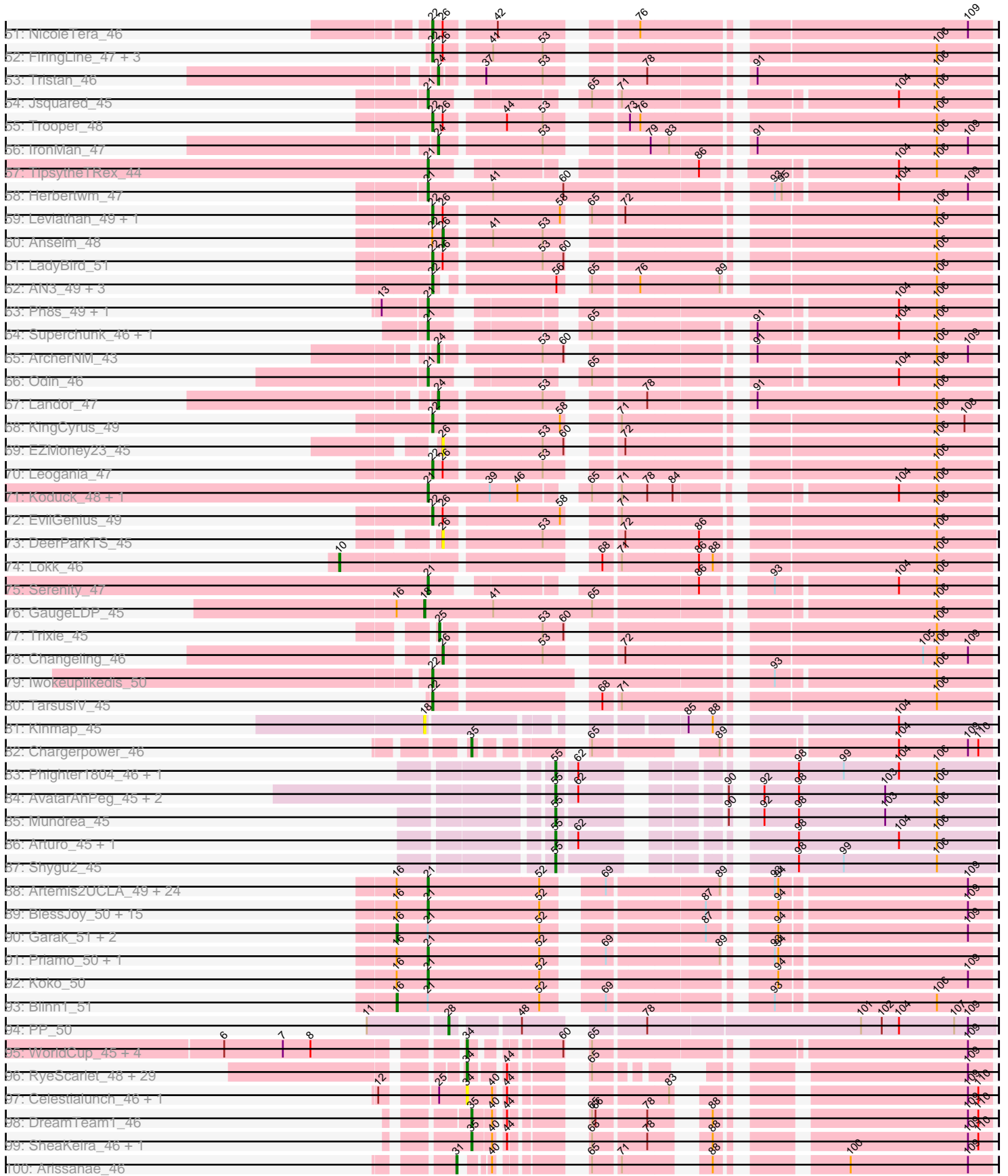
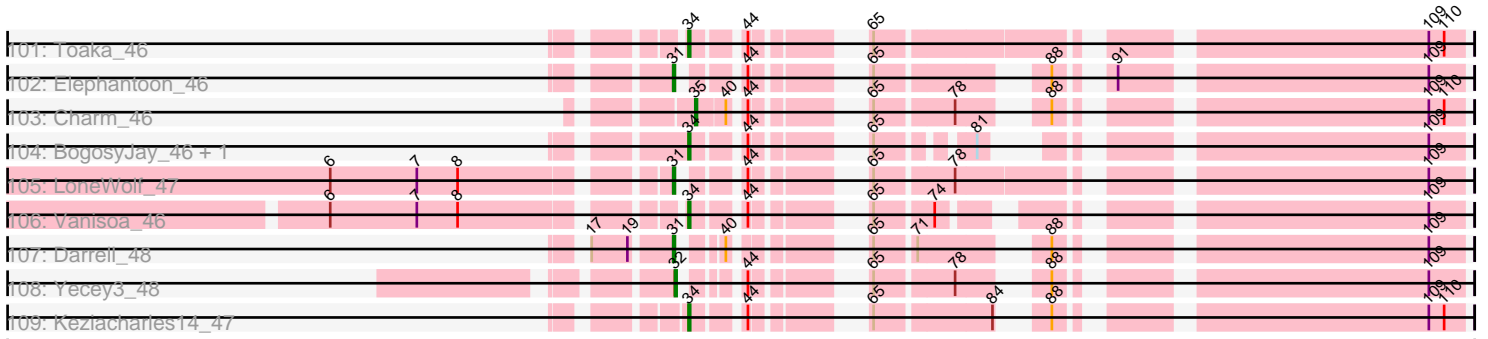


Pham 311161



Pham 311161



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 311161 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311161 has 294 members, 48 are drafts.

Phages represented in each track:

- Track 1 : Edison31_44, Rebeuca_45, Kristoff_45, WalterMcMickey_43, Twister_43, Topanga_43
- Track 2 : DustyMartin_49, RhynO_46, Rowdy_49, Shapes_49
- Track 3 : Chupacabra_44, OKCentral2016_44, Goose_45
- Track 4 : Poompha_44, Severus_43, Trike_43, PeaceMeal1_43, Drake94_43, KittenMittens_42
- Track 5 : Eaglepride_46
- Track 6 : DontArgue_44
- Track 7 : Bachome_49, Sham4_47, Wolpertinger_46, Fibonacci_47, Ebony_47, Petersenfast_46, Bud_47, Lucivia_48, Orange_47, Bowtie_48, Hutc2_47, Insomnia_48, Mulciber_47, Snape_47, Jabith_48, Mabel_47, MaCh_48, Flaverint_48, Timothy_47, TinyTimmy_47, Gilberta_48, Munch_48, Aneem_48, Salz_46, Et2Brutus_46, Kimba_47, Joselito_48
- Track 8 : Saskia_48
- Track 9 : Steamy_43
- Track 10 : Pharaoh_41
- Track 11 : Phlei_36
- Track 12 : Luchador_52, Jeeves_52
- Track 13 : Sunhee_50
- Track 14 : Gail_52
- Track 15 : SororFago_50
- Track 16 : PainterBoy_48, Lucyedi_48, EagleEye_49
- Track 17 : 40AC_48
- Track 18 : Kimona_46
- Track 19 : Retro23_48, Georgie2_48, Crucio_47, Dignity_49, SemperFi_48, SweetiePie_47, Dalmatian_48, Turbido_48, Jerm_49
- Track 20 : HippoHollow_47, Echild_47, LionsBait_49, Benvolio_44
- Track 21 : Equemioh13_48, Bugsy_49, WideWale_48, MiculUcigas_47, Baehexic_46, Updawg_48, Centaur_48, Gratitude_47, NaSiaTalie_47, Sknot_47, Terrific_50, Flare16_47
- Track 22 : Loser_49
- Track 23 : Heffalump_46, QueenB2_46, Fameo_47
- Track 24 : VC3_50, AN9_50, C3_45, ANI8_50
- Track 25 : Colin_47, Kalpine_45
- Track 26 : Agape74_49, AbbyPaige_49, Whabigail7_48, LilTurb_48
- Track 27 : Pomar16_49, Travvers_49, DBQu4n_49, Tomathan_49, Kerberos_49, Duplo_49, StarStuff_49

- Track 28 : Phaded_48, Bactobuster_46
- Track 29 : SwirlSquare_50
- Track 30 : WeiHuaDA_49
- Track 31 : AnnaL29_49, RedRock_49
- Track 32 : D29_46, Naji_49, D32_49
- Track 33 : BabyBack_46
- Track 34 : MajorMajor_46, Bradman_46, Quokka_45
- Track 35 : BobSwaget_45
- Track 36 : CRB1_50, JoshKayV_49
- Track 37 : Pukovnik_46
- Track 38 : ChipMunk_49
- Track 39 : NothingSpecial_45
- Track 40 : Malec_47, Larenn_46
- Track 41 : Jaan_47
- Track 42 : BiancaTri92_47
- Track 43 : HarryHoudini_48, Piro94_47, Drake55_49
- Track 44 : Prudy_45
- Track 45 : ForesterFrank_45
- Track 46 : Che12_49
- Track 47 : 20ES_49, First_0048
- Track 48 : Acolyte_43
- Track 49 : Miko_44, Rachaly_46
- Track 50 : DudeLittle_46
- Track 51 : NicoleTera_46
- Track 52 : FiringLine_47, Power_46, SnapTap_47, QueenBeesly_47
- Track 53 : Tristan_46
- Track 54 : Jsquared_45
- Track 55 : Trooper_48
- Track 56 : IronMan_47
- Track 57 : TipsytheTRex_44
- Track 58 : Herbertwm_47
- Track 59 : Leviathan_49, Smeagan_50
- Track 60 : Anselm_48
- Track 61 : LadyBird_51
- Track 62 : AN3_49, VA6_47, BengiVuitton_48, Deloris_47
- Track 63 : Ph8s_49, Adzzy_49
- Track 64 : Superchunk_46, Caraxes_47
- Track 65 : ArcherNM_43
- Track 66 : Odin_46
- Track 67 : Landor_47
- Track 68 : KingCyrus_49
- Track 69 : EZMoney23_45
- Track 70 : Leogania_47
- Track 71 : Koduck_48, L5_46
- Track 72 : EvilGenius_49
- Track 73 : DeerParkTS_45
- Track 74 : Loka_46
- Track 75 : Serenity_47
- Track 76 : GaugeLDP_45
- Track 77 : Trixie_45
- Track 78 : Changeling_46
- Track 79 : Iwokeuplikedis_50
- Track 80 : TarsusIV_45

- Track 81 : Kinmap_45
- Track 82 : Chargerpower_46
- Track 83 : Phighter1804_46, DirtyDunning_45
- Track 84 : AvatarAhPeg_45, Stink_46, Miramae_45
- Track 85 : Mundrea_45
- Track 86 : Arturo_45, Kratak_46
- Track 87 : Shygu2_45
- Track 88 : Artemis2UCLA_49, BennyP_50, SuperAwesome_49, DaVinci_48, Candra_49, GreedyLawyer_49, Kipper29_49, Dorothea_49, Gladiator_47, VohminGhazi_49, Kazan_50, Roksolana_50, McFly_49, EricB_49, Chartreuse_48, Neeharika16_48, Pmask_49, CloudWang3_49, Newrala_49, Cookiedough_49, SmellyB_49, Isiphiwo_47, DelvinSonDorr_47, SuperCallie99_48, Polyphemus_50
- Track 89 : BlessJoy_50, Wiks_48, ToneTone_46, Temprado_50, Helmet_51, Hammer_50, Zaka_49, Blue7_51, Lilbunny_48, Indra_52, Zulu_49, WunderPhul_49, Rifter_50, Jeffabunny_49, Tucker_49, Gruunaga_49
- Track 90 : Garak_51, Yokurt_49, Hexamo_49
- Track 91 : Priamo_50, Jordennis_48
- Track 92 : Koko_50
- Track 93 : Blinn1_51
- Track 94 : PP_50
- Track 95 : WorldCup_45, CogOmlette_45, Rahalelujah_46, Minispark_45, Bellris_45
- Track 96 : RyeScarlet_48, Eidsmoe_47, Phaeder_47, Halex_46, Fayely_47, Lilleskat_45, Myxus_47, Beemo_47, ExplosioNervosa_47, EmyBug_46, Priya_47, PackMan_46, Ugenie5_44, Ayanochan_48, Hanray_45, Catalina_48, HortumSL17_47, Scherzo_47, EdogawaKiddo_45, Conquerage_47, Qobbit_47, Onglai_45, Phonnegut_47, Sachima_44, Jiawan_45, Tubs_47, Pioneer_47, Alma_47, Spouty_47, Aliter_47
- Track 97 : Celestialunch_46, MegTheThird_46
- Track 98 : DreamTeam1_46
- Track 99 : SheaKeira_46, Klodlith_47
- Track 100 : Arissanae_46
- Track 101 : Toaka_46
- Track 102 : Elephantoon_46
- Track 103 : Charm_46
- Track 104 : BogosyJay_46, Maminiaina_46
- Track 105 : LoneWolf_47
- Track 106 : Vanisoa_46
- Track 107 : Darrell_48
- Track 108 : Yecey3_48
- Track 109 : Keziacharles14_47

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

The start number called the most often in the published annotations is 21, it was called in 53 of the 246 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adzzy_49, Artemis2UCLA_49, BennyP_50, BlessJoy_50, Blue7_51, Bradman_46, Candra_49, Caraxes_47, Chartreuse_48, Che12_49, CloudWang3_49, Cookiedough_49, DaVinci_48, DelvinSonDorr_47, Dorothea_49, EricB_49,

Gladiator_47, GreedyLawyer_49, Gruunaga_49, Hammer_50, Helmet_51, Herbertwm_47, Indra_52, Isiphiwo_47, Jeffabunny_49, Jordennis_48, Jsquared_45, Kazan_50, Kipper29_49, Koduck_48, Koko_50, L5_46, Lilbunny_48, MajorMajor_46, McFly_49, Neeharika16_48, Newrala_49, Odin_46, Ph8s_49, Pmask_49, Polyphemus_50, Priamo_50, Quokka_45, Rifter_50, Roksolana_50, Serenity_47, SmellyB_49, SuperAwesome_49, SuperCallie99_48, Superchunk_46, Temprado_50, TopsytheTRex_44, ToneTone_46, Tucker_49, VohminGhazi_49, Wiks_48, WunderPhul_49, Zaka_49, Zulu_49,

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

• AN9_50, ANI8_50, Blinn1_51, C3_45, Garak_51, Hexamo_49, VC3_50, Yokurt_49,

Genes that do not have the "Most Annotated" start:

• 20ES_49, 40AC_48, AN3_49, AbbyPaige_49, Acolyte_43, Agape74_49, Aliter_47, Alma_47, Aneem_48, AnnaL29_49, Anselm_48, ArcherNM_43, Arissanae_46, Arturo_45, AvatarAhPeg_45, Ayanochan_48, BabyBack_46, Bachome_49, Bactobuster_46, Baehexic_46, Beemo_47, Bellris_45, BengiVuitton_48, Benvolio_44, BiancaTri92_47, BobSwaget_45, BogosyJay_46, Bowtie_48, Bud_47, Buggy_49, CRB1_50, Catalina_48, Celestialunch_46, Centaur_48, Changeling_46, Chargerpower_46, Charm_46, ChipMunk_49, Chupacabra_44, CogOmlette_45, Colin_47, Conquerage_47, Crucio_47, D29_46, D32_49, DBQu4n_49, Dalmatian_48, Darrell_48, DeerParkTS_45, Deloris_47, Dignity_49, DirtyDunning_45, DontArgue_44, Drake55_49, Drake94_43, DreamTeam1_46, DudeLittle_46, Duplo_49, DustyMartin_49, EZMoney23_45, EagleEye_49, Eaglepride_46, Ebony_47, Echild_47, Edison31_44, EdogawaKiddo_45, Eidsmoe_47, Elephantoon_46, EmyBug_46, Equemioh13_48, Et2Brutus_46, EvilGenius_49, ExplosioNervosa_47, Fameo_47, Fayely_47, Fibonacci_47, FiringLine_47, First_0048, Flare16_47, Flaverint_48, ForesterFrank_45, Gail_52, GaugeLDP_45, Georgie2_48, Gilberta_48, Goose_45, Gratitude_47, Hanray_45, HarryHoudini_48, Heffalump_46, HippoHollow_47, Horex_46, HortumSL17_47, Hutc2_47, Insomnia_48, IronMan_47, Iwokeupliikedis_50, Jaan_47, Jabith_48, Jeeves_52, Jerm_49, Jiawan_45, Joselito_48, JoshKayV_49, Kalpine_45, Kerberos_49, Keziacharles14_47, Kimba_47, Kimona_46, KingCyrus_49, Kinmap_45, KittenMittens_42, Klodlith_47, Kratark_46, Kristoff_45, LadyBird_51, Landor_47, Larenn_46, Leogania_47, Leviathan_49, LilTurb_48, Lilleskat_45, LionsBait_49, Lokk_46, LoneWolf_47, Loser_49, Luchador_52, Lucivia_48, Lucyedi_48, MaCh_48, Mabel_47, Malec_47, Maminiaina_46, MegTheThird_46, MiculUcigas_47, Miko_44, Minispark_45, Miramae_45, Mulciber_47, Munch_48, Mundrea_45, Myxus_47, NaSiaTalie_47, Naji_49, NicoleTera_46, NothingSpecial_45, OKCentral2016_44, Onglai_45, Orange_47, PP_50, PackMan_46, PainterBoy_48, PeaceMeal1_43, Petersenfast_46, Phaded_48, Phaeder_47, Pharaoh_41, Phighter1804_46, Phlei_36, Phonnegut_47, Pioneer_47, Piro94_47, Pomar16_49, Poompha_44, Power_46, Priya_47, Prudy_45, Pukovnik_46, Qobbit_47, QueenB2_46, QueenBeesly_47, Rachaly_46, Rahalelujah_46, Rebeuca_45, RedRock_49, Retro23_48, RhynO_46, Rowdy_49, RyeScarlet_48, Sachima_44, Salz_46, Saskia_48, Scherzo_47, SemperFi_48, Severus_43, Sham4_47, Shapes_49, SheaKeira_46, Shygu2_45, Sknot_47, Smeagan_50, SnapTap_47, Snape_47, SororFago_50, Spouty_47, StarStuff_49, Steamy_43, Stink_46, Sunhee_50, SweetiePie_47, SwirlSquare_50, TarsusIV_45, Terrific_50, Timothy_47, TinyTimmy_47, Toaka_46, Tomathan_49, Topanga_43, Travvers_49, Trike_43, Tristan_46, Trixie_45, Trooper_48, Tubs_47, Turbido_48, Twister_43, Ugenie5_44, Updawg_48, VA6_47, Vanisoa_46, WalterMcMickey_43, WeiHuaDA_49, Whabigail7_48, WideWale_48, Wolpertinger_46, WorldCup_45, Yecey3_48,

Summary by start number:

Start 10:

- Found in 2 of 294 (0.7%) of genes in pham
- Manual Annotations of this start: 2 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobSwaget_45 (A2), Lokk_46 (A2),

Start 16:

- Found in 49 of 294 (16.7%) of genes in pham
- Manual Annotations of this start: 3 of 246
- Called 8.2% of time when present
- Phage (with cluster) where this start called: Blinn1_51 (A6), Garak_51 (A6), Hexamo_49 (A6), Yokurt_49 (A6),

Start 18:

- Found in 19 of 294 (6.5%) of genes in pham
- Manual Annotations of this start: 16 of 246
- Called 94.7% of time when present
- Phage (with cluster) where this start called: AN9_50 (A2), ANI8_50 (A2), BabyBack_46 (A2), C3_45 (A2), D29_46 (A2), D32_49 (A2), DBQu4n_49 (A2), Duplo_49 (A2), GaugeLDP_45 (A2), Kerberos_49 (A2), Kinmap_45 (A21), Naji_49 (A2), Pomar16_49 (A2), StarStuff_49 (A2), SwirlSquare_50 (A2), Tomathan_49 (A2), Travvers_49 (A2), VC3_50 (A2),

Start 21:

- Found in 67 of 294 (22.8%) of genes in pham
- Manual Annotations of this start: 53 of 246
- Called 88.1% of time when present
- Phage (with cluster) where this start called: Adzzy_49 (A2), Artemis2UCLA_49 (A6), BennyP_50 (A6), BlessJoy_50 (A6), Blue7_51 (A6), Bradman_46 (A2), Candra_49 (A6), Caraxes_47 (A2), Chartreuse_48 (A6), Che12_49 (A2), CloudWang3_49 (A6), Cookiedough_49 (A6), DaVinci_48 (A6), DelvinSonDorr_47 (A6), Dorothea_49 (A6), EricB_49 (A6), Gladiator_47 (A6), GreedyLawyer_49 (A6), Gruunaga_49 (A6), Hammer_50 (A6), Helmet_51 (A6), Herbertwm_47 (A2), Indra_52 (A6), Isiphiwo_47 (A6), Jeffabunny_49 (A6), Jordennis_48 (A6), Jsquared_45 (A2), Kazan_50 (A6), Kipper29_49 (A6), Koduck_48 (A2), Koko_50 (A6), L5_46 (A2), Lilbunny_48 (A6), MajorMajor_46 (A2), McFly_49 (A6), Neeharika16_48 (A6), Newrala_49 (A6), Odin_46 (A2), Ph8s_49 (A2), Pmask_49 (A6), Polyphemus_50 (A6), Priamo_50 (A6), Quokka_45 (A2), Rifter_50 (A6), Roksolana_50 (A6), Serenity_47 (A2), SmellyB_49 (A6), SuperAwesome_49 (A6), SuperCallie99_48 (A6), Superchunk_46 (A2), Temprado_50 (A6), TipsytheTRex_44 (A2), ToneTone_46 (A6), Tucker_49 (A6), VohminGhazi_49 (A6), Wiks_48 (A6), WunderPhul_49 (A6), Zaka_49 (A6), Zulu_49 (A6),

Start 22:

- Found in 58 of 294 (19.7%) of genes in pham
- Manual Annotations of this start: 51 of 246
- Called 98.3% of time when present
- Phage (with cluster) where this start called: 20ES_49 (A2), AN3_49 (A2), AbbyPaige_49 (A2), Acolyte_43 (A2), Agape74_49 (A2), AnnaL29_49 (A2), BengiVuitton_48 (A2), Benvolio_44 (A2), BiancaTri92_47 (A2), CRB1_50 (A2),

ChipMunk_49 (A2), Crucio_47 (A2), Dalmatian_48 (A2), Deloris_47 (A2), Dignity_49 (A2), Drake55_49 (A2), DudeLittle_46 (A2), Echild_47 (A2), EvilGenius_49 (A2), Fameo_47 (A2), FiringLine_47 (A2), First_0048 (A2), Georgie2_48 (A2), HarryHoudini_48 (A2), Heffalump_46 (A2), HippoHollow_47 (A2), Iwokeuplikedis_50 (A2), Jerm_49 (A2), JoshKayV_49 (A2), KingCyrus_49 (A2), LadyBird_51 (A2), Larenn_46 (A2), Leogania_47 (A2), Leviathan_49 (A2), LilTurb_48 (A2), LionsBait_49 (A2), Loser_49 (A2), Malec_47 (A2), Miko_44 (A2), NicoleTera_46 (A2), Piro94_47 (A2), Power_46 (A2), Prudy_45 (A2), QueenB2_46 (A2), QueenBeesly_47 (A2), Rachaly_46 (A2), RedRock_49 (A2), Retro23_48 (A2), SemperFi_48 (A2), Smeagan_50 (A2), SnapTap_47 (A2), SweetiePie_47 (A2), TarsusIV_45 (A2), Trooper_48 (A2), Turbido_48 (A2), VA6_47 (A2), Whabigail7_48 (A2),

Start 23:

- Found in 13 of 294 (4.4%) of genes in pham
- Manual Annotations of this start: 11 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Baehexic_46 (A2), Buggy_49 (A2), Centaur_48 (A2), Equemioh13_48 (A2), Flare16_47 (A2), Gratitude_47 (A2), MiculUcigas_47 (A2), NaSiaTalie_47 (A2), NothingSpecial_45 (A2), Sknot_47 (A2), Terrific_50 (A2), Updawg_48 (A2), WideWale_48 (A2),

Start 24:

- Found in 8 of 294 (2.7%) of genes in pham
- Manual Annotations of this start: 8 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcherNM_43 (A2), Bactobuster_46 (A2), IronMan_47 (A2), Jaan_47 (A2), Landor_47 (A2), Phaded_48 (A2), Pukovnik_46 (A2), Tristan_46 (A2),

Start 25:

- Found in 3 of 294 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Trixie_45 (A2),

Start 26:

- Found in 57 of 294 (19.4%) of genes in pham
- Manual Annotations of this start: 3 of 246
- Called 15.8% of time when present
- Phage (with cluster) where this start called: 40AC_48 (A17), Anselm_48 (A2), Changeling_46 (A2), Colin_47 (A2), DeerParkTS_45 (A2), EZMoney23_45 (A2), ForesterFrank_45 (A2), Kalpine_45 (A2), WeiHuaDA_49 (A2),

Start 27:

- Found in 1 of 294 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona_46 (A19),

Start 28:

- Found in 1 of 294 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 100.0% of time when present

- Phage (with cluster) where this start called: PP_50 (A7),

Start 31:

- Found in 4 of 294 (1.4%) of genes in pham
- Manual Annotations of this start: 4 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arissanae_46 (A9), Darrell_48 (A9), Elephantoon_46 (A9), LoneWolf_47 (A9),

Start 32:

- Found in 1 of 294 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yecey3_48 (A9),

Start 33:

- Found in 3 of 294 (1.0%) of genes in pham
- Manual Annotations of this start: 3 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EagleEye_49 (A16), Lucyedi_48 (A16), PainterBoy_48 (A16),

Start 34:

- Found in 43 of 294 (14.6%) of genes in pham
- Manual Annotations of this start: 28 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_47 (A9), Alma_47 (A9), Ayanochan_48 (A9), Beemo_47 (A9), Bellris_45 (A9), BogosyJay_46 (A9), Catalina_48 (A9), Celestiallunch_46 (A9), CogOmlette_45 (A9), Conquerage_47 (A9), EdogawaKiddo_45 (A9), Eidsmoe_47 (A9), EmyBug_46 (A9), ExplosioNervosa_47 (A9), Fayely_47 (A9), Hanray_45 (A9), Horex_46 (A9), HortumSL17_47 (A9), Jiawan_45 (A9), Keziacharles14_47 (A9), Lilleskat_45 (A9), Maminiana_46 (A9), MegTheThird_46 (A9), Minispark_45 (A9), Myxus_47 (A9), Onglai_45 (A9), PackMan_46 (A9), Phaeder_47 (A9), Pharaoh_41 (A12), Phonnegut_47 (A9), Pioneer_47 (A9), Priya_47 (A9), Qobbit_47 (A9), Rahalelujah_46 (A9), RyeScarlet_48 (A9), Sachima_44 (A9), Scherzo_47 (A9), Spouty_47 (A9), Toaka_46 (A9), Tubs_47 (A9), Ugenie5_44 (A9), Vanisoa_46 (A9), WorldCup_45 (A9),

Start 35:

- Found in 9 of 294 (3.1%) of genes in pham
- Manual Annotations of this start: 8 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chargerpower_46 (A22), Charm_46 (A9), DreamTeam1_46 (A9), Gail_52 (A14), Jeeves_52 (A14), Klodlith_47 (A9), Luchador_52 (A14), SheaKeira_46 (A9), SororFago_50 (A14),

Start 36:

- Found in 1 of 294 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunhee_50 (A14),

Start 38:

- Found in 28 of 294 (9.5%) of genes in pham
- Manual Annotations of this start: 24 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aneem_48 (A11), Bachome_49 (A11), Bowtie_48 (A11), Bud_47 (A11), Ebony_47 (A11), Et2Brutus_46 (A11), Fibonacci_47 (A11), Flaverint_48 (A11), Gilberta_48 (A11), Hutc2_47 (A11), Insomnia_48 (A11), Jabith_48 (A11), Joselito_48 (A11), Kimba_47 (A11), Lucivia_48 (A11), MaCh_48 (A11), Mabel_47 (A11), Mulciber_47 (A11), Munch_48 (A11), Orange_47 (A11), Petersenfast_46 (A11), Salz_46 (A11), Saskia_48 (A11), Sham4_47 (A11), Snape_47 (A11), Timothy_47 (A11), TinyTimmy_47 (A11), Wolpertinger_46 (A11),

Start 49:

- Found in 1 of 294 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Steamy_43 (A12),

Start 55:

- Found in 9 of 294 (3.1%) of genes in pham
- Manual Annotations of this start: 9 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arturo_45 (A4), AvatarAhPeg_45 (A4), DirtyDunning_45 (A4), Kratark_46 (A4), Miramae_45 (A4), Mundrea_45 (A4), Phighter1804_46 (A4), Shygu2_45 (A4), Stink_46 (A4),

Start 57:

- Found in 3 of 294 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 246
- Called 66.7% of time when present
- Phage (with cluster) where this start called: DontArgue_44 (A10), Eaglepride_46 (A10),

Start 59:

- Found in 19 of 294 (6.5%) of genes in pham
- Manual Annotations of this start: 16 of 246
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chupacabra_44 (A10), Drake94_43 (A10), DustyMartin_49 (A10), Edison31_44 (A10), Goose_45 (A10), KittenMittens_42 (A10), Kristoff_45 (A10), OKCentral2016_44 (A10), PeaceMeal1_43 (A10), Poompha_44 (A10), Rebeuca_45 (A10), RhynO_46 (A10), Rowdy_49 (A10), Severus_43 (A10), Shapes_49 (A10), Topanga_43 (A10), Trike_43 (A10), Twister_43 (A10), WalterMcMickey_43 (A10),

Start 65:

- Found in 78 of 294 (26.5%) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Phlei_36 (A13),

Summary by clusters:

There are 15 clusters represented in this pham: A21, A17, A16, A11, A10, A13, A14, A12, A19, A22, A2, A4, A7, A6, A9,

Info for manual annotations of cluster A10:

- Start number 57 was manually annotated 1 time for cluster A10.
- Start number 59 was manually annotated 16 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 38 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 34 was manually annotated 1 time for cluster A12.
- Start number 49 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 35 was manually annotated 4 times for cluster A14.
- Start number 36 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A16:

- Start number 33 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A19:

- Start number 27 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 10 was manually annotated 2 times for cluster A2.
- Start number 18 was manually annotated 16 times for cluster A2.
- Start number 21 was manually annotated 11 times for cluster A2.
- Start number 22 was manually annotated 51 times for cluster A2.
- Start number 23 was manually annotated 11 times for cluster A2.
- Start number 24 was manually annotated 8 times for cluster A2.
- Start number 25 was manually annotated 1 time for cluster A2.
- Start number 26 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A22:

- Start number 35 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A4:

- Start number 55 was manually annotated 9 times for cluster A4.

Info for manual annotations of cluster A6:

- Start number 16 was manually annotated 3 times for cluster A6.
- Start number 21 was manually annotated 42 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 28 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A9:

- Start number 31 was manually annotated 4 times for cluster A9.
- Start number 32 was manually annotated 1 time for cluster A9.
- Start number 34 was manually annotated 27 times for cluster A9.
- Start number 35 was manually annotated 3 times for cluster A9.

Gene Information:

Gene: 20ES_49 Start: 32435, Stop: 32013, Start Num: 22

Candidate Starts for 20ES_49:

(Start: 22 @32435 has 51 MA's), (Start: 26 @32426 has 3 MA's), (106, 32060),

Gene: 40AC_48 Start: 33450, Stop: 33055, Start Num: 26

Candidate Starts for 40AC_48:

(Start: 26 @33450 has 3 MA's), (53, 33372), (60, 33354), (97, 33225), (106, 33102),

Gene: AN3_49 Start: 32806, Stop: 32393, Start Num: 22

Candidate Starts for AN3_49:

(Start: 22 @32806 has 51 MA's), (56, 32716), (65, 32707), (76, 32671), (89, 32605), (106, 32440),

Gene: AN9_50 Start: 32346, Stop: 31912, Start Num: 18

Candidate Starts for AN9_50:

(Start: 18 @32346 has 16 MA's), (Start: 21 @32343 has 53 MA's), (53, 32244), (71, 32202), (79, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: ANI8_50 Start: 32346, Stop: 31912, Start Num: 18

Candidate Starts for ANI8_50:

(Start: 18 @32346 has 16 MA's), (Start: 21 @32343 has 53 MA's), (53, 32244), (71, 32202), (79, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: AbbyPaige_49 Start: 32616, Stop: 32194, Start Num: 22

Candidate Starts for AbbyPaige_49:

(Start: 22 @32616 has 51 MA's), (Start: 26 @32607 has 3 MA's), (58, 32514), (65, 32508), (106, 32241),

Gene: Acolyte_43 Start: 31589, Stop: 31182, Start Num: 22

Candidate Starts for Acolyte_43:

(Start: 22 @31589 has 51 MA's), (44, 31532), (60, 31484), (94, 31358), (106, 31229),

Gene: Adzzy_49 Start: 31071, Stop: 30643, Start Num: 21

Candidate Starts for Adzzy_49:

(13, 31107), (Start: 21 @31071 has 53 MA's), (104, 30723), (106, 30690),

Gene: Agape74_49 Start: 32601, Stop: 32179, Start Num: 22

Candidate Starts for Agape74_49:

(Start: 22 @32601 has 51 MA's), (Start: 26 @32592 has 3 MA's), (58, 32499), (65, 32493), (106, 32226),

Gene: Aliter_47 Start: 32037, Stop: 31711, Start Num: 34

Candidate Starts for Aliter_47:

(Start: 34 @32037 has 28 MA's), (44, 32013), (65, 31971), (109, 31731),

Gene: Alma_47 Start: 32160, Stop: 31834, Start Num: 34

Candidate Starts for Alma_47:

(Start: 34 @32160 has 28 MA's), (44, 32136), (65, 32094), (109, 31854),

Gene: Aneem_48 Start: 31705, Stop: 31358, Start Num: 38
Candidate Starts for Aneem_48:
(Start: 38 @31705 has 24 MA's), (50, 31672), (54, 31651), (104, 31438), (106, 31405),

Gene: AnnaL29_49 Start: 33146, Stop: 32724, Start Num: 22
Candidate Starts for AnnaL29_49:
(Start: 22 @33146 has 51 MA's), (Start: 26 @33137 has 3 MA's), (47, 33080), (58, 33044), (106, 32771),

Gene: Anselm_48 Start: 32523, Stop: 32110, Start Num: 26
Candidate Starts for Anselm_48:
(Start: 22 @32532 has 51 MA's), (Start: 26 @32523 has 3 MA's), (41, 32487), (53, 32445), (106, 32157),

Gene: ArcherNM_43 Start: 32185, Stop: 31778, Start Num: 24
Candidate Starts for ArcherNM_43:
(Start: 24 @32185 has 8 MA's), (53, 32107), (60, 32089), (91, 31972), (106, 31825), (109, 31798),

Gene: Arissanae_46 Start: 32694, Stop: 32350, Start Num: 31
Candidate Starts for Arissanae_46:
(Start: 31 @32694 has 4 MA's), (40, 32679), (65, 32631), (71, 32610), (88, 32556), (100, 32472), (109, 32370),

Gene: Artemis2UCLA_49 Start: 30834, Stop: 30406, Start Num: 21
Candidate Starts for Artemis2UCLA_49:
(Start: 16 @30861 has 3 MA's), (Start: 21 @30834 has 53 MA's), (52, 30738), (69, 30702), (89, 30612), (93, 30585), (94, 30582), (109, 30426),

Gene: Arturo_45 Start: 32157, Stop: 31834, Start Num: 55
Candidate Starts for Arturo_45:
(Start: 55 @32157 has 9 MA's), (62, 32142), (98, 32004), (104, 31917), (106, 31884),

Gene: AvatarAhPeg_45 Start: 32379, Stop: 32056, Start Num: 55
Candidate Starts for AvatarAhPeg_45:
(Start: 55 @32379 has 9 MA's), (62, 32364), (90, 32271), (92, 32256), (98, 32226), (103, 32151), (106, 32106),

Gene: Ayanochan_48 Start: 32164, Stop: 31838, Start Num: 34
Candidate Starts for Ayanochan_48:
(Start: 34 @32164 has 28 MA's), (44, 32140), (65, 32098), (109, 31858),

Gene: BabyBack_46 Start: 32865, Stop: 32410, Start Num: 18
Candidate Starts for BabyBack_46:
(Start: 18 @32865 has 16 MA's), (30, 32838), (65, 32721), (88, 32625), (94, 32589), (96, 32577), (106, 32457), (109, 32430),

Gene: Bachome_49 Start: 31693, Stop: 31346, Start Num: 38
Candidate Starts for Bachome_49:
(Start: 38 @31693 has 24 MA's), (50, 31660), (54, 31639), (104, 31426), (106, 31393),

Gene: Bactobuster_46 Start: 33096, Stop: 32677, Start Num: 24
Candidate Starts for Bactobuster_46:
(Start: 24 @33096 has 8 MA's), (53, 33015), (78, 32952), (83, 32934), (91, 32880), (106, 32724),

Gene: Baehexic_46 Start: 32303, Stop: 31869, Start Num: 23
Candidate Starts for Baehexic_46:
(Start: 23 @32303 has 11 MA's), (61, 32204), (70, 32168), (106, 31916),

Gene: Beemo_47 Start: 32159, Stop: 31833, Start Num: 34
Candidate Starts for Beemo_47:
(Start: 34 @32159 has 28 MA's), (44, 32135), (65, 32093), (109, 31853),

Gene: Bellris_45 Start: 31402, Stop: 31031, Start Num: 34
Candidate Starts for Bellris_45:
(6, 31588), (7, 31537), (8, 31513), (Start: 34 @31402 has 28 MA's), (60, 31342), (65, 31339), (109, 31051),

Gene: BengiVuitton_48 Start: 32388, Stop: 31975, Start Num: 22
Candidate Starts for BengiVuitton_48:
(Start: 22 @32388 has 51 MA's), (56, 32298), (65, 32289), (76, 32253), (89, 32187), (106, 32022),

Gene: BennyP_50 Start: 31282, Stop: 30854, Start Num: 21
Candidate Starts for BennyP_50:
(Start: 16 @31309 has 3 MA's), (Start: 21 @31282 has 53 MA's), (52, 31186), (69, 31150), (89, 31060), (93, 31033), (94, 31030), (109, 30874),

Gene: Benvolio_44 Start: 31563, Stop: 31141, Start Num: 22
Candidate Starts for Benvolio_44:
(Start: 22 @31563 has 51 MA's), (Start: 26 @31554 has 3 MA's), (53, 31476), (106, 31188),

Gene: BiancaTri92_47 Start: 32931, Stop: 32509, Start Num: 22
Candidate Starts for BiancaTri92_47:
(Start: 22 @32931 has 51 MA's), (Start: 26 @32922 has 3 MA's), (53, 32844), (106, 32556),

Gene: BlessJoy_50 Start: 31295, Stop: 30867, Start Num: 21
Candidate Starts for BlessJoy_50:
(Start: 16 @31322 has 3 MA's), (Start: 21 @31295 has 53 MA's), (52, 31199), (87, 31085), (94, 31043), (109, 30887),

Gene: Blinn1_51 Start: 31121, Stop: 30666, Start Num: 16
Candidate Starts for Blinn1_51:
(Start: 16 @31121 has 3 MA's), (Start: 21 @31094 has 53 MA's), (52, 30998), (69, 30962), (93, 30845), (106, 30713),

Gene: Blue7_51 Start: 30930, Stop: 30502, Start Num: 21
Candidate Starts for Blue7_51:
(Start: 16 @30957 has 3 MA's), (Start: 21 @30930 has 53 MA's), (52, 30834), (87, 30720), (94, 30678), (109, 30522),

Gene: BobSwaget_45 Start: 31896, Stop: 31399, Start Num: 10
Candidate Starts for BobSwaget_45:
(Start: 10 @31896 has 2 MA's), (68, 31704), (71, 31692), (88, 31617), (106, 31446),

Gene: BogosyJay_46 Start: 31869, Stop: 31543, Start Num: 34
Candidate Starts for BogosyJay_46:
(Start: 34 @31869 has 28 MA's), (44, 31845), (65, 31803), (81, 31761), (109, 31563),

Gene: Bowtie_48 Start: 31712, Stop: 31365, Start Num: 38

Candidate Starts for Bowtie_48:

(Start: 38 @31712 has 24 MA's), (50, 31679), (54, 31658), (104, 31445), (106, 31412),

Gene: Bradman_46 Start: 31085, Stop: 30678, Start Num: 21

Candidate Starts for Bradman_46:

(Start: 21 @31085 has 53 MA's), (41, 31049), (71, 30965), (104, 30758), (106, 30725),

Gene: Bud_47 Start: 31267, Stop: 30920, Start Num: 38

Candidate Starts for Bud_47:

(Start: 38 @31267 has 24 MA's), (50, 31234), (54, 31213), (104, 31000), (106, 30967),

Gene: Buggy_49 Start: 32673, Stop: 32239, Start Num: 23

Candidate Starts for Buggy_49:

(Start: 23 @32673 has 11 MA's), (61, 32574), (70, 32538), (106, 32286),

Gene: C3_45 Start: 32346, Stop: 31912, Start Num: 18

Candidate Starts for C3_45:

(Start: 18 @32346 has 16 MA's), (Start: 21 @32343 has 53 MA's), (53, 32244), (71, 32202), (79, 32178), (96, 32079), (104, 31992), (106, 31959),

Gene: CRB1_50 Start: 32781, Stop: 32359, Start Num: 22

Candidate Starts for CRB1_50:

(Start: 22 @32781 has 51 MA's), (Start: 26 @32772 has 3 MA's), (58, 32679), (65, 32673), (72, 32649), (73, 32646), (106, 32406),

Gene: Candra_49 Start: 31173, Stop: 30745, Start Num: 21

Candidate Starts for Candra_49:

(Start: 16 @31200 has 3 MA's), (Start: 21 @31173 has 53 MA's), (52, 31077), (69, 31041), (89, 30951), (93, 30924), (94, 30921), (109, 30765),

Gene: Caraxes_47 Start: 30723, Stop: 30316, Start Num: 21

Candidate Starts for Caraxes_47:

(Start: 21 @30723 has 53 MA's), (65, 30624), (91, 30510), (104, 30396), (106, 30363),

Gene: Catalina_48 Start: 32110, Stop: 31784, Start Num: 34

Candidate Starts for Catalina_48:

(Start: 34 @32110 has 28 MA's), (44, 32086), (65, 32044), (109, 31804),

Gene: Celestiallunch_46 Start: 31680, Stop: 31330, Start Num: 34

Candidate Starts for Celestiallunch_46:

(12, 31743), (Start: 25 @31704 has 1 MA's), (Start: 34 @31680 has 28 MA's), (40, 31659), (44, 31653), (83, 31551), (109, 31350), (110, 31341),

Gene: Centaur_48 Start: 32520, Stop: 32086, Start Num: 23

Candidate Starts for Centaur_48:

(Start: 23 @32520 has 11 MA's), (61, 32421), (70, 32385), (106, 32133),

Gene: Changeling_46 Start: 32725, Stop: 32312, Start Num: 26

Candidate Starts for Changeling_46:

(Start: 26 @32725 has 3 MA's), (53, 32647), (72, 32602), (105, 32371), (106, 32359), (109, 32332),

Gene: Chargerpower_46 Start: 31054, Stop: 30704, Start Num: 35
Candidate Starts for Chargerpower_46:
(Start: 35 @31054 has 8 MA's), (65, 30991), (89, 30910), (104, 30784), (109, 30724), (110, 30715),

Gene: Charm_46 Start: 31899, Stop: 31555, Start Num: 35
Candidate Starts for Charm_46:
(Start: 35 @31899 has 8 MA's), (40, 31884), (44, 31878), (65, 31836), (78, 31794), (88, 31761), (109, 31575), (110, 31566),

Gene: Chartreuse_48 Start: 30533, Stop: 30105, Start Num: 21
Candidate Starts for Chartreuse_48:
(Start: 16 @30560 has 3 MA's), (Start: 21 @30533 has 53 MA's), (52, 30437), (69, 30401), (89, 30311), (93, 30284), (94, 30281), (109, 30125),

Gene: Che12_49 Start: 31155, Stop: 30727, Start Num: 21
Candidate Starts for Che12_49:
(Start: 21 @31155 has 53 MA's), (63, 31044), (78, 30993), (104, 30807), (106, 30774),

Gene: ChipMunk_49 Start: 33873, Stop: 33451, Start Num: 22
Candidate Starts for ChipMunk_49:
(Start: 22 @33873 has 51 MA's), (58, 33771), (71, 33744), (106, 33498),

Gene: Chupacabra_44 Start: 31467, Stop: 31129, Start Num: 59
Candidate Starts for Chupacabra_44:
(15, 31611), (29, 31560), (Start: 59 @31467 has 16 MA's), (78, 31407), (94, 31317), (97, 31302), (103, 31224),

Gene: CloudWang3_49 Start: 30934, Stop: 30506, Start Num: 21
Candidate Starts for CloudWang3_49:
(Start: 16 @30961 has 3 MA's), (Start: 21 @30934 has 53 MA's), (52, 30838), (69, 30802), (89, 30712), (93, 30685), (94, 30682), (109, 30526),

Gene: CogOmlette_45 Start: 31399, Stop: 31028, Start Num: 34
Candidate Starts for CogOmlette_45:
(6, 31585), (7, 31534), (8, 31510), (Start: 34 @31399 has 28 MA's), (60, 31339), (65, 31336), (109, 31048),

Gene: Colin_47 Start: 32497, Stop: 32084, Start Num: 26
Candidate Starts for Colin_47:
(Start: 26 @32497 has 3 MA's), (53, 32419), (106, 32131),

Gene: Conquerage_47 Start: 32133, Stop: 31807, Start Num: 34
Candidate Starts for Conquerage_47:
(Start: 34 @32133 has 28 MA's), (44, 32109), (65, 32067), (109, 31827),

Gene: Cookiedough_49 Start: 31149, Stop: 30721, Start Num: 21
Candidate Starts for Cookiedough_49:
(Start: 16 @31176 has 3 MA's), (Start: 21 @31149 has 53 MA's), (52, 31053), (69, 31017), (89, 30927), (93, 30900), (94, 30897), (109, 30741),

Gene: Crucio_47 Start: 32116, Stop: 31694, Start Num: 22
Candidate Starts for Crucio_47:

(Start: 22 @32116 has 51 MA's), (Start: 26 @32107 has 3 MA's), (58, 32014), (72, 31984), (106, 31741),

Gene: D29_46 Start: 31906, Stop: 31496, Start Num: 18

Candidate Starts for D29_46:

(5, 32113), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: D32_49 Start: 31906, Stop: 31496, Start Num: 18

Candidate Starts for D32_49:

(5, 32113), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: DBQu4n_49 Start: 31906, Stop: 31496, Start Num: 18

Candidate Starts for DBQu4n_49:

(3, 32233), (4, 32221), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: DaVinci_48 Start: 30587, Stop: 30159, Start Num: 21

Candidate Starts for DaVinci_48:

(Start: 16 @30614 has 3 MA's), (Start: 21 @30587 has 53 MA's), (52, 30491), (69, 30455), (89, 30365), (93, 30338), (94, 30335), (109, 30179),

Gene: Dalmatian_48 Start: 32508, Stop: 32086, Start Num: 22

Candidate Starts for Dalmatian_48:

(Start: 22 @32508 has 51 MA's), (Start: 26 @32499 has 3 MA's), (58, 32406), (72, 32376), (106, 32133),

Gene: Darrell_48 Start: 32497, Stop: 32153, Start Num: 31

Candidate Starts for Darrell_48:

(17, 32539), (19, 32518), (Start: 31 @32497 has 4 MA's), (40, 32482), (65, 32434), (71, 32413), (88, 32359), (109, 32173),

Gene: DeerParkTS_45 Start: 31640, Stop: 31224, Start Num: 26

Candidate Starts for DeerParkTS_45:

(Start: 26 @31640 has 3 MA's), (53, 31562), (72, 31517), (86, 31457), (106, 31274),

Gene: Deloris_47 Start: 32057, Stop: 31644, Start Num: 22

Candidate Starts for Deloris_47:

(Start: 22 @32057 has 51 MA's), (56, 31967), (65, 31958), (76, 31922), (89, 31856), (106, 31691),

Gene: DelvinSonDorr_47 Start: 31025, Stop: 30597, Start Num: 21

Candidate Starts for DelvinSonDorr_47:

(Start: 16 @31052 has 3 MA's), (Start: 21 @31025 has 53 MA's), (52, 30929), (69, 30893), (89, 30803), (93, 30776), (94, 30773), (109, 30617),

Gene: Dignity_49 Start: 32681, Stop: 32259, Start Num: 22

Candidate Starts for Dignity_49:

(Start: 22 @32681 has 51 MA's), (Start: 26 @32672 has 3 MA's), (58, 32579), (72, 32549), (106, 32306),

Gene: DirtyDunning_45 Start: 31898, Stop: 31575, Start Num: 55

Candidate Starts for DirtyDunning_45:

(Start: 55 @31898 has 9 MA's), (62, 31883), (98, 31745), (99, 31706), (104, 31658), (106, 31625),

Gene: DontArgue_44 Start: 30703, Stop: 30368, Start Num: 57

Candidate Starts for DontArgue_44:

(14, 30847), (15, 30841), (Start: 57 @30703 has 1 MA's), (103, 30463),

Gene: Dorothea_49 Start: 31156, Stop: 30728, Start Num: 21

Candidate Starts for Dorothea_49:

(Start: 16 @31183 has 3 MA's), (Start: 21 @31156 has 53 MA's), (52, 31060), (69, 31024), (89, 30934), (93, 30907), (94, 30904), (109, 30748),

Gene: Drake55_49 Start: 32605, Stop: 32183, Start Num: 22

Candidate Starts for Drake55_49:

(Start: 22 @32605 has 51 MA's), (Start: 26 @32596 has 3 MA's), (58, 32503), (65, 32497), (72, 32473), (106, 32230),

Gene: Drake94_43 Start: 30743, Stop: 30387, Start Num: 59

Candidate Starts for Drake94_43:

(15, 30887), (Start: 59 @30743 has 16 MA's), (97, 30560), (103, 30482),

Gene: DreamTeam1_46 Start: 31773, Stop: 31429, Start Num: 35

Candidate Starts for DreamTeam1_46:

(Start: 35 @31773 has 8 MA's), (40, 31758), (44, 31752), (65, 31710), (66, 31707), (78, 31668), (88, 31635), (109, 31449), (110, 31440),

Gene: DudeLittle_46 Start: 32250, Stop: 31828, Start Num: 22

Candidate Starts for DudeLittle_46:

(Start: 22 @32250 has 51 MA's), (Start: 26 @32241 has 3 MA's), (41, 32205), (51, 32172), (53, 32163), (106, 31875),

Gene: Duplo_49 Start: 31944, Stop: 31534, Start Num: 18

Candidate Starts for Duplo_49:

(3, 32271), (4, 32259), (Start: 18 @31944 has 16 MA's), (71, 31824), (79, 31800), (80, 31794), (96, 31701), (104, 31614), (106, 31581),

Gene: DustyMartin_49 Start: 31547, Stop: 31209, Start Num: 59

Candidate Starts for DustyMartin_49:

(Start: 59 @31547 has 16 MA's), (78, 31487), (97, 31382), (103, 31304),

Gene: EZMoney23_45 Start: 32055, Stop: 31642, Start Num: 26

Candidate Starts for EZMoney23_45:

(Start: 26 @32055 has 3 MA's), (53, 31977), (60, 31959), (72, 31932), (106, 31689),

Gene: EagleEye_49 Start: 31670, Stop: 31308, Start Num: 33

Candidate Starts for EagleEye_49:

(Start: 33 @31670 has 3 MA's), (43, 31646), (104, 31388),

Gene: Eaglepride_46 Start: 31543, Stop: 31214, Start Num: 57

Candidate Starts for Eaglepride_46:

(15, 31681), (Start: 18 @31654 has 16 MA's), (Start: 57 @31543 has 1 MA's), (93, 31393), (103, 31309),

Gene: Ebony_47 Start: 31284, Stop: 30937, Start Num: 38

Candidate Starts for Ebony_47:

(Start: 38 @31284 has 24 MA's), (50, 31251), (54, 31230), (104, 31017), (106, 30984),

Gene: Echild_47 Start: 31587, Stop: 31165, Start Num: 22

Candidate Starts for Echild_47:

(Start: 22 @31587 has 51 MA's), (Start: 26 @31578 has 3 MA's), (53, 31500), (106, 31212),

Gene: Edison31_44 Start: 31487, Stop: 31149, Start Num: 59

Candidate Starts for Edison31_44:

(15, 31631), (29, 31580), (Start: 59 @31487 has 16 MA's), (94, 31337), (97, 31322), (103, 31244),

Gene: EdogawaKiddo_45 Start: 32110, Stop: 31784, Start Num: 34

Candidate Starts for EdogawaKiddo_45:

(Start: 34 @32110 has 28 MA's), (44, 32086), (65, 32044), (109, 31804),

Gene: Eidsmoe_47 Start: 32173, Stop: 31847, Start Num: 34

Candidate Starts for Eidsmoe_47:

(Start: 34 @32173 has 28 MA's), (44, 32149), (65, 32107), (109, 31867),

Gene: Elephantoon_46 Start: 31477, Stop: 31130, Start Num: 31

Candidate Starts for Elephantoon_46:

(Start: 31 @31477 has 4 MA's), (44, 31453), (65, 31411), (88, 31336), (91, 31318), (109, 31150),

Gene: EmyBug_46 Start: 32175, Stop: 31849, Start Num: 34

Candidate Starts for EmyBug_46:

(Start: 34 @32175 has 28 MA's), (44, 32151), (65, 32109), (109, 31869),

Gene: Equemioh13_48 Start: 32422, Stop: 31988, Start Num: 23

Candidate Starts for Equemioh13_48:

(Start: 23 @32422 has 11 MA's), (61, 32323), (70, 32287), (106, 32035),

Gene: EricB_49 Start: 31130, Stop: 30702, Start Num: 21

Candidate Starts for EricB_49:

(Start: 16 @31157 has 3 MA's), (Start: 21 @31130 has 53 MA's), (52, 31034), (69, 30998), (89, 30908), (93, 30881), (94, 30878), (109, 30722),

Gene: Et2Brutus_46 Start: 31244, Stop: 30897, Start Num: 38

Candidate Starts for Et2Brutus_46:

(Start: 38 @31244 has 24 MA's), (50, 31211), (54, 31190), (104, 30977), (106, 30944),

Gene: EvilGenius_49 Start: 33877, Stop: 33455, Start Num: 22

Candidate Starts for EvilGenius_49:

(Start: 22 @33877 has 51 MA's), (Start: 26 @33868 has 3 MA's), (58, 33775), (71, 33748), (106, 33502),

Gene: ExplosioNervosa_47 Start: 32193, Stop: 31867, Start Num: 34

Candidate Starts for ExplosioNervosa_47:

(Start: 34 @32193 has 28 MA's), (44, 32169), (65, 32127), (109, 31887),

Gene: Fameo_47 Start: 32426, Stop: 32004, Start Num: 22

Candidate Starts for Fameo_47:

(Start: 22 @32426 has 51 MA's), (Start: 26 @32417 has 3 MA's), (41, 32381), (53, 32339), (106, 32051),

Gene: Fayely_47 Start: 32142, Stop: 31816, Start Num: 34
Candidate Starts for Fayely_47:
(Start: 34 @32142 has 28 MA's), (44, 32118), (65, 32076), (109, 31836),

Gene: Fibonacci_47 Start: 31259, Stop: 30912, Start Num: 38
Candidate Starts for Fibonacci_47:
(Start: 38 @31259 has 24 MA's), (50, 31226), (54, 31205), (104, 30992), (106, 30959),

Gene: FiringLine_47 Start: 32097, Stop: 31675, Start Num: 22
Candidate Starts for FiringLine_47:
(Start: 22 @32097 has 51 MA's), (Start: 26 @32088 has 3 MA's), (41, 32052), (53, 32010), (106, 31722),

Gene: First_0048 Start: 32311, Stop: 31889, Start Num: 22
Candidate Starts for First_0048:
(Start: 22 @32311 has 51 MA's), (Start: 26 @32302 has 3 MA's), (106, 31936),

Gene: Flare16_47 Start: 32181, Stop: 31747, Start Num: 23
Candidate Starts for Flare16_47:
(Start: 23 @32181 has 11 MA's), (61, 32082), (70, 32046), (106, 31794),

Gene: Flaverint_48 Start: 31706, Stop: 31359, Start Num: 38
Candidate Starts for Flaverint_48:
(Start: 38 @31706 has 24 MA's), (50, 31673), (54, 31652), (104, 31439), (106, 31406),

Gene: ForesterFrank_45 Start: 32797, Stop: 32381, Start Num: 26
Candidate Starts for ForesterFrank_45:
(Start: 26 @32797 has 3 MA's), (44, 32749), (53, 32719), (60, 32701), (72, 32674), (106, 32428), (109, 32401),

Gene: Gail_52 Start: 33875, Stop: 33528, Start Num: 35
Candidate Starts for Gail_52:
(20, 33899), (Start: 35 @33875 has 8 MA's), (65, 33815), (104, 33608), (109, 33548), (110, 33539),

Gene: Garak_51 Start: 31328, Stop: 30873, Start Num: 16
Candidate Starts for Garak_51:
(Start: 16 @31328 has 3 MA's), (Start: 21 @31301 has 53 MA's), (52, 31205), (87, 31091), (94, 31049), (109, 30893),

Gene: GaugeLDP_45 Start: 32488, Stop: 32036, Start Num: 18
Candidate Starts for GaugeLDP_45:
(Start: 16 @32512 has 3 MA's), (Start: 18 @32488 has 16 MA's), (41, 32428), (65, 32344), (106, 32083),

Gene: Georgie2_48 Start: 32142, Stop: 31720, Start Num: 22
Candidate Starts for Georgie2_48:
(Start: 22 @32142 has 51 MA's), (Start: 26 @32133 has 3 MA's), (58, 32040), (72, 32010), (106, 31767),

Gene: Gilberta_48 Start: 31696, Stop: 31349, Start Num: 38
Candidate Starts for Gilberta_48:
(Start: 38 @31696 has 24 MA's), (50, 31663), (54, 31642), (104, 31429), (106, 31396),

Gene: Gladiator_47 Start: 30461, Stop: 30033, Start Num: 21

Candidate Starts for Gladiator_47:

(Start: 16 @30488 has 3 MA's), (Start: 21 @30461 has 53 MA's), (52, 30365), (69, 30329), (89, 30239), (93, 30212), (94, 30209), (109, 30053),

Gene: Goose_45 Start: 31271, Stop: 30933, Start Num: 59

Candidate Starts for Goose_45:

(15, 31415), (29, 31364), (Start: 59 @31271 has 16 MA's), (78, 31211), (94, 31121), (97, 31106), (103, 31028),

Gene: Gratitude_47 Start: 32422, Stop: 31988, Start Num: 23

Candidate Starts for Gratitude_47:

(Start: 23 @32422 has 11 MA's), (61, 32323), (70, 32287), (106, 32035),

Gene: GreedyLawyer_49 Start: 31137, Stop: 30709, Start Num: 21

Candidate Starts for GreedyLawyer_49:

(Start: 16 @31164 has 3 MA's), (Start: 21 @31137 has 53 MA's), (52, 31041), (69, 31005), (89, 30915), (93, 30888), (94, 30885), (109, 30729),

Gene: Gruunaga_49 Start: 31137, Stop: 30709, Start Num: 21

Candidate Starts for Gruunaga_49:

(Start: 16 @31164 has 3 MA's), (Start: 21 @31137 has 53 MA's), (52, 31041), (87, 30927), (94, 30885), (109, 30729),

Gene: Hammer_50 Start: 30740, Stop: 30312, Start Num: 21

Candidate Starts for Hammer_50:

(Start: 16 @30767 has 3 MA's), (Start: 21 @30740 has 53 MA's), (52, 30644), (87, 30530), (94, 30488), (109, 30332),

Gene: Hanray_45 Start: 32114, Stop: 31788, Start Num: 34

Candidate Starts for Hanray_45:

(Start: 34 @32114 has 28 MA's), (44, 32090), (65, 32048), (109, 31808),

Gene: HarryHoudini_48 Start: 32614, Stop: 32192, Start Num: 22

Candidate Starts for HarryHoudini_48:

(Start: 22 @32614 has 51 MA's), (Start: 26 @32605 has 3 MA's), (58, 32512), (65, 32506), (72, 32482), (106, 32239),

Gene: Heffalump_46 Start: 32894, Stop: 32472, Start Num: 22

Candidate Starts for Heffalump_46:

(Start: 22 @32894 has 51 MA's), (Start: 26 @32885 has 3 MA's), (41, 32849), (53, 32807), (106, 32519),

Gene: Helmet_51 Start: 31301, Stop: 30873, Start Num: 21

Candidate Starts for Helmet_51:

(Start: 16 @31328 has 3 MA's), (Start: 21 @31301 has 53 MA's), (52, 31205), (87, 31091), (94, 31049), (109, 30893),

Gene: Herbertwm_47 Start: 31973, Stop: 31524, Start Num: 21

Candidate Starts for Herbertwm_47:

(Start: 21 @31973 has 53 MA's), (41, 31916), (60, 31856), (93, 31703), (95, 31697), (104, 31604), (109, 31544),

Gene: Hexamo_49 Start: 30949, Stop: 30494, Start Num: 16

Candidate Starts for Hexamo_49:

(Start: 16 @30949 has 3 MA's), (Start: 21 @30922 has 53 MA's), (52, 30826), (87, 30712), (94, 30670), (109, 30514),

Gene: HippoHollow_47 Start: 33647, Stop: 33225, Start Num: 22

Candidate Starts for HippoHollow_47:

(Start: 22 @33647 has 51 MA's), (Start: 26 @33638 has 3 MA's), (53, 33560), (106, 33272),

Gene: Holec_46 Start: 32133, Stop: 31807, Start Num: 34

Candidate Starts for Holec_46:

(Start: 34 @32133 has 28 MA's), (44, 32109), (65, 32067), (109, 31827),

Gene: HortumSL17_47 Start: 32109, Stop: 31783, Start Num: 34

Candidate Starts for HortumSL17_47:

(Start: 34 @32109 has 28 MA's), (44, 32085), (65, 32043), (109, 31803),

Gene: Hutc2_47 Start: 31259, Stop: 30912, Start Num: 38

Candidate Starts for Hutc2_47:

(Start: 38 @31259 has 24 MA's), (50, 31226), (54, 31205), (104, 30992), (106, 30959),

Gene: Indra_52 Start: 31302, Stop: 30874, Start Num: 21

Candidate Starts for Indra_52:

(Start: 16 @31329 has 3 MA's), (Start: 21 @31302 has 53 MA's), (52, 31206), (87, 31092), (94, 31050), (109, 30894),

Gene: Insomnia_48 Start: 31764, Stop: 31417, Start Num: 38

Candidate Starts for Insomnia_48:

(Start: 38 @31764 has 24 MA's), (50, 31731), (54, 31710), (104, 31497), (106, 31464),

Gene: IronMan_47 Start: 33279, Stop: 32860, Start Num: 24

Candidate Starts for IronMan_47:

(Start: 24 @33279 has 8 MA's), (53, 33198), (79, 33132), (83, 33117), (91, 33063), (106, 32907), (109, 32880),

Gene: Isiphiwo_47 Start: 30674, Stop: 30246, Start Num: 21

Candidate Starts for Isiphiwo_47:

(Start: 16 @30701 has 3 MA's), (Start: 21 @30674 has 53 MA's), (52, 30578), (69, 30542), (89, 30452), (93, 30425), (94, 30422), (109, 30266),

Gene: Iwokeuplikedis_50 Start: 32216, Stop: 31788, Start Num: 22

Candidate Starts for Iwokeuplikedis_50:

(Start: 22 @32216 has 51 MA's), (93, 31967), (106, 31835),

Gene: Jaan_47 Start: 33445, Stop: 33047, Start Num: 24

Candidate Starts for Jaan_47:

(Start: 24 @33445 has 8 MA's), (64, 33364), (78, 33322), (91, 33250), (106, 33094),

Gene: Jabith_48 Start: 31765, Stop: 31418, Start Num: 38

Candidate Starts for Jabith_48:

(Start: 38 @31765 has 24 MA's), (50, 31732), (54, 31711), (104, 31498), (106, 31465),

Gene: Jeeves_52 Start: 32647, Stop: 32300, Start Num: 35

Candidate Starts for Jeeves_52:

(20, 32671), (Start: 35 @32647 has 8 MA's), (65, 32587), (104, 32380), (109, 32320),

Gene: Jeffabunny_49 Start: 30958, Stop: 30530, Start Num: 21

Candidate Starts for Jeffabunny_49:

(Start: 16 @30985 has 3 MA's), (Start: 21 @30958 has 53 MA's), (52, 30862), (87, 30748), (94, 30706), (109, 30550),

Gene: Jerm_49 Start: 32674, Stop: 32252, Start Num: 22

Candidate Starts for Jerm_49:

(Start: 22 @32674 has 51 MA's), (Start: 26 @32665 has 3 MA's), (58, 32572), (72, 32542), (106, 32299),

Gene: Jiawan_45 Start: 32146, Stop: 31820, Start Num: 34

Candidate Starts for Jiawan_45:

(Start: 34 @32146 has 28 MA's), (44, 32122), (65, 32080), (109, 31840),

Gene: Jordennis_48 Start: 30594, Stop: 30166, Start Num: 21

Candidate Starts for Jordennis_48:

(Start: 16 @30621 has 3 MA's), (Start: 21 @30594 has 53 MA's), (52, 30498), (69, 30462), (89, 30372), (93, 30345), (94, 30342),

Gene: Joselito_48 Start: 31705, Stop: 31358, Start Num: 38

Candidate Starts for Joselito_48:

(Start: 38 @31705 has 24 MA's), (50, 31672), (54, 31651), (104, 31438), (106, 31405),

Gene: JoshKayV_49 Start: 32755, Stop: 32333, Start Num: 22

Candidate Starts for JoshKayV_49:

(Start: 22 @32755 has 51 MA's), (Start: 26 @32746 has 3 MA's), (58, 32653), (65, 32647), (72, 32623), (73, 32620), (106, 32380),

Gene: Jsquared_45 Start: 31025, Stop: 30618, Start Num: 21

Candidate Starts for Jsquared_45:

(Start: 21 @31025 has 53 MA's), (65, 30926), (71, 30905), (104, 30698), (106, 30665),

Gene: Kalpine_45 Start: 32395, Stop: 31982, Start Num: 26

Candidate Starts for Kalpine_45:

(Start: 26 @32395 has 3 MA's), (53, 32317), (106, 32029),

Gene: Kazan_50 Start: 31143, Stop: 30715, Start Num: 21

Candidate Starts for Kazan_50:

(Start: 16 @31170 has 3 MA's), (Start: 21 @31143 has 53 MA's), (52, 31047), (69, 31011), (89, 30921), (93, 30894), (94, 30891), (109, 30735),

Gene: Kerberos_49 Start: 31906, Stop: 31496, Start Num: 18

Candidate Starts for Kerberos_49:

(3, 32233), (4, 32221), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Keziacharles14_47 Start: 33144, Stop: 32797, Start Num: 34

Candidate Starts for Keziacharles14_47:

(Start: 34 @33144 has 28 MA's), (44, 33120), (65, 33078), (84, 33015), (88, 33003), (109, 32817), (110, 32808),

Gene: Kimba_47 Start: 31285, Stop: 30938, Start Num: 38

Candidate Starts for Kimba_47:

(Start: 38 @31285 has 24 MA's), (50, 31252), (54, 31231), (104, 31018), (106, 30985),

Gene: Kimona_46 Start: 30459, Stop: 30046, Start Num: 27

Candidate Starts for Kimona_46:

(Start: 27 @30459 has 1 MA's), (56, 30369), (76, 30324), (94, 30228), (106, 30099),

Gene: KingCyrus_49 Start: 33872, Stop: 33450, Start Num: 22

Candidate Starts for KingCyrus_49:

(Start: 22 @33872 has 51 MA's), (58, 33770), (71, 33743), (106, 33497), (108, 33473),

Gene: Kinmap_45 Start: 31426, Stop: 31016, Start Num: 18

Candidate Starts for Kinmap_45:

(Start: 18 @31426 has 16 MA's), (85, 31252), (88, 31231), (104, 31096),

Gene: Kipper29_49 Start: 31156, Stop: 30728, Start Num: 21

Candidate Starts for Kipper29_49:

(Start: 16 @31183 has 3 MA's), (Start: 21 @31156 has 53 MA's), (52, 31060), (69, 31024), (89, 30934), (93, 30907), (94, 30904), (109, 30748),

Gene: KittenMittens_42 Start: 30751, Stop: 30395, Start Num: 59

Candidate Starts for KittenMittens_42:

(15, 30895), (Start: 59 @30751 has 16 MA's), (97, 30568), (103, 30490),

Gene: Klodlith_47 Start: 31790, Stop: 31446, Start Num: 35

Candidate Starts for Klodlith_47:

(Start: 35 @31790 has 8 MA's), (40, 31775), (44, 31769), (65, 31727), (78, 31685), (88, 31652), (109, 31466), (110, 31457),

Gene: Koduck_48 Start: 31317, Stop: 30889, Start Num: 21

Candidate Starts for Koduck_48:

(Start: 21 @31317 has 53 MA's), (39, 31263), (46, 31239), (65, 31197), (71, 31176), (78, 31155), (84, 31134), (104, 30969), (106, 30936),

Gene: Koko_50 Start: 31279, Stop: 30851, Start Num: 21

Candidate Starts for Koko_50:

(Start: 16 @31306 has 3 MA's), (Start: 21 @31279 has 53 MA's), (52, 31183), (94, 31027), (109, 30871),

Gene: Kratark_46 Start: 32040, Stop: 31717, Start Num: 55

Candidate Starts for Kratark_46:

(Start: 55 @32040 has 9 MA's), (62, 32025), (98, 31887), (104, 31800), (106, 31767),

Gene: Kristoff_45 Start: 31839, Stop: 31501, Start Num: 59

Candidate Starts for Kristoff_45:

(15, 31983), (29, 31932), (Start: 59 @31839 has 16 MA's), (94, 31689), (97, 31674), (103, 31596),

Gene: L5_46 Start: 31389, Stop: 30961, Start Num: 21

Candidate Starts for L5_46:

(Start: 21 @31389 has 53 MA's), (39, 31335), (46, 31311), (65, 31269), (71, 31248), (78, 31227), (84, 31206), (104, 31041), (106, 31008),

Gene: LadyBird_51 Start: 32746, Stop: 32324, Start Num: 22

Candidate Starts for LadyBird_51:

(Start: 22 @32746 has 51 MA's), (Start: 26 @32737 has 3 MA's), (53, 32659), (60, 32641), (106, 32371),

Gene: Landor_47 Start: 33357, Stop: 32938, Start Num: 24

Candidate Starts for Landor_47:

(Start: 24 @33357 has 8 MA's), (53, 33276), (78, 33213), (91, 33141), (106, 32985),

Gene: Larenn_46 Start: 32287, Stop: 31865, Start Num: 22

Candidate Starts for Larenn_46:

(Start: 22 @32287 has 51 MA's), (Start: 26 @32278 has 3 MA's), (47, 32221), (68, 32170), (106, 31912),

Gene: Leogania_47 Start: 33298, Stop: 32876, Start Num: 22

Candidate Starts for Leogania_47:

(Start: 22 @33298 has 51 MA's), (Start: 26 @33289 has 3 MA's), (53, 33211), (106, 32923),

Gene: Leviathan_49 Start: 32730, Stop: 32308, Start Num: 22

Candidate Starts for Leviathan_49:

(Start: 22 @32730 has 51 MA's), (Start: 26 @32721 has 3 MA's), (58, 32628), (65, 32622), (72, 32598), (106, 32355),

Gene: LilTurb_48 Start: 32563, Stop: 32141, Start Num: 22

Candidate Starts for LilTurb_48:

(Start: 22 @32563 has 51 MA's), (Start: 26 @32554 has 3 MA's), (58, 32461), (65, 32455), (106, 32188),

Gene: Lilbunny_48 Start: 30932, Stop: 30504, Start Num: 21

Candidate Starts for Lilbunny_48:

(Start: 16 @30959 has 3 MA's), (Start: 21 @30932 has 53 MA's), (52, 30836), (87, 30722), (94, 30680), (109, 30524),

Gene: Lilleskat_45 Start: 32063, Stop: 31737, Start Num: 34

Candidate Starts for Lilleskat_45:

(Start: 34 @32063 has 28 MA's), (44, 32039), (65, 31997), (109, 31757),

Gene: LionsBait_49 Start: 33648, Stop: 33226, Start Num: 22

Candidate Starts for LionsBait_49:

(Start: 22 @33648 has 51 MA's), (Start: 26 @33639 has 3 MA's), (53, 33561), (106, 33273),

Gene: Lokk_46 Start: 32421, Stop: 31924, Start Num: 10

Candidate Starts for Lokk_46:

(Start: 10 @32421 has 2 MA's), (68, 32229), (71, 32217), (86, 32154), (88, 32142), (106, 31971),

Gene: LoneWolf_47 Start: 31870, Stop: 31502, Start Num: 31

Candidate Starts for LoneWolf_47:

(6, 32050), (7, 31999), (8, 31975), (Start: 31 @31870 has 4 MA's), (44, 31846), (65, 31804), (78, 31762), (109, 31522),

Gene: Loser_49 Start: 33095, Stop: 32673, Start Num: 22
Candidate Starts for Loser_49:
(2, 33422), (Start: 22 @33095 has 51 MA's), (Start: 26 @33086 has 3 MA's), (47, 33029), (58, 32993),
(106, 32720),

Gene: Luchador_52 Start: 34435, Stop: 34088, Start Num: 35
Candidate Starts for Luchador_52:
(20, 34459), (Start: 35 @34435 has 8 MA's), (65, 34375), (104, 34168), (109, 34108),

Gene: Lucivia_48 Start: 31754, Stop: 31407, Start Num: 38
Candidate Starts for Lucivia_48:
(Start: 38 @31754 has 24 MA's), (50, 31721), (54, 31700), (104, 31487), (106, 31454),

Gene: Lucyedi_48 Start: 31865, Stop: 31503, Start Num: 33
Candidate Starts for Lucyedi_48:
(Start: 33 @31865 has 3 MA's), (43, 31841), (104, 31583),

Gene: MaCh_48 Start: 31692, Stop: 31345, Start Num: 38
Candidate Starts for MaCh_48:
(Start: 38 @31692 has 24 MA's), (50, 31659), (54, 31638), (104, 31425), (106, 31392),

Gene: Mabel_47 Start: 31294, Stop: 30947, Start Num: 38
Candidate Starts for Mabel_47:
(Start: 38 @31294 has 24 MA's), (50, 31261), (54, 31240), (104, 31027), (106, 30994),

Gene: MajorMajor_46 Start: 31085, Stop: 30678, Start Num: 21
Candidate Starts for MajorMajor_46:
(Start: 21 @31085 has 53 MA's), (41, 31049), (71, 30965), (104, 30758), (106, 30725),

Gene: Malec_47 Start: 32851, Stop: 32429, Start Num: 22
Candidate Starts for Malec_47:
(Start: 22 @32851 has 51 MA's), (Start: 26 @32842 has 3 MA's), (47, 32785), (68, 32734), (106,
32476),

Gene: Maminiaina_46 Start: 31851, Stop: 31525, Start Num: 34
Candidate Starts for Maminiaina_46:
(Start: 34 @31851 has 28 MA's), (44, 31827), (65, 31785), (81, 31743), (109, 31545),

Gene: McFly_49 Start: 31137, Stop: 30709, Start Num: 21
Candidate Starts for McFly_49:
(Start: 16 @31164 has 3 MA's), (Start: 21 @31137 has 53 MA's), (52, 31041), (69, 31005), (89, 30915),
(93, 30888), (94, 30885), (109, 30729),

Gene: MegTheThird_46 Start: 31679, Stop: 31329, Start Num: 34
Candidate Starts for MegTheThird_46:
(12, 31742), (Start: 25 @31703 has 1 MA's), (Start: 34 @31679 has 28 MA's), (40, 31658), (44, 31652),
(83, 31550), (109, 31349), (110, 31340),

Gene: MiculUcigas_47 Start: 32081, Stop: 31647, Start Num: 23
Candidate Starts for MiculUcigas_47:
(Start: 23 @32081 has 11 MA's), (61, 31982), (70, 31946), (106, 31694),

Gene: Miko_44 Start: 32243, Stop: 31821, Start Num: 22

Candidate Starts for Miko_44:

(Start: 22 @32243 has 51 MA's), (Start: 26 @32234 has 3 MA's), (68, 32126), (71, 32114), (88, 32039), (106, 31868),

Gene: Minispark_45 Start: 31396, Stop: 31025, Start Num: 34

Candidate Starts for Minispark_45:

(6, 31582), (7, 31531), (8, 31507), (Start: 34 @31396 has 28 MA's), (60, 31336), (65, 31333), (109, 31045),

Gene: Miramae_45 Start: 32041, Stop: 31718, Start Num: 55

Candidate Starts for Miramae_45:

(Start: 55 @32041 has 9 MA's), (62, 32026), (90, 31933), (92, 31918), (98, 31888), (103, 31813), (106, 31768),

Gene: Mulciber_47 Start: 31256, Stop: 30909, Start Num: 38

Candidate Starts for Mulciber_47:

(Start: 38 @31256 has 24 MA's), (50, 31223), (54, 31202), (104, 30989), (106, 30956),

Gene: Munch_48 Start: 31705, Stop: 31358, Start Num: 38

Candidate Starts for Munch_48:

(Start: 38 @31705 has 24 MA's), (50, 31672), (54, 31651), (104, 31438), (106, 31405),

Gene: Mundrea_45 Start: 31861, Stop: 31538, Start Num: 55

Candidate Starts for Mundrea_45:

(Start: 55 @31861 has 9 MA's), (90, 31753), (92, 31738), (98, 31708), (103, 31633), (106, 31588),

Gene: Myxus_47 Start: 32109, Stop: 31783, Start Num: 34

Candidate Starts for Myxus_47:

(Start: 34 @32109 has 28 MA's), (44, 32085), (65, 32043), (109, 31803),

Gene: NaSiaTalie_47 Start: 32178, Stop: 31744, Start Num: 23

Candidate Starts for NaSiaTalie_47:

(Start: 23 @32178 has 11 MA's), (61, 32079), (70, 32043), (106, 31791),

Gene: Naji_49 Start: 31906, Stop: 31496, Start Num: 18

Candidate Starts for Naji_49:

(5, 32113), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Neeharika16_48 Start: 30597, Stop: 30169, Start Num: 21

Candidate Starts for Neeharika16_48:

(Start: 16 @30624 has 3 MA's), (Start: 21 @30597 has 53 MA's), (52, 30501), (69, 30465), (89, 30375), (93, 30348), (94, 30345), (109, 30189),

Gene: Newrala_49 Start: 31148, Stop: 30720, Start Num: 21

Candidate Starts for Newrala_49:

(Start: 16 @31175 has 3 MA's), (Start: 21 @31148 has 53 MA's), (52, 31052), (69, 31016), (89, 30926), (93, 30899), (94, 30896), (109, 30740),

Gene: NicoleTera_46 Start: 32449, Stop: 32027, Start Num: 22

Candidate Starts for NicoleTera_46:

(Start: 22 @32449 has 51 MA's), (Start: 26 @32440 has 3 MA's), (42, 32401), (76, 32305), (109, 32047),

Gene: NothingSpecial_45 Start: 32705, Stop: 32271, Start Num: 23

Candidate Starts for NothingSpecial_45:

(Start: 23 @32705 has 11 MA's), (61, 32606), (106, 32318),

Gene: OKCentral2016_44 Start: 31174, Stop: 30836, Start Num: 59

Candidate Starts for OKCentral2016_44:

(15, 31318), (29, 31267), (Start: 59 @31174 has 16 MA's), (78, 31114), (94, 31024), (97, 31009), (103, 30931),

Gene: Odin_46 Start: 30872, Stop: 30465, Start Num: 21

Candidate Starts for Odin_46:

(Start: 21 @30872 has 53 MA's), (65, 30773), (104, 30545), (106, 30512),

Gene: Onglai_45 Start: 30450, Stop: 30124, Start Num: 34

Candidate Starts for Onglai_45:

(Start: 34 @30450 has 28 MA's), (44, 30426), (65, 30384), (109, 30144),

Gene: Orange_47 Start: 31254, Stop: 30907, Start Num: 38

Candidate Starts for Orange_47:

(Start: 38 @31254 has 24 MA's), (50, 31221), (54, 31200), (104, 30987), (106, 30954),

Gene: PP_50 Start: 36311, Stop: 35883, Start Num: 28

Candidate Starts for PP_50:

(11, 36377), (Start: 28 @36311 has 1 MA's), (48, 36260), (78, 36179), (101, 35999), (102, 35981), (104, 35966), (107, 35918), (109, 35906),

Gene: PackMan_46 Start: 32109, Stop: 31783, Start Num: 34

Candidate Starts for PackMan_46:

(Start: 34 @32109 has 28 MA's), (44, 32085), (65, 32043), (109, 31803),

Gene: PainterBoy_48 Start: 31801, Stop: 31439, Start Num: 33

Candidate Starts for PainterBoy_48:

(Start: 33 @31801 has 3 MA's), (43, 31777), (104, 31519),

Gene: PeaceMeal1_43 Start: 30752, Stop: 30396, Start Num: 59

Candidate Starts for PeaceMeal1_43:

(15, 30896), (Start: 59 @30752 has 16 MA's), (97, 30569), (103, 30491),

Gene: Petersenfast_46 Start: 31261, Stop: 30914, Start Num: 38

Candidate Starts for Petersenfast_46:

(Start: 38 @31261 has 24 MA's), (50, 31228), (54, 31207), (104, 30994), (106, 30961),

Gene: Ph8s_49 Start: 31506, Stop: 31078, Start Num: 21

Candidate Starts for Ph8s_49:

(13, 31542), (Start: 21 @31506 has 53 MA's), (104, 31158), (106, 31125),

Gene: Phaded_48 Start: 33339, Stop: 32920, Start Num: 24

Candidate Starts for Phaded_48:

(Start: 24 @33339 has 8 MA's), (53, 33258), (78, 33195), (83, 33177), (91, 33123), (106, 32967),

Gene: Phaeder_47 Start: 32109, Stop: 31783, Start Num: 34

Candidate Starts for Phaeder_47:

(Start: 34 @32109 has 28 MA's), (44, 32085), (65, 32043), (109, 31803),

Gene: Pharaoh_41 Start: 31682, Stop: 31311, Start Num: 34

Candidate Starts for Pharaoh_41:

(1, 32006), (Start: 34 @31682 has 28 MA's), (65, 31619), (88, 31523), (104, 31391),

Gene: Phighter1804_46 Start: 31943, Stop: 31620, Start Num: 55

Candidate Starts for Phighter1804_46:

(Start: 55 @31943 has 9 MA's), (62, 31928), (98, 31790), (99, 31751), (104, 31703), (106, 31670),

Gene: Phlei_36 Start: 31613, Stop: 31308, Start Num: 65

Candidate Starts for Phlei_36:

(Start: 57 @31628 has 1 MA's), (65, 31613), (81, 31559), (86, 31541), (93, 31487), (110, 31319),

Gene: Phonnegut_47 Start: 32158, Stop: 31832, Start Num: 34

Candidate Starts for Phonnegut_47:

(Start: 34 @32158 has 28 MA's), (44, 32134), (65, 32092), (109, 31852),

Gene: Pioneer_47 Start: 32158, Stop: 31832, Start Num: 34

Candidate Starts for Pioneer_47:

(Start: 34 @32158 has 28 MA's), (44, 32134), (65, 32092), (109, 31852),

Gene: Piro94_47 Start: 32531, Stop: 32109, Start Num: 22

Candidate Starts for Piro94_47:

(Start: 22 @32531 has 51 MA's), (Start: 26 @32522 has 3 MA's), (58, 32429), (65, 32423), (72, 32399), (106, 32156),

Gene: Pmask_49 Start: 31149, Stop: 30721, Start Num: 21

Candidate Starts for Pmask_49:

(Start: 16 @31176 has 3 MA's), (Start: 21 @31149 has 53 MA's), (52, 31053), (69, 31017), (89, 30927), (93, 30900), (94, 30897), (109, 30741),

Gene: Polyphemus_50 Start: 31292, Stop: 30864, Start Num: 21

Candidate Starts for Polyphemus_50:

(Start: 16 @31319 has 3 MA's), (Start: 21 @31292 has 53 MA's), (52, 31196), (69, 31160), (89, 31070), (93, 31043), (94, 31040), (109, 30884),

Gene: Pomar16_49 Start: 31947, Stop: 31537, Start Num: 18

Candidate Starts for Pomar16_49:

(3, 32274), (4, 32262), (Start: 18 @31947 has 16 MA's), (71, 31827), (79, 31803), (80, 31797), (96, 31704), (104, 31617), (106, 31584),

Gene: Poompha_44 Start: 30750, Stop: 30394, Start Num: 59

Candidate Starts for Poompha_44:

(15, 30894), (Start: 59 @30750 has 16 MA's), (97, 30567), (103, 30489),

Gene: Power_46 Start: 32150, Stop: 31728, Start Num: 22

Candidate Starts for Power_46:

(Start: 22 @32150 has 51 MA's), (Start: 26 @32141 has 3 MA's), (41, 32105), (53, 32063), (106, 31775),

Gene: Priamo_50 Start: 30766, Stop: 30338, Start Num: 21

Candidate Starts for Priamo_50:

(Start: 16 @30793 has 3 MA's), (Start: 21 @30766 has 53 MA's), (52, 30670), (69, 30634), (89, 30544), (93, 30517), (94, 30514),

Gene: Priya_47 Start: 32176, Stop: 31850, Start Num: 34
Candidate Starts for Priya_47:
(Start: 34 @32176 has 28 MA's), (44, 32152), (65, 32110), (109, 31870),

Gene: Prudy_45 Start: 32629, Stop: 32207, Start Num: 22
Candidate Starts for Prudy_45:
(Start: 22 @32629 has 51 MA's), (Start: 26 @32620 has 3 MA's), (56, 32530), (106, 32254),

Gene: Pukovnik_46 Start: 32944, Stop: 32528, Start Num: 24
Candidate Starts for Pukovnik_46:
(Start: 24 @32944 has 8 MA's), (37, 32914), (53, 32866), (72, 32821), (86, 32761), (91, 32731), (106, 32575),

Gene: Qobbit_47 Start: 32138, Stop: 31812, Start Num: 34
Candidate Starts for Qobbit_47:
(Start: 34 @32138 has 28 MA's), (44, 32114), (65, 32072), (109, 31832),

Gene: QueenB2_46 Start: 32110, Stop: 31688, Start Num: 22
Candidate Starts for QueenB2_46:
(Start: 22 @32110 has 51 MA's), (Start: 26 @32101 has 3 MA's), (41, 32065), (53, 32023), (106, 31735),

Gene: QueenBeesly_47 Start: 32097, Stop: 31675, Start Num: 22
Candidate Starts for QueenBeesly_47:
(Start: 22 @32097 has 51 MA's), (Start: 26 @32088 has 3 MA's), (41, 32052), (53, 32010), (106, 31722),

Gene: Quokka_45 Start: 31085, Stop: 30678, Start Num: 21
Candidate Starts for Quokka_45:
(Start: 21 @31085 has 53 MA's), (41, 31049), (71, 30965), (104, 30758), (106, 30725),

Gene: Rachaly_46 Start: 32420, Stop: 31998, Start Num: 22
Candidate Starts for Rachaly_46:
(Start: 22 @32420 has 51 MA's), (Start: 26 @32411 has 3 MA's), (68, 32303), (71, 32291), (88, 32216), (106, 32045),

Gene: Rahalelujah_46 Start: 31411, Stop: 31040, Start Num: 34
Candidate Starts for Rahalelujah_46:
(6, 31597), (7, 31546), (8, 31522), (Start: 34 @31411 has 28 MA's), (60, 31351), (65, 31348), (109, 31060),

Gene: Rebeuca_45 Start: 31840, Stop: 31502, Start Num: 59
Candidate Starts for Rebeuca_45:
(15, 31984), (29, 31933), (Start: 59 @31840 has 16 MA's), (94, 31690), (97, 31675), (103, 31597),

Gene: RedRock_49 Start: 33308, Stop: 32886, Start Num: 22
Candidate Starts for RedRock_49:
(Start: 22 @33308 has 51 MA's), (Start: 26 @33299 has 3 MA's), (47, 33242), (58, 33206), (106, 32933),

Gene: Retro23_48 Start: 32504, Stop: 32082, Start Num: 22
Candidate Starts for Retro23_48:
(Start: 22 @32504 has 51 MA's), (Start: 26 @32495 has 3 MA's), (58, 32402), (72, 32372), (106, 32129),

Gene: RhynO_46 Start: 31639, Stop: 31301, Start Num: 59
Candidate Starts for RhynO_46:
(Start: 59 @31639 has 16 MA's), (78, 31579), (97, 31474), (103, 31396),

Gene: Rifter_50 Start: 30703, Stop: 30275, Start Num: 21
Candidate Starts for Rifter_50:
(Start: 16 @30730 has 3 MA's), (Start: 21 @30703 has 53 MA's), (52, 30607), (87, 30493), (94, 30451), (109, 30295),

Gene: Roksolana_50 Start: 31185, Stop: 30757, Start Num: 21
Candidate Starts for Roksolana_50:
(Start: 16 @31212 has 3 MA's), (Start: 21 @31185 has 53 MA's), (52, 31089), (69, 31053), (89, 30963), (93, 30936), (94, 30933), (109, 30777),

Gene: Rowdy_49 Start: 31547, Stop: 31209, Start Num: 59
Candidate Starts for Rowdy_49:
(Start: 59 @31547 has 16 MA's), (78, 31487), (97, 31382), (103, 31304),

Gene: RyeScarlet_48 Start: 32133, Stop: 31807, Start Num: 34
Candidate Starts for RyeScarlet_48:
(Start: 34 @32133 has 28 MA's), (44, 32109), (65, 32067), (109, 31827),

Gene: Sachima_44 Start: 32043, Stop: 31717, Start Num: 34
Candidate Starts for Sachima_44:
(Start: 34 @32043 has 28 MA's), (44, 32019), (65, 31977), (109, 31737),

Gene: Salz_46 Start: 31232, Stop: 30885, Start Num: 38
Candidate Starts for Salz_46:
(Start: 38 @31232 has 24 MA's), (50, 31199), (54, 31178), (104, 30965), (106, 30932),

Gene: Saskia_48 Start: 31226, Stop: 30879, Start Num: 38
Candidate Starts for Saskia_48:
(Start: 38 @31226 has 24 MA's), (50, 31193), (54, 31172), (71, 31139), (104, 30959), (106, 30926),

Gene: Scherzo_47 Start: 32347, Stop: 32021, Start Num: 34
Candidate Starts for Scherzo_47:
(Start: 34 @32347 has 28 MA's), (44, 32323), (65, 32281), (109, 32041),

Gene: SemperFi_48 Start: 32365, Stop: 31943, Start Num: 22
Candidate Starts for SemperFi_48:
(Start: 22 @32365 has 51 MA's), (Start: 26 @32356 has 3 MA's), (58, 32263), (72, 32233), (106, 31990),

Gene: Serenity_47 Start: 31249, Stop: 30842, Start Num: 21
Candidate Starts for Serenity_47:
(Start: 21 @31249 has 53 MA's), (86, 31066), (93, 31021), (104, 30922), (106, 30889),

Gene: Severus_43 Start: 30750, Stop: 30394, Start Num: 59

Candidate Starts for Severus_43:
(15, 30894), (Start: 59 @30750 has 16 MA's), (97, 30567), (103, 30489),

Gene: Sham4_47 Start: 31260, Stop: 30913, Start Num: 38
Candidate Starts for Sham4_47:
(Start: 38 @31260 has 24 MA's), (50, 31227), (54, 31206), (104, 30993), (106, 30960),

Gene: Shapes_49 Start: 31547, Stop: 31209, Start Num: 59
Candidate Starts for Shapes_49:
(Start: 59 @31547 has 16 MA's), (78, 31487), (97, 31382), (103, 31304),

Gene: SheaKeira_46 Start: 31684, Stop: 31340, Start Num: 35
Candidate Starts for SheaKeira_46:
(Start: 35 @31684 has 8 MA's), (40, 31669), (44, 31663), (65, 31621), (78, 31579), (88, 31546), (109, 31360), (110, 31351),

Gene: Shygu2_45 Start: 31853, Stop: 31530, Start Num: 55
Candidate Starts for Shygu2_45:
(Start: 55 @31853 has 9 MA's), (98, 31700), (99, 31661), (106, 31580),

Gene: Sknot_47 Start: 32181, Stop: 31747, Start Num: 23
Candidate Starts for Sknot_47:
(Start: 23 @32181 has 11 MA's), (61, 32082), (70, 32046), (106, 31794),

Gene: Smeagan_50 Start: 32817, Stop: 32395, Start Num: 22
Candidate Starts for Smeagan_50:
(Start: 22 @32817 has 51 MA's), (Start: 26 @32808 has 3 MA's), (58, 32715), (65, 32709), (72, 32685), (106, 32442),

Gene: SmellyB_49 Start: 31137, Stop: 30709, Start Num: 21
Candidate Starts for SmellyB_49:
(Start: 16 @31164 has 3 MA's), (Start: 21 @31137 has 53 MA's), (52, 31041), (69, 31005), (89, 30915), (93, 30888), (94, 30885), (109, 30729),

Gene: SnapTap_47 Start: 32176, Stop: 31754, Start Num: 22
Candidate Starts for SnapTap_47:
(Start: 22 @32176 has 51 MA's), (Start: 26 @32167 has 3 MA's), (41, 32131), (53, 32089), (106, 31801),

Gene: Snape_47 Start: 31258, Stop: 30911, Start Num: 38
Candidate Starts for Snape_47:
(Start: 38 @31258 has 24 MA's), (50, 31225), (54, 31204), (104, 30991), (106, 30958),

Gene: SororFago_50 Start: 33759, Stop: 33412, Start Num: 35
Candidate Starts for SororFago_50:
(20, 33783), (Start: 35 @33759 has 8 MA's), (88, 33624), (89, 33618), (104, 33492), (109, 33432),

Gene: Spouty_47 Start: 32175, Stop: 31849, Start Num: 34
Candidate Starts for Spouty_47:
(Start: 34 @32175 has 28 MA's), (44, 32151), (65, 32109), (109, 31869),

Gene: StarStuff_49 Start: 31909, Stop: 31499, Start Num: 18
Candidate Starts for StarStuff_49:

(3, 32236), (4, 32224), (Start: 18 @31909 has 16 MA's), (71, 31789), (79, 31765), (80, 31759), (96, 31666), (104, 31579), (106, 31546),

Gene: Steamy_43 Start: 31608, Stop: 31282, Start Num: 49

Candidate Starts for Steamy_43:

(9, 31740), (19, 31668), (45, 31614), (Start: 49 @31608 has 1 MA's), (82, 31515), (84, 31509), (88, 31497), (104, 31362),

Gene: Stink_46 Start: 32321, Stop: 31998, Start Num: 55

Candidate Starts for Stink_46:

(Start: 55 @32321 has 9 MA's), (62, 32306), (90, 32213), (92, 32198), (98, 32168), (103, 32093), (106, 32048),

Gene: Sunhee_50 Start: 32074, Stop: 31730, Start Num: 36

Candidate Starts for Sunhee_50:

(Start: 36 @32074 has 1 MA's), (60, 32020), (77, 31978), (89, 31936), (104, 31810), (109, 31750),

Gene: SuperAwesome_49 Start: 31148, Stop: 30720, Start Num: 21

Candidate Starts for SuperAwesome_49:

(Start: 16 @31175 has 3 MA's), (Start: 21 @31148 has 53 MA's), (52, 31052), (69, 31016), (89, 30926), (93, 30899), (94, 30896), (109, 30740),

Gene: SuperCallie99_48 Start: 31021, Stop: 30593, Start Num: 21

Candidate Starts for SuperCallie99_48:

(Start: 16 @31048 has 3 MA's), (Start: 21 @31021 has 53 MA's), (52, 30925), (69, 30889), (89, 30799), (93, 30772), (94, 30769), (109, 30613),

Gene: Superchunk_46 Start: 30723, Stop: 30316, Start Num: 21

Candidate Starts for Superchunk_46:

(Start: 21 @30723 has 53 MA's), (65, 30624), (91, 30510), (104, 30396), (106, 30363),

Gene: SweetiePie_47 Start: 32305, Stop: 31883, Start Num: 22

Candidate Starts for SweetiePie_47:

(Start: 22 @32305 has 51 MA's), (Start: 26 @32296 has 3 MA's), (58, 32203), (72, 32173), (106, 31930),

Gene: SwirlSquare_50 Start: 31390, Stop: 30980, Start Num: 18

Candidate Starts for SwirlSquare_50:

(Start: 18 @31390 has 16 MA's), (56, 31300), (67, 31285), (75, 31258), (79, 31246), (80, 31240), (88, 31195), (104, 31060), (106, 31027),

Gene: TarsusIV_45 Start: 31964, Stop: 31542, Start Num: 22

Candidate Starts for TarsusIV_45:

(Start: 22 @31964 has 51 MA's), (68, 31847), (71, 31835), (106, 31589),

Gene: Temprado_50 Start: 31301, Stop: 30873, Start Num: 21

Candidate Starts for Temprado_50:

(Start: 16 @31328 has 3 MA's), (Start: 21 @31301 has 53 MA's), (52, 31205), (87, 31091), (94, 31049), (109, 30893),

Gene: Terrific_50 Start: 32535, Stop: 32101, Start Num: 23

Candidate Starts for Terrific_50:

(Start: 23 @32535 has 11 MA's), (61, 32436), (70, 32400), (106, 32148),

Gene: Timothy_47 Start: 31235, Stop: 30888, Start Num: 38
Candidate Starts for Timothy_47:
(Start: 38 @31235 has 24 MA's), (50, 31202), (54, 31181), (104, 30968), (106, 30935),

Gene: TinyTimmy_47 Start: 31278, Stop: 30931, Start Num: 38
Candidate Starts for TinyTimmy_47:
(Start: 38 @31278 has 24 MA's), (50, 31245), (54, 31224), (104, 31011), (106, 30978),

Gene: TopsytheTRex_44 Start: 31322, Stop: 30915, Start Num: 21
Candidate Starts for TopsytheTRex_44:
(Start: 21 @31322 has 53 MA's), (86, 31139), (104, 30995), (106, 30962),

Gene: Toaka_46 Start: 31676, Stop: 31308, Start Num: 34
Candidate Starts for Toaka_46:
(Start: 34 @31676 has 28 MA's), (44, 31652), (65, 31610), (109, 31328), (110, 31319),

Gene: Tomathan_49 Start: 31906, Stop: 31496, Start Num: 18
Candidate Starts for Tomathan_49:
(3, 32233), (4, 32221), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: ToneTone_46 Start: 30864, Stop: 30436, Start Num: 21
Candidate Starts for ToneTone_46:
(Start: 16 @30891 has 3 MA's), (Start: 21 @30864 has 53 MA's), (52, 30768), (87, 30654), (94, 30612), (109, 30456),

Gene: Topanga_43 Start: 31489, Stop: 31151, Start Num: 59
Candidate Starts for Topanga_43:
(15, 31633), (29, 31582), (Start: 59 @31489 has 16 MA's), (94, 31339), (97, 31324), (103, 31246),

Gene: Travvers_49 Start: 31906, Stop: 31496, Start Num: 18
Candidate Starts for Travvers_49:
(3, 32233), (4, 32221), (Start: 18 @31906 has 16 MA's), (71, 31786), (79, 31762), (80, 31756), (96, 31663), (104, 31576), (106, 31543),

Gene: Trike_43 Start: 30758, Stop: 30402, Start Num: 59
Candidate Starts for Trike_43:
(15, 30902), (Start: 59 @30758 has 16 MA's), (97, 30575), (103, 30497),

Gene: Tristan_46 Start: 33143, Stop: 32727, Start Num: 24
Candidate Starts for Tristan_46:
(Start: 24 @33143 has 8 MA's), (37, 33113), (53, 33065), (78, 33002), (91, 32930), (106, 32774),

Gene: Trixie_45 Start: 32233, Stop: 31820, Start Num: 25
Candidate Starts for Trixie_45:
(Start: 25 @32233 has 1 MA's), (53, 32155), (60, 32137), (106, 31867),

Gene: Trooper_48 Start: 32526, Stop: 32104, Start Num: 22
Candidate Starts for Trooper_48:
(Start: 22 @32526 has 51 MA's), (Start: 26 @32517 has 3 MA's), (44, 32469), (53, 32439), (73, 32391), (76, 32382), (106, 32151),

Gene: Tubs_47 Start: 32109, Stop: 31783, Start Num: 34
Candidate Starts for Tubs_47:
(Start: 34 @32109 has 28 MA's), (44, 32085), (65, 32043), (109, 31803),

Gene: Tucker_49 Start: 30751, Stop: 30323, Start Num: 21
Candidate Starts for Tucker_49:
(Start: 16 @30778 has 3 MA's), (Start: 21 @30751 has 53 MA's), (52, 30655), (87, 30541), (94, 30499),
(109, 30343),

Gene: Turbido_48 Start: 32560, Stop: 32138, Start Num: 22
Candidate Starts for Turbido_48:
(Start: 22 @32560 has 51 MA's), (Start: 26 @32551 has 3 MA's), (58, 32458), (72, 32428), (106,
32185),

Gene: Twister_43 Start: 31400, Stop: 31062, Start Num: 59
Candidate Starts for Twister_43:
(15, 31544), (29, 31493), (Start: 59 @31400 has 16 MA's), (94, 31250), (97, 31235), (103, 31157),

Gene: Ugenie5_44 Start: 32346, Stop: 32020, Start Num: 34
Candidate Starts for Ugenie5_44:
(Start: 34 @32346 has 28 MA's), (44, 32322), (65, 32280), (109, 32040),

Gene: Updawg_48 Start: 32422, Stop: 31988, Start Num: 23
Candidate Starts for Updawg_48:
(Start: 23 @32422 has 11 MA's), (61, 32323), (70, 32287), (106, 32035),

Gene: VA6_47 Start: 32280, Stop: 31867, Start Num: 22
Candidate Starts for VA6_47:
(Start: 22 @32280 has 51 MA's), (56, 32190), (65, 32181), (76, 32145), (89, 32079), (106, 31914),

Gene: VC3_50 Start: 32346, Stop: 31912, Start Num: 18
Candidate Starts for VC3_50:
(Start: 18 @32346 has 16 MA's), (Start: 21 @32343 has 53 MA's), (53, 32244), (71, 32202), (79,
32178), (96, 32079), (104, 31992), (106, 31959),

Gene: Vanisoa_46 Start: 32705, Stop: 32358, Start Num: 34
Candidate Starts for Vanisoa_46:
(6, 32888), (7, 32837), (8, 32813), (Start: 34 @32705 has 28 MA's), (44, 32681), (65, 32639), (74,
32609), (109, 32378),

Gene: VohminGhazi_49 Start: 31138, Stop: 30710, Start Num: 21
Candidate Starts for VohminGhazi_49:
(Start: 16 @31165 has 3 MA's), (Start: 21 @31138 has 53 MA's), (52, 31042), (69, 31006), (89, 30916),
(93, 30889), (94, 30886), (109, 30730),

Gene: WalterMcMickey_43 Start: 31400, Stop: 31062, Start Num: 59
Candidate Starts for WalterMcMickey_43:
(15, 31544), (29, 31493), (Start: 59 @31400 has 16 MA's), (94, 31250), (97, 31235), (103, 31157),

Gene: WeiHuaDA_49 Start: 33119, Stop: 32706, Start Num: 26
Candidate Starts for WeiHuaDA_49:
(Start: 26 @33119 has 3 MA's), (53, 33041), (71, 32999), (106, 32753),

Gene: Whabigail7_48 Start: 32545, Stop: 32123, Start Num: 22
Candidate Starts for Whabigail7_48:
(Start: 22 @32545 has 51 MA's), (Start: 26 @32536 has 3 MA's), (58, 32443), (65, 32437), (106, 32170),

Gene: WideWale_48 Start: 32422, Stop: 31988, Start Num: 23
Candidate Starts for WideWale_48:
(Start: 23 @32422 has 11 MA's), (61, 32323), (70, 32287), (106, 32035),

Gene: Wiks_48 Start: 30932, Stop: 30504, Start Num: 21
Candidate Starts for Wiks_48:
(Start: 16 @30959 has 3 MA's), (Start: 21 @30932 has 53 MA's), (52, 30836), (87, 30722), (94, 30680), (109, 30524),

Gene: Wolpertinger_46 Start: 31261, Stop: 30914, Start Num: 38
Candidate Starts for Wolpertinger_46:
(Start: 38 @31261 has 24 MA's), (50, 31228), (54, 31207), (104, 30994), (106, 30961),

Gene: WorldCup_45 Start: 31405, Stop: 31034, Start Num: 34
Candidate Starts for WorldCup_45:
(6, 31591), (7, 31540), (8, 31516), (Start: 34 @31405 has 28 MA's), (60, 31345), (65, 31342), (109, 31054),

Gene: WunderPhul_49 Start: 30930, Stop: 30502, Start Num: 21
Candidate Starts for WunderPhul_49:
(Start: 16 @30957 has 3 MA's), (Start: 21 @30930 has 53 MA's), (52, 30834), (87, 30720), (94, 30678), (109, 30522),

Gene: Yecey3_48 Start: 31582, Stop: 31238, Start Num: 32
Candidate Starts for Yecey3_48:
(Start: 32 @31582 has 1 MA's), (44, 31561), (65, 31519), (78, 31477), (88, 31444), (109, 31258),

Gene: Yokurt_49 Start: 30959, Stop: 30504, Start Num: 16
Candidate Starts for Yokurt_49:
(Start: 16 @30959 has 3 MA's), (Start: 21 @30932 has 53 MA's), (52, 30836), (87, 30722), (94, 30680), (109, 30524),

Gene: Zaka_49 Start: 30932, Stop: 30504, Start Num: 21
Candidate Starts for Zaka_49:
(Start: 16 @30959 has 3 MA's), (Start: 21 @30932 has 53 MA's), (52, 30836), (87, 30722), (94, 30680), (109, 30524),

Gene: Zulu_49 Start: 30732, Stop: 30304, Start Num: 21
Candidate Starts for Zulu_49:
(Start: 16 @30759 has 3 MA's), (Start: 21 @30732 has 53 MA's), (52, 30636), (87, 30522), (94, 30480), (109, 30324),