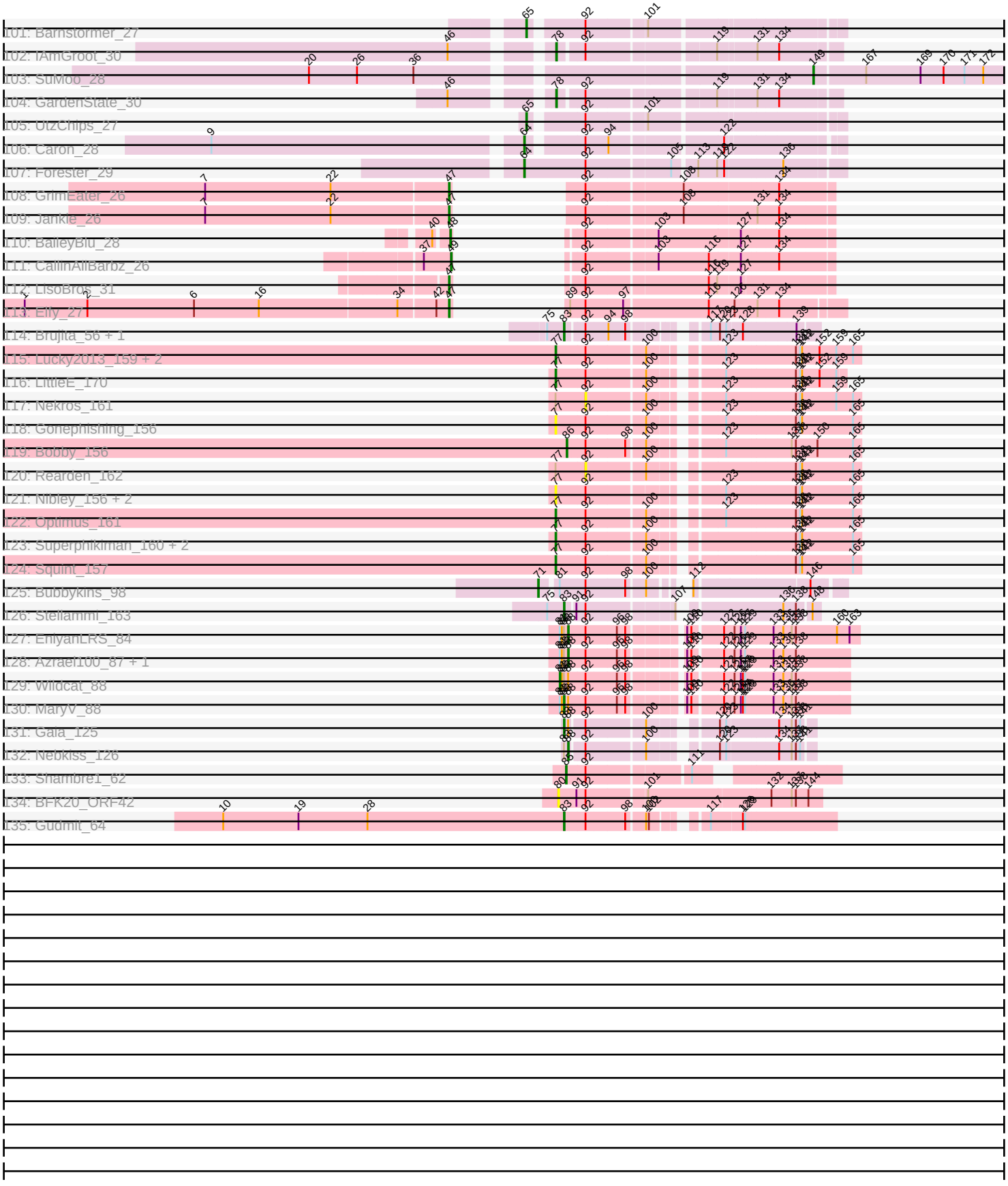
Pham 347210


1: JayCookie_92 + 12
2: Colucci_95
3: Mordred_92 + 1
4: KBurrousTX_90
5: Arv1_079
6: Chubster_92
7: Westrich_61 + 2
8: Chickaboom_52 + 1
9: TaylorSpht_52
10: Galaxy_50
11: Orcanus_52
12: Abidatro_53
13: Vulpecula_50 + 2
14: Jamun_50
15: Bedetta_58
16: Zhuangyuan_55
17: Pineda_55 + 1
18: Kepler_54 + 11
19: Antrice_54
20: GramZayde_55
21: Coral_53
22: Cygnet_53
23: LittleTokyo_51
24: Kuleana_54
25: Jerole_54
26: Melons_54
27: DanHam62_54 + 10
28: AdoptaAdobs_53 + 3
29: StuartMinion_45 + 1
30: Azaz_54
31: Rattail_54
32: Babushka_51
33: Renna12_53
34: Glotell_55
35: Andrew_55
36: ThursdayNight_30
37: Mudpuppy_27
38: Asa16_29 + 3
39: London_29 + 1
40: Tbone_27 + 1
41: Cassia_28
42: Tuck_31
43: Cyan_27 + 10
44: Elezi_29
45: Phives_30 + 1
46: Turab_27 + 3
47: Crewmate_31
48: Ascela_28 + 1
49: Bernie_29
50: Nitro_28

Pham 347210


51: MissSwiss_26 + 1
52: Reedo_27
53: Schaffner_28
54: Amyev_28 + 1
55: JuneStar_28
56: Pumpkins_28
57: Yang_28
58: Janeemi_30
59: Pixelle_28
60: KeAlli_28
61: IttyBittyPiggy_28
62: ObiToo_30
63: DrManhattan_26 + 1
64: Wildwest_28
65: VResidence_28
66: Jstan_31
67: Tallboi_28
68: ThorTroy_29
69: DrSierra_27
70: Lizalica_27
71: Sue2_29
72: IUFootball_28 + 2
73: MaGuCo_26
74: Snek_28 + 1
75: MiniMommy_33 + 1
76: Emotion_33
77: FiveHead_36 + 3
78: VroomVroom_33
79: JasmineDragon_33
80: AceofSpades_33
81: AimMach_29
82: E6_49
83: Flakey_53 + 3
84: CathyBurgh_54 + 13
85: FelixAlejandro_58
86: Kelzog_56 + 5
87: Poland_58 + 1
88: Jellybones_56
89: Diabla_56
90: Sombrero_54
91: ASerpRocky_48
92: Demosthenes_47
93: Stormageddon_123 + 1
94: JeTaime_110 + 17
95: Teaspoon_112
96: DoctorDiddles_110
97: Inca_108
98: Percival_30 + 1
99: Gretchen_30
100: Floof_30

Pham 347210


101: Barnstormer_27
102: IAmGroot_30
103: SuMoo_28
104: GardenState_30
105: OtzChips_27
106: Caron_28
107: Forester_29
108: GrimEater_26
109: Jankie_26
110: BaileyBlu_28
111: CallinAllBarbz_26
112: LisoBros_31
113: Elly_27
114: Brujita_56 + 1
115: Lucky2013_159 + 2
116: LittleE_170
117: Nekros_161
118: Gonephishing_156
119: Bobby_156
120: Rearden_162
121: Nibley_156 + 2
122: Optimus_161
123: Superphikiman_160 + 2
124: Squint_157
125: Bubbykins_98
126: Stellammi_163
127: EnlyanLRS_84
128: Azrael100_87 + 1
129: Wildcat_88
130: MaryV_88
131: Gaia_125
132: Nebkiss_126
133: Shambre1_62
134: BFK20_ORF42
135: Gudmit_64

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 347210 Report

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

Pham number 347210 has 258 members, 37 are drafts.

Phages represented in each track:
• Track 1 : JayCookie_92, Chipper1996_930, Conboy_90, Chocolat_92, Scavito_93, JaNo_91, RosiePosie_92, HumptyDumpty_92, PrincessTrina_93, Linus_92, Tophat_93, Kabreeze_92, EdgarPoe_91
• Track 2 : Colucci_95
• Track 3 : Mordred_92, MoyaNatalis_91
• Track 4 : KBurrousTX_90
• Track 5 : ArV1_079
• Track 6 : Chubster_92
• Track 7 : Westrich_61, Gravel_62, Pelletreau_62
• Track 8 : Chickaboom_52, WileyE_52
• Track 9 : TaylorSipht_52
• Track 10 : Galaxy_50
• Track 11 : Orcanus_52
• Track 12 : Abidatro_53
• Track 13 : Vulpecula_50, Ruchi_50, Basilisk_51
• Track 14 : Jamun_50
• Track 15 : Bedetta_58
• Track 16 : Zhuangyuan_55
• Track 17 : Pineda_55, Daob_55
• Track 18 : Kepler_54, BadWillHunting_59, HannahPhantana_54, PhirstandPhine_54, Colusalem_54, OtsoOtso_54, Lunar_54, Amelia_53, Bibble12_57, Cote_55, Polka_53, Damocles_57
• Track 19 : Antrice_54
• Track 20 : GramZayde_55
• Track 21 : Coral_53
• Track 22 : Cygnet_53
• Track 23 : LittleTokyo_51
• Track 24 : Kuleana_54
• Track 25 : Jerole_54
• Track 26 : Melons_54
• Track 27 : DanHam62_54, Atlantica_54, AmiCi24_53, RedFox_54, Leona_53, Juno112_53, Fingolfin_54, Amphitrite_54, HamCheese_54, PhluffyCoco_54, Laphuphu24k_52
• Track 28 : AdoptaAdorbs_53, Camara_54, Oppalora_53, KHumphrey_54
• Track 29 : StuartMinion_45, AlexMinion_53
• Track 30 : Azaz_54
• Track 31 : Rattail_54

• Track 32 : Babushka_51
• Track 33 : Renna12_53
• Track 34 : Glotell_55
• Track 35 : Andrew_55
• Track 36 : ThursdayNight_30
• Track 37 : Mudpuppy_27
• Track 38 : Asa16_29, Niobe_29, Skelbel_30, Eraser_29
• Track 39 : London_29, Subaru_29
• Track 40 : Tbone_27, Warda_27
• Track 41 : Cassia_28
• Track 42 : Tuck_31
• Track 43 : Cyan_27, Tutumahutu_27, AGrandiflora_28, Powerpuff_27, JohnDoe_27, Flutur_27, YesChef_27, Joemato_27, Lego_27, Kaylissa_27, Simpson_29
• Track 44 : Elezi_29
• Track 45 : Phives_30, Community_29
• Track 46 : Turab_27, Amploria_27, Adumb2043_27, AEgle_27
• Track 47 : Crewmate_31
• Track 48 : Ascela_28, Iter_28
• Track 49 : Berrie_29
• Track 50 : Nitro_28
• Track 51 : MissSwiss_26, PandaPo_26
• Track 52 : Reedo_27
• Track 53 : Schaffner_28
• Track 54 : Amyev_28, Tian_28
• Track 55 : JuneStar_28
• Track 56 : Pumpkins_28
• Track 57 : Yang_28
• Track 58 : Janeemi_30
• Track 59 : Pixelle_28
• Track 60 : KeAlii_28
• Track 61 : IttyBittyPiggy_28
• Track 62 : ObiToo_30
• Track 63 : DrManhattan_26, Adolin_26
• Track 64 : Wildwest_28
• Track 65 : VResidence_28
• Track 66 : Jstan_31
• Track 67 : Tallboi_28
• Track 68 : TforTroy_29
• Track 69 : DrSierra_27
• Track 70 : Lizalica_27
• Track 71 : Sue2_29
• Track 72 : IUFootball_28, Liebe_28, Maureen_28
• Track 73 : MaGuCo_26
• Track 74 : Snek_28, Tweety19_28
• Track 75 : MiniMommy_33, ShakeItOph_33
• Track 76 : Emotion_33
• Track 77 : FiveHead_36, LadyAstra_33, Origami_33, JohnThicc_33
• Track 78 : VroomVroom_33
• Track 79 : JasmineDragon_33
• Track 80 : AceofSpades_33
• Track 81 : AinMach_29
• Track 82 : E6_49
• Track 83 : Flakey_53, Gorko_53, Ekhein_54, Exiguo_53

• Track 84 : CathyBurgh_54, John316_57, Sam12_53, Butterball_57, CinnamonToast_60, Monty_53, Hotorobo_54, Barbochs_52, BillyBobJr_60, Lizzo_54, Boneham_58, RemRem_55, Breezic_54, Beaver_57
• Track 85 : FelixAlejandro_58
• Track 86 : Kelzog_56, Adgers_56, GourdThymes_54, Worcestershire_53, BirksAndSocks_59, Squibbles_53
• Track 87 : Poland_58, Msay19_58
• Track 88 : Jellybones_56
• Track 89 : Diabla_56
• Track 90 : Sombrero_54
• Track 91 : ASerpRocky_48
• Track 92 : Demosthenes_47
• Track 93 : Stormageddon_123, RedWattleHog_124
• Track 94 : JeTaime_110, StormChicken_113, Kimchi_116, Wiggin_114, TBrady12_115, Goku_111, 244_113, BaboJay_111, Stank_114, Icee_113, Filch_114, BigBubba_113, Goldilocks_115, Xandras_111, Marshmallow_110, Nimrod_112, Holt_117, Porky_110
• Track 95 : Teaspoon_112
• Track 96 : DoctorDiddles_110
• Track 97 : Inca_108
• Track 98 : Percival_30, SuperHands_29
• Track 99 : Gretchen_30
• Track 100 : Floof_30
• Track 101 : Barnstormer_27
• Track 102 : IAmGroot_30
• Track 103 : SuMoo_28
• Track 104 : GardenState_30
• Track 105 : UtzChips_27
• Track 106 : Caron_28
• Track 107 : Forester_29
• Track 108 : GrimEater_26
• Track 109 : Jankie_26
• Track 110 : BaileyBlu_28
• Track 111 : CallinAllBarbz_26
• Track 112 : LisoBros_31
• Track 113 : Elfy_27
• Track 114 : Brujita_56, Island3_56
• Track 115 : Lucky2013_159, MiaZeal_166, Porcelain_163
• Track 116 : LittleE_170
• Track 117 : Nekros_161
• Track 118 : Gonephishing_156
• Track 119 : Bobby_156
• Track 120 : Rearden_162
• Track 121 : Nibley_156, BronnyJames_158, Shaboozey_161
• Track 122 : Optimus_161
• Track 123 : Superphikiman_160, Courthouse_159, Ariel_162
• Track 124 : Squint_157
• Track 125 : Bubbykins_98
• Track 126 : Stellammi_163
• Track 127 : EniyanLRS_84
• Track 128 : Azrael100_87, Cosmo_88
• Track 129 : Wildcat_88
• Track 130 : MaryV_88

• Track 131 : Gaia_125
• Track 132 : Nebkiss_126
• Track 133 : Shambre1_62
• Track 134 : BFK20_ORF42
• Track 135 : Gudmit_64

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

The start number called the most often in the published annotations is 88, it was called in 51 of the 221 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AEgle_27, AGrandiflora_28, Adolin_26, Adumb2043_27, Amploria_27, Amyev_28, Azrael100_87, Cassia_28, Cosmo_88, Crewmate_31, Cyan_27, DrManhattan_26, DrSierra_27, E6_49, Elezi_29, EniyanLRS_84, Flutur_27, IUFootball_28, IttyBittyPiggy_28, Joemato_27, JohnDoe_27, JuneStar_28, Kaylissa_27, KeAlii_28, Lego_27, Liebe_28, Lizalica_27, London_29, MaGuCo_26, Maureen_28, MissSwiss_26, Mudpuppy_27, Nebkiss_126, Nitro_28, ObiToo_30, PandaPo_26, Pixelle_28, Powerpuff_27, Pumpkins_28, Reedo_27, Schaffner_28, Simpson_29, Snek_28, Subaru_29, Sue2_29, Tallboi_28, Tbone_27, TforTroy_29, ThursdayNight_30, Tian_28, Tuck_31, Turab_27, Tutumahutu_27, Tweety19_28, VResidence_28, Warda_27, YesChef_27,

Genes that have the "Most Annotated" start but do not call it:
• ASerpRocky_48, Demosthenes_47, Gaia_125, MaryV_88, Wildcat_88, Wildwest_28,

Genes that do not have the "Most Annotated" start:
• 244_113, Abidatro_53, AceofSpades_33, Adgers_56, AdoptaAdorbs_53, AinMach_29, AlexMinion_53, Amelia_53, AmiCi24_53, Amphitrite_54, Andrew_55, Antrice_54, ArV1_079, Ariel_162, Asa16_29, Ascela_28, Atlantica_54, Azaz_54, BFK20_ORF42, BaboJay_111, Babushka_51, BadWillHunting_59, BaileyBlu_28, Barbochs_52, Barnstormer_27, Basilisk_51, Beaver_57, Bedetta_58, Berrie_29, Bibble12_57, BigBubba_113, BillyBobJr_60, BirksAndSocks_59, Bobby_156, Boneham_58, Breezic_54, BronnyJames_158, Brujita_56, Bubbykins_98, Butterball_57, CallinAllBarbz_26, Camara_54, Caron_28, CathyBurgh_54, Chickaboom_52, Chipper1996_930, Chocolat_92, Chubster_92, CinnamonToast_60, Colucci_95, Colusalem_54, Community_29, Conboy_90, Coral_53, Cote_55, Courthouse_159, Cygnet_53, Damocles_57, DanHam62_54, Daob_55, Diabla_56, DoctorDiddles_110, EdgarPoe_91, Ekhein_54, Elfy_27, Emotion_33, Eraser_29, Exiguo_53, FelixAlejandro_58, Filch_114, Fingolfin_54, FiveHead_36, Flakey_53, Floof_30, Forester_29, Galaxy_50, GardenState_30, Glotell_55, Goku_111, Goldilocks_115, Gonephishing_156, Gorko_53, GourdThymes_54, GramZayde_55, Gravel_62, Gretchen_30, GrimEater_26, Gudmit_64, HamCheese_54, HannahPhantana_54, Holt_117, Hotorobo_54, HumptyDumpty_92, IAmGroot_30, Icee_113, Inca_108, Island3_56, Iter_28, JaNo_91, Jamun_50, Janeemi_30, Jankie_26, JasmineDragon_33, JayCookie_92, JeTaime_110, Jellybones_56, Jerole_54, John316_57, JohnThicc_33, Jstan_31, Juno112_53, KBurrousTX_90, KHumphrey_54, Kabreeze_92, Kelzog_56, Kepler_54, Kimchi_116, Kuleana_54, LadyAstra_33, Laphuphu24k_52, Leona_53, Linus_92, LisoBros_31, LittleE_170,

LittleTokyo_51, Lizzo_54, Lucky2013_159, Lunar_54, Marshmallow_110, Melons_54, MiaZeal_166, MiniMommy_33, Monty_53, Mordred_92, MoyaNatalis_91, Msay19_58, Nekros_161, Nibley_156, Nimrod_112, Niobe_29, Oppalora_53, Optimus_161, Orcanus_52, Origami_33, OtsoOtso_54, Pelletreau_62, Percival_30, PhirstandPhine_54, Phives_30, PhluffyCoco_54, Pineda_55, Poland_58, Polka_53, Porcelain_163, Porky_110, PrincessTrina_93, Rattail_54, Rearden_162, RedFox_54, RedWattleHog_124, RemRem_55, Renna12_53, RosiePosie_92, Ruchi_50, Sam12_53, Scavito_93, Shaboozey_161, ShakeItOph_33, Shambre1_62, Skelbel_30, Sombrero_54, Squibbles_53, Squint_157, Stank_114, Stellammi_163, StormChicken_113, Stormageddon_123, StuartMinion_45, SuMoo_28, SuperHands_29, Superphikiman_160, TBrady12_115, TaylorSipht_52, Teaspoon_112, Tophat_93, UtzChips_27, VroomVroom_33, Vulpecula_50, Westrich_61, Wiggin_114, WileyE_52, Worcestershire_53, Xandras_111, Yang_28, Zhuangyuan_55,

Summary by start number:

Start 41:
• Found in 2 of 258 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 50.0% of time when present
• Phage (with cluster) where this start called: ASerpRocky_48 (CS4),

Start 43:
• Found in 1 of 258 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AinMach_29 (AZ7),

Start 45:
• Found in 7 of 258 (2.7%) of genes in pham
• Manual Annotations of this start: 6 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ascela_28 (AZ1), Berrie_29 (AZ1), Community_29 (AZ1), Iter_28 (AZ1), Janeemi_30 (AZ1), Phives_30 (AZ1), Yang_28 (AZ1),

Start 47:
• Found in 14 of 258 (5.4%) of genes in pham
• Manual Annotations of this start: 10 of 221
• Called 85.7% of time when present
• Phage (with cluster) where this start called: AceofSpades_33 (AZ4), Elfy_27 (FP), Emotion_33 (AZ4), FiveHead_36 (AZ4), GrimEater_26 (FP), Jankie_26 (FP), JasmineDragon_33 (AZ4), JohnThicc_33 (AZ4), LadyAstra_33 (AZ4), LisoBros_31 (FP), Origami_33 (AZ4), VroomVroom_33 (AZ4),

Start 48:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BaileyBlu_28 (FP),

Start 49:

• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CallinAllBarbz_26 (FP),

Start 50:
• Found in 7 of 258 (2.7%) of genes in pham
• Manual Annotations of this start: 3 of 221
• Called 57.1% of time when present
• Phage (with cluster) where this start called: Asa16_29 (AZ1), Eraser_29 (AZ1), Niobe_29 (AZ1), Skelbel_30 (AZ1),

Start 54:
• Found in 2 of 258 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Demosthenes_47 (CS4),

Start 58:
• Found in 22 of 258 (8.5%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 22.7% of time when present
• Phage (with cluster) where this start called: AdoptaAdorbs_53 (AS3), Camara_54 (AS3), KHumphrey_54 (AS3), Oppalora_53 (AS3), Rattail_54 (AS3),

Start 59:
• Found in 4 of 258 (1.6%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Inca_108 (E),

Start 61:
• Found in 20 of 258 (7.8%) of genes in pham
• Manual Annotations of this start: 2 of 221
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Bedetta_58 (AS2), Daob_55 (AS2), GramZayde_55 (AS2), Pineda_55 (AS2),

Start 62:
• Found in 15 of 258 (5.8%) of genes in pham
• Manual Annotations of this start: 13 of 221
• Called 86.7% of time when present
• Phage (with cluster) where this start called: Chipper1996_930 (AR), Chocolat_92 (AR), Conboy_90 (AR), EdgarPoe_91 (AR), HumptyDumpty_92 (AR), JaNo_91 (AR), JayCookie_92 (AR), Kabreeze_92 (AR), Linus_92 (AR), PrincessTrina_93 (AR), RosiePosie_92 (AR), Scavito_93 (AR), Tophat_93 (AR),

Start 63:
• Found in 8 of 258 (3.1%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 12.5% of time when present
• Phage (with cluster) where this start called: Chubster_92 (AR),

Start 64:
• Found in 6 of 258 (2.3%) of genes in pham
• Manual Annotations of this start: 6 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Caron_28 (EH), Floof_30 (EH), Forester_29 (EH), Gretchen_30 (EH), Percival_30 (EH), SuperHands_29 (EH),

Start 65:
• Found in 2 of 258 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barnstormer_27 (EH), UtzChips_27 (EH),

Start 66:
• Found in 1 of 258 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ArV1_079 (AR),

Start 67:
• Found in 21 of 258 (8.1%) of genes in pham
• Manual Annotations of this start: 13 of 221
• Called 76.2% of time when present
• Phage (with cluster) where this start called: Amelia_53 (AS2), BadWillHunting_59 (AS2), Bibble12_57 (AS2), Colusalem_54 (AS2), Coral_53 (AS2), Cote_55 (AS2), Damocles_57 (AS2), HannahPhantana_54 (AS2), KBurrousTX_90 (AR), Kepler_54 (AS2), Kuleana_54 (AS2), Lunar_54 (AS2), Melons_54 (AS2), OtsoOtso_54 (AS2), PhirstandPhine_54 (AS2), Polka_53 (AS2),

Start 68:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Colucci_95 (AR),

Start 69:
• Found in 19 of 258 (7.4%) of genes in pham
• Manual Annotations of this start: 16 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Abidatro_53 (AS1), AlexMinion_53 (AS3), Antrice_54 (AS2), Basilisk_51 (AS1), Chickaboom_52 (AS1), Cygnet_53 (AS2), Galaxy_50 (AS1), Gravel_62 (AS1), Jamun_50 (AS1), LittleTokyo_51 (AS2), Orcanus_52 (AS1), Pelletreau_62 (AS1), Ruchi_50 (AS1), StuartMinion_45 (AS3), TaylorSipht_52 (AS1), Vulpecula_50 (AS1), Westrich_61 (AS1), WileyE_52 (AS1), Zhuangyuan_55 (AS2),

Start 70:
• Found in 21 of 258 (8.1%) of genes in pham
• Manual Annotations of this start: 16 of 221
• Called 76.2% of time when present
• Phage (with cluster) where this start called: AmiCi24_53 (AS3), Amphitrite_54 (AS3), Andrew_55 (AS3), Atlantica_54 (AS3), Azaz_54 (AS3), Babushka_51 (AS3),

DanHam62_54 (AS3), Fingolfin_54 (AS3), Glotell_55 (AS3), HamCheese_54 (AS3), Juno112_53 (AS3), Laphuphu24k_52 (AS3), Leona_53 (AS3), PhluffyCoco_54 (AS3), RedFox_54 (AS3), Renna12_53 (AS3),

Start 71:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bubbykins_98 (UNK),

Start 73:
• Found in 14 of 258 (5.4%) of genes in pham
• Manual Annotations of this start: 2 of 221
• Called 14.3% of time when present
• Phage (with cluster) where this start called: RedWattleHog_124 (DX), Stormageddon_123 (DX),

Start 74:
• Found in 21 of 258 (8.1%) of genes in pham
• Manual Annotations of this start: 18 of 221
• Called 90.5% of time when present
• Phage (with cluster) where this start called: 244_113 (E), BaboJay_111 (E), BigBubba_113 (E), DoctorDiddles_110 (E), Filch_114 (E), Goku_111 (E), Goldilocks_115 (E), Holt_117 (E), Icee_113 (E), JeTaime_110 (E), Kimchi_116 (E), Marshmallow_110 (E), Nimrod_112 (E), Porky_110 (E), Stank_114 (E), StormChicken_113 (E), TBrady12_115 (E), Wiggin_114 (E), Xandras_111 (E),

Start 77:
• Found in 47 of 258 (18.2%) of genes in pham
• Manual Annotations of this start: 31 of 221
• Called 80.9% of time when present
• Phage (with cluster) where this start called: Adgers_56 (CS2), Ariel_162 (J), Barbochs_52 (CS2), Beaver_57 (CS2), BillyBobJr_60 (CS2), BirksAndSocks_59 (CS2), Boneham_58 (CS2), Breezic_54 (CS2), BronnyJames_158 (J), Butterball_57 (CS2), CathyBurgh_54 (CS2), CinnamonToast_60 (CS2), Courthouse_159 (J), FelixAlejandro_58 (CS2), Gonephishing_156 (J), GourdThymes_54 (CS2), Hotorobo_54 (CS2), Jellybones_56 (CS2), John316_57 (CS2), Kelzog_56 (CS2), LittleE_170 (J), Lizzo_54 (CS2), Lucky2013_159 (J), MiaZeal_166 (J), Monty_53 (CS2), Msay19_58 (CS2), Nibley_156 (J), Optimus_161 (J), Poland_58 (CS2), Porcelain_163 (J), RemRem_55 (CS2), Sam12_53 (CS2), Shaboozey_161 (J), Sombrero_54 (CS2), Squibbles_53 (CS2), Squint_157 (J), Superphikiman_160 (J), Worcestershire_53 (CS2),

Start 78:
• Found in 2 of 258 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GardenState_30 (EH), IAmGroot_30 (EH),

Start 79:
• Found in 2 of 258 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 221

• Called 50.0% of time when present
• Phage (with cluster) where this start called: Diabla_56 (CS2),

Start 80:
• Found in 1 of 258 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BFK20_ORF42 (singleton),

Start 81:
• Found in 6 of 258 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 16.7% of time when present
• Phage (with cluster) where this start called: Wildcat_88 (V),

Start 82:
• Found in 35 of 258 (13.6%) of genes in pham
• Manual Annotations of this start: 4 of 221
• Called 11.4% of time when present
• Phage (with cluster) where this start called: Ekhein_54 (CS2), Exiguo_53 (CS2), Flakey_53 (CS2), Gorko_53 (CS2),

Start 83:
• Found in 11 of 258 (4.3%) of genes in pham
• Manual Annotations of this start: 6 of 221
• Called 54.5% of time when present
• Phage (with cluster) where this start called: Brujita_56 (I1), Gaia_125 (X), Gudmit_64 (singleton), Island3_56 (I1), MaryV_88 (V), Stellammi_163 (UNK),

Start 84:
• Found in 21 of 258 (8.1%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 4.8% of time when present
• Phage (with cluster) where this start called: Teaspoon_112 (E),

Start 85:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shambre1_62 (singleton),

Start 86:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bobby_156 (J),

Start 87:
• Found in 19 of 258 (7.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 10.5% of time when present
• Phage (with cluster) where this start called: Mordred_92 (AR), MoyaNatalis_91 (AR),

Start 88:
• Found in 63 of 258 (24.4%) of genes in pham
• Manual Annotations of this start: 51 of 221
• Called 90.5% of time when present
• Phage (with cluster) where this start called: AEgle_27 (AZ1), AGrandiflora_28 (AZ1), Adolin_26 (AZ1), Adumb2043_27 (AZ1), Amploria_27 (AZ1), Amyev_28 (AZ1), Azrael100_87 (V), Cassia_28 (AZ1), Cosmo_88 (V), Crewmate_31 (AZ1), Cyan_27 (AZ1), DrManhattan_26 (AZ1), DrSierra_27 (AZ1), E6_49 (BW), Elezi_29 (AZ1), EniyanLRS_84 (V), Flutur_27 (AZ), IUFootball_28 (AZ2), IttyBittyPiggy_28 (AZ1), Joemato_27 (AZ1), JohnDoe_27 (AZ1), JuneStar_28 (AZ1), Kaylissa_27 (AZ1), KeAlii_28 (AZ1), Lego_27 (AZ1), Liebe_28 (AZ2), Lizalica_27 (AZ1), London_29 (AZ1), MaGuCo_26 (AZ2), Maureen_28 (AZ2), MissSwiss_26 (AZ1), Mudpuppy_27 (AZ1), Nebkiss_126 (X), Nitro_28 (AZ1), ObiToo_30 (AZ1), PandaPo_26 (AZ1), Pixelle_28 (AZ1), Powerpuff_27 (AZ1), Pumpkins_28 (AZ1), Reedo_27 (AZ1), Schaffner_28 (AZ1), Simpson_29 (AZ1), Snek_28 (AZ3), Subaru_29 (AZ1), Sue2_29 (AZ1), Tallboi_28 (AZ1), Tbone_27 (AZ1), TforTroy_29 (AZ1), ThursdayNight_30 (AZ), Tian_28 (AZ1), Tuck_31 (AZ1), Turab_27 (AZ1), Tutumahutu_27 (AZ1), Tweety19_28 (AZ3), VResidence_28 (AZ1), Warda_27 (AZ1), YesChef_27 (AZ1),

Start 92:
• Found in 234 of 258 (90.7%) of genes in pham
• Manual Annotations of this start: 4 of 221
• Called 3.0% of time when present
• Phage (with cluster) where this start called: Jerole_54 (AS2), Jstan_31 (AZ1), MiniMommy_33 (AZ4), Nekros_161 (J), Rearden_162 (J), ShakeItOph_33 (AZ4), Wildwest_28 (AZ1),

Start 149:
• Found in 1 of 258 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 221
• Called 100.0% of time when present
• Phage (with cluster) where this start called: SuMoo_28 (EH),

Summary by clusters:

There are 23 clusters represented in this pham: FP, singleton, BW, DX, UNK, I1, CS4, CS2, AS3, AS2, AS1, E, EH, J, AR, V, X, AZ, AZ1, AZ2, AZ3, AZ4, AZ7,

Info for manual annotations of cluster AR:
•Start number 62 was manually annotated 13 times for cluster AR.
•Start number 63 was manually annotated 1 time for cluster AR.
•Start number 67 was manually annotated 1 time for cluster AR.
•Start number 68 was manually annotated 1 time for cluster AR.
•Start number 87 was manually annotated 1 time for cluster AR.

Info for manual annotations of cluster AS1:
•Start number 69 was manually annotated 10 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 61 was manually annotated 2 times for cluster AS2.
•Start number 67 was manually annotated 12 times for cluster AS2.
•Start number 69 was manually annotated 4 times for cluster AS2.
•Start number 92 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 58 was manually annotated 1 time for cluster AS3.
•Start number 69 was manually annotated 2 times for cluster AS3.
•Start number 70 was manually annotated 16 times for cluster AS3.

Info for manual annotations of cluster AZ:
•Start number 88 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:
•Start number 45 was manually annotated 6 times for cluster AZ1.
•Start number 50 was manually annotated 3 times for cluster AZ1.
•Start number 88 was manually annotated 39 times for cluster AZ1.
•Start number 92 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ2:
•Start number 88 was manually annotated 4 times for cluster AZ2.

Info for manual annotations of cluster AZ3:
•Start number 88 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:
•Start number 47 was manually annotated 6 times for cluster AZ4.
•Start number 92 was manually annotated 2 times for cluster AZ4.

Info for manual annotations of cluster BW:
•Start number 88 was manually annotated 1 time for cluster BW.

Info for manual annotations of cluster CS2:
•Start number 77 was manually annotated 22 times for cluster CS2.
•Start number 79 was manually annotated 1 time for cluster CS2.
•Start number 82 was manually annotated 4 times for cluster CS2.

Info for manual annotations of cluster CS4:
•Start number 41 was manually annotated 1 time for cluster CS4.
•Start number 54 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster DX:
•Start number 73 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster E:
•Start number 59 was manually annotated 1 time for cluster E.
•Start number 74 was manually annotated 18 times for cluster E.
•Start number 84 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster EH:
•Start number 64 was manually annotated 6 times for cluster EH.
•Start number 65 was manually annotated 2 times for cluster EH.
•Start number 78 was manually annotated 2 times for cluster EH.
•Start number 149 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster FP:

•Start number 47 was manually annotated 4 times for cluster FP.
•Start number 48 was manually annotated 1 time for cluster FP.
•Start number 49 was manually annotated 1 time for cluster FP.

Info for manual annotations of cluster I1:
•Start number 83 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:
•Start number 77 was manually annotated 9 times for cluster J.
•Start number 86 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster UNK:
•Start number 71 was manually annotated 1 time for cluster UNK.
•Start number 83 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster V:
•Start number 81 was manually annotated 1 time for cluster V.
•Start number 83 was manually annotated 1 time for cluster V.
•Start number 88 was manually annotated 3 times for cluster V.

Info for manual annotations of cluster X:
•Start number 83 was manually annotated 1 time for cluster X.
•Start number 88 was manually annotated 1 time for cluster X.

Gene Information:

Gene: 244_113 Start: 63341, Stop: 63673, Start Num: 74
Candidate Starts for 244_113:
(Start: 74 @63341 has 18 MA's), (Start: 84 @63371 has 1 MA's), (109, 63515), (123, 63563), (129, 63587), (141, 63659),

Gene: AEgle_27 Start: 22275, Stop: 22640, Start Num: 88
Candidate Starts for AEgle_27:
(22, 22110), (Start: 88 @22275 has 51 MA's), (Start: 92 @22299 has 4 MA's), (132, 22542),

Gene: AGrandiflora_28 Start: 22305, Stop: 22670, Start Num: 88
Candidate Starts for AGrandiflora_28:
(Start: 88 @22305 has 51 MA's), (Start: 92 @22329 has 4 MA's), (121, 22512),

Gene: ASerpRocky_48 Start: 48513, Stop: 47953, Start Num: 41
Candidate Starts for ASerpRocky_48:
(3, 48906), (4, 48882), (5, 48879), (13, 48792), (15, 48783), (17, 48726), (18, 48711), (21, 48681), (30, 48600), (32, 48588), (39, 48519), (Start: 41 @48513 has 1 MA's), (Start: 54 @48423 has 1 MA's), (60, 48393), (Start: 77 @48339 has 31 MA's), (Start: 88 @48321 has 51 MA's), (Start: 92 @48297 has 4 MA's), (106, 48192), (130, 48090), (141, 48021),

Gene: Abidatro_53 Start: 33792, Stop: 34178, Start Num: 69
Candidate Starts for Abidatro_53:
(Start: 63 @33783 has 1 MA's), (Start: 69 @33792 has 16 MA's), (Start: 73 @33810 has 2 MA's), (Start: 92 @33831 has 4 MA's), (100, 33906), (115, 33954), (117, 33963), (127, 34002), (135, 34053), (143, 34089), (158, 34128),

Gene: AceofSpades_33 Start: 23794, Stop: 24168, Start Num: 47
Candidate Starts for AceofSpades_33:
(Start: 47 @23794 has 10 MA's), (Start: 92 @23818 has 4 MA's), (103, 23911), (116, 23983), (123, 24007), (142, 24106),

Gene: Adgers_56 Start: 47963, Stop: 47601, Start Num: 77
Candidate Starts for Adgers_56:
(Start: 77 @47963 has 31 MA's), (Start: 82 @47954 has 4 MA's), (Start: 92 @47924 has 4 MA's), (100, 47849), (124, 47759), (130, 47732), (133, 47699), (138, 47669), (154, 47633),

Gene: Adolin_26 Start: 20726, Stop: 21094, Start Num: 88
Candidate Starts for Adolin_26:
(Start: 88 @20726 has 51 MA's), (Start: 92 @20750 has 4 MA's), (122, 20936), (130, 20963), (132, 20993),

Gene: AdoptaAdorbs_53 Start: 33010, Stop: 33405, Start Num: 58
Candidate Starts for AdoptaAdorbs_53:
(Start: 58 @33010 has 1 MA's), (Start: 70 @33034 has 16 MA's), (91, 33061), (Start: 92 @33073 has 4 MA's), (97, 33124), (115, 33193), (117, 33202), (125, 33226), (127, 33241), (138, 33313), (158, 33367),

Gene: Adumb2043_27 Start: 22274, Stop: 22639, Start Num: 88
Candidate Starts for Adumb2043_27:
(22, 22109), (Start: 88 @22274 has 51 MA's), (Start: 92 @22298 has 4 MA's), (132, 22541),

Gene: AinMach_29 Start: 23247, Stop: 23618, Start Num: 43
Candidate Starts for AinMach_29:
(35, 23190), (43, 23247), (Start: 92 @23277 has 4 MA's), (103, 23370), (116, 23442), (121, 23460), (135, 23535), (141, 23562),

Gene: AlexMinion_53 Start: 33057, Stop: 33425, Start Num: 69
Candidate Starts for AlexMinion_53:
(Start: 50 @32964 has 3 MA's), (Start: 59 @33036 has 1 MA's), (Start: 69 @33057 has 16 MA's), (Start: 92 @33096 has 4 MA's), (97, 33147), (117, 33225), (125, 33249), (127, 33264), (138, 33336), (158, 33390), (166, 33414),

Gene: Amelia_53 Start: 32651, Stop: 33019, Start Num: 67
Candidate Starts for Amelia_53:
(Start: 61 @32642 has 2 MA's), (Start: 67 @32651 has 13 MA's), (Start: 92 @32693 has 4 MA's), (115, 32810), (117, 32819), (127, 32858), (138, 32930), (158, 32984),

Gene: AmiCi24_53 Start: 33143, Stop: 33514, Start Num: 70
Candidate Starts for AmiCi24_53:
(Start: 58 @33119 has 1 MA's), (Start: 70 @33143 has 16 MA's), (91, 33170), (Start: 92 @33182 has 4 MA's), (97, 33233), (115, 33302), (117, 33311), (125, 33335), (127, 33350), (138, 33422), (158, 33476),

Gene: Amphitrite_54 Start: 33033, Stop: 33404, Start Num: 70
Candidate Starts for Amphitrite_54:
(Start: 58 @33009 has 1 MA's), (Start: 70 @33033 has 16 MA's), (91, 33060), (Start: 92 @33072 has 4 MA's), (97, 33123), (115, 33192), (117, 33201), (125, 33225), (127, 33240), (138, 33312), (158, 33366),

Gene: Amploria_27 Start: 22274, Stop: 22639, Start Num: 88
Candidate Starts for Amploria_27:
(22, 22109), (Start: 88 @22274 has 51 MA's), (Start: 92 @22298 has 4 MA's), (132, 22541),

Gene: Amyev_28 Start: 24196, Stop: 24564, Start Num: 88
Candidate Starts for Amyev_28:
(22, 24034), (Start: 88 @24196 has 51 MA's), (Start: 92 @24220 has 4 MA's), (121, 24403),

Gene: Andrew_55 Start: 33040, Stop: 33402, Start Num: 70
Candidate Starts for Andrew_55:
(Start: 58 @33016 has 1 MA's), (Start: 70 @33040 has 16 MA's), (72, 33052), (Start: 92 @33079 has 4 MA's), (117, 33208), (127, 33247), (137, 33313), (138, 33319), (158, 33373),

Gene: Antrice_54 Start: 33012, Stop: 33383, Start Num: 69
Candidate Starts for Antrice_54:
(Start: 69 @33012 has 16 MA's), (Start: 92 @33048 has 4 MA's), (117, 33177), (118, 33183), (143, 33303), (153, 33321), (158, 33342),

Gene: ArV1_079 Start: 59307, Stop: 59669, Start Num: 66
Candidate Starts for ArV1_079:
(52, 59250), (57, 59286), (66, 59307), (Start: 87 @59352 has 1 MA's), (89, 59355), (Start: 92 @59376 has 4 MA's), (100, 59451), (112, 59481), (117, 59499), (127, 59538),

Gene: Ariel_162 Start: 83313, Stop: 83693, Start Num: 77
Candidate Starts for Ariel_162:
(Start: 77 @83313 has 31 MA's), (Start: 92 @83355 has 4 MA's), (100, 83430), (138, 83604), (141, 83610), (142, 83613), (165, 83682),

Gene: Asa16_29 Start: 24444, Stop: 24812, Start Num: 50
Candidate Starts for Asa16_29:
(22, 24279), (Start: 50 @24444 has 3 MA's), (Start: 92 @24468 has 4 MA's),

Gene: Ascela_28 Start: 22439, Stop: 22807, Start Num: 45
Candidate Starts for Ascela_28:
(Start: 45 @22439 has 6 MA's), (Start: 92 @22463 has 4 MA's), (122, 22649),

Gene: Atlantica_54 Start: 33145, Stop: 33516, Start Num: 70
Candidate Starts for Atlantica_54:
(Start: 58 @33121 has 1 MA's), (Start: 70 @33145 has 16 MA's), (91, 33172), (Start: 92 @33184 has 4 MA's), (97, 33235), (115, 33304), (117, 33313), (125, 33337), (127, 33352), (138, 33424), (158, 33478),

Gene: Azaz_54 Start: 33225, Stop: 33596, Start Num: 70
Candidate Starts for Azaz_54:
(Start: 58 @33201 has 1 MA's), (Start: 70 @33225 has 16 MA's), (91, 33252), (Start: 92 @33264 has 4 MA's), (97, 33315), (115, 33384), (117, 33393), (118, 33399), (125, 33417), (127, 33432), (138, 33504), (158, 33558),

Gene: Azrael100_87 Start: 53907, Stop: 54263, Start Num: 88
Candidate Starts for Azrael100_87:
(Start: 81 @53895 has 1 MA's), (Start: 82 @53898 has 4 MA's), (Start: 83 @53901 has 6 MA's), (Start: 88 @53907 has 51 MA's), (Start: 92 @53931 has 4 MA's), (96, 53973), (98, 53985), (109, 54048),

(110, 54054), (122, 54093), (126, 54108), (127, 54117), (129, 54123), (133, 54159), (136, 54171), (138, 54189),

Gene: BFK20_ORF42 Start: 32596, Stop: 32249, Start Num: 80
Candidate Starts for BFK20_ORF42:
(80, 32596), (91, 32572), (Start: 92 @32560 has 4 MA's), (101, 32482), (132, 32314), (137, 32287), (138, 32281), (144, 32266),

Gene: BaboJay_111 Start: 64514, Stop: 64846, Start Num: 74
Candidate Starts for BaboJay_111:
(Start: 74 @64514 has 18 MA's), (Start: 84 @64544 has 1 MA's), (109, 64688), (123, 64736), (129, 64760), (141, 64832),

Gene: Babushka_51 Start: 32952, Stop: 33320, Start Num: 70
Candidate Starts for Babushka_51:
(Start: 58 @32928 has 1 MA's), (Start: 70 @32952 has 16 MA's), (Start: 73 @32970 has 2 MA's), (Start: 92 @32991 has 4 MA's), (98, 33045), (115, 33111), (117, 33120), (127, 33159), (138, 33231), (158, 33285), (166, 33309),

Gene: BadWillHunting_59 Start: 32518, Stop: 32886, Start Num: 67
Candidate Starts for BadWillHunting_59:
(Start: 61 @32509 has 2 MA's), (Start: 67 @32518 has 13 MA's), (Start: 92 @32560 has 4 MA's), (115, 32677), (117, 32686), (127, 32725), (138, 32797), (158, 32851),

Gene: BaileyBlu_28 Start: 22070, Stop: 22423, Start Num: 48
Candidate Starts for BaileyBlu_28:
(40, 22052), (Start: 48 @22070 has 1 MA's), (Start: 92 @22094 has 4 MA's), (103, 22187), (127, 22301), (134, 22349),

Gene: Barbochs_52 Start: 47707, Stop: 47345, Start Num: 77
Candidate Starts for Barbochs_52:
(Start: 77 @47707 has 31 MA's), (Start: 82 @47698 has 4 MA's), (Start: 92 @47668 has 4 MA's), (100, 47593), (124, 47503), (130, 47476), (133, 47443), (138, 47413), (154, 47377),

Gene: Barnstormer_27 Start: 22061, Stop: 22453, Start Num: 65
Candidate Starts for Barnstormer_27:
(Start: 65 @22061 has 2 MA's), (Start: 92 @22127 has 4 MA's), (101, 22205),

Gene: Basilisk_51 Start: 33012, Stop: 33398, Start Num: 69
Candidate Starts for Basilisk_51:
(Start: 63 @33003 has 1 MA's), (Start: 69 @33012 has 16 MA's), (Start: 73 @33030 has 2 MA's), (Start: 92 @33051 has 4 MA's), (100, 33126), (117, 33183), (127, 33222), (134, 33270), (138, 33294), (158, 33348),

Gene: Beaver_57 Start: 49477, Stop: 49115, Start Num: 77
Candidate Starts for Beaver_57:
(Start: 77 @49477 has 31 MA's), (Start: 82 @49468 has 4 MA's), (Start: 92 @49438 has 4 MA's), (100, 49363), (124, 49273), (130, 49246), (133, 49213), (138, 49183), (154, 49147),

Gene: Bedetta_58 Start: 32801, Stop: 33178, Start Num: 61
Candidate Starts for Bedetta_58:
(Start: 61 @32801 has 2 MA's), (Start: 67 @32810 has 13 MA's), (Start: 92 @32852 has 4 MA's), (115, 32969), (117, 32978), (127, 33017), (138, 33089), (143, 33104), (158, 33143),

Gene: Berrie_29 Start: 23499, Stop: 23867, Start Num: 45
Candidate Starts for Berrie_29:
(Start: 45 @23499 has 6 MA's), (Start: 92 @23523 has 4 MA's), (114, 23676),

Gene: Bibble12_57 Start: 32646, Stop: 33014, Start Num: 67
Candidate Starts for Bibble12_57:
(Start: 61 @32637 has 2 MA's), (Start: 67 @32646 has 13 MA's), (Start: 92 @32688 has 4 MA's), (115, 32805), (117, 32814), (127, 32853), (138, 32925), (158, 32979),

Gene: BigBubba_113 Start: 62987, Stop: 63319, Start Num: 74
Candidate Starts for BigBubba_113:
(Start: 74 @62987 has 18 MA's), (Start: 84 @63017 has 1 MA's), (109, 63161), (123, 63209), (129, 63233), (141, 63305),

Gene: BillyBobJr_60 Start: 49787, Stop: 49425, Start Num: 77
Candidate Starts for BillyBobJr_60:
(Start: 77 @49787 has 31 MA's), (Start: 82 @49778 has 4 MA's), (Start: 92 @49748 has 4 MA's), (100, 49673), (124, 49583), (130, 49556), (133, 49523), (138, 49493), (154, 49457),

Gene: BirksAndSocks_59 Start: 49827, Stop: 49465, Start Num: 77
Candidate Starts for BirksAndSocks_59:
(Start: 77 @49827 has 31 MA's), (Start: 82 @49818 has 4 MA's), (Start: 92 @49788 has 4 MA's), (100, 49713), (124, 49623), (130, 49596), (133, 49563), (138, 49533), (154, 49497),

Gene: Bobby_156 Start: 89177, Stop: 89539, Start Num: 86
Candidate Starts for Bobby_156:
(Start: 86 @89177 has 1 MA's), (Start: 92 @89201 has 4 MA's), (98, 89255), (100, 89276), (123, 89357), (137, 89444), (138, 89450), (150, 89477), (165, 89528),

Gene: Boneham_58 Start: 49728, Stop: 49366, Start Num: 77
Candidate Starts for Boneham_58:
(Start: 77 @49728 has 31 MA's), (Start: 82 @49719 has 4 MA's), (Start: 92 @49689 has 4 MA's), (100, 49614), (124, 49524), (130, 49497), (133, 49464), (138, 49434), (154, 49398),

Gene: Breezic_54 Start: 47720, Stop: 47358, Start Num: 77
Candidate Starts for Breezic_54:
(Start: 77 @47720 has 31 MA's), (Start: 82 @47711 has 4 MA's), (Start: 92 @47681 has 4 MA's), (100, 47606), (124, 47516), (130, 47489), (133, 47456), (138, 47426), (154, 47390),

Gene: BronnyJames_158 Start: 84117, Stop: 84497, Start Num: 77
Candidate Starts for BronnyJames_158:
(Start: 77 @84117 has 31 MA's), (Start: 92 @84159 has 4 MA's), (123, 84315), (138, 84408), (141, 84414), (142, 84417), (165, 84486),

Gene: Brujita_56 Start: 37993, Stop: 38289, Start Num: 83
Candidate Starts for Brujita_56:
(75, 37969), (Start: 83 @37993 has 6 MA's), (Start: 92 @38017 has 4 MA's), (94, 38047), (98, 38071), (117, 38149), (120, 38161), (123, 38170), (128, 38191), (139, 38260),

Gene: Bubbykins_98 Start: 59826, Stop: 60170, Start Num: 71
Candidate Starts for Bubbykins_98:

(Start: 71 @59826 has 1 MA's), (Start: 81 @59847 has 1 MA's), (Start: 92 @59880 has 4 MA's), (98, 59934), (100, 59955), (112, 59985), (146, 60129),

Gene: Butterball_57 Start: 49733, Stop: 49371, Start Num: 77
Candidate Starts for Butterball_57:
(Start: 77 @49733 has 31 MA's), (Start: 82 @49724 has 4 MA's), (Start: 92 @49694 has 4 MA's), (100, 49619), (124, 49529), (130, 49502), (133, 49469), (138, 49439), (154, 49403),

Gene: CallinAllBarbz_26 Start: 21897, Stop: 22250, Start Num: 49
Candidate Starts for CallinAllBarbz_26:
(37, 21858), (Start: 49 @21897 has 1 MA's), (Start: 92 @21921 has 4 MA's), (103, 22014), (116, 22086), (127, 22128), (134, 22176),

Gene: Camara_54 Start: 33012, Stop: 33407, Start Num: 58
Candidate Starts for Camara_54:
(Start: 58 @33012 has 1 MA's), (Start: 70 @33036 has 16 MA's), (91, 33063), (Start: 92 @33075 has 4 MA's), (97, 33126), (115, 33195), (117, 33204), (125, 33228), (127, 33243), (138, 33315), (158, 33369),

Gene: Caron_28 Start: 22040, Stop: 22432, Start Num: 64
Candidate Starts for Caron_28:
(9, 21614), (Start: 64 @22040 has 6 MA's), (Start: 92 @22109 has 4 MA's), (94, 22139), (122, 22286),

Gene: Cassia_28 Start: 22891, Stop: 23259, Start Num: 88
Candidate Starts for Cassia_28:
(11, 22426), (24, 22588), (Start: 88 @22891 has 51 MA's), (Start: 92 @22915 has 4 MA's), (114, 23068),

Gene: CathyBurgh_54 Start: 48297, Stop: 47935, Start Num: 77
Candidate Starts for CathyBurgh_54:
(Start: 77 @48297 has 31 MA's), (Start: 82 @48288 has 4 MA's), (Start: 92 @48258 has 4 MA's), (100, 48183), (124, 48093), (130, 48066), (133, 48033), (138, 48003), (154, 47967),

Gene: Chickaboom_52 Start: 33345, Stop: 33731, Start Num: 69
Candidate Starts for Chickaboom_52:
(Start: 69 @33345 has 16 MA's), (Start: 92 @33384 has 4 MA's), (100, 33459), (117, 33516), (121, 33528), (127, 33555), (134, 33603), (138, 33627), (158, 33681),

Gene: Chipper1996_930 Start: 60998, Stop: 61360, Start Num: 62
Candidate Starts for Chipper1996_930:
(Start: 62 @60998 has 13 MA's), (Start: 87 @61043 has 1 MA's), (89, 61046), (Start: 92 @61067 has 4 MA's), (100, 61142), (112, 61172), (117, 61190), (129, 61235), (137, 61295), (140, 61301),

Gene: Chocolat_92 Start: 60705, Stop: 61067, Start Num: 62
Candidate Starts for Chocolat_92:
(Start: 62 @60705 has 13 MA's), (Start: 87 @60750 has 1 MA's), (89, 60753), (Start: 92 @60774 has 4 MA's), (100, 60849), (112, 60879), (117, 60897), (129, 60942), (137, 61002), (140, 61008),

Gene: Chubster_92 Start: 60945, Stop: 61307, Start Num: 63
Candidate Starts for Chubster_92:
(Start: 63 @60945 has 1 MA's), (Start: 87 @60990 has 1 MA's), (89, 60993), (Start: 92 @61014 has 4 MA's), (100, 61089), (112, 61119), (117, 61137), (129, 61182), (137, 61242), (140, 61248),

Gene: CinnamonToast_60 Start: 49787, Stop: 49425, Start Num: 77
Candidate Starts for CinnamonToast_60:
(Start: 77 @49787 has 31 MA's), (Start: 82 @49778 has 4 MA's), (Start: 92 @49748 has 4 MA's), (100, 49673), (124, 49583), (130, 49556), (133, 49523), (138, 49493), (154, 49457),

Gene: Colucci_95 Start: 61317, Stop: 61679, Start Num: 68
Candidate Starts for Colucci_95:
(Start: 68 @61317 has 1 MA's), (Start: 87 @61362 has 1 MA's), (89, 61365), (Start: 92 @61386 has 4 MA's), (100, 61461), (112, 61491), (117, 61509), (127, 61548),

Gene: Colusalem_54 Start: 32628, Stop: 32996, Start Num: 67
Candidate Starts for Colusalem_54:
(Start: 61 @32619 has 2 MA's), (Start: 67 @32628 has 13 MA's), (Start: 92 @32670 has 4 MA's), (115, 32787), (117, 32796), (127, 32835), (138, 32907), (158, 32961),

Gene: Community_29 Start: 24629, Stop: 24997, Start Num: 45
Candidate Starts for Community_29:
(Start: 45 @24629 has 6 MA's), (Start: 92 @24653 has 4 MA's), (114, 24806), (145, 24947),

Gene: Conboy_90 Start: 60454, Stop: 60816, Start Num: 62
Candidate Starts for Conboy_90:
(Start: 62 @60454 has 13 MA's), (Start: 87 @60499 has 1 MA's), (89, 60502), (Start: 92 @60523 has 4 MA's), (100, 60598), (112, 60628), (117, 60646), (129, 60691), (137, 60751), (140, 60757),

Gene: Coral_53 Start: 32516, Stop: 32923, Start Num: 67
Candidate Starts for Coral_53:
(Start: 61 @32507 has 2 MA's), (Start: 67 @32516 has 13 MA's), (Start: 79 @32558 has 1 MA's), (Start: 92 @32597 has 4 MA's), (115, 32714), (117, 32723), (127, 32762), (138, 32834), (158, 32888),

Gene: Cosmo_88 Start: 53908, Stop: 54264, Start Num: 88
Candidate Starts for Cosmo_88:
(Start: 81 @53896 has 1 MA's), (Start: 82 @53899 has 4 MA's), (Start: 83 @53902 has 6 MA's), (Start: 88 @53908 has 51 MA's), (Start: 92 @53932 has 4 MA's), (96, 53974), (98, 53986), (109, 54049), (110, 54055), (122, 54094), (126, 54109), (127, 54118), (129, 54124), (133, 54160), (136, 54172), (138, 54190),

Gene: Cote_55 Start: 32989, Stop: 33357, Start Num: 67
Candidate Starts for Cote_55:
(Start: 61 @32980 has 2 MA's), (Start: 67 @32989 has 13 MA's), (Start: 92 @33031 has 4 MA's), (115, 33148), (117, 33157), (127, 33196), (138, 33268), (158, 33322),

Gene: Courthouse_159 Start: 83757, Stop: 84137, Start Num: 77
Candidate Starts for Courthouse_159:
(Start: 77 @83757 has 31 MA's), (Start: 92 @83799 has 4 MA's), (100, 83874), (138, 84048), (141, 84054), (142, 84057), (165, 84126),

Gene: Crewmate_31 Start: 23149, Stop: 23517, Start Num: 88
Candidate Starts for Crewmate_31:
(14, 22744), (Start: 88 @23149 has 51 MA's), (Start: 92 @23173 has 4 MA's), (121, 23356), (122, 23359),

Gene: Cyan_27 Start: 22364, Stop: 22729, Start Num: 88
Candidate Starts for Cyan_27:

(Start: 88 @22364 has 51 MA's), (Start: 92 @22388 has 4 MA's), (121, 22571),

Gene: Cygnet_53 Start: 33616, Stop: 33987, Start Num: 69
Candidate Starts for Cygnet_53:
(53, 33562), (Start: 69 @33616 has 16 MA's), (Start: 92 @33652 has 4 MA's), (93, 33661), (117, 33781), (118, 33787), (143, 33907), (153, 33925), (158, 33946),

Gene: Damocles_57 Start: 32787, Stop: 33155, Start Num: 67
Candidate Starts for Damocles_57:
(Start: 61 @32778 has 2 MA's), (Start: 67 @32787 has 13 MA's), (Start: 92 @32829 has 4 MA's), (115, 32946), (117, 32955), (127, 32994), (138, 33066), (158, 33120),

Gene: DanHam62_54 Start: 33144, Stop: 33515, Start Num: 70
Candidate Starts for DanHam62_54:
(Start: 58 @33120 has 1 MA's), (Start: 70 @33144 has 16 MA's), (91, 33171), (Start: 92 @33183 has 4 MA's), (97, 33234), (115, 33303), (117, 33312), (125, 33336), (127, 33351), (138, 33423), (158, 33477),

Gene: Daob_55 Start: 32991, Stop: 33368, Start Num: 61
Candidate Starts for Daob_55:
(Start: 61 @32991 has 2 MA's), (Start: 67 @33000 has 13 MA's), (Start: 92 @33042 has 4 MA's), (115, 33159), (117, 33168), (127, 33207), (138, 33279), (158, 33333),

Gene: Demosthenes_47 Start: 48399, Stop: 47929, Start Num: 54
Candidate Starts for Demosthenes_47:
(3, 48882), (4, 48858), (5, 48855), (13, 48768), (15, 48759), (17, 48702), (18, 48687), (21, 48657), (30, 48576), (32, 48564), (39, 48495), (Start: 41 @48489 has 1 MA's), (Start: 54 @48399 has 1 MA's), (60, 48369), (Start: 77 @48315 has 31 MA's), (Start: 88 @48297 has 51 MA's), (Start: 92 @48273 has 4 MA's), (106, 48168), (130, 48066), (161, 47940),

Gene: Diabla_56 Start: 49398, Stop: 49039, Start Num: 79
Candidate Starts for Diabla_56:
(Start: 77 @49401 has 31 MA's), (Start: 79 @49398 has 1 MA's), (Start: 82 @49392 has 4 MA's), (Start: 92 @49362 has 4 MA's), (138, 49107), (154, 49071),

Gene: DoctorDiddles_110 Start: 62868, Stop: 63200, Start Num: 74
Candidate Starts for DoctorDiddles_110:
(Start: 59 @62826 has 1 MA's), (Start: 74 @62868 has 18 MA's), (Start: 84 @62898 has 1 MA's), (109, 63042), (123, 63090), (129, 63114), (141, 63186),

Gene: DrManhattan_26 Start: 20716, Stop: 21084, Start Num: 88
Candidate Starts for DrManhattan_26:
(Start: 88 @20716 has 51 MA's), (Start: 92 @20740 has 4 MA's), (122, 20926), (130, 20953), (132, 20983),

Gene: DrSierra_27 Start: 21394, Stop: 21762, Start Num: 88
Candidate Starts for DrSierra_27:
(Start: 88 @21394 has 51 MA's), (Start: 92 @21418 has 4 MA's),

Gene: E6_49 Start: 32814, Stop: 33161, Start Num: 88
Candidate Starts for E6_49:
(Start: 88 @32814 has 51 MA's), (Start: 92 @32838 has 4 MA's), (93, 32847), (106, 32937), (127, 33006), (137, 33072), (158, 33132), (164, 33153),

Gene: EdgarPoe_91 Start: 60862, Stop: 61224, Start Num: 62
Candidate Starts for EdgarPoe_91:
(Start: 62 @60862 has 13 MA's), (Start: 87 @60907 has 1 MA's), (89, 60910), (Start: 92 @60931 has 4 MA's), (100, 61006), (112, 61036), (117, 61054), (129, 61099), (137, 61159), (140, 61165),

Gene: Ekhein_54 Start: 47416, Stop: 47060, Start Num: 82
Candidate Starts for Ekhein_54:
(Start: 77 @47425 has 31 MA's), (Start: 82 @47416 has 4 MA's), (Start: 92 @47386 has 4 MA's), (100, 47311), (124, 47221), (130, 47194), (133, 47161), (138, 47131), (154, 47095),

Gene: Elezi_29 Start: 24459, Stop: 24827, Start Num: 88
Candidate Starts for Elezi_29:
(12, 24144), (14, 24156), (Start: 88 @24459 has 51 MA's), (90, 24465), (Start: 92 @24483 has 4 MA's), (121, 24666),

Gene: Elfy_27 Start: 21866, Stop: 22246, Start Num: 47
Candidate Starts for Elfy_27:
(1, 21266), (2, 21356), (6, 21509), (16, 21602), (34, 21797), (42, 21848), (Start: 47 @21866 has 10 MA's), (89, 21878), (Start: 92 @21899 has 4 MA's), (97, 21950), (116, 22067), (126, 22103), (131, 22133), (134, 22160),

Gene: Emotion_33 Start: 24307, Stop: 24687, Start Num: 47
Candidate Starts for Emotion_33:
(Start: 47 @24307 has 10 MA's), (Start: 92 @24331 has 4 MA's), (103, 24424), (136, 24592),

Gene: EniyanLRS_84 Start: 53647, Stop: 54018, Start Num: 88
Candidate Starts for EniyanLRS_84:
(Start: 81 @53635 has 1 MA's), (Start: 82 @53638 has 4 MA's), (Start: 83 @53641 has 6 MA's), (Start: 88 @53647 has 51 MA's), (Start: 92 @53671 has 4 MA's), (96, 53713), (98, 53725), (109, 53788), (110, 53794), (122, 53833), (126, 53848), (127, 53857), (129, 53863), (133, 53899), (136, 53911), (137, 53923), (138, 53929), (160, 53986), (163, 54004),

Gene: Eraser_29 Start: 24451, Stop: 24819, Start Num: 50
Candidate Starts for Eraser_29:
(22, 24286), (Start: 50 @24451 has 3 MA's), (Start: 92 @24475 has 4 MA's),

Gene: Exiguo_53 Start: 47428, Stop: 47075, Start Num: 82
Candidate Starts for Exiguo_53:
(Start: 77 @47437 has 31 MA's), (Start: 82 @47428 has 4 MA's), (Start: 92 @47398 has 4 MA's), (100, 47323), (124, 47233), (130, 47206), (133, 47173), (138, 47143), (154, 47107),

Gene: FelixAlejandro_58 Start: 49931, Stop: 49569, Start Num: 77
Candidate Starts for FelixAlejandro_58:
(Start: 77 @49931 has 31 MA's), (Start: 82 @49922 has 4 MA's), (Start: 92 @49892 has 4 MA's), (100, 49817), (124, 49727), (128, 49706), (130, 49700), (133, 49667), (138, 49637), (154, 49601),

Gene: Filch_114 Start: 63550, Stop: 63882, Start Num: 74
Candidate Starts for Filch_114:
(Start: 74 @63550 has 18 MA's), (Start: 84 @63580 has 1 MA's), (109, 63724), (123, 63772), (129, 63796), (141, 63868),

Gene: Fingolfin_54 Start: 33147, Stop: 33518, Start Num: 70

Candidate Starts for Fingolfin_54:
(Start: 58 @33123 has 1 MA's), (Start: 70 @33147 has 16 MA's), (91, 33174), (Start: 92 @33186 has 4 MA's), (97, 33237), (115, 33306), (117, 33315), (125, 33339), (127, 33354), (138, 33426), (158, 33480),

Gene: FiveHead_36 Start: 23809, Stop: 24183, Start Num: 47
Candidate Starts for FiveHead_36:
(Start: 47 @23809 has 10 MA's), (Start: 92 @23833 has 4 MA's), (100, 23908), (103, 23926), (116, 23998), (123, 24022), (142, 24121),

Gene: Flakey_53 Start: 48292, Stop: 47939, Start Num: 82
Candidate Starts for Flakey_53:
(Start: 77 @48301 has 31 MA's), (Start: 82 @48292 has 4 MA's), (Start: 92 @48262 has 4 MA's), (100, 48187), (124, 48097), (130, 48070), (133, 48037), (138, 48007), (154, 47971),

Gene: Floof_30 Start: 23138, Stop: 23557, Start Num: 64
Candidate Starts for Floof_30:
(Start: 64 @23138 has 6 MA's), (91, 23213), (Start: 92 @23225 has 4 MA's), (119, 23393), (136, 23477), (141, 23501),

Gene: Flutur_27 Start: 22595, Stop: 22960, Start Num: 88
Candidate Starts for Flutur_27:
(Start: 88 @22595 has 51 MA's), (Start: 92 @22619 has 4 MA's), (121, 22802),

Gene: Forester_29 Start: 24607, Stop: 25026, Start Num: 64
Candidate Starts for Forester_29:
(Start: 64 @24607 has 6 MA's), (Start: 92 @24694 has 4 MA's), (105, 24805), (113, 24835), (119, 24862), (122, 24871), (136, 24946),

Gene: Gaia_125 Start: 69310, Stop: 69603, Start Num: 83
Candidate Starts for Gaia_125:
(Start: 83 @69310 has 6 MA's), (Start: 88 @69316 has 51 MA's), (Start: 92 @69334 has 4 MA's), (100, 69409), (120, 69481), (123, 69490), (134, 69556), (137, 69574), (138, 69580), (141, 69586),

Gene: Galaxy_50 Start: 32207, Stop: 32593, Start Num: 69
Candidate Starts for Galaxy_50:
(38, 32063), (Start: 63 @32198 has 1 MA's), (Start: 69 @32207 has 16 MA's), (Start: 73 @32225 has 2 MA's), (Start: 92 @32246 has 4 MA's), (115, 32369), (117, 32378), (127, 32417), (135, 32468), (158, 32543),

Gene: GardenState_30 Start: 22984, Stop: 23337, Start Num: 78
Candidate Starts for GardenState_30:
(46, 22870), (Start: 78 @22984 has 2 MA's), (Start: 92 @23017 has 4 MA's), (119, 23182), (131, 23230), (134, 23257),

Gene: Glotell_55 Start: 33191, Stop: 33562, Start Num: 70
Candidate Starts for Glotell_55:
(Start: 58 @33167 has 1 MA's), (Start: 70 @33191 has 16 MA's), (91, 33218), (Start: 92 @33230 has 4 MA's), (97, 33281), (115, 33350), (117, 33359), (125, 33383), (127, 33398), (138, 33470), (158, 33524), (162, 33533),

Gene: Goku_111 Start: 64093, Stop: 64425, Start Num: 74
Candidate Starts for Goku_111:

(Start: 74 @64093 has 18 MA's), (Start: 84 @64123 has 1 MA's), (109, 64267), (123, 64315), (129, 64339), (141, 64411),

Gene: Goldilocks_115 Start: 63774, Stop: 64106, Start Num: 74
Candidate Starts for Goldilocks_115:
(Start: 74 @63774 has 18 MA's), (Start: 84 @63804 has 1 MA's), (109, 63948), (123, 63996), (129, 64020), (141, 64092),

Gene: Gonephishing_156 Start: 85217, Stop: 85597, Start Num: 77
Candidate Starts for Gonephishing_156:
(Start: 77 @85217 has 31 MA's), (Start: 92 @85259 has 4 MA's), (100, 85334), (123, 85415), (138, 85508), (141, 85514), (142, 85517), (165, 85586),

Gene: Gorko_53 Start: 47420, Stop: 47067, Start Num: 82
Candidate Starts for Gorko_53:
(Start: 77 @47429 has 31 MA's), (Start: 82 @47420 has 4 MA's), (Start: 92 @47390 has 4 MA's), (100, 47315), (124, 47225), (130, 47198), (133, 47165), (138, 47135), (154, 47099),

Gene: GourdThymes_54 Start: 48303, Stop: 47941, Start Num: 77
Candidate Starts for GourdThymes_54:
(Start: 77 @48303 has 31 MA's), (Start: 82 @48294 has 4 MA's), (Start: 92 @48264 has 4 MA's), (100, 48189), (124, 48099), (130, 48072), (133, 48039), (138, 48009), (154, 47973),

Gene: GramZayde_55 Start: 32816, Stop: 33193, Start Num: 61
Candidate Starts for GramZayde_55:
(Start: 61 @32816 has 2 MA's), (Start: 67 @32825 has 13 MA's), (Start: 92 @32867 has 4 MA's), (115, 32984), (117, 32993), (127, 33032), (138, 33104), (158, 33158),

Gene: Gravel_62 Start: 34684, Stop: 35061, Start Num: 69
Candidate Starts for Gravel_62:
(44, 34564), (56, 34642), (Start: 69 @34684 has 16 MA's), (Start: 73 @34702 has 2 MA's), (Start: 92 @34723 has 4 MA's), (100, 34798), (117, 34855), (127, 34894), (132, 34933), (158, 35020),

Gene: Gretchen_30 Start: 24301, Stop: 24720, Start Num: 64
Candidate Starts for Gretchen_30:
(Start: 64 @24301 has 6 MA's), (76, 24343), (Start: 92 @24388 has 4 MA's), (105, 24499), (113, 24529), (119, 24556), (122, 24565), (136, 24640),

Gene: GrimEater_26 Start: 21875, Stop: 22234, Start Num: 47
Candidate Starts for GrimEater_26:
(7, 21530), (22, 21710), (Start: 47 @21875 has 10 MA's), (Start: 92 @21905 has 4 MA's), (108, 22034), (134, 22160),

Gene: Gudmit_64 Start: 38580, Stop: 38909, Start Num: 83
Candidate Starts for Gudmit_64:
(10, 38091), (19, 38199), (28, 38298), (Start: 83 @38580 has 6 MA's), (Start: 92 @38610 has 4 MA's), (98, 38664), (100, 38685), (102, 38688), (117, 38742), (128, 38784), (129, 38787),

Gene: HamCheese_54 Start: 33131, Stop: 33502, Start Num: 70
Candidate Starts for HamCheese_54:
(Start: 58 @33107 has 1 MA's), (Start: 70 @33131 has 16 MA's), (91, 33158), (Start: 92 @33170 has 4 MA's), (97, 33221), (115, 33290), (117, 33299), (125, 33323), (127, 33338), (138, 33410), (158, 33464),

Gene: HannahPhantana_54 Start: 32646, Stop: 33014, Start Num: 67
Candidate Starts for HannahPhantana_54:
(Start: 61 @32637 has 2 MA's), (Start: 67 @32646 has 13 MA's), (Start: 92 @32688 has 4 MA's), (115, 32805), (117, 32814), (127, 32853), (138, 32925), (158, 32979),

Gene: Holt_117 Start: 64172, Stop: 64504, Start Num: 74
Candidate Starts for Holt_117:
(Start: 74 @64172 has 18 MA's), (Start: 84 @64202 has 1 MA's), (109, 64346), (123, 64394), (129, 64418), (141, 64490),

Gene: Hotorobo_54 Start: 48308, Stop: 47946, Start Num: 77
Candidate Starts for Hotorobo_54:
(Start: 77 @48308 has 31 MA's), (Start: 82 @48299 has 4 MA's), (Start: 92 @48269 has 4 MA's), (100, 48194), (124, 48104), (130, 48077), (133, 48044), (138, 48014), (154, 47978),

Gene: HumptyDumpty_92 Start: 60665, Stop: 61027, Start Num: 62
Candidate Starts for HumptyDumpty_92:
(Start: 62 @60665 has 13 MA's), (Start: 87 @60710 has 1 MA's), (89, 60713), (Start: 92 @60734 has 4 MA's), (100, 60809), (112, 60839), (117, 60857), (129, 60902), (137, 60962), (140, 60968),

Gene: IAmGroot_30 Start: 23648, Stop: 24001, Start Num: 78
Candidate Starts for IAmGroot_30:
(46, 23534), (Start: 78 @23648 has 2 MA's), (Start: 92 @23681 has 4 MA's), (119, 23846), (131, 23894), (134, 23921),

Gene: IUFootball_28 Start: 23243, Stop: 23641, Start Num: 88
Candidate Starts for IUFootball_28:
(Start: 88 @23243 has 51 MA's), (Start: 92 @23267 has 4 MA's), (95, 23303), (116, 23432), (130, 23480), (133, 23513), (168, 23630),

Gene: Icee_113 Start: 63282, Stop: 63614, Start Num: 74
Candidate Starts for Icee_113:
(Start: 74 @63282 has 18 MA's), (Start: 84 @63312 has 1 MA's), (109, 63456), (123, 63504), (129, 63528), (141, 63600),

Gene: Inca_108 Start: 61449, Stop: 61823, Start Num: 59
Candidate Starts for Inca_108:
(Start: 59 @61449 has 1 MA's), (Start: 74 @61491 has 18 MA's), (Start: 84 @61521 has 1 MA's), (109, 61665), (123, 61713), (129, 61737), (141, 61809),

Gene: Island3_56 Start: 37993, Stop: 38289, Start Num: 83
Candidate Starts for Island3_56:
(75, 37969), (Start: 83 @37993 has 6 MA's), (Start: 92 @38017 has 4 MA's), (94, 38047), (98, 38071), (117, 38149), (120, 38161), (123, 38170), (128, 38191), (139, 38260),

Gene: Iter_28 Start: 22439, Stop: 22807, Start Num: 45
Candidate Starts for Iter_28:
(Start: 45 @22439 has 6 MA's), (Start: 92 @22463 has 4 MA's), (122, 22649),

Gene: IttyBittyPiggy_28 Start: 22679, Stop: 23044, Start Num: 88
Candidate Starts for IttyBittyPiggy_28:

(Start: 88 @22679 has 51 MA's), (Start: 92 @22703 has 4 MA's), (100, 22778), (122, 22889), (157, 23027),

Gene: JaNo_91 Start: 60636, Stop: 60998, Start Num: 62
Candidate Starts for JaNo_91:
(Start: 62 @60636 has 13 MA's), (Start: 87 @60681 has 1 MA's), (89, 60684), (Start: 92 @60705 has 4 MA's), (100, 60780), (112, 60810), (117, 60828), (129, 60873), (137, 60933), (140, 60939),

Gene: Jamun_50 Start: 33451, Stop: 33831, Start Num: 69
Candidate Starts for Jamun_50:
(Start: 63 @33442 has 1 MA's), (Start: 69 @33451 has 16 MA's), (Start: 92 @33484 has 4 MA's), (117, 33616), (127, 33655), (134, 33703), (138, 33727), (158, 33781),

Gene: Janeemi_30 Start: 24658, Stop: 25026, Start Num: 45
Candidate Starts for Janeemi_30:
(Start: 45 @24658 has 6 MA's), (Start: 92 @24682 has 4 MA's), (114, 24835), (122, 24868),

Gene: Jankie_26 Start: 21876, Stop: 22235, Start Num: 47
Candidate Starts for Jankie_26:
(7, 21531), (22, 21711), (Start: 47 @21876 has 10 MA's), (Start: 92 @21906 has 4 MA's), (108, 22035), (131, 22134), (134, 22161),

Gene: JasmineDragon_33 Start: 23709, Stop: 24083, Start Num: 47
Candidate Starts for JasmineDragon_33:
(Start: 47 @23709 has 10 MA's), (Start: 92 @23733 has 4 MA's), (103, 23826), (116, 23898), (129, 23946), (142, 24021),

Gene: JayCookie_92 Start: 61198, Stop: 61560, Start Num: 62
Candidate Starts for JayCookie_92:
(Start: 62 @61198 has 13 MA's), (Start: 87 @61243 has 1 MA's), (89, 61246), (Start: 92 @61267 has 4 MA's), (100, 61342), (112, 61372), (117, 61390), (129, 61435), (137, 61495), (140, 61501),

Gene: JeTaime_110 Start: 63384, Stop: 63716, Start Num: 74
Candidate Starts for JeTaime_110:
(Start: 74 @63384 has 18 MA's), (Start: 84 @63414 has 1 MA's), (109, 63558), (123, 63606), (129, 63630), (141, 63702),

Gene: Jellybones_56 Start: 49403, Stop: 49041, Start Num: 77
Candidate Starts for Jellybones_56:
(Start: 77 @49403 has 31 MA's), (Start: 82 @49394 has 4 MA's), (Start: 92 @49364 has 4 MA's), (100, 49289), (124, 49199), (130, 49172), (133, 49139), (138, 49109), (141, 49103),

Gene: Jerole_54 Start: 32812, Stop: 33138, Start Num: 92
Candidate Starts for Jerole_54:
(Start: 61 @32761 has 2 MA's), (Start: 67 @32770 has 13 MA's), (Start: 92 @32812 has 4 MA's), (115, 32929), (117, 32938), (127, 32977), (138, 33049), (158, 33103),

Gene: Joemato_27 Start: 22364, Stop: 22729, Start Num: 88
Candidate Starts for Joemato_27:
(Start: 88 @22364 has 51 MA's), (Start: 92 @22388 has 4 MA's), (121, 22571),

Gene: John316_57 Start: 49466, Stop: 49104, Start Num: 77
Candidate Starts for John316_57:

(Start: 77 @49466 has 31 MA's), (Start: 82 @49457 has 4 MA's), (Start: 92 @49427 has 4 MA's), (100, 49352), (124, 49262), (130, 49235), (133, 49202), (138, 49172), (154, 49136),

Gene: JohnDoe_27 Start: 22359, Stop: 22724, Start Num: 88
Candidate Starts for JohnDoe_27:
(Start: 88 @22359 has 51 MA's), (Start: 92 @22383 has 4 MA's), (121, 22566),

Gene: JohnThicc_33 Start: 23809, Stop: 24183, Start Num: 47
Candidate Starts for JohnThicc_33:
(Start: 47 @23809 has 10 MA's), (Start: 92 @23833 has 4 MA's), (100, 23908), (103, 23926), (116, 23998), (123, 24022), (142, 24121),

Gene: Jstan_31 Start: 24469, Stop: 24813, Start Num: 92
Candidate Starts for Jstan_31:
(22, 24280), (Start: 50 @24445 has 3 MA's), (Start: 92 @24469 has 4 MA's),

Gene: JuneStar_28 Start: 24589, Stop: 24957, Start Num: 88
Candidate Starts for JuneStar_28:
(22, 24424), (Start: 88 @24589 has 51 MA's), (Start: 92 @24613 has 4 MA's),

Gene: Juno112_53 Start: 33147, Stop: 33518, Start Num: 70
Candidate Starts for Juno112_53:
(Start: 58 @33123 has 1 MA's), (Start: 70 @33147 has 16 MA's), (91, 33174), (Start: 92 @33186 has 4 MA's), (97, 33237), (115, 33306), (117, 33315), (125, 33339), (127, 33354), (138, 33426), (158, 33480),

Gene: KBurrousTX_90 Start: 62135, Stop: 62494, Start Num: 67
Candidate Starts for KBurrousTX_90:
(Start: 67 @62135 has 13 MA's), (Start: 87 @62180 has 1 MA's), (89, 62183), (Start: 92 @62204 has 4 MA's), (100, 62279), (112, 62309), (117, 62327), (129, 62372), (137, 62432),

Gene: KHumphrey_54 Start: 33011, Stop: 33406, Start Num: 58
Candidate Starts for KHumphrey_54:
(Start: 58 @33011 has 1 MA's), (Start: 70 @33035 has 16 MA's), (91, 33062), (Start: 92 @33074 has 4 MA's), (97, 33125), (115, 33194), (117, 33203), (125, 33227), (127, 33242), (138, 33314), (158, 33368),

Gene: Kabreeze_92 Start: 60722, Stop: 61084, Start Num: 62
Candidate Starts for Kabreeze_92:
(Start: 62 @60722 has 13 MA's), (Start: 87 @60767 has 1 MA's), (89, 60770), (Start: 92 @60791 has 4 MA's), (100, 60866), (112, 60896), (117, 60914), (129, 60959), (137, 61019), (140, 61025),

Gene: Kaylissa_27 Start: 22354, Stop: 22719, Start Num: 88
Candidate Starts for Kaylissa_27:
(Start: 88 @22354 has 51 MA's), (Start: 92 @22378 has 4 MA's), (121, 22561),

Gene: KeAlii_28 Start: 22518, Stop: 22889, Start Num: 88
Candidate Starts for KeAlii_28:
(22, 22341), (Start: 88 @22518 has 51 MA's), (Start: 92 @22542 has 4 MA's),

Gene: Kelzog_56 Start: 48315, Stop: 47953, Start Num: 77
Candidate Starts for Kelzog_56:

(Start: 77 @48315 has 31 MA's), (Start: 82 @48306 has 4 MA's), (Start: 92 @48276 has 4 MA's), (100, 48201), (124, 48111), (130, 48084), (133, 48051), (138, 48021), (154, 47985),

Gene: Kepler_54 Start: 32767, Stop: 33135, Start Num: 67
Candidate Starts for Kepler_54:
(Start: 61 @32758 has 2 MA's), (Start: 67 @32767 has 13 MA's), (Start: 92 @32809 has 4 MA's), (115, 32926), (117, 32935), (127, 32974), (138, 33046), (158, 33100),

Gene: Kimchi_116 Start: 63899, Stop: 64231, Start Num: 74
Candidate Starts for Kimchi_116:
(Start: 74 @63899 has 18 MA's), (Start: 84 @63929 has 1 MA's), (109, 64073), (123, 64121), (129, 64145), (141, 64217),

Gene: Kuleana_54 Start: 32362, Stop: 32733, Start Num: 67
Candidate Starts for Kuleana_54:
(Start: 61 @32353 has 2 MA's), (Start: 67 @32362 has 13 MA's), (Start: 73 @32383 has 2 MA's), (Start: 92 @32404 has 4 MA's), (100, 32479), (115, 32521), (117, 32530), (127, 32569), (129, 32575), (138, 32641), (141, 32647),

Gene: LadyAstra_33 Start: 23749, Stop: 24123, Start Num: 47
Candidate Starts for LadyAstra_33:
(Start: 47 @23749 has 10 MA's), (Start: 92 @23773 has 4 MA's), (100, 23848), (103, 23866), (116, 23938), (123, 23962), (142, 24061),

Gene: Laphuphu24k_52 Start: 33131, Stop: 33502, Start Num: 70
Candidate Starts for Laphuphu24k_52:
(Start: 58 @33107 has 1 MA's), (Start: 70 @33131 has 16 MA's), (91, 33158), (Start: 92 @33170 has 4 MA's), (97, 33221), (115, 33290), (117, 33299), (125, 33323), (127, 33338), (138, 33410), (158, 33464),

Gene: Lego_27 Start: 22308, Stop: 22673, Start Num: 88
Candidate Starts for Lego_27:
(Start: 88 @22308 has 51 MA's), (Start: 92 @22332 has 4 MA's), (121, 22515),

Gene: Leona_53 Start: 33226, Stop: 33597, Start Num: 70
Candidate Starts for Leona_53:
(Start: 58 @33202 has 1 MA's), (Start: 70 @33226 has 16 MA's), (91, 33253), (Start: 92 @33265 has 4 MA's), (97, 33316), (115, 33385), (117, 33394), (125, 33418), (127, 33433), (138, 33505), (158, 33559),

Gene: Liebe_28 Start: 23243, Stop: 23641, Start Num: 88
Candidate Starts for Liebe_28:
(Start: 88 @23243 has 51 MA's), (Start: 92 @23267 has 4 MA's), (95, 23303), (116, 23432), (130, 23480), (133, 23513), (168, 23630),

Gene: Linus_92 Start: 61170, Stop: 61532, Start Num: 62
Candidate Starts for Linus_92:
(Start: 62 @61170 has 13 MA's), (Start: 87 @61215 has 1 MA's), (89, 61218), (Start: 92 @61239 has 4 MA's), (100, 61314), (112, 61344), (117, 61362), (129, 61407), (137, 61467), (140, 61473),

Gene: LisoBros_31 Start: 24797, Stop: 25150, Start Num: 47
Candidate Starts for LisoBros_31:

(Start: 47 @24797 has 10 MA's), (Start: 92 @24824 has 4 MA's), (116, 24989), (119, 25001), (127, 25031),

Gene: LittleE_170 Start: 88113, Stop: 88469, Start Num: 77
Candidate Starts for LittleE_170:
(Start: 77 @88113 has 31 MA's), (Start: 92 @88155 has 4 MA's), (100, 88230), (123, 88311), (138, 88404), (141, 88410), (142, 88413), (152, 88434), (159, 88458),

Gene: LittleTokyo_51 Start: 31575, Stop: 31949, Start Num: 69
Candidate Starts for LittleTokyo_51:
(53, 31518), (Start: 69 @31575 has 16 MA's), (Start: 92 @31614 has 4 MA's), (117, 31743), (124, 31764), (138, 31854), (143, 31869), (153, 31887), (158, 31908),

Gene: Lizalica_27 Start: 22357, Stop: 22722, Start Num: 88
Candidate Starts for Lizalica_27:
(22, 22192), (Start: 88 @22357 has 51 MA's), (Start: 92 @22381 has 4 MA's), (121, 22564),

Gene: Lizzo_54 Start: 48297, Stop: 47935, Start Num: 77
Candidate Starts for Lizzo_54:
(Start: 77 @48297 has 31 MA's), (Start: 82 @48288 has 4 MA's), (Start: 92 @48258 has 4 MA's), (100, 48183), (124, 48093), (130, 48066), (133, 48033), (138, 48003), (154, 47967),

Gene: London_29 Start: 24459, Stop: 24827, Start Num: 88
Candidate Starts for London_29:
(12, 24144), (14, 24156), (Start: 88 @24459 has 51 MA's), (90, 24465), (Start: 92 @24483 has 4 MA's),

Gene: Lucky2013_159 Start: 83586, Stop: 83966, Start Num: 77
Candidate Starts for Lucky2013_159:
(Start: 77 @83586 has 31 MA's), (Start: 92 @83628 has 4 MA's), (100, 83703), (123, 83784), (138, 83877), (141, 83883), (142, 83886), (152, 83907), (159, 83931), (165, 83955),

Gene: Lunar_54 Start: 32679, Stop: 33047, Start Num: 67
Candidate Starts for Lunar_54:
(Start: 61 @32670 has 2 MA's), (Start: 67 @32679 has 13 MA's), (Start: 92 @32721 has 4 MA's), (115, 32838), (117, 32847), (127, 32886), (138, 32958), (158, 33012),

Gene: MaGuCo_26 Start: 22035, Stop: 22442, Start Num: 88
Candidate Starts for MaGuCo_26:
(8, 21519), (23, 21711), (51, 21909), (55, 21936), (Start: 88 @22035 has 51 MA's), (Start: 92 @22059 has 4 MA's), (116, 22224), (133, 22305), (168, 22431),

Gene: Marshmallow_110 Start: 64096, Stop: 64428, Start Num: 74
Candidate Starts for Marshmallow_110:
(Start: 74 @64096 has 18 MA's), (Start: 84 @64126 has 1 MA's), (109, 64270), (123, 64318), (129, 64342), (141, 64414),

Gene: MaryV_88 Start: 53723, Stop: 54085, Start Num: 83
Candidate Starts for MaryV_88:
(Start: 81 @53717 has 1 MA's), (Start: 82 @53720 has 4 MA's), (Start: 83 @53723 has 6 MA's), (Start: 88 @53729 has 51 MA's), (Start: 92 @53753 has 4 MA's), (96, 53795), (98, 53807), (109, 53870), (110, 53876), (122, 53915), (126, 53930), (127, 53939), (128, 53942), (129, 53945), (133, 53981), (136, 53993), (137, 54005), (138, 54011),

Gene: Maureen_28 Start: 23243, Stop: 23641, Start Num: 88
Candidate Starts for Maureen_28:
(Start: 88 @23243 has 51 MA's), (Start: 92 @23267 has 4 MA's), (95, 23303), (116, 23432), (130, 23480), (133, 23513), (168, 23630),

Gene: Melons_54 Start: 32493, Stop: 32861, Start Num: 67
Candidate Starts for Melons_54:
(Start: 61 @32484 has 2 MA's), (Start: 67 @32493 has 13 MA's), (Start: 92 @32535 has 4 MA's), (115, 32652), (117, 32661), (127, 32700), (138, 32772), (158, 32826),

Gene: MiaZeal_166 Start: 84733, Stop: 85113, Start Num: 77
Candidate Starts for MiaZeal_166:
(Start: 77 @84733 has 31 MA's), (Start: 92 @84775 has 4 MA's), (100, 84850), (123, 84931), (138, 85024), (141, 85030), (142, 85033), (152, 85054), (159, 85078), (165, 85102),

Gene: MiniMommy_33 Start: 23734, Stop: 24084, Start Num: 92
Candidate Starts for MiniMommy_33:
(Start: 47 @23710 has 10 MA's), (Start: 92 @23734 has 4 MA's), (103, 23827), (116, 23899), (129, 23947), (142, 24022),

Gene: MissSwiss_26 Start: 20779, Stop: 21147, Start Num: 88
Candidate Starts for MissSwiss_26:
(Start: 88 @20779 has 51 MA's), (Start: 92 @20803 has 4 MA's), (122, 20989), (130, 21016), (132, 21046),

Gene: Monty_53 Start: 47447, Stop: 47085, Start Num: 77
Candidate Starts for Monty_53:
(Start: 77 @47447 has 31 MA's), (Start: 82 @47438 has 4 MA's), (Start: 92 @47408 has 4 MA's), (100, 47333), (124, 47243), (130, 47216), (133, 47183), (138, 47153), (154, 47117),

Gene: Mordred_92 Start: 60806, Stop: 61123, Start Num: 87
Candidate Starts for Mordred_92:
(Start: 62 @60761 has 13 MA's), (Start: 87 @60806 has 1 MA's), (89, 60809), (Start: 92 @60830 has 4 MA's), (100, 60905), (112, 60935), (117, 60953), (129, 60998), (137, 61058), (140, 61064),

Gene: MoyaNatalis_91 Start: 60689, Stop: 61006, Start Num: 87
Candidate Starts for MoyaNatalis_91:
(Start: 62 @60644 has 13 MA's), (Start: 87 @60689 has 1 MA's), (89, 60692), (Start: 92 @60713 has 4 MA's), (100, 60788), (112, 60818), (117, 60836), (129, 60881), (137, 60941), (140, 60947),

Gene: Msay19_58 Start: 49817, Stop: 49455, Start Num: 77
Candidate Starts for Msay19_58:
(Start: 77 @49817 has 31 MA's), (Start: 82 @49808 has 4 MA's), (Start: 92 @49778 has 4 MA's), (100, 49703), (124, 49613), (128, 49592), (130, 49586), (133, 49553), (138, 49523), (141, 49517),

Gene: Mudpuppy_27 Start: 22359, Stop: 22724, Start Num: 88
Candidate Starts for Mudpuppy_27:
(22, 22197), (Start: 88 @22359 has 51 MA's), (Start: 92 @22383 has 4 MA's), (121, 22566),

Gene: Nebkiss_126 Start: 68242, Stop: 68529, Start Num: 88
Candidate Starts for Nebkiss_126:
(Start: 83 @68236 has 6 MA's), (Start: 88 @68242 has 51 MA's), (Start: 92 @68260 has 4 MA's), (100, 68335), (120, 68407), (123, 68416), (134, 68482), (137, 68500), (138, 68506), (141, 68512),

Gene: Nekros_161 Start: 86575, Stop: 86913, Start Num: 92
Candidate Starts for Nekros_161:
(Start: 77 @86533 has 31 MA's), (Start: 92 @86575 has 4 MA's), (100, 86650), (123, 86731), (138, 86824), (141, 86830), (142, 86833), (159, 86878), (165, 86902),

Gene: Nibley_156 Start: 83694, Stop: 84074, Start Num: 77
Candidate Starts for Nibley_156:
(Start: 77 @83694 has 31 MA's), (Start: 92 @83736 has 4 MA's), (123, 83892), (138, 83985), (141, 83991), (142, 83994), (165, 84063),

Gene: Nimrod_112 Start: 64244, Stop: 64576, Start Num: 74
Candidate Starts for Nimrod_112:
(Start: 74 @64244 has 18 MA's), (Start: 84 @64274 has 1 MA's), (109, 64418), (123, 64466), (129, 64490), (141, 64562),

Gene: Niobe_29 Start: 24445, Stop: 24813, Start Num: 50
Candidate Starts for Niobe_29:
(22, 24280), (Start: 50 @24445 has 3 MA's), (Start: 92 @24469 has 4 MA's),

Gene: Nitro_28 Start: 23769, Stop: 24137, Start Num: 88
Candidate Starts for Nitro_28:
(22, 23607), (Start: 88 @23769 has 51 MA's), (Start: 92 @23793 has 4 MA's), (97, 23844), (121, 23976),

Gene: ObiToo_30 Start: 22889, Stop: 23257, Start Num: 88
Candidate Starts for ObiToo_30:
(14, 22481), (Start: 88 @22889 has 51 MA's), (Start: 92 @22913 has 4 MA's), (121, 23096), (122, 23099),

Gene: Oppalora_53 Start: 33121, Stop: 33516, Start Num: 58
Candidate Starts for Oppalora_53:
(Start: 58 @33121 has 1 MA's), (Start: 70 @33145 has 16 MA's), (91, 33172), (Start: 92 @33184 has 4 MA's), (97, 33235), (115, 33304), (117, 33313), (125, 33337), (127, 33352), (138, 33424), (158, 33478),

Gene: Optimus_161 Start: 87411, Stop: 87791, Start Num: 77
Candidate Starts for Optimus_161:
(Start: 77 @87411 has 31 MA's), (Start: 92 @87453 has 4 MA's), (100, 87528), (123, 87609), (138, 87702), (141, 87708), (142, 87711), (165, 87780),

Gene: Orcanus_52 Start: 34039, Stop: 34413, Start Num: 69
Candidate Starts for Orcanus_52:
(Start: 63 @34030 has 1 MA's), (Start: 69 @34039 has 16 MA's), (Start: 73 @34057 has 2 MA's), (Start: 92 @34078 has 4 MA's), (100, 34153), (117, 34210), (127, 34249), (132, 34288), (158, 34375),

Gene: Origami_33 Start: 23749, Stop: 24123, Start Num: 47
Candidate Starts for Origami_33:
(Start: 47 @23749 has 10 MA's), (Start: 92 @23773 has 4 MA's), (100, 23848), (103, 23866), (116, 23938), (123, 23962), (142, 24061),

Gene: OtsoOtso_54 Start: 32500, Stop: 32868, Start Num: 67
Candidate Starts for OtsoOtso_54:

(Start: 61 @32491 has 2 MA's), (Start: 67 @32500 has 13 MA's), (Start: 92 @32542 has 4 MA's), (115, 32659), (117, 32668), (127, 32707), (138, 32779), (158, 32833),

Gene: PandaPo_26 Start: 20779, Stop: 21147, Start Num: 88
Candidate Starts for PandaPo_26:
(Start: 88 @20779 has 51 MA's), (Start: 92 @20803 has 4 MA's), (122, 20989), (130, 21016), (132, 21046),

Gene: Pelletreau_62 Start: 34684, Stop: 35061, Start Num: 69
Candidate Starts for Pelletreau_62:
(44, 34564), (56, 34642), (Start: 69 @34684 has 16 MA's), (Start: 73 @34702 has 2 MA's), (Start: 92 @34723 has 4 MA's), (100, 34798), (117, 34855), (127, 34894), (132, 34933), (158, 35020),

Gene: Percival_30 Start: 24132, Stop: 24551, Start Num: 64
Candidate Starts for Percival_30:
(Start: 64 @24132 has 6 MA's), (Start: 92 @24219 has 4 MA's), (105, 24330), (113, 24360), (119, 24387), (122, 24396), (136, 24471),

Gene: PhirstandPhine_54 Start: 32639, Stop: 33007, Start Num: 67
Candidate Starts for PhirstandPhine_54:
(Start: 61 @32630 has 2 MA's), (Start: 67 @32639 has 13 MA's), (Start: 92 @32681 has 4 MA's), (115, 32798), (117, 32807), (127, 32846), (138, 32918), (158, 32972),

Gene: Phives_30 Start: 24466, Stop: 24834, Start Num: 45
Candidate Starts for Phives_30:
(Start: 45 @24466 has 6 MA's), (Start: 92 @24490 has 4 MA's), (114, 24643), (145, 24784),

Gene: PhluffyCoco_54 Start: 33245, Stop: 33616, Start Num: 70
Candidate Starts for PhluffyCoco_54:
(Start: 58 @33221 has 1 MA's), (Start: 70 @33245 has 16 MA's), (91, 33272), (Start: 92 @33284 has 4 MA's), (97, 33335), (115, 33404), (117, 33413), (125, 33437), (127, 33452), (138, 33524), (158, 33578),

Gene: Pineda_55 Start: 32799, Stop: 33176, Start Num: 61
Candidate Starts for Pineda_55:
(Start: 61 @32799 has 2 MA's), (Start: 67 @32808 has 13 MA's), (Start: 92 @32850 has 4 MA's), (115, 32967), (117, 32976), (127, 33015), (138, 33087), (158, 33141),

Gene: Pixelle_28 Start: 24216, Stop: 24584, Start Num: 88
Candidate Starts for Pixelle_28:
(Start: 88 @24216 has 51 MA's), (90, 24222), (91, 24228), (Start: 92 @24240 has 4 MA's), (121, 24423),

Gene: Poland_58 Start: 49796, Stop: 49434, Start Num: 77
Candidate Starts for Poland_58:
(Start: 77 @49796 has 31 MA's), (Start: 82 @49787 has 4 MA's), (Start: 92 @49757 has 4 MA's), (100, 49682), (124, 49592), (128, 49571), (130, 49565), (133, 49532), (138, 49502), (141, 49496),

Gene: Polka_53 Start: 32500, Stop: 32868, Start Num: 67
Candidate Starts for Polka_53:
(Start: 61 @32491 has 2 MA's), (Start: 67 @32500 has 13 MA's), (Start: 92 @32542 has 4 MA's), (115, 32659), (117, 32668), (127, 32707), (138, 32779), (158, 32833),

Gene: Porcelain_163 Start: 84532, Stop: 84912, Start Num: 77
Candidate Starts for Porcelain_163:
(Start: 77 @84532 has 31 MA's), (Start: 92 @84574 has 4 MA's), (100, 84649), (123, 84730), (138, 84823), (141, 84829), (142, 84832), (152, 84853), (159, 84877), (165, 84901),

Gene: Porky_110 Start: 63022, Stop: 63354, Start Num: 74
Candidate Starts for Porky_110:
(Start: 74 @63022 has 18 MA's), (Start: 84 @63052 has 1 MA's), (109, 63196), (123, 63244), (129, 63268), (141, 63340),

Gene: Powerpuff_27 Start: 22359, Stop: 22724, Start Num: 88
Candidate Starts for Powerpuff_27:
(Start: 88 @22359 has 51 MA's), (Start: 92 @22383 has 4 MA's), (121, 22566),

Gene: PrincessTrina_93 Start: 60952, Stop: 61314, Start Num: 62
Candidate Starts for PrincessTrina_93:
(Start: 62 @60952 has 13 MA's), (Start: 87 @60997 has 1 MA's), (89, 61000), (Start: 92 @61021 has 4 MA's), (100, 61096), (112, 61126), (117, 61144), (129, 61189), (137, 61249), (140, 61255),

Gene: Pumpkins_28 Start: 23311, Stop: 23679, Start Num: 88
Candidate Starts for Pumpkins_28:
(11, 22846), (Start: 88 @23311 has 51 MA's), (Start: 92 @23335 has 4 MA's), (122, 23521),

Gene: Rattail_54 Start: 33307, Stop: 33702, Start Num: 58
Candidate Starts for Rattail_54:
(Start: 58 @33307 has 1 MA's), (Start: 70 @33331 has 16 MA's), (91, 33358), (Start: 92 @33370 has 4 MA's), (97, 33421), (115, 33490), (117, 33499), (125, 33523), (138, 33610), (158, 33664),

Gene: Rearden_162 Start: 84962, Stop: 85300, Start Num: 92
Candidate Starts for Rearden_162:
(Start: 77 @84920 has 31 MA's), (Start: 92 @84962 has 4 MA's), (100, 85037), (138, 85211), (141, 85217), (142, 85220), (165, 85289),

Gene: RedFox_54 Start: 33244, Stop: 33615, Start Num: 70
Candidate Starts for RedFox_54:
(Start: 58 @33220 has 1 MA's), (Start: 70 @33244 has 16 MA's), (91, 33271), (Start: 92 @33283 has 4 MA's), (97, 33334), (115, 33403), (117, 33412), (125, 33436), (127, 33451), (138, 33523), (158, 33577),

Gene: RedWattleHog_124 Start: 92547, Stop: 92891, Start Num: 73
Candidate Starts for RedWattleHog_124:
(Start: 73 @92547 has 2 MA's), (97, 92622), (104, 92676), (117, 92709), (127, 92748), (131, 92769), (138, 92820), (141, 92826), (151, 92850), (155, 92859),

Gene: Reedo_27 Start: 20942, Stop: 21310, Start Num: 88
Candidate Starts for Reedo_27:
(Start: 88 @20942 has 51 MA's), (Start: 92 @20966 has 4 MA's),

Gene: RemRem_55 Start: 47437, Stop: 47075, Start Num: 77
Candidate Starts for RemRem_55:
(Start: 77 @47437 has 31 MA's), (Start: 82 @47428 has 4 MA's), (Start: 92 @47398 has 4 MA's), (100, 47323), (124, 47233), (130, 47206), (133, 47173), (138, 47143), (154, 47107),

Gene: Renna12_53 Start: 33097, Stop: 33468, Start Num: 70
Candidate Starts for Renna12_53:
(Start: 58 @33073 has 1 MA's), (Start: 70 @33097 has 16 MA's), (91, 33124), (Start: 92 @33136 has 4 MA's), (115, 33256), (117, 33265), (125, 33289), (127, 33304), (138, 33376), (158, 33430),

Gene: RosiePosie_92 Start: 60817, Stop: 61179, Start Num: 62
Candidate Starts for RosiePosie_92:
(Start: 62 @60817 has 13 MA's), (Start: 87 @60862 has 1 MA's), (89, 60865), (Start: 92 @60886 has 4 MA's), (100, 60961), (112, 60991), (117, 61009), (129, 61054), (137, 61114), (140, 61120),

Gene: Ruchi_50 Start: 32934, Stop: 33320, Start Num: 69
Candidate Starts for Ruchi_50:
(Start: 63 @32925 has 1 MA's), (Start: 69 @32934 has 16 MA's), (Start: 73 @32952 has 2 MA's), (Start: 92 @32973 has 4 MA's), (100, 33048), (117, 33105), (127, 33144), (134, 33192), (138, 33216), (158, 33270),

Gene: Sam12_53 Start: 47437, Stop: 47075, Start Num: 77
Candidate Starts for Sam12_53:
(Start: 77 @47437 has 31 MA's), (Start: 82 @47428 has 4 MA's), (Start: 92 @47398 has 4 MA's), (100, 47323), (124, 47233), (130, 47206), (133, 47173), (138, 47143), (154, 47107),

Gene: Scavito_93 Start: 60810, Stop: 61172, Start Num: 62
Candidate Starts for Scavito_93:
(Start: 62 @60810 has 13 MA's), (Start: 87 @60855 has 1 MA's), (89, 60858), (Start: 92 @60879 has 4 MA's), (100, 60954), (112, 60984), (117, 61002), (129, 61047), (137, 61107), (140, 61113),

Gene: Schaffner_28 Start: 23536, Stop: 23904, Start Num: 88
Candidate Starts for Schaffner_28:
(25, 23401), (27, 23404), (29, 23422), (31, 23431), (33, 23458), (Start: 88 @23536 has 51 MA's), (Start: 92 @23560 has 4 MA's),

Gene: Shaboozey_161 Start: 84138, Stop: 84518, Start Num: 77
Candidate Starts for Shaboozey_161:
(Start: 77 @84138 has 31 MA's), (Start: 92 @84180 has 4 MA's), (123, 84336), (138, 84429), (141, 84435), (142, 84438), (165, 84507),

Gene: ShakeItOph_33 Start: 23733, Stop: 24083, Start Num: 92
Candidate Starts for ShakeItOph_33:
(Start: 47 @23709 has 10 MA's), (Start: 92 @23733 has 4 MA's), (103, 23826), (116, 23898), (129, 23946), (142, 24021),

Gene: Shambre1_62 Start: 40086, Stop: 40415, Start Num: 85
Candidate Starts for Shambre1_62:
(Start: 85 @40086 has 1 MA's), (Start: 92 @40113 has 4 MA's), (111, 40245),

Gene: Simpson_29 Start: 22364, Stop: 22729, Start Num: 88
Candidate Starts for Simpson_29:
(Start: 88 @22364 has 51 MA's), (Start: 92 @22388 has 4 MA's), (121, 22571),

Gene: Skelbel_30 Start: 24445, Stop: 24813, Start Num: 50
Candidate Starts for Skelbel_30:
(22, 24280), (Start: 50 @24445 has 3 MA's), (Start: 92 @24469 has 4 MA's),

Gene: Snek_28 Start: 21512, Stop: 21880, Start Num: 88
Candidate Starts for Snek_28:
(Start: 88 @21512 has 51 MA's), (Start: 92 @21536 has 4 MA's),

Gene: Sombrero_54 Start: 47804, Stop: 47439, Start Num: 77
Candidate Starts for Sombrero_54:
(Start: 77 @47804 has 31 MA's), (Start: 82 @47795 has 4 MA's), (Start: 92 @47765 has 4 MA's), (100, 47690), (124, 47600), (130, 47573), (133, 47540), (138, 47510), (141, 47504),

Gene: Squibbles_53 Start: 48300, Stop: 47935, Start Num: 77
Candidate Starts for Squibbles_53:
(Start: 77 @48300 has 31 MA's), (Start: 82 @48291 has 4 MA's), (Start: 92 @48261 has 4 MA's), (100, 48186), (124, 48096), (130, 48069), (133, 48036), (138, 48006), (154, 47970),

Gene: Squint_157 Start: 84398, Stop: 84778, Start Num: 77
Candidate Starts for Squint_157:
(Start: 77 @84398 has 31 MA's), (Start: 92 @84440 has 4 MA's), (100, 84515), (138, 84689), (141, 84695), (142, 84698), (165, 84767),

Gene: Stank_114 Start: 63971, Stop: 64303, Start Num: 74
Candidate Starts for Stank_114:
(Start: 74 @63971 has 18 MA's), (Start: 84 @64001 has 1 MA's), (109, 64145), (123, 64193), (129, 64217), (141, 64289),

Gene: Stellammi_163 Start: 74641, Stop: 74943, Start Num: 83
Candidate Starts for Stellammi_163:
(75, 74617), (Start: 83 @74641 has 6 MA's), (91, 74653), (Start: 92 @74665 has 4 MA's), (107, 74776), (136, 74896), (138, 74914), (148, 74932),

Gene: StormChicken_113 Start: 64241, Stop: 64573, Start Num: 74
Candidate Starts for StormChicken_113:
(Start: 74 @64241 has 18 MA's), (Start: 84 @64271 has 1 MA's), (109, 64415), (123, 64463), (129, 64487), (141, 64559),

Gene: Stormageddon_123 Start: 92481, Stop: 92825, Start Num: 73
Candidate Starts for Stormageddon_123:
(Start: 73 @92481 has 2 MA's), (97, 92556), (104, 92610), (117, 92643), (127, 92682), (131, 92703), (138, 92754), (141, 92760), (151, 92784), (155, 92793),

Gene: StuartMinion_45 Start: 29956, Stop: 30324, Start Num: 69
Candidate Starts for StuartMinion_45:
(Start: 50 @29863 has 3 MA's), (Start: 59 @29935 has 1 MA's), (Start: 69 @29956 has 16 MA's), (Start: 92 @29995 has 4 MA's), (97, 30046), (117, 30124), (125, 30148), (127, 30163), (138, 30235), (158, 30289), (166, 30313),

Gene: SuMoo_28 Start: 21704, Stop: 22096, Start Num: 149
Candidate Starts for SuMoo_28:
(20, 21047), (26, 21116), (36, 21197), (Start: 149 @21704 has 1 MA's), (167, 21773), (169, 21851), (170, 21884), (171, 21914), (172, 21941),

Gene: Subaru_29 Start: 24459, Stop: 24827, Start Num: 88
Candidate Starts for Subaru_29:
(12, 24144), (14, 24156), (Start: 88 @24459 has 51 MA's), (90, 24465), (Start: 92 @24483 has 4 MA's),

Gene: Sue2_29 Start: 23242, Stop: 23610, Start Num: 88
Candidate Starts for Sue2_29:
(22, 23062), (Start: 88 @23242 has 51 MA's), (Start: 92 @23266 has 4 MA's), (129, 23476), (147, 23563),

Gene: SuperHands_29 Start: 24618, Stop: 25037, Start Num: 64
Candidate Starts for SuperHands_29:
(Start: 64 @24618 has 6 MA's), (Start: 92 @24705 has 4 MA's), (105, 24816), (113, 24846), (119, 24873), (122, 24882), (136, 24957),

Gene: Superphikiman_160 Start: 83453, Stop: 83833, Start Num: 77
Candidate Starts for Superphikiman_160:
(Start: 77 @83453 has 31 MA's), (Start: 92 @83495 has 4 MA's), (100, 83570), (138, 83744), (141, 83750), (142, 83753), (165, 83822),

Gene: TBrady12_115 Start: 63408, Stop: 63740, Start Num: 74
Candidate Starts for TBrady12_115:
(Start: 74 @63408 has 18 MA's), (Start: 84 @63438 has 1 MA's), (109, 63582), (123, 63630), (129, 63654), (141, 63726),

Gene: Tallboi_28 Start: 23797, Stop: 24162, Start Num: 88
Candidate Starts for Tallboi_28:
(Start: 88 @23797 has 51 MA's), (Start: 92 @23821 has 4 MA's), (121, 24004),

Gene: TaylorSipht_52 Start: 33579, Stop: 33953, Start Num: 69
Candidate Starts for TaylorSipht_52:
(Start: 69 @33579 has 16 MA's), (91, 33606), (Start: 92 @33618 has 4 MA's), (99, 33681), (115, 33741), (117, 33750), (143, 33876), (156, 33906), (158, 33915),

Gene: Tbone_27 Start: 22383, Stop: 22748, Start Num: 88
Candidate Starts for Tbone_27:
(22, 22221), (Start: 88 @22383 has 51 MA's), (Start: 92 @22407 has 4 MA's), (121, 22590),

Gene: Teaspoon_112 Start: 63986, Stop: 64288, Start Num: 84
Candidate Starts for Teaspoon_112:
(Start: 74 @63956 has 18 MA's), (Start: 84 @63986 has 1 MA's), (109, 64130), (123, 64178), (129, 64202), (141, 64274),

Gene: TforTroy_29 Start: 23185, Stop: 23553, Start Num: 88
Candidate Starts for TforTroy_29:
(12, 22750), (14, 22762), (Start: 88 @23185 has 51 MA's), (Start: 92 @23209 has 4 MA's), (121, 23392),

Gene: ThursdayNight_30 Start: 22976, Stop: 23344, Start Num: 88
Candidate Starts for ThursdayNight_30:
(Start: 58 @22898 has 1 MA's), (Start: 88 @22976 has 51 MA's), (Start: 92 @23000 has 4 MA's), (116, 23165), (130, 23213),

Gene: Tian_28 Start: 24196, Stop: 24564, Start Num: 88
Candidate Starts for Tian_28:
(22, 24034), (Start: 88 @24196 has 51 MA's), (Start: 92 @24220 has 4 MA's), (121, 24403),

Gene: Tophat_93 Start: 60999, Stop: 61361, Start Num: 62
Candidate Starts for Tophat_93:
(Start: 62 @60999 has 13 MA's), (Start: 87 @61044 has 1 MA's), (89, 61047), (Start: 92 @61068 has 4 MA's), (100, 61143), (112, 61173), (117, 61191), (129, 61236), (137, 61296), (140, 61302),

Gene: Tuck_31 Start: 25007, Stop: 25378, Start Num: 88
Candidate Starts for Tuck_31:
(25, 24872), (27, 24875), (29, 24893), (33, 24929), (Start: 88 @25007 has 51 MA's), (90, 25013), (Start: 92 @25031 has 4 MA's), (122, 25217),

Gene: Turab_27 Start: 22274, Stop: 22639, Start Num: 88
Candidate Starts for Turab_27:
(22, 22109), (Start: 88 @22274 has 51 MA's), (Start: 92 @22298 has 4 MA's), (132, 22541),

Gene: Tutumahutu_27 Start: 22358, Stop: 22723, Start Num: 88
Candidate Starts for Tutumahutu_27:
(Start: 88 @22358 has 51 MA's), (Start: 92 @22382 has 4 MA's), (121, 22565),

Gene: Tweety19_28 Start: 21511, Stop: 21879, Start Num: 88
Candidate Starts for Tweety19_28:
(Start: 88 @21511 has 51 MA's), (Start: 92 @21535 has 4 MA's),

Gene: UtzChips_27 Start: 22046, Stop: 22438, Start Num: 65
Candidate Starts for UtzChips_27:
(Start: 65 @22046 has 2 MA's), (Start: 92 @22112 has 4 MA's), (101, 22190),

Gene: VResidence_28 Start: 22506, Stop: 22880, Start Num: 88
Candidate Starts for VResidence_28:
(Start: 88 @22506 has 51 MA's), (Start: 92 @22530 has 4 MA's), (122, 22716),

Gene: VroomVroom_33 Start: 23804, Stop: 24178, Start Num: 47
Candidate Starts for VroomVroom_33:
(Start: 47 @23804 has 10 MA's), (Start: 92 @23828 has 4 MA's), (103, 23921), (116, 23993), (123, 24017), (129, 24041), (142, 24116),

Gene: Vulpecula_50 Start: 32594, Stop: 32980, Start Num: 69
Candidate Starts for Vulpecula_50:
(Start: 63 @32585 has 1 MA's), (Start: 69 @32594 has 16 MA's), (Start: 73 @32612 has 2 MA's), (Start: 92 @32633 has 4 MA's), (100, 32708), (117, 32765), (127, 32804), (134, 32852), (138, 32876), (158, 32930),

Gene: Warda_27 Start: 22358, Stop: 22723, Start Num: 88
Candidate Starts for Warda_27:
(22, 22196), (Start: 88 @22358 has 51 MA's), (Start: 92 @22382 has 4 MA's), (121, 22565),

Gene: Westrich_61 Start: 34608, Stop: 34985, Start Num: 69
Candidate Starts for Westrich_61:
(44, 34488), (56, 34566), (Start: 69 @34608 has 16 MA's), (Start: 73 @34626 has 2 MA's), (Start: 92 @34647 has 4 MA's), (100, 34722), (117, 34779), (127, 34818), (132, 34857), (158, 34944),

Gene: Wiggin_114 Start: 63401, Stop: 63733, Start Num: 74
Candidate Starts for Wiggin_114:

(Start: 74 @63401 has 18 MA's), (Start: 84 @63431 has 1 MA's), (109, 63575), (123, 63623), (129, 63647), (141, 63719),

Gene: Wildcat_88 Start: 53727, Stop: 54095, Start Num: 81
Candidate Starts for Wildcat_88:
(Start: 81 @53727 has 1 MA's), (Start: 82 @53730 has 4 MA's), (Start: 83 @53733 has 6 MA's), (Start: 88 @53739 has 51 MA's), (Start: 92 @53763 has 4 MA's), (96, 53805), (98, 53817), (109, 53880), (110, 53886), (122, 53925), (126, 53940), (127, 53949), (128, 53952), (129, 53955), (133, 53991), (136, 54003), (137, 54015), (138, 54021),

Gene: Wildwest_28 Start: 22362, Stop: 22703, Start Num: 92
Candidate Starts for Wildwest_28:
(Start: 88 @22338 has 51 MA's), (Start: 92 @22362 has 4 MA's), (122, 22548),

Gene: WileyE_52 Start: 33345, Stop: 33731, Start Num: 69
Candidate Starts for WileyE_52:
(Start: 69 @33345 has 16 MA's), (Start: 92 @33384 has 4 MA's), (100, 33459), (117, 33516), (121, 33528), (127, 33555), (134, 33603), (138, 33627), (158, 33681),

Gene: Worcestershire_53 Start: 47439, Stop: 47077, Start Num: 77
Candidate Starts for Worcestershire_53:
(Start: 77 @47439 has 31 MA's), (Start: 82 @47430 has 4 MA's), (Start: 92 @47400 has 4 MA's), (100, 47325), (124, 47235), (130, 47208), (133, 47175), (138, 47145), (154, 47109),

Gene: Xandras_111 Start: 63224, Stop: 63556, Start Num: 74
Candidate Starts for Xandras_111:
(Start: 74 @63224 has 18 MA's), (Start: 84 @63254 has 1 MA's), (109, 63398), (123, 63446), (129, 63470), (141, 63542),

Gene: Yang_28 Start: 22698, Stop: 23066, Start Num: 45
Candidate Starts for Yang_28:
(Start: 45 @22698 has 6 MA's), (Start: 92 @22722 has 4 MA's), (100, 22797),

Gene: YesChef_27 Start: 22359, Stop: 22724, Start Num: 88
Candidate Starts for YesChef_27:
(Start: 88 @22359 has 51 MA's), (Start: 92 @22383 has 4 MA's), (121, 22566),

Gene: Zhuangyuan_55 Start: 33443, Stop: 33811, Start Num: 69
Candidate Starts for Zhuangyuan_55:
(53, 33389), (Start: 69 @33443 has 16 MA's), (Start: 73 @33458 has 2 MA's), (91, 33467), (Start: 92 @33479 has 4 MA's), (117, 33608), (118, 33614), (127, 33647), (130, 33656), (141, 33725), (143, 33734), (153, 33752), (158, 33773),