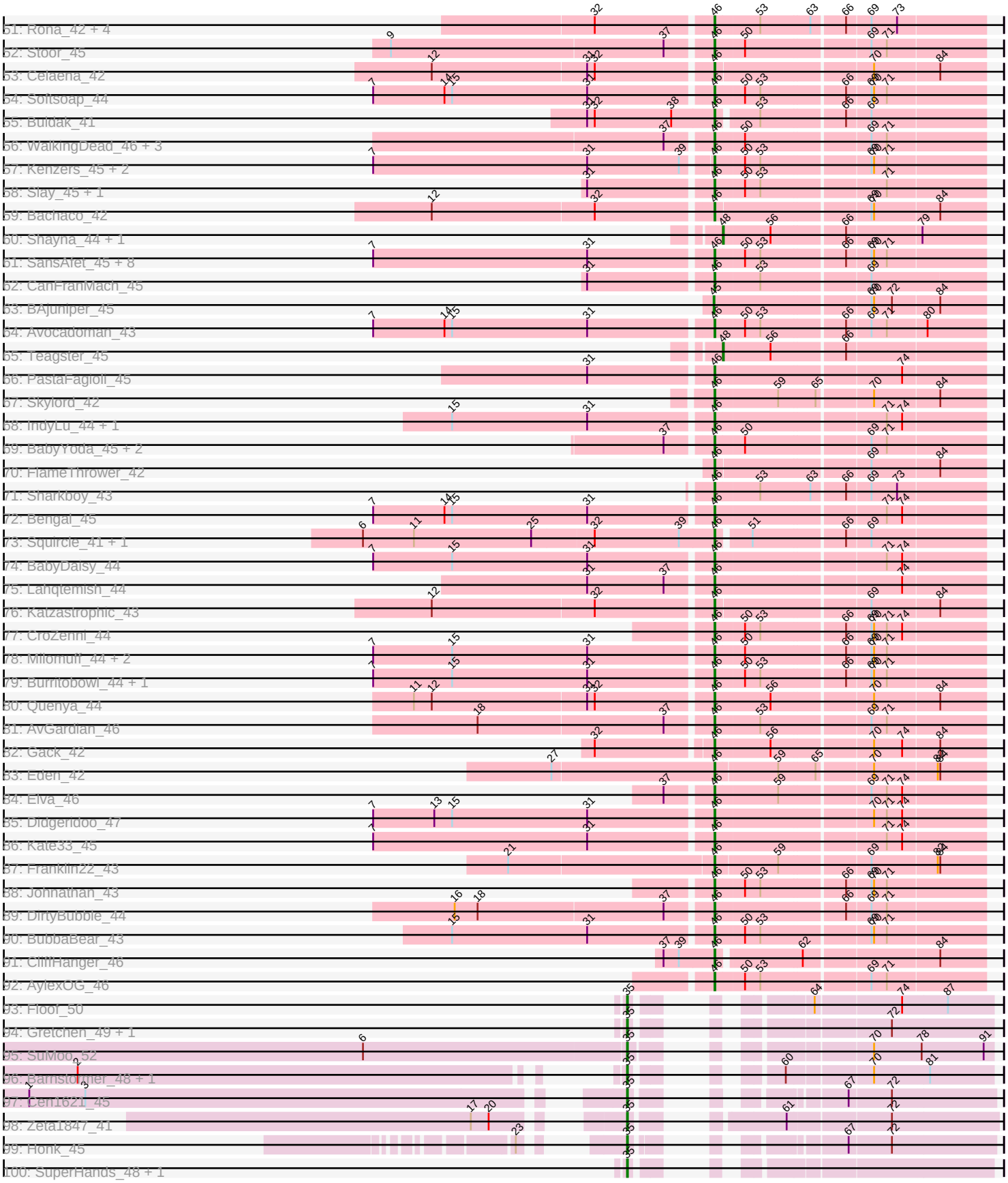
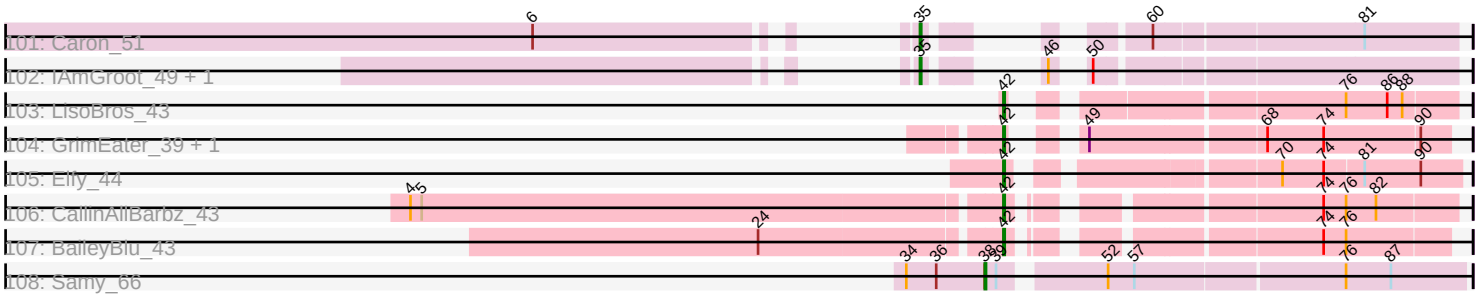
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1: ThursdayNight_47
2: Michkear_43
3: AEgle_40 + 3
4: Sue2_44
5: Tuck_47 + 2
6: Simpson_46 + 5
7: Powerpuff_46
8: Lizalica_42
9: Tutumahutu_45
10: Amyev_43 + 1
11: Tallboi_43
12: Reedo_43
13: DrSierra_41
14: Skelbel_42 + 7
15: Schaffner_44
16: Ascela_43
17: Cassia_43 + 1
18: Yang_43
19: Crewmate_49 + 1
20: AGrandiflora_45 + 1
21: Iter_43
22: Cyan_44 + 3
23: DrManhattan_43 + 1
24: IttyBittyPiggy_44 + 1
25: Janeemi_46
26: VResidence_43
27: JuneStar_45
28: Nitro_42
29: Bernie_45
30: PandaPo_44 + 1
31: KeAlli_41
32: Wildwest_42
33: Pixelle_44
34: MaGuCo_41 + 3
35: Snek_41 + 1
36: JasmineDragon_47 + 2
37: LadyAstra_48 + 1
38: VroomVroom_46 + 1
39: Emotion_48
40: JohnThicc_47 + 1
41: Sooty_40 + 5
42: Moss_40 + 9
43: Exile_38
44: Soondubu_39
45: AimMach_45
46: SanaSana_47
47: TukTuk_45 + 7
48: CupcakePrincess_45 + 4
49: Rollins_42 + 6
50: Albedo_45

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51: Rona_42 + 4
52: Stoor_45
53: Celaena_42
54: Softsoap_44
55: Buldak_41
56: WalkingDead_46 + 3
57: Kenzers_45 + 2
58: Slay_45 + 1
59: Bachaco_42
60: Shayna_44 + 1
61: SansAlet_45 + 8
62: CanFranMach_45
63: BAjuniper_45
64: Avocadoman_43
65: Teagster_45
66: PastaFagioli_45
67: Skylord_42
68: IndyLu_44 + 1
69: BabyYoda_45 + 2
70: FlameThrower_42
71: Sharkboy_43
72: Bengal_45
73: Squircle_41 + 1
74: BabyDaisy_44
75: Lanqtemish_44
76: Katzastrophic_43
77: CroZenni_44
78: Mliomuli_44 + 2
79: Burritobowl_44 + 1
80: Quenya_44
81: AvGardian_46
82: Gack_42
83: Eden_42
84: Elva_46
85: Didgeridoo_47
86: Kate33_45
87: Franklin22_43
88: Johnathan_43
89: DirtyBubble_44
90: BubbaBear_43
91: CliffHanger_46
92: AylexOG_46
93: Floor_50
94: Gretchen_49 + 1
95: SuMoo_52
96: Barnstormer_48 + 1
97: Cen1621_45
98: Zeta1847_41
99: Honk_45
100: SuperHands_48 + 1

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101: Caron_51
102: IAmGroot_49 + 1
103: LisoBros_43
104: GrimEater_39 + 1
105: Elly_44
106: CallinAllBarbz_43
107: BaileyBlu_43
108: Samy_66

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 341781 Report

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

Pham number 341781 has 206 members, 18 are drafts.

Phages represented in each track:
• Track 1 : ThursdayNight_47
• Track 2 : Michkear_43
• Track 3 : AEgle_40, Amploria_43, Adumb2043_41, Turab_40
• Track 4 : Sue2_44
• Track 5 : Tuck_47, Community_46, Phives_46
• Track 6 : Simpson_46, Kaylissa_45, Tbone_43, Warda_44, Mudpuppy_40, Joemato_44
• Track 7 : Powerpuff_46
• Track 8 : Lizalica_42
• Track 9 : Tutumahutu_45
• Track 10 : Amyev_43, Tian_42
• Track 11 : Tallboi_43
• Track 12 : Reedo_43
• Track 13 : DrSierra_41
• Track 14 : Skelbel_42, Asa16_41, Niobe_41, Subaru_41, Jstan_43, Eraser_41, London_41, Elezi_41
• Track 15 : Schaffner_44
• Track 16 : Ascela_43
• Track 17 : Cassia_43, TforTroy_45
• Track 18 : Yang_43
• Track 19 : Crewmate_49, ObiToo_49
• Track 20 : AGrandiflora_45, YesChef_44
• Track 21 : Iter_43
• Track 22 : Cyan_44, Lego_43, JohnDoe_44, Flutur_43
• Track 23 : DrManhattan_43, Adolin_44
• Track 24 : IttyBittyPiggy_44, Pumpkins_43
• Track 25 : Janeemi_46
• Track 26 : VResidence_43
• Track 27 : JuneStar_45
• Track 28 : Nitro_42
• Track 29 : Berrie_45
• Track 30 : PandaPo_44, MissSwiss_44
• Track 31 : KeAlii_41
• Track 32 : Wildwest_42
• Track 33 : Pixelle_44
• Track 34 : MaGuCo_41, IUFootball_44, Liebe_44, Maureen_44
• Track 35 : Snek_41, Tweety19_42

• Track 36 : JasmineDragon_47, ShakeItOph_47, MiniMommy_48
• Track 37 : LadyAstra_48, Origami_47
• Track 38 : VroomVroom_46, AceofSpades_47
• Track 39 : Emotion_48
• Track 40 : JohnThicc_47, FiveHead_51
• Track 41 : Sooty_40, Cappuccino_40, Kalimba_40, Sabourin_40, Gambol_41, Donkey_40
• Track 42 : Moss_40, Halsey_40, Ashes_40, Giorgio_39, RockScotty_39, SpecialK_40, Beaupre_39, Mysterium_39, Stuu_40, Gumpizza_39
• Track 43 : Exile_38
• Track 44 : Soondubu_39
• Track 45 : AinMach_45
• Track 46 : SanaSana_47
• Track 47 : TukTuk_45, Phisb_45, Pecas_45, QMacho_47, Finalfrontier_45, SarBear_44, Swervy_45, Lilo27_45
• Track 48 : CupcakePrincess_45, Eula_45, MsUbiquitous_45, Jovita_45, Jabb_45
• Track 49 : Rollins_42, Vitas_42, Bernstein_42, Brahms_42, Armstrong_42, Clayda5_43, Coltrane_42
• Track 50 : Albedo_45
• Track 51 : Rona_42, ChiliPepper_42, Dismas_42, Kamdara_42, Kieran_42
• Track 52 : Stoor_45
• Track 53 : Celaena_42
• Track 54 : Softsoap_44
• Track 55 : Buldak_41
• Track 56 : WalkingDead_46, Loviatar_45, Akino08_45, PondAmelia_46
• Track 57 : Kenzers_45, Lynlen_45, SirBeanington_44
• Track 58 : Slay_45, Nicky22_45
• Track 59 : Bachaco_42
• Track 60 : Shayna_44, SunnyD_44
• Track 61 : SansAfet_45, BelmontSKP_45, LimaBean_44, Albright_42, AnnaLie_45, Abigail_44, Arroyo_45, PhigPhack_45, Cashington_42
• Track 62 : CanFranMach_45
• Track 63 : BAjuniper_45
• Track 64 : Avocadoman_43
• Track 65 : Teagster_45
• Track 66 : PastaFagioli_45
• Track 67 : Skylord_42
• Track 68 : IndyLu_44, Grist_44
• Track 69 : BabyYoda_45, Stromboli_45, Icarian_47
• Track 70 : FlameThrower_42
• Track 71 : Sharkboy_43
• Track 72 : Bengal_45
• Track 73 : Squircle_41, Olliecat_41
• Track 74 : BabyDaisy_44
• Track 75 : Lahqtemish_44
• Track 76 : Katzastrophic_43
• Track 77 : CroZenni_44
• Track 78 : Milomuff_44, Solea_45, DickRichards_43
• Track 79 : Burritobowl_44, Doobus_43
• Track 80 : Quenya_44
• Track 81 : AvGardian_46
• Track 82 : Gack_42
• Track 83 : Eden_42

• Track 84 : Elva_46
• Track 85 : Didgeridoo_47
• Track 86 : Kate33_45
• Track 87 : Franklin22_43
• Track 88 : Johnathan_43
• Track 89 : DirtyBubble_44
• Track 90 : BubbaBear_43
• Track 91 : CliffHanger_46
• Track 92 : AylexOG_46
• Track 93 : Floof_50
• Track 94 : Gretchen_49, Forester_48
• Track 95 : SuMoo_52
• Track 96 : Barnstormer_48, UtzChips_48
• Track 97 : Cen1621_45
• Track 98 : Zeta1847_41
• Track 99 : Honk_45
• Track 100 : SuperHands_48, Percival_50
• Track 101 : Caron_51
• Track 102 : IAmGroot_49, GardenState_49
• Track 103 : LisoBros_43
• Track 104 : GrimEater_39, Jankie_40
• Track 105 : Elfy_44
• Track 106 : CallinAllBarbz_43
• Track 107 : BaileyBlu_43
• Track 108 : Samy_66

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

The start number called the most often in the published annotations is 46, it was called in 82 of the 188 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Abigail_44, Akino08_45, Albedo_45, Albright_42, AnnaLie_45, Armstrong_42, Arroyo_45, AvGardian_46, Avocadoman_43, AylexOG_46, BabyDaisy_44, BabyYoda_45, Bachaco_42, BelmontSKP_45, Bengal_45, Bernstein_42, Brahms_42, BubbaBear_43, Buldak_41, Burritobowl_44, CanFranMach_45, Cashington_42, Celaena_42, ChiliPepper_42, Clayda5_43, CliffHanger_46, Coltrane_42, CroZenni_44, CupcakePrincess_45, DickRichards_43, Didgeridoo_47, DirtyBubble_44, Dismas_42, Doobus_43, Eden_42, Elva_46, Eula_45, Finalfrontier_45, FlameThrower_42, Franklin22_43, Gack_42, Grist_44, Icarian_47, IndyLu_44, Jabb_45, Johnathan_43, Jovita_45, Kamdara_42, Kate33_45, Katzastrophic_43, Kenzers_45, Kieran_42, Lahqtemish_44, Lilo27_45, LimaBean_44, Loviatar_45, Lynlen_45, Milomuff_44, MsUbiquitous_45, Nicky22_45, Olliecat_41, PastaFagioli_45, Pecas_45, PhigPhack_45, Phisb_45, PondAmelia_46, QMacho_47, Quenya_44, Rollins_42, Rona_42, SanaSana_47, SansAfet_45, SarBear_44, Sharkboy_43, SirBeanington_44, Skylord_42, Slay_45, Softsoap_44, Solea_45, Squircle_41, Stoor_45, Stromboli_45, Swervy_45, TukTuk_45, Vitas_42, WalkingDead_46,

Genes that have the "Most Annotated" start but do not call it:

• GardenState_49, IAmGroot_49,

Genes that do not have the "Most Annotated" start:
• AEgle_40, AGrandiflora_45, AceofSpades_47, Adolin_44, Adumb2043_41, AinMach_45, Amploria_43, Amyev_43, Asa16_41, Ascela_43, Ashes_40, BAjuniper_45, BaileyBlu_43, Barnstormer_48, Beaupre_39, Berrie_45, CallinAllBarbz_43, Cappuccino_40, Caron_51, Cassia_43, Cen1621_45, Community_46, Crewmate_49, Cyan_44, Donkey_40, DrManhattan_43, DrSierra_41, Elezi_41, Elfy_44, Emotion_48, Eraser_41, Exile_38, FiveHead_51, Floof_50, Flutur_43, Forester_48, Gambol_41, Giorgio_39, Gretchen_49, GrimEater_39, Gumpizza_39, Halsey_40, Honk_45, IUFootball_44, Iter_43, IttyBittyPiggy_44, Janeemi_46, Jankie_40, JasmineDragon_47, Joemato_44, JohnDoe_44, JohnThicc_47, Jstan_43, JuneStar_45, Kalimba_40, Kaylissa_45, KeAlii_41, LadyAstra_48, Lego_43, Liebe_44, LisoBros_43, Lizalica_42, London_41, MaGuCo_41, Maureen_44, Michkear_43, MiniMommy_48, MissSwiss_44, Moss_40, Mudpuppy_40, Mysterium_39, Niobe_41, Nitro_42, ObiToo_49, Origami_47, PandaPo_44, Percival_50, Phives_46, Pixelle_44, Powerpuff_46, Pumpkins_43, Reedo_43, RockScotty_39, Sabourin_40, Samy_66, Schaffner_44, ShakeItOph_47, Shayna_44, Simpson_46, Skelbel_42, Snek_41, Soondubu_39, Sooty_40, SpecialK_40, Stuu_40, SuMoo_52, Subaru_41, Sue2_44, SunnyD_44, SuperHands_48, Tallboi_43, Tbone_43, Teagster_45, TforTroy_45, ThursdayNight_47, Tian_42, Tuck_47, Turab_40, Tutumahutu_45, Tweety19_42, UtzChips_48, VResidence_43, VroomVroom_46, Warda_44, Wildwest_42, Yang_43, YesChef_44, Zeta1847_41,

Summary by start number:

Start 35:
• Found in 14 of 206 (6.8%) of genes in pham
• Manual Annotations of this start: 14 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barnstormer_48 (EH), Caron_51 (EH), Cen1621_45 (EH), Floof_50 (EH), Forester_48 (EH), GardenState_49 (EH), Gretchen_49 (EH), Honk_45 (EH), IAmGroot_49 (EH), Percival_50 (EH), SuMoo_52 (EH), SuperHands_48 (EH), UtzChips_48 (EH), Zeta1847_41 (EH),

Start 38:
• Found in 2 of 206 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Samy_66 (singleton),

Start 40:
• Found in 2 of 206 (1.0%) of genes in pham
• Manual Annotations of this start: 2 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Snek_41 (AZ3), Tweety19_42 (AZ3),

Start 41:
• Found in 2 of 206 (1.0%) of genes in pham
• Manual Annotations of this start: 2 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nitro_42 (AZ1), Wildwest_42 (AZ1),

Start 42:
• Found in 66 of 206 (32.0%) of genes in pham
• Manual Annotations of this start: 52 of 188
• Called 97.0% of time when present
• Phage (with cluster) where this start called: AEgle_40 (AZ1), AGrandiflora_45 (AZ1), Adolin_44 (AZ1), Adumb2043_41 (AZ1), AinMach_45 (AZ7), Amploria_43 (AZ1), Amyev_43 (AZ1), Asa16_41 (AZ1), Ascela_43 (AZ1), BaileyBlu_43 (FP), Berrie_45 (AZ1), CallinAllBarbz_43 (FP), Cassia_43 (AZ1), Community_46 (AZ1), Crewmate_49 (AZ1), Cyan_44 (AZ1), DrManhattan_43 (AZ1), DrSierra_41 (AZ1), Elezi_41 (AZ1), Elfy_44 (FP), Eraser_41 (AZ1), Exile_38 (AZ6), Flutur_43 (AZ), GrimEater_39 (FP), Iter_43 (AZ1), IttyBittyPiggy_44 (AZ1), Janeemi_46 (AZ1), Jankie_40 (FP), Joemato_44 (AZ1), JohnDoe_44 (AZ1), Jstan_43 (AZ1), JuneStar_45 (AZ1), Kaylissa_45 (AZ1), KeAlii_41 (AZ1), Lego_43 (AZ1), LisoBros_43 (FP), Lizalica_42 (AZ1), London_41 (AZ1), Michkear_43 (AZ), MissSwiss_44 (AZ1), Mudpuppy_40 (AZ1), Niobe_41 (AZ1), ObiToo_49 (AZ1), PandaPo_44 (AZ1), Phives_46 (AZ1), Pixelle_44 (AZ1), Pumpkins_43 (AZ1), Reedo_43 (AZ1), Schaffner_44 (AZ1), Simpson_46 (AZ1), Skelbel_42 (AZ1), Soondubu_39 (AZ6), Subaru_41 (AZ1), Sue2_44 (AZ1), Tallboi_43 (AZ1), Tbone_43 (AZ1), TforTroy_45 (AZ1), Tian_42 (AZ1), Tuck_47 (AZ1), Turab_40 (AZ1), VResidence_43 (AZ1), Warda_44 (AZ1), Yang_43 (AZ1), YesChef_44 (AZ1),

Start 43:
• Found in 4 of 206 (1.9%) of genes in pham
• Manual Annotations of this start: 2 of 188
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Powerpuff_46 (AZ1), Tutumahutu_45 (AZ1),

Start 44:
• Found in 31 of 206 (15.0%) of genes in pham
• Manual Annotations of this start: 29 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AceofSpades_47 (AZ4), Ashes_40 (AZ5), Beaupre_39 (AZ5), Cappuccino_40 (AZ5), Donkey_40 (AZ5), Emotion_48 (AZ4), FiveHead_51 (AZ4), Gambol_41 (AZ5), Giorgio_39 (AZ5), Gumpizza_39 (AZ5), Halsey_40 (AZ5), IUFootball_44 (AZ2), JasmineDragon_47 (AZ4), JohnThicc_47 (AZ4), Kalimba_40 (AZ5), LadyAstra_48 (AZ4), Liebe_44 (AZ2), MaGuCo_41 (AZ2), Maureen_44 (AZ2), MiniMommy_48 (AZ4), Moss_40 (AZ5), Mysterium_39 (AZ5), Origami_47 (AZ4), RockScotty_39 (AZ5), Sabourin_40 (AZ5), ShakeItOph_47 (AZ4), Sooty_40 (AZ5), SpecialK_40 (AZ5), Stuu_40 (AZ5), ThursdayNight_47 (AZ), VroomVroom_46 (AZ4),

Start 45:
• Found in 1 of 206 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BAjuniper_45 (EB),

Start 46:
• Found in 88 of 206 (42.7%) of genes in pham
• Manual Annotations of this start: 82 of 188
• Called 97.7% of time when present

• Phage (with cluster) where this start called: Abigail_44 (EB), Akino08_45 (EB), Albedo_45 (EB), Albright_42 (EB), AnnaLie_45 (EB), Armstrong_42 (EB), Arroyo_45 (EB), AvGardian_46 (EB), Avocadoman_43 (EB), AylexOG_46 (EB), BabyDaisy_44 (EB), BabyYoda_45 (EB), Bachaco_42 (EB), BelmontSKP_45 (EB), Bengal_45 (EB), Bernstein_42 (EB), Brahms_42 (EB), BubbaBear_43 (EB), Buldak_41 (EB), Burritobowl_44 (EB), CanFranMach_45 (EB), Cashington_42 (EB), Celaena_42 (EB), ChiliPepper_42 (EB), Clayda5_43 (EB), CliffHanger_46 (EB), Coltrane_42 (EB), CroZenni_44 (EB), CupcakePrincess_45 (EB), DickRichards_43 (EB), Didgeridoo_47 (EB), DirtyBubble_44 (EB), Dismas_42 (EB), Doobus_43 (EB), Eden_42 (EB), Elva_46 (EB), Eula_45 (EB), Finalfrontier_45 (EB), FlameThrower_42 (EB), Franklin22_43 (EB), Gack_42 (EB), Grist_44 (EB), Icarian_47 (EB), IndyLu_44 (EB), Jabb_45 (EB), Johnathan_43 (EB), Jovita_45 (EB), Kamdara_42 (EB), Kate33_45 (EB), Katzastrophic_43 (EB), Kenzers_45 (EB), Kieran_42 (EB), Lahqtemish_44 (EB), Lilo27_45 (EB), LimaBean_44 (EB), Loviatar_45 (EB), Lynlen_45 (EB), Milomuff_44 (EB), MsUbiquitous_45 (EB), Nicky22_45 (EB), Olliecat_41 (EB), PastaFagioli_45 (EB), Pecas_45 (EB), PhigPhack_45 (EB), Phisb_45 (EB), PondAmelia_46 (EB), QMacho_47 (EB), Quenya_44 (EB), Rollins_42 (EB), Rona_42 (EB), SanaSana_47 (EB), SansAfet_45 (EB), SarBear_44 (EB), Sharkboy_43 (EB), SirBeanington_44 (EB), Skylord_42 (EB), Slay_45 (EB), Softsoap_44 (EB), Solea_45 (EB), Squircle_41 (EB), Stoor_45 (EB), Stromboli_45 (EB), Swervy_45 (EB), TukTuk_45 (EB), Vitas_42 (EB), WalkingDead_46 (EB),

Start 48:
• Found in 3 of 206 (1.5%) of genes in pham
• Manual Annotations of this start: 3 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shayna_44 (EB), SunnyD_44 (EB), Teagster_45 (EB),

Summary by clusters:

There are 12 clusters represented in this pham: FP, singleton, AZ3, EH, EB, AZ1, AZ2, AZ, AZ4, AZ5, AZ6, AZ7,

Info for manual annotations of cluster AZ:
•Start number 44 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:
•Start number 41 was manually annotated 2 times for cluster AZ1.
•Start number 42 was manually annotated 45 times for cluster AZ1.
•Start number 43 was manually annotated 2 times for cluster AZ1.

Info for manual annotations of cluster AZ2:
•Start number 44 was manually annotated 4 times for cluster AZ2.

Info for manual annotations of cluster AZ3:
•Start number 40 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:
•Start number 44 was manually annotated 8 times for cluster AZ4.

Info for manual annotations of cluster AZ5:
•Start number 44 was manually annotated 16 times for cluster AZ5.

Info for manual annotations of cluster AZ6:
•Start number 42 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster EB:
•Start number 45 was manually annotated 1 time for cluster EB.
•Start number 46 was manually annotated 82 times for cluster EB.
•Start number 48 was manually annotated 3 times for cluster EB.

Info for manual annotations of cluster EH:
•Start number 35 was manually annotated 14 times for cluster EH.

Info for manual annotations of cluster FP:
•Start number 42 was manually annotated 6 times for cluster FP.

Gene Information:

Gene: AEgle_40 Start: 31132, Stop: 31437, Start Num: 42
Candidate Starts for AEgle_40:
(Start: 42 @31132 has 52 MA's), (58, 31201), (71, 31321), (85, 31384), (90, 31414),

Gene: AGrandiflora_45 Start: 32415, Stop: 32717, Start Num: 42
Candidate Starts for AGrandiflora_45:
(Start: 42 @32415 has 52 MA's), (Start: 43 @32418 has 2 MA's), (72, 32607), (90, 32694),

Gene: Abigail_44 Start: 31356, Stop: 31658, Start Num: 46
Candidate Starts for Abigail_44:
(7, 30966), (31, 31218), (Start: 46 @31356 has 82 MA's), (50, 31389), (53, 31407), (66, 31500), (69, 31527), (70, 31530), (71, 31545),

Gene: AceofSpades_47 Start: 32646, Stop: 32975, Start Num: 44
Candidate Starts for AceofSpades_47:
(Start: 44 @32646 has 29 MA's), (78, 32880), (83, 32901),

Gene: Adolin_44 Start: 30600, Stop: 30899, Start Num: 42
Candidate Starts for Adolin_44:
(Start: 42 @30600 has 52 MA's), (71, 30783), (79, 30822), (84, 30843),

Gene: Adumb2043_41 Start: 31151, Stop: 31456, Start Num: 42
Candidate Starts for Adumb2043_41:
(Start: 42 @31151 has 52 MA's), (58, 31220), (71, 31340), (85, 31403), (90, 31433),

Gene: AinMach_45 Start: 32431, Stop: 32742, Start Num: 42
Candidate Starts for AinMach_45:
(Start: 42 @32431 has 52 MA's), (74, 32638),

Gene: Akino08_45 Start: 33582, Stop: 33884, Start Num: 46
Candidate Starts for Akino08_45:
(37, 33534), (Start: 46 @33582 has 82 MA's), (50, 33615), (69, 33753), (71, 33771),

Gene: Albedo_45 Start: 31959, Stop: 32261, Start Num: 46
Candidate Starts for Albedo_45:
(7, 31572), (15, 31665), (31, 31824), (39, 31932), (Start: 46 @31959 has 82 MA's), (50, 31992), (53, 32010), (69, 32130), (70, 32133), (71, 32148),

Gene: Albright_42 Start: 30889, Stop: 31191, Start Num: 46
Candidate Starts for Albright_42:
(7, 30499), (31, 30751), (Start: 46 @30889 has 82 MA's), (50, 30922), (53, 30940), (66, 31033), (69, 31060), (70, 31063), (71, 31078),

Gene: Amploria_43 Start: 31334, Stop: 31639, Start Num: 42
Candidate Starts for Amploria_43:
(Start: 42 @31334 has 52 MA's), (58, 31403), (71, 31523), (85, 31586), (90, 31616),

Gene: Amyev_43 Start: 32705, Stop: 33010, Start Num: 42
Candidate Starts for Amyev_43:
(24, 32522), (Start: 42 @32705 has 52 MA's), (77, 32930), (85, 32957), (90, 32987),

Gene: AnnaLie_45 Start: 31967, Stop: 32269, Start Num: 46
Candidate Starts for AnnaLie_45:
(7, 31577), (31, 31829), (Start: 46 @31967 has 82 MA's), (50, 32000), (53, 32018), (66, 32111), (69, 32138), (70, 32141), (71, 32156),

Gene: Armstrong_42 Start: 29501, Stop: 29803, Start Num: 46
Candidate Starts for Armstrong_42:
(19, 29249), (32, 29372), (37, 29453), (Start: 46 @29501 has 82 MA's), (59, 29573), (65, 29615), (70, 29675), (84, 29750),

Gene: Arroyo_45 Start: 32075, Stop: 32377, Start Num: 46
Candidate Starts for Arroyo_45:
(7, 31685), (31, 31937), (Start: 46 @32075 has 82 MA's), (50, 32108), (53, 32126), (66, 32219), (69, 32246), (70, 32249), (71, 32264),

Gene: Asa16_41 Start: 32515, Stop: 32820, Start Num: 42
Candidate Starts for Asa16_41:
(24, 32335), (Start: 42 @32515 has 52 MA's), (58, 32584), (70, 32689), (71, 32704), (74, 32722), (90, 32797),

Gene: Ascela_43 Start: 31669, Stop: 31974, Start Num: 42
Candidate Starts for Ascela_43:
(6, 31300), (26, 31510), (Start: 42 @31669 has 52 MA's), (77, 31894), (89, 31939),

Gene: Ashes_40 Start: 30003, Stop: 30311, Start Num: 44
Candidate Starts for Ashes_40:
(28, 29844), (Start: 44 @30003 has 29 MA's), (74, 30210),

Gene: AvGardian_46 Start: 31983, Stop: 32285, Start Num: 46
Candidate Starts for AvGardian_46:
(18, 31719), (37, 31935), (Start: 46 @31983 has 82 MA's), (53, 32034), (69, 32154), (71, 32172),

Gene: Avocadoman_43 Start: 31096, Stop: 31398, Start Num: 46
Candidate Starts for Avocadoman_43:

(7, 30706), (14, 30790), (15, 30799), (31, 30958), (Start: 46 @31096 has 82 MA's), (50, 31129), (53, 31147), (66, 31240), (69, 31267), (71, 31285), (80, 31330),

Gene: AylexOG_46 Start: 32041, Stop: 32343, Start Num: 46
Candidate Starts for AylexOG_46:
(Start: 46 @32041 has 82 MA's), (50, 32074), (53, 32092), (69, 32212), (71, 32230),

Gene: BAjuniper_45 Start: 32882, Stop: 33187, Start Num: 45
Candidate Starts for BAjuniper_45:
(Start: 45 @32882 has 1 MA's), (69, 33056), (70, 33059), (72, 33080), (84, 33134),

Gene: BabyDaisy_44 Start: 31930, Stop: 32232, Start Num: 46
Candidate Starts for BabyDaisy_44:
(7, 31540), (15, 31633), (31, 31792), (Start: 46 @31930 has 82 MA's), (71, 32119), (74, 32137),

Gene: BabyYoda_45 Start: 32699, Stop: 33001, Start Num: 46
Candidate Starts for BabyYoda_45:
(37, 32651), (Start: 46 @32699 has 82 MA's), (50, 32732), (69, 32870), (71, 32888),

Gene: Bachaco_42 Start: 32661, Stop: 32963, Start Num: 46
Candidate Starts for Bachaco_42:
(12, 32343), (32, 32532), (Start: 46 @32661 has 82 MA's), (69, 32832), (70, 32835), (84, 32910),

Gene: BaileyBlu_43 Start: 31369, Stop: 31668, Start Num: 42
Candidate Starts for BaileyBlu_43:
(24, 31189), (Start: 42 @31369 has 52 MA's), (74, 31570), (76, 31588),

Gene: Barnstormer_48 Start: 33039, Stop: 33356, Start Num: 35
Candidate Starts for Barnstormer_48:
(2, 32505), (Start: 35 @33039 has 14 MA's), (60, 33126), (70, 33219), (81, 33282),

Gene: Beaupre_39 Start: 29813, Stop: 30121, Start Num: 44
Candidate Starts for Beaupre_39:
(28, 29654), (Start: 44 @29813 has 29 MA's), (74, 30020),

Gene: BelmontSKP_45 Start: 31967, Stop: 32269, Start Num: 46
Candidate Starts for BelmontSKP_45:
(7, 31577), (31, 31829), (Start: 46 @31967 has 82 MA's), (50, 32000), (53, 32018), (66, 32111), (69, 32138), (70, 32141), (71, 32156),

Gene: Bengal_45 Start: 31620, Stop: 31922, Start Num: 46
Candidate Starts for Bengal_45:
(7, 31230), (14, 31314), (15, 31323), (31, 31482), (Start: 46 @31620 has 82 MA's), (71, 31809), (74, 31827),

Gene: Bernstein_42 Start: 29583, Stop: 29885, Start Num: 46
Candidate Starts for Bernstein_42:
(19, 29331), (32, 29454), (37, 29535), (Start: 46 @29583 has 82 MA's), (59, 29655), (65, 29697), (70, 29757), (84, 29832),

Gene: Berrie_45 Start: 32854, Stop: 33162, Start Num: 42
Candidate Starts for Berrie_45:
(24, 32671), (Start: 42 @32854 has 52 MA's),

Gene: Brahms_42 Start: 29503, Stop: 29805, Start Num: 46
Candidate Starts for Brahms_42:
(19, 29251), (32, 29374), (37, 29455), (Start: 46 @29503 has 82 MA's), (59, 29575), (65, 29617), (70, 29677), (84, 29752),

Gene: BubbaBear_43 Start: 31549, Stop: 31851, Start Num: 46
Candidate Starts for BubbaBear_43:
(15, 31252), (31, 31411), (Start: 46 @31549 has 82 MA's), (50, 31582), (53, 31600), (69, 31720), (70, 31723), (71, 31738),

Gene: Buldak_41 Start: 30127, Stop: 30420, Start Num: 46
Candidate Starts for Buldak_41:
(31, 29980), (32, 29989), (Start: 38 @30079 has 1 MA's), (Start: 46 @30127 has 82 MA's), (53, 30169), (66, 30262), (69, 30289),

Gene: Burritobowl_44 Start: 31550, Stop: 31852, Start Num: 46
Candidate Starts for Burritobowl_44:
(7, 31160), (15, 31253), (31, 31412), (Start: 46 @31550 has 82 MA's), (50, 31583), (53, 31601), (66, 31694), (69, 31721), (70, 31724), (71, 31739),

Gene: CallinAllBarbz_43 Start: 31559, Stop: 31864, Start Num: 42
Candidate Starts for CallinAllBarbz_43:
(4, 31100), (5, 31109), (Start: 42 @31559 has 52 MA's), (74, 31760), (76, 31778), (82, 31802),

Gene: CanFranMach_45 Start: 32006, Stop: 32308, Start Num: 46
Candidate Starts for CanFranMach_45:
(31, 31868), (Start: 46 @32006 has 82 MA's), (53, 32057), (69, 32177),

Gene: Cappuccino_40 Start: 29871, Stop: 30179, Start Num: 44
Candidate Starts for Cappuccino_40:
(28, 29712), (Start: 44 @29871 has 29 MA's),

Gene: Caron_51 Start: 34033, Stop: 34350, Start Num: 35
Candidate Starts for Caron_51:
(6, 33835), (Start: 35 @34033 has 14 MA's), (60, 34120), (81, 34276),

Gene: Cashington_42 Start: 30929, Stop: 31231, Start Num: 46
Candidate Starts for Cashington_42:
(7, 30539), (31, 30791), (Start: 46 @30929 has 82 MA's), (50, 30962), (53, 30980), (66, 31073), (69, 31100), (70, 31103), (71, 31118),

Gene: Cassia_43 Start: 31681, Stop: 31986, Start Num: 42
Candidate Starts for Cassia_43:
(Start: 42 @31681 has 52 MA's), (74, 31888), (79, 31909),

Gene: Celaena_42 Start: 32403, Stop: 32705, Start Num: 46
Candidate Starts for Celaena_42:
(12, 32085), (31, 32265), (32, 32274), (Start: 46 @32403 has 82 MA's), (70, 32577), (84, 32652),

Gene: Cen1621_45 Start: 31636, Stop: 31953, Start Num: 35
Candidate Starts for Cen1621_45:
(1, 30994), (3, 31060), (Start: 35 @31636 has 14 MA's), (67, 31786), (72, 31834),

Gene: ChiliPepper_42 Start: 32033, Stop: 32335, Start Num: 46
Candidate Starts for ChiliPepper_42:
(32, 31904), (Start: 46 @32033 has 82 MA's), (53, 32084), (63, 32141), (66, 32177), (69, 32204), (73, 32234),

Gene: Clayda5_43 Start: 29490, Stop: 29792, Start Num: 46
Candidate Starts for Clayda5_43:
(19, 29238), (32, 29361), (37, 29442), (Start: 46 @29490 has 82 MA's), (59, 29562), (65, 29604), (70, 29664), (84, 29739),

Gene: CliffHanger_46 Start: 30824, Stop: 31117, Start Num: 46
Candidate Starts for CliffHanger_46:
(37, 30767), (39, 30785), (Start: 46 @30824 has 82 MA's), (62, 30914), (84, 31064),

Gene: Coltrane_42 Start: 29503, Stop: 29805, Start Num: 46
Candidate Starts for Coltrane_42:
(19, 29251), (32, 29374), (37, 29455), (Start: 46 @29503 has 82 MA's), (59, 29575), (65, 29617), (70, 29677), (84, 29752),

Gene: Community_46 Start: 33667, Stop: 33975, Start Num: 42
Candidate Starts for Community_46:
(Start: 42 @33667 has 52 MA's), (90, 33949),

Gene: Crewmate_49 Start: 32358, Stop: 32663, Start Num: 42
Candidate Starts for Crewmate_49:
(Start: 42 @32358 has 52 MA's), (74, 32565), (77, 32583), (85, 32610), (90, 32640),

Gene: CroZenni_44 Start: 31470, Stop: 31772, Start Num: 46
Candidate Starts for CroZenni_44:
(Start: 46 @31470 has 82 MA's), (50, 31503), (53, 31521), (66, 31614), (69, 31641), (70, 31644), (71, 31659), (74, 31677),

Gene: CupcakePrincess_45 Start: 31656, Stop: 31958, Start Num: 46
Candidate Starts for CupcakePrincess_45:
(7, 31266), (10, 31299), (31, 31518), (Start: 46 @31656 has 82 MA's), (50, 31689), (53, 31707), (69, 31827), (71, 31845),

Gene: Cyan_44 Start: 32023, Stop: 32322, Start Num: 42
Candidate Starts for Cyan_44:
(Start: 42 @32023 has 52 MA's), (71, 32206), (72, 32212), (90, 32299),

Gene: DickRichards_43 Start: 31909, Stop: 32211, Start Num: 46
Candidate Starts for DickRichards_43:
(7, 31519), (15, 31612), (31, 31771), (Start: 46 @31909 has 82 MA's), (50, 31942), (66, 32053), (69, 32080), (70, 32083), (71, 32098),

Gene: Didgeridoo_47 Start: 32276, Stop: 32578, Start Num: 46
Candidate Starts for Didgeridoo_47:
(7, 31886), (13, 31958), (15, 31979), (31, 32138), (Start: 46 @32276 has 82 MA's), (70, 32450), (71, 32465), (74, 32483),

Gene: DirtyBubble_44 Start: 32367, Stop: 32669, Start Num: 46

Candidate Starts for DirtyBubble_44:
(16, 32076), (18, 32103), (37, 32319), (Start: 46 @32367 has 82 MA's), (66, 32511), (69, 32538), (71, 32556),

Gene: Dismas_42 Start: 31986, Stop: 32288, Start Num: 46
Candidate Starts for Dismas_42:
(32, 31857), (Start: 46 @31986 has 82 MA's), (53, 32037), (63, 32094), (66, 32130), (69, 32157), (73, 32187),

Gene: Donkey_40 Start: 29861, Stop: 30169, Start Num: 44
Candidate Starts for Donkey_40:
(28, 29702), (Start: 44 @29861 has 29 MA's),

Gene: Doobus_43 Start: 31293, Stop: 31595, Start Num: 46
Candidate Starts for Doobus_43:
(7, 30903), (15, 30996), (31, 31155), (Start: 46 @31293 has 82 MA's), (50, 31326), (53, 31344), (66, 31437), (69, 31464), (70, 31467), (71, 31482),

Gene: DrManhattan_43 Start: 30166, Stop: 30465, Start Num: 42
Candidate Starts for DrManhattan_43:
(Start: 42 @30166 has 52 MA's), (71, 30349), (79, 30388), (84, 30409),

Gene: DrSierra_41 Start: 29959, Stop: 30258, Start Num: 42
Candidate Starts for DrSierra_41:
(Start: 42 @29959 has 52 MA's), (71, 30142),

Gene: Eden_42 Start: 30233, Stop: 30532, Start Num: 46
Candidate Starts for Eden_42:
(27, 30044), (Start: 46 @30233 has 82 MA's), (59, 30302), (65, 30344), (70, 30404), (82, 30476), (84, 30479),

Gene: Elezi_41 Start: 32512, Stop: 32817, Start Num: 42
Candidate Starts for Elezi_41:
(24, 32332), (Start: 42 @32512 has 52 MA's), (58, 32581), (70, 32686), (71, 32701), (74, 32719), (90, 32794),

Gene: Elfy_44 Start: 31206, Stop: 31523, Start Num: 42
Candidate Starts for Elfy_44:
(Start: 42 @31206 has 52 MA's), (70, 31383), (74, 31416), (81, 31446), (90, 31491),

Gene: Elva_46 Start: 32598, Stop: 32900, Start Num: 46
Candidate Starts for Elva_46:
(37, 32550), (Start: 46 @32598 has 82 MA's), (59, 32670), (69, 32769), (71, 32787), (74, 32805),

Gene: Emotion_48 Start: 33410, Stop: 33724, Start Num: 44
Candidate Starts for Emotion_48:
(8, 33041), (30, 33260), (37, 33359), (Start: 44 @33410 has 29 MA's), (85, 33665),

Gene: Eraser_41 Start: 32522, Stop: 32827, Start Num: 42
Candidate Starts for Eraser_41:
(24, 32342), (Start: 42 @32522 has 52 MA's), (58, 32591), (70, 32696), (71, 32711), (74, 32729), (90, 32804),

Gene: Eula_45 Start: 31642, Stop: 31944, Start Num: 46
Candidate Starts for Eula_45:
(7, 31252), (10, 31285), (31, 31504), (Start: 46 @31642 has 82 MA's), (50, 31675), (53, 31693), (69, 31813), (71, 31831),

Gene: Exile_38 Start: 33014, Stop: 33325, Start Num: 42
Candidate Starts for Exile_38:
(Start: 42 @33014 has 52 MA's), (74, 33224),

Gene: Finalfrontier_45 Start: 32501, Stop: 32803, Start Num: 46
Candidate Starts for Finalfrontier_45:
(31, 32363), (Start: 46 @32501 has 82 MA's), (50, 32534), (53, 32552), (69, 32672), (71, 32690),

Gene: FiveHead_51 Start: 32621, Stop: 32938, Start Num: 44
Candidate Starts for FiveHead_51:
(30, 32522), (Start: 44 @32621 has 29 MA's), (83, 32876),

Gene: FlameThrower_42 Start: 31852, Stop: 32154, Start Num: 46
Candidate Starts for FlameThrower_42:
(Start: 46 @31852 has 82 MA's), (69, 32023), (84, 32101),

Gene: Floof_50 Start: 33911, Stop: 34228, Start Num: 35
Candidate Starts for Floof_50:
(Start: 35 @33911 has 14 MA's), (64, 34028), (74, 34124), (87, 34175),

Gene: Flutur_43 Start: 32280, Stop: 32579, Start Num: 42
Candidate Starts for Flutur_43:
(Start: 42 @32280 has 52 MA's), (71, 32463), (72, 32469), (90, 32556),

Gene: Forester_48 Start: 34846, Stop: 35163, Start Num: 35
Candidate Starts for Forester_48:
(Start: 35 @34846 has 14 MA's), (72, 35047),

Gene: Franklin22_43 Start: 30108, Stop: 30407, Start Num: 46
Candidate Starts for Franklin22_43:
(21, 29871), (Start: 46 @30108 has 82 MA's), (59, 30177), (69, 30276), (82, 30351), (84, 30354),

Gene: Gack_42 Start: 30149, Stop: 30451, Start Num: 46
Candidate Starts for Gack_42:
(32, 30020), (Start: 46 @30149 has 82 MA's), (56, 30212), (70, 30323), (74, 30356), (84, 30398),

Gene: Gambol_41 Start: 29880, Stop: 30188, Start Num: 44
Candidate Starts for Gambol_41:
(28, 29721), (Start: 44 @29880 has 29 MA's),

Gene: GardenState_49 Start: 33316, Stop: 33633, Start Num: 35
Candidate Starts for GardenState_49:
(Start: 35 @33316 has 14 MA's), (Start: 46 @33352 has 82 MA's), (50, 33364),

Gene: Giorgio_39 Start: 29796, Stop: 30104, Start Num: 44
Candidate Starts for Giorgio_39:
(28, 29637), (Start: 44 @29796 has 29 MA's), (74, 30003),

Gene: Gretchen_49 Start: 34530, Stop: 34847, Start Num: 35
Candidate Starts for Gretchen_49:
(Start: 35 @34530 has 14 MA's), (72, 34731),

Gene: GrimEater_39 Start: 30063, Stop: 30365, Start Num: 42
Candidate Starts for GrimEater_39:
(Start: 42 @30063 has 52 MA's), (49, 30090), (68, 30222), (74, 30267), (90, 30342),

Gene: Grist_44 Start: 31736, Stop: 32038, Start Num: 46
Candidate Starts for Grist_44:
(15, 31439), (31, 31598), (Start: 46 @31736 has 82 MA's), (71, 31925), (74, 31943),

Gene: Gumpizza_39 Start: 29752, Stop: 30060, Start Num: 44
Candidate Starts for Gumpizza_39:
(28, 29593), (Start: 44 @29752 has 29 MA's), (74, 29959),

Gene: Halsey_40 Start: 30007, Stop: 30315, Start Num: 44
Candidate Starts for Halsey_40:
(28, 29848), (Start: 44 @30007 has 29 MA's), (74, 30214),

Gene: Honk_45 Start: 30126, Stop: 30440, Start Num: 35
Candidate Starts for Honk_45:
(23, 30066), (Start: 35 @30126 has 14 MA's), (67, 30273), (72, 30321),

Gene: IAmGroot_49 Start: 33783, Stop: 34100, Start Num: 35
Candidate Starts for IAmGroot_49:
(Start: 35 @33783 has 14 MA's), (Start: 46 @33819 has 82 MA's), (50, 33831),

Gene: IUFootball_44 Start: 33414, Stop: 33731, Start Num: 44
Candidate Starts for IUFootball_44:
(Start: 44 @33414 has 29 MA's), (47, 33420), (53, 33462), (80, 33645),

Gene: Icarian_47 Start: 33008, Stop: 33310, Start Num: 46
Candidate Starts for Icarian_47:
(37, 32960), (Start: 46 @33008 has 82 MA's), (50, 33041), (69, 33179), (71, 33197),

Gene: IndyLu_44 Start: 31876, Stop: 32178, Start Num: 46
Candidate Starts for IndyLu_44:
(15, 31579), (31, 31738), (Start: 46 @31876 has 82 MA's), (71, 32065), (74, 32083),

Gene: Iter_43 Start: 31665, Stop: 31970, Start Num: 42
Candidate Starts for Iter_43:
(26, 31506), (Start: 42 @31665 has 52 MA's), (77, 31890), (89, 31935),

Gene: IttyBittyPiggy_44 Start: 31474, Stop: 31779, Start Num: 42
Candidate Starts for IttyBittyPiggy_44:
(Start: 42 @31474 has 52 MA's), (79, 31702),

Gene: Jabb_45 Start: 31656, Stop: 31958, Start Num: 46
Candidate Starts for Jabb_45:
(7, 31266), (10, 31299), (31, 31518), (Start: 46 @31656 has 82 MA's), (50, 31689), (53, 31707), (69, 31827), (71, 31845),

Gene: Janeemi_46 Start: 33665, Stop: 33973, Start Num: 42
Candidate Starts for Janeemi_46:
(Start: 42 @33665 has 52 MA's), (71, 33854), (90, 33947),

Gene: Jankie_40 Start: 30240, Stop: 30542, Start Num: 42
Candidate Starts for Jankie_40:
(Start: 42 @30240 has 52 MA's), (49, 30267), (68, 30399), (74, 30444), (90, 30519),

Gene: JasmineDragon_47 Start: 32601, Stop: 32918, Start Num: 44
Candidate Starts for JasmineDragon_47:
(30, 32499), (Start: 44 @32601 has 29 MA's), (72, 32802), (83, 32856),

Gene: Joemato_44 Start: 32050, Stop: 32349, Start Num: 42
Candidate Starts for Joemato_44:
(Start: 42 @32050 has 52 MA's), (72, 32239),

Gene: JohnDoe_44 Start: 32046, Stop: 32345, Start Num: 42
Candidate Starts for JohnDoe_44:
(Start: 42 @32046 has 52 MA's), (71, 32229), (72, 32235), (90, 32322),

Gene: JohnThicc_47 Start: 32621, Stop: 32938, Start Num: 44
Candidate Starts for JohnThicc_47:
(30, 32522), (Start: 44 @32621 has 29 MA's), (83, 32876),

Gene: Johnathan_43 Start: 30932, Stop: 31234, Start Num: 46
Candidate Starts for Johnathan_43:
(Start: 46 @30932 has 82 MA's), (50, 30965), (53, 30983), (66, 31076), (69, 31103), (70, 31106), (71, 31121),

Gene: Jovita_45 Start: 31671, Stop: 31973, Start Num: 46
Candidate Starts for Jovita_45:
(7, 31281), (10, 31314), (31, 31533), (Start: 46 @31671 has 82 MA's), (50, 31704), (53, 31722), (69, 31842), (71, 31860),

Gene: Jstan_43 Start: 32516, Stop: 32821, Start Num: 42
Candidate Starts for Jstan_43:
(24, 32336), (Start: 42 @32516 has 52 MA's), (58, 32585), (70, 32690), (71, 32705), (74, 32723), (90, 32798),

Gene: JuneStar_45 Start: 33586, Stop: 33891, Start Num: 42
Candidate Starts for JuneStar_45:
(Start: 42 @33586 has 52 MA's), (74, 33793), (79, 33814),

Gene: Kalimba_40 Start: 29858, Stop: 30166, Start Num: 44
Candidate Starts for Kalimba_40:
(28, 29699), (Start: 44 @29858 has 29 MA's),

Gene: Kamdara_42 Start: 31991, Stop: 32293, Start Num: 46
Candidate Starts for Kamdara_42:
(32, 31862), (Start: 46 @31991 has 82 MA's), (53, 32042), (63, 32099), (66, 32135), (69, 32162), (73, 32192),

Gene: Kate33_45 Start: 31621, Stop: 31923, Start Num: 46

Candidate Starts for Kate33_45:
(7, 31231), (31, 31483), (Start: 46 @31621 has 82 MA's), (71, 31810), (74, 31828),

Gene: Katzastrophic_43 Start: 31982, Stop: 32284, Start Num: 46
Candidate Starts for Katzastrophic_43:
(12, 31664), (32, 31853), (Start: 46 @31982 has 82 MA's), (69, 32153), (84, 32231),

Gene: Kaylissa_45 Start: 32436, Stop: 32735, Start Num: 42
Candidate Starts for Kaylissa_45:
(Start: 42 @32436 has 52 MA's), (72, 32625),

Gene: KeAlii_41 Start: 31618, Stop: 31923, Start Num: 42
Candidate Starts for KeAlii_41:
(Start: 42 @31618 has 52 MA's), (71, 31807), (75, 31828),

Gene: Kenzers_45 Start: 31712, Stop: 32014, Start Num: 46
Candidate Starts for Kenzers_45:
(7, 31325), (31, 31577), (39, 31685), (Start: 46 @31712 has 82 MA's), (50, 31745), (53, 31763), (69, 31883), (70, 31886), (71, 31901),

Gene: Kieran_42 Start: 31994, Stop: 32296, Start Num: 46
Candidate Starts for Kieran_42:
(32, 31865), (Start: 46 @31994 has 82 MA's), (53, 32045), (63, 32102), (66, 32138), (69, 32165), (73, 32195),

Gene: LadyAstra_48 Start: 32721, Stop: 33038, Start Num: 44
Candidate Starts for LadyAstra_48:
(6, 32370), (30, 32622), (Start: 44 @32721 has 29 MA's), (83, 32976),

Gene: Lahqtemish_44 Start: 31902, Stop: 32204, Start Num: 46
Candidate Starts for Lahqtemish_44:
(31, 31764), (37, 31854), (Start: 46 @31902 has 82 MA's), (74, 32109),

Gene: Lego_43 Start: 31753, Stop: 32052, Start Num: 42
Candidate Starts for Lego_43:
(Start: 42 @31753 has 52 MA's), (71, 31936), (72, 31942), (90, 32029),

Gene: Liebe_44 Start: 33414, Stop: 33731, Start Num: 44
Candidate Starts for Liebe_44:
(Start: 44 @33414 has 29 MA's), (47, 33420), (53, 33462), (80, 33645),

Gene: Lilo27_45 Start: 31550, Stop: 31852, Start Num: 46
Candidate Starts for Lilo27_45:
(31, 31412), (Start: 46 @31550 has 82 MA's), (50, 31583), (53, 31601), (69, 31721), (71, 31739),

Gene: LimaBean_44 Start: 31234, Stop: 31536, Start Num: 46
Candidate Starts for LimaBean_44:
(7, 30844), (31, 31096), (Start: 46 @31234 has 82 MA's), (50, 31267), (53, 31285), (66, 31378), (69, 31405), (70, 31408), (71, 31423),

Gene: LisoBros_43 Start: 34559, Stop: 34864, Start Num: 42
Candidate Starts for LisoBros_43:
(Start: 42 @34559 has 52 MA's), (76, 34778), (86, 34811), (88, 34823),

Gene: Lizalica_42 Start: 31130, Stop: 31429, Start Num: 42
Candidate Starts for Lizalica_42:
(Start: 42 @31130 has 52 MA's), (72, 31319), (90, 31406),

Gene: London_41 Start: 32512, Stop: 32817, Start Num: 42
Candidate Starts for London_41:
(24, 32332), (Start: 42 @32512 has 52 MA's), (58, 32581), (70, 32686), (71, 32701), (74, 32719), (90, 32794),

Gene: Loviatar_45 Start: 33597, Stop: 33899, Start Num: 46
Candidate Starts for Loviatar_45:
(37, 33549), (Start: 46 @33597 has 82 MA's), (50, 33630), (69, 33768), (71, 33786),

Gene: Lynlen_45 Start: 31712, Stop: 32014, Start Num: 46
Candidate Starts for Lynlen_45:
(7, 31325), (31, 31577), (39, 31685), (Start: 46 @31712 has 82 MA's), (50, 31745), (53, 31763), (69, 31883), (70, 31886), (71, 31901),

Gene: MaGuCo_41 Start: 31898, Stop: 32215, Start Num: 44
Candidate Starts for MaGuCo_41:
(Start: 44 @31898 has 29 MA's), (47, 31904), (53, 31946), (80, 32129),

Gene: Maureen_44 Start: 33414, Stop: 33731, Start Num: 44
Candidate Starts for Maureen_44:
(Start: 44 @33414 has 29 MA's), (47, 33420), (53, 33462), (80, 33645),

Gene: Michkear_43 Start: 32693, Stop: 33013, Start Num: 42
Candidate Starts for Michkear_43:
(22, 32504), (33, 32615), (Start: 42 @32693 has 52 MA's), (53, 32750), (56, 32762),

Gene: Milomuff_44 Start: 31458, Stop: 31760, Start Num: 46
Candidate Starts for Milomuff_44:
(7, 31068), (15, 31161), (31, 31320), (Start: 46 @31458 has 82 MA's), (50, 31491), (66, 31602), (69, 31629), (70, 31632), (71, 31647),

Gene: MiniMommy_48 Start: 32602, Stop: 32919, Start Num: 44
Candidate Starts for MiniMommy_48:
(30, 32500), (Start: 44 @32602 has 29 MA's), (72, 32803), (83, 32857),

Gene: MissSwiss_44 Start: 30667, Stop: 30978, Start Num: 42
Candidate Starts for MissSwiss_44:
(Start: 42 @30667 has 52 MA's), (71, 30862), (74, 30880), (79, 30901), (84, 30922),

Gene: Moss_40 Start: 29948, Stop: 30256, Start Num: 44
Candidate Starts for Moss_40:
(28, 29789), (Start: 44 @29948 has 29 MA's), (74, 30155),

Gene: MsUbiquitous_45 Start: 31656, Stop: 31958, Start Num: 46
Candidate Starts for MsUbiquitous_45:
(7, 31266), (10, 31299), (31, 31518), (Start: 46 @31656 has 82 MA's), (50, 31689), (53, 31707), (69, 31827), (71, 31845),

Gene: Mudpuppy_40 Start: 31619, Stop: 31918, Start Num: 42
Candidate Starts for Mudpuppy_40:
(Start: 42 @31619 has 52 MA's), (72, 31808),

Gene: Mysterium_39 Start: 29778, Stop: 30086, Start Num: 44
Candidate Starts for Mysterium_39:
(28, 29619), (Start: 44 @29778 has 29 MA's), (74, 29985),

Gene: Nicky22_45 Start: 32104, Stop: 32406, Start Num: 46
Candidate Starts for Nicky22_45:
(31, 31966), (Start: 46 @32104 has 82 MA's), (50, 32137), (53, 32155), (71, 32293),

Gene: Niobe_41 Start: 32516, Stop: 32821, Start Num: 42
Candidate Starts for Niobe_41:
(24, 32336), (Start: 42 @32516 has 52 MA's), (58, 32585), (70, 32690), (71, 32705), (74, 32723), (90, 32798),

Gene: Nitro_42 Start: 32274, Stop: 32591, Start Num: 41
Candidate Starts for Nitro_42:
(6, 31905), (26, 32112), (30, 32154), (Start: 41 @32274 has 2 MA's), (51, 32328), (71, 32475), (74, 32493), (89, 32556),

Gene: ObiToo_49 Start: 32801, Stop: 33106, Start Num: 42
Candidate Starts for ObiToo_49:
(Start: 42 @32801 has 52 MA's), (74, 33008), (77, 33026), (85, 33053), (90, 33083),

Gene: Olliecat_41 Start: 30192, Stop: 30485, Start Num: 46
Candidate Starts for Olliecat_41:
(6, 29784), (11, 29844), (25, 29982), (32, 30054), (39, 30153), (Start: 46 @30192 has 82 MA's), (51, 30225), (66, 30327), (69, 30354),

Gene: Origami_47 Start: 32513, Stop: 32830, Start Num: 44
Candidate Starts for Origami_47:
(6, 32162), (30, 32414), (Start: 44 @32513 has 29 MA's), (83, 32768),

Gene: PandaPo_44 Start: 30673, Stop: 30984, Start Num: 42
Candidate Starts for PandaPo_44:
(Start: 42 @30673 has 52 MA's), (71, 30868), (74, 30886), (79, 30907), (84, 30928),

Gene: PastaFagioli_45 Start: 32296, Stop: 32598, Start Num: 46
Candidate Starts for PastaFagioli_45:
(31, 32158), (Start: 46 @32296 has 82 MA's), (74, 32503),

Gene: Pecas_45 Start: 31856, Stop: 32158, Start Num: 46
Candidate Starts for Pecas_45:
(31, 31718), (Start: 46 @31856 has 82 MA's), (50, 31889), (53, 31907), (69, 32027), (71, 32045),

Gene: Percival_50 Start: 34365, Stop: 34682, Start Num: 35
Candidate Starts for Percival_50:
(Start: 35 @34365 has 14 MA's),

Gene: PhigPhack_45 Start: 31476, Stop: 31778, Start Num: 46
Candidate Starts for PhigPhack_45:

(7, 31086), (31, 31338), (Start: 46 @31476 has 82 MA's), (50, 31509), (53, 31527), (66, 31620), (69, 31647), (70, 31650), (71, 31665),

Gene: Phisb_45 Start: 31701, Stop: 32003, Start Num: 46
Candidate Starts for Phisb_45:
(31, 31563), (Start: 46 @31701 has 82 MA's), (50, 31734), (53, 31752), (69, 31872), (71, 31890),

Gene: Phives_46 Start: 33495, Stop: 33803, Start Num: 42
Candidate Starts for Phives_46:
(Start: 42 @33495 has 52 MA's), (90, 33777),

Gene: Pixelle_44 Start: 32731, Stop: 33036, Start Num: 42
Candidate Starts for Pixelle_44:
(Start: 42 @32731 has 52 MA's), (77, 32956), (85, 32983), (90, 33013),

Gene: PondAmelia_46 Start: 32518, Stop: 32820, Start Num: 46
Candidate Starts for PondAmelia_46:
(37, 32470), (Start: 46 @32518 has 82 MA's), (50, 32551), (69, 32689), (71, 32707),

Gene: Powerpuff_46 Start: 33141, Stop: 33440, Start Num: 43
Candidate Starts for Powerpuff_46:
(Start: 42 @33138 has 52 MA's), (Start: 43 @33141 has 2 MA's), (72, 33330), (90, 33417),

Gene: Pumpkins_43 Start: 32145, Stop: 32450, Start Num: 42
Candidate Starts for Pumpkins_43:
(Start: 42 @32145 has 52 MA's), (79, 32373),

Gene: QMacho_47 Start: 32339, Stop: 32641, Start Num: 46
Candidate Starts for QMacho_47:
(31, 32201), (Start: 46 @32339 has 82 MA's), (50, 32372), (53, 32390), (69, 32510), (71, 32528),

Gene: Quenya_44 Start: 32171, Stop: 32476, Start Num: 46
Candidate Starts for Quenya_44:
(11, 31832), (12, 31853), (31, 32033), (32, 32042), (Start: 46 @32171 has 82 MA's), (56, 32237), (70, 32348), (84, 32423),

Gene: Reedo_43 Start: 30266, Stop: 30568, Start Num: 42
Candidate Starts for Reedo_43:
(Start: 42 @30266 has 52 MA's), (55, 30323), (58, 30332), (71, 30452),

Gene: RockScotty_39 Start: 29776, Stop: 30084, Start Num: 44
Candidate Starts for RockScotty_39:
(28, 29617), (Start: 44 @29776 has 29 MA's), (74, 29983),

Gene: Rollins_42 Start: 29583, Stop: 29885, Start Num: 46
Candidate Starts for Rollins_42:
(19, 29331), (32, 29454), (37, 29535), (Start: 46 @29583 has 82 MA's), (59, 29655), (65, 29697), (70, 29757), (84, 29832),

Gene: Rona_42 Start: 31977, Stop: 32279, Start Num: 46
Candidate Starts for Rona_42:
(32, 31848), (Start: 46 @31977 has 82 MA's), (53, 32028), (63, 32085), (66, 32121), (69, 32148), (73, 32178),

Gene: Sabourin_40 Start: 29858, Stop: 30166, Start Num: 44
Candidate Starts for Sabourin_40:
(28, 29699), (Start: 44 @29858 has 29 MA's),

Gene: Samy_66 Start: 44114, Stop: 44473, Start Num: 38
Candidate Starts for Samy_66:
(34, 44051), (36, 44075), (Start: 38 @44114 has 1 MA's), (39, 44123), (52, 44195), (57, 44216), (76, 44378), (87, 44414),

Gene: SanaSana_47 Start: 33206, Stop: 33508, Start Num: 46
Candidate Starts for SanaSana_47:
(14, 32903), (37, 33158), (Start: 46 @33206 has 82 MA's), (50, 33239), (69, 33377), (71, 33395),

Gene: SansAfet_45 Start: 31563, Stop: 31865, Start Num: 46
Candidate Starts for SansAfet_45:
(7, 31173), (31, 31425), (Start: 46 @31563 has 82 MA's), (50, 31596), (53, 31614), (66, 31707), (69, 31734), (70, 31737), (71, 31752),

Gene: SarBear_44 Start: 31349, Stop: 31651, Start Num: 46
Candidate Starts for SarBear_44:
(31, 31211), (Start: 46 @31349 has 82 MA's), (50, 31382), (53, 31400), (69, 31520), (71, 31538),

Gene: Schaffner_44 Start: 32201, Stop: 32506, Start Num: 42
Candidate Starts for Schaffner_44:
(Start: 42 @32201 has 52 MA's), (74, 32408), (79, 32429),

Gene: ShakeItOph_47 Start: 32601, Stop: 32918, Start Num: 44
Candidate Starts for ShakeItOph_47:
(30, 32499), (Start: 44 @32601 has 29 MA's), (72, 32802), (83, 32856),

Gene: Sharkboy_43 Start: 32076, Stop: 32378, Start Num: 46
Candidate Starts for Sharkboy_43:
(Start: 46 @32076 has 82 MA's), (53, 32127), (63, 32184), (66, 32220), (69, 32247), (73, 32277),

Gene: Shayna_44 Start: 30922, Stop: 31215, Start Num: 48
Candidate Starts for Shayna_44:
(Start: 48 @30922 has 3 MA's), (56, 30976), (66, 31057), (79, 31141),

Gene: Simpson_46 Start: 32054, Stop: 32353, Start Num: 42
Candidate Starts for Simpson_46:
(Start: 42 @32054 has 52 MA's), (72, 32243),

Gene: SirBeanington_44 Start: 31860, Stop: 32162, Start Num: 46
Candidate Starts for SirBeanington_44:
(7, 31473), (31, 31725), (39, 31833), (Start: 46 @31860 has 82 MA's), (50, 31893), (53, 31911), (69, 32031), (70, 32034), (71, 32049),

Gene: Skelbel_42 Start: 32516, Stop: 32821, Start Num: 42
Candidate Starts for Skelbel_42:
(24, 32336), (Start: 42 @32516 has 52 MA's), (58, 32585), (70, 32690), (71, 32705), (74, 32723), (90, 32798),

Gene: Skylord_42 Start: 29514, Stop: 29816, Start Num: 46
Candidate Starts for Skylord_42:
(Start: 46 @29514 has 82 MA's), (59, 29586), (65, 29628), (70, 29688), (84, 29763),

Gene: Slay_45 Start: 32077, Stop: 32379, Start Num: 46
Candidate Starts for Slay_45:
(31, 31939), (Start: 46 @32077 has 82 MA's), (50, 32110), (53, 32128), (71, 32266),

Gene: Snek_41 Start: 30099, Stop: 30401, Start Num: 40
Candidate Starts for Snek_41:
(Start: 40 @30099 has 2 MA's), (71, 30285), (84, 30345), (89, 30366),

Gene: Softsoap_44 Start: 31474, Stop: 31776, Start Num: 46
Candidate Starts for Softsoap_44:
(7, 31084), (14, 31168), (15, 31177), (31, 31336), (Start: 46 @31474 has 82 MA's), (50, 31507), (53, 31525), (66, 31618), (69, 31645), (70, 31648), (71, 31663),

Gene: Solea_45 Start: 31458, Stop: 31760, Start Num: 46
Candidate Starts for Solea_45:
(7, 31068), (15, 31161), (31, 31320), (Start: 46 @31458 has 82 MA's), (50, 31491), (66, 31602), (69, 31629), (70, 31632), (71, 31647),

Gene: Soondubu_39 Start: 33016, Stop: 33327, Start Num: 42
Candidate Starts for Soondubu_39:
(Start: 42 @33016 has 52 MA's), (74, 33226), (81, 33256),

Gene: Sooty_40 Start: 29873, Stop: 30181, Start Num: 44
Candidate Starts for Sooty_40:
(28, 29714), (Start: 44 @29873 has 29 MA's),

Gene: SpecialK_40 Start: 29856, Stop: 30164, Start Num: 44
Candidate Starts for SpecialK_40:
(28, 29697), (Start: 44 @29856 has 29 MA's), (74, 30063),

Gene: Squircle_41 Start: 30191, Stop: 30484, Start Num: 46
Candidate Starts for Squircle_41:
(6, 29783), (11, 29843), (25, 29981), (32, 30053), (39, 30152), (Start: 46 @30191 has 82 MA's), (51, 30224), (66, 30326), (69, 30353),

Gene: Stoor_45 Start: 32875, Stop: 33177, Start Num: 46
Candidate Starts for Stoor_45:
(9, 32509), (37, 32827), (Start: 46 @32875 has 82 MA's), (50, 32908), (69, 33046), (71, 33064),

Gene: Stromboli_45 Start: 32737, Stop: 33039, Start Num: 46
Candidate Starts for Stromboli_45:
(37, 32689), (Start: 46 @32737 has 82 MA's), (50, 32770), (69, 32908), (71, 32926),

Gene: Stuu_40 Start: 29968, Stop: 30276, Start Num: 44
Candidate Starts for Stuu_40:
(28, 29809), (Start: 44 @29968 has 29 MA's), (74, 30175),

Gene: SuMoo_52 Start: 34116, Stop: 34439, Start Num: 35
Candidate Starts for SuMoo_52:

(6, 33810), (Start: 35 @34116 has 14 MA's), (70, 34302), (78, 34356), (91, 34428),

Gene: Subaru_41 Start: 32512, Stop: 32817, Start Num: 42
Candidate Starts for Subaru_41:
(24, 32332), (Start: 42 @32512 has 52 MA's), (58, 32581), (70, 32686), (71, 32701), (74, 32719), (90, 32794),

Gene: Sue2_44 Start: 32428, Stop: 32745, Start Num: 42
Candidate Starts for Sue2_44:
(24, 32248), (Start: 42 @32428 has 52 MA's), (71, 32617), (79, 32656),

Gene: SunnyD_44 Start: 30927, Stop: 31220, Start Num: 48
Candidate Starts for SunnyD_44:
(Start: 48 @30927 has 3 MA's), (56, 30981), (66, 31062), (79, 31146),

Gene: SuperHands_48 Start: 34851, Stop: 35168, Start Num: 35
Candidate Starts for SuperHands_48:
(Start: 35 @34851 has 14 MA's),

Gene: Swervy_45 Start: 31621, Stop: 31923, Start Num: 46
Candidate Starts for Swervy_45:
(31, 31483), (Start: 46 @31621 has 82 MA's), (50, 31654), (53, 31672), (69, 31792), (71, 31810),

Gene: Tallboi_43 Start: 32884, Stop: 33189, Start Num: 42
Candidate Starts for Tallboi_43:
(Start: 42 @32884 has 52 MA's), (71, 33073), (85, 33136), (90, 33166),

Gene: Tbone_43 Start: 31848, Stop: 32147, Start Num: 42
Candidate Starts for Tbone_43:
(Start: 42 @31848 has 52 MA's), (72, 32037),

Gene: Teagster_45 Start: 31820, Stop: 32113, Start Num: 48
Candidate Starts for Teagster_45:
(Start: 48 @31820 has 3 MA's), (56, 31874), (66, 31955),

Gene: TforTroy_45 Start: 32007, Stop: 32312, Start Num: 42
Candidate Starts for TforTroy_45:
(Start: 42 @32007 has 52 MA's), (74, 32214), (79, 32235),

Gene: ThursdayNight_47 Start: 32508, Stop: 32822, Start Num: 44
Candidate Starts for ThursdayNight_47:
(Start: 44 @32508 has 29 MA's),

Gene: Tian_42 Start: 32705, Stop: 33010, Start Num: 42
Candidate Starts for Tian_42:
(24, 32522), (Start: 42 @32705 has 52 MA's), (77, 32930), (85, 32957), (90, 32987),

Gene: Tuck_47 Start: 34047, Stop: 34355, Start Num: 42
Candidate Starts for Tuck_47:
(Start: 42 @34047 has 52 MA's), (90, 34329),

Gene: TukTuk_45 Start: 31629, Stop: 31931, Start Num: 46
Candidate Starts for TukTuk_45:

(31, 31491), (Start: 46 @31629 has 82 MA's), (50, 31662), (53, 31680), (69, 31800), (71, 31818),

Gene: Turab_40 Start: 31151, Stop: 31456, Start Num: 42
Candidate Starts for Turab_40:
(Start: 42 @31151 has 52 MA's), (58, 31220), (71, 31340), (85, 31403), (90, 31433),

Gene: Tutumahutu_45 Start: 32024, Stop: 32323, Start Num: 43
Candidate Starts for Tutumahutu_45:
(Start: 42 @32021 has 52 MA's), (Start: 43 @32024 has 2 MA's), (71, 32207), (72, 32213), (90, 32300),

Gene: Tweety19_42 Start: 30099, Stop: 30401, Start Num: 40
Candidate Starts for Tweety19_42:
(Start: 40 @30099 has 2 MA's), (71, 30285), (84, 30345), (89, 30366),

Gene: UtzChips_48 Start: 33025, Stop: 33342, Start Num: 35
Candidate Starts for UtzChips_48:
(2, 32491), (Start: 35 @33025 has 14 MA's), (60, 33112), (70, 33205), (81, 33268),

Gene: VResidence_43 Start: 31198, Stop: 31497, Start Num: 42
Candidate Starts for VResidence_43:
(29, 31081), (Start: 42 @31198 has 52 MA's), (54, 31246), (71, 31381), (74, 31399), (75, 31402), (79, 31420),

Gene: Vitas_42 Start: 29496, Stop: 29798, Start Num: 46
Candidate Starts for Vitas_42:
(19, 29244), (32, 29367), (37, 29448), (Start: 46 @29496 has 82 MA's), (59, 29568), (65, 29610), (70, 29670), (84, 29745),

Gene: VroomVroom_46 Start: 32510, Stop: 32839, Start Num: 44
Candidate Starts for VroomVroom_46:
(Start: 44 @32510 has 29 MA's), (78, 32744), (83, 32765),

Gene: WalkingDead_46 Start: 33486, Stop: 33788, Start Num: 46
Candidate Starts for WalkingDead_46:
(37, 33438), (Start: 46 @33486 has 82 MA's), (50, 33519), (69, 33657), (71, 33675),

Gene: Warda_44 Start: 32024, Stop: 32323, Start Num: 42
Candidate Starts for Warda_44:
(Start: 42 @32024 has 52 MA's), (72, 32213),

Gene: Wildwest_42 Start: 31279, Stop: 31584, Start Num: 41
Candidate Starts for Wildwest_42:
(Start: 41 @31279 has 2 MA's), (71, 31468),

Gene: Yang_43 Start: 31319, Stop: 31624, Start Num: 42
Candidate Starts for Yang_43:
(Start: 42 @31319 has 52 MA's), (74, 31526), (79, 31547),

Gene: YesChef_44 Start: 31997, Stop: 32299, Start Num: 42
Candidate Starts for YesChef_44:
(Start: 42 @31997 has 52 MA's), (Start: 43 @32000 has 2 MA's), (72, 32189), (90, 32276),

Gene: Zeta1847_41 Start: 31062, Stop: 31412, Start Num: 35

Candidate Starts for Zeta1847_41:
(17, 30942), (20, 30963), (Start: 35 @31062 has 14 MA's), (61, 31176), (72, 31290),