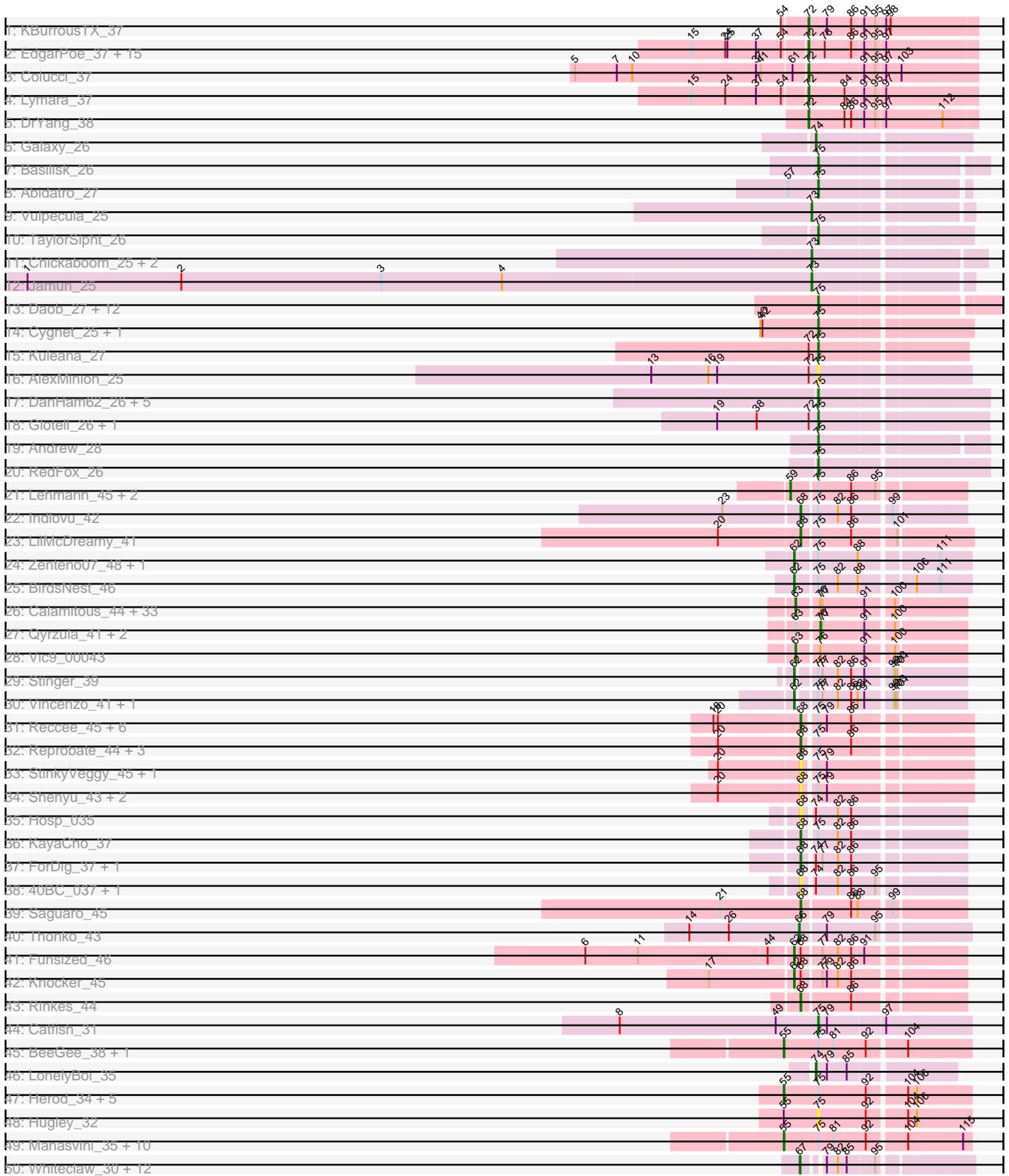# Pham 290810

Pham 290810

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 290810 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290810 has 246 members, 37 are drafts.

Phages represented in each track:
• Track 1 : KBurrousTX_37
• Track 2 : EdgarPoe_37, Tophat_37, Kabreeze_37, Chipper1996_370, Chubster_37, RosiePosie_37, Mordred_37, Conboy_37, JaNo_37, Linus_37, HumptyDumpty_37, Chocolat_37, Scavito_37, PrincessTrina_37, JayCookie_37, MoyaNatalis_37
• Track 3 : Colucci_37
• Track 4 : Lymara_37
• Track 5 : DrYang_38
• Track 6 : Galaxy_26
• Track 7 : Basilisk_26
• Track 8 : Abidatro_27
• Track 9 : Vulpecula_25
• Track 10 : TaylorSipht_26
• Track 11 : Chickaboom_25, WileyE_25, Brynnie_25
• Track 12 : Jamun_25
• Track 13 : Daob_27, Pineda_28, Toad24_27, Amelia_27, Melons_27, Cote_27, Orcanus_26, OtsoOtso_26, HannahPhantana_27, Coral_26, Colusalem_27, Lunar_27, Polka_26
• Track 14 : Cygnet_25, Antrice_26
• Track 15 : Kuleana_27
• Track 16 : AlexMinion_25
• Track 17 : DanHam62_26, Atlantica_26, Camara_26, KHumphrey_26, PhluffyCoco_26, Amphitrite_26
• Track 18 : Glotell_26, Leona_25
• Track 19 : Andrew_28
• Track 20 : RedFox_26
• Track 21 : Lehmann_45, Triad_45, Carthage_43
• Track 22 : Indlovu_42
• Track 23 : LilMcDreamy_41
• Track 24 : Zenteno07_48, Hashim76_46
• Track 25 : BirdsNest_46
• Track 26 : Calamitous_44, Lars_44, Faze9_43, MasterPo_44, LizLemon_44, Lephleur_44, ItsyBitsy1_44, FrenchFry_44, Tinciduntsolum_45, Bananafish_44, Hedgerow_44, Coffee_44, Blocker23_44, Kheth_44, Tres_44, Holeinone_44, Kaleb_44, Phantasmagoria_44, Kolhan_44, Rhinoforte_44, Godines_44, Ares_44, LilSmirk_44, PrinceCharming_44, Brownie5_44, Boyle_44, Eaglehorse_44, Sabella_43, TA17A_45, Allegro_44, West99_44, Laurie_43, Opia_44, Glass_44
• Track 27 : Qyrzula_41, Rosebush_43, Arbiter_43

- Track 28 : Vic9_00043
- Track 29 : Stinger_39
- Track 30 : Vincenzo_41, AlanGrant_42
- Track 31 : Reccee_45, Acadian_44, EastView9101_42, Suigeneris_44, Donny_44, SirJeffery_44, Rita130_44
- Track 32 : Reprobate_44, Mysterious_43, Nehemiah_43, Phelemich_43
- Track 33 : StinkyVeggy_45, KarasumaRum_45
- Track 34 : Shenyu_43, Nangang_43, DigitDog_43
- Track 35 : Hosp_035
- Track 36 : KayaCho_37
- Track 37 : ForDig_37, Jolie1_037
- Track 38 : 40BC_037, 39HC_037
- Track 39 : Saguaro_45
- Track 40 : Thonko_43
- Track 41 : Funsized_46
- Track 42 : Knocker_45
- Track 43 : Rinkes_44
- Track 44 : Catfish_31
- Track 45 : BeeGee_38, RavenCo17_36
- Track 46 : LonelyBoi_35
- Track 47 : Herod_34, Eviarto_34, BatStarr_34, Nymphadora_34, TimTam_34, Bosnia_34
- Track 48 : Hugley_32
- Track 49 : Manasvini_35, Suscepit_35, Antonio_35, Zameen_35, Kita_36, Neobush_35, Eudoria_35, Trumpet_35, Tayonia_35, Maridalia_34, Polly_32
- Track 50 : Whiteclaw_30, Jalleen_30, Sahara_29, Ebert_31, Haley23_30, GemG_30, Clap_30, Sproutie_30, Savage_30, Cynthia_30, Mocha12_30, TuertoX_30, Gizermo_30
- Track 51 : Vasanti_31
- Track 52 : RayTheFireFly_38
- Track 53 : CheeseTouch_37, Getalong_40, Horus_39, Phabuloso_36, Lutum_39, Budski_39, Kenna_38, BearBQ_38, ShawBrad_38, ODay_42, Asapag_39, Holliday_38, Leroy_39, Ecliptus_40, Whitney_42, Periwinkle_42
- Track 54 : Phistory_39, BENtherdunthat_38, Frickyeah_39, Apricot_38
- Track 55 : Squiddly_40, Spooky_39
- Track 56 : Crater_36
- Track 57 : LittleMunchkin_40
- Track 58 : TraderJ_40, Wooper_40, Yeshua_40
- Track 59 : BobRoss2024_37
- Track 60 : Coldpizza_41
- Track 61 : Blackpen_40, CloverMinnie_40, MossRose_40, CaiB_40, MakoManhole_40, AnarQue_40, FelixTres_40
- Track 62 : Sour_43
- Track 63 : AksarBAT_38, NHagos_38
- Track 64 : BiggityBass_38
- Track 65 : Sisko_38, AnClar_39, Yago84_38
- Track 66 : Fresco_38, Shatter_38, Axumite_38, Ligma_38
- Track 67 : Evaa_38
- Track 68 : Bipolar_22, Che9d_28, Ogopogo_25, Demsculpinboyz_28, Kersh_23, Kenuha5_22, Pollywog_25, Yoshi_28
- Track 69 : ShroomBoi_22, Avani_28
- Track 70 : Madiba_23, ThetaBob_24
- Track 71 : Sunshine23_32, Sonali_32

- Track 72 : Mufasa8_29
- Track 73 : Maruru_31
- Track 74 : Stuck_40
- Track 75 : Sbash_32
- Track 76 : Purky_30
- Track 77 : Purky_36
- Track 78 : Bubbykins_37
- Track 79 : Rem711_6
- Track 80 : 32HC_7
- Track 81 : Sleepyhead_33
- Track 82 : phiAsp2_39
- Track 83 : Whack_33
- Track 84 : Pine5_39
- Track 85 : Lukepolites_69
- Track 86 : Shambre1_30

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

The start number called the most often in the published annotations is 55, it was called in 36 of the 209 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Antonio_35, Asapag_39, BatStarr_34, BearBQ_38, BeeGee_38, Bosnia_34, Budski_39, CheeseTouch_37, Ecliptus_40, Eudoria_35, Eviarto_34, Getalong_40, Herod_34, Holliday_38, Horus_39, Kenna_38, Kita_36, Leroy_39, Lutum_39, Manasvini_35, Maridalia_34, Neobush_35, Nymphadora_34, ODay_42, Periwinkle_42, Phabuloso_36, Polly_32, RavenCo17_36, ShawBrad_38, Sleepyhead_33, Suscepit_35, Tayonia_35, TimTam_34, Trumpet_35, Whack_33, Whitney_42, Zameen_35,

Genes that have the "Most Annotated" start but do not call it:
- Apricot_38, BENtherdunthat_38, Crater_36, Frickyeah_39, Hugley_32, Phistory_39, RayTheFireFly_38,

Genes that do not have the "Most Annotated" start:
- 32HC_7, 39HC_037, 40BC_037, Abidatro_27, Acadian_44, AksarBAT_38, AlanGrant_42, AlexMinion_25, Allegro_44, Amelia_27, Amphitrite_26, AnClar_39, AnarQue_40, Andrew_28, Antrice_26, Arbiter_43, Ares_44, Atlantica_26, Avani_28, Axumite_38, Bananafish_44, Basilisk_26, BiggityBass_38, Bipolar_22, BirdsNest_46, Blackpen_40, Blocker23_44, BobRoss2024_37, Boyle_44, Brownie5_44, Brynnie_25, Bubbykins_37, CaiB_40, Calamitous_44, Camara_26, Carthage_43, Catfish_31, Che9d_28, Chickaboom_25, Chipper1996_370, Chocolat_37, Chubster_37, Clap_30, CloverMinnie_40, Coffee_44, Coldpizza_41, Colucci_37, Colusalem_27, Conboy_37, Coral_26, Cote_27, Cygnet_25, Cynthia_30, DanHam62_26, Daob_27, Demsculpinboyz_28, DigitDog_43, Donny_44, DrYang_38, Eaglehorse_44, EastView9101_42, Ebert_31, EdgarPoe_37, Evaa_38, Faze9_43, FelixTres_40, ForDig_37, FrenchFry_44, Fresco_38, Funsized_46, Galaxy_26, GemG_30, Gizermo_30, Glass_44, Glotell_26, Godines_44, Haley23_30, HannahPhantana_27, Hashim76_46, Hedgerow_44, Holeinone_44, Hosp_035, HumptyDumpty_37, Indlovu_42, ItsyBitsy1_44, JaNo_37, Jalleen_30, Jamun_25, JayCookie_37,

Jolie1_037, KBurrousTX_37, KHumphrey_26, Kabreeze_37, Kaleb_44, KarasumaRum_45, KayaCho_37, Kenuha5_22, Kersh_23, Kheth_44, Knocker_45, Kolhan_44, Kuleana_27, Lars_44, Laurie_43, Lehmann_45, Leona_25, Lephleur_44, Ligma_38, LilMcDreamy_41, LilSmirk_44, Linus_37, LittleMunchkin_40, LizLemon_44, LonelyBoi_35, Lukepolites_69, Lunar_27, Lymara_37, Madiba_23, MakoManhole_40, Maruru_31, MasterPo_44, Melons_27, Mocha12_30, Mordred_37, MossRose_40, MoyaNatalis_37, Mufasa8_29, Mysterious_43, NHagos_38, Nangang_43, Nehemiah_43, Ogopogo_25, Opia_44, Orcanus_26, OtsoOtso_26, Phantasmagoria_44, Phelemich_43, PhluffyCoco_26, Pine5_39, Pineda_28, Polka_26, Pollywog_25, PrinceCharming_44, PrincessTrina_37, Purky_30, Purky_36, Qyrzula_41, Reccee_45, RedFox_26, Rem711_6, Reprobate_44, Rhinoforte_44, Rinkes_44, Rita130_44, Rosebush_43, RosiePosie_37, Sabella_43, Saguaro_45, Sahara_29, Savage_30, Sbash_32, Scavito_37, Shambre1_30, Shatter_38, Shenyu_43, ShroomBoi_22, SirJeffery_44, Sisko_38, Sonali_32, Sour_43, Spooky_39, Sproutie_30, Squiddly_40, Stinger_39, StinkyVeggy_45, Stuck_40, Suigeneris_44, Sunshine23_32, TA17A_45, TaylorSipht_26, ThetaBob_24, Thonko_43, Tinciduntsolum_45, Toad24_27, Tophat_37, TraderJ_40, Tres_44, Triad_45, TuertoX_30, Vasanti_31, Vic9_00043, Vincenzo_41, Vulpecula_25, West99_44, Whiteclaw_30, WileyE_25, Wooper_40, Yago84_38, Yeshua_40, Yoshi_28, Zenteno07_48, phiAsp2_39,

Summary by start number:

Start 45:
• Found in 4 of 246 (1.6%) of genes in pham
• Manual Annotations of this start: 4 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Axumite_38 (DR), Fresco_38 (DR), Ligma_38 (DR), Shatter_38 (DR),

Start 47:
• Found in 12 of 246 (4.9%) of genes in pham
• Manual Annotations of this start: 8 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AksarBAT_38 (DR), AnarQue_40 (DR), Blackpen_40 (DR), CaiB_40 (DR), CloverMinnie_40 (DR), FelixTres_40 (DR), MakoManhole_40 (DR), MossRose_40 (DR), NHagos_38 (DR), TraderJ_40 (DR), Wooper_40 (DR), Yeshua_40 (DR),

Start 48:
• Found in 9 of 246 (3.7%) of genes in pham
• Manual Annotations of this start: 5 of 209
• Called 66.7% of time when present
• Phage (with cluster) where this start called: AnClar_39 (DR), BiggityBass_38 (DR), LittleMunchkin_40 (DR), Sisko_38 (DR), Yago84_38 (DR), phiAsp2_39 (singleton),

Start 49:
• Found in 5 of 246 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 40.0% of time when present
• Phage (with cluster) where this start called: BobRoss2024_37 (DR), Sour_43 (DR),

Start 52:

- Found in 4 of 246 (1.6%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Lukepolites_69 (singleton),

Start 53:
- Found in 2 of 246 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 32HC_7 (Z), Rem711_6 (Z),

Start 55:
- Found in 44 of 246 (17.9%) of genes in pham
- Manual Annotations of this start: 36 of 209
- Called 84.1% of time when present
- Phage (with cluster) where this start called: Antonio_35 (CZ1), Asapag_39 (DN1), BatStarr_34 (CZ1), BearBQ_38 (DN), BeeGee_38 (CY5), Bosnia_34 (CZ1), Budski_39 (DN), CheeseTouch_37 (DN1), Ecliptus_40 (DN), Eudoria_35 (CZ1), Eviarto_34 (CZ1), Getalong_40 (DN1), Herod_34 (CZ1), Holliday_38 (DN1), Horus_39 (DN1), Kenna_38 (DN1), Kita_36 (CZ1), Leroy_39 (DN1), Lutum_39 (DN1), Manasvini_35 (CZ1), Maridalia_34 (CZ1), Neobush_35 (CZ1), Nymphadora_34 (CZ1), ODay_42 (DN), Periwinkle_42 (DN1), Phabuloso_36 (DN1), Polly_32 (CZ1), RavenCo17_36 (CZ8), ShawBrad_38 (DN1), Sleepyhead_33 (singleton), Suscepit_35 (CZ1), Tayonia_35 (CZ1), TimTam_34 (CZ1), Trumpet_35 (CZ1), Whack_33 (singleton), Whitney_42 (DN1), Zameen_35 (CZ1),

Start 56:
- Found in 7 of 246 (2.8%) of genes in pham
- Manual Annotations of this start: 2 of 209
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Purky_30 (P6), Sbash_32 (I2), Stuck_40 (I2),

Start 58:
- Found in 13 of 246 (5.3%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Purky_36 (P6),

Start 59:
- Found in 3 of 246 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Carthage_43 (B1), Lehmann_45 (B1), Triad_45 (B1),

Start 62:
- Found in 14 of 246 (5.7%) of genes in pham
- Manual Annotations of this start: 13 of 209
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant_42 (B4), BirdsNest_46 (B13), Coldpizza_41 (DR), Evaa_38 (DR), Funsized_46 (B9), Hashim76_46 (B13), Knocker_45 (B9), Maruru_31 (FG), Mufasa8_29 (FG), Sonali_32 (FG), Stinger_39

(B4), Sunshine23_32 (FG), Vincenzo_41 (B4), Zenteno07_48 (B13),

Start 63:
• Found in 38 of 246 (15.4%) of genes in pham
• Manual Annotations of this start: 34 of 209
• Called 92.1% of time when present
• Phage (with cluster) where this start called: Allegro_44 (B2), Ares_44 (B2), Bananafish_44 (B2), Blocker23_44 (B2), Boyle_44 (B2), Brownie5_44 (B2), Calamitous_44 (B2), Coffee_44 (B2), Eaglehorse_44 (B2), Faze9_43 (B2), FrenchFry_44 (B2), Glass_44 (B2), Godines_44 (B2), Hedgerow_44 (B2), Holeinone_44 (B2), ItsyBitsy1_44 (B2), Kaleb_44 (B2), Kheth_44 (B2), Kolhan_44 (B2), Lars_44 (B2), Laurie_43 (B2), Lephleur_44 (B2), LilSmirk_44 (B2), LizLemon_44 (B2), MasterPo_44 (B2), Opia_44 (B2), Phantasmagoria_44 (B2), PrinceCharming_44 (B2), Rhinoforte_44 (B2), Sabella_43 (B2), TA17A_45 (B2), Tinciduntsolum_45 (B2), Tres_44 (B2), Vic9_00043 (B2), West99_44 (B2),

Start 64:
• Found in 3 of 246 (1.2%) of genes in pham
• Manual Annotations of this start: 3 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Shambre1_30 (singleton), Spooky_39 (DN2), Squiddly_40 (DN2),

Start 66:
• Found in 1 of 246 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 209
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Thonko_43 (B8),

Start 67:
• Found in 18 of 246 (7.3%) of genes in pham
• Manual Annotations of this start: 13 of 209
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Clap_30 (CZ2), Cynthia_30 (CZ2), Ebert_31 (CZ2), GemG_30 (CZ2), Gizermo_30 (CZ2), Haley23_30 (CZ2), Jalleen_30 (CZ2), Mocha12_30 (CZ2), Pine5_39 (singleton), Sahara_29 (CZ2), Savage_30 (CZ2), Sproutie_30 (CZ2), TuertoX_30 (CZ2), Vasanti_31 (CZ2), Whiteclaw_30 (CZ2),

Start 68:
• Found in 28 of 246 (11.4%) of genes in pham
• Manual Annotations of this start: 13 of 209
• Called 92.9% of time when present
• Phage (with cluster) where this start called: 39HC_037 (B6), 40BC_037 (B6), Acadian_44 (B5), DigitDog_43 (B5), Donny_44 (B5), EastView9101_42 (B5), ForDig_37 (B6), Hosp_035 (B6), Indlovu_42 (B11), Jolie1_037 (B6), KarasumaRum_45 (B5), KayaCho_37 (B6), LilMcDreamy_41 (B12), Mysterious_43 (B5), Nangang_43 (B5), Nehemiah_43 (B5), Phelemich_43 (B5), Reccee_45 (B5), Reprobate_44 (B5), Rinkes_44 (B9), Rita130_44 (B5), Saguaro_45 (B7), Shenyu_43 (B5), SirJeffery_44 (B5), StinkyVeggy_45 (B5), Suigeneris_44 (B5),

Start 70:
• Found in 5 of 246 (2.0%) of genes in pham

• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Bubbykins_37 (UNK),

Start 71:
• Found in 12 of 246 (4.9%) of genes in pham
• Manual Annotations of this start: 10 of 209
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Avani_28 (F2), Bipolar_22 (F1), Che9d_28 (F2), Demsculpinboyz_28 (F2), Kenuha5_22 (F1), Kersh_23 (F1), Ogopogo_25 (F1), Pollywog_25 (F1), ShroomBoi_22 (F1), Yoshi_28 (F2),

Start 72:
• Found in 25 of 246 (10.2%) of genes in pham
• Manual Annotations of this start: 19 of 209
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Chipper1996_370 (AR), Chocolat_37 (AR), Chubster_37 (AR), Colucci_37 (AR), Conboy_37 (AR), DrYang_38 (AR), EdgarPoe_37 (AR), HumptyDumpty_37 (AR), JaNo_37 (AR), JayCookie_37 (AR), KBurrousTX_37 (AR), Kabreeze_37 (AR), Linus_37 (AR), Lymara_37 (AR), Mordred_37 (AR), MoyaNatalis_37 (AR), PrincessTrina_37 (AR), RosiePosie_37 (AR), Scavito_37 (AR), Tophat_37 (AR),

Start 73:
• Found in 8 of 246 (3.3%) of genes in pham
• Manual Annotations of this start: 6 of 209
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Brynnie_25 (AS1), Chickaboom_25 (AS1), Jamun_25 (AS1), RayTheFireFly_38 (DB), Vulpecula_25 (AS1), WileyE_25 (AS1),

Start 74:
• Found in 17 of 246 (6.9%) of genes in pham
• Manual Annotations of this start: 2 of 209
• Called 11.8% of time when present
• Phage (with cluster) where this start called: Galaxy_26 (AS1), LonelyBoi_35 (CY7),

Start 75:
• Found in 126 of 246 (51.2%) of genes in pham
• Manual Annotations of this start: 33 of 209
• Called 31.0% of time when present
• Phage (with cluster) where this start called: Abidatro_27 (AS1), AlexMinion_25 (AS3), Amelia_27 (AS2), Amphitrite_26 (AS3), Andrew_28 (AS3), Antrice_26 (AS2), Apricot_38 (DN3), Atlantica_26 (AS3), BENtherdunthat_38 (DN1), Basilisk_26 (AS1), Camara_26 (AS3), Catfish_31 (CU5), Colusalem_27 (AS2), Coral_26 (AS2), Cote_27 (AS2), Crater_36 (DN3), Cygnet_25 (AS2), DanHam62_26 (AS3), Daob_27 (AS2), Frickyeah_39 (DN1), Glotell_26 (AS3), HannahPhantana_27 (AS2), Hugley_32 (CZ1), KHumphrey_26 (AS3), Kuleana_27 (AS2), Leona_25 (AS3), Lunar_27 (AS2), Madiba_23 (F1), Melons_27 (AS2), Orcanus_26 (AS1), OtsoOtso_26 (AS2), Phistory_39 (DN1), PhluffyCoco_26 (AS3), Pineda_28 (AS2), Polka_26 (AS2), RedFox_26 (AS3), TaylorSipht_26 (AS1), ThetaBob_24 (F4), Toad24_27 (AS1),

Start 76:

• Found in 38 of 246 (15.4%) of genes in pham
• Manual Annotations of this start: 3 of 209
• Called 7.9% of time when present
• Phage (with cluster) where this start called: Arbiter_43 (B2), Qyrzula_41 (B2), Rosebush_43 (B2),

Summary by clusters:

There are 36 clusters represented in this pham: FG, DN, singleton, CZ2, CZ1, DB, CZ8, B12, B13, B11, P6, DR, CU5, UNK, I2, DN1, DN3, DN2, AS3, AS2, AS1, CY7, CY5, AR, Z, F1, F2, F4, B4, B5, B6, B7, B1, B2, B8, B9,

Info for manual annotations of cluster AR:
•Start number 72 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster AS1:
•Start number 73 was manually annotated 5 times for cluster AS1.
•Start number 74 was manually annotated 1 time for cluster AS1.
•Start number 75 was manually annotated 5 times for cluster AS1.

Info for manual annotations of cluster AS2:
•Start number 75 was manually annotated 13 times for cluster AS2.

Info for manual annotations of cluster AS3:
•Start number 75 was manually annotated 8 times for cluster AS3.

Info for manual annotations of cluster B1:
•Start number 59 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B11:
•Start number 68 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:
•Start number 68 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:
•Start number 62 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:
•Start number 63 was manually annotated 34 times for cluster B2.
•Start number 76 was manually annotated 3 times for cluster B2.

Info for manual annotations of cluster B4:
•Start number 62 was manually annotated 3 times for cluster B4.

Info for manual annotations of cluster B5:
•Start number 68 was manually annotated 7 times for cluster B5.

Info for manual annotations of cluster B6:
•Start number 68 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:
•Start number 68 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:
•Start number 66 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:
•Start number 62 was manually annotated 2 times for cluster B9.
•Start number 68 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster CU5:
•Start number 75 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CY5:
•Start number 55 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY7:
•Start number 74 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ1:
•Start number 55 was manually annotated 17 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 67 was manually annotated 13 times for cluster CZ2.

Info for manual annotations of cluster CZ8:
•Start number 55 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DB:
•Start number 73 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DN:
•Start number 55 was manually annotated 4 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 55 was manually annotated 11 times for cluster DN1.
•Start number 75 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 64 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 75 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DR:
•Start number 45 was manually annotated 4 times for cluster DR.
•Start number 47 was manually annotated 8 times for cluster DR.
•Start number 48 was manually annotated 5 times for cluster DR.
•Start number 49 was manually annotated 1 time for cluster DR.
•Start number 62 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster F1:
•Start number 71 was manually annotated 6 times for cluster F1.
•Start number 75 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 71 was manually annotated 4 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 75 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster FG:
•Start number 62 was manually annotated 3 times for cluster FG.

Info for manual annotations of cluster I2:
•Start number 56 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster P6:
•Start number 56 was manually annotated 1 time for cluster P6.
•Start number 58 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Z:
•Start number 53 was manually annotated 1 time for cluster Z.

Gene Information:
Gene: 32HC_7 Start: 3414, Stop: 3172, Start Num: 53
Candidate Starts for 32HC_7:
(Start: 48 @3423 has 5 MA's), (Start: 53 @3414 has 1 MA's), (70, 3384), (96, 3291), (101, 3273),

Gene: 39HC_037 Start: 36987, Stop: 36790, Start Num: 68
Candidate Starts for 39HC_037:
(Start: 68 @36987 has 13 MA's), (Start: 74 @36975 has 2 MA's), (82, 36948), (86, 36930), (95, 36897),

Gene: 40BC_037 Start: 36987, Stop: 36790, Start Num: 68
Candidate Starts for 40BC_037:
(Start: 68 @36987 has 13 MA's), (Start: 74 @36975 has 2 MA's), (82, 36948), (86, 36930), (95, 36897),

Gene: Abidatro_27 Start: 19710, Stop: 19528, Start Num: 75
Candidate Starts for Abidatro_27:
(57, 19749), (Start: 75 @19710 has 33 MA's),

Gene: Acadian_44 Start: 39648, Stop: 39439, Start Num: 68
Candidate Starts for Acadian_44:
(18, 39762), (20, 39756), (Start: 68 @39648 has 13 MA's), (Start: 75 @39633 has 33 MA's), (79, 39621), (86, 39588),

Gene: AksarBAT_38 Start: 33442, Stop: 33182, Start Num: 47
Candidate Starts for AksarBAT_38:
(34, 33475), (Start: 47 @33442 has 8 MA's), (Start: 74 @33400 has 2 MA's), (Start: 75 @33397 has 33 MA's), (88, 33346), (93, 33328), (101, 33301),

Gene: AlanGrant_42 Start: 39951, Stop: 39745, Start Num: 62
Candidate Starts for AlanGrant_42:

(Start: 62 @39951 has 13 MA's), (Start: 75 @39930 has 33 MA's), (77, 39924), (82, 39903), (86, 39885), (88, 39876), (91, 39867), (99, 39837), (100, 39834), (101, 39831),

Gene: AlexMinion_25 Start: 18294, Stop: 18103, Start Num: 75
Candidate Starts for AlexMinion_25:
(13, 18519), (16, 18441), (19, 18429), (Start: 72 @18306 has 19 MA's), (Start: 75 @18294 has 33 MA's),

Gene: Allegro_44 Start: 39432, Stop: 39226, Start Num: 63
Candidate Starts for Allegro_44:
(Start: 63 @39432 has 34 MA's), (Start: 76 @39405 has 3 MA's), (77, 39402), (91, 39348), (100, 39315),

Gene: Amelia_27 Start: 19057, Stop: 18836, Start Num: 75
Candidate Starts for Amelia_27:
(Start: 75 @19057 has 33 MA's),

Gene: Amphitrite_26 Start: 18730, Stop: 18515, Start Num: 75
Candidate Starts for Amphitrite_26:
(Start: 75 @18730 has 33 MA's),

Gene: AnClar_39 Start: 35606, Stop: 35379, Start Num: 48
Candidate Starts for AnClar_39:
(Start: 48 @35606 has 5 MA's), (94, 35489), (110, 35420),

Gene: AnarQue_40 Start: 34838, Stop: 34584, Start Num: 47
Candidate Starts for AnarQue_40:
(32, 34880), (Start: 47 @34838 has 8 MA's), (Start: 75 @34790 has 33 MA's), (88, 34739), (93, 34721), (101, 34694),

Gene: Andrew_28 Start: 19161, Stop: 18955, Start Num: 75
Candidate Starts for Andrew_28:
(Start: 75 @19161 has 33 MA's),

Gene: Antonio_35 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Antonio_35:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: Antrice_26 Start: 19359, Stop: 19168, Start Num: 75
Candidate Starts for Antrice_26:
(40, 19434), (42, 19431), (Start: 75 @19359 has 33 MA's),

Gene: Apricot_38 Start: 28904, Stop: 28710, Start Num: 75
Candidate Starts for Apricot_38:
(Start: 55 @28946 has 36 MA's), (Start: 75 @28904 has 33 MA's), (81, 28883), (92, 28841), (104, 28793),

Gene: Arbiter_43 Start: 39491, Stop: 39312, Start Num: 76
Candidate Starts for Arbiter_43:
(Start: 63 @39518 has 34 MA's), (Start: 76 @39491 has 3 MA's), (77, 39488), (91, 39434), (100, 39401),

Gene: Ares_44 Start: 39502, Stop: 39296, Start Num: 63
Candidate Starts for Ares_44:
(Start: 63 @39502 has 34 MA's), (Start: 76 @39475 has 3 MA's), (77, 39472), (91, 39418), (100, 39385),

Gene: Asapag_39 Start: 30538, Stop: 30302, Start Num: 55
Candidate Starts for Asapag_39:
(Start: 55 @30538 has 36 MA's), (Start: 75 @30496 has 33 MA's), (81, 30475), (92, 30433), (104, 30385),

Gene: Atlantica_26 Start: 18732, Stop: 18517, Start Num: 75
Candidate Starts for Atlantica_26:
(Start: 75 @18732 has 33 MA's),

Gene: Avani_28 Start: 24082, Stop: 23903, Start Num: 71
Candidate Starts for Avani_28:
(Start: 58 @24106 has 1 MA's), (Start: 71 @24082 has 10 MA's), (Start: 75 @24076 has 33 MA's), (79, 24064), (82, 24049), (91, 24016), (109, 23920),

Gene: Axumite_38 Start: 32837, Stop: 32601, Start Num: 45
Candidate Starts for Axumite_38:
(43, 32840), (Start: 45 @32837 has 4 MA's), (Start: 56 @32816 has 2 MA's), (60, 32810), (Start: 74 @32786 has 2 MA's), (77, 32780), (100, 32690),

Gene: BENtherdunthat_38 Start: 28707, Stop: 28513, Start Num: 75
Candidate Starts for BENtherdunthat_38:
(Start: 55 @28749 has 36 MA's), (Start: 75 @28707 has 33 MA's), (81, 28686), (92, 28644), (104, 28596),

Gene: Bananafish_44 Start: 39438, Stop: 39232, Start Num: 63
Candidate Starts for Bananafish_44:
(Start: 63 @39438 has 34 MA's), (Start: 76 @39411 has 3 MA's), (77, 39408), (91, 39354), (100, 39321),

Gene: Basilisk_26 Start: 20189, Stop: 19986, Start Num: 75
Candidate Starts for Basilisk_26:
(Start: 75 @20189 has 33 MA's),

Gene: BatStarr_34 Start: 29521, Stop: 29285, Start Num: 55
Candidate Starts for BatStarr_34:
(Start: 55 @29521 has 36 MA's), (Start: 75 @29479 has 33 MA's), (92, 29416), (104, 29368), (106, 29356),

Gene: BearBQ_38 Start: 30173, Stop: 29937, Start Num: 55
Candidate Starts for BearBQ_38:
(Start: 55 @30173 has 36 MA's), (Start: 75 @30131 has 33 MA's), (81, 30110), (92, 30068), (104, 30020),

Gene: BeeGee_38 Start: 30304, Stop: 30068, Start Num: 55
Candidate Starts for BeeGee_38:
(Start: 55 @30304 has 36 MA's), (Start: 75 @30262 has 33 MA's), (81, 30241), (92, 30199), (104, 30151),

Gene: BiggityBass_38 Start: 35067, Stop: 34840, Start Num: 48
Candidate Starts for BiggityBass_38:
(39, 35082), (Start: 48 @35067 has 5 MA's), (94, 34950), (110, 34881),

Gene: Bipolar_22 Start: 24352, Stop: 24173, Start Num: 71
Candidate Starts for Bipolar_22:
(Start: 58 @24376 has 1 MA's), (Start: 71 @24352 has 10 MA's), (Start: 75 @24346 has 33 MA's), (82, 24319), (91, 24286), (109, 24190),

Gene: BirdsNest_46 Start: 37877, Stop: 37662, Start Num: 62
Candidate Starts for BirdsNest_46:
(Start: 62 @37877 has 13 MA's), (Start: 75 @37853 has 33 MA's), (82, 37826), (88, 37799), (106, 37733), (111, 37703),

Gene: Blackpen_40 Start: 34256, Stop: 34002, Start Num: 47
Candidate Starts for Blackpen_40:
(32, 34298), (Start: 47 @34256 has 8 MA's), (Start: 75 @34208 has 33 MA's), (88, 34157), (93, 34139), (101, 34112),

Gene: Blocker23_44 Start: 39556, Stop: 39350, Start Num: 63
Candidate Starts for Blocker23_44:
(Start: 63 @39556 has 34 MA's), (Start: 76 @39529 has 3 MA's), (77, 39526), (91, 39472), (100, 39439),

Gene: BobRoss2024_37 Start: 32952, Stop: 32707, Start Num: 49
Candidate Starts for BobRoss2024_37:
(32, 32994), (34, 32985), (Start: 49 @32952 has 1 MA's), (69, 32919), (Start: 72 @32910 has 19 MA's), (Start: 74 @32901 has 2 MA's), (88, 32847), (108, 32763),

Gene: Bosnia_34 Start: 29521, Stop: 29285, Start Num: 55
Candidate Starts for Bosnia_34:
(Start: 55 @29521 has 36 MA's), (Start: 75 @29479 has 33 MA's), (92, 29416), (104, 29368), (106, 29356),

Gene: Boyle_44 Start: 39557, Stop: 39351, Start Num: 63
Candidate Starts for Boyle_44:
(Start: 63 @39557 has 34 MA's), (Start: 76 @39530 has 3 MA's), (77, 39527), (91, 39473), (100, 39440),

Gene: Brownie5_44 Start: 39563, Stop: 39357, Start Num: 63
Candidate Starts for Brownie5_44:
(Start: 63 @39563 has 34 MA's), (Start: 76 @39536 has 3 MA's), (77, 39533), (91, 39479), (100, 39446),

Gene: Brynnie_25 Start: 19788, Stop: 19591, Start Num: 73
Candidate Starts for Brynnie_25:
(Start: 73 @19788 has 6 MA's),

Gene: Bubbykins_37 Start: 28274, Stop: 28059, Start Num: 70
Candidate Starts for Bubbykins_37:
(22, 28391), (24, 28385), (25, 28382), (28, 28376), (33, 28361), (36, 28346), (46, 28322), (70, 28274), (86, 28214), (95, 28184), (102, 28154), (103, 28151),

Gene: Budski_39 Start: 30500, Stop: 30264, Start Num: 55
Candidate Starts for Budski_39:
(Start: 55 @30500 has 36 MA's), (Start: 75 @30458 has 33 MA's), (81, 30437), (92, 30395), (104, 30347),

Gene: CaiB_40 Start: 34824, Stop: 34570, Start Num: 47
Candidate Starts for CaiB_40:
(32, 34866), (Start: 47 @34824 has 8 MA's), (Start: 75 @34776 has 33 MA's), (88, 34725), (93, 34707), (101, 34680),

Gene: Calamitous_44 Start: 39443, Stop: 39237, Start Num: 63
Candidate Starts for Calamitous_44:
(Start: 63 @39443 has 34 MA's), (Start: 76 @39416 has 3 MA's), (77, 39413), (91, 39359), (100, 39326),

Gene: Camara_26 Start: 18733, Stop: 18518, Start Num: 75
Candidate Starts for Camara_26:
(Start: 75 @18733 has 33 MA's),

Gene: Carthage_43 Start: 38107, Stop: 37892, Start Num: 59
Candidate Starts for Carthage_43:
(Start: 59 @38107 has 1 MA's), (Start: 75 @38077 has 33 MA's), (86, 38032), (95, 37999),

Gene: Catfish_31 Start: 25984, Stop: 25784, Start Num: 75
Candidate Starts for Catfish_31:
(8, 26254), (Start: 49 @26041 has 1 MA's), (Start: 75 @25984 has 33 MA's), (79, 25972), (97, 25897),

Gene: Che9d_28 Start: 24090, Stop: 23911, Start Num: 71
Candidate Starts for Che9d_28:
(Start: 58 @24114 has 1 MA's), (Start: 71 @24090 has 10 MA's), (Start: 75 @24084 has 33 MA's), (82, 24057), (91, 24024), (109, 23928),

Gene: CheeseTouch_37 Start: 27100, Stop: 26864, Start Num: 55
Candidate Starts for CheeseTouch_37:
(Start: 55 @27100 has 36 MA's), (Start: 75 @27058 has 33 MA's), (81, 27037), (92, 26995), (104, 26947),

Gene: Chickaboom_25 Start: 18878, Stop: 18663, Start Num: 73
Candidate Starts for Chickaboom_25:
(Start: 73 @18878 has 6 MA's),

Gene: Chipper1996_370 Start: 30385, Stop: 30167, Start Num: 72
Candidate Starts for Chipper1996_370:
(15, 30535), (24, 30490), (25, 30487), (37, 30448), (54, 30415), (Start: 72 @30385 has 19 MA's), (78, 30364), (86, 30328), (91, 30313), (95, 30298), (97, 30286),

Gene: Chocolat_37 Start: 30385, Stop: 30167, Start Num: 72
Candidate Starts for Chocolat_37:
(15, 30535), (24, 30490), (25, 30487), (37, 30448), (54, 30415), (Start: 72 @30385 has 19 MA's), (78, 30364), (86, 30328), (91, 30313), (95, 30298), (97, 30286),

Gene: Chubster_37 Start: 30157, Stop: 29939, Start Num: 72
Candidate Starts for Chubster_37:

(15, 30307), (24, 30262), (25, 30259), (37, 30220), (54, 30187), (Start: 72 @30157 has 19 MA's), (78, 30136), (86, 30100), (91, 30085), (95, 30070), (97, 30058),

Gene: Clap_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Clap_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: CloverMinnie_40 Start: 34764, Stop: 34510, Start Num: 47
Candidate Starts for CloverMinnie_40:
(32, 34806), (Start: 47 @34764 has 8 MA's), (Start: 75 @34716 has 33 MA's), (88, 34665), (93, 34647), (101, 34620),

Gene: Coffee_44 Start: 39546, Stop: 39340, Start Num: 63
Candidate Starts for Coffee_44:
(Start: 63 @39546 has 34 MA's), (Start: 76 @39519 has 3 MA's), (77, 39516), (91, 39462), (100, 39429),

Gene: Coldpizza_41 Start: 37616, Stop: 37404, Start Num: 62
Candidate Starts for Coldpizza_41:
(Start: 48 @37640 has 5 MA's), (50, 37634), (Start: 62 @37616 has 13 MA's), (85, 37550), (88, 37535), (93, 37517), (99, 37496), (110, 37445),

Gene: Colucci_37 Start: 29963, Stop: 29742, Start Num: 72
Candidate Starts for Colucci_37:
(5, 30272), (7, 30215), (10, 30194), (37, 30026), (41, 30020), (61, 29981), (Start: 72 @29963 has 19 MA's), (91, 29891), (95, 29876), (97, 29864), (103, 29843),

Gene: Colusalem_27 Start: 19035, Stop: 18814, Start Num: 75
Candidate Starts for Colusalem_27:
(Start: 75 @19035 has 33 MA's),

Gene: Conboy_37 Start: 30384, Stop: 30166, Start Num: 72
Candidate Starts for Conboy_37:
(15, 30534), (24, 30489), (25, 30486), (37, 30447), (54, 30414), (Start: 72 @30384 has 19 MA's), (78, 30363), (86, 30327), (91, 30312), (95, 30297), (97, 30285),

Gene: Coral_26 Start: 18896, Stop: 18675, Start Num: 75
Candidate Starts for Coral_26:
(Start: 75 @18896 has 33 MA's),

Gene: Cote_27 Start: 19041, Stop: 18820, Start Num: 75
Candidate Starts for Cote_27:
(Start: 75 @19041 has 33 MA's),

Gene: Crater_36 Start: 28423, Stop: 28229, Start Num: 75
Candidate Starts for Crater_36:
(Start: 55 @28465 has 36 MA's), (Start: 75 @28423 has 33 MA's), (80, 28405), (81, 28402), (92, 28360), (104, 28312), (106, 28300), (115, 28240),

Gene: Cygnet_25 Start: 19348, Stop: 19154, Start Num: 75
Candidate Starts for Cygnet_25:
(40, 19423), (42, 19420), (Start: 75 @19348 has 33 MA's),

Gene: Cynthia_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Cynthia_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: DanHam62_26 Start: 18732, Stop: 18517, Start Num: 75
Candidate Starts for DanHam62_26:
(Start: 75 @18732 has 33 MA's),

Gene: Daob_27 Start: 19046, Stop: 18825, Start Num: 75
Candidate Starts for Daob_27:
(Start: 75 @19046 has 33 MA's),

Gene: Demsculpinboyz_28 Start: 24075, Stop: 23896, Start Num: 71
Candidate Starts for Demsculpinboyz_28:
(Start: 58 @24099 has 1 MA's), (Start: 71 @24075 has 10 MA's), (Start: 75 @24069 has 33 MA's), (82, 24042), (91, 24009), (109, 23913),

Gene: DigitDog_43 Start: 39348, Stop: 39139, Start Num: 68
Candidate Starts for DigitDog_43:
(20, 39456), (Start: 68 @39348 has 13 MA's), (Start: 75 @39333 has 33 MA's), (79, 39321),

Gene: Donny_44 Start: 39653, Stop: 39444, Start Num: 68
Candidate Starts for Donny_44:
(18, 39767), (20, 39761), (Start: 68 @39653 has 13 MA's), (Start: 75 @39638 has 33 MA's), (79, 39626), (86, 39593),

Gene: DrYang_38 Start: 31723, Stop: 31505, Start Num: 72
Candidate Starts for DrYang_38:
(Start: 72 @31723 has 19 MA's), (84, 31675), (86, 31666), (91, 31651), (95, 31636), (97, 31624), (112, 31549),

Gene: Eaglehorse_44 Start: 39470, Stop: 39264, Start Num: 63
Candidate Starts for Eaglehorse_44:
(Start: 63 @39470 has 34 MA's), (Start: 76 @39443 has 3 MA's), (77, 39440), (91, 39386), (100, 39353),

Gene: EastView9101_42 Start: 39303, Stop: 39094, Start Num: 68
Candidate Starts for EastView9101_42:
(18, 39417), (20, 39411), (Start: 68 @39303 has 13 MA's), (Start: 75 @39288 has 33 MA's), (79, 39276), (86, 39243),

Gene: Ebert_31 Start: 25587, Stop: 25387, Start Num: 67
Candidate Starts for Ebert_31:
(Start: 67 @25587 has 13 MA's), (79, 25566), (82, 25551), (85, 25539), (95, 25503),

Gene: Ecliptus_40 Start: 31004, Stop: 30768, Start Num: 55
Candidate Starts for Ecliptus_40:
(Start: 55 @31004 has 36 MA's), (Start: 75 @30962 has 33 MA's), (81, 30941), (92, 30899), (104, 30851),

Gene: EdgarPoe_37 Start: 30384, Stop: 30166, Start Num: 72
Candidate Starts for EdgarPoe_37:

(15, 30534), (24, 30489), (25, 30486), (37, 30447), (54, 30414), (Start: 72 @30384 has 19 MA's), (78, 30363), (86, 30327), (91, 30312), (95, 30297), (97, 30285),

Gene: Eudoria_35 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Eudoria_35:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: Evaa_38 Start: 33917, Stop: 33678, Start Num: 62
Candidate Starts for Evaa_38:
(Start: 48 @33941 has 5 MA's), (50, 33935), (Start: 62 @33917 has 13 MA's), (85, 33851), (110, 33746),

Gene: Eviarto_34 Start: 29497, Stop: 29261, Start Num: 55
Candidate Starts for Eviarto_34:
(Start: 55 @29497 has 36 MA's), (Start: 75 @29455 has 33 MA's), (92, 29392), (104, 29344), (106, 29332),

Gene: Faze9_43 Start: 39566, Stop: 39360, Start Num: 63
Candidate Starts for Faze9_43:
(Start: 63 @39566 has 34 MA's), (Start: 76 @39539 has 3 MA's), (77, 39536), (91, 39482), (100, 39449),

Gene: FelixTres_40 Start: 34827, Stop: 34573, Start Num: 47
Candidate Starts for FelixTres_40:
(32, 34869), (Start: 47 @34827 has 8 MA's), (Start: 75 @34779 has 33 MA's), (88, 34728), (93, 34710), (101, 34683),

Gene: ForDig_37 Start: 36976, Stop: 36779, Start Num: 68
Candidate Starts for ForDig_37:
(Start: 68 @36976 has 13 MA's), (Start: 74 @36964 has 2 MA's), (77, 36958), (82, 36937), (86, 36919),

Gene: FrenchFry_44 Start: 39560, Stop: 39354, Start Num: 63
Candidate Starts for FrenchFry_44:
(Start: 63 @39560 has 34 MA's), (Start: 76 @39533 has 3 MA's), (77, 39530), (91, 39476), (100, 39443),

Gene: Fresco_38 Start: 32837, Stop: 32601, Start Num: 45
Candidate Starts for Fresco_38:
(43, 32840), (Start: 45 @32837 has 4 MA's), (Start: 56 @32816 has 2 MA's), (60, 32810), (Start: 74 @32786 has 2 MA's), (77, 32780), (100, 32690),

Gene: Frickyeah_39 Start: 28597, Stop: 28403, Start Num: 75
Candidate Starts for Frickyeah_39:
(Start: 55 @28639 has 36 MA's), (Start: 75 @28597 has 33 MA's), (81, 28576), (92, 28534), (104, 28486),

Gene: Funsized_46 Start: 41756, Stop: 41544, Start Num: 62
Candidate Starts for Funsized_46:
(6, 42029), (11, 41957), (44, 41783), (Start: 62 @41756 has 13 MA's), (Start: 68 @41747 has 13 MA's), (77, 41723), (82, 41702), (86, 41684), (91, 41666),

Gene: Galaxy_26 Start: 19656, Stop: 19465, Start Num: 74

Candidate Starts for Galaxy_26:
(Start: 74 @19656 has 2 MA's),

Gene: GemG_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for GemG_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Getalong_40 Start: 31359, Stop: 31123, Start Num: 55
Candidate Starts for Getalong_40:
(Start: 55 @31359 has 36 MA's), (Start: 75 @31317 has 33 MA's), (81, 31296), (92, 31254), (104, 31206),

Gene: Gizermo_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Gizermo_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Glass_44 Start: 39560, Stop: 39354, Start Num: 63
Candidate Starts for Glass_44:
(Start: 63 @39560 has 34 MA's), (Start: 76 @39533 has 3 MA's), (77, 39530), (91, 39476), (100, 39443),

Gene: Glotell_26 Start: 18731, Stop: 18516, Start Num: 75
Candidate Starts for Glotell_26:
(19, 18866), (38, 18812), (Start: 72 @18743 has 19 MA's), (Start: 75 @18731 has 33 MA's),

Gene: Godines_44 Start: 39502, Stop: 39296, Start Num: 63
Candidate Starts for Godines_44:
(Start: 63 @39502 has 34 MA's), (Start: 76 @39475 has 3 MA's), (77, 39472), (91, 39418), (100, 39385),

Gene: Haley23_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Haley23_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: HannahPhantana_27 Start: 19053, Stop: 18832, Start Num: 75
Candidate Starts for HannahPhantana_27:
(Start: 75 @19053 has 33 MA's),

Gene: Hashim76_46 Start: 38349, Stop: 38134, Start Num: 62
Candidate Starts for Hashim76_46:
(Start: 62 @38349 has 13 MA's), (Start: 75 @38325 has 33 MA's), (88, 38271), (111, 38175),

Gene: Hedgerow_44 Start: 39542, Stop: 39336, Start Num: 63
Candidate Starts for Hedgerow_44:
(Start: 63 @39542 has 34 MA's), (Start: 76 @39515 has 3 MA's), (77, 39512), (91, 39458), (100, 39425),

Gene: Herod_34 Start: 29521, Stop: 29285, Start Num: 55
Candidate Starts for Herod_34:
(Start: 55 @29521 has 36 MA's), (Start: 75 @29479 has 33 MA's), (92, 29416), (104, 29368), (106, 29356),

Gene: Holeinone_44 Start: 39422, Stop: 39216, Start Num: 63

Candidate Starts for Holeinone_44:
(Start: 63 @39422 has 34 MA's), (Start: 76 @39395 has 3 MA's), (77, 39392), (91, 39338), (100, 39305),

Gene: Holliday_38 Start: 29214, Stop: 28978, Start Num: 55
Candidate Starts for Holliday_38:
(Start: 55 @29214 has 36 MA's), (Start: 75 @29172 has 33 MA's), (81, 29151), (92, 29109), (104, 29061),

Gene: Horus_39 Start: 30560, Stop: 30324, Start Num: 55
Candidate Starts for Horus_39:
(Start: 55 @30560 has 36 MA's), (Start: 75 @30518 has 33 MA's), (81, 30497), (92, 30455), (104, 30407),

Gene: Hosp_035 Start: 35180, Stop: 34983, Start Num: 68
Candidate Starts for Hosp_035:
(Start: 68 @35180 has 13 MA's), (Start: 74 @35168 has 2 MA's), (82, 35141), (86, 35123),

Gene: Hugley_32 Start: 29478, Stop: 29284, Start Num: 75
Candidate Starts for Hugley_32:
(Start: 55 @29520 has 36 MA's), (Start: 75 @29478 has 33 MA's), (92, 29415), (104, 29367), (106, 29355),

Gene: HumptyDumpty_37 Start: 30383, Stop: 30165, Start Num: 72
Candidate Starts for HumptyDumpty_37:
(15, 30533), (24, 30488), (25, 30485), (37, 30446), (54, 30413), (Start: 72 @30383 has 19 MA's), (78, 30362), (86, 30326), (91, 30311), (95, 30296), (97, 30284),

Gene: Indlovu_42 Start: 38503, Stop: 38300, Start Num: 68
Candidate Starts for Indlovu_42:
(23, 38602), (Start: 68 @38503 has 13 MA's), (Start: 75 @38485 has 33 MA's), (82, 38458), (86, 38440), (99, 38392),

Gene: ItsyBitsy1_44 Start: 39424, Stop: 39218, Start Num: 63
Candidate Starts for ItsyBitsy1_44:
(Start: 63 @39424 has 34 MA's), (Start: 76 @39397 has 3 MA's), (77, 39394), (91, 39340), (100, 39307),

Gene: JaNo_37 Start: 30383, Stop: 30165, Start Num: 72
Candidate Starts for JaNo_37:
(15, 30533), (24, 30488), (25, 30485), (37, 30446), (54, 30413), (Start: 72 @30383 has 19 MA's), (78, 30362), (86, 30326), (91, 30311), (95, 30296), (97, 30284),

Gene: Jalleen_30 Start: 25302, Stop: 25102, Start Num: 67
Candidate Starts for Jalleen_30:
(Start: 67 @25302 has 13 MA's), (79, 25281), (82, 25266), (85, 25254), (95, 25218),

Gene: Jamun_25 Start: 19385, Stop: 19188, Start Num: 73
Candidate Starts for Jamun_25:
(1, 20447), (2, 20237), (3, 19964), (4, 19799), (Start: 73 @19385 has 6 MA's),

Gene: JayCookie_37 Start: 30387, Stop: 30169, Start Num: 72
Candidate Starts for JayCookie_37:

(15, 30537), (24, 30492), (25, 30489), (37, 30450), (54, 30417), (Start: 72 @30387 has 19 MA's), (78, 30366), (86, 30330), (91, 30315), (95, 30300), (97, 30288),

Gene: Jolie1_037 Start: 36967, Stop: 36770, Start Num: 68
Candidate Starts for Jolie1_037:
(Start: 68 @36967 has 13 MA's), (Start: 74 @36955 has 2 MA's), (77, 36949), (82, 36928), (86, 36910),

Gene: KBurrousTX_37 Start: 31486, Stop: 31268, Start Num: 72
Candidate Starts for KBurrousTX_37:
(54, 31513), (Start: 72 @31486 has 19 MA's), (79, 31462), (86, 31429), (91, 31414), (95, 31399), (97, 31387), (98, 31381),

Gene: KHumphrey_26 Start: 18730, Stop: 18515, Start Num: 75
Candidate Starts for KHumphrey_26:
(Start: 75 @18730 has 33 MA's),

Gene: Kabreeze_37 Start: 30383, Stop: 30165, Start Num: 72
Candidate Starts for Kabreeze_37:
(15, 30533), (24, 30488), (25, 30485), (37, 30446), (54, 30413), (Start: 72 @30383 has 19 MA's), (78, 30362), (86, 30326), (91, 30311), (95, 30296), (97, 30284),

Gene: Kaleb_44 Start: 39557, Stop: 39351, Start Num: 63
Candidate Starts for Kaleb_44:
(Start: 63 @39557 has 34 MA's), (Start: 76 @39530 has 3 MA's), (77, 39527), (91, 39473), (100, 39440),

Gene: KarasumaRum_45 Start: 39790, Stop: 39581, Start Num: 68
Candidate Starts for KarasumaRum_45:
(20, 39898), (Start: 68 @39790 has 13 MA's), (Start: 75 @39775 has 33 MA's), (79, 39763),

Gene: KayaCho_37 Start: 36966, Stop: 36766, Start Num: 68
Candidate Starts for KayaCho_37:
(Start: 68 @36966 has 13 MA's), (Start: 75 @36951 has 33 MA's), (82, 36924), (86, 36906),

Gene: Kenna_38 Start: 29550, Stop: 29314, Start Num: 55
Candidate Starts for Kenna_38:
(Start: 55 @29550 has 36 MA's), (Start: 75 @29508 has 33 MA's), (81, 29487), (92, 29445), (104, 29397),

Gene: Kenuha5_22 Start: 24468, Stop: 24289, Start Num: 71
Candidate Starts for Kenuha5_22:
(Start: 58 @24492 has 1 MA's), (Start: 71 @24468 has 10 MA's), (Start: 75 @24462 has 33 MA's), (82, 24435), (91, 24402), (109, 24306),

Gene: Kersh_23 Start: 24511, Stop: 24332, Start Num: 71
Candidate Starts for Kersh_23:
(Start: 58 @24535 has 1 MA's), (Start: 71 @24511 has 10 MA's), (Start: 75 @24505 has 33 MA's), (82, 24478), (91, 24445), (109, 24349),

Gene: Kheth_44 Start: 39445, Stop: 39239, Start Num: 63
Candidate Starts for Kheth_44:
(Start: 63 @39445 has 34 MA's), (Start: 76 @39418 has 3 MA's), (77, 39415), (91, 39361), (100, 39328),

Gene: Kita_36 Start: 29363, Stop: 29127, Start Num: 55
Candidate Starts for Kita_36:
(Start: 55 @29363 has 36 MA's), (Start: 75 @29321 has 33 MA's), (81, 29300), (92, 29258), (104, 29210), (115, 29138),

Gene: Knocker_45 Start: 40870, Stop: 40658, Start Num: 62
Candidate Starts for Knocker_45:
(17, 40978), (Start: 62 @40870 has 13 MA's), (Start: 68 @40861 has 13 MA's), (77, 40837), (79, 40831), (82, 40816), (86, 40798),

Gene: Kolhan_44 Start: 39436, Stop: 39230, Start Num: 63
Candidate Starts for Kolhan_44:
(Start: 63 @39436 has 34 MA's), (Start: 76 @39409 has 3 MA's), (77, 39406), (91, 39352), (100, 39319),

Gene: Kuleana_27 Start: 19065, Stop: 18880, Start Num: 75
Candidate Starts for Kuleana_27:
(Start: 72 @19077 has 19 MA's), (Start: 75 @19065 has 33 MA's),

Gene: Lars_44 Start: 39547, Stop: 39341, Start Num: 63
Candidate Starts for Lars_44:
(Start: 63 @39547 has 34 MA's), (Start: 76 @39520 has 3 MA's), (77, 39517), (91, 39463), (100, 39430),

Gene: Laurie_43 Start: 38946, Stop: 38740, Start Num: 63
Candidate Starts for Laurie_43:
(Start: 63 @38946 has 34 MA's), (Start: 76 @38919 has 3 MA's), (77, 38916), (91, 38862), (100, 38829),

Gene: Lehmann_45 Start: 38734, Stop: 38519, Start Num: 59
Candidate Starts for Lehmann_45:
(Start: 59 @38734 has 1 MA's), (Start: 75 @38704 has 33 MA's), (86, 38659), (95, 38626),

Gene: Leona_25 Start: 18655, Stop: 18440, Start Num: 75
Candidate Starts for Leona_25:
(19, 18790), (38, 18736), (Start: 72 @18667 has 19 MA's), (Start: 75 @18655 has 33 MA's),

Gene: Lephleur_44 Start: 39440, Stop: 39234, Start Num: 63
Candidate Starts for Lephleur_44:
(Start: 63 @39440 has 34 MA's), (Start: 76 @39413 has 3 MA's), (77, 39410), (91, 39356), (100, 39323),

Gene: Leroy_39 Start: 30561, Stop: 30325, Start Num: 55
Candidate Starts for Leroy_39:
(Start: 55 @30561 has 36 MA's), (Start: 75 @30519 has 33 MA's), (81, 30498), (92, 30456), (104, 30408),

Gene: Ligma_38 Start: 32837, Stop: 32601, Start Num: 45
Candidate Starts for Ligma_38:
(43, 32840), (Start: 45 @32837 has 4 MA's), (Start: 56 @32816 has 2 MA's), (60, 32810), (Start: 74 @32786 has 2 MA's), (77, 32780), (100, 32690),

Gene: LilMcDreamy_41 Start: 38754, Stop: 38542, Start Num: 68
Candidate Starts for LilMcDreamy_41:
(20, 38862), (Start: 68 @38754 has 13 MA's), (Start: 75 @38736 has 33 MA's), (86, 38691), (101, 38637),

Gene: LilSmirk_44 Start: 39434, Stop: 39228, Start Num: 63
Candidate Starts for LilSmirk_44:
(Start: 63 @39434 has 34 MA's), (Start: 76 @39407 has 3 MA's), (77, 39404), (91, 39350), (100, 39317),

Gene: Linus_37 Start: 30384, Stop: 30166, Start Num: 72
Candidate Starts for Linus_37:
(15, 30534), (24, 30489), (25, 30486), (37, 30447), (54, 30414), (Start: 72 @30384 has 19 MA's), (78, 30363), (86, 30327), (91, 30312), (95, 30297), (97, 30285),

Gene: LittleMunchkin_40 Start: 36172, Stop: 35945, Start Num: 48
Candidate Starts for LittleMunchkin_40:
(Start: 48 @36172 has 5 MA's), (94, 36055), (101, 36031),

Gene: LizLemon_44 Start: 39556, Stop: 39350, Start Num: 63
Candidate Starts for LizLemon_44:
(Start: 63 @39556 has 34 MA's), (Start: 76 @39529 has 3 MA's), (77, 39526), (91, 39472), (100, 39439),

Gene: LonelyBoi_35 Start: 30866, Stop: 30690, Start Num: 74
Candidate Starts for LonelyBoi_35:
(Start: 74 @30866 has 2 MA's), (79, 30851), (85, 30824),

Gene: Lukepolites_69 Start: 44405, Stop: 44190, Start Num: 52
Candidate Starts for Lukepolites_69:
(52, 44405),

Gene: Lunar_27 Start: 19041, Stop: 18820, Start Num: 75
Candidate Starts for Lunar_27:
(Start: 75 @19041 has 33 MA's),

Gene: Lutum_39 Start: 29550, Stop: 29314, Start Num: 55
Candidate Starts for Lutum_39:
(Start: 55 @29550 has 36 MA's), (Start: 75 @29508 has 33 MA's), (81, 29487), (92, 29445), (104, 29397),

Gene: Lymara_37 Start: 30202, Stop: 29981, Start Num: 72
Candidate Starts for Lymara_37:
(15, 30352), (24, 30307), (37, 30265), (54, 30232), (Start: 72 @30202 has 19 MA's), (84, 30154), (91, 30130), (95, 30115), (97, 30103),

Gene: Madiba_23 Start: 24209, Stop: 24036, Start Num: 75
Candidate Starts for Madiba_23:
(Start: 58 @24239 has 1 MA's), (Start: 71 @24215 has 10 MA's), (Start: 75 @24209 has 33 MA's), (82, 24182), (91, 24149), (109, 24053),

Gene: MakoManhole_40 Start: 34842, Stop: 34588, Start Num: 47
Candidate Starts for MakoManhole_40:

(32, 34884), (Start: 47 @34842 has 8 MA's), (Start: 75 @34794 has 33 MA's), (88, 34743), (93, 34725), (101, 34698),

Gene: Manasvini_35 Start: 29355, Stop: 29119, Start Num: 55
Candidate Starts for Manasvini_35:
(Start: 55 @29355 has 36 MA's), (Start: 75 @29313 has 33 MA's), (81, 29292), (92, 29250), (104, 29202), (115, 29130),

Gene: Maridalia_34 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Maridalia_34:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: Maruru_31 Start: 29698, Stop: 29486, Start Num: 62
Candidate Starts for Maruru_31:
(12, 29905), (51, 29716), (Start: 62 @29698 has 13 MA's),

Gene: MasterPo_44 Start: 39443, Stop: 39237, Start Num: 63
Candidate Starts for MasterPo_44:
(Start: 63 @39443 has 34 MA's), (Start: 76 @39416 has 3 MA's), (77, 39413), (91, 39359), (100, 39326),

Gene: Melons_27 Start: 19041, Stop: 18820, Start Num: 75
Candidate Starts for Melons_27:
(Start: 75 @19041 has 33 MA's),

Gene: Mocha12_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Mocha12_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Mordred_37 Start: 30383, Stop: 30165, Start Num: 72
Candidate Starts for Mordred_37:
(15, 30533), (24, 30488), (25, 30485), (37, 30446), (54, 30413), (Start: 72 @30383 has 19 MA's), (78, 30362), (86, 30326), (91, 30311), (95, 30296), (97, 30284),

Gene: MossRose_40 Start: 34821, Stop: 34567, Start Num: 47
Candidate Starts for MossRose_40:
(32, 34863), (Start: 47 @34821 has 8 MA's), (Start: 75 @34773 has 33 MA's), (88, 34722), (93, 34704), (101, 34677),

Gene: MoyaNatalis_37 Start: 30387, Stop: 30169, Start Num: 72
Candidate Starts for MoyaNatalis_37:
(15, 30537), (24, 30492), (25, 30489), (37, 30450), (54, 30417), (Start: 72 @30387 has 19 MA's), (78, 30366), (86, 30330), (91, 30315), (95, 30300), (97, 30288),

Gene: Mufasa8_29 Start: 27032, Stop: 26823, Start Num: 62
Candidate Starts for Mufasa8_29:
(Start: 62 @27032 has 13 MA's),

Gene: Mysterious_43 Start: 39920, Stop: 39711, Start Num: 68
Candidate Starts for Mysterious_43:
(20, 40028), (Start: 68 @39920 has 13 MA's), (Start: 75 @39905 has 33 MA's), (86, 39860),

Gene: NHagos_38 Start: 33445, Stop: 33185, Start Num: 47
Candidate Starts for NHagos_38:
(34, 33478), (Start: 47 @33445 has 8 MA's), (Start: 74 @33403 has 2 MA's), (Start: 75 @33400 has 33 MA's), (88, 33349), (93, 33331), (101, 33304),

Gene: Nangang_43 Start: 39713, Stop: 39504, Start Num: 68
Candidate Starts for Nangang_43:
(20, 39821), (Start: 68 @39713 has 13 MA's), (Start: 75 @39698 has 33 MA's), (79, 39686),

Gene: Nehemiah_43 Start: 39920, Stop: 39711, Start Num: 68
Candidate Starts for Nehemiah_43:
(20, 40028), (Start: 68 @39920 has 13 MA's), (Start: 75 @39905 has 33 MA's), (86, 39860),

Gene: Neobush_35 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Neobush_35:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: Nymphadora_34 Start: 29521, Stop: 29285, Start Num: 55
Candidate Starts for Nymphadora_34:
(Start: 55 @29521 has 36 MA's), (Start: 75 @29479 has 33 MA's), (92, 29416), (104, 29368), (106, 29356),

Gene: ODay_42 Start: 31024, Stop: 30788, Start Num: 55
Candidate Starts for ODay_42:
(Start: 55 @31024 has 36 MA's), (Start: 75 @30982 has 33 MA's), (81, 30961), (92, 30919), (104, 30871),

Gene: Ogopogo_25 Start: 24675, Stop: 24496, Start Num: 71
Candidate Starts for Ogopogo_25:
(Start: 58 @24699 has 1 MA's), (Start: 71 @24675 has 10 MA's), (Start: 75 @24669 has 33 MA's), (82, 24642), (91, 24609), (109, 24513),

Gene: Opia_44 Start: 39429, Stop: 39223, Start Num: 63
Candidate Starts for Opia_44:
(Start: 63 @39429 has 34 MA's), (Start: 76 @39402 has 3 MA's), (77, 39399), (91, 39345), (100, 39312),

Gene: Orcanus_26 Start: 19951, Stop: 19748, Start Num: 75
Candidate Starts for Orcanus_26:
(Start: 75 @19951 has 33 MA's),

Gene: OtsoOtso_26 Start: 18904, Stop: 18683, Start Num: 75
Candidate Starts for OtsoOtso_26:
(Start: 75 @18904 has 33 MA's),

Gene: Periwinkle_42 Start: 31005, Stop: 30769, Start Num: 55
Candidate Starts for Periwinkle_42:
(Start: 55 @31005 has 36 MA's), (Start: 75 @30963 has 33 MA's), (81, 30942), (92, 30900), (104, 30852),

Gene: Phabuloso_36 Start: 29262, Stop: 29026, Start Num: 55
Candidate Starts for Phabuloso_36:

(Start: 55 @29262 has 36 MA's), (Start: 75 @29220 has 33 MA's), (81, 29199), (92, 29157), (104, 29109),

Gene: Phantasmagoria_44 Start: 39441, Stop: 39235, Start Num: 63
Candidate Starts for Phantasmagoria_44:
(Start: 63 @39441 has 34 MA's), (Start: 76 @39414 has 3 MA's), (77, 39411), (91, 39357), (100, 39324),

Gene: Phelemich_43 Start: 39919, Stop: 39710, Start Num: 68
Candidate Starts for Phelemich_43:
(20, 40027), (Start: 68 @39919 has 13 MA's), (Start: 75 @39904 has 33 MA's), (86, 39859),

Gene: Phistory_39 Start: 29860, Stop: 29666, Start Num: 75
Candidate Starts for Phistory_39:
(Start: 55 @29902 has 36 MA's), (Start: 75 @29860 has 33 MA's), (81, 29839), (92, 29797), (104, 29749),

Gene: PhluffyCoco_26 Start: 18717, Stop: 18502, Start Num: 75
Candidate Starts for PhluffyCoco_26:
(Start: 75 @18717 has 33 MA's),

Gene: Pine5_39 Start: 32324, Stop: 32103, Start Num: 67
Candidate Starts for Pine5_39:
(Start: 67 @32324 has 13 MA's), (79, 32294), (82, 32279), (101, 32210),

Gene: Pineda_28 Start: 19194, Stop: 18973, Start Num: 75
Candidate Starts for Pineda_28:
(Start: 75 @19194 has 33 MA's),

Gene: Polka_26 Start: 18904, Stop: 18683, Start Num: 75
Candidate Starts for Polka_26:
(Start: 75 @18904 has 33 MA's),

Gene: Polly_32 Start: 28797, Stop: 28561, Start Num: 55
Candidate Starts for Polly_32:
(Start: 55 @28797 has 36 MA's), (Start: 75 @28755 has 33 MA's), (81, 28734), (92, 28692), (104, 28644), (115, 28572),

Gene: Pollywog_25 Start: 25545, Stop: 25366, Start Num: 71
Candidate Starts for Pollywog_25:
(Start: 58 @25569 has 1 MA's), (Start: 71 @25545 has 10 MA's), (Start: 75 @25539 has 33 MA's), (82, 25512), (91, 25479), (109, 25383),

Gene: PrinceCharming_44 Start: 39549, Stop: 39343, Start Num: 63
Candidate Starts for PrinceCharming_44:
(Start: 63 @39549 has 34 MA's), (Start: 76 @39522 has 3 MA's), (77, 39519), (91, 39465), (100, 39432),

Gene: PrincessTrina_37 Start: 30387, Stop: 30169, Start Num: 72
Candidate Starts for PrincessTrina_37:
(15, 30537), (24, 30492), (25, 30489), (37, 30450), (54, 30417), (Start: 72 @30387 has 19 MA's), (78, 30366), (86, 30330), (91, 30315), (95, 30300), (97, 30288),

Gene: Purky_30 Start: 26584, Stop: 26351, Start Num: 56
Candidate Starts for Purky_30:
(27, 26659), (29, 26656), (31, 26650), (52, 26593), (Start: 56 @26584 has 2 MA's), (70, 26560), (83, 26512), (104, 26434), (107, 26419),

Gene: Purky_36 Start: 28450, Stop: 28653, Start Num: 58
Candidate Starts for Purky_36:
(Start: 58 @28450 has 1 MA's), (65, 28462), (Start: 75 @28480 has 33 MA's), (102, 28588), (104, 28600),

Gene: Qyrzula_41 Start: 39560, Stop: 39381, Start Num: 76
Candidate Starts for Qyrzula_41:
(Start: 63 @39587 has 34 MA's), (Start: 76 @39560 has 3 MA's), (77, 39557), (91, 39503), (100, 39470),

Gene: RavenCo17_36 Start: 30180, Stop: 29944, Start Num: 55
Candidate Starts for RavenCo17_36:
(Start: 55 @30180 has 36 MA's), (Start: 75 @30138 has 33 MA's), (81, 30117), (92, 30075), (104, 30027),

Gene: RayTheFireFly_38 Start: 29870, Stop: 29667, Start Num: 73
Candidate Starts for RayTheFireFly_38:
(Start: 55 @29903 has 36 MA's), (Start: 73 @29870 has 6 MA's), (81, 29840), (89, 29807), (92, 29798), (104, 29750),

Gene: Reccee_45 Start: 39831, Stop: 39622, Start Num: 68
Candidate Starts for Reccee_45:
(18, 39945), (20, 39939), (Start: 68 @39831 has 13 MA's), (Start: 75 @39816 has 33 MA's), (79, 39804), (86, 39771),

Gene: RedFox_26 Start: 18732, Stop: 18517, Start Num: 75
Candidate Starts for RedFox_26:
(Start: 75 @18732 has 33 MA's),

Gene: Rem711_6 Start: 3521, Stop: 3279, Start Num: 53
Candidate Starts for Rem711_6:
(9, 3722), (26, 3584), (Start: 53 @3521 has 1 MA's), (83, 3443), (92, 3413), (96, 3398), (101, 3380),

Gene: Reprobate_44 Start: 39924, Stop: 39715, Start Num: 68
Candidate Starts for Reprobate_44:
(20, 40032), (Start: 68 @39924 has 13 MA's), (Start: 75 @39909 has 33 MA's), (86, 39864),

Gene: Rhinoforte_44 Start: 39550, Stop: 39344, Start Num: 63
Candidate Starts for Rhinoforte_44:
(Start: 63 @39550 has 34 MA's), (Start: 76 @39523 has 3 MA's), (77, 39520), (91, 39466), (100, 39433),

Gene: Rinkes_44 Start: 40426, Stop: 40223, Start Num: 68
Candidate Starts for Rinkes_44:
(Start: 68 @40426 has 13 MA's), (86, 40363),

Gene: Rita130_44 Start: 39651, Stop: 39442, Start Num: 68
Candidate Starts for Rita130_44:

(18, 39765), (20, 39759), (Start: 68 @39651 has 13 MA's), (Start: 75 @39636 has 33 MA's), (79, 39624), (86, 39591),

Gene: Rosebush_43 Start: 39530, Stop: 39351, Start Num: 76
Candidate Starts for Rosebush_43:
(Start: 63 @39557 has 34 MA's), (Start: 76 @39530 has 3 MA's), (77, 39527), (91, 39473), (100, 39440),

Gene: RosiePosie_37 Start: 30386, Stop: 30168, Start Num: 72
Candidate Starts for RosiePosie_37:
(15, 30536), (24, 30491), (25, 30488), (37, 30449), (54, 30416), (Start: 72 @30386 has 19 MA's), (78, 30365), (86, 30329), (91, 30314), (95, 30299), (97, 30287),

Gene: Sabella_43 Start: 39434, Stop: 39228, Start Num: 63
Candidate Starts for Sabella_43:
(Start: 63 @39434 has 34 MA's), (Start: 76 @39407 has 3 MA's), (77, 39404), (91, 39350), (100, 39317),

Gene: Saguaro_45 Start: 40648, Stop: 40445, Start Num: 68
Candidate Starts for Saguaro_45:
(21, 40756), (Start: 68 @40648 has 13 MA's), (86, 40585), (88, 40576), (99, 40537),

Gene: Sahara_29 Start: 25333, Stop: 25133, Start Num: 67
Candidate Starts for Sahara_29:
(Start: 67 @25333 has 13 MA's), (79, 25312), (82, 25297), (85, 25285), (95, 25249),

Gene: Savage_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Savage_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Sbash_32 Start: 28849, Stop: 28601, Start Num: 56
Candidate Starts for Sbash_32:
(27, 28924), (29, 28921), (31, 28915), (52, 28858), (Start: 56 @28849 has 2 MA's), (70, 28825), (104, 28699), (107, 28684), (117, 28609),

Gene: Scavito_37 Start: 30384, Stop: 30166, Start Num: 72
Candidate Starts for Scavito_37:
(15, 30534), (24, 30489), (25, 30486), (37, 30447), (54, 30414), (Start: 72 @30384 has 19 MA's), (78, 30363), (86, 30327), (91, 30312), (95, 30297), (97, 30285),

Gene: Shambre1_30 Start: 22778, Stop: 22578, Start Num: 64
Candidate Starts for Shambre1_30:
(Start: 64 @22778 has 3 MA's), (114, 22595),

Gene: Shatter_38 Start: 32837, Stop: 32601, Start Num: 45
Candidate Starts for Shatter_38:
(43, 32840), (Start: 45 @32837 has 4 MA's), (Start: 56 @32816 has 2 MA's), (60, 32810), (Start: 74 @32786 has 2 MA's), (77, 32780), (100, 32690),

Gene: ShawBrad_38 Start: 29124, Stop: 28888, Start Num: 55
Candidate Starts for ShawBrad_38:
(Start: 55 @29124 has 36 MA's), (Start: 75 @29082 has 33 MA's), (81, 29061), (92, 29019), (104, 28971),

Gene: Shenyu_43 Start: 39713, Stop: 39504, Start Num: 68
Candidate Starts for Shenyu_43:
(20, 39821), (Start: 68 @39713 has 13 MA's), (Start: 75 @39698 has 33 MA's), (79, 39686),

Gene: ShroomBoi_22 Start: 24354, Stop: 24175, Start Num: 71
Candidate Starts for ShroomBoi_22:
(Start: 58 @24378 has 1 MA's), (Start: 71 @24354 has 10 MA's), (Start: 75 @24348 has 33 MA's), (79, 24336), (82, 24321), (91, 24288), (109, 24192),

Gene: SirJeffery_44 Start: 39650, Stop: 39441, Start Num: 68
Candidate Starts for SirJeffery_44:
(18, 39764), (20, 39758), (Start: 68 @39650 has 13 MA's), (Start: 75 @39635 has 33 MA's), (79, 39623), (86, 39590),

Gene: Sisko_38 Start: 33610, Stop: 33383, Start Num: 48
Candidate Starts for Sisko_38:
(Start: 48 @33610 has 5 MA's), (94, 33493), (110, 33424),

Gene: Sleepyhead_33 Start: 26741, Stop: 26493, Start Num: 55
Candidate Starts for Sleepyhead_33:
(30, 26798), (Start: 55 @26741 has 36 MA's), (Start: 67 @26723 has 13 MA's), (87, 26651), (92, 26636),

Gene: Sonali_32 Start: 30335, Stop: 30120, Start Num: 62
Candidate Starts for Sonali_32:
(Start: 62 @30335 has 13 MA's),

Gene: Sour_43 Start: 37566, Stop: 37306, Start Num: 49
Candidate Starts for Sour_43:
(Start: 49 @37566 has 1 MA's), (77, 37515),

Gene: Spooky_39 Start: 29741, Stop: 29508, Start Num: 64
Candidate Starts for Spooky_39:
(36, 29801), (Start: 49 @29771 has 1 MA's), (Start: 64 @29741 has 3 MA's), (Start: 67 @29738 has 13 MA's), (Start: 73 @29723 has 6 MA's), (111, 29549), (113, 29543),

Gene: Sproutie_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Sproutie_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Squiddly_40 Start: 31125, Stop: 30892, Start Num: 64
Candidate Starts for Squiddly_40:
(36, 31185), (Start: 49 @31155 has 1 MA's), (Start: 64 @31125 has 3 MA's), (Start: 67 @31122 has 13 MA's), (Start: 73 @31107 has 6 MA's), (111, 30933), (113, 30927),

Gene: Stinger_39 Start: 37776, Stop: 37570, Start Num: 62
Candidate Starts for Stinger_39:
(Start: 62 @37776 has 13 MA's), (Start: 75 @37755 has 33 MA's), (77, 37749), (82, 37728), (86, 37710), (91, 37692), (99, 37662), (100, 37659), (101, 37656),

Gene: StinkyVeggy_45 Start: 39790, Stop: 39581, Start Num: 68
Candidate Starts for StinkyVeggy_45:

(20, 39898), (Start: 68 @39790 has 13 MA's), (Start: 75 @39775 has 33 MA's), (79, 39763),

Gene: Stuck_40 Start: 31182, Stop: 30949, Start Num: 56
Candidate Starts for Stuck_40:
(27, 31257), (29, 31254), (31, 31248), (52, 31191), (Start: 56 @31182 has 2 MA's), (70, 31158), (83, 31110), (104, 31032),

Gene: Suigeneris_44 Start: 39653, Stop: 39444, Start Num: 68
Candidate Starts for Suigeneris_44:
(18, 39767), (20, 39761), (Start: 68 @39653 has 13 MA's), (Start: 75 @39638 has 33 MA's), (79, 39626), (86, 39593),

Gene: Sunshine23_32 Start: 29942, Stop: 29730, Start Num: 62
Candidate Starts for Sunshine23_32:
(Start: 62 @29942 has 13 MA's),

Gene: Suscepit_35 Start: 29355, Stop: 29119, Start Num: 55
Candidate Starts for Suscepit_35:
(Start: 55 @29355 has 36 MA's), (Start: 75 @29313 has 33 MA's), (81, 29292), (92, 29250), (104, 29202), (115, 29130),

Gene: TA17A_45 Start: 39424, Stop: 39218, Start Num: 63
Candidate Starts for TA17A_45:
(Start: 63 @39424 has 34 MA's), (Start: 76 @39397 has 3 MA's), (77, 39394), (91, 39340), (100, 39307),

Gene: TaylorSipht_26 Start: 18969, Stop: 18775, Start Num: 75
Candidate Starts for TaylorSipht_26:
(Start: 75 @18969 has 33 MA's),

Gene: Tayonia_35 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Tayonia_35:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: ThetaBob_24 Start: 24665, Stop: 24492, Start Num: 75
Candidate Starts for ThetaBob_24:
(Start: 58 @24695 has 1 MA's), (Start: 71 @24671 has 10 MA's), (Start: 75 @24665 has 33 MA's), (82, 24638), (91, 24605), (109, 24509),

Gene: Thonko_43 Start: 36961, Stop: 36752, Start Num: 66
Candidate Starts for Thonko_43:
(14, 37108), (26, 37054), (Start: 66 @36961 has 1 MA's), (79, 36931), (95, 36865),

Gene: TimTam_34 Start: 29521, Stop: 29285, Start Num: 55
Candidate Starts for TimTam_34:
(Start: 55 @29521 has 36 MA's), (Start: 75 @29479 has 33 MA's), (92, 29416), (104, 29368), (106, 29356),

Gene: Tinciduntsolum_45 Start: 39562, Stop: 39356, Start Num: 63
Candidate Starts for Tinciduntsolum_45:
(Start: 63 @39562 has 34 MA's), (Start: 76 @39535 has 3 MA's), (77, 39532), (91, 39478), (100, 39445),

Gene: Toad24_27 Start: 20160, Stop: 19957, Start Num: 75
Candidate Starts for Toad24_27:
(Start: 75 @20160 has 33 MA's),

Gene: Tophat_37 Start: 30385, Stop: 30167, Start Num: 72
Candidate Starts for Tophat_37:
(15, 30535), (24, 30490), (25, 30487), (37, 30448), (54, 30415), (Start: 72 @30385 has 19 MA's), (78, 30364), (86, 30328), (91, 30313), (95, 30298), (97, 30286),

Gene: TraderJ_40 Start: 34851, Stop: 34585, Start Num: 47
Candidate Starts for TraderJ_40:
(32, 34896), (34, 34887), (Start: 47 @34851 has 8 MA's), (Start: 74 @34803 has 2 MA's), (Start: 75 @34800 has 33 MA's), (79, 34791), (93, 34731), (101, 34704),

Gene: Tres_44 Start: 39437, Stop: 39231, Start Num: 63
Candidate Starts for Tres_44:
(Start: 63 @39437 has 34 MA's), (Start: 76 @39410 has 3 MA's), (77, 39407), (91, 39353), (100, 39320),

Gene: Triad_45 Start: 38064, Stop: 37849, Start Num: 59
Candidate Starts for Triad_45:
(Start: 59 @38064 has 1 MA's), (Start: 75 @38034 has 33 MA's), (86, 37989), (95, 37956),

Gene: Trumpet_35 Start: 29355, Stop: 29119, Start Num: 55
Candidate Starts for Trumpet_35:
(Start: 55 @29355 has 36 MA's), (Start: 75 @29313 has 33 MA's), (81, 29292), (92, 29250), (104, 29202), (115, 29130),

Gene: TuertoX_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for TuertoX_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Vasanti_31 Start: 26204, Stop: 25965, Start Num: 67
Candidate Starts for Vasanti_31:
(Start: 67 @26204 has 13 MA's), (79, 26183), (82, 26168), (85, 26156), (95, 26120), (118, 25973),

Gene: Vic9_00043 Start: 39943, Stop: 39737, Start Num: 63
Candidate Starts for Vic9_00043:
(Start: 63 @39943 has 34 MA's), (Start: 76 @39916 has 3 MA's), (91, 39859), (100, 39826),

Gene: Vincenzo_41 Start: 39951, Stop: 39745, Start Num: 62
Candidate Starts for Vincenzo_41:
(Start: 62 @39951 has 13 MA's), (Start: 75 @39930 has 33 MA's), (77, 39924), (82, 39903), (86, 39885), (88, 39876), (91, 39867), (99, 39837), (100, 39834), (101, 39831),

Gene: Vulpecula_25 Start: 19383, Stop: 19186, Start Num: 73
Candidate Starts for Vulpecula_25:
(Start: 73 @19383 has 6 MA's),

Gene: West99_44 Start: 39557, Stop: 39351, Start Num: 63
Candidate Starts for West99_44:

(Start: 63 @39557 has 34 MA's), (Start: 76 @39530 has 3 MA's), (77, 39527), (91, 39473), (100, 39440),

Gene: Whack_33 Start: 28160, Stop: 27924, Start Num: 55
Candidate Starts for Whack_33:
(42, 28187), (Start: 55 @28160 has 36 MA's), (96, 28040),

Gene: Whiteclaw_30 Start: 25663, Stop: 25463, Start Num: 67
Candidate Starts for Whiteclaw_30:
(Start: 67 @25663 has 13 MA's), (79, 25642), (82, 25627), (85, 25615), (95, 25579),

Gene: Whitney_42 Start: 32542, Stop: 32306, Start Num: 55
Candidate Starts for Whitney_42:
(Start: 55 @32542 has 36 MA's), (Start: 75 @32500 has 33 MA's), (81, 32479), (92, 32437), (104, 32389),

Gene: WileyE_25 Start: 18878, Stop: 18663, Start Num: 73
Candidate Starts for WileyE_25:
(Start: 73 @18878 has 6 MA's),

Gene: Wooper_40 Start: 34857, Stop: 34591, Start Num: 47
Candidate Starts for Wooper_40:
(32, 34902), (34, 34893), (Start: 47 @34857 has 8 MA's), (Start: 74 @34809 has 2 MA's), (Start: 75 @34806 has 33 MA's), (79, 34797), (93, 34737), (101, 34710),

Gene: Yago84_38 Start: 33684, Stop: 33457, Start Num: 48
Candidate Starts for Yago84_38:
(Start: 48 @33684 has 5 MA's), (94, 33567), (110, 33498),

Gene: Yeshua_40 Start: 34834, Stop: 34568, Start Num: 47
Candidate Starts for Yeshua_40:
(32, 34879), (34, 34870), (Start: 47 @34834 has 8 MA's), (Start: 74 @34786 has 2 MA's), (Start: 75 @34783 has 33 MA's), (79, 34774), (93, 34714), (101, 34687),

Gene: Yoshi_28 Start: 24080, Stop: 23901, Start Num: 71
Candidate Starts for Yoshi_28:
(Start: 58 @24104 has 1 MA's), (Start: 71 @24080 has 10 MA's), (Start: 75 @24074 has 33 MA's), (82, 24047), (91, 24014), (109, 23918),

Gene: Zameen_35 Start: 29354, Stop: 29118, Start Num: 55
Candidate Starts for Zameen_35:
(Start: 55 @29354 has 36 MA's), (Start: 75 @29312 has 33 MA's), (81, 29291), (92, 29249), (104, 29201), (115, 29129),

Gene: Zenteno07_48 Start: 38553, Stop: 38338, Start Num: 62
Candidate Starts for Zenteno07_48:
(Start: 62 @38553 has 13 MA's), (Start: 75 @38529 has 33 MA's), (88, 38475), (111, 38379),

Gene: phiAsp2_39 Start: 33131, Stop: 33403, Start Num: 48
Candidate Starts for phiAsp2_39:
(35, 33095), (Start: 48 @33131 has 5 MA's), (60, 33155), (Start: 75 @33191 has 33 MA's), (90, 33251), (105, 33317), (116, 33392),