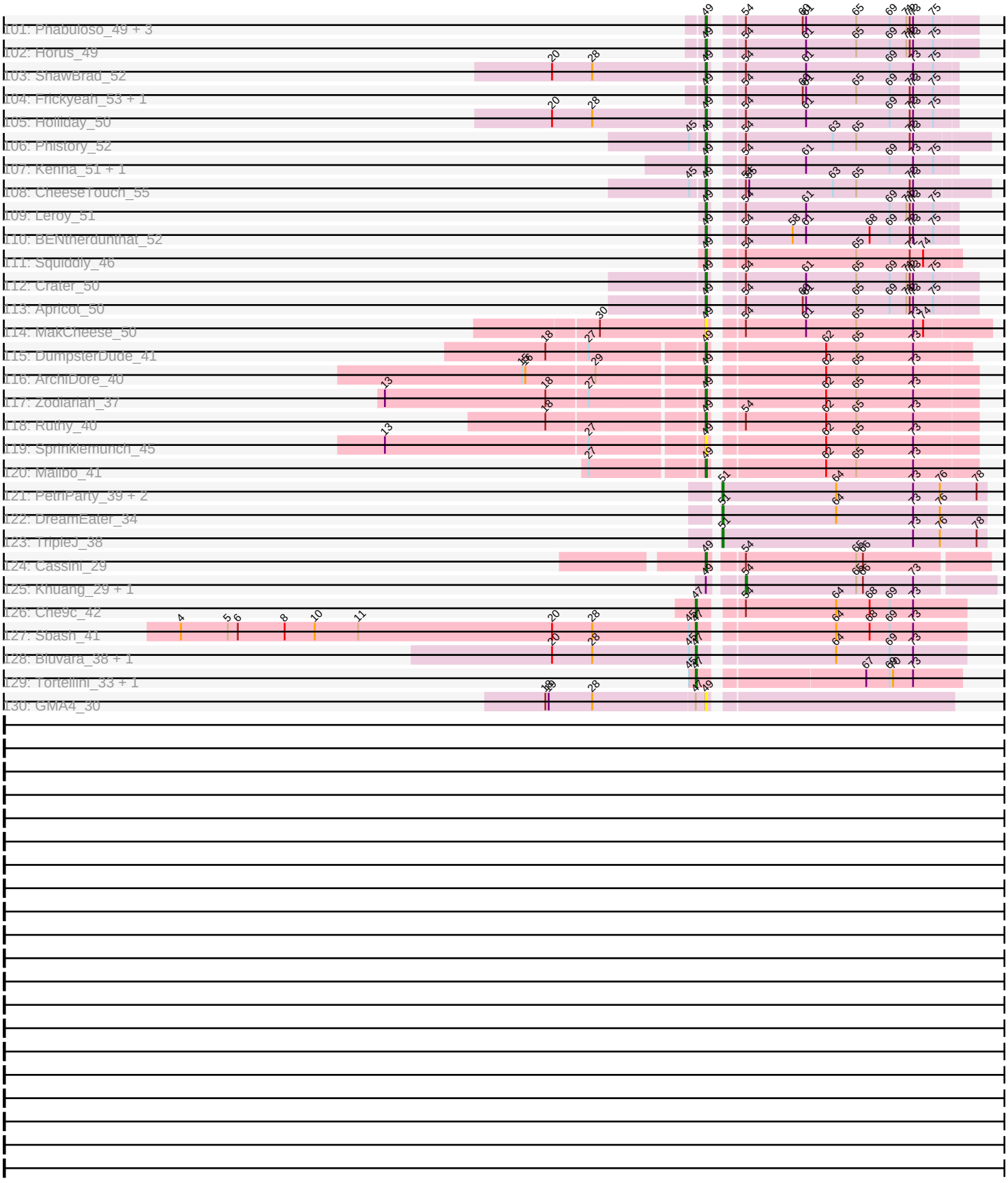
Pham 343612


1: MaO1_44 + 1
2: Sejanus_43
3: MurphyJoseph_34 + 1
4: Kabloowy_38 + 9
5: Hillester_38 + 4
6: MUWow_37
7: LeBruni_35
8: Isolde_38
9: CookieBear_39 + 1
10: Tiff81_34
11: JellyBread_35
12: Seahorse_40 + 1
13: Bhageatrice_39 + 1
14: EvePickles_36
15: Satrap_39
16: NewKitty_37
17: Auxilium_37 + 2
18: AbbyDaisy_34
19: Vopal_41
20: Sashimi_37
21: BasketStar_39
22: ThayneTheZag_38
23: AdaS_34
24: JakeTheSnake_39
25: Lawnathon_39
26: Raqqa_31
27: SpicyFrank_38
28: Globlish_38
29: BillyTP_40
30: Azula_39 + 3
31: JuJu_42
32: Jalamman_43 + 1
33: Bilno_42 + 2
34: Fairfaxidum_40
35: Wisp_35
36: Murp_40
37: PCoral7_38
38: KappaFarmDelta_41 + 1
39: Malachai_39 + 1
40: Utz_34
41: Toast_38
42: Mellie_38
43: Lysidious_39
44: Frokostdame_40
45: CheeseSpider_43
46: PrincePatrick_39
47: ZiggyZoo_39
48: Samba_39
49: William_41
50: Floral_37 + 1

Pham 343612


51: EMsquaredA_38 + 1
52: Angelique_40
53: Confidence_40
54: EnalisNano_36 + 2
55: BritBrat_38
56: Jablanski_40 + 1
57: Wrigley_44
58: BeeGee_43
59: Cashline_39
60: LonelyBoi_41
61: Pepperoni_31
62: Lion_35
63: Bunnybear_34 + 3
64: Ongeesy_39 + 1
65: SushiChef_37
66: Agueybana_39
67: Manasvini_42 + 18
68: Herod_40 + 4
69: Hyzer_46
70: BoyNamedSue_42 + 1
71: Hugley_37
72: WelcomeAyanna_39 + 1
73: Boshia_42
74: TuertoX_40 + 17
75: Vasanti_38
76: FroggyToad_39
77: JCole_38
78: Yeezy_37
79: BaxterFox_38 + 1
80: Beenie_34 + 7
81: Oregano_40 + 2
82: Howe_41 + 5
83: Suerte_35
84: Powerball_38
85: Dorito_35 + 3
86: PhriskyACE_37
87: Easley_36
88: Faith5x5_31
89: OneDirection_31 + 1
90: Moosehead_36
91: Sidious_38
92: PhorbesPhlower_34
93: Morkie_34
94: Lucky10_36
95: Malisha_46
96: ODay_53
97: MortyNRick_45
98: Ecliptus_50
99: Birdsong_48
100: Budski_50

Pham 343612


101: Phabuloso_49 + 3
102: Horus_49
103: ShawBrad_52
104: Frickyeah_53 + 1
105: Holliday_50
106: Phistory_52
107: Kenna_51 + 1
108: CheeseTouch_55
109: Leroy_51
110: BENtherdunthat_52
111: Squiddly_46
112: Crater_50
113: Apricot_50
114: MakCheese_50
115: DumpsterDude_41
116: ArchiDore_40
117: Zodiarian_37
118: Ruthy_40
119: Sprinklemunch_45
120: Malibo_41
121: PetriParty_39 + 2
122: DreamEater_34
123: TripleJ_38
124: Cassini_29
125: Khuang_29 + 1
126: Che9c_42
127: Sbash_41
128: Bluvara_38 + 1
129: Tortellini_33 + 1
130: GMA4_30

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 343612 Report

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

Pham number 343612 has 237 members, 24 are drafts.

Phages represented in each track:
• Track 1 : Mao1_44, JohnLord_46
• Track 2 : Sejanus_43
• Track 3 : MurphyJoseph_34, Anekin_36
• Track 4 : Kabloowy_38, Gorpy_40, BenchScraper_38, MaterMagnus_39, Richie_39, Aikyam_36, Sakai_39, Raphaella_39, YoungHarleezy_39, Sporco_38
• Track 5 : Hillester_38, RadFad_38, Phrank15_37, Windest_38, SonDevVon_38
• Track 6 : MUWow_37
• Track 7 : LeBruni_35
• Track 8 : Isolde_38
• Track 9 : CookieBear_39, MidnightRain_41
• Track 10 : Tiff81_34
• Track 11 : JellyBread_35
• Track 12 : Seahorse_40, Crescenzo_36
• Track 13 : Bhageatrice_39, DarwinJr_40
• Track 14 : EvePickles_36
• Track 15 : Satrap_39
• Track 16 : NewKitty_37
• Track 17 : Auxilium_37, Mapleville_37, Faja_38
• Track 18 : AbbyDaisy_34
• Track 19 : Vopal_41
• Track 20 : Sashimi_37
• Track 21 : BasketStar_39
• Track 22 : ThayneTheZag_38
• Track 23 : AdaS_34
• Track 24 : JakeTheSnake_39
• Track 25 : Lawnathon_39
• Track 26 : Raqqa_31
• Track 27 : SpicyFrank_38
• Track 28 : Globfish_38
• Track 29 : BillyTP_40
• Track 30 : Azula_39, MissRona_39, Blueberry_38, Gambino_41
• Track 31 : JuJu_42
• Track 32 : Jalammah_43, Fenry_38
• Track 33 : Blino_42, CarolAnn_41, Soilmate_43
• Track 34 : Fairfaxidum_40
• Track 35 : Wisp_35
• Track 36 : Murp_40

• Track 37 : PCoral7_38
• Track 38 : KappaFarmDelta_41, Wocket_40
• Track 39 : Malachai_39, Begonia_39
• Track 40 : Utz_34
• Track 41 : Toast_38
• Track 42 : Mellie_38
• Track 43 : Lysidious_39
• Track 44 : Frokostdame_40
• Track 45 : CheeseSpider_43
• Track 46 : PrincePatrick_39
• Track 47 : ZiggyZoo_39
• Track 48 : Samba_39
• Track 49 : William_41
• Track 50 : Floral_37, Pollux_39
• Track 51 : EMsquaredA_38, Marteena_37
• Track 52 : Angelique_40
• Track 53 : Confidence_40
• Track 54 : EnalisNailo_36, Bradissa_37, Lilas_39
• Track 55 : BritBrat_38
• Track 56 : Jablanski_40, Pytheas_40
• Track 57 : Wrigley_44
• Track 58 : BeeGee_43
• Track 59 : Cashline_39
• Track 60 : LonelyBoi_41
• Track 61 : Pepperoni_31
• Track 62 : Lton_35
• Track 63 : Bunnybear_34, Posh_43, Madavieve_37, Maridalia_42
• Track 64 : Ohgeesy_39, Madeline_36
• Track 65 : SushiChef_37
• Track 66 : Agueybana_39
• Track 67 : Manasvini_42, Polly_39, Dillpickles_46, LordFarquaad_39, Eudoria_42, EdnaMode_36, Pickett_35, SoilAssassin_37, Kita_43, Attis_37, Antonio_42, Trumpet_42, Bialota_40, Zameen_42, Yeet412_37, Zirinka_39, Suscepit_42, Tayonia_42, Neobush_42
• Track 68 : Herod_40, Eviarto_40, BatStarr_40, Nymphadora_40, TimTam_40
• Track 69 : Hyzer_46
• Track 70 : BoyNamedSue_42, AlumE_42
• Track 71 : Hugley_37
• Track 72 : WelcomeAyanna_39, ThankyouJordi_39
• Track 73 : Bosnia_42
• Track 74 : TuertoX_40, Ebert_42, Jalleen_39, Savage_40, Lamberg_36, Sahara_39, GemG_40, Whiteclaw_40, Cynthia_40, Sproutie_40, Yinzer_39, Clap_40, Haley23_40, Gizermo_40, Matteo_33, Mocha12_40, Nettuno_36, Bjanes7_37
• Track 75 : Vasanti_38
• Track 76 : FroggyToad_39
• Track 77 : JCole_38
• Track 78 : Yeezy_37
• Track 79 : BaxterFox_38, PantheRoc_38
• Track 80 : Beenie_34, Rizz_41, Dolores_41, Invectra_42, MichaelScott_41, Clark_40, WinkNick_42, Samman98_41
• Track 81 : Oregano_40, Annalisa_37, Tuti_34
• Track 82 : Howe_41, Adora_38, Sekhmet_41, Hortense_41, Twinkle_40, Shlim410_39

• Track 83 : Suerte_35
• Track 84 : Powerball_38
• Track 85 : Dorito_35, Thimann_37, DobbysSock_32, Mcklovin_37
• Track 86 : PhriskyACE_37
• Track 87 : Easley_36
• Track 88 : Faith5x5_31
• Track 89 : OneDirection_31, InLimbo_36
• Track 90 : Moosehead_36
• Track 91 : Sidious_38
• Track 92 : PhorbesPhlower_34
• Track 93 : Morkie_34
• Track 94 : Lucky10_36
• Track 95 : Malisha_46
• Track 96 : ODay_53
• Track 97 : MortyNRick_45
• Track 98 : Ecliptus_50
• Track 99 : Birdsong_48
• Track 100 : Budski_50
• Track 101 : Phabuloso_49, BotCity_50, Kamaru_45, LitninMcQueen_44
• Track 102 : Horus_49
• Track 103 : ShawBrad_52
• Track 104 : Frickyeah_53, Asapag_48
• Track 105 : Holliday_50
• Track 106 : Phistory_52
• Track 107 : Kenna_51, Lutum_52
• Track 108 : CheeseTouch_55
• Track 109 : Leroy_51
• Track 110 : BENtherdunthat_52
• Track 111 : Squiddly_46
• Track 112 : Crater_50
• Track 113 : Apricot_50
• Track 114 : MakCheese_50
• Track 115 : DumpsterDude_41
• Track 116 : ArchiDore_40
• Track 117 : Zodiariah_37
• Track 118 : Ruthy_40
• Track 119 : Sprinklemunch_45
• Track 120 : Malibo_41
• Track 121 : PetriParty_39, Kukla_37, GUPitcher_34
• Track 122 : DreamEater_34
• Track 123 : TripleJ_38
• Track 124 : Cassini_29
• Track 125 : Khuang_29, Altostratus_28
• Track 126 : Che9c_42
• Track 127 : Sbash_41
• Track 128 : Bluvara_38, Stuck_45
• Track 129 : Tortellini_33, Xavia_35
• Track 130 : GMA4_30

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

The start number called the most often in the published annotations is 49, it was called in 160 of the 213 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AdaS_34, Adora_38, Agueybana_39, Aikyam_36, Anekin_36, Angelique_40, Annalisa_37, Apricot_50, ArchiDore_40, Asapag_48, Azula_39, BENtherdunthat_52, BatStarr_40, BaxterFox_38, BeeGee_43, Beenie_34, Begonia_39, BenchScraper_38, Bhageatrice_39, BillyTP_40, Birdsong_48, Bjanes7_37, Blino_42, Blueberry_38, Bosnia_42, BotCity_50, BritBrat_38, Budski_50, Bunnybear_34, CarolAnn_41, Cashline_39, Cassini_29, CheeseSpider_43, CheeseTouch_55, Clap_40, Clark_40, CookieBear_39, Crater_50, Cynthia_40, DarwinJr_40, DobbysSock_32, Dolores_41, Dorito_35, DumpsterDude_41, EMsquaredA_38, Easley_36, Ebert_42, Ecliptus_50, Eviarto_40, Fairfaxidum_40, Faith5x5_31, Fenry_38, Floral_37, Frickyeah_53, FroggyToad_39, Frokostdame_40, GMA4_30, Gambino_41, GemG_40, Gizermo_40, Globfish_38, Gorpy_40, Haley23_40, Herod_40, Hillester_38, Holliday_50, Hortense_41, Horus_49, Howe_41, Hyzer_46, InLimbo_36, Invectra_42, JCole_38, Jablanski_40, Jalammah_43, Jalleen_39, JellyBread_35, JuJu_42, Kabloowy_38, Kamaru_45, KappaFarmDelta_41, Kenna_51, Lamberg_36, Lawnathon_39, Leroy_51, LitninMcQueen_44, LonelyBoi_41, Lton_35, Lucky10_36, Lutum_52, Lysidious_39, MUWow_37, Madavieve_37, Madeline_36, MakCheese_50, Malachai_39, Malibo_41, Malisha_46, Maridalia_42, Marteena_37, MaterMagnus_39, Matteo_33, Mcklovin_37, Mellie_38, MichaelScott_41, MidnightRain_41, MissRona_39, Mocha12_40, Moosehead_36, Morkie_34, MortyNRick_45, Murp_40, MurphyJoseph_34, Nettuno_36, Nymphadora_40, ODay_53, Ohgeesy_39, OneDirection_31, Oregano_40, PantheRoc_38, Phabuloso_49, Phistory_52, PhorbesPhlower_34, Phrank15_37, PhriskyACE_37, Pollux_39, Posh_43, Powerball_38, PrincePatrick_39, Pytheas_40, RadFad_38, Raphaella_39, Richie_39, Rizz_41, Ruthy_40, Sahara_39, Sakai_39, Samba_39, Samman98_41, Savage_40, Sekhmet_41, ShawBrad_52, Shlim410_39, Sidious_38, Soilmate_43, SonDevVon_38, SpicyFrank_38, Sporco_38, Sprinklemunch_45, Sproutie_40, Squiddly_46, Suerte_35, SushiChef_37, ThankyouJordi_39, Thimann_37, TimTam_40, TuertoX_40, Tuti_34, Twinkle_40, Utz_34, Vasanti_38, WelcomeAyanna_39, Whiteclaw_40, William_41, Windest_38, WinkNick_42, Wisp_35, Wocket_40, Wrigley_44, Yeezy_37, Yinzer_39, YoungHarleezy_39, ZiggyZoo_39, Zodiariah_37,

Genes that have the "Most Annotated" start but do not call it:
• Altostratus_28, Auxilium_37, BasketStar_39, Bradissa_37, Confidence_40, EnalisNailo_36, Faja_38, Hugley_37, Isolde_38, JakeTheSnake_39, Khuang_29, LeBruni_35, Lilas_39, Mapleville_37, NewKitty_37, Pepperoni_31, Raqqa_31, Vopal_41,

Genes that do not have the "Most Annotated" start:
• AbbyDaisy_34, AlumE_42, Antonio_42, Attis_37, Bialota_40, Bluvara_38, BoyNamedSue_42, Che9c_42, Crescenzo_36, Dillpickles_46, DreamEater_34, EdnaMode_36, Eudoria_42, EvePickles_36, GUPitcher_34, JohnLord_46, Kita_43, Kukla_37, LordFarquaad_39, Manasvini_42, Mao1_44, Neobush_42, PCoral7_38, PetriParty_39, Pickett_35, Polly_39, Sashimi_37, Satrap_39, Sbash_41, Seahorse_40, Sejanus_43, SoilAssassin_37, Stuck_45, Suscepit_42, Tayonia_42, ThayneTheZag_38, Tiff81_34, Toast_38, Tortellini_33, TripleJ_38, Trumpet_42, Xavia_35, Yeet412_37, Zameen_42, Zirinka_39,

Summary by start number:

Start 32:
• Found in 2 of 237 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Toast_38 (CV),

Start 33:
• Found in 2 of 237 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 50.0% of time when present
• Phage (with cluster) where this start called: PCoral7_38 (CV),

Start 43:
• Found in 3 of 237 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 33.3% of time when present
• Phage (with cluster) where this start called: LeBruni_35 (AY),

Start 47:
• Found in 10 of 237 (4.2%) of genes in pham
• Manual Annotations of this start: 6 of 213
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Bluvara_38 (I3), Che9c_42 (I2), JohnLord_46 (AD), Mao1_44 (AD), Sbash_41 (I2), Stuck_45 (I2), Tortellini_33 (P2), Xavia_35 (P3),

Start 48:
• Found in 8 of 237 (3.4%) of genes in pham
• Manual Annotations of this start: 7 of 213
• Called 87.5% of time when present
• Phage (with cluster) where this start called: AbbyDaisy_34 (AY), Crescenzo_36 (AY), EvePickles_36 (AY), Sashimi_37 (AY), Satrap_39 (AY), Seahorse_40 (AY), ThayneTheZag_38 (AY),

Start 49:
• Found in 192 of 237 (81.0%) of genes in pham
• Manual Annotations of this start: 160 of 213
• Called 90.6% of time when present
• Phage (with cluster) where this start called: AdaS_34 (AY), Adora_38 (CZ4), Agueybana_39 (CZ1), Aikyam_36 (AY), Anekin_36 (AY), Angelique_40 (CY1), Annalisa_37 (CZ4), Apricot_50 (DN3), ArchiDore_40 (DW), Asapag_48 (DN1), Azula_39 (CV), BENtherdunthat_52 (DN1), BatStarr_40 (CZ1), BaxterFox_38 (CZ3), BeeGee_43 (CY5), Beenie_34 (CZ4), Begonia_39 (CV), BenchScraper_38 (AY), Bhageatrice_39 (AY), BillyTP_40 (AY), Birdsong_48 (DN), Bjanes7_37 (CZ2), Blino_42 (CV), Blueberry_38 (CV), Bosnia_42 (CZ1), BotCity_50 (DN), BritBrat_38 (CY2), Budski_50 (DN), Bunnybear_34 (CZ), CarolAnn_41 (CV), Cashline_39 (CY6), Cassini_29 (FN), CheeseSpider_43 (CV), CheeseTouch_55 (DN1), Clap_40 (CZ2), Clark_40 (CZ4), CookieBear_39 (AY), Crater_50 (DN3), Cynthia_40 (CZ2), DarwinJr_40 (AY), DobbysSock_32 (CZ4), Dolores_41 (CZ4), Dorito_35 (CZ4), DumpsterDude_41 (DW), EMsquaredA_38 (CY1), Easley_36 (CZ4), Ebert_42 (CZ2), Ecliptus_50 (DN), Eviarto_40 (CZ1), Fairfaxidum_40 (CV), Faith5x5_31 (CZ6),

Fenry_38 (CV), Floral_37 (CY1), Frickyeah_53 (DN1), FroggyToad_39 (CZ2), Frokostdame_40 (CV), GMA4_30 (singleton), Gambino_41 (CV), GemG_40 (CZ2), Gizermo_40 (CZ2), Globfish_38 (AY), Gorpy_40 (AY), Haley23_40 (CZ2), Herod_40 (CZ1), Hillester_38 (AY), Holliday_50 (DN1), Hortense_41 (CZ4), Horus_49 (DN1), Howe_41 (CZ4), Hyzer_46 (CZ1), InLimbo_36 (DH), Invectra_42 (CZ4), JCole_38 (CZ2), Jablanski_40 (CY3), Jalammah_43 (CV), Jalleen_39 (CZ2), JellyBread_35 (AY), JuJu_42 (CV), Kabloowy_38 (AY), Kamaru_45 (DN1), KappaFarmDelta_41 (CV), Kenna_51 (DN1), Lamberg_36 (CZ2), Lawnathon_39 (AY), Leroy_51 (DN1), LitninMcQueen_44 (DN1), LonelyBoi_41 (CY7), Lton_35 (CZ), Lucky10_36 (DH), Lutum_52 (DN1), Lysidious_39 (CV), MUWow_37 (AY), Madavieve_37 (CZ1), Madeline_36 (CZ1), MakCheese_50 (DW), Malachai_39 (CV), Malibo_41 (DW), Malisha_46 (DN), Maridalia_42 (CZ1), Marteena_37 (CY1), MaterMagnus_39 (AY), Matteo_33 (CZ2), Mcklovin_37 (CZ4), Mellie_38 (CV), MichaelScott_41 (CZ4), MidnightRain_41 (AY), MissRona_39 (CV), Mocha12_40 (CZ2), Moosehead_36 (CZ6), Morkie_34 (DH), MortyNRick_45 (DN), Murp_40 (CV), MurphyJoseph_34 (AY), Nettuno_36 (CZ2), Nymphadora_40 (CZ1), ODay_53 (DN), Ohgeesy_39 (CZ), OneDirection_31 (CZ6), Oregano_40 (CZ4), PantheRoc_38 (CZ3), Phabuloso_49 (DN1), Phistory_52 (DN1), PhorbesPhlower_34 (DH), Phrank15_37 (AY), PhriskyACE_37 (CZ4), Pollux_39 (CY1), Posh_43 (CY4), Powerball_38 (CZ4), PrincePatrick_39 (CV), Pytheas_40 (CY3), RadFad_38 (AY), Raphaella_39 (AY), Richie_39 (AY), Rizz_41 (CZ4), Ruthy_40 (DW), Sahara_39 (CZ2), Sakai_39 (AY), Samba_39 (CV), Samman98_41 (CZ4), Savage_40 (CZ2), Sekhmet_41 (CZ4), ShawBrad_52 (DN1), Shlim410_39 (CZ4), Sidious_38 (CZ7), Soilmate_43 (CV), SonDevVon_38 (AY), SpicyFrank_38 (AY), Sporco_38 (AY), Sprinklemunch_45 (DW), Sproutie_40 (CZ2), Squiddly_46 (DN2), Suerte_35 (CZ4), SushiChef_37 (CZ), ThankyouJordi_39 (CZ1), Thimann_37 (CZ4), TimTam_40 (CZ1), TuertoX_40 (CZ2), Tuti_34 (CZ4), Twinkle_40 (CZ4), Utz_34 (CV), Vasanti_38 (CZ2), WelcomeAyanna_39 (CZ1), Whiteclaw_40 (CZ2), William_41 (CV), Windest_38 (AY), WinkNick_42 (CZ4), Wisp_35 (CV), Wocket_40 (CV), Wrigley_44 (CY4), Yeezy_37 (CZ3), Yinzer_39 (CZ2), YoungHarleezy_39 (AY), ZiggyZoo_39 (CV), Zodiariah_37 (DW),

Start 50:
• Found in 24 of 237 (10.1%) of genes in pham
• Manual Annotations of this start: 23 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AlumE_42 (CZ1), Antonio_42 (CZ1), Attis_37 (CZ2), Bialota_40 (CZ1), BoyNamedSue_42 (CZ1), Bradissa_37 (CY1), Dillpickles_46 (CZ1), EdnaMode_36 (CZ2), EnalisNailo_36 (CY1), Eudoria_42 (CZ1), Kita_43 (CZ1), Lilas_39 (CY1), LordFarquaad_39 (CZ2), Manasvini_42 (CZ1), Neobush_42 (CZ1), Pickett_35 (CZ2), Polly_39 (CZ1), SoilAssassin_37 (CZ2), Suscepit_42 (CZ1), Tayonia_42 (CZ1), Trumpet_42 (CZ1), Yeet412_37 (CZ2), Zameen_42 (CZ1), Zirinka_39 (CZ1),

Start 51:
• Found in 5 of 237 (2.1%) of genes in pham
• Manual Annotations of this start: 4 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: DreamEater_34 (FJ), GUPitcher_34 (FJ), Kukla_37 (FJ), PetriParty_39 (FJ), TripleJ_38 (FJ),

Start 52:
• Found in 1 of 237 (0.4%) of genes in pham

• Manual Annotations of this start: 1 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Sejanus_43 (AD),

Start 54:
• Found in 206 of 237 (86.9%) of genes in pham
• Manual Annotations of this start: 9 of 213
• Called 7.3% of time when present
• Phage (with cluster) where this start called: Altostratus_28 (FS), Auxilium_37 (AY), BasketStar_39 (AY), Confidence_40 (CY1), Faja_38 (AY), Hugley_37 (CZ1), Isolde_38 (AY), JakeTheSnake_39 (AY), Khuang_29 (FS), Mapleville_37 (AY), NewKitty_37 (AY), Pepperoni_31 (CZ), Raqqa_31 (AY), Tiff81_34 (AY), Vopal_41 (AY),

Summary by clusters:

There are 31 clusters represented in this pham: DN, P2, singleton, FS, DH, P3, CZ2, CZ3, CZ1, CZ6, CZ7, CZ4, DW, FJ, FN, CY6, I3, I2, DN1, DN3, DN2, CY3, CY2, CY1, CY7, AD, CY5, CY4, CZ, AY, CV,

Info for manual annotations of cluster AD:
•Start number 47 was manually annotated 1 time for cluster AD.
•Start number 52 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AY:
•Start number 43 was manually annotated 1 time for cluster AY.
•Start number 48 was manually annotated 7 times for cluster AY.
•Start number 49 was manually annotated 26 times for cluster AY.
•Start number 54 was manually annotated 5 times for cluster AY.

Info for manual annotations of cluster CV:
•Start number 32 was manually annotated 1 time for cluster CV.
•Start number 33 was manually annotated 1 time for cluster CV.
•Start number 49 was manually annotated 25 times for cluster CV.

Info for manual annotations of cluster CY1:
•Start number 49 was manually annotated 5 times for cluster CY1.
•Start number 50 was manually annotated 3 times for cluster CY1.
•Start number 54 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:
•Start number 49 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:
•Start number 49 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:
•Start number 49 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:
•Start number 49 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

•Start number 49 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:
•Start number 49 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:
•Start number 49 was manually annotated 3 times for cluster CZ.
•Start number 54 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:
•Start number 49 was manually annotated 12 times for cluster CZ1.
•Start number 50 was manually annotated 14 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 49 was manually annotated 18 times for cluster CZ2.
•Start number 50 was manually annotated 6 times for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 49 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 49 was manually annotated 24 times for cluster CZ4.

Info for manual annotations of cluster CZ6:
•Start number 49 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:
•Start number 49 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DH:
•Start number 49 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:
•Start number 49 was manually annotated 7 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 49 was manually annotated 13 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 49 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 49 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DW:
•Start number 49 was manually annotated 5 times for cluster DW.

Info for manual annotations of cluster FJ:
•Start number 51 was manually annotated 4 times for cluster FJ.

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

Info for manual annotations of cluster FS:
•Start number 54 was manually annotated 2 times for cluster FS.

Info for manual annotations of cluster I2:
•Start number 47 was manually annotated 3 times for cluster I2.

Info for manual annotations of cluster P2:
•Start number 47 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:
•Start number 47 was manually annotated 1 time for cluster P3.

Gene Information:

Gene: AbbyDaisy_34 Start: 26031, Stop: 25792, Start Num: 48
Candidate Starts for AbbyDaisy_34:
(44, 26046), (Start: 48 @26031 has 7 MA's), (Start: 54 @26007 has 9 MA's), (56, 25992), (79, 25800),

Gene: AdaS_34 Start: 24505, Stop: 24269, Start Num: 49
Candidate Starts for AdaS_34:
(14, 24634), (Start: 49 @24505 has 160 MA's), (Start: 54 @24481 has 9 MA's), (66, 24376),

Gene: Adora_38 Start: 32529, Stop: 32299, Start Num: 49
Candidate Starts for Adora_38:
(42, 32556), (45, 32544), (Start: 49 @32529 has 160 MA's), (Start: 54 @32508 has 9 MA's), (61, 32454), (65, 32409), (73, 32358), (75, 32340),

Gene: Agueybana_39 Start: 31672, Stop: 31460, Start Num: 49
Candidate Starts for Agueybana_39:
(18, 31804), (27, 31768), (Start: 49 @31672 has 160 MA's), (Start: 54 @31651 has 9 MA's), (61, 31597), (67, 31543), (73, 31501), (75, 31483),

Gene: Aikyam_36 Start: 24436, Stop: 24200, Start Num: 49
Candidate Starts for Aikyam_36:
(25, 24505), (Start: 49 @24436 has 160 MA's), (Start: 54 @24412 has 9 MA's),

Gene: Altostratus_28 Start: 22209, Stop: 21991, Start Num: 54
Candidate Starts for Altostratus_28:
(Start: 49 @22233 has 160 MA's), (Start: 54 @22209 has 9 MA's), (65, 22110), (66, 22104), (73, 22059),

Gene: AlumE_42 Start: 33458, Stop: 33237, Start Num: 50
Candidate Starts for AlumE_42:
(38, 33512), (Start: 50 @33458 has 23 MA's), (63, 33350), (67, 33320),

Gene: Anekin_36 Start: 25783, Stop: 25547, Start Num: 49
Candidate Starts for Anekin_36:
(37, 25840), (Start: 49 @25783 has 160 MA's), (Start: 54 @25759 has 9 MA's), (66, 25654),

Gene: Angelique_40 Start: 32245, Stop: 32033, Start Num: 49

Candidate Starts for Angelique_40:
(18, 32377), (27, 32341), (Start: 49 @32245 has 160 MA's), (Start: 54 @32224 has 9 MA's), (65, 32125), (67, 32116), (73, 32074),

Gene: Annalisa_37 Start: 29886, Stop: 29656, Start Num: 49
Candidate Starts for Annalisa_37:
(42, 29913), (45, 29901), (Start: 49 @29886 has 160 MA's), (Start: 54 @29865 has 9 MA's), (61, 29811), (65, 29766), (69, 29736), (73, 29715),

Gene: Antonio_42 Start: 32731, Stop: 32510, Start Num: 50
Candidate Starts for Antonio_42:
(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 9 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: Apricot_50 Start: 33448, Stop: 33221, Start Num: 49
Candidate Starts for Apricot_50:
(Start: 49 @33448 has 160 MA's), (Start: 54 @33427 has 9 MA's), (60, 33376), (61, 33373), (65, 33328), (69, 33298), (71, 33283), (72, 33280), (73, 33277), (75, 33259),

Gene: ArchiDore_40 Start: 34485, Stop: 34258, Start Num: 49
Candidate Starts for ArchiDore_40:
(15, 34641), (16, 34638), (29, 34578), (Start: 49 @34485 has 160 MA's), (62, 34392), (65, 34365), (73, 34314),

Gene: Asapag_48 Start: 33812, Stop: 33603, Start Num: 49
Candidate Starts for Asapag_48:
(Start: 49 @33812 has 160 MA's), (Start: 54 @33791 has 9 MA's), (60, 33740), (61, 33737), (65, 33692), (69, 33662), (72, 33644), (73, 33641), (75, 33623),

Gene: Attis_37 Start: 29864, Stop: 29643, Start Num: 50
Candidate Starts for Attis_37:
(1, 30470), (2, 30419), (9, 30227), (12, 30158), (38, 29918), (Start: 50 @29864 has 23 MA's), (Start: 54 @29834 has 9 MA's), (61, 29780), (63, 29756), (67, 29726), (73, 29684), (75, 29666),

Gene: Auxilium_37 Start: 24114, Stop: 23902, Start Num: 54
Candidate Starts for Auxilium_37:
(25, 24207), (Start: 49 @24138 has 160 MA's), (Start: 54 @24114 has 9 MA's),

Gene: Azula_39 Start: 31977, Stop: 31768, Start Num: 49
Candidate Starts for Azula_39:
(Start: 49 @31977 has 160 MA's), (Start: 54 @31956 has 9 MA's), (73, 31806), (74, 31797),

Gene: BENtherdunthat_52 Start: 33823, Stop: 33614, Start Num: 49
Candidate Starts for BENtherdunthat_52:
(Start: 49 @33823 has 160 MA's), (Start: 54 @33802 has 9 MA's), (58, 33760), (61, 33748), (68, 33691), (69, 33673), (72, 33655), (73, 33652), (75, 33634),

Gene: BasketStar_39 Start: 26475, Stop: 26263, Start Num: 54
Candidate Starts for BasketStar_39:
(Start: 49 @26499 has 160 MA's), (Start: 54 @26475 has 9 MA's), (66, 26370), (73, 26325),

Gene: BatStarr_40 Start: 33303, Stop: 33091, Start Num: 49
Candidate Starts for BatStarr_40:

(18, 33435), (27, 33399), (Start: 49 @33303 has 160 MA's), (Start: 54 @33282 has 9 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: BaxterFox_38 Start: 31620, Stop: 31393, Start Num: 49
Candidate Starts for BaxterFox_38:
(Start: 49 @31620 has 160 MA's), (Start: 54 @31599 has 9 MA's), (62, 31527), (65, 31500), (73, 31449),

Gene: BeeGee_43 Start: 33143, Stop: 32913, Start Num: 49
Candidate Starts for BeeGee_43:
(18, 33275), (Start: 49 @33143 has 160 MA's), (Start: 54 @33122 has 9 MA's),

Gene: Beenie_34 Start: 30514, Stop: 30284, Start Num: 49
Candidate Starts for Beenie_34:
(42, 30541), (45, 30529), (Start: 49 @30514 has 160 MA's), (Start: 54 @30493 has 9 MA's), (61, 30439), (73, 30343), (75, 30325),

Gene: Begonia_39 Start: 33474, Stop: 33265, Start Num: 49
Candidate Starts for Begonia_39:
(27, 33570), (Start: 49 @33474 has 160 MA's), (Start: 54 @33453 has 9 MA's), (67, 33345), (73, 33303),

Gene: BenchScraper_38 Start: 26096, Stop: 25860, Start Num: 49
Candidate Starts for BenchScraper_38:
(25, 26165), (Start: 49 @26096 has 160 MA's), (Start: 54 @26072 has 9 MA's),

Gene: Bhageatrice_39 Start: 27925, Stop: 27689, Start Num: 49
Candidate Starts for Bhageatrice_39:
(25, 28039), (37, 27982), (41, 27967), (Start: 49 @27925 has 160 MA's), (Start: 54 @27901 has 9 MA's), (66, 27796),

Gene: Bialota_40 Start: 33483, Stop: 33262, Start Num: 50
Candidate Starts for Bialota_40:
(1, 34089), (2, 34038), (9, 33846), (12, 33777), (38, 33537), (Start: 50 @33483 has 23 MA's), (Start: 54 @33453 has 9 MA's), (61, 33399), (63, 33375), (67, 33345), (73, 33303), (75, 33285),

Gene: BillyTP_40 Start: 27334, Stop: 27098, Start Num: 49
Candidate Starts for BillyTP_40:
(21, 27457), (26, 27430), (Start: 49 @27334 has 160 MA's), (Start: 54 @27310 has 9 MA's),

Gene: Birdsong_48 Start: 34033, Stop: 33824, Start Num: 49
Candidate Starts for Birdsong_48:
(Start: 49 @34033 has 160 MA's), (Start: 54 @34012 has 9 MA's), (60, 33961), (61, 33958), (65, 33913), (69, 33883), (73, 33862), (75, 33844),

Gene: Bjanes7_37 Start: 29854, Stop: 29642, Start Num: 49
Candidate Starts for Bjanes7_37:
(18, 29986), (27, 29950), (Start: 49 @29854 has 160 MA's), (Start: 54 @29833 has 9 MA's), (61, 29779), (67, 29725), (73, 29683), (75, 29665),

Gene: Blino_42 Start: 34979, Stop: 34770, Start Num: 49
Candidate Starts for Blino_42:
(Start: 49 @34979 has 160 MA's), (73, 34808),

Gene: Blueberry_38 Start: 31977, Stop: 31768, Start Num: 49
Candidate Starts for Blueberry_38:
(Start: 49 @31977 has 160 MA's), (Start: 54 @31956 has 9 MA's), (73, 31806), (74, 31797),

Gene: Bluvara_38 Start: 32098, Stop: 31871, Start Num: 47
Candidate Starts for Bluvara_38:
(20, 32227), (28, 32191), (45, 32104), (Start: 47 @32098 has 6 MA's), (64, 31987), (69, 31939), (73, 31918),

Gene: Bosnia_42 Start: 35233, Stop: 35021, Start Num: 49
Candidate Starts for Bosnia_42:
(18, 35365), (27, 35329), (Start: 49 @35233 has 160 MA's), (Start: 54 @35212 has 9 MA's), (61, 35158), (65, 35113), (73, 35062),

Gene: BotCity_50 Start: 33836, Stop: 33609, Start Num: 49
Candidate Starts for BotCity_50:
(Start: 49 @33836 has 160 MA's), (Start: 54 @33815 has 9 MA's), (60, 33764), (61, 33761), (65, 33716), (69, 33686), (71, 33671), (72, 33668), (73, 33665), (75, 33647),

Gene: BoyNamedSue_42 Start: 33458, Stop: 33237, Start Num: 50
Candidate Starts for BoyNamedSue_42:
(38, 33512), (Start: 50 @33458 has 23 MA's), (63, 33350), (67, 33320),

Gene: Bradissa_37 Start: 32769, Stop: 32548, Start Num: 50
Candidate Starts for Bradissa_37:
(1, 33375), (2, 33324), (9, 33132), (12, 33063), (38, 32823), (Start: 49 @32772 has 160 MA's), (Start: 50 @32769 has 23 MA's), (Start: 54 @32739 has 9 MA's), (61, 32685), (65, 32640), (67, 32631), (73, 32589),

Gene: BritBrat_38 Start: 33111, Stop: 32899, Start Num: 49
Candidate Starts for BritBrat_38:
(Start: 49 @33111 has 160 MA's), (Start: 54 @33090 has 9 MA's), (60, 33039), (69, 32961), (72, 32943), (74, 32931),

Gene: Budski_50 Start: 34714, Stop: 34505, Start Num: 49
Candidate Starts for Budski_50:
(Start: 49 @34714 has 160 MA's), (Start: 54 @34693 has 9 MA's), (61, 34639), (69, 34564), (72, 34546), (73, 34543), (75, 34525),

Gene: Bunnybear_34 Start: 30987, Stop: 30775, Start Num: 49
Candidate Starts for Bunnybear_34:
(Start: 49 @30987 has 160 MA's), (53, 30972), (Start: 54 @30966 has 9 MA's), (61, 30912), (65, 30867), (73, 30816),

Gene: CarolAnn_41 Start: 34978, Stop: 34769, Start Num: 49
Candidate Starts for CarolAnn_41:
(Start: 49 @34978 has 160 MA's), (73, 34807),

Gene: Cashline_39 Start: 33424, Stop: 33194, Start Num: 49
Candidate Starts for Cashline_39:
(Start: 49 @33424 has 160 MA's), (53, 33409), (Start: 54 @33403 has 9 MA's), (61, 33349), (65, 33304), (73, 33253),

Gene: Cassini_29 Start: 23523, Stop: 23287, Start Num: 49
Candidate Starts for Cassini_29:
(Start: 49 @23523 has 160 MA's), (Start: 54 @23499 has 9 MA's), (65, 23400), (66, 23394),

Gene: Che9c_42 Start: 33770, Stop: 33543, Start Num: 47
Candidate Starts for Che9c_42:
(Start: 47 @33770 has 6 MA's), (Start: 54 @33740 has 9 MA's), (64, 33659), (68, 33629), (69, 33611), (73, 33590),

Gene: CheeseSpider_43 Start: 31765, Stop: 31556, Start Num: 49
Candidate Starts for CheeseSpider_43:
(Start: 49 @31765 has 160 MA's), (Start: 54 @31744 has 9 MA's), (71, 31600), (73, 31594), (74, 31585),

Gene: CheeseTouch_55 Start: 32186, Stop: 31950, Start Num: 49
Candidate Starts for CheeseTouch_55:
(45, 32198), (Start: 49 @32186 has 160 MA's), (Start: 54 @32165 has 9 MA's), (55, 32162), (63, 32087), (65, 32066), (72, 32018), (73, 32015),

Gene: Clap_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Clap_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Clark_40 Start: 30331, Stop: 30101, Start Num: 49
Candidate Starts for Clark_40:
(42, 30358), (45, 30346), (Start: 49 @30331 has 160 MA's), (Start: 54 @30310 has 9 MA's), (61, 30256), (73, 30160), (75, 30142),

Gene: Confidence_40 Start: 31228, Stop: 31037, Start Num: 54
Candidate Starts for Confidence_40:
(27, 31348), (Start: 49 @31249 has 160 MA's), (Start: 54 @31228 has 9 MA's), (71, 31084),

Gene: CookieBear_39 Start: 26598, Stop: 26362, Start Num: 49
Candidate Starts for CookieBear_39:
(25, 26667), (Start: 49 @26598 has 160 MA's), (Start: 54 @26574 has 9 MA's), (66, 26469),

Gene: Crater_50 Start: 33843, Stop: 33616, Start Num: 49
Candidate Starts for Crater_50:
(Start: 49 @33843 has 160 MA's), (Start: 54 @33822 has 9 MA's), (61, 33768), (65, 33723), (69, 33693), (71, 33678), (72, 33675), (73, 33672), (75, 33654),

Gene: Crescenzo_36 Start: 26520, Stop: 26278, Start Num: 48
Candidate Starts for Crescenzo_36:
(Start: 48 @26520 has 7 MA's), (Start: 54 @26496 has 9 MA's), (56, 26481),

Gene: Cynthia_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Cynthia_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: DarwinJr_40 Start: 27495, Stop: 27259, Start Num: 49

Candidate Starts for DarwinJr_40:
(25, 27609), (37, 27552), (41, 27537), (Start: 49 @27495 has 160 MA's), (Start: 54 @27471 has 9 MA's), (66, 27366),

Gene: Dillpickles_46 Start: 32775, Stop: 32554, Start Num: 50
Candidate Starts for Dillpickles_46:
(1, 33381), (2, 33330), (9, 33138), (12, 33069), (38, 32829), (Start: 50 @32775 has 23 MA's), (Start: 54 @32745 has 9 MA's), (61, 32691), (63, 32667), (67, 32637), (73, 32595), (75, 32577),

Gene: DobbysSock_32 Start: 28836, Stop: 28606, Start Num: 49
Candidate Starts for DobbysSock_32:
(27, 28932), (Start: 49 @28836 has 160 MA's), (Start: 54 @28815 has 9 MA's), (69, 28686), (73, 28665),

Gene: Dolores_41 Start: 31203, Stop: 30973, Start Num: 49
Candidate Starts for Dolores_41:
(42, 31230), (45, 31218), (Start: 49 @31203 has 160 MA's), (Start: 54 @31182 has 9 MA's), (61, 31128), (73, 31032), (75, 31014),

Gene: Dorito_35 Start: 28480, Stop: 28250, Start Num: 49
Candidate Starts for Dorito_35:
(27, 28576), (Start: 49 @28480 has 160 MA's), (Start: 54 @28459 has 9 MA's), (69, 28330), (73, 28309),

Gene: DreamEater_34 Start: 28772, Stop: 28536, Start Num: 51
Candidate Starts for DreamEater_34:
(Start: 51 @28772 has 4 MA's), (64, 28670), (73, 28601), (76, 28577),

Gene: DumpsterDude_41 Start: 35398, Stop: 35177, Start Num: 49
Candidate Starts for DumpsterDude_41:
(18, 35530), (27, 35494), (Start: 49 @35398 has 160 MA's), (62, 35305), (65, 35278), (73, 35227),

Gene: EMsquaredA_38 Start: 31344, Stop: 31114, Start Num: 49
Candidate Starts for EMsquaredA_38:
(13, 31620), (27, 31440), (Start: 49 @31344 has 160 MA's), (Start: 54 @31323 has 9 MA's), (61, 31269),

Gene: Easley_36 Start: 28611, Stop: 28384, Start Num: 49
Candidate Starts for Easley_36:
(27, 28707), (Start: 49 @28611 has 160 MA's), (Start: 54 @28590 has 9 MA's), (62, 28518), (65, 28491), (67, 28482), (73, 28440),

Gene: Ebert_42 Start: 29957, Stop: 29745, Start Num: 49
Candidate Starts for Ebert_42:
(18, 30089), (27, 30053), (Start: 49 @29957 has 160 MA's), (Start: 54 @29936 has 9 MA's), (61, 29882), (67, 29828), (73, 29786), (75, 29768),

Gene: Ecliptus_50 Start: 34943, Stop: 34734, Start Num: 49
Candidate Starts for Ecliptus_50:
(Start: 49 @34943 has 160 MA's), (Start: 54 @34922 has 9 MA's), (69, 34793), (73, 34772), (75, 34754),

Gene: EdnaMode_36 Start: 28552, Stop: 28331, Start Num: 50

Candidate Starts for EdnaMode_36:
(1, 29158), (2, 29107), (9, 28915), (12, 28846), (38, 28606), (Start: 50 @28552 has 23 MA's), (Start: 54 @28522 has 9 MA's), (61, 28468), (63, 28444), (67, 28414), (73, 28372), (75, 28354),

Gene: EnalisNailo_36 Start: 32303, Stop: 32082, Start Num: 50
Candidate Starts for EnalisNailo_36:
(1, 32909), (2, 32858), (9, 32666), (12, 32597), (38, 32357), (Start: 49 @32306 has 160 MA's), (Start: 50 @32303 has 23 MA's), (Start: 54 @32273 has 9 MA's), (61, 32219), (65, 32174), (67, 32165), (73, 32123),

Gene: Eudoria_42 Start: 32731, Stop: 32510, Start Num: 50
Candidate Starts for Eudoria_42:
(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 9 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: EvePickles_36 Start: 27264, Stop: 27016, Start Num: 48
Candidate Starts for EvePickles_36:
(Start: 48 @27264 has 7 MA's), (Start: 54 @27240 has 9 MA's), (62, 27168), (73, 27090),

Gene: Eviarto_40 Start: 33279, Stop: 33067, Start Num: 49
Candidate Starts for Eviarto_40:
(18, 33411), (27, 33375), (Start: 49 @33279 has 160 MA's), (Start: 54 @33258 has 9 MA's), (61, 33204), (67, 33150), (73, 33108),

Gene: Fairfaxidum_40 Start: 32373, Stop: 32164, Start Num: 49
Candidate Starts for Fairfaxidum_40:
(18, 32505), (27, 32469), (Start: 49 @32373 has 160 MA's), (Start: 54 @32352 has 9 MA's), (73, 32202),

Gene: Faith5x5_31 Start: 26354, Stop: 26142, Start Num: 49
Candidate Starts for Faith5x5_31:
(Start: 49 @26354 has 160 MA's), (53, 26339), (Start: 54 @26333 has 9 MA's), (61, 26279), (73, 26183), (74, 26174),

Gene: Faja_38 Start: 27848, Stop: 27636, Start Num: 54
Candidate Starts for Faja_38:
(25, 27941), (Start: 49 @27872 has 160 MA's), (Start: 54 @27848 has 9 MA's),

Gene: Fenry_38 Start: 32364, Stop: 32155, Start Num: 49
Candidate Starts for Fenry_38:
(Start: 49 @32364 has 160 MA's), (Start: 54 @32343 has 9 MA's), (62, 32271), (73, 32193), (74, 32184),

Gene: Floral_37 Start: 33417, Stop: 33187, Start Num: 49
Candidate Starts for Floral_37:
(18, 33549), (27, 33513), (Start: 49 @33417 has 160 MA's), (Start: 54 @33396 has 9 MA's), (61, 33342), (63, 33318),

Gene: Frickyeah_53 Start: 33287, Stop: 33078, Start Num: 49
Candidate Starts for Frickyeah_53:
(Start: 49 @33287 has 160 MA's), (Start: 54 @33266 has 9 MA's), (60, 33215), (61, 33212), (65, 33167), (69, 33137), (72, 33119), (73, 33116), (75, 33098),

Gene: FroggyToad_39 Start: 30322, Stop: 30095, Start Num: 49
Candidate Starts for FroggyToad_39:
(Start: 49 @30322 has 160 MA's), (Start: 54 @30301 has 9 MA's), (62, 30229), (65, 30202), (73, 30151),

Gene: Frokostdame_40 Start: 32300, Stop: 32091, Start Num: 49
Candidate Starts for Frokostdame_40:
(Start: 49 @32300 has 160 MA's), (Start: 54 @32279 has 9 MA's), (67, 32171), (73, 32129), (74, 32120),

Gene: GMA4_30 Start: 26648, Stop: 26442, Start Num: 49
Candidate Starts for GMA4_30:
(18, 26789), (19, 26786), (28, 26747), (Start: 47 @26657 has 6 MA's), (Start: 49 @26648 has 160 MA's),

Gene: GUPitcher_34 Start: 29003, Stop: 28767, Start Num: 51
Candidate Starts for GUPitcher_34:
(Start: 51 @29003 has 4 MA's), (64, 28901), (73, 28832), (76, 28808), (78, 28775),

Gene: Gambino_41 Start: 31977, Stop: 31768, Start Num: 49
Candidate Starts for Gambino_41:
(Start: 49 @31977 has 160 MA's), (Start: 54 @31956 has 9 MA's), (73, 31806), (74, 31797),

Gene: GemG_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for GemG_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Gizermo_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Gizermo_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Globfish_38 Start: 26321, Stop: 26085, Start Num: 49
Candidate Starts for Globfish_38:
(14, 26456), (15, 26447), (23, 26408), (25, 26396), (Start: 43 @26342 has 1 MA's), (Start: 49 @26321 has 160 MA's), (Start: 54 @26297 has 9 MA's), (66, 26192),

Gene: Gorpy_40 Start: 27830, Stop: 27594, Start Num: 49
Candidate Starts for Gorpy_40:
(25, 27899), (Start: 49 @27830 has 160 MA's), (Start: 54 @27806 has 9 MA's),

Gene: Haley23_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Haley23_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Herod_40 Start: 33303, Stop: 33091, Start Num: 49
Candidate Starts for Herod_40:
(18, 33435), (27, 33399), (Start: 49 @33303 has 160 MA's), (Start: 54 @33282 has 9 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: Hillester_38 Start: 26084, Stop: 25848, Start Num: 49

Candidate Starts for Hillester_38:
(Start: 49 @26084 has 160 MA's), (Start: 54 @26060 has 9 MA's), (66, 25955),

Gene: Holliday_50 Start: 34054, Stop: 33845, Start Num: 49
Candidate Starts for Holliday_50:
(20, 34189), (28, 34153), (Start: 49 @34054 has 160 MA's), (Start: 54 @34033 has 9 MA's), (61, 33979), (69, 33904), (72, 33886), (73, 33883), (75, 33865),

Gene: Hortense_41 Start: 33884, Stop: 33654, Start Num: 49
Candidate Starts for Hortense_41:
(42, 33911), (45, 33899), (Start: 49 @33884 has 160 MA's), (Start: 54 @33863 has 9 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Horus_49 Start: 34441, Stop: 34214, Start Num: 49
Candidate Starts for Horus_49:
(Start: 49 @34441 has 160 MA's), (Start: 54 @34420 has 9 MA's), (61, 34366), (65, 34321), (69, 34291), (71, 34276), (72, 34273), (73, 34270), (75, 34252),

Gene: Howe_41 Start: 33884, Stop: 33654, Start Num: 49
Candidate Starts for Howe_41:
(42, 33911), (45, 33899), (Start: 49 @33884 has 160 MA's), (Start: 54 @33863 has 9 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Hugley_37 Start: 33281, Stop: 33090, Start Num: 54
Candidate Starts for Hugley_37:
(18, 33434), (27, 33398), (Start: 49 @33302 has 160 MA's), (Start: 54 @33281 has 9 MA's), (61, 33227), (67, 33173), (73, 33131),

Gene: Hyzer_46 Start: 35588, Stop: 35376, Start Num: 49
Candidate Starts for Hyzer_46:
(Start: 49 @35588 has 160 MA's), (Start: 54 @35567 has 9 MA's), (67, 35459), (73, 35417),

Gene: InLimbo_36 Start: 27911, Stop: 27699, Start Num: 49
Candidate Starts for InLimbo_36:
(38, 27962), (45, 27923), (Start: 49 @27911 has 160 MA's), (Start: 54 @27890 has 9 MA's), (61, 27836), (65, 27791), (67, 27782), (73, 27740),

Gene: Invectra_42 Start: 31905, Stop: 31675, Start Num: 49
Candidate Starts for Invectra_42:
(42, 31932), (45, 31920), (Start: 49 @31905 has 160 MA's), (Start: 54 @31884 has 9 MA's), (61, 31830), (73, 31734), (75, 31716),

Gene: Isolde_38 Start: 25826, Stop: 25614, Start Num: 54
Candidate Starts for Isolde_38:
(Start: 49 @25850 has 160 MA's), (Start: 54 @25826 has 9 MA's), (66, 25721), (79, 25622),

Gene: JCole_38 Start: 29301, Stop: 29074, Start Num: 49
Candidate Starts for JCole_38:
(18, 29433), (27, 29397), (Start: 49 @29301 has 160 MA's), (Start: 54 @29280 has 9 MA's), (62, 29208), (65, 29181), (73, 29130),

Gene: Jablanski_40 Start: 32602, Stop: 32390, Start Num: 49
Candidate Starts for Jablanski_40:

(3, 33070), (7, 33007), (13, 32878), (18, 32734), (27, 32698), (Start: 49 @32602 has 160 MA's), (Start: 54 @32581 has 9 MA's), (65, 32482), (67, 32473), (73, 32431),

Gene: JakeTheSnake_39 Start: 26721, Stop: 26509, Start Num: 54
Candidate Starts for JakeTheSnake_39:
(Start: 49 @26745 has 160 MA's), (Start: 54 @26721 has 9 MA's), (66, 26616),

Gene: Jalammah_43 Start: 33677, Stop: 33468, Start Num: 49
Candidate Starts for Jalammah_43:
(Start: 49 @33677 has 160 MA's), (Start: 54 @33656 has 9 MA's), (62, 33584), (73, 33506), (74, 33497),

Gene: Jalleen_39 Start: 29672, Stop: 29460, Start Num: 49
Candidate Starts for Jalleen_39:
(18, 29804), (27, 29768), (Start: 49 @29672 has 160 MA's), (Start: 54 @29651 has 9 MA's), (61, 29597), (67, 29543), (73, 29501), (75, 29483),

Gene: JellyBread_35 Start: 25035, Stop: 24799, Start Num: 49
Candidate Starts for JellyBread_35:
(Start: 49 @25035 has 160 MA's), (Start: 54 @25011 has 9 MA's), (66, 24906),

Gene: JohnLord_46 Start: 41302, Stop: 41075, Start Num: 47
Candidate Starts for JohnLord_46:
(45, 41308), (Start: 47 @41302 has 6 MA's), (Start: 54 @41272 has 9 MA's), (64, 41191), (68, 41161), (69, 41143), (73, 41122),

Gene: JuJu_42 Start: 32805, Stop: 32596, Start Num: 49
Candidate Starts for JuJu_42:
(Start: 49 @32805 has 160 MA's), (Start: 54 @32784 has 9 MA's), (71, 32640), (73, 32634), (74, 32625),

Gene: Kabloowy_38 Start: 26778, Stop: 26542, Start Num: 49
Candidate Starts for Kabloowy_38:
(25, 26847), (Start: 49 @26778 has 160 MA's), (Start: 54 @26754 has 9 MA's),

Gene: Kamaru_45 Start: 32833, Stop: 32606, Start Num: 49
Candidate Starts for Kamaru_45:
(Start: 49 @32833 has 160 MA's), (Start: 54 @32812 has 9 MA's), (60, 32761), (61, 32758), (65, 32713), (69, 32683), (71, 32668), (72, 32665), (73, 32662), (75, 32644),

Gene: KappaFarmDelta_41 Start: 31304, Stop: 31095, Start Num: 49
Candidate Starts for KappaFarmDelta_41:
(Start: 49 @31304 has 160 MA's), (Start: 54 @31283 has 9 MA's),

Gene: Kenna_51 Start: 34567, Stop: 34358, Start Num: 49
Candidate Starts for Kenna_51:
(Start: 49 @34567 has 160 MA's), (Start: 54 @34546 has 9 MA's), (61, 34492), (69, 34417), (73, 34396), (75, 34378),

Gene: Khuang_29 Start: 22977, Stop: 22759, Start Num: 54
Candidate Starts for Khuang_29:
(Start: 49 @23001 has 160 MA's), (Start: 54 @22977 has 9 MA's), (65, 22878), (66, 22872), (73, 22827),

Gene: Kita_43 Start: 32740, Stop: 32519, Start Num: 50
Candidate Starts for Kita_43:
(1, 33346), (2, 33295), (9, 33103), (12, 33034), (38, 32794), (Start: 50 @32740 has 23 MA's), (Start: 54 @32710 has 9 MA's), (61, 32656), (63, 32632), (67, 32602), (73, 32560), (75, 32542),

Gene: Kukla_37 Start: 28491, Stop: 28255, Start Num: 51
Candidate Starts for Kukla_37:
(Start: 51 @28491 has 4 MA's), (64, 28389), (73, 28320), (76, 28296), (78, 28263),

Gene: Lamberg_36 Start: 28542, Stop: 28330, Start Num: 49
Candidate Starts for Lamberg_36:
(18, 28674), (27, 28638), (Start: 49 @28542 has 160 MA's), (Start: 54 @28521 has 9 MA's), (61, 28467), (67, 28413), (73, 28371), (75, 28353),

Gene: Lawnathon_39 Start: 26452, Stop: 26216, Start Num: 49
Candidate Starts for Lawnathon_39:
(17, 26560), (25, 26521), (Start: 49 @26452 has 160 MA's), (Start: 54 @26428 has 9 MA's),

Gene: LeBruni_35 Start: 25857, Stop: 25600, Start Num: 43
Candidate Starts for LeBruni_35:
(17, 25944), (25, 25905), (Start: 43 @25857 has 1 MA's), (Start: 49 @25836 has 160 MA's), (Start: 54 @25812 has 9 MA's), (66, 25707),

Gene: Leroy_51 Start: 34725, Stop: 34516, Start Num: 49
Candidate Starts for Leroy_51:
(Start: 49 @34725 has 160 MA's), (Start: 54 @34704 has 9 MA's), (61, 34650), (69, 34575), (71, 34560), (72, 34557), (73, 34554), (75, 34536),

Gene: Lilas_39 Start: 34014, Stop: 33793, Start Num: 50
Candidate Starts for Lilas_39:
(1, 34620), (2, 34569), (9, 34377), (12, 34308), (38, 34068), (Start: 49 @34017 has 160 MA's), (Start: 50 @34014 has 23 MA's), (Start: 54 @33984 has 9 MA's), (61, 33930), (65, 33885), (67, 33876), (73, 33834),

Gene: LitninMcQueen_44 Start: 32582, Stop: 32355, Start Num: 49
Candidate Starts for LitninMcQueen_44:
(Start: 49 @32582 has 160 MA's), (Start: 54 @32561 has 9 MA's), (60, 32510), (61, 32507), (65, 32462), (69, 32432), (71, 32417), (72, 32414), (73, 32411), (75, 32393),

Gene: LonelyBoi_41 Start: 34681, Stop: 34469, Start Num: 49
Candidate Starts for LonelyBoi_41:
(Start: 49 @34681 has 160 MA's), (53, 34666), (Start: 54 @34660 has 9 MA's), (61, 34606), (65, 34561), (73, 34510),

Gene: LordFarquaad_39 Start: 29845, Stop: 29624, Start Num: 50
Candidate Starts for LordFarquaad_39:
(1, 30451), (2, 30400), (9, 30208), (12, 30139), (38, 29899), (Start: 50 @29845 has 23 MA's), (Start: 54 @29815 has 9 MA's), (61, 29761), (63, 29737), (67, 29707), (73, 29665), (75, 29647),

Gene: Lton_35 Start: 26508, Stop: 26296, Start Num: 49
Candidate Starts for Lton_35:

(38, 26559), (45, 26520), (Start: 49 @26508 has 160 MA's), (Start: 54 @26487 has 9 MA's), (61, 26433), (65, 26388), (69, 26358), (71, 26343), (72, 26340), (73, 26337), (74, 26328),

Gene: Lucky10_36 Start: 29523, Stop: 29311, Start Num: 49
Candidate Starts for Lucky10_36:
(Start: 49 @29523 has 160 MA's), (Start: 54 @29502 has 9 MA's), (61, 29448), (63, 29424), (65, 29403), (69, 29373), (71, 29358), (72, 29355), (73, 29352), (74, 29343),

Gene: Lutum_52 Start: 34567, Stop: 34358, Start Num: 49
Candidate Starts for Lutum_52:
(Start: 49 @34567 has 160 MA's), (Start: 54 @34546 has 9 MA's), (61, 34492), (69, 34417), (73, 34396), (75, 34378),

Gene: Lysidious_39 Start: 32394, Stop: 32185, Start Num: 49
Candidate Starts for Lysidious_39:
(Start: 49 @32394 has 160 MA's), (71, 32229), (73, 32223), (74, 32214),

Gene: MUWow_37 Start: 26106, Stop: 25870, Start Num: 49
Candidate Starts for MUWow_37:
(Start: 49 @26106 has 160 MA's), (Start: 54 @26082 has 9 MA's), (79, 25878),

Gene: Madavieve_37 Start: 32401, Stop: 32189, Start Num: 49
Candidate Starts for Madavieve_37:
(Start: 49 @32401 has 160 MA's), (53, 32386), (Start: 54 @32380 has 9 MA's), (61, 32326), (65, 32281), (73, 32230),

Gene: Madeline_36 Start: 31782, Stop: 31555, Start Num: 49
Candidate Starts for Madeline_36:
(Start: 49 @31782 has 160 MA's), (53, 31767), (Start: 54 @31761 has 9 MA's), (62, 31689), (65, 31662), (73, 31611),

Gene: MakCheese_50 Start: 36547, Stop: 36308, Start Num: 49
Candidate Starts for MakCheese_50:
(30, 36640), (Start: 49 @36547 has 160 MA's), (Start: 54 @36526 has 9 MA's), (61, 36472), (65, 36427), (73, 36376), (74, 36367),

Gene: Malachai_39 Start: 33474, Stop: 33265, Start Num: 49
Candidate Starts for Malachai_39:
(27, 33570), (Start: 49 @33474 has 160 MA's), (Start: 54 @33453 has 9 MA's), (67, 33345), (73, 33303),

Gene: Malibo_41 Start: 33015, Stop: 32788, Start Num: 49
Candidate Starts for Malibo_41:
(27, 33111), (Start: 49 @33015 has 160 MA's), (62, 32922), (65, 32895), (73, 32844),

Gene: Malisha_46 Start: 33324, Stop: 33112, Start Num: 49
Candidate Starts for Malisha_46:
(Start: 49 @33324 has 160 MA's), (Start: 54 @33303 has 9 MA's), (65, 33204), (72, 33156), (74, 33144),

Gene: Manasvini_42 Start: 32732, Stop: 32511, Start Num: 50
Candidate Starts for Manasvini_42:

(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 9 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: Mao1_44 Start: 40305, Stop: 40078, Start Num: 47
Candidate Starts for Mao1_44:
(45, 40311), (Start: 47 @40305 has 6 MA's), (Start: 54 @40275 has 9 MA's), (64, 40194), (68, 40164), (69, 40146), (73, 40125),

Gene: Mapleville_37 Start: 26507, Stop: 26295, Start Num: 54
Candidate Starts for Mapleville_37:
(25, 26600), (Start: 49 @26531 has 160 MA's), (Start: 54 @26507 has 9 MA's),

Gene: Maridalia_42 Start: 32733, Stop: 32521, Start Num: 49
Candidate Starts for Maridalia_42:
(Start: 49 @32733 has 160 MA's), (53, 32718), (Start: 54 @32712 has 9 MA's), (61, 32658), (65, 32613), (73, 32562),

Gene: Marteena_37 Start: 31344, Stop: 31114, Start Num: 49
Candidate Starts for Marteena_37:
(13, 31620), (27, 31440), (Start: 49 @31344 has 160 MA's), (Start: 54 @31323 has 9 MA's), (61, 31269),

Gene: MaterMagnus_39 Start: 26608, Stop: 26372, Start Num: 49
Candidate Starts for MaterMagnus_39:
(25, 26677), (Start: 49 @26608 has 160 MA's), (Start: 54 @26584 has 9 MA's),

Gene: Matteo_33 Start: 27584, Stop: 27372, Start Num: 49
Candidate Starts for Matteo_33:
(18, 27716), (27, 27680), (Start: 49 @27584 has 160 MA's), (Start: 54 @27563 has 9 MA's), (61, 27509), (67, 27455), (73, 27413), (75, 27395),

Gene: Mcklovin_37 Start: 35252, Stop: 35022, Start Num: 49
Candidate Starts for Mcklovin_37:
(27, 35348), (Start: 49 @35252 has 160 MA's), (Start: 54 @35231 has 9 MA's), (69, 35102), (73, 35081),

Gene: Mellie_38 Start: 31190, Stop: 30981, Start Num: 49
Candidate Starts for Mellie_38:
(18, 31322), (27, 31286), (Start: 49 @31190 has 160 MA's), (73, 31019), (74, 31010),

Gene: MichaelScott_41 Start: 31807, Stop: 31577, Start Num: 49
Candidate Starts for MichaelScott_41:
(42, 31834), (45, 31822), (Start: 49 @31807 has 160 MA's), (Start: 54 @31786 has 9 MA's), (61, 31732), (73, 31636), (75, 31618),

Gene: MidnightRain_41 Start: 27394, Stop: 27158, Start Num: 49
Candidate Starts for MidnightRain_41:
(25, 27463), (Start: 49 @27394 has 160 MA's), (Start: 54 @27370 has 9 MA's), (66, 27265),

Gene: MissRona_39 Start: 31978, Stop: 31769, Start Num: 49
Candidate Starts for MissRona_39:
(Start: 49 @31978 has 160 MA's), (Start: 54 @31957 has 9 MA's), (73, 31807), (74, 31798),

Gene: Mocha12_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Mocha12_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Moosehead_36 Start: 26645, Stop: 26433, Start Num: 49
Candidate Starts for Moosehead_36:
(Start: 49 @26645 has 160 MA's), (Start: 54 @26624 has 9 MA's), (55, 26621), (61, 26570), (65, 26525), (69, 26495), (71, 26480), (72, 26477), (73, 26474),

Gene: Morkie_34 Start: 27463, Stop: 27251, Start Num: 49
Candidate Starts for Morkie_34:
(38, 27514), (45, 27475), (Start: 49 @27463 has 160 MA's), (Start: 54 @27442 has 9 MA's), (55, 27439), (61, 27388), (65, 27343), (73, 27292),

Gene: MortyNRick_45 Start: 34723, Stop: 34511, Start Num: 49
Candidate Starts for MortyNRick_45:
(20, 34858), (28, 34822), (Start: 49 @34723 has 160 MA's), (Start: 54 @34702 has 9 MA's), (61, 34648), (65, 34603), (72, 34555), (73, 34552),

Gene: Murp_40 Start: 33776, Stop: 33567, Start Num: 49
Candidate Starts for Murp_40:
(13, 34052), (18, 33908), (27, 33872), (Start: 49 @33776 has 160 MA's), (62, 33683),

Gene: MurphyJoseph_34 Start: 25336, Stop: 25100, Start Num: 49
Candidate Starts for MurphyJoseph_34:
(37, 25393), (Start: 49 @25336 has 160 MA's), (Start: 54 @25312 has 9 MA's), (66, 25207),

Gene: Neobush_42 Start: 32725, Stop: 32504, Start Num: 50
Candidate Starts for Neobush_42:
(1, 33331), (2, 33280), (9, 33088), (12, 33019), (38, 32779), (Start: 50 @32725 has 23 MA's), (Start: 54 @32695 has 9 MA's), (61, 32641), (63, 32617), (67, 32587), (73, 32545), (75, 32527),

Gene: Nettuno_36 Start: 28542, Stop: 28330, Start Num: 49
Candidate Starts for Nettuno_36:
(18, 28674), (27, 28638), (Start: 49 @28542 has 160 MA's), (Start: 54 @28521 has 9 MA's), (61, 28467), (67, 28413), (73, 28371), (75, 28353),

Gene: NewKitty_37 Start: 25662, Stop: 25450, Start Num: 54
Candidate Starts for NewKitty_37:
(25, 25800), (35, 25746), (37, 25743), (39, 25737), (Start: 43 @25707 has 1 MA's), (Start: 49 @25686 has 160 MA's), (Start: 54 @25662 has 9 MA's),

Gene: Nymphadora_40 Start: 33303, Stop: 33091, Start Num: 49
Candidate Starts for Nymphadora_40:
(18, 33435), (27, 33399), (Start: 49 @33303 has 160 MA's), (Start: 54 @33282 has 9 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: ODay_53 Start: 35209, Stop: 35000, Start Num: 49
Candidate Starts for ODay_53:
(20, 35344), (28, 35308), (Start: 49 @35209 has 160 MA's), (Start: 54 @35188 has 9 MA's), (69, 35059), (73, 35038), (75, 35020),

Gene: Ohgeesy_39 Start: 32577, Stop: 32350, Start Num: 49
Candidate Starts for Ohgeesy_39:
(Start: 49 @32577 has 160 MA's), (53, 32562), (Start: 54 @32556 has 9 MA's), (62, 32484), (65, 32457), (73, 32406),

Gene: OneDirection_31 Start: 26085, Stop: 25873, Start Num: 49
Candidate Starts for OneDirection_31:
(38, 26136), (45, 26097), (Start: 49 @26085 has 160 MA's), (Start: 54 @26064 has 9 MA's), (61, 26010), (65, 25965), (67, 25956), (73, 25914),

Gene: Oregano_40 Start: 30519, Stop: 30289, Start Num: 49
Candidate Starts for Oregano_40:
(42, 30546), (45, 30534), (Start: 49 @30519 has 160 MA's), (Start: 54 @30498 has 9 MA's), (61, 30444), (65, 30399), (69, 30369), (73, 30348),

Gene: PCoral7_38 Start: 32016, Stop: 31744, Start Num: 33
Candidate Starts for PCoral7_38:
(22, 32073), (24, 32064), (Start: 32 @32022 has 1 MA's), (Start: 33 @32016 has 1 MA's), (62, 31860), (65, 31833), (75, 31764),

Gene: PantheRoc_38 Start: 30595, Stop: 30368, Start Num: 49
Candidate Starts for PantheRoc_38:
(Start: 49 @30595 has 160 MA's), (Start: 54 @30574 has 9 MA's), (62, 30502), (65, 30475), (73, 30424),

Gene: Pepperoni_31 Start: 27209, Stop: 27018, Start Num: 54
Candidate Starts for Pepperoni_31:
(38, 27281), (45, 27242), (Start: 49 @27230 has 160 MA's), (Start: 54 @27209 has 9 MA's), (55, 27206), (61, 27155), (65, 27110), (73, 27059),

Gene: PetriParty_39 Start: 28728, Stop: 28492, Start Num: 51
Candidate Starts for PetriParty_39:
(Start: 51 @28728 has 4 MA's), (64, 28626), (73, 28557), (76, 28533), (78, 28500),

Gene: Phabuloso_49 Start: 33667, Stop: 33440, Start Num: 49
Candidate Starts for Phabuloso_49:
(Start: 49 @33667 has 160 MA's), (Start: 54 @33646 has 9 MA's), (60, 33595), (61, 33592), (65, 33547), (69, 33517), (71, 33502), (72, 33499), (73, 33496), (75, 33478),

Gene: Phistory_52 Start: 34395, Stop: 34159, Start Num: 49
Candidate Starts for Phistory_52:
(45, 34407), (Start: 49 @34395 has 160 MA's), (Start: 54 @34374 has 9 MA's), (63, 34296), (65, 34275), (72, 34227), (73, 34224),

Gene: PhorbesPhlower_34 Start: 26891, Stop: 26679, Start Num: 49
Candidate Starts for PhorbesPhlower_34:
(45, 26903), (Start: 49 @26891 has 160 MA's), (Start: 54 @26870 has 9 MA's), (55, 26867), (61, 26816), (69, 26741), (72, 26723), (73, 26720),

Gene: Phrank15_37 Start: 25445, Stop: 25209, Start Num: 49
Candidate Starts for Phrank15_37:
(Start: 49 @25445 has 160 MA's), (Start: 54 @25421 has 9 MA's), (66, 25316),

Gene: PhriskyACE_37 Start: 31215, Stop: 30988, Start Num: 49
Candidate Starts for PhriskyACE_37:
(Start: 49 @31215 has 160 MA's), (62, 31122), (65, 31095), (73, 31044),

Gene: Pickett_35 Start: 27028, Stop: 26807, Start Num: 50
Candidate Starts for Pickett_35:
(1, 27634), (2, 27583), (9, 27391), (12, 27322), (38, 27082), (Start: 50 @27028 has 23 MA's), (Start: 54 @26998 has 9 MA's), (61, 26944), (63, 26920), (67, 26890), (73, 26848), (75, 26830),

Gene: Pollux_39 Start: 33417, Stop: 33187, Start Num: 49
Candidate Starts for Pollux_39:
(18, 33549), (27, 33513), (Start: 49 @33417 has 160 MA's), (Start: 54 @33396 has 9 MA's), (61, 33342), (63, 33318),

Gene: Polly_39 Start: 32174, Stop: 31953, Start Num: 50
Candidate Starts for Polly_39:
(1, 32780), (2, 32729), (9, 32537), (12, 32468), (38, 32228), (Start: 50 @32174 has 23 MA's), (Start: 54 @32144 has 9 MA's), (61, 32090), (63, 32066), (67, 32036), (73, 31994), (75, 31976),

Gene: Posh_43 Start: 34266, Stop: 34054, Start Num: 49
Candidate Starts for Posh_43:
(Start: 49 @34266 has 160 MA's), (53, 34251), (Start: 54 @34245 has 9 MA's), (61, 34191), (65, 34146), (73, 34095),

Gene: Powerball_38 Start: 30804, Stop: 30577, Start Num: 49
Candidate Starts for Powerball_38:
(18, 30936), (Start: 49 @30804 has 160 MA's), (62, 30711), (63, 30705), (65, 30684), (73, 30633),

Gene: PrincePatrick_39 Start: 30997, Stop: 30788, Start Num: 49
Candidate Starts for PrincePatrick_39:
(13, 31273), (18, 31129), (27, 31093), (Start: 49 @30997 has 160 MA's), (Start: 54 @30976 has 9 MA's), (73, 30826),

Gene: Pytheas_40 Start: 32601, Stop: 32389, Start Num: 49
Candidate Starts for Pytheas_40:
(3, 33069), (7, 33006), (13, 32877), (18, 32733), (27, 32697), (Start: 49 @32601 has 160 MA's), (Start: 54 @32580 has 9 MA's), (65, 32481), (67, 32472), (73, 32430),

Gene: RadFad_38 Start: 26084, Stop: 25848, Start Num: 49
Candidate Starts for RadFad_38:
(Start: 49 @26084 has 160 MA's), (Start: 54 @26060 has 9 MA's), (66, 25955),

Gene: Raphaella_39 Start: 26532, Stop: 26296, Start Num: 49
Candidate Starts for Raphaella_39:
(25, 26601), (Start: 49 @26532 has 160 MA's), (Start: 54 @26508 has 9 MA's),

Gene: Raqqa_31 Start: 23602, Stop: 23390, Start Num: 54
Candidate Starts for Raqqa_31:
(37, 23683), (Start: 49 @23626 has 160 MA's), (Start: 54 @23602 has 9 MA's), (66, 23497),

Gene: Richie_39 Start: 26613, Stop: 26377, Start Num: 49
Candidate Starts for Richie_39:
(25, 26682), (Start: 49 @26613 has 160 MA's), (Start: 54 @26589 has 9 MA's),

Gene: Rizz_41 Start: 31117, Stop: 30887, Start Num: 49
Candidate Starts for Rizz_41:
(42, 31144), (45, 31132), (Start: 49 @31117 has 160 MA's), (Start: 54 @31096 has 9 MA's), (61, 31042), (73, 30946), (75, 30928),

Gene: Ruthy_40 Start: 33383, Stop: 33156, Start Num: 49
Candidate Starts for Ruthy_40:
(18, 33515), (Start: 49 @33383 has 160 MA's), (Start: 54 @33362 has 9 MA's), (62, 33290), (65, 33263), (73, 33212),

Gene: Sahara_39 Start: 29780, Stop: 29568, Start Num: 49
Candidate Starts for Sahara_39:
(18, 29912), (27, 29876), (Start: 49 @29780 has 160 MA's), (Start: 54 @29759 has 9 MA's), (61, 29705), (67, 29651), (73, 29609), (75, 29591),

Gene: Sakai_39 Start: 26541, Stop: 26305, Start Num: 49
Candidate Starts for Sakai_39:
(25, 26610), (Start: 49 @26541 has 160 MA's), (Start: 54 @26517 has 9 MA's),

Gene: Samba_39 Start: 33583, Stop: 33374, Start Num: 49
Candidate Starts for Samba_39:
(18, 33715), (27, 33679), (Start: 49 @33583 has 160 MA's), (Start: 54 @33562 has 9 MA's), (62, 33490), (71, 33418), (73, 33412), (74, 33403),

Gene: Samman98_41 Start: 30434, Stop: 30204, Start Num: 49
Candidate Starts for Samman98_41:
(42, 30461), (45, 30449), (Start: 49 @30434 has 160 MA's), (Start: 54 @30413 has 9 MA's), (61, 30359), (73, 30263), (75, 30245),

Gene: Sashimi_37 Start: 27401, Stop: 27165, Start Num: 48
Candidate Starts for Sashimi_37:
(34, 27464), (Start: 48 @27401 has 7 MA's), (Start: 54 @27377 has 9 MA's), (56, 27362), (59, 27329), (65, 27278), (69, 27248),

Gene: Satrap_39 Start: 26549, Stop: 26307, Start Num: 48
Candidate Starts for Satrap_39:
(31, 26627), (Start: 48 @26549 has 7 MA's), (Start: 54 @26525 has 9 MA's), (56, 26510),

Gene: Savage_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Savage_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Sbash_41 Start: 34682, Stop: 34455, Start Num: 47
Candidate Starts for Sbash_41:
(4, 35144), (5, 35102), (6, 35093), (8, 35051), (10, 35024), (11, 34985), (20, 34811), (28, 34775), (45, 34688), (Start: 47 @34682 has 6 MA's), (64, 34571), (68, 34541), (69, 34523), (73, 34502),

Gene: Seahorse_40 Start: 28057, Stop: 27815, Start Num: 48
Candidate Starts for Seahorse_40:
(Start: 48 @28057 has 7 MA's), (Start: 54 @28033 has 9 MA's), (56, 28018),

Gene: Sejanus_43 Start: 40694, Stop: 40485, Start Num: 52
Candidate Starts for Sejanus_43:
(Start: 47 @40712 has 6 MA's), (Start: 52 @40694 has 1 MA's), (Start: 54 @40682 has 9 MA's), (57, 40652), (64, 40601), (68, 40571), (69, 40553), (73, 40532),

Gene: Sekhmet_41 Start: 31334, Stop: 31104, Start Num: 49
Candidate Starts for Sekhmet_41:
(42, 31361), (45, 31349), (Start: 49 @31334 has 160 MA's), (Start: 54 @31313 has 9 MA's), (61, 31259), (65, 31214), (73, 31163), (75, 31145),

Gene: ShawBrad_52 Start: 33594, Stop: 33385, Start Num: 49
Candidate Starts for ShawBrad_52:
(20, 33729), (28, 33693), (Start: 49 @33594 has 160 MA's), (Start: 54 @33573 has 9 MA's), (61, 33519), (69, 33444), (73, 33423), (75, 33405),

Gene: Shlim410_39 Start: 33884, Stop: 33654, Start Num: 49
Candidate Starts for Shlim410_39:
(42, 33911), (45, 33899), (Start: 49 @33884 has 160 MA's), (Start: 54 @33863 has 9 MA's), (61, 33809), (65, 33764), (73, 33713), (75, 33695),

Gene: Sidious_38 Start: 32012, Stop: 31785, Start Num: 49
Candidate Starts for Sidious_38:
(Start: 49 @32012 has 160 MA's), (62, 31919), (63, 31913), (65, 31892), (73, 31841),

Gene: SoilAssassin_37 Start: 29863, Stop: 29642, Start Num: 50
Candidate Starts for SoilAssassin_37:
(1, 30469), (2, 30418), (9, 30226), (12, 30157), (38, 29917), (Start: 50 @29863 has 23 MA's), (Start: 54 @29833 has 9 MA's), (61, 29779), (63, 29755), (67, 29725), (73, 29683), (75, 29665),

Gene: Soilmate_43 Start: 34978, Stop: 34769, Start Num: 49
Candidate Starts for Soilmate_43:
(Start: 49 @34978 has 160 MA's), (73, 34807),

Gene: SonDevVon_38 Start: 26429, Stop: 26193, Start Num: 49
Candidate Starts for SonDevVon_38:
(Start: 49 @26429 has 160 MA's), (Start: 54 @26405 has 9 MA's), (66, 26300),

Gene: SpicyFrank_38 Start: 26316, Stop: 26080, Start Num: 49
Candidate Starts for SpicyFrank_38:
(17, 26424), (Start: 49 @26316 has 160 MA's), (Start: 54 @26292 has 9 MA's), (66, 26187),

Gene: Sporco_38 Start: 26589, Stop: 26353, Start Num: 49
Candidate Starts for Sporco_38:
(25, 26658), (Start: 49 @26589 has 160 MA's), (Start: 54 @26565 has 9 MA's),

Gene: Sprinklemunch_45 Start: 34223, Stop: 33996, Start Num: 49
Candidate Starts for Sprinklemunch_45:
(13, 34499), (27, 34319), (Start: 49 @34223 has 160 MA's), (62, 34130), (65, 34103), (73, 34052),

Gene: Sproutie_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Sproutie_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Squiddly_46 Start: 34356, Stop: 34144, Start Num: 49
Candidate Starts for Squiddly_46:
(Start: 49 @34356 has 160 MA's), (Start: 54 @34335 has 9 MA's), (65, 34236), (72, 34188), (74, 34176),

Gene: Stuck_45 Start: 36951, Stop: 36724, Start Num: 47
Candidate Starts for Stuck_45:
(20, 37080), (28, 37044), (45, 36957), (Start: 47 @36951 has 6 MA's), (64, 36840), (69, 36792), (73, 36771),

Gene: Suerte_35 Start: 29805, Stop: 29578, Start Num: 49
Candidate Starts for Suerte_35:
(45, 29820), (Start: 49 @29805 has 160 MA's), (Start: 54 @29784 has 9 MA's), (61, 29730), (65, 29685), (73, 29634),

Gene: Suscepit_42 Start: 32732, Stop: 32511, Start Num: 50
Candidate Starts for Suscepit_42:
(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 9 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: SushiChef_37 Start: 31502, Stop: 31290, Start Num: 49
Candidate Starts for SushiChef_37:
(18, 31634), (Start: 49 @31502 has 160 MA's), (53, 31487), (Start: 54 @31481 has 9 MA's), (61, 31427), (65, 31382), (73, 31331),

Gene: Tayonia_42 Start: 32731, Stop: 32510, Start Num: 50
Candidate Starts for Tayonia_42:
(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 9 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: ThankyouJordi_39 Start: 32830, Stop: 32618, Start Num: 49
Candidate Starts for ThankyouJordi_39:
(27, 32926), (Start: 49 @32830 has 160 MA's), (Start: 54 @32809 has 9 MA's), (65, 32710), (67, 32701), (73, 32659),

Gene: ThayneTheZag_38 Start: 26235, Stop: 25999, Start Num: 48
Candidate Starts for ThayneTheZag_38:
(44, 26250), (Start: 48 @26235 has 7 MA's), (Start: 54 @26211 has 9 MA's), (73, 26061), (77, 26019),

Gene: Thimann_37 Start: 29362, Stop: 29132, Start Num: 49
Candidate Starts for Thimann_37:
(27, 29458), (Start: 49 @29362 has 160 MA's), (Start: 54 @29341 has 9 MA's), (69, 29212), (73, 29191),

Gene: Tiff81_34 Start: 23625, Stop: 23407, Start Num: 54
Candidate Starts for Tiff81_34:
(Start: 48 @23649 has 7 MA's), (Start: 54 @23625 has 9 MA's), (56, 23610),

Gene: TimTam_40 Start: 33303, Stop: 33091, Start Num: 49
Candidate Starts for TimTam_40:
(18, 33435), (27, 33399), (Start: 49 @33303 has 160 MA's), (Start: 54 @33282 has 9 MA's), (61, 33228), (67, 33174), (73, 33132),

Gene: Toast_38 Start: 32022, Stop: 31744, Start Num: 32
Candidate Starts for Toast_38:
(22, 32073), (24, 32064), (Start: 32 @32022 has 1 MA's), (Start: 33 @32016 has 1 MA's), (62, 31860), (65, 31833), (75, 31764),

Gene: Tortellini_33 Start: 31096, Stop: 30878, Start Num: 47
Candidate Starts for Tortellini_33:
(45, 31102), (Start: 47 @31096 has 6 MA's), (67, 30961), (69, 30940), (70, 30937), (73, 30919),

Gene: TripleJ_38 Start: 28332, Stop: 28096, Start Num: 51
Candidate Starts for TripleJ_38:
(Start: 51 @28332 has 4 MA's), (73, 28161), (76, 28137), (78, 28104),

Gene: Trumpet_42 Start: 32732, Stop: 32511, Start Num: 50
Candidate Starts for Trumpet_42:
(1, 33338), (2, 33287), (9, 33095), (12, 33026), (38, 32786), (Start: 50 @32732 has 23 MA's), (Start: 54 @32702 has 9 MA's), (61, 32648), (63, 32624), (67, 32594), (73, 32552), (75, 32534),

Gene: TuertoX_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for TuertoX_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: Tuti_34 Start: 30911, Stop: 30681, Start Num: 49
Candidate Starts for Tuti_34:
(42, 30938), (45, 30926), (Start: 49 @30911 has 160 MA's), (Start: 54 @30890 has 9 MA's), (61, 30836), (65, 30791), (69, 30761), (73, 30740),

Gene: Twinkle_40 Start: 34943, Stop: 34713, Start Num: 49
Candidate Starts for Twinkle_40:
(42, 34970), (45, 34958), (Start: 49 @34943 has 160 MA's), (Start: 54 @34922 has 9 MA's), (61, 34868), (65, 34823), (73, 34772), (75, 34754),

Gene: Utz_34 Start: 32273, Stop: 32064, Start Num: 49
Candidate Starts for Utz_34:
(18, 32405), (27, 32369), (Start: 49 @32273 has 160 MA's), (Start: 54 @32252 has 9 MA's), (62, 32180), (71, 32108), (72, 32105), (73, 32102), (74, 32093),

Gene: Vasanti_38 Start: 29298, Stop: 29071, Start Num: 49
Candidate Starts for Vasanti_38:
(18, 29430), (27, 29394), (Start: 49 @29298 has 160 MA's), (62, 29205), (63, 29199), (65, 29178), (73, 29127),

Gene: Vopal_41 Start: 28879, Stop: 28667, Start Num: 54
Candidate Starts for Vopal_41:
(21, 29026), (26, 28999), (Start: 49 @28903 has 160 MA's), (Start: 54 @28879 has 9 MA's), (66, 28774),

Gene: WelcomeAyanna_39 Start: 32977, Stop: 32765, Start Num: 49
Candidate Starts for WelcomeAyanna_39:
(27, 33073), (Start: 49 @32977 has 160 MA's), (Start: 54 @32956 has 9 MA's), (65, 32857), (67, 32848), (73, 32806),

Gene: Whiteclaw_40 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Whiteclaw_40:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: William_41 Start: 32683, Stop: 32474, Start Num: 49
Candidate Starts for William_41:
(13, 32959), (18, 32815), (27, 32779), (40, 32719), (Start: 49 @32683 has 160 MA's), (Start: 54 @32662 has 9 MA's), (73, 32512),

Gene: Windest_38 Start: 24922, Stop: 24686, Start Num: 49
Candidate Starts for Windest_38:
(Start: 49 @24922 has 160 MA's), (Start: 54 @24898 has 9 MA's), (66, 24793),

Gene: WinkNick_42 Start: 31126, Stop: 30896, Start Num: 49
Candidate Starts for WinkNick_42:
(42, 31153), (45, 31141), (Start: 49 @31126 has 160 MA's), (Start: 54 @31105 has 9 MA's), (61, 31051), (73, 30955), (75, 30937),

Gene: Wisp_35 Start: 30713, Stop: 30507, Start Num: 49
Candidate Starts for Wisp_35:
(18, 30845), (27, 30809), (Start: 49 @30713 has 160 MA's), (Start: 54 @30692 has 9 MA's), (71, 30548), (73, 30542), (74, 30533),

Gene: Wocket_40 Start: 31469, Stop: 31260, Start Num: 49
Candidate Starts for Wocket_40:
(Start: 49 @31469 has 160 MA's), (Start: 54 @31448 has 9 MA's),

Gene: Wrigley_44 Start: 33213, Stop: 33001, Start Num: 49
Candidate Starts for Wrigley_44:
(27, 33312), (42, 33237), (45, 33225), (Start: 49 @33213 has 160 MA's), (Start: 54 @33192 has 9 MA's), (63, 33114), (67, 33084), (73, 33042),

Gene: Xavia_35 Start: 31783, Stop: 31565, Start Num: 47
Candidate Starts for Xavia_35:
(45, 31789), (Start: 47 @31783 has 6 MA's), (67, 31648), (69, 31627), (70, 31624), (73, 31606),

Gene: Yeet412_37 Start: 29864, Stop: 29643, Start Num: 50
Candidate Starts for Yeet412_37:
(1, 30470), (2, 30419), (9, 30227), (12, 30158), (38, 29918), (Start: 50 @29864 has 23 MA's), (Start: 54 @29834 has 9 MA's), (61, 29780), (63, 29756), (67, 29726), (73, 29684), (75, 29666),

Gene: Yeezy_37 Start: 30409, Stop: 30182, Start Num: 49
Candidate Starts for Yeezy_37:
(36, 30460), (46, 30421), (Start: 49 @30409 has 160 MA's), (62, 30316), (65, 30289), (73, 30238),

Gene: Yinzer_39 Start: 30033, Stop: 29821, Start Num: 49
Candidate Starts for Yinzer_39:
(18, 30165), (27, 30129), (Start: 49 @30033 has 160 MA's), (Start: 54 @30012 has 9 MA's), (61, 29958), (67, 29904), (73, 29862), (75, 29844),

Gene: YoungHarleezy_39 Start: 26611, Stop: 26375, Start Num: 49

Candidate Starts for YoungHarleezy_39:
(25, 26680), (Start: 49 @26611 has 160 MA's), (Start: 54 @26587 has 9 MA's),

Gene: Zameen_42 Start: 32731, Stop: 32510, Start Num: 50
Candidate Starts for Zameen_42:
(1, 33337), (2, 33286), (9, 33094), (12, 33025), (38, 32785), (Start: 50 @32731 has 23 MA's), (Start: 54 @32701 has 9 MA's), (61, 32647), (63, 32623), (67, 32593), (73, 32551), (75, 32533),

Gene: ZiggyZoo_39 Start: 31932, Stop: 31723, Start Num: 49
Candidate Starts for ZiggyZoo_39:
(18, 32064), (27, 32028), (Start: 49 @31932 has 160 MA's), (Start: 54 @31911 has 9 MA's), (73, 31761), (74, 31752),

Gene: Zirinka_39 Start: 33471, Stop: 33250, Start Num: 50
Candidate Starts for Zirinka_39:
(1, 34077), (2, 34026), (9, 33834), (12, 33765), (38, 33525), (Start: 50 @33471 has 23 MA's), (Start: 54 @33441 has 9 MA's), (61, 33387), (63, 33363), (67, 33333), (73, 33291), (75, 33273),

Gene: Zodiariah_37 Start: 33034, Stop: 32807, Start Num: 49
Candidate Starts for Zodiariah_37:
(13, 33310), (18, 33166), (27, 33130), (Start: 49 @33034 has 160 MA's), (62, 32941), (65, 32914), (73, 32863),