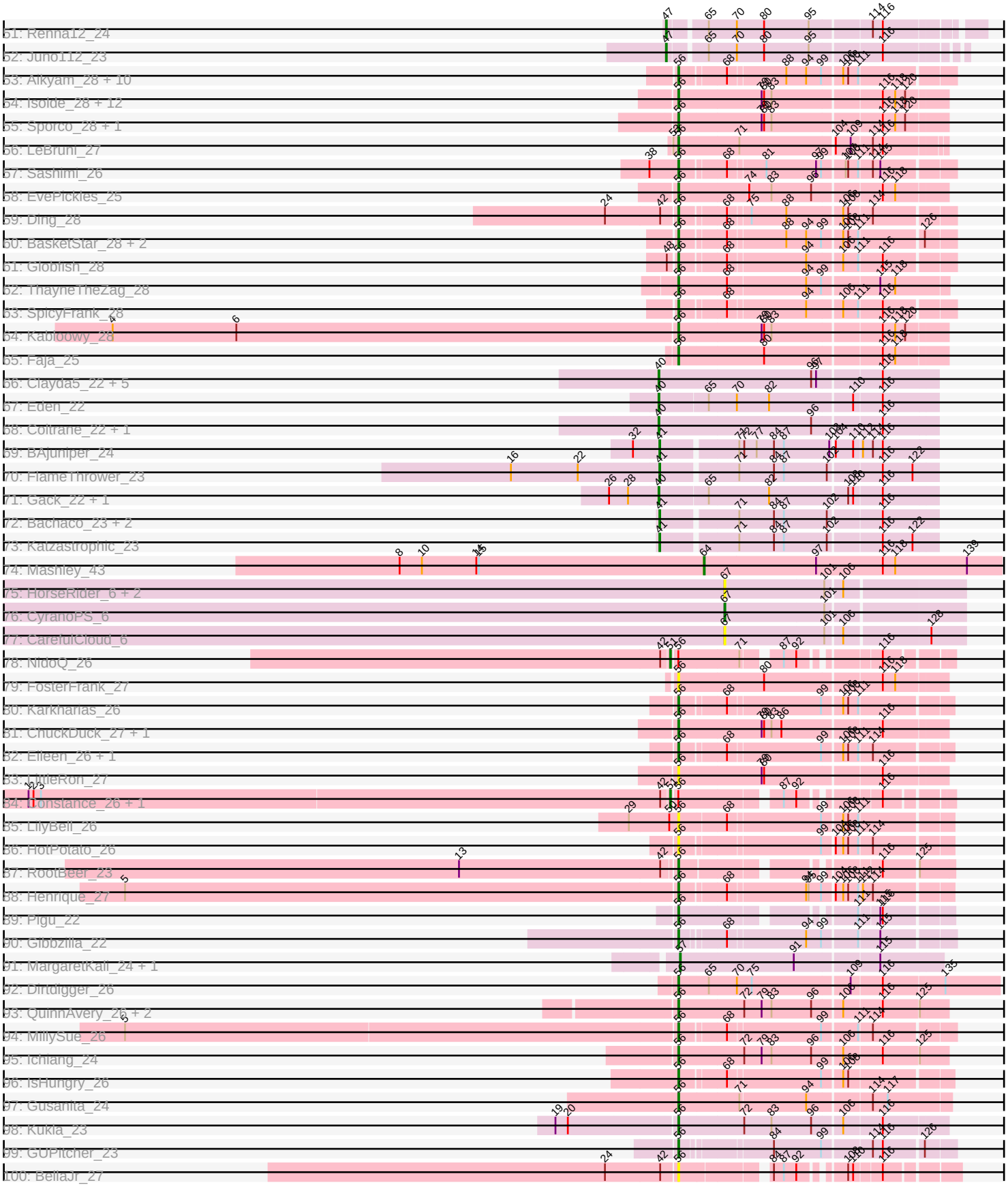
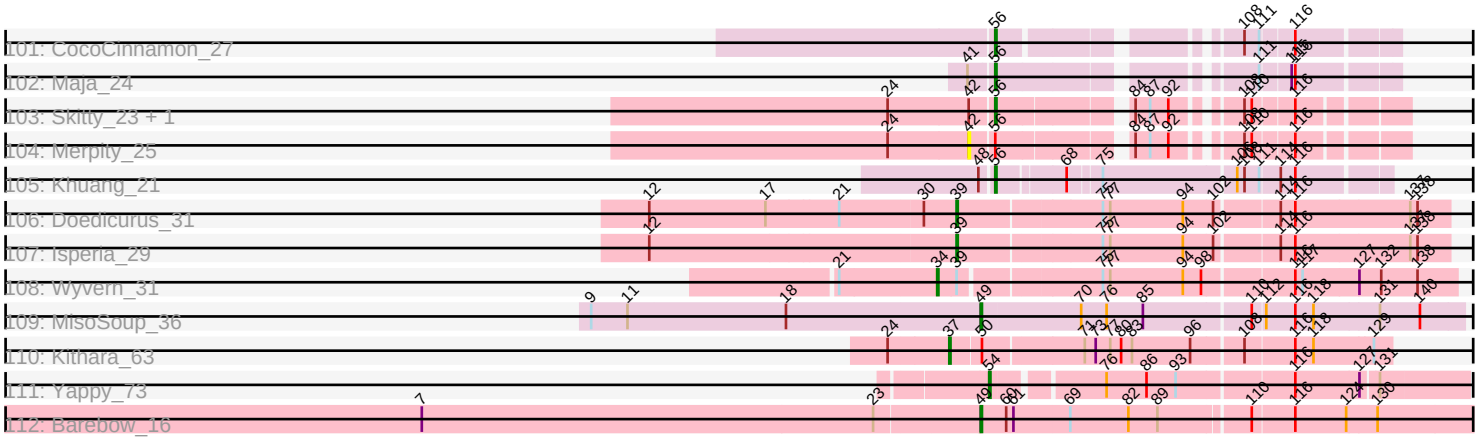
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1: EastWest_30
2: Beans_27
3: Brent_27 + 1
4: Jawnski_27
5: NathanVaag_27
6: Piccoletto_27
7: King2_27
8: Shade_29
9: Wyborn_30
10: Jordan_29 + 2
11: StevieBAY_29
12: BossLady_29
13: TaeYoung_29 + 2
14: BarretLemon_29 + 2
15: GravityBall_29 + 1
16: Pippa_29
17: JKerns_29
18: Ren19_45 + 1
19: Ollypop_46
20: AWGoat_38
21: SilentRX_40
22: KendraB23_25 + 8
23: Galaxy_25
24: Abidatro_25
25: WileyE_23 + 1
26: Vulpecula_24
27: TaylorSpht_24
28: Zixiang_24 + 2
29: Basilisk_24
30: Jamun_24
31: Ruchi_24
32: Brynnie_24
33: Colusalem_24 + 5
34: Jerole_25 + 1
35: Daob_25 + 3
36: Kepler_24
37: Amelia_25 + 2
38: Bibble12_25
39: HannahPhantana_25
40: Zhuangyuan_25
41: Cygnet_24
42: LittleTokyo_24
43: PhirstandPhine_25
44: Antrice_24
45: Kuleana_24
46: DanHam62_23 + 13
47: StuartMinion_23 + 1
48: Leona_23 + 2
49: Andrew_24
50: Babushka_23

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51: Renna12_24
52: Juno112_23
53: Alkyam_28 + 10
54: Isolde_28 + 12
55: Sporco_28 + 1
56: LeBrunt_27
57: Sashimi_26
58: EvePickles_25
59: Ding_28
60: BasketStar_28 + 2
61: Globfish_28
62: ThayneTheZag_28
63: SpicyFrank_28
64: Kablooey_28
65: Faja_25
66: Clayda5_22 + 5
67: Eden_22
68: Coltrane_22 + 1
69: BAjuniper_24
70: FlameThrower_23
71: Gack_22 + 1
72: Bachaco_23 + 2
73: Katzastrophic_23
74: Mashley_43
75: HorseRider_6 + 2
76: CyranoPS_6
77: CarefulCloud_6
78: NiddQ_26
79: FosterFrank_27
80: Karkharias_26
81: ChuckDuck_27 + 1
82: Eileen_26 + 1
83: LilMeRon_27
84: Constance_26 + 1
85: LilyBell_26
86: HotPotato_26
87: RootBeer_23
88: Henrique_27
89: Pigu_22
90: Globzilla_22
91: MargaretKail_24 + 1
92: Dirtdigger_26
93: QuinnAvery_26 + 2
94: MillySue_26
95: Ichiang_24
96: IsHungry_26
97: Gusanita_24
98: Kukla_23
99: GUPitcher_23
100: BellaJr_27

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101: CocoCinnamon_27
102: Maja_24
103: Skitty_23 + 1
104: Merpity_25
105: Khuang_21
106: Doedicurus_31
107: Isperia_29
108: Wyvern_31
109: MisoSoup_36
110: Kithara_63
111: Yappy_73
112: Barebow_16

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 347276 Report

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

Pham number 347276 has 202 members, 28 are drafts.

Phages represented in each track:
- Track 1 : EastWest_30
- Track 2 : Beans_27
- Track 3 : Brent_27, Franzy_27
- Track 4 : Jawnski_27
- Track 5 : NathanVaag_27
- Track 6 : Piccoletto_27
- Track 7 : King2_27
- Track 8 : Shade_29
- Track 9 : Wyborn_30
- Track 10 : Jordan_29, Zartrosa_29, Sonny_29
- Track 11 : StevieBAY_29
- Track 12 : BossLady_29
- Track 13 : TaeYoung_29, Martha_29, Grekaycon_29
- Track 14 : BarretLemon_29, Timinator_29, LeeroyJ_29
- Track 15 : GravityBall_29, BigDome_29
- Track 16 : Pippa_29
- Track 17 : JKerns_29
- Track 18 : Ren19_45, Nikan_45
- Track 19 : Ollypop_46
- Track 20 : AWGoat_38
- Track 21 : SilentRX_40
- Track 22 : KendraB23_25, Amanises_25, Toad24_25, Pelletreau_25, Orcanus_24, Westrich_25, Gravel_25, Shen_25, Eesa_24
- Track 23 : Galaxy_25
- Track 24 : Abidatro_25
- Track 25 : WileyE_23, Chickaboom_23
- Track 26 : Vulpecula_24
- Track 27 : TaylorSipht_24
- Track 28 : Zixiang_24, Niblet_24, Chicken_24
- Track 29 : Basilisk_24
- Track 30 : Jamun_24
- Track 31 : Ruchi_24
- Track 32 : Brynnie_24
- Track 33 : Colusalem_24, Pineda_25, OtsoOtso_24, Bedetta_25, Damocles_25, Polka_24
- Track 34 : Jerole_25, GramZayde_24
- Track 35 : Daob_25, Melons_25, Cote_25, Lunar_25

• Track 36 : Kepler_24
• Track 37 : Amelia_25, Coral_24, BadWillHunting_25
• Track 38 : Bibble12_25
• Track 39 : HannahPhantana_25
• Track 40 : Zhuangyuan_25
• Track 41 : Cygnet_24
• Track 42 : LittleTokyo_24
• Track 43 : PhirstandPhine_25
• Track 44 : Antrice_24
• Track 45 : Kuleana_24
• Track 46 : DanHam62_23, AdoptaAdorbs_23, Atlantica_23, Oppalora_23, AmiCi24_23, HamCheese_23, Camara_23, Glotell_23, Laphuphu24k_22, KHumphrey_23, PhluffyCoco_23, Amphitrite_23, Fingolfin_23, RedFox_23
• Track 47 : StuartMinion_23, AlexMinion_23
• Track 48 : Leona_23, Rattail_23, Azaz_23
• Track 49 : Andrew_24
• Track 50 : Babushka_23
• Track 51 : Renna12_24
• Track 52 : Juno112_23
• Track 53 : Aikyam_28, CookieBear_28, RadFad_28, Richie_28, Auxilium_28, YoungHarleezy_28, Lasker_28, MidnightRain_28, MaterMagnus_28, Hillester_28, BenchScraper_28
• Track 54 : Isolde_28, Vopal_29, Phrank15_27, MUWow_27, JellyBread_28, Sakai_28, NewKitty_29, BillyTP_28, Mapleville_27, SonDevVon_27, Lawnathon_28, Gorpy_28, AdaS_28
• Track 55 : Sporco_28, Raphaella_28
• Track 56 : LeBruni_27
• Track 57 : Sashimi_26
• Track 58 : EvePickles_25
• Track 59 : Ding_28
• Track 60 : BasketStar_28, BlueShadow_28, Windest_29
• Track 61 : Globfish_28
• Track 62 : ThayneTheZag_28
• Track 63 : SpicyFrank_28
• Track 64 : Kabloowy_28
• Track 65 : Faja_25
• Track 66 : Clayda5_22, Rollins_22, Armstrong_22, Skylord_22, Bernstein_22, Vitas_22
• Track 67 : Eden_22
• Track 68 : Coltrane_22, Brahms_22
• Track 69 : BAjuniper_24
• Track 70 : FlameThrower_23
• Track 71 : Gack_22, Franklin22_23
• Track 72 : Bachaco_23, Quenya_24, Celaena_23
• Track 73 : Katzastrophic_23
• Track 74 : Mashley_43
• Track 75 : HorseRider_6, TailX7_6, Jalloh_6
• Track 76 : CyranoPS_6
• Track 77 : CarefulCloud_6
• Track 78 : NidoQ_26
• Track 79 : FosterFrank_27
• Track 80 : Karkharias_26
• Track 81 : ChuckDuck_27, KayMoney_27

• Track 82 : Eileen_26, Peas_26
• Track 83 : LittleRon_27
• Track 84 : Constance_26, PeggyLeg03_26
• Track 85 : LilyBell_26
• Track 86 : HotPotato_26
• Track 87 : RootBeer_23
• Track 88 : Henrique_27
• Track 89 : Pigu_22
• Track 90 : Gibbzilla_22
• Track 91 : MargaretKali_24, Kumotta_24
• Track 92 : Dirtdigger_26
• Track 93 : QuinnAvery_26, BigSherm_26, Halloweekend_24
• Track 94 : MillySue_26
• Track 95 : Ichiang_24
• Track 96 : IsHungry_26
• Track 97 : Gusanita_24
• Track 98 : Kukla_23
• Track 99 : GUPitcher_23
• Track 100 : BellaJr_27
• Track 101 : CocoCinnamon_27
• Track 102 : Maja_24
• Track 103 : Skitty_23, MrSmee_23
• Track 104 : Merpity_25
• Track 105 : Khuang_21
• Track 106 : Doedicurus_31
• Track 107 : Isperia_29
• Track 108 : Wyvern_31
• Track 109 : MisoSoup_36
• Track 110 : Kithara_63
• Track 111 : Yappy_73
• Track 112 : Barebow_16

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

The start number called the most often in the published annotations is 56, it was called in 57 of the 174 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AdaS_28, Aikyam_28, Auxilium_28, BasketStar_28, BellaJr_27, BenchScraper_28, BigSherm_26, BillyTP_28, BlueShadow_28, ChuckDuck_27, CocoCinnamon_27, CookieBear_28, Ding_28, Dirtdigger_26, Eileen_26, EvePickles_25, Faja_25, FosterFrank_27, GUPitcher_23, Gibbzilla_22, Globfish_28, Gorpy_28, Gusanita_24, Halloweekend_24, Henrique_27, Hillester_28, HotPotato_26, Ichiang_24, IsHungry_26, Isolde_28, JellyBread_28, Kabloowy_28, Karkharias_26, KayMoney_27, Khuang_21, Kukla_23, Lasker_28, Lawnathon_28, LeBruni_27, LilyBell_26, LittleRon_27, MUWow_27, Maja_24, Mapleville_27, MaterMagnus_28, MidnightRain_28, MillySue_26, MrSmee_23, NewKitty_29, Peas_26, Phrank15_27, Pigu_22, QuinnAvery_26, RadFad_28, Raphaella_28, Richie_28, RootBeer_23, Sakai_28, Sashimi_26, Skitty_23, SonDevVon_27, SpicyFrank_28, Sporco_28, ThayneTheZag_28, Vopal_29, Windest_29, YoungHarleezy_28,

Genes that have the "Most Annotated" start but do not call it:
• Antrice_24, Constance_26, Merpity_25, NidoQ_26, PeggyLeg03_26, Zhuangyuan_25,

Genes that do not have the "Most Annotated" start:
• AWGoat_38, Abidatro_25, AdoptaAdorbs_23, AlexMinion_23, Amanises_25, Amelia_25, AmiCi24_23, Amphitrite_23, Andrew_24, Armstrong_22, Atlantica_23, Azaz_23, BAjuniper_24, Babushka_23, Bachaco_23, BadWillHunting_25, Barebow_16, BarretLemon_29, Basilisk_24, Beans_27, Bedetta_25, Bernstein_22, Bibble12_25, BigDome_29, BossLady_29, Brahms_22, Brent_27, Brynnie_24, Camara_23, CarefulCloud_6, Celaena_23, Chickaboom_23, Chicken_24, Clayda5_22, Coltrane_22, Colusalem_24, Coral_24, Cote_25, Cygnet_24, CyranoPS_6, Damocles_25, DanHam62_23, Daob_25, Doedicurus_31, EastWest_30, Eden_22, Eesa_24, Fingolfin_23, FlameThrower_23, Franklin22_23, Franzy_27, Gack_22, Galaxy_25, Glotell_23, GramZayde_24, Gravel_25, GravityBall_29, Grekaycon_29, HamCheese_23, HannahPhantana_25, HorseRider_6, Isperia_29, JKerns_29, Jalloh_6, Jamun_24, Jawnski_27, Jerole_25, Jordan_29, Juno112_23, KHumphrey_23, Katzastrophic_23, KendraB23_25, Kepler_24, King2_27, Kithara_63, Kuleana_24, Kumotta_24, Laphuphu24k_22, LeeroyJ_29, Leona_23, LittleTokyo_24, Lunar_25, MargaretKali_24, Martha_29, Mashley_43, Melons_25, MisoSoup_36, NathanVaag_27, Niblet_24, Nikan_45, Ollypop_46, Oppalora_23, Orcanus_24, OtsoOtso_24, Pelletreau_25, PhirstandPhine_25, PhluffyCoco_23, Piccoletto_27, Pineda_25, Pippa_29, Polka_24, Quenya_24, Rattail_23, RedFox_23, Ren19_45, Renna12_24, Rollins_22, Ruchi_24, Shade_29, Shen_25, SilentRX_40, Skylord_22, Sonny_29, StevieBAY_29, StuartMinion_23, TaeYoung_29, TailX7_6, TaylorSipht_24, Timinator_29, Toad24_25, Vitas_22, Vulpecula_24, Westrich_25, WileyE_23, Wyborn_30, Wyvern_31, Yappy_73, Zartrosa_29, Zixiang_24,

Summary by start number:

Start 33:
• Found in 3 of 202 (1.5%) of genes in pham
• Manual Annotations of this start: 3 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Nikan_45 (AP2), Ollypop_46 (AP2), Ren19_45 (AP2),

Start 34:
• Found in 7 of 202 (3.5%) of genes in pham
• Manual Annotations of this start: 5 of 174
• Called 71.4% of time when present
• Phage (with cluster) where this start called: BarretLemon_29 (AO2), LeeroyJ_29 (AO2), StevieBAY_29 (AO2), Timinator_29 (AO2), Wyvern_31 (GJ),

Start 35:
• Found in 23 of 202 (11.4%) of genes in pham
• Manual Annotations of this start: 19 of 174
• Called 82.6% of time when present
• Phage (with cluster) where this start called: Beans_27 (AO1), BigDome_29 (AO2), BossLady_29 (AO2), Brent_27 (AO1), Franzy_27 (AO1), GravityBall_29 (AO2), Grekaycon_29 (AO2), JKerns_29 (AO2), Jawnski_27 (AO1), Jordan_29 (AO2),

King2_27 (AO1), Martha_29 (AO2), NathanVaag_27 (AO1), Piccoletto_27 (AO1), Pippa_29 (AO2), Shade_29 (AO2), Sonny_29 (AO2), TaeYoung_29 (AO2), Zartrosa_29 (AO2),

Start 36:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AWGoat_38 (AP4),

Start 37:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kithara_63 (singleton),

Start 39:
• Found in 3 of 202 (1.5%) of genes in pham
• Manual Annotations of this start: 2 of 174
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Doedicurus_31 (GJ), Isperia_29 (GJ),

Start 40:
• Found in 11 of 202 (5.4%) of genes in pham
• Manual Annotations of this start: 11 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Armstrong_22 (EB), Bernstein_22 (EB), Brahms_22 (EB), Clayda5_22 (EB), Coltrane_22 (EB), Eden_22 (EB), Franklin22_23 (EB), Gack_22 (EB), Rollins_22 (EB), Skylord_22 (EB), Vitas_22 (EB),

Start 41:
• Found in 13 of 202 (6.4%) of genes in pham
• Manual Annotations of this start: 6 of 174
• Called 46.2% of time when present
• Phage (with cluster) where this start called: BAjuniper_24 (EB), Bachaco_23 (EB), Celaena_23 (EB), FlameThrower_23 (EB), Katzastrophic_23 (EB), Quenya_24 (EB),

Start 42:
• Found in 9 of 202 (4.5%) of genes in pham
• No Manual Annotations of this start.
• Called 11.1% of time when present
• Phage (with cluster) where this start called: Merpity_25 (FQ1),

Start 43:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Andrew_24 (AS3),

Start 44:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present

• Phage (with cluster) where this start called: SilentRX_40 (AP4),

Start 46:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EastWest_30 (AO),

Start 47:
• Found in 49 of 202 (24.3%) of genes in pham
• Manual Annotations of this start: 39 of 174
• Called 95.9% of time when present
• Phage (with cluster) where this start called: Abidatro_25 (AS1), AdoptaAdorbs_23 (AS3), AlexMinion_23 (AS3), Amanises_25 (AS1), AmiCi24_23 (AS3), Amphitrite_23 (AS3), Antrice_24 (AS2), Atlantica_23 (AS3), Azaz_23 (AS3), Babushka_23 (AS3), Basilisk_24 (AS1), Brynnie_24 (AS1), Camara_23 (AS3), Chickaboom_23 (AS1), Chicken_24 (AS1), Cygnet_24 (AS2), DanHam62_23 (AS3), Eesa_24 (AS1), Fingolfin_23 (AS3), Galaxy_25 (AS1), Glotell_23 (AS3), Gravel_25 (AS1), HamCheese_23 (AS3), Jamun_24 (AS1), Juno112_23 (AS3), KHumphrey_23 (AS3), KendraB23_25 (AS1), Laphuphu24k_22 (AS3), Leona_23 (AS3), Niblet_24 (AS1), Oppalora_23 (AS3), Orcanus_24 (AS1), Pelletreau_25 (AS1), PhluffyCoco_23 (AS3), Rattail_23 (AS3), RedFox_23 (AS3), Renna12_24 (AS3), Shen_25 (AS1), StuartMinion_23 (AS3), TaylorSipht_24 (AS1), Toad24_25 (AS1), Vulpecula_24 (AS1), Westrich_25 (AS1), WileyE_23 (AS1), Wyborn_30 (AO2), Zhuangyuan_25 (AS2), Zixiang_24 (AS1),

Start 49:
• Found in 2 of 202 (1.0%) of genes in pham
• Manual Annotations of this start: 2 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barebow_16 (singleton), MisoSoup_36 (GM),

Start 51:
• Found in 3 of 202 (1.5%) of genes in pham
• Manual Annotations of this start: 3 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Constance_26 (FA), NidoQ_26 (FA), PeggyLeg03_26 (FA),

Start 54:
• Found in 17 of 202 (8.4%) of genes in pham
• Manual Annotations of this start: 12 of 174
• Called 94.1% of time when present
• Phage (with cluster) where this start called: Amelia_25 (AS2), BadWillHunting_25 (AS2), Bedetta_25 (AS2), Bibble12_25 (AS2), Colusalem_24 (AS2), Coral_24 (AS2), Cote_25 (AS2), Damocles_25 (AS2), Daob_25 (AS2), LittleTokyo_24 (AS2), Lunar_25 (AS2), Melons_25 (AS2), OtsoOtso_24 (AS2), Pineda_25 (AS2), Polka_24 (AS2), Yappy_73 (singleton),

Start 55:
• Found in 23 of 202 (11.4%) of genes in pham
• Manual Annotations of this start: 5 of 174

• Called 26.1% of time when present
• Phage (with cluster) where this start called: GramZayde_24 (AS2), HannahPhantana_25 (AS2), Jerole_25 (AS2), Kepler_24 (AS2), Kuleana_24 (AS2), PhirstandPhine_25 (AS2),

Start 56:
• Found in 73 of 202 (36.1%) of genes in pham
• Manual Annotations of this start: 57 of 174
• Called 91.8% of time when present
• Phage (with cluster) where this start called: AdaS_28 (AY), Aikyam_28 (AY), Auxilium_28 (AY), BasketStar_28 (AY), BellaJr_27 (FN), BenchScraper_28 (AY), BigSherm_26 (FF), BillyTP_28 (AY), BlueShadow_28 (AY), ChuckDuck_27 (FA), CocoCinnamon_27 (FO), CookieBear_28 (AY), Ding_28 (AY), Dirtdigger_26 (FF), Eileen_26 (FA), EvePickles_25 (AY), Faja_25 (AY), FosterFrank_27 (FA), GUPitcher_23 (FJ), Gibbzilla_22 (FB), Globfish_28 (AY), Gorpy_28 (AY), Gusanita_24 (FF), Halloweekend_24 (FF), Henrique_27 (FA), Hillester_28 (AY), HotPotato_26 (FA), Ichiang_24 (FF), IsHungry_26 (FF), Isolde_28 (AY), JellyBread_28 (AY), Kabloowy_28 (AY), Karkharias_26 (FA), KayMoney_27 (FA), Khuang_21 (FS), Kukla_23 (FJ), Lasker_28 (AY), Lawnathon_28 (AY), LeBruni_27 (AY), LilyBell_26 (FA), LittleRon_27 (FA), MUWow_27 (AY), Maja_24 (FO), Mapleville_27 (AY), MaterMagnus_28 (AY), MidnightRain_28 (AY), MillySue_26 (FF), MrSmee_23 (FQ1), NewKitty_29 (AY), Peas_26 (FA), Phrank15_27 (AY), Pigu_22 (FB), QuinnAvery_26 (FF), RadFad_28 (AY), Raphaella_28 (AY), Richie_28 (AY), RootBeer_23 (FA), Sakai_28 (AY), Sashimi_26 (AY), Skitty_23 (FQ1), SonDevVon_27 (AY), SpicyFrank_28 (AY), Sporco_28 (AY), ThayneTheZag_28 (AY), Vopal_29 (AY), Windest_29 (AY), YoungHarleezy_28 (AY),

Start 57:
• Found in 2 of 202 (1.0%) of genes in pham
• Manual Annotations of this start: 2 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Kumotta_24 (FB), MargaretKali_24 (FB),

Start 62:
• Found in 10 of 202 (5.0%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 10.0% of time when present
• Phage (with cluster) where this start called: Ruchi_24 (AS1),

Start 64:
• Found in 1 of 202 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mashley_43 (EG),

Start 67:
• Found in 5 of 202 (2.5%) of genes in pham
• Manual Annotations of this start: 1 of 174
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CarefulCloud_6 (ER), CyranoPS_6 (ER), HorseRider_6 (ER), Jalloh_6 (ER), TailX7_6 (ER),

Summary by clusters:

There are 23 clusters represented in this pham: singleton, FS, AP2, AP4, FA, FB, FF, FJ, FN, FO, AS3, AS2, AS1, EG, AO, EB, AO2, AO1, AY, GM, GJ, ER, FQ1,

Info for manual annotations of cluster AO:
•Start number 46 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:
•Start number 35 was manually annotated 7 times for cluster AO1.

Info for manual annotations of cluster AO2:
•Start number 34 was manually annotated 4 times for cluster AO2.
•Start number 35 was manually annotated 12 times for cluster AO2.
•Start number 47 was manually annotated 1 time for cluster AO2.

Info for manual annotations of cluster AP2:
•Start number 33 was manually annotated 3 times for cluster AP2.

Info for manual annotations of cluster AP4:
•Start number 36 was manually annotated 1 time for cluster AP4.
•Start number 44 was manually annotated 1 time for cluster AP4.

Info for manual annotations of cluster AS1:
•Start number 47 was manually annotated 17 times for cluster AS1.
•Start number 62 was manually annotated 1 time for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 47 was manually annotated 3 times for cluster AS2.
•Start number 54 was manually annotated 11 times for cluster AS2.
•Start number 55 was manually annotated 5 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 43 was manually annotated 1 time for cluster AS3.
•Start number 47 was manually annotated 18 times for cluster AS3.

Info for manual annotations of cluster AY:
•Start number 56 was manually annotated 33 times for cluster AY.

Info for manual annotations of cluster EB:
•Start number 40 was manually annotated 11 times for cluster EB.
•Start number 41 was manually annotated 6 times for cluster EB.

Info for manual annotations of cluster EG:
•Start number 64 was manually annotated 1 time for cluster EG.

Info for manual annotations of cluster ER:
•Start number 67 was manually annotated 1 time for cluster ER.

Info for manual annotations of cluster FA:
•Start number 51 was manually annotated 3 times for cluster FA.
•Start number 56 was manually annotated 7 times for cluster FA.

Info for manual annotations of cluster FB:

•Start number 56 was manually annotated 2 times for cluster FB.
•Start number 57 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FF:
•Start number 56 was manually annotated 8 times for cluster FF.

Info for manual annotations of cluster FJ:
•Start number 56 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster FO:
•Start number 56 was manually annotated 2 times for cluster FO.

Info for manual annotations of cluster FQ1:
•Start number 56 was manually annotated 2 times for cluster FQ1.

Info for manual annotations of cluster FS:
•Start number 56 was manually annotated 1 time for cluster FS.

Info for manual annotations of cluster GJ:
•Start number 34 was manually annotated 1 time for cluster GJ.
•Start number 39 was manually annotated 2 times for cluster GJ.

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

Gene Information:

Gene: AWGoat_38 Start: 34355, Stop: 34708, Start Num: 36
Candidate Starts for AWGoat_38:
(Start: 36 @34355 has 1 MA's), (70, 34463), (84, 34508), (116, 34631), (122, 34667),

Gene: Abidatro_25 Start: 18908, Stop: 19243, Start Num: 47
Candidate Starts for Abidatro_25:
(Start: 47 @18908 has 39 MA's), (63, 18941), (70, 18986), (74, 19001), (116, 19154),

Gene: AdaS_28 Start: 20360, Stop: 20668, Start Num: 56
Candidate Starts for AdaS_28:
(Start: 56 @20360 has 57 MA's), (79, 20456), (80, 20459), (83, 20468), (116, 20594), (118, 20609), (120, 20621),

Gene: AdoptaAdorbs_23 Start: 17622, Stop: 17945, Start Num: 47
Candidate Starts for AdoptaAdorbs_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Aikyam_28 Start: 20431, Stop: 20736, Start Num: 56
Candidate Starts for Aikyam_28:
(Start: 56 @20431 has 57 MA's), (68, 20482), (88, 20548), (94, 20572), (99, 20590), (106, 20611), (108, 20617), (111, 20629),

Gene: AlexMinion_23 Start: 17655, Stop: 17969, Start Num: 47

Candidate Starts for AlexMinion_23:
(45, 17652), (Start: 47 @17655 has 39 MA's), (65, 17691), (69, 17715), (72, 17733), (74, 17739), (80, 17757), (83, 17766), (95, 17811), (114, 17880), (116, 17892), (121, 17925),

Gene: Amanises_25 Start: 19185, Stop: 19517, Start Num: 47
Candidate Starts for Amanises_25:
(Start: 47 @19185 has 39 MA's), (70, 19260), (72, 19269), (80, 19293), (81, 19296), (96, 19350), (99, 19362), (114, 19416), (116, 19428),

Gene: Amelia_25 Start: 18043, Stop: 18393, Start Num: 54
Candidate Starts for Amelia_25:
(Start: 54 @18043 has 12 MA's), (Start: 55 @18046 has 5 MA's), (63, 18064), (65, 18076), (74, 18124), (80, 18142), (116, 18277), (118, 18292), (133, 18343),

Gene: AmiCi24_23 Start: 17621, Stop: 17944, Start Num: 47
Candidate Starts for AmiCi24_23:
(Start: 47 @17621 has 39 MA's), (65, 17660), (70, 17693), (80, 17726), (95, 17780), (116, 17861),

Gene: Amphitrite_23 Start: 17620, Stop: 17943, Start Num: 47
Candidate Starts for Amphitrite_23:
(Start: 47 @17620 has 39 MA's), (65, 17659), (70, 17692), (80, 17725), (95, 17779), (116, 17860),

Gene: Andrew_24 Start: 18042, Stop: 18377, Start Num: 43
Candidate Starts for Andrew_24:
(Start: 43 @18042 has 1 MA's), (Start: 47 @18048 has 39 MA's), (72, 18135), (74, 18141), (80, 18159), (95, 18213), (116, 18294), (118, 18309),

Gene: Antrice_24 Start: 18536, Stop: 18868, Start Num: 47
Candidate Starts for Antrice_24:
(Start: 47 @18536 has 39 MA's), (Start: 56 @18548 has 57 MA's), (65, 18578), (70, 18611), (71, 18614), (82, 18650), (86, 18665), (96, 18701), (99, 18713), (109, 18743), (116, 18779), (117, 18785), (118, 18794),

Gene: Armstrong_22 Start: 17107, Stop: 17433, Start Num: 40
Candidate Starts for Armstrong_22:
(Start: 40 @17107 has 11 MA's), (96, 17290), (97, 17296), (116, 17368),

Gene: Atlantica_23 Start: 17622, Stop: 17945, Start Num: 47
Candidate Starts for Atlantica_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Auxilium_28 Start: 20421, Stop: 20726, Start Num: 56
Candidate Starts for Auxilium_28:
(Start: 56 @20421 has 57 MA's), (68, 20472), (88, 20538), (94, 20562), (99, 20580), (106, 20601), (108, 20607), (111, 20619),

Gene: Azaz_23 Start: 17683, Stop: 18000, Start Num: 47
Candidate Starts for Azaz_23:
(Start: 47 @17683 has 39 MA's), (65, 17722), (70, 17755), (80, 17788), (95, 17842), (116, 17923),

Gene: BAjuniper_24 Start: 20341, Stop: 20658, Start Num: 41
Candidate Starts for BAjuniper_24:

(32, 20311), (Start: 41 @20341 has 6 MA's), (71, 20428), (72, 20434), (77, 20449), (84, 20470), (87, 20482), (103, 20536), (104, 20539), (110, 20560), (112, 20569), (114, 20581), (116, 20593),

Gene: Babushka_23 Start: 17682, Stop: 18029, Start Num: 47
Candidate Starts for Babushka_23:
(Start: 47 @17682 has 39 MA's), (65, 17721), (74, 17769), (78, 17781), (80, 17787), (83, 17796), (95, 17841), (116, 17922), (120, 17949),

Gene: Bachaco_23 Start: 20374, Stop: 20691, Start Num: 41
Candidate Starts for Bachaco_23:
(Start: 41 @20374 has 6 MA's), (71, 20461), (84, 20503), (87, 20515), (102, 20566), (116, 20626),

Gene: BadWillHunting_25 Start: 18044, Stop: 18394, Start Num: 54
Candidate Starts for BadWillHunting_25:
(Start: 54 @18044 has 12 MA's), (Start: 55 @18047 has 5 MA's), (63, 18065), (65, 18077), (74, 18125), (80, 18143), (116, 18278), (118, 18293), (133, 18344),

Gene: Barebow_16 Start: 13052, Stop: 13462, Start Num: 49
Candidate Starts for Barebow_16:
(7, 12599), (23, 12971), (Start: 49 @13052 has 2 MA's), (60, 13073), (61, 13079), (69, 13124), (82, 13172), (89, 13196), (110, 13265), (116, 13298), (124, 13340), (130, 13364),

Gene: BarretLemon_29 Start: 25316, Stop: 25687, Start Num: 34
Candidate Starts for BarretLemon_29:
(Start: 34 @25316 has 5 MA's), (Start: 35 @25319 has 19 MA's), (Start: 41 @25340 has 6 MA's), (71, 25424), (84, 25466), (86, 25475), (90, 25487), (95, 25508), (99, 25523), (116, 25589), (123, 25628),

Gene: Basilisk_24 Start: 19320, Stop: 19652, Start Num: 47
Candidate Starts for Basilisk_24:
(Start: 47 @19320 has 39 MA's), (Start: 62 @19347 has 1 MA's), (70, 19395), (72, 19404), (80, 19428), (96, 19485), (99, 19497), (114, 19551), (116, 19563),

Gene: BasketStar_28 Start: 20475, Stop: 20780, Start Num: 56
Candidate Starts for BasketStar_28:
(Start: 56 @20475 has 57 MA's), (68, 20526), (88, 20592), (94, 20616), (99, 20634), (106, 20655), (108, 20661), (111, 20673), (126, 20745),

Gene: Beans_27 Start: 24983, Stop: 25351, Start Num: 35
Candidate Starts for Beans_27:
(Start: 35 @24983 has 19 MA's), (71, 25088), (84, 25130), (86, 25139), (90, 25151), (95, 25172), (99, 25187), (116, 25253), (123, 25292),

Gene: Bedetta_25 Start: 18047, Stop: 18397, Start Num: 54
Candidate Starts for Bedetta_25:
(Start: 54 @18047 has 12 MA's), (Start: 55 @18050 has 5 MA's), (63, 18068), (65, 18080), (74, 18128), (80, 18146), (116, 18281), (118, 18296),

Gene: BellaJr_27 Start: 21288, Stop: 21566, Start Num: 56
Candidate Starts for BellaJr_27:
(24, 21204), (42, 21270), (Start: 56 @21288 has 57 MA's), (84, 21381), (87, 21393), (92, 21408), (108, 21450), (110, 21456), (116, 21486),

Gene: BenchScraper_28 Start: 20436, Stop: 20741, Start Num: 56

Candidate Starts for BenchScraper_28:
(Start: 56 @20436 has 57 MA's), (68, 20487), (88, 20553), (94, 20577), (99, 20595), (106, 20616), (108, 20622), (111, 20634),

Gene: Bernstein_22 Start: 17162, Stop: 17488, Start Num: 40
Candidate Starts for Bernstein_22:
(Start: 40 @17162 has 11 MA's), (96, 17345), (97, 17351), (116, 17423),

Gene: Bibble12_25 Start: 18034, Stop: 18396, Start Num: 54
Candidate Starts for Bibble12_25:
(Start: 54 @18034 has 12 MA's), (Start: 55 @18037 has 5 MA's), (Start: 62 @18052 has 1 MA's), (63, 18055), (65, 18067), (74, 18115), (80, 18133), (95, 18187), (116, 18268), (118, 18283), (134, 18337), (136, 18343),

Gene: BigDome_29 Start: 25311, Stop: 25679, Start Num: 35
Candidate Starts for BigDome_29:
(Start: 34 @25308 has 5 MA's), (Start: 35 @25311 has 19 MA's), (71, 25416), (84, 25458), (86, 25467), (90, 25479), (95, 25500), (99, 25515), (116, 25581), (123, 25620),

Gene: BigSherm_26 Start: 19724, Stop: 20032, Start Num: 56
Candidate Starts for BigSherm_26:
(Start: 56 @19724 has 57 MA's), (72, 19799), (79, 19820), (83, 19832), (96, 19880), (106, 19913), (116, 19958), (125, 20000),

Gene: BillyTP_28 Start: 20144, Stop: 20452, Start Num: 56
Candidate Starts for BillyTP_28:
(Start: 56 @20144 has 57 MA's), (79, 20240), (80, 20243), (83, 20252), (116, 20378), (118, 20393), (120, 20405),

Gene: BlueShadow_28 Start: 20421, Stop: 20726, Start Num: 56
Candidate Starts for BlueShadow_28:
(Start: 56 @20421 has 57 MA's), (68, 20472), (88, 20538), (94, 20562), (99, 20580), (106, 20601), (108, 20607), (111, 20619), (126, 20691),

Gene: BossLady_29 Start: 25299, Stop: 25667, Start Num: 35
Candidate Starts for BossLady_29:
(Start: 35 @25299 has 19 MA's), (66, 25371), (69, 25392), (71, 25404), (72, 25410), (84, 25446), (90, 25467), (95, 25488), (99, 25503), (116, 25569), (123, 25608),

Gene: Brahms_22 Start: 17110, Stop: 17436, Start Num: 40
Candidate Starts for Brahms_22:
(Start: 40 @17110 has 11 MA's), (96, 17293), (116, 17371),

Gene: Brent_27 Start: 24986, Stop: 25354, Start Num: 35
Candidate Starts for Brent_27:
(Start: 35 @24986 has 19 MA's), (Start: 41 @25007 has 6 MA's), (71, 25091), (84, 25133), (86, 25142), (90, 25154), (116, 25256), (123, 25295),

Gene: Brynnie_24 Start: 19128, Stop: 19460, Start Num: 47
Candidate Starts for Brynnie_24:
(Start: 47 @19128 has 39 MA's), (Start: 62 @19155 has 1 MA's), (70, 19203), (72, 19212), (86, 19257), (96, 19293), (99, 19305), (114, 19359), (116, 19371),

Gene: Camara_23 Start: 17623, Stop: 17946, Start Num: 47
Candidate Starts for Camara_23:
(Start: 47 @17623 has 39 MA's), (65, 17662), (70, 17695), (80, 17728), (95, 17782), (116, 17863),

Gene: CarefulCloud_6 Start: 3802, Stop: 4080, Start Num: 67
Candidate Starts for CarefulCloud_6:
(Start: 67 @3802 has 1 MA's), (101, 3922), (106, 3940), (128, 4039),

Gene: Celaena_23 Start: 20322, Stop: 20639, Start Num: 41
Candidate Starts for Celaena_23:
(Start: 41 @20322 has 6 MA's), (71, 20409), (84, 20451), (87, 20463), (102, 20514), (116, 20574),

Gene: Chickaboom_23 Start: 18049, Stop: 18381, Start Num: 47
Candidate Starts for Chickaboom_23:
(Start: 47 @18049 has 39 MA's), (Start: 62 @18076 has 1 MA's), (70, 18124), (72, 18133), (80, 18157), (86, 18178), (96, 18214), (114, 18280), (116, 18292),

Gene: Chicken_24 Start: 19054, Stop: 19386, Start Num: 47
Candidate Starts for Chicken_24:
(Start: 47 @19054 has 39 MA's), (58, 19072), (70, 19129), (80, 19162), (96, 19219), (99, 19231), (116, 19297),

Gene: ChuckDuck_27 Start: 20261, Stop: 20569, Start Num: 56
Candidate Starts for ChuckDuck_27:
(Start: 56 @20261 has 57 MA's), (79, 20357), (80, 20360), (83, 20369), (86, 20381), (116, 20495),

Gene: Clayda5_22 Start: 17113, Stop: 17439, Start Num: 40
Candidate Starts for Clayda5_22:
(Start: 40 @17113 has 11 MA's), (96, 17296), (97, 17302), (116, 17374),

Gene: CocoCinnamon_27 Start: 20011, Stop: 20283, Start Num: 56
Candidate Starts for CocoCinnamon_27:
(Start: 56 @20011 has 57 MA's), (108, 20170), (111, 20182), (116, 20206),

Gene: Coltrane_22 Start: 17110, Stop: 17436, Start Num: 40
Candidate Starts for Coltrane_22:
(Start: 40 @17110 has 11 MA's), (96, 17293), (116, 17371),

Gene: Colusalem_24 Start: 17886, Stop: 18236, Start Num: 54
Candidate Starts for Colusalem_24:
(Start: 54 @17886 has 12 MA's), (Start: 55 @17889 has 5 MA's), (63, 17907), (65, 17919), (74, 17967), (80, 17985), (116, 18120), (118, 18135),

Gene: Constance_26 Start: 20763, Stop: 21041, Start Num: 51
Candidate Starts for Constance_26:
(1, 19992), (2, 19998), (3, 20007), (42, 20754), (Start: 51 @20763 has 3 MA's), (Start: 56 @20769 has 57 MA's), (87, 20877), (92, 20892), (116, 20970),

Gene: CookieBear_28 Start: 20421, Stop: 20726, Start Num: 56
Candidate Starts for CookieBear_28:
(Start: 56 @20421 has 57 MA's), (68, 20472), (88, 20538), (94, 20562), (99, 20580), (106, 20601), (108, 20607), (111, 20619),

Gene: Coral_24 Start: 17882, Stop: 18232, Start Num: 54
Candidate Starts for Coral_24:
(Start: 54 @17882 has 12 MA's), (Start: 55 @17885 has 5 MA's), (63, 17903), (65, 17915), (74, 17963), (80, 17981), (116, 18116), (118, 18131), (133, 18182),

Gene: Cote_25 Start: 18034, Stop: 18384, Start Num: 54
Candidate Starts for Cote_25:
(Start: 54 @18034 has 12 MA's), (Start: 55 @18037 has 5 MA's), (63, 18055), (74, 18115), (80, 18133), (116, 18268), (118, 18283), (134, 18337), (136, 18343),

Gene: Cygnet_24 Start: 18687, Stop: 19016, Start Num: 47
Candidate Starts for Cygnet_24:
(45, 18684), (Start: 47 @18687 has 39 MA's), (65, 18726), (72, 18768), (74, 18774), (80, 18792), (95, 18846), (109, 18891), (114, 18915), (116, 18927), (118, 18942), (125, 18969),

Gene: CyranoPS_6 Start: 3800, Stop: 4078, Start Num: 67
Candidate Starts for CyranoPS_6:
(Start: 67 @3800 has 1 MA's), (101, 3920),

Gene: Damocles_25 Start: 18045, Stop: 18395, Start Num: 54
Candidate Starts for Damocles_25:
(Start: 54 @18045 has 12 MA's), (Start: 55 @18048 has 5 MA's), (63, 18066), (65, 18078), (74, 18126), (80, 18144), (116, 18279), (118, 18294),

Gene: DanHam62_23 Start: 17622, Stop: 17945, Start Num: 47
Candidate Starts for DanHam62_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Daob_25 Start: 18039, Stop: 18389, Start Num: 54
Candidate Starts for Daob_25:
(Start: 54 @18039 has 12 MA's), (Start: 55 @18042 has 5 MA's), (63, 18060), (74, 18120), (80, 18138), (116, 18273), (118, 18288), (134, 18342), (136, 18348),

Gene: Ding_28 Start: 20382, Stop: 20687, Start Num: 56
Candidate Starts for Ding_28:
(24, 20298), (42, 20364), (Start: 56 @20382 has 57 MA's), (68, 20433), (75, 20457), (88, 20499), (106, 20562), (108, 20568), (114, 20595),

Gene: Dirtdigger_26 Start: 19487, Stop: 19855, Start Num: 56
Candidate Starts for Dirtdigger_26:
(Start: 56 @19487 has 57 MA's), (65, 19520), (70, 19553), (75, 19571), (109, 19685), (116, 19721), (135, 19790),

Gene: Doedicurus_31 Start: 20880, Stop: 21266, Start Num: 39
Candidate Starts for Doedicurus_31:
(12, 20634), (17, 20730), (21, 20787), (30, 20853), (Start: 39 @20880 has 2 MA's), (75, 20991), (77, 20997), (94, 21057), (102, 21081), (114, 21129), (116, 21141), (137, 21234), (138, 21240),

Gene: EastWest_30 Start: 25176, Stop: 25514, Start Num: 46
Candidate Starts for EastWest_30:
(Start: 46 @25176 has 1 MA's), (71, 25257), (82, 25293), (84, 25299), (90, 25320), (93, 25332), (116, 25422), (123, 25461),

Gene: Eden_22 Start: 17389, Stop: 17712, Start Num: 40
Candidate Starts for Eden_22:
(Start: 40 @17389 has 11 MA's), (65, 17446), (70, 17479), (82, 17518), (110, 17614), (116, 17647),

Gene: Eesa_24 Start: 19277, Stop: 19609, Start Num: 47
Candidate Starts for Eesa_24:
(Start: 47 @19277 has 39 MA's), (70, 19352), (72, 19361), (80, 19385), (81, 19388), (96, 19442), (99, 19454), (114, 19508), (116, 19520),

Gene: Eileen_26 Start: 20113, Stop: 20415, Start Num: 56
Candidate Starts for Eileen_26:
(Start: 56 @20113 has 57 MA's), (68, 20164), (99, 20272), (106, 20293), (108, 20299), (111, 20311), (114, 20326),

Gene: EvePickles_25 Start: 18992, Stop: 19300, Start Num: 56
Candidate Starts for EvePickles_25:
(Start: 56 @18992 has 57 MA's), (74, 19073), (83, 19100), (96, 19148), (116, 19226), (118, 19241),

Gene: Faja_25 Start: 18886, Stop: 19194, Start Num: 56
Candidate Starts for Faja_25:
(Start: 56 @18886 has 57 MA's), (80, 18985), (116, 19120), (118, 19135),

Gene: Fingolfin_23 Start: 17623, Stop: 17946, Start Num: 47
Candidate Starts for Fingolfin_23:
(Start: 47 @17623 has 39 MA's), (65, 17662), (70, 17695), (80, 17728), (95, 17782), (116, 17863),

Gene: FlameThrower_23 Start: 19859, Stop: 20176, Start Num: 41
Candidate Starts for FlameThrower_23:
(16, 19682), (22, 19763), (Start: 41 @19859 has 6 MA's), (71, 19946), (84, 19988), (87, 20000), (102, 20051), (116, 20111), (122, 20147),

Gene: FosterFrank_27 Start: 20334, Stop: 20642, Start Num: 56
Candidate Starts for FosterFrank_27:
(Start: 56 @20334 has 57 MA's), (80, 20433), (116, 20568), (118, 20583),

Gene: Franklin22_23 Start: 17574, Stop: 17897, Start Num: 40
Candidate Starts for Franklin22_23:
(26, 17517), (28, 17538), (Start: 40 @17574 has 11 MA's), (65, 17631), (82, 17703), (108, 17793), (110, 17799), (116, 17832),

Gene: Franzy_27 Start: 24985, Stop: 25353, Start Num: 35
Candidate Starts for Franzy_27:
(Start: 35 @24985 has 19 MA's), (Start: 41 @25006 has 6 MA's), (71, 25090), (84, 25132), (86, 25141), (90, 25153), (116, 25255), (123, 25294),

Gene: GUPitcher_23 Start: 18548, Stop: 18850, Start Num: 56
Candidate Starts for GUPitcher_23:
(Start: 56 @18548 has 57 MA's), (84, 18647), (99, 18704), (114, 18758), (116, 18770), (126, 18815),

Gene: Gack_22 Start: 17460, Stop: 17783, Start Num: 40
Candidate Starts for Gack_22:
(26, 17403), (28, 17424), (Start: 40 @17460 has 11 MA's), (65, 17517), (82, 17589), (108, 17679), (110, 17685), (116, 17718),

Gene: Galaxy_25 Start: 19013, Stop: 19336, Start Num: 47
Candidate Starts for Galaxy_25:
(Start: 47 @19013 has 39 MA's), (63, 19046), (74, 19106), (86, 19145), (116, 19259),

Gene: Gibbzilla_22 Start: 16637, Stop: 16939, Start Num: 56
Candidate Starts for Gibbzilla_22:
(Start: 56 @16637 has 57 MA's), (68, 16685), (94, 16775), (99, 16793), (111, 16832), (115, 16856),

Gene: Globfish_28 Start: 20655, Stop: 20960, Start Num: 56
Candidate Starts for Globfish_28:
(48, 20646), (Start: 56 @20655 has 57 MA's), (68, 20706), (94, 20796), (106, 20835), (111, 20853), (116, 20880),

Gene: Glotell_23 Start: 17620, Stop: 17943, Start Num: 47
Candidate Starts for Glotell_23:
(Start: 47 @17620 has 39 MA's), (65, 17659), (70, 17692), (80, 17725), (95, 17779), (116, 17860),

Gene: Gorpy_28 Start: 20369, Stop: 20677, Start Num: 56
Candidate Starts for Gorpy_28:
(Start: 56 @20369 has 57 MA's), (79, 20465), (80, 20468), (83, 20477), (116, 20603), (118, 20618), (120, 20630),

Gene: GramZayde_24 Start: 17873, Stop: 18220, Start Num: 55
Candidate Starts for GramZayde_24:
(Start: 55 @17873 has 5 MA's), (Start: 62 @17888 has 1 MA's), (63, 17891), (65, 17903), (74, 17951), (80, 17969), (90, 18002), (116, 18104), (118, 18119), (134, 18173), (136, 18179),

Gene: Gravel_25 Start: 19183, Stop: 19515, Start Num: 47
Candidate Starts for Gravel_25:
(Start: 47 @19183 has 39 MA's), (70, 19258), (72, 19267), (80, 19291), (81, 19294), (96, 19348), (99, 19360), (114, 19414), (116, 19426),

Gene: GravityBall_29 Start: 25318, Stop: 25686, Start Num: 35
Candidate Starts for GravityBall_29:
(Start: 34 @25315 has 5 MA's), (Start: 35 @25318 has 19 MA's), (71, 25423), (84, 25465), (86, 25474), (90, 25486), (95, 25507), (99, 25522), (116, 25588), (123, 25627),

Gene: Grekaycon_29 Start: 25245, Stop: 25613, Start Num: 35
Candidate Starts for Grekaycon_29:
(Start: 35 @25245 has 19 MA's), (66, 25317), (69, 25338), (71, 25350), (72, 25356), (84, 25392), (86, 25401), (90, 25413), (95, 25434), (96, 25437), (99, 25449), (116, 25515), (123, 25554),

Gene: Gusanita_24 Start: 19423, Stop: 19737, Start Num: 56
Candidate Starts for Gusanita_24:
(Start: 56 @19423 has 57 MA's), (71, 19495), (94, 19573), (114, 19645), (117, 19663),

Gene: Halloweekend_24 Start: 19350, Stop: 19658, Start Num: 56
Candidate Starts for Halloweekend_24:
(Start: 56 @19350 has 57 MA's), (72, 19425), (79, 19446), (83, 19458), (96, 19506), (106, 19539), (116, 19584), (125, 19626),

Gene: HamCheese_23 Start: 17622, Stop: 17930, Start Num: 47

Candidate Starts for HamCheese_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: HannahPhantana_25 Start: 18037, Stop: 18396, Start Num: 55
Candidate Starts for HannahPhantana_25:
(Start: 54 @18034 has 12 MA's), (Start: 55 @18037 has 5 MA's), (Start: 62 @18052 has 1 MA's), (63, 18055), (65, 18067), (74, 18115), (80, 18133), (95, 18187), (116, 18268), (118, 18283), (134, 18337), (136, 18343),

Gene: Henrique_27 Start: 20198, Stop: 20500, Start Num: 56
Candidate Starts for Henrique_27:
(5, 19532), (Start: 56 @20198 has 57 MA's), (68, 20249), (94, 20339), (95, 20342), (99, 20357), (104, 20369), (106, 20378), (108, 20384), (111, 20396), (112, 20399), (114, 20411),

Gene: Hillester_28 Start: 20421, Stop: 20726, Start Num: 56
Candidate Starts for Hillester_28:
(Start: 56 @20421 has 57 MA's), (68, 20472), (88, 20538), (94, 20562), (99, 20580), (106, 20601), (108, 20607), (111, 20619),

Gene: HorseRider_6 Start: 3802, Stop: 4080, Start Num: 67
Candidate Starts for HorseRider_6:
(Start: 67 @3802 has 1 MA's), (101, 3922), (106, 3940),

Gene: HotPotato_26 Start: 20119, Stop: 20421, Start Num: 56
Candidate Starts for HotPotato_26:
(Start: 56 @20119 has 57 MA's), (99, 20278), (104, 20290), (106, 20299), (108, 20305), (111, 20317), (114, 20332),

Gene: Ichiang_24 Start: 19369, Stop: 19677, Start Num: 56
Candidate Starts for Ichiang_24:
(Start: 56 @19369 has 57 MA's), (72, 19444), (79, 19465), (83, 19477), (96, 19525), (106, 19558), (116, 19603), (125, 19645),

Gene: IsHungry_26 Start: 19976, Stop: 20278, Start Num: 56
Candidate Starts for IsHungry_26:
(Start: 56 @19976 has 57 MA's), (68, 20027), (99, 20135), (106, 20156), (108, 20162),

Gene: Isolde_28 Start: 20195, Stop: 20503, Start Num: 56
Candidate Starts for Isolde_28:
(Start: 56 @20195 has 57 MA's), (79, 20291), (80, 20294), (83, 20303), (116, 20429), (118, 20444), (120, 20456),

Gene: Isperia_29 Start: 20187, Stop: 20573, Start Num: 39
Candidate Starts for Isperia_29:
(12, 19941), (Start: 39 @20187 has 2 MA's), (75, 20298), (77, 20304), (94, 20364), (102, 20388), (114, 20436), (116, 20448), (137, 20541), (138, 20547),

Gene: JKerns_29 Start: 25272, Stop: 25640, Start Num: 35
Candidate Starts for JKerns_29:
(Start: 35 @25272 has 19 MA's), (71, 25377), (72, 25383), (84, 25419), (86, 25428), (90, 25440), (95, 25461), (99, 25476), (112, 25518), (116, 25542), (123, 25581),

Gene: Jalloh_6 Start: 3801, Stop: 4079, Start Num: 67

Candidate Starts for Jalloh_6:
(Start: 67 @3801 has 1 MA's), (101, 3921), (106, 3939),

Gene: Jamun_24 Start: 18726, Stop: 19058, Start Num: 47
Candidate Starts for Jamun_24:
(Start: 47 @18726 has 39 MA's), (70, 18801), (95, 18888), (96, 18891), (99, 18903), (105, 18918), (114, 18957), (116, 18969),

Gene: Jawnski_27 Start: 24995, Stop: 25363, Start Num: 35
Candidate Starts for Jawnski_27:
(Start: 35 @24995 has 19 MA's), (71, 25100), (84, 25142), (86, 25151), (90, 25163), (99, 25199), (103, 25208), (113, 25250), (116, 25265), (123, 25304),

Gene: JellyBread_28 Start: 20353, Stop: 20661, Start Num: 56
Candidate Starts for JellyBread_28:
(Start: 56 @20353 has 57 MA's), (79, 20449), (80, 20452), (83, 20461), (116, 20587), (118, 20602), (120, 20614),

Gene: Jerole_25 Start: 18034, Stop: 18381, Start Num: 55
Candidate Starts for Jerole_25:
(Start: 55 @18034 has 5 MA's), (Start: 62 @18049 has 1 MA's), (63, 18052), (65, 18064), (74, 18112), (80, 18130), (90, 18163), (116, 18265), (118, 18280), (134, 18334), (136, 18340),

Gene: Jordan_29 Start: 25242, Stop: 25610, Start Num: 35
Candidate Starts for Jordan_29:
(Start: 35 @25242 has 19 MA's), (71, 25347), (72, 25353), (84, 25389), (86, 25398), (90, 25410), (95, 25431), (99, 25446), (112, 25488), (116, 25512), (117, 25518), (123, 25551),

Gene: Juno112_23 Start: 17622, Stop: 17945, Start Num: 47
Candidate Starts for Juno112_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: KHumphrey_23 Start: 17620, Stop: 17943, Start Num: 47
Candidate Starts for KHumphrey_23:
(Start: 47 @17620 has 39 MA's), (65, 17659), (70, 17692), (80, 17725), (95, 17779), (116, 17860),

Gene: Kabloowy_28 Start: 20549, Stop: 20857, Start Num: 56
Candidate Starts for Kabloowy_28:
(4, 19871), (6, 20021), (Start: 56 @20549 has 57 MA's), (79, 20645), (80, 20648), (83, 20657), (116, 20783), (118, 20798), (120, 20810),

Gene: Karkharias_26 Start: 20115, Stop: 20417, Start Num: 56
Candidate Starts for Karkharias_26:
(Start: 56 @20115 has 57 MA's), (68, 20166), (99, 20274), (106, 20295), (108, 20301), (111, 20313),

Gene: Katzastrophic_23 Start: 19980, Stop: 20297, Start Num: 41
Candidate Starts for Katzastrophic_23:
(Start: 41 @19980 has 6 MA's), (71, 20067), (84, 20109), (87, 20121), (102, 20172), (116, 20232), (122, 20268),

Gene: KayMoney_27 Start: 20265, Stop: 20573, Start Num: 56
Candidate Starts for KayMoney_27:
(Start: 56 @20265 has 57 MA's), (79, 20361), (80, 20364), (83, 20373), (86, 20385), (116, 20499),

Gene: KendraB23_25 Start: 19185, Stop: 19517, Start Num: 47
Candidate Starts for KendraB23_25:
(Start: 47 @19185 has 39 MA's), (70, 19260), (72, 19269), (80, 19293), (81, 19296), (96, 19350), (99, 19362), (114, 19416), (116, 19428),

Gene: Kepler_24 Start: 17872, Stop: 18219, Start Num: 55
Candidate Starts for Kepler_24:
(Start: 55 @17872 has 5 MA's), (Start: 62 @17887 has 1 MA's), (63, 17890), (65, 17902), (74, 17950), (80, 17968), (116, 18103), (118, 18118), (134, 18172), (136, 18178),

Gene: Khuang_21 Start: 17688, Stop: 17984, Start Num: 56
Candidate Starts for Khuang_21:
(48, 17679), (Start: 56 @17688 has 57 MA's), (68, 17739), (75, 17763), (106, 17868), (108, 17874), (111, 17886), (114, 17901), (116, 17913),

Gene: King2_27 Start: 24982, Stop: 25350, Start Num: 35
Candidate Starts for King2_27:
(Start: 35 @24982 has 19 MA's), (71, 25087), (84, 25129), (86, 25138), (90, 25150), (99, 25186), (103, 25195), (116, 25252), (123, 25291),

Gene: Kithara_63 Start: 46188, Stop: 46532, Start Num: 37
Candidate Starts for Kithara_63:
(24, 46140), (Start: 37 @46188 has 1 MA's), (50, 46212), (71, 46290), (73, 46299), (77, 46311), (80, 46320), (83, 46329), (96, 46377), (108, 46416), (116, 46455), (118, 46470), (129, 46518),

Gene: Kukla_23 Start: 18379, Stop: 18687, Start Num: 56
Candidate Starts for Kukla_23:
(19, 18238), (20, 18253), (Start: 56 @18379 has 57 MA's), (72, 18454), (83, 18487), (96, 18535), (106, 18568), (116, 18613),

Gene: Kuleana_24 Start: 17910, Stop: 18254, Start Num: 55
Candidate Starts for Kuleana_24:
(50, 17904), (Start: 55 @17910 has 5 MA's), (68, 17961), (80, 18006), (95, 18060), (96, 18063), (116, 18141), (117, 18147), (118, 18156), (134, 18210), (141, 18231), (142, 18237),

Gene: Kumotta_24 Start: 18861, Stop: 19166, Start Num: 57
Candidate Starts for Kumotta_24:
(Start: 57 @18861 has 2 MA's), (91, 18996), (115, 19092),

Gene: Laphuphu24k_22 Start: 17622, Stop: 17930, Start Num: 47
Candidate Starts for Laphuphu24k_22:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Lasker_28 Start: 20429, Stop: 20734, Start Num: 56
Candidate Starts for Lasker_28:
(Start: 56 @20429 has 57 MA's), (68, 20480), (88, 20546), (94, 20570), (99, 20588), (106, 20609), (108, 20615), (111, 20627),

Gene: Lawnathon_28 Start: 20289, Stop: 20597, Start Num: 56
Candidate Starts for Lawnathon_28:
(Start: 56 @20289 has 57 MA's), (79, 20385), (80, 20388), (83, 20397), (116, 20523), (118, 20538), (120, 20550),

Gene: LeBruni_27 Start: 20262, Stop: 20564, Start Num: 56
Candidate Starts for LeBruni_27:
(53, 20256), (Start: 56 @20262 has 57 MA's), (71, 20331), (104, 20442), (109, 20460), (114, 20484), (116, 20496),

Gene: LeeroyJ_29 Start: 25315, Stop: 25686, Start Num: 34
Candidate Starts for LeeroyJ_29:
(Start: 34 @25315 has 5 MA's), (Start: 35 @25318 has 19 MA's), (Start: 41 @25339 has 6 MA's), (71, 25423), (84, 25465), (86, 25474), (90, 25486), (95, 25507), (99, 25522), (116, 25588), (123, 25627),

Gene: Leona_23 Start: 17683, Stop: 18000, Start Num: 47
Candidate Starts for Leona_23:
(Start: 47 @17683 has 39 MA's), (65, 17722), (70, 17755), (80, 17788), (95, 17842), (116, 17923),

Gene: LilyBell_26 Start: 20124, Stop: 20429, Start Num: 56
Candidate Starts for LilyBell_26:
(29, 20067), (50, 20115), (Start: 56 @20124 has 57 MA's), (68, 20178), (99, 20286), (106, 20307), (108, 20313), (111, 20325),

Gene: LittleRon_27 Start: 20234, Stop: 20542, Start Num: 56
Candidate Starts for LittleRon_27:
(Start: 56 @20234 has 57 MA's), (79, 20330), (80, 20333), (116, 20468),

Gene: LittleTokyo_24 Start: 17866, Stop: 18186, Start Num: 54
Candidate Starts for LittleTokyo_24:
(50, 17863), (Start: 54 @17866 has 12 MA's), (68, 17917), (80, 17962), (100, 18031), (112, 18073), (118, 18112),

Gene: Lunar_25 Start: 18034, Stop: 18384, Start Num: 54
Candidate Starts for Lunar_25:
(Start: 54 @18034 has 12 MA's), (Start: 55 @18037 has 5 MA's), (63, 18055), (74, 18115), (80, 18133), (116, 18268), (118, 18283), (134, 18337), (136, 18343),

Gene: MUWow_27 Start: 20453, Stop: 20761, Start Num: 56
Candidate Starts for MUWow_27:
(Start: 56 @20453 has 57 MA's), (79, 20549), (80, 20552), (83, 20561), (116, 20687), (118, 20702), (120, 20714),

Gene: Maja_24 Start: 18850, Stop: 19128, Start Num: 56
Candidate Starts for Maja_24:
(Start: 41 @18832 has 6 MA's), (Start: 56 @18850 has 57 MA's), (111, 19027), (115, 19048), (116, 19051),

Gene: Mapleville_27 Start: 20359, Stop: 20667, Start Num: 56
Candidate Starts for Mapleville_27:
(Start: 56 @20359 has 57 MA's), (79, 20455), (80, 20458), (83, 20467), (116, 20593), (118, 20608), (120, 20620),

Gene: MargaretKali_24 Start: 18496, Stop: 18801, Start Num: 57
Candidate Starts for MargaretKali_24:
(Start: 57 @18496 has 2 MA's), (91, 18631), (115, 18727),

Gene: Martha_29 Start: 25246, Stop: 25614, Start Num: 35
Candidate Starts for Martha_29:
(Start: 35 @25246 has 19 MA's), (66, 25318), (69, 25339), (71, 25351), (72, 25357), (84, 25393), (86, 25402), (90, 25414), (95, 25435), (96, 25438), (99, 25450), (116, 25516), (123, 25555),

Gene: Mashley_43 Start: 34157, Stop: 34516, Start Num: 64
Candidate Starts for Mashley_43:
(8, 33788), (10, 33815), (14, 33881), (15, 33884), (Start: 64 @34157 has 1 MA's), (97, 34292), (116, 34373), (118, 34388), (139, 34475),

Gene: MaterMagnus_28 Start: 20431, Stop: 20736, Start Num: 56
Candidate Starts for MaterMagnus_28:
(Start: 56 @20431 has 57 MA's), (68, 20482), (88, 20548), (94, 20572), (99, 20590), (106, 20611), (108, 20617), (111, 20629),

Gene: Melons_25 Start: 18034, Stop: 18384, Start Num: 54
Candidate Starts for Melons_25:
(Start: 54 @18034 has 12 MA's), (Start: 55 @18037 has 5 MA's), (63, 18055), (74, 18115), (80, 18133), (116, 18268), (118, 18283), (134, 18337), (136, 18343),

Gene: Merpity_25 Start: 18054, Stop: 18350, Start Num: 42
Candidate Starts for Merpity_25:
(24, 17988), (42, 18054), (Start: 56 @18072 has 57 MA's), (84, 18165), (87, 18177), (92, 18192), (108, 18234), (110, 18240), (116, 18270),

Gene: MidnightRain_28 Start: 20420, Stop: 20725, Start Num: 56
Candidate Starts for MidnightRain_28:
(Start: 56 @20420 has 57 MA's), (68, 20471), (88, 20537), (94, 20561), (99, 20579), (106, 20600), (108, 20606), (111, 20618),

Gene: MillySue_26 Start: 19546, Stop: 19851, Start Num: 56
Candidate Starts for MillySue_26:
(5, 18883), (Start: 56 @19546 has 57 MA's), (68, 19597), (99, 19705), (111, 19744), (114, 19759),

Gene: MisoSoup_36 Start: 27160, Stop: 27543, Start Num: 49
Candidate Starts for MisoSoup_36:
(9, 26842), (11, 26872), (18, 27001), (Start: 49 @27160 has 2 MA's), (70, 27241), (76, 27262), (85, 27292), (110, 27376), (112, 27385), (116, 27409), (118, 27424), (131, 27475), (140, 27508),

Gene: MrSmee_23 Start: 18072, Stop: 18350, Start Num: 56
Candidate Starts for MrSmee_23:
(24, 17988), (42, 18054), (Start: 56 @18072 has 57 MA's), (84, 18165), (87, 18177), (92, 18192), (108, 18234), (110, 18240), (116, 18270),

Gene: NathanVaag_27 Start: 24958, Stop: 25326, Start Num: 35
Candidate Starts for NathanVaag_27:
(Start: 35 @24958 has 19 MA's), (71, 25063), (84, 25105), (86, 25114), (87, 25117), (90, 25126), (99, 25162), (116, 25228), (123, 25267),

Gene: NewKitty_29 Start: 20590, Stop: 20898, Start Num: 56
Candidate Starts for NewKitty_29:
(Start: 56 @20590 has 57 MA's), (79, 20686), (80, 20689), (83, 20698), (116, 20824), (118, 20839), (120, 20851),

Gene: Niblet_24 Start: 19054, Stop: 19386, Start Num: 47
Candidate Starts for Niblet_24:
(Start: 47 @19054 has 39 MA's), (58, 19072), (70, 19129), (80, 19162), (96, 19219), (99, 19231), (116, 19297),

Gene: NidoQ_26 Start: 20780, Stop: 21058, Start Num: 51
Candidate Starts for NidoQ_26:
(42, 20771), (Start: 51 @20780 has 3 MA's), (Start: 56 @20786 has 57 MA's), (71, 20858), (87, 20894), (92, 20909), (116, 20987),

Gene: Nikan_45 Start: 34694, Stop: 35047, Start Num: 33
Candidate Starts for Nikan_45:
(25, 34661), (Start: 33 @34694 has 3 MA's), (Start: 55 @34742 has 5 MA's), (59, 34751), (65, 34778), (83, 34853), (96, 34901), (108, 34940), (116, 34979), (119, 34997),

Gene: Ollypop_46 Start: 35786, Stop: 36139, Start Num: 33
Candidate Starts for Ollypop_46:
(Start: 33 @35786 has 3 MA's), (Start: 41 @35813 has 6 MA's), (52, 35828), (Start: 55 @35834 has 5 MA's), (59, 35843), (72, 35912), (83, 35945), (102, 36011), (108, 36032), (116, 36071), (119, 36089),

Gene: Oppalora_23 Start: 17621, Stop: 17944, Start Num: 47
Candidate Starts for Oppalora_23:
(Start: 47 @17621 has 39 MA's), (65, 17660), (70, 17693), (80, 17726), (95, 17780), (116, 17861),

Gene: Orcanus_24 Start: 18977, Stop: 19309, Start Num: 47
Candidate Starts for Orcanus_24:
(Start: 47 @18977 has 39 MA's), (70, 19052), (72, 19061), (80, 19085), (81, 19088), (96, 19142), (99, 19154), (114, 19208), (116, 19220),

Gene: OtsoOtso_24 Start: 17889, Stop: 18239, Start Num: 54
Candidate Starts for OtsoOtso_24:
(Start: 54 @17889 has 12 MA's), (Start: 55 @17892 has 5 MA's), (63, 17910), (65, 17922), (74, 17970), (80, 17988), (116, 18123), (118, 18138),

Gene: Peas_26 Start: 20113, Stop: 20415, Start Num: 56
Candidate Starts for Peas_26:
(Start: 56 @20113 has 57 MA's), (68, 20164), (99, 20272), (106, 20293), (108, 20299), (111, 20311), (114, 20326),

Gene: PeggyLeg03_26 Start: 20763, Stop: 21041, Start Num: 51
Candidate Starts for PeggyLeg03_26:
(1, 19992), (2, 19998), (3, 20007), (42, 20754), (Start: 51 @20763 has 3 MA's), (Start: 56 @20769 has 57 MA's), (87, 20877), (92, 20892), (116, 20970),

Gene: Pelletreau_25 Start: 19183, Stop: 19515, Start Num: 47
Candidate Starts for Pelletreau_25:
(Start: 47 @19183 has 39 MA's), (70, 19258), (72, 19267), (80, 19291), (81, 19294), (96, 19348), (99, 19360), (114, 19414), (116, 19426),

Gene: PhirstandPhine_25 Start: 18037, Stop: 18390, Start Num: 55
Candidate Starts for PhirstandPhine_25:

(Start: 55 @18037 has 5 MA's), (63, 18055), (74, 18115), (80, 18133), (116, 18268), (118, 18283), (134, 18337),

Gene: PhluffyCoco_23 Start: 17622, Stop: 17930, Start Num: 47
Candidate Starts for PhluffyCoco_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Phrank15_27 Start: 20294, Stop: 20602, Start Num: 56
Candidate Starts for Phrank15_27:
(Start: 56 @20294 has 57 MA's), (79, 20390), (80, 20393), (83, 20402), (116, 20528), (118, 20543), (120, 20555),

Gene: Piccoletto_27 Start: 24960, Stop: 25328, Start Num: 35
Candidate Starts for Piccoletto_27:
(Start: 35 @24960 has 19 MA's), (71, 25065), (84, 25107), (86, 25116), (90, 25128), (95, 25149), (99, 25164), (116, 25230), (123, 25269),

Gene: Pigu_22 Start: 17919, Stop: 18197, Start Num: 56
Candidate Starts for Pigu_22:
(Start: 56 @17919 has 57 MA's), (111, 18096), (115, 18117), (116, 18120),

Gene: Pineda_25 Start: 18045, Stop: 18395, Start Num: 54
Candidate Starts for Pineda_25:
(Start: 54 @18045 has 12 MA's), (Start: 55 @18048 has 5 MA's), (63, 18066), (65, 18078), (74, 18126), (80, 18144), (116, 18279), (118, 18294),

Gene: Pippa_29 Start: 25371, Stop: 25739, Start Num: 35
Candidate Starts for Pippa_29:
(Start: 35 @25371 has 19 MA's), (71, 25476), (72, 25482), (84, 25518), (86, 25527), (90, 25539), (99, 25575), (103, 25584), (113, 25626), (116, 25641), (123, 25680),

Gene: Polka_24 Start: 17889, Stop: 18239, Start Num: 54
Candidate Starts for Polka_24:
(Start: 54 @17889 has 12 MA's), (Start: 55 @17892 has 5 MA's), (63, 17910), (65, 17922), (74, 17970), (80, 17988), (116, 18123), (118, 18138),

Gene: Quenya_24 Start: 19845, Stop: 20162, Start Num: 41
Candidate Starts for Quenya_24:
(Start: 41 @19845 has 6 MA's), (71, 19932), (84, 19974), (87, 19986), (102, 20037), (116, 20097),

Gene: QuinnAvery_26 Start: 19733, Stop: 20041, Start Num: 56
Candidate Starts for QuinnAvery_26:
(Start: 56 @19733 has 57 MA's), (72, 19808), (79, 19829), (83, 19841), (96, 19889), (106, 19922), (116, 19967), (125, 20009),

Gene: RadFad_28 Start: 20421, Stop: 20726, Start Num: 56
Candidate Starts for RadFad_28:
(Start: 56 @20421 has 57 MA's), (68, 20472), (88, 20538), (94, 20562), (99, 20580), (106, 20601), (108, 20607), (111, 20619),

Gene: Raphaella_28 Start: 20360, Stop: 20668, Start Num: 56
Candidate Starts for Raphaella_28:

(Start: 56 @20360 has 57 MA's), (79, 20456), (80, 20459), (83, 20468), (116, 20594), (118, 20609), (120, 20621),

Gene: Rattail_23 Start: 17683, Stop: 18000, Start Num: 47
Candidate Starts for Rattail_23:
(Start: 47 @17683 has 39 MA's), (65, 17722), (70, 17755), (80, 17788), (95, 17842), (116, 17923),

Gene: RedFox_23 Start: 17622, Stop: 17945, Start Num: 47
Candidate Starts for RedFox_23:
(Start: 47 @17622 has 39 MA's), (65, 17661), (70, 17694), (80, 17727), (95, 17781), (116, 17862),

Gene: Ren19_45 Start: 34694, Stop: 35047, Start Num: 33
Candidate Starts for Ren19_45:
(25, 34661), (Start: 33 @34694 has 3 MA's), (Start: 55 @34742 has 5 MA's), (59, 34751), (65, 34778), (83, 34853), (96, 34901), (108, 34940), (116, 34979), (119, 34997),

Gene: Renna12_24 Start: 17975, Stop: 18319, Start Num: 47
Candidate Starts for Renna12_24:
(Start: 47 @17975 has 39 MA's), (65, 18014), (70, 18047), (80, 18080), (95, 18134), (114, 18203), (116, 18215),

Gene: Richie_28 Start: 20436, Stop: 20741, Start Num: 56
Candidate Starts for Richie_28:
(Start: 56 @20436 has 57 MA's), (68, 20487), (88, 20553), (94, 20577), (99, 20595), (106, 20616), (108, 20622), (111, 20634),

Gene: Rollins_22 Start: 17162, Stop: 17488, Start Num: 40
Candidate Starts for Rollins_22:
(Start: 40 @17162 has 11 MA's), (96, 17345), (97, 17351), (116, 17423),

Gene: RootBeer_23 Start: 17990, Stop: 18268, Start Num: 56
Candidate Starts for RootBeer_23:
(13, 17732), (42, 17975), (Start: 56 @17990 has 57 MA's), (116, 18188), (125, 18227),

Gene: Ruchi_24 Start: 19293, Stop: 19598, Start Num: 62
Candidate Starts for Ruchi_24:
(Start: 47 @19266 has 39 MA's), (Start: 62 @19293 has 1 MA's), (70, 19341), (72, 19350), (80, 19374), (96, 19431), (99, 19443), (114, 19497), (116, 19509),

Gene: Sakai_28 Start: 20369, Stop: 20677, Start Num: 56
Candidate Starts for Sakai_28:
(Start: 56 @20369 has 57 MA's), (79, 20465), (80, 20468), (83, 20477), (116, 20603), (118, 20618), (120, 20630),

Gene: Sashimi_26 Start: 18795, Stop: 19100, Start Num: 56
Candidate Starts for Sashimi_26:
(38, 18762), (Start: 56 @18795 has 57 MA's), (68, 18846), (81, 18888), (97, 18948), (99, 18954), (107, 18978), (108, 18981), (111, 18993), (114, 19008), (115, 19017),

Gene: Shade_29 Start: 25212, Stop: 25580, Start Num: 35
Candidate Starts for Shade_29:
(Start: 35 @25212 has 19 MA's), (71, 25317), (72, 25323), (84, 25359), (86, 25368), (90, 25380), (99, 25416), (112, 25458), (116, 25482), (117, 25488), (123, 25521),

Gene: Shen_25 Start: 19184, Stop: 19516, Start Num: 47
Candidate Starts for Shen_25:
(Start: 47 @19184 has 39 MA's), (70, 19259), (72, 19268), (80, 19292), (81, 19295), (96, 19349), (99, 19361), (114, 19415), (116, 19427),

Gene: SilentRX_40 Start: 35414, Stop: 35743, Start Num: 44
Candidate Starts for SilentRX_40:
(27, 35366), (Start: 44 @35414 has 1 MA's), (70, 35498), (78, 35525), (86, 35552), (116, 35666), (118, 35681),

Gene: Skitty_23 Start: 18072, Stop: 18350, Start Num: 56
Candidate Starts for Skitty_23:
(24, 17988), (42, 18054), (Start: 56 @18072 has 57 MA's), (84, 18165), (87, 18177), (92, 18192), (108, 18234), (110, 18240), (116, 18270),

Gene: Skylord_22 Start: 17110, Stop: 17436, Start Num: 40
Candidate Starts for Skylord_22:
(Start: 40 @17110 has 11 MA's), (96, 17293), (97, 17299), (116, 17371),

Gene: SonDevVon_27 Start: 20362, Stop: 20670, Start Num: 56
Candidate Starts for SonDevVon_27:
(Start: 56 @20362 has 57 MA's), (79, 20458), (80, 20461), (83, 20470), (116, 20596), (118, 20611), (120, 20623),

Gene: Sonny_29 Start: 25242, Stop: 25610, Start Num: 35
Candidate Starts for Sonny_29:
(Start: 35 @25242 has 19 MA's), (71, 25347), (72, 25353), (84, 25389), (86, 25398), (90, 25410), (95, 25431), (99, 25446), (112, 25488), (116, 25512), (117, 25518), (123, 25551),

Gene: SpicyFrank_28 Start: 20656, Stop: 20961, Start Num: 56
Candidate Starts for SpicyFrank_28:
(Start: 56 @20656 has 57 MA's), (68, 20707), (94, 20797), (106, 20836), (111, 20854), (116, 20881),

Gene: Sporco_28 Start: 20417, Stop: 20725, Start Num: 56
Candidate Starts for Sporco_28:
(Start: 56 @20417 has 57 MA's), (79, 20513), (80, 20516), (83, 20525), (116, 20651), (118, 20666), (120, 20678),

Gene: StevieBAY_29 Start: 25315, Stop: 25686, Start Num: 34
Candidate Starts for StevieBAY_29:
(Start: 34 @25315 has 5 MA's), (Start: 35 @25318 has 19 MA's), (71, 25423), (84, 25465), (86, 25474), (90, 25486), (95, 25507), (99, 25522), (116, 25588), (123, 25627),

Gene: StuartMinion_23 Start: 17655, Stop: 17969, Start Num: 47
Candidate Starts for StuartMinion_23:
(45, 17652), (Start: 47 @17655 has 39 MA's), (65, 17691), (69, 17715), (72, 17733), (74, 17739), (80, 17757), (83, 17766), (95, 17811), (114, 17880), (116, 17892), (121, 17925),

Gene: TaeYoung_29 Start: 25246, Stop: 25614, Start Num: 35
Candidate Starts for TaeYoung_29:
(Start: 35 @25246 has 19 MA's), (66, 25318), (69, 25339), (71, 25351), (72, 25357), (84, 25393), (86, 25402), (90, 25414), (95, 25435), (96, 25438), (99, 25450), (116, 25516), (123, 25555),

Gene: TailX7_6 Start: 3802, Stop: 4080, Start Num: 67
Candidate Starts for TailX7_6:
(Start: 67 @3802 has 1 MA's), (101, 3922), (106, 3940),

Gene: TaylorSipht_24 Start: 18002, Stop: 18337, Start Num: 47
Candidate Starts for TaylorSipht_24:
(Start: 47 @18002 has 39 MA's), (63, 18032), (70, 18077), (80, 18110), (86, 18131), (95, 18164), (96, 18167), (99, 18179), (109, 18209), (114, 18233), (116, 18245),

Gene: ThayneTheZag_28 Start: 20519, Stop: 20830, Start Num: 56
Candidate Starts for ThayneTheZag_28:
(Start: 56 @20519 has 57 MA's), (68, 20576), (94, 20669), (99, 20687), (115, 20750), (118, 20768),

Gene: Timinator_29 Start: 25315, Stop: 25686, Start Num: 34
Candidate Starts for Timinator_29:
(Start: 34 @25315 has 5 MA's), (Start: 35 @25318 has 19 MA's), (Start: 41 @25339 has 6 MA's), (71, 25423), (84, 25465), (86, 25474), (90, 25486), (95, 25507), (99, 25522), (116, 25588), (123, 25627),

Gene: Toad24_25 Start: 19184, Stop: 19516, Start Num: 47
Candidate Starts for Toad24_25:
(Start: 47 @19184 has 39 MA's), (70, 19259), (72, 19268), (80, 19292), (81, 19295), (96, 19349), (99, 19361), (114, 19415), (116, 19427),

Gene: Vitas_22 Start: 17102, Stop: 17428, Start Num: 40
Candidate Starts for Vitas_22:
(Start: 40 @17102 has 11 MA's), (96, 17285), (97, 17291), (116, 17363),

Gene: Vopal_29 Start: 20432, Stop: 20740, Start Num: 56
Candidate Starts for Vopal_29:
(Start: 56 @20432 has 57 MA's), (79, 20528), (80, 20531), (83, 20540), (116, 20666), (118, 20681), (120, 20693),

Gene: Vulpecula_24 Start: 18724, Stop: 19056, Start Num: 47
Candidate Starts for Vulpecula_24:
(Start: 47 @18724 has 39 MA's), (70, 18799), (72, 18808), (96, 18889), (99, 18901), (105, 18916), (114, 18955), (116, 18967),

Gene: Westrich_25 Start: 19173, Stop: 19505, Start Num: 47
Candidate Starts for Westrich_25:
(Start: 47 @19173 has 39 MA's), (70, 19248), (72, 19257), (80, 19281), (81, 19284), (96, 19338), (99, 19350), (114, 19404), (116, 19416),

Gene: WileyE_23 Start: 18049, Stop: 18381, Start Num: 47
Candidate Starts for WileyE_23:
(Start: 47 @18049 has 39 MA's), (Start: 62 @18076 has 1 MA's), (70, 18124), (72, 18133), (80, 18157), (86, 18178), (96, 18214), (114, 18280), (116, 18292),

Gene: Windest_29 Start: 20486, Stop: 20791, Start Num: 56
Candidate Starts for Windest_29:
(Start: 56 @20486 has 57 MA's), (68, 20537), (88, 20603), (94, 20627), (99, 20645), (106, 20666), (108, 20672), (111, 20684), (126, 20756),

Gene: Wyborn_30 Start: 25584, Stop: 25931, Start Num: 47
Candidate Starts for Wyborn_30:
(31, 25542), (Start: 47 @25584 has 39 MA's), (68, 25656), (70, 25668), (71, 25671), (82, 25707), (84, 25713), (87, 25725), (96, 25758), (102, 25776), (116, 25836), (117, 25842),

Gene: Wyvern_31 Start: 21316, Stop: 21717, Start Num: 34
Candidate Starts for Wyvern_31:
(21, 21238), (Start: 34 @21316 has 5 MA's), (Start: 39 @21331 has 2 MA's), (75, 21436), (77, 21442), (94, 21502), (98, 21517), (116, 21586), (117, 21592), (127, 21637), (132, 21655), (138, 21685),

Gene: Yappy_73 Start: 34287, Stop: 34649, Start Num: 54
Candidate Starts for Yappy_73:
(Start: 54 @34287 has 12 MA's), (76, 34368), (86, 34401), (93, 34425), (116, 34515), (127, 34566), (131, 34578),

Gene: YoungHarleezy_28 Start: 20434, Stop: 20739, Start Num: 56
Candidate Starts for YoungHarleezy_28:
(Start: 56 @20434 has 57 MA's), (68, 20485), (88, 20551), (94, 20575), (99, 20593), (106, 20614), (108, 20620), (111, 20632),

Gene: Zartrosa_29 Start: 25236, Stop: 25604, Start Num: 35
Candidate Starts for Zartrosa_29:
(Start: 35 @25236 has 19 MA's), (71, 25341), (72, 25347), (84, 25383), (86, 25392), (90, 25404), (95, 25425), (99, 25440), (112, 25482), (116, 25506), (117, 25512), (123, 25545),

Gene: Zhuangyuan_25 Start: 18457, Stop: 18819, Start Num: 47
Candidate Starts for Zhuangyuan_25:
(Start: 47 @18457 has 39 MA's), (Start: 56 @18469 has 57 MA's), (72, 18541), (80, 18565), (95, 18619), (114, 18688), (116, 18700),

Gene: Zixiang_24 Start: 19055, Stop: 19387, Start Num: 47
Candidate Starts for Zixiang_24:
(Start: 47 @19055 has 39 MA's), (58, 19073), (70, 19130), (80, 19163), (96, 19220), (99, 19232), (116, 19298),