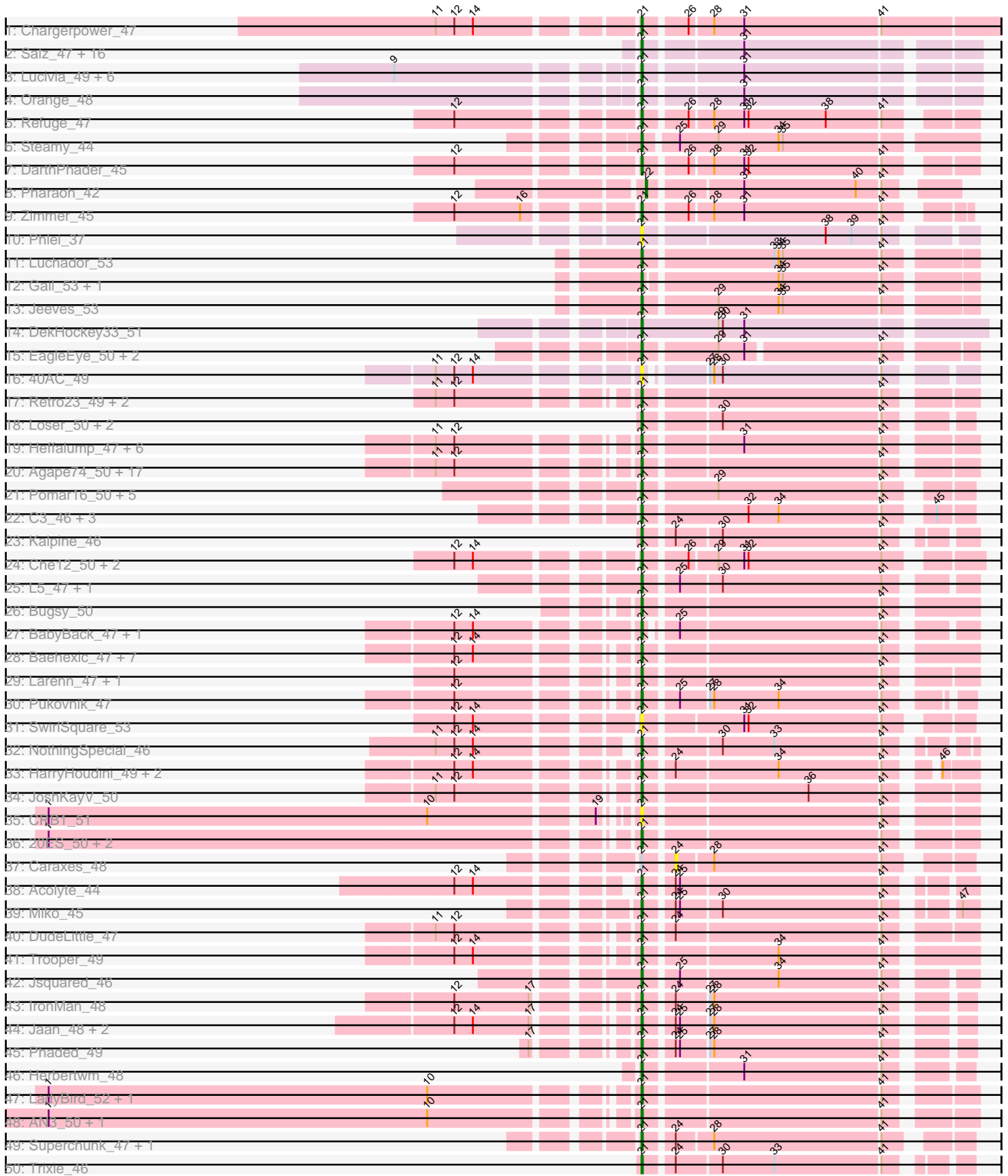


Pham 171152



Pham 171152



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 171152 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171152 has 298 members, 22 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower_47
- Track 2 : Salz_47, Bachome_50, Fibonacci_48, Petersenfast_47, Bud_48, Insomnia_49, Hutc2_48, Mulciber_48, Snape_48, Jabith_49, Timothy_48, Sham4_48, TinyTimmy_47, MaCh_49, Ebony_48, Et2Brutus_47, Mabel_48
- Track 3 : Lucivia_49, Flaverint_49, Bowtie_49, Gilberta_49, Munch_49, Aneem_49, Joselito_49
- Track 4 : Orange_48
- Track 5 : Refuge_47
- Track 6 : Steamy_44
- Track 7 : DarthPhader_45
- Track 8 : Pharaoh_42
- Track 9 : Zimmer_45
- Track 10 : Phlei_37
- Track 11 : Luchador_53
- Track 12 : Gail_53, SororFago_51
- Track 13 : Jeeves_53
- Track 14 : DekHockey33_51
- Track 15 : EagleEye_50, PainterBoy_49, Lucyedi_49
- Track 16 : 40AC_49
- Track 17 : Retro23_49, Dalmatian_49, Anselm_49
- Track 18 : Loser_50, RedRock_50, AnnaL29_50
- Track 19 : Heffalump_47, Crucio_48, Echild_48, QueenB2_47, Fameo_48, Benvolio_45, Turbido_49
- Track 20 : Agape74_50, Georgie2_49, ChipMunk_50, Smeagan_51, Dignity_50, AbbyPaige_50, SweetiePie_48, FiringLine_48, Whabigail7_49, Power_47, SemperFi_49, SnapTap_48, KingCyrus_50, LilTurb_49, Leviathan_50, EvilGenius_50, Jerm_50, QueenBeesly_48
- Track 21 : Pomar16_50, DBQu4n_50, Duplo_50, Tomathan_50, Kerberos_50, StarStuff_50
- Track 22 : C3_46, VC3_51, AN9_51, ANI8_51
- Track 23 : Kalpine_46
- Track 24 : Che12_50, Ph8s_50, Adzzy_50
- Track 25 : L5_47, Koduck_48
- Track 26 : Buggy_50
- Track 27 : BabyBack_47, GaugeLDP_46
- Track 28 : Baehexic_47, MiculUcigas_48, Equemioh13_49, Updawg_49, Centaur_49, Flare16_48, NaSiaTalie_48, WideWale_49

- Track 29 : Larenn_47, Malec_48
- Track 30 : Pukovnik_47
- Track 31 : SwirlSquare_53
- Track 32 : NothingSpecial_46
- Track 33 : HarryHoudini_49, Drake55_50, Piro94_48
- Track 34 : JoshKayV_50
- Track 35 : CRB1_51
- Track 36 : 20ES_50, Deloris_48, BengiVuitton_49
- Track 37 : Caraxes_48
- Track 38 : Acolyte_44
- Track 39 : Miko_45
- Track 40 : DudeLittle_47
- Track 41 : Trooper_49
- Track 42 : Jsquared_46
- Track 43 : IronMan_48
- Track 44 : Jaan_48, Landor_48, Bactobuster_47
- Track 45 : Phaded_49
- Track 46 : Herbertwm_48
- Track 47 : LadyBird_52, First_0049
- Track 48 : AN3_50, VA6_48
- Track 49 : Superchunk_47, Odin_47
- Track 50 : Trixie_46
- Track 51 : XianYue_47
- Track 52 : EZMoney23_46
- Track 53 : Leogania_48
- Track 54 : Journey13_42
- Track 55 : Serenity_48
- Track 56 : Iwokeuplikedis_51
- Track 57 : Changeling_47
- Track 58 : TarsusIV_46
- Track 59 : Grub_51, LugYA_54, OlanP_50, Wooldri_53, BreSam8_51, Gemma_50, Jobu08_50, Pembroke_51, Ollie_51, Lilith_52, Zetzy_50, SoYo_51, JHC117_51, Groupthink_52, Hercules11_51, Aglet_52, Malinsilva_53, Microwolf_51, ACFishhook_50, StepMih_51, MadMarie_51, Snickers_51, LBerry_52, JenCasNa_52, Kalnok_52, DaHudson_51, Fernando_51, P28Green_52, Pawn_51, MarQuardt_51, AgronaGT15_50, Heliosoles_50, Sabia_51, GtownJaz_51, Dieselweasel_52, Soshari_53, Beauxregard13_51, Vix_51, Marie_51, Marius_52, BuzzBuzz_49, GingkoMaracino_51, AugsMagnumOpus_54, MuchMore_54, Anubis_54, Colbster_51, Grif_51, Grum1_51, Rummer_50, Stagni_51, Spike509_51, Phranny_52, PurpleHaze_51, Bxz2_47, Watson_51, MoneyMay_51, Manu_51, Tiffany_51, HashRod_52, HaveUMetTed_52, PhishRPhriends_49, Misomonster_52, Louie6_50, Kalb97_52, Mainiac_51, Sabinator_50, JeppNRM_52, KADY_51, Phoebe_52, Daishi_50, Penny1_52, Taurus_52, Reba_51, Phoxy_51, Farber_51, EpicPhail_52, PGHhamlin_53, LarryKay_51, PotatoSplit_53, SoilDragon_51, Cullens_51
- Track 60 : Lilbunny_48, Artemis2UCLA_50, Wiks_49, WunderPhul_50, Garak_52, Rifter_51, ToneTone_47, Helmet_52, Zaka_50, Yokurt_50, Indra_53, Hexamo_50, Gruunaga_50, Jeffabunny_50
- Track 61 : SmellyB_50, Isiphiwo_48, SuperAwesome_50, Candra_50, GreedyLawyer_50, Kipper29_50, VohminGhazi_50, Cookiedough_50, McFly_50, Kazan_51, EricB_50, Dorothea_49, Pmask_50, Chartreuse_49, Neeharika16_49, DaVinci_49, SuperCallie99_49, Gladiator_48, Newrala_50
- Track 62 : CloudWang3_50, Hammer_51, Blue7_52, Koko_51

- Track 63 : Tucker_50, Zulu_50
- Track 64 : Roksolana_51
- Track 65 : Blinn1_52
- Track 66 : Jordennis_49
- Track 67 : Priamo_51
- Track 68 : Eidsmoe_48, Phaeder_48, Fayely_48, Myxus_48, Pioneer_48, Beemo_48, Aliter_48, ExplosioNervosa_48, EmyBug_47, Priya_48, PackMan_47, Ugenie5_45, HortumSL17_48, Scherzo_48, Conquerage_48, Phonnegut_48, Tubs_48, Spouty_46, Catalina_49, Qobbit_48
- Track 69 : SheaKeira_47
- Track 70 : Arissanae_47
- Track 71 : Toaka_47
- Track 72 : Elephantoon_47
- Track 73 : Rahalelujah_47
- Track 74 : Charm_47, DreamTeam1_47
- Track 75 : BogosyJay_47, Maminiaina_47
- Track 76 : LoneWolf_48
- Track 77 : Vanisoa_47
- Track 78 : Darrell_48
- Track 79 : Yecey3_49
- Track 80 : Keziacharles14_48
- Track 81 : Alma_48

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 195 of the 276 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_50, 40AC_49, AN3_50, AN9_51, ANI8_51, AbbyPaige_50, Acolyte_44, Adzzy_50, Agape74_50, Aliter_48, Alma_48, Aneem_49, AnnaL29_50, Anselm_49, Arissanae_47, Artemis2UCLA_50, BabyBack_47, Bachome_50, Bactobuster_47, Baehexic_47, Beemo_48, BengiVuitton_49, Benvolio_45, Blinn1_52, Blue7_52, BogosyJay_47, Bowtie_49, Bud_48, Buggy_50, C3_46, CRB1_51, Candra_50, Catalina_49, Centaur_49, Changeling_47, Chargerpower_47, Charm_47, Chartreuse_49, Che12_50, ChipMunk_50, CloudWang3_50, Conquerage_48, Cookiedough_50, Crucio_48, DBQu4n_50, DaVinci_49, Dalmatian_49, Darrell_48, DarthPhader_45, DekHockey33_51, Deloris_48, Dignity_50, Dorothea_49, Drake55_50, DreamTeam1_47, DudeLittle_47, Duplo_50, EZMoney23_46, EagleEye_50, Ebony_48, Echild_48, Eidsmoe_48, Elephantoon_47, EmyBug_47, Equemioh13_49, EricB_50, Et2Brutus_47, EvilGenius_50, ExplosioNervosa_48, Fameo_48, Fayely_48, Fibonacci_48, FiringLine_48, First_0049, Flare16_48, Flaverint_49, Gail_53, Garak_52, GaugeLDP_46, Georgie2_49, Gilberta_49, Gladiator_48, GreedyLawyer_50, Gruunaga_50, Hammer_51, HarryHoudini_49, Heffalump_47, Helmet_52, Herbertwm_48, Hexamo_50, HortumSL17_48, Hutc2_48, Indra_53, Insomnia_49, IronMan_48, Isiphiwo_48, Iwokeuplikedis_51, Jaan_48, Jabith_49, Jeeves_53, Jeffabunny_50, Jerm_50, Jordennis_49, Joselito_49, JoshKayV_50, Journey13_42, Jsquared_46, Kalpine_46, Kazan_51, Kerberos_50, Keziacharles14_48, KingCyrus_50, Kipper29_50, Koduck_48, Koko_51, L5_47, LadyBird_52, Landor_48, Larenn_47, Leogania_48, Leviathan_50, LilTurb_49,

Lilbunny_48, LoneWolf_48, Loser_50, Luchador_53, Lucivia_49, Lucyedi_49, MaCh_49, Mabel_48, Malec_48, Maminiaina_47, McFly_50, MiculUcigas_48, Miko_45, Mulciber_48, Munch_49, Myxus_48, NaSiaTalie_48, Neeharika16_49, Newrala_50, NothingSpecial_46, Odin_47, Orange_48, PackMan_47, PainterBoy_49, Petersenfast_47, Ph8s_50, Phaded_49, Phaeder_48, Phlei_37, Phonnegut_48, Pioneer_48, Piro94_48, Pmask_50, Pomar16_50, Power_47, Priamo_51, Priya_48, Pukovnik_47, Qobbit_48, QueenB2_47, QueenBeesly_48, Rahalelujah_47, RedRock_50, Refuge_47, Retro23_49, Rifter_51, Roksolana_51, Salz_47, Scherzo_48, SemperFi_49, Serenity_48, Sham4_48, SheaKeira_47, Smeagan_51, SmellyB_50, SnapTap_48, Snape_48, SororFago_51, Spouty_46, StarStuff_50, Steamy_44, SuperAwesome_50, SuperCallie99_49, Superchunk_47, SweetiePie_48, SwirlSquare_53, TarsusIV_46, Timothy_48, TinyTimmy_47, Toaka_47, Tomathan_50, ToneTone_47, Trixie_46, Trooper_49, Tubs_48, Tucker_50, Turbido_49, Ugenie5_45, Updawg_49, VA6_48, VC3_51, Vanisoa_47, VohminGhazi_50, Whabigail7_49, WideWale_49, Wiks_49, WunderPhul_50, Yecey3_49, Yokurt_50, Zaka_50, Zimmer_45, Zulu_50,

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

- Caraxes_48, XianYue_47,

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

- ACFishhook_50, Aglet_52, AgronaGT15_50, Anubis_54, AugsMagnumOpus_54, Beauxregard13_51, BreSam8_51, BuzzBuzz_49, Bxz2_47, Colbster_51, Cullens_51, DaHudson_51, Daishi_50, Dieselweasel_52, EpicPhail_52, Farber_51, Fernando_51, Gemma_50, GingkoMaracino_51, Grif_51, Groupthink_52, Grub_51, Grum1_51, GtownJaz_51, HashRod_52, HaveUMetTed_52, Heliosoles_50, Hercules11_51, JHC117_51, JenCasNa_52, JeppNRM_52, Jobu08_50, KADY_51, Kalb97_52, Kalnoky_52, LBerry_52, LarryKay_51, Lilith_52, Louie6_50, LugYA_54, MadMarie_51, Mainiac_51, Malinsilva_53, Manu_51, MarQuardt_51, Marie_51, Marius_52, Microwolf_51, Misomonster_52, MoneyMay_51, MuchMore_54, OlanP_50, Ollie_51, P28Green_52, PGHhamlin_53, Pawn_51, Pembroke_51, Penny1_52, Pharaoh_42, PhishRPhriends_49, Phoebe_52, Phoxy_51, Phranny_52, PotatoSplit_53, PurpleHaze_51, Reba_51, Rummer_50, Sabia_51, Sabinator_50, Snickers_51, SoYo_51, SoilDragon_51, Soshari_53, Spike509_51, Stagni_51, StepMih_51, Taurus_52, Tiffany_51, Vix_51, Watson_51, Wooldri_53, Zetzy_50,

Summary by start number:

Start 21:

- Found in 216 of 298 (72.5%) of genes in pham
- Manual Annotations of this start: 195 of 276
- Called 99.1% of time when present
- Phage (with cluster) where this start called: 20ES_50 (A2), 40AC_49 (A17), AN3_50 (A2), AN9_51 (A2), ANI8_51 (A2), AbbyPaige_50 (A2), Acolyte_44 (A2), Adzzy_50 (A2), Agape74_50 (A2), Aliter_48 (A9), Alma_48 (A9), Aneem_49 (A11), AnnaL29_50 (A2), Anselm_49 (A2), Arissanae_47 (A9), Artemis2UCLA_50 (A6), BabyBack_47 (A2), Bachome_50 (A11), Bactobuster_47 (A2), Baehexic_47 (A2), Beemo_48 (A9), BengiVuitton_49 (A2), Benvolio_45 (A2), Blinn1_52 (A6), Blue7_52 (A6), BogosyJay_47 (A9), Bowtie_49 (A11), Bud_48 (A11), Buggy_50 (A2), C3_46 (A2), CRB1_51 (A2), Candra_50 (A6), Catalina_49 (A9), Centaur_49 (A2), Changeling_47 (A2), Chargerpower_47 (A), Charm_47 (A9), Chartreuse_49 (A6), Che12_50 (A2), ChipMunk_50 (A2), CloudWang3_50 (A6), Conquerage_48 (A9), Cookiedough_50 (A6), Crucio_48 (A2), DBQu4n_50 (A2), DaVinci_49 (A6), Dalmatian_49 (A2),

Darrell_48 (A9), DARTHPhader_45 (A12), DekHockey33_51 (A15), Deloris_48 (A2), Dignity_50 (A2), Dorothea_49 (A6), Drake55_50 (A2), DreamTeam1_47 (A9), DudeLittle_47 (A2), Duplo_50 (A2), EZMoney23_46 (A2), EagleEye_50 (A16), Ebony_48 (A11), Echid_48 (A2), Eidsmoe_48 (A9), Elephantoon_47 (A9), EmyBug_47 (A9), Equemioh13_49 (A2), EricB_50 (A6), Et2Brutus_47 (A11), EvilGenius_50 (A2), ExplosioNervosa_48 (A9), Fameo_48 (A2), Fayely_48 (A9), Fibonacci_48 (A11), FiringLine_48 (A2), First_0049 (A2), Flare16_48 (A2), Flaverint_49 (A11), Gail_53 (A14), Garak_52 (A6), GaugeLDP_46 (A2), Georgie2_49 (A2), Gilberta_49 (A11), Gladiator_48 (A6), GreedyLawyer_50 (A6), Gruunaga_50 (A6), Hammer_51 (A6), HarryHoudini_49 (A2), Heffalump_47 (A2), Helmet_52 (A6), Herbertwm_48 (A2), Hexamo_50 (A6), HortumSL17_48 (A9), Hutc2_48 (A11), Indra_53 (A6), Insomnia_49 (A11), IronMan_48 (A2), Isiphiwo_48 (A6), Iwokeuplikedis_51 (A2), Jaan_48 (A2), Jabith_49 (A11), Jeeves_53 (A14), Jeffabunny_50 (A6), Jerm_50 (A2), Jordennis_49 (A6), Joselito_49 (A11), JoshKayV_50 (A2), Journey13_42 (A2), Jsquared_46 (A2), Kalpine_46 (A2), Kazan_51 (A6), Kerberos_50 (A2), Keziacharles14_48 (A9), KingCyrus_50 (A2), Kipper29_50 (A6), Koduck_48 (A2), Koko_51 (A6), L5_47 (A2), LadyBird_52 (A2), Landor_48 (A2), Larenn_47 (A2), Leogania_48 (A2), Leviathan_50 (A2), LilTurb_49 (A2), Lilbunny_48 (A6), LoneWolf_48 (A9), Loser_50 (A2), Luchador_53 (A14), Lucivia_49 (A11), Lucyedi_49 (A16), MaCh_49 (A11), Mabel_48 (A11), Malec_48 (A2), Maminiaina_47 (A9), McFly_50 (A6), MiculUcigas_48 (A2), Miko_45 (A2), Mulciber_48 (A11), Munch_49 (A11), Myxus_48 (A9), NaSiaTalie_48 (A2), Neeharika16_49 (A6), Newrala_50 (A6), NothingSpecial_46 (A2), Odin_47 (A2), Orange_48 (A11), PackMan_47 (A9), PainterBoy_49 (A16), Petersenfast_47 (A11), Ph8s_50 (A2), Phaded_49 (A2), Phaeder_48 (A9), Phlei_37 (A13), Phonnegut_48 (A9), Pioneer_48 (A9), Piro94_48 (A2), Pmask_50 (A6), Pomar16_50 (A2), Power_47 (A2), Priamo_51 (A6), Priya_48 (A9), Pukovnik_47 (A2), Qobbit_48 (A9), QueenB2_47 (A2), QueenBeesly_48 (A2), Rahalelujah_47 (A9), RedRock_50 (A2), Refuge_47 (A12), Retro23_49 (A2), Rifter_51 (A6), Roksolana_51 (A6), Salz_47 (A11), Scherzo_48 (A9), SemperFi_49 (A2), Serenity_48 (A2), Sham4_48 (A11), SheaKeira_47 (A9), Smeagan_51 (A2), SmellyB_50 (A6), SnapTap_48 (A2), Snape_48 (A11), SororFago_51 (A14), Spouty_46 (A9), StarStuff_50 (A2), Steamy_44 (A12), SuperAwesome_50 (A6), SuperCallie99_49 (A6), Superchunk_47 (A2), SweetiePie_48 (A2), SwirlSquare_53 (A2), TarsusIV_46 (A2), Timothy_48 (A11), TinyTimmy_47 (A11), Toaka_47 (A9), Tomathan_50 (A2), ToneTone_47 (A6), Trixie_46 (A2), Trooper_49 (A2), Tubs_48 (A9), Tucker_50 (A6), Turbido_49 (A2), Ugenie5_45 (A9), Updawg_49 (A2), VA6_48 (A2), VC3_51 (A2), Vanisoa_47 (A9), VohminGhazi_50 (A6), Whabigail7_49 (A2), WideWale_49 (A2), Wiks_49 (A6), WunderPhul_50 (A6), Yecey3_49 (A9), Yokurt_50 (A6), Zaka_50 (A6), Zimmer_45 (A12), Zulu_50 (A6),

Start 22:

- Found in 1 of 298 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 276
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pharaoh_42 (A12),

Start 23:

- Found in 81 of 298 (27.2%) of genes in pham
- Manual Annotations of this start: 79 of 276
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook_50 (A3), Aglet_52 (A3), AgronaGT15_50 (A3), Anubis_54 (A3), AugsMagnumOpus_54 (A3),

Beauxregard13_51 (A3), BreSam8_51 (A3), BuzzBuzz_49 (A3), Bxz2_47 (A3), Colbster_51 (A3), Cullens_51 (A3), DaHudson_51 (A3), Daishi_50 (A3), Dieselweasel_52 (A3), EpicPhail_52 (A3), Farber_51 (A3), Fernando_51 (A3), Gemma_50 (A3), GingkoMaracino_51 (A3), Grif_51 (A3), Groupthink_52 (A3), Grub_51 (A3), Grum1_51 (A3), GtownJaz_51 (A3), HashRod_52 (A3), HaveUMetTed_52 (A3), Heliosoles_50 (A3), Hercules11_51 (A3), JHC117_51 (A3), JenCasNa_52 (A3), JeppNRM_52 (A3), Jobu08_50 (A3), KADY_51 (A3), Kalb97_52 (A3), Kalnoky_52 (A3), LBerry_52 (A3), LarryKay_51 (A3), Lilith_52 (A3), Louie6_50 (A3), LugYA_54 (A3), MadMarie_51 (A3), Mainiac_51 (A3), Malinsilva_53 (A3), Manu_51 (A3), MarQuardt_51 (A3), Marie_51 (A3), Marius_52 (A3), Microwolf_51 (A3), Misomonster_52 (A3), MoneyMay_51 (A3), MuchMore_54 (A3), OlanP_50 (A3), Ollie_51 (A3), P28Green_52 (A3), PGHhamlin_53 (A3), Pawn_51 (A3), Pembroke_51 (A3), Penny1_52 (A3), PhishRPhriends_49 (A3), Phoebe_52 (A3), Phoxy_51 (A3), Phranny_52 (A3), PotatoSplit_53 (A3), PurpleHaze_51 (A3), Reba_51 (A3), Rummer_50 (A3), Sabia_51 (A3), Sabinator_50 (A3), Snickers_51 (A3), SoYo_51 (A3), SoilDragon_51 (A3), Soshari_53 (A3), Spike509_51 (A3), Stagni_51 (A3), StepMih_51 (A3), Taurus_52 (A3), Tiffany_51 (A3), Vix_51 (A3), Watson_51 (A3), Wooldri_53 (A3), Zetzy_50 (A3),

Start 24:

- Found in 41 of 298 (13.8%) of genes in pham
- No Manual Annotations of this start.
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Caraxes_48 (A2),

Start 25:

- Found in 18 of 298 (6.0%) of genes in pham
- Manual Annotations of this start: 1 of 276
- Called 5.6% of time when present
- Phage (with cluster) where this start called: XianYue_47 (A2),

Summary by clusters:

There are 12 clusters represented in this pham: A15, A14, A17, A16, A11, A13, A12, A3, A2, A, A6, A9,

Info for manual annotations of cluster A:

- Start number 21 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A11:

- Start number 21 was manually annotated 23 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 21 was manually annotated 4 times for cluster A12.
- Start number 22 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 21 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 21 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A16:

- Start number 21 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 21 was manually annotated 89 times for cluster A2.
- Start number 25 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A3:

- Start number 23 was manually annotated 79 times for cluster A3.

Info for manual annotations of cluster A6:

- Start number 21 was manually annotated 37 times for cluster A6.

Info for manual annotations of cluster A9:

- Start number 21 was manually annotated 33 times for cluster A9.

Gene Information:

Gene: 20ES_50 Start: 32641, Stop: 32432, Start Num: 21

Candidate Starts for 20ES_50:

(1, 33025), (Start: 21 @32641 has 195 MA's), (41, 32485),

Gene: 40AC_49 Start: 33650, Stop: 33450, Start Num: 21

Candidate Starts for 40AC_49:

(11, 33770), (12, 33758), (14, 33746), (Start: 21 @33650 has 195 MA's), (27, 33617), (28, 33614), (30, 33608), (41, 33500),

Gene: ACFishhook_50 Start: 32461, Stop: 32273, Start Num: 23

Candidate Starts for ACFishhook_50:

(Start: 23 @32461 has 79 MA's), (27, 32425), (37, 32347),

Gene: AN3_50 Start: 33012, Stop: 32803, Start Num: 21

Candidate Starts for AN3_50:

(1, 33396), (10, 33132), (Start: 21 @33012 has 195 MA's), (41, 32856),

Gene: AN9_51 Start: 32552, Stop: 32346, Start Num: 21

Candidate Starts for AN9_51:

(Start: 21 @32552 has 195 MA's), (32, 32483), (34, 32462), (41, 32393), (45, 32369),

Gene: ANI8_51 Start: 32552, Stop: 32346, Start Num: 21

Candidate Starts for ANI8_51:

(Start: 21 @32552 has 195 MA's), (32, 32483), (34, 32462), (41, 32393), (45, 32369),

Gene: AbbyPaige_50 Start: 32822, Stop: 32613, Start Num: 21

Candidate Starts for AbbyPaige_50:

(11, 32936), (12, 32924), (Start: 21 @32822 has 195 MA's), (41, 32666),

Gene: Acolyte_44 Start: 31789, Stop: 31586, Start Num: 21

Candidate Starts for Acolyte_44:

(12, 31891), (14, 31879), (Start: 21 @31789 has 195 MA's), (24, 31771), (Start: 25 @31768 has 1 MA's), (41, 31633),

Gene: Adzzy_50 Start: 31273, Stop: 31064, Start Num: 21

Candidate Starts for Adzzy_50:

(12, 31381), (14, 31369), (Start: 21 @31273 has 195 MA's), (26, 31246), (29, 31228), (31, 31210), (32, 31207), (41, 31117),

Gene: Agape74_50 Start: 32807, Stop: 32598, Start Num: 21

Candidate Starts for Agape74_50:

(11, 32921), (12, 32909), (Start: 21 @32807 has 195 MA's), (41, 32651),

Gene: Aglet_52 Start: 32490, Stop: 32302, Start Num: 23

Candidate Starts for Aglet_52:

(Start: 23 @32490 has 79 MA's), (27, 32454), (37, 32376),

Gene: AgronaGT15_50 Start: 32341, Stop: 32153, Start Num: 23

Candidate Starts for AgronaGT15_50:

(Start: 23 @32341 has 79 MA's), (27, 32305), (37, 32227),

Gene: Aliter_48 Start: 32246, Stop: 32034, Start Num: 21

Candidate Starts for Aliter_48:

(4, 32504), (5, 32498), (11, 32366), (12, 32354), (Start: 21 @32246 has 195 MA's), (31, 32189), (32, 32186), (41, 32096),

Gene: Alma_48 Start: 32372, Stop: 32157, Start Num: 21

Candidate Starts for Alma_48:

(8, 32525), (11, 32492), (12, 32480), (Start: 21 @32372 has 195 MA's), (31, 32312), (32, 32309), (41, 32219),

Gene: Aneem_49 Start: 31910, Stop: 31698, Start Num: 21

Candidate Starts for Aneem_49:

(9, 32057), (Start: 21 @31910 has 195 MA's), (31, 31847),

Gene: AnnaL29_50 Start: 33346, Stop: 33143, Start Num: 21

Candidate Starts for AnnaL29_50:

(Start: 21 @33346 has 195 MA's), (30, 33298), (41, 33190),

Gene: Anselm_49 Start: 32738, Stop: 32529, Start Num: 21

Candidate Starts for Anselm_49:

(11, 32852), (12, 32840), (Start: 21 @32738 has 195 MA's), (41, 32582),

Gene: Anubis_54 Start: 32376, Stop: 32188, Start Num: 23

Candidate Starts for Anubis_54:

(Start: 23 @32376 has 79 MA's), (27, 32340), (37, 32262),

Gene: Arissanae_47 Start: 32905, Stop: 32687, Start Num: 21

Candidate Starts for Arissanae_47:

(Start: 21 @32905 has 195 MA's), (31, 32845), (32, 32842), (39, 32770), (41, 32752), (43, 32728),

Gene: Artemis2UCLA_50 Start: 31040, Stop: 30834, Start Num: 21

Candidate Starts for Artemis2UCLA_50:

(12, 31148), (Start: 21 @31040 has 195 MA's), (27, 31001), (30, 30992), (31, 30977), (41, 30884),

Gene: AugsMagnumOpus_54 Start: 32481, Stop: 32293, Start Num: 23
Candidate Starts for AugsMagnumOpus_54:
(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: BabyBack_47 Start: 33062, Stop: 32862, Start Num: 21
Candidate Starts for BabyBack_47:
(12, 33170), (14, 33158), (Start: 21 @33062 has 195 MA's), (Start: 25 @33047 has 1 MA's), (41, 32912),

Gene: Bachome_50 Start: 31898, Stop: 31686, Start Num: 21
Candidate Starts for Bachome_50:
(Start: 21 @31898 has 195 MA's), (31, 31835),

Gene: Bactobuster_47 Start: 33296, Stop: 33093, Start Num: 21
Candidate Starts for Bactobuster_47:
(12, 33398), (14, 33386), (17, 33347), (Start: 21 @33296 has 195 MA's), (24, 33278), (Start: 25 @33275 has 1 MA's), (27, 33257), (28, 33254), (41, 33140),

Gene: Baehexic_47 Start: 32512, Stop: 32300, Start Num: 21
Candidate Starts for Baehexic_47:
(12, 32614), (14, 32602), (Start: 21 @32512 has 195 MA's), (41, 32356),

Gene: Beauxregard13_51 Start: 32493, Stop: 32305, Start Num: 23
Candidate Starts for Beauxregard13_51:
(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: Beemo_48 Start: 32368, Stop: 32156, Start Num: 21
Candidate Starts for Beemo_48:
(4, 32626), (5, 32620), (11, 32488), (12, 32476), (Start: 21 @32368 has 195 MA's), (31, 32311), (32, 32308), (41, 32218),

Gene: BengiVuitton_49 Start: 32594, Stop: 32385, Start Num: 21
Candidate Starts for BengiVuitton_49:
(1, 32978), (Start: 21 @32594 has 195 MA's), (41, 32438),

Gene: Benvolio_45 Start: 31769, Stop: 31560, Start Num: 21
Candidate Starts for Benvolio_45:
(11, 31883), (12, 31871), (Start: 21 @31769 has 195 MA's), (31, 31706), (41, 31613),

Gene: Blinn1_52 Start: 31303, Stop: 31094, Start Num: 21
Candidate Starts for Blinn1_52:
(Start: 21 @31303 has 195 MA's), (24, 31285), (27, 31261), (41, 31144), (45, 31117),

Gene: Blue7_52 Start: 31136, Stop: 30930, Start Num: 21
Candidate Starts for Blue7_52:
(12, 31244), (Start: 21 @31136 has 195 MA's), (30, 31088), (41, 30980),

Gene: BogosyJay_47 Start: 32089, Stop: 31862, Start Num: 21
Candidate Starts for BogosyJay_47:
(11, 32209), (12, 32197), (Start: 21 @32089 has 195 MA's), (Start: 25 @32071 has 1 MA's), (26, 32065), (31, 32029), (32, 32026), (41, 31936),

Gene: Bowtie_49 Start: 31917, Stop: 31705, Start Num: 21
Candidate Starts for Bowtie_49:
(9, 32064), (Start: 21 @31917 has 195 MA's), (31, 31854),

Gene: BreSam8_51 Start: 32483, Stop: 32295, Start Num: 23
Candidate Starts for BreSam8_51:
(Start: 23 @32483 has 79 MA's), (27, 32447), (37, 32369),

Gene: Bud_48 Start: 31472, Stop: 31260, Start Num: 21
Candidate Starts for Bud_48:
(Start: 21 @31472 has 195 MA's), (31, 31409),

Gene: Buggy_50 Start: 32882, Stop: 32670, Start Num: 21
Candidate Starts for Buggy_50:
(Start: 21 @32882 has 195 MA's), (41, 32726),

Gene: BuzzBuzz_49 Start: 32520, Stop: 32332, Start Num: 23
Candidate Starts for BuzzBuzz_49:
(Start: 23 @32520 has 79 MA's), (27, 32484), (37, 32406),

Gene: Bxz2_47 Start: 32527, Stop: 32339, Start Num: 23
Candidate Starts for Bxz2_47:
(Start: 23 @32527 has 79 MA's), (27, 32491), (37, 32413),

Gene: C3_46 Start: 32552, Stop: 32346, Start Num: 21
Candidate Starts for C3_46:
(Start: 21 @32552 has 195 MA's), (32, 32483), (34, 32462), (41, 32393), (45, 32369),

Gene: CRB1_51 Start: 32987, Stop: 32778, Start Num: 21
Candidate Starts for CRB1_51:
(1, 33368), (10, 33104), (19, 33002), (Start: 21 @32987 has 195 MA's), (41, 32831),

Gene: Candra_50 Start: 31382, Stop: 31173, Start Num: 21
Candidate Starts for Candra_50:
(12, 31490), (Start: 21 @31382 has 195 MA's), (24, 31364), (27, 31340), (41, 31223),

Gene: Caraxes_48 Start: 30908, Stop: 30723, Start Num: 24
Candidate Starts for Caraxes_48:
(Start: 21 @30926 has 195 MA's), (24, 30908), (28, 30884), (41, 30770),

Gene: Catalina_49 Start: 32319, Stop: 32107, Start Num: 21
Candidate Starts for Catalina_49:
(4, 32577), (5, 32571), (11, 32439), (12, 32427), (Start: 21 @32319 has 195 MA's), (31, 32262), (32, 32259), (41, 32169),

Gene: Centaur_49 Start: 32729, Stop: 32517, Start Num: 21
Candidate Starts for Centaur_49:
(12, 32831), (14, 32819), (Start: 21 @32729 has 195 MA's), (41, 32573),

Gene: Changeling_47 Start: 32928, Stop: 32725, Start Num: 21
Candidate Starts for Changeling_47:
(14, 33024), (Start: 21 @32928 has 195 MA's), (30, 32880), (33, 32844), (41, 32772),

Gene: Chargerpower_47 Start: 31274, Stop: 31038, Start Num: 21
Candidate Starts for Chargerpower_47:
(11, 31394), (12, 31382), (14, 31370), (Start: 21 @31274 has 195 MA's), (26, 31247), (28, 31232), (31, 31211), (41, 31118),

Gene: Charm_47 Start: 32120, Stop: 31896, Start Num: 21
Candidate Starts for Charm_47:
(6, 32369), (7, 32339), (11, 32240), (12, 32228), (14, 32216), (Start: 21 @32120 has 195 MA's), (26, 32096), (31, 32060), (32, 32057), (41, 31967),

Gene: Chartreuse_49 Start: 30742, Stop: 30533, Start Num: 21
Candidate Starts for Chartreuse_49:
(12, 30850), (Start: 21 @30742 has 195 MA's), (24, 30724), (27, 30700), (41, 30583),

Gene: Che12_50 Start: 31360, Stop: 31148, Start Num: 21
Candidate Starts for Che12_50:
(12, 31468), (14, 31456), (Start: 21 @31360 has 195 MA's), (26, 31333), (29, 31315), (31, 31297), (32, 31294), (41, 31201),

Gene: ChipMunk_50 Start: 34079, Stop: 33870, Start Num: 21
Candidate Starts for ChipMunk_50:
(11, 34193), (12, 34181), (Start: 21 @34079 has 195 MA's), (41, 33923),

Gene: CloudWang3_50 Start: 31140, Stop: 30934, Start Num: 21
Candidate Starts for CloudWang3_50:
(12, 31248), (Start: 21 @31140 has 195 MA's), (30, 31092), (41, 30984),

Gene: Colbster_51 Start: 32493, Stop: 32305, Start Num: 23
Candidate Starts for Colbster_51:
(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: Conquerage_48 Start: 32342, Stop: 32130, Start Num: 21
Candidate Starts for Conquerage_48:
(4, 32600), (5, 32594), (11, 32462), (12, 32450), (Start: 21 @32342 has 195 MA's), (31, 32285), (32, 32282), (41, 32192),

Gene: Cookiedough_50 Start: 31358, Stop: 31149, Start Num: 21
Candidate Starts for Cookiedough_50:
(12, 31466), (Start: 21 @31358 has 195 MA's), (24, 31340), (27, 31316), (41, 31199),

Gene: Crucio_48 Start: 32322, Stop: 32113, Start Num: 21
Candidate Starts for Crucio_48:
(11, 32436), (12, 32424), (Start: 21 @32322 has 195 MA's), (31, 32259), (41, 32166),

Gene: Cullens_51 Start: 32489, Stop: 32301, Start Num: 23
Candidate Starts for Cullens_51:
(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: DBQu4n_50 Start: 32112, Stop: 31906, Start Num: 21
Candidate Starts for DBQu4n_50:
(Start: 21 @32112 has 195 MA's), (29, 32064), (41, 31953),

Gene: DaHudson_51 Start: 32482, Stop: 32294, Start Num: 23

Candidate Starts for DaHudson_51:

(Start: 23 @32482 has 79 MA's), (27, 32446), (37, 32368),

Gene: DaVinci_49 Start: 30796, Stop: 30587, Start Num: 21

Candidate Starts for DaVinci_49:

(12, 30904), (Start: 21 @30796 has 195 MA's), (24, 30778), (27, 30754), (41, 30637),

Gene: Daishi_50 Start: 31361, Stop: 31173, Start Num: 23

Candidate Starts for Daishi_50:

(Start: 23 @31361 has 79 MA's), (27, 31325), (37, 31247),

Gene: Dalmatian_49 Start: 32714, Stop: 32505, Start Num: 21

Candidate Starts for Dalmatian_49:

(11, 32828), (12, 32816), (Start: 21 @32714 has 195 MA's), (41, 32558),

Gene: Darrell_48 Start: 32708, Stop: 32490, Start Num: 21

Candidate Starts for Darrell_48:

(10, 32843), (13, 32819), (Start: 21 @32708 has 195 MA's), (26, 32684), (31, 32648), (41, 32555), (43, 32531),

Gene: DarthPhader_45 Start: 33153, Stop: 32947, Start Num: 21

Candidate Starts for DarthPhader_45:

(12, 33261), (Start: 21 @33153 has 195 MA's), (26, 33126), (28, 33111), (31, 33090), (32, 33087), (41, 32997),

Gene: DekHockey33_51 Start: 31295, Stop: 31065, Start Num: 21

Candidate Starts for DekHockey33_51:

(Start: 21 @31295 has 195 MA's), (29, 31241), (30, 31238), (31, 31223),

Gene: Deloris_48 Start: 32263, Stop: 32054, Start Num: 21

Candidate Starts for Deloris_48:

(1, 32647), (Start: 21 @32263 has 195 MA's), (41, 32107),

Gene: Dieselweasel_52 Start: 32492, Stop: 32304, Start Num: 23

Candidate Starts for Dieselweasel_52:

(Start: 23 @32492 has 79 MA's), (27, 32456), (37, 32378),

Gene: Dignity_50 Start: 32887, Stop: 32678, Start Num: 21

Candidate Starts for Dignity_50:

(11, 33001), (12, 32989), (Start: 21 @32887 has 195 MA's), (41, 32731),

Gene: Dorothea_49 Start: 31365, Stop: 31156, Start Num: 21

Candidate Starts for Dorothea_49:

(12, 31473), (Start: 21 @31365 has 195 MA's), (24, 31347), (27, 31323), (41, 31206),

Gene: Drake55_50 Start: 32805, Stop: 32602, Start Num: 21

Candidate Starts for Drake55_50:

(12, 32907), (14, 32895), (Start: 21 @32805 has 195 MA's), (24, 32787), (34, 32718), (41, 32649), (46, 32625),

Gene: DreamTeam1_47 Start: 31994, Stop: 31770, Start Num: 21

Candidate Starts for DreamTeam1_47:

(6, 32243), (7, 32213), (11, 32114), (12, 32102), (14, 32090), (Start: 21 @31994 has 195 MA's), (26, 31970), (31, 31934), (32, 31931), (41, 31841),

Gene: DudeLittle_47 Start: 32456, Stop: 32247, Start Num: 21

Candidate Starts for DudeLittle_47:

(11, 32570), (12, 32558), (Start: 21 @32456 has 195 MA's), (24, 32438), (41, 32300),

Gene: Duplo_50 Start: 32150, Stop: 31944, Start Num: 21

Candidate Starts for Duplo_50:

(Start: 21 @32150 has 195 MA's), (29, 32102), (41, 31991),

Gene: EZMoney23_46 Start: 32252, Stop: 32052, Start Num: 21

Candidate Starts for EZMoney23_46:

(Start: 21 @32252 has 195 MA's), (30, 32204), (33, 32168), (41, 32096), (47, 32060),

Gene: EagleEye_50 Start: 31872, Stop: 31663, Start Num: 21

Candidate Starts for EagleEye_50:

(Start: 21 @31872 has 195 MA's), (29, 31824), (31, 31806), (41, 31719),

Gene: Ebony_48 Start: 31489, Stop: 31277, Start Num: 21

Candidate Starts for Ebony_48:

(Start: 21 @31489 has 195 MA's), (31, 31426),

Gene: Echild_48 Start: 31793, Stop: 31584, Start Num: 21

Candidate Starts for Echild_48:

(11, 31907), (12, 31895), (Start: 21 @31793 has 195 MA's), (31, 31730), (41, 31637),

Gene: Eidsmoe_48 Start: 32382, Stop: 32170, Start Num: 21

Candidate Starts for Eidsmoe_48:

(4, 32640), (5, 32634), (11, 32502), (12, 32490), (Start: 21 @32382 has 195 MA's), (31, 32325), (32, 32322), (41, 32232),

Gene: Elephantoon_47 Start: 31688, Stop: 31470, Start Num: 21

Candidate Starts for Elephantoon_47:

(12, 31790), (Start: 21 @31688 has 195 MA's), (Start: 25 @31670 has 1 MA's), (26, 31664), (31, 31628), (32, 31625), (41, 31535), (43, 31511),

Gene: EmyBug_47 Start: 32384, Stop: 32172, Start Num: 21

Candidate Starts for EmyBug_47:

(4, 32642), (5, 32636), (11, 32504), (12, 32492), (Start: 21 @32384 has 195 MA's), (31, 32327), (32, 32324), (41, 32234),

Gene: EpicPhail_52 Start: 32493, Stop: 32305, Start Num: 23

Candidate Starts for EpicPhail_52:

(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: Equemioh13_49 Start: 32631, Stop: 32419, Start Num: 21

Candidate Starts for Equemioh13_49:

(12, 32733), (14, 32721), (Start: 21 @32631 has 195 MA's), (41, 32475),

Gene: EricB_50 Start: 31339, Stop: 31130, Start Num: 21

Candidate Starts for EricB_50:

(12, 31447), (Start: 21 @31339 has 195 MA's), (24, 31321), (27, 31297), (41, 31180),

Gene: Et2Brutus_47 Start: 31449, Stop: 31237, Start Num: 21

Candidate Starts for Et2Brutus_47:

(Start: 21 @31449 has 195 MA's), (31, 31386),

Gene: EvilGenius_50 Start: 34083, Stop: 33874, Start Num: 21

Candidate Starts for EvilGenius_50:

(11, 34197), (12, 34185), (Start: 21 @34083 has 195 MA's), (41, 33927),

Gene: ExplosioNervosa_48 Start: 32402, Stop: 32190, Start Num: 21

Candidate Starts for ExplosioNervosa_48:

(4, 32660), (5, 32654), (11, 32522), (12, 32510), (Start: 21 @32402 has 195 MA's), (31, 32345), (32, 32342), (41, 32252),

Gene: Fameo_48 Start: 32632, Stop: 32423, Start Num: 21

Candidate Starts for Fameo_48:

(11, 32746), (12, 32734), (Start: 21 @32632 has 195 MA's), (31, 32569), (41, 32476),

Gene: Farber_51 Start: 32482, Stop: 32294, Start Num: 23

Candidate Starts for Farber_51:

(Start: 23 @32482 has 79 MA's), (27, 32446), (37, 32368),

Gene: Fayely_48 Start: 32351, Stop: 32139, Start Num: 21

Candidate Starts for Fayely_48:

(4, 32609), (5, 32603), (11, 32471), (12, 32459), (Start: 21 @32351 has 195 MA's), (31, 32294), (32, 32291), (41, 32201),

Gene: Fernando_51 Start: 32489, Stop: 32301, Start Num: 23

Candidate Starts for Fernando_51:

(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: Fibonacci_48 Start: 31464, Stop: 31252, Start Num: 21

Candidate Starts for Fibonacci_48:

(Start: 21 @31464 has 195 MA's), (31, 31401),

Gene: FiringLine_48 Start: 32303, Stop: 32094, Start Num: 21

Candidate Starts for FiringLine_48:

(11, 32417), (12, 32405), (Start: 21 @32303 has 195 MA's), (41, 32147),

Gene: First_0049 Start: 32517, Stop: 32308, Start Num: 21

Candidate Starts for First_0049:

(1, 32901), (10, 32637), (Start: 21 @32517 has 195 MA's), (41, 32361),

Gene: Flare16_48 Start: 32390, Stop: 32178, Start Num: 21

Candidate Starts for Flare16_48:

(12, 32492), (14, 32480), (Start: 21 @32390 has 195 MA's), (41, 32234),

Gene: Flaverint_49 Start: 31911, Stop: 31699, Start Num: 21

Candidate Starts for Flaverint_49:

(9, 32058), (Start: 21 @31911 has 195 MA's), (31, 31848),

Gene: Gail_53 Start: 34071, Stop: 33859, Start Num: 21

Candidate Starts for Gail_53:

(Start: 21 @34071 has 195 MA's), (34, 33984), (35, 33981), (41, 33915),

Gene: Garak_52 Start: 31507, Stop: 31301, Start Num: 21

Candidate Starts for Garak_52:

(12, 31615), (Start: 21 @31507 has 195 MA's), (27, 31468), (30, 31459), (31, 31444), (41, 31351),

Gene: GaugeLDP_46 Start: 32685, Stop: 32485, Start Num: 21

Candidate Starts for GaugeLDP_46:

(12, 32793), (14, 32781), (Start: 21 @32685 has 195 MA's), (Start: 25 @32670 has 1 MA's), (41, 32535),

Gene: Gemma_50 Start: 32385, Stop: 32197, Start Num: 23

Candidate Starts for Gemma_50:

(Start: 23 @32385 has 79 MA's), (27, 32349), (37, 32271),

Gene: Georgie2_49 Start: 32348, Stop: 32139, Start Num: 21

Candidate Starts for Georgie2_49:

(11, 32462), (12, 32450), (Start: 21 @32348 has 195 MA's), (41, 32192),

Gene: Gilberta_49 Start: 31901, Stop: 31689, Start Num: 21

Candidate Starts for Gilberta_49:

(9, 32048), (Start: 21 @31901 has 195 MA's), (31, 31838),

Gene: GingkoMaracino_51 Start: 32375, Stop: 32187, Start Num: 23

Candidate Starts for GingkoMaracino_51:

(Start: 23 @32375 has 79 MA's), (27, 32339), (37, 32261),

Gene: Gladiator_48 Start: 30670, Stop: 30461, Start Num: 21

Candidate Starts for Gladiator_48:

(12, 30778), (Start: 21 @30670 has 195 MA's), (24, 30652), (27, 30628), (41, 30511),

Gene: GreedyLawyer_50 Start: 31346, Stop: 31137, Start Num: 21

Candidate Starts for GreedyLawyer_50:

(12, 31454), (Start: 21 @31346 has 195 MA's), (24, 31328), (27, 31304), (41, 31187),

Gene: Grif_51 Start: 32564, Stop: 32376, Start Num: 23

Candidate Starts for Grif_51:

(Start: 23 @32564 has 79 MA's), (27, 32528), (37, 32450),

Gene: Groupthink_52 Start: 32389, Stop: 32201, Start Num: 23

Candidate Starts for Groupthink_52:

(Start: 23 @32389 has 79 MA's), (27, 32353), (37, 32275),

Gene: Grub_51 Start: 32481, Stop: 32293, Start Num: 23

Candidate Starts for Grub_51:

(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: Grum1_51 Start: 32489, Stop: 32301, Start Num: 23

Candidate Starts for Grum1_51:

(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: Gruunaga_50 Start: 31343, Stop: 31137, Start Num: 21

Candidate Starts for Gruunaga_50:

(12, 31451), (Start: 21 @31343 has 195 MA's), (27, 31304), (30, 31295), (31, 31280), (41, 31187),

Gene: GtownJaz_51 Start: 32491, Stop: 32303, Start Num: 23

Candidate Starts for GtownJaz_51:

(Start: 23 @32491 has 79 MA's), (27, 32455), (37, 32377),

Gene: Hammer_51 Start: 30946, Stop: 30740, Start Num: 21

Candidate Starts for Hammer_51:

(12, 31054), (Start: 21 @30946 has 195 MA's), (30, 30898), (41, 30790),

Gene: HarryHoudini_49 Start: 32814, Stop: 32611, Start Num: 21

Candidate Starts for HarryHoudini_49:

(12, 32916), (14, 32904), (Start: 21 @32814 has 195 MA's), (24, 32796), (34, 32727), (41, 32658), (46, 32634),

Gene: HashRod_52 Start: 32520, Stop: 32332, Start Num: 23

Candidate Starts for HashRod_52:

(Start: 23 @32520 has 79 MA's), (27, 32484), (37, 32406),

Gene: HaveUMetTed_52 Start: 32371, Stop: 32183, Start Num: 23

Candidate Starts for HaveUMetTed_52:

(Start: 23 @32371 has 79 MA's), (27, 32335), (37, 32257),

Gene: Heffalump_47 Start: 33100, Stop: 32891, Start Num: 21

Candidate Starts for Heffalump_47:

(11, 33214), (12, 33202), (Start: 21 @33100 has 195 MA's), (31, 33037), (41, 32944),

Gene: Heliosoles_50 Start: 32392, Stop: 32204, Start Num: 23

Candidate Starts for Heliosoles_50:

(Start: 23 @32392 has 79 MA's), (27, 32356), (37, 32278),

Gene: Helmet_52 Start: 31507, Stop: 31301, Start Num: 21

Candidate Starts for Helmet_52:

(12, 31615), (Start: 21 @31507 has 195 MA's), (27, 31468), (30, 31459), (31, 31444), (41, 31351),

Gene: Herbertwm_48 Start: 32176, Stop: 31973, Start Num: 21

Candidate Starts for Herbertwm_48:

(Start: 21 @32176 has 195 MA's), (31, 32113), (41, 32020),

Gene: Hercules11_51 Start: 32498, Stop: 32310, Start Num: 23

Candidate Starts for Hercules11_51:

(Start: 23 @32498 has 79 MA's), (27, 32462), (37, 32384),

Gene: Hexamo_50 Start: 31128, Stop: 30922, Start Num: 21

Candidate Starts for Hexamo_50:

(12, 31236), (Start: 21 @31128 has 195 MA's), (27, 31089), (30, 31080), (31, 31065), (41, 30972),

Gene: HortumSL17_48 Start: 32318, Stop: 32106, Start Num: 21

Candidate Starts for HortumSL17_48:

(4, 32576), (5, 32570), (11, 32438), (12, 32426), (Start: 21 @32318 has 195 MA's), (31, 32261), (32, 32258), (41, 32168),

Gene: Hutc2_48 Start: 31464, Stop: 31252, Start Num: 21

Candidate Starts for Hutc2_48:
(Start: 21 @31464 has 195 MA's), (31, 31401),

Gene: Indra_53 Start: 31508, Stop: 31302, Start Num: 21
Candidate Starts for Indra_53:
(12, 31616), (Start: 21 @31508 has 195 MA's), (27, 31469), (30, 31460), (31, 31445), (41, 31352),

Gene: Insomnia_49 Start: 31969, Stop: 31757, Start Num: 21
Candidate Starts for Insomnia_49:
(Start: 21 @31969 has 195 MA's), (31, 31906),

Gene: IronMan_48 Start: 33479, Stop: 33276, Start Num: 21
Candidate Starts for IronMan_48:
(12, 33581), (17, 33530), (Start: 21 @33479 has 195 MA's), (24, 33461), (27, 33440), (28, 33437), (41, 33323),

Gene: Isiphiwo_48 Start: 30883, Stop: 30674, Start Num: 21
Candidate Starts for Isiphiwo_48:
(12, 30991), (Start: 21 @30883 has 195 MA's), (24, 30865), (27, 30841), (41, 30724),

Gene: Iwokeuplikedis_51 Start: 32416, Stop: 32213, Start Num: 21
Candidate Starts for Iwokeuplikedis_51:
(Start: 21 @32416 has 195 MA's), (24, 32398), (29, 32371), (41, 32260),

Gene: JHC117_51 Start: 32488, Stop: 32300, Start Num: 23
Candidate Starts for JHC117_51:
(Start: 23 @32488 has 79 MA's), (27, 32452), (37, 32374),

Gene: Jaan_48 Start: 33645, Stop: 33442, Start Num: 21
Candidate Starts for Jaan_48:
(12, 33747), (14, 33735), (17, 33696), (Start: 21 @33645 has 195 MA's), (24, 33627), (Start: 25 @33624 has 1 MA's), (27, 33606), (28, 33603), (41, 33489),

Gene: Jabith_49 Start: 31970, Stop: 31758, Start Num: 21
Candidate Starts for Jabith_49:
(Start: 21 @31970 has 195 MA's), (31, 31907),

Gene: Jeeves_53 Start: 32846, Stop: 32631, Start Num: 21
Candidate Starts for Jeeves_53:
(Start: 21 @32846 has 195 MA's), (29, 32798), (34, 32756), (35, 32753), (41, 32687),

Gene: Jeffabunny_50 Start: 31164, Stop: 30958, Start Num: 21
Candidate Starts for Jeffabunny_50:
(12, 31272), (Start: 21 @31164 has 195 MA's), (27, 31125), (30, 31116), (31, 31101), (41, 31008),

Gene: JenCasNa_52 Start: 32489, Stop: 32301, Start Num: 23
Candidate Starts for JenCasNa_52:
(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: JeppNRM_52 Start: 32390, Stop: 32202, Start Num: 23
Candidate Starts for JeppNRM_52:
(Start: 23 @32390 has 79 MA's), (27, 32354), (37, 32276),

Gene: Jerm_50 Start: 32880, Stop: 32671, Start Num: 21
Candidate Starts for Jerm_50:
(11, 32994), (12, 32982), (Start: 21 @32880 has 195 MA's), (41, 32724),

Gene: Jobu08_50 Start: 32321, Stop: 32133, Start Num: 23
Candidate Starts for Jobu08_50:
(Start: 23 @32321 has 79 MA's), (27, 32285), (37, 32207),

Gene: Jordennis_49 Start: 30803, Stop: 30594, Start Num: 21
Candidate Starts for Jordennis_49:
(Start: 21 @30803 has 195 MA's), (24, 30785), (27, 30761), (41, 30644),

Gene: Joselito_49 Start: 31910, Stop: 31698, Start Num: 21
Candidate Starts for Joselito_49:
(9, 32057), (Start: 21 @31910 has 195 MA's), (31, 31847),

Gene: JoshKayV_50 Start: 32961, Stop: 32752, Start Num: 21
Candidate Starts for JoshKayV_50:
(11, 33075), (12, 33063), (Start: 21 @32961 has 195 MA's), (36, 32853), (41, 32805),

Gene: Journey13_42 Start: 30735, Stop: 30526, Start Num: 21
Candidate Starts for Journey13_42:
(11, 30855), (12, 30843), (Start: 21 @30735 has 195 MA's), (26, 30708), (31, 30672), (41, 30579), (48, 30537),

Gene: Jsquared_46 Start: 31228, Stop: 31022, Start Num: 21
Candidate Starts for Jsquared_46:
(Start: 21 @31228 has 195 MA's), (Start: 25 @31207 has 1 MA's), (34, 31141), (41, 31072),

Gene: KADY_51 Start: 32520, Stop: 32332, Start Num: 23
Candidate Starts for KADY_51:
(Start: 23 @32520 has 79 MA's), (27, 32484), (37, 32406),

Gene: Kalb97_52 Start: 32388, Stop: 32200, Start Num: 23
Candidate Starts for Kalb97_52:
(Start: 23 @32388 has 79 MA's), (27, 32352), (37, 32274),

Gene: Kalnoky_52 Start: 32386, Stop: 32198, Start Num: 23
Candidate Starts for Kalnoky_52:
(Start: 23 @32386 has 79 MA's), (27, 32350), (37, 32272),

Gene: Kalpine_46 Start: 32595, Stop: 32392, Start Num: 21
Candidate Starts for Kalpine_46:
(Start: 21 @32595 has 195 MA's), (24, 32577), (30, 32547), (41, 32439),

Gene: Kazan_51 Start: 31352, Stop: 31143, Start Num: 21
Candidate Starts for Kazan_51:
(12, 31460), (Start: 21 @31352 has 195 MA's), (24, 31334), (27, 31310), (41, 31193),

Gene: Kerberos_50 Start: 32112, Stop: 31906, Start Num: 21
Candidate Starts for Kerberos_50:
(Start: 21 @32112 has 195 MA's), (29, 32064), (41, 31953),

Gene: Keziacharles14_48 Start: 33355, Stop: 33137, Start Num: 21
Candidate Starts for Keziacharles14_48:
(12, 33457), (14, 33445), (Start: 21 @33355 has 195 MA's), (31, 33298), (32, 33295), (35, 33271), (41, 33205),

Gene: KingCyrus_50 Start: 34078, Stop: 33869, Start Num: 21
Candidate Starts for KingCyrus_50:
(11, 34192), (12, 34180), (Start: 21 @34078 has 195 MA's), (41, 33922),

Gene: Kipper29_50 Start: 31365, Stop: 31156, Start Num: 21
Candidate Starts for Kipper29_50:
(12, 31473), (Start: 21 @31365 has 195 MA's), (24, 31347), (27, 31323), (41, 31206),

Gene: Koduck_48 Start: 31520, Stop: 31314, Start Num: 21
Candidate Starts for Koduck_48:
(Start: 21 @31520 has 195 MA's), (Start: 25 @31499 has 1 MA's), (30, 31472), (41, 31364),

Gene: Koko_51 Start: 31485, Stop: 31279, Start Num: 21
Candidate Starts for Koko_51:
(12, 31593), (Start: 21 @31485 has 195 MA's), (30, 31437), (41, 31329),

Gene: L5_47 Start: 31595, Stop: 31386, Start Num: 21
Candidate Starts for L5_47:
(Start: 21 @31595 has 195 MA's), (Start: 25 @31574 has 1 MA's), (30, 31547), (41, 31436),

Gene: LBerry_52 Start: 32493, Stop: 32305, Start Num: 23
Candidate Starts for LBerry_52:
(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: LadyBird_52 Start: 32952, Stop: 32743, Start Num: 21
Candidate Starts for LadyBird_52:
(1, 33336), (10, 33072), (Start: 21 @32952 has 195 MA's), (41, 32796),

Gene: Landor_48 Start: 33557, Stop: 33354, Start Num: 21
Candidate Starts for Landor_48:
(12, 33659), (14, 33647), (17, 33608), (Start: 21 @33557 has 195 MA's), (24, 33539), (Start: 25 @33536 has 1 MA's), (27, 33518), (28, 33515), (41, 33401),

Gene: Larenn_47 Start: 32493, Stop: 32284, Start Num: 21
Candidate Starts for Larenn_47:
(12, 32595), (Start: 21 @32493 has 195 MA's), (41, 32337),

Gene: LarryKay_51 Start: 32522, Stop: 32334, Start Num: 23
Candidate Starts for LarryKay_51:
(Start: 23 @32522 has 79 MA's), (27, 32486), (37, 32408),

Gene: Leogania_48 Start: 33507, Stop: 33295, Start Num: 21
Candidate Starts for Leogania_48:
(Start: 21 @33507 has 195 MA's), (30, 33459), (33, 33423), (41, 33351), (42, 33339),

Gene: Leviathan_50 Start: 32936, Stop: 32727, Start Num: 21
Candidate Starts for Leviathan_50:
(11, 33050), (12, 33038), (Start: 21 @32936 has 195 MA's), (41, 32780),

Gene: LilTurb_49 Start: 32769, Stop: 32560, Start Num: 21
Candidate Starts for LilTurb_49:
(11, 32883), (12, 32871), (Start: 21 @32769 has 195 MA's), (41, 32613),

Gene: Lilbunny_48 Start: 31138, Stop: 30932, Start Num: 21
Candidate Starts for Lilbunny_48:
(12, 31246), (Start: 21 @31138 has 195 MA's), (27, 31099), (30, 31090), (31, 31075), (41, 30982),

Gene: Lilith_52 Start: 32482, Stop: 32294, Start Num: 23
Candidate Starts for Lilith_52:
(Start: 23 @32482 has 79 MA's), (27, 32446), (37, 32368),

Gene: LoneWolf_48 Start: 32078, Stop: 31863, Start Num: 21
Candidate Starts for LoneWolf_48:
(18, 32144), (Start: 21 @32078 has 195 MA's), (31, 32018), (32, 32015), (41, 31925), (44, 31889),

Gene: Loser_50 Start: 33295, Stop: 33092, Start Num: 21
Candidate Starts for Loser_50:
(Start: 21 @33295 has 195 MA's), (30, 33247), (41, 33139),

Gene: Louie6_50 Start: 32521, Stop: 32333, Start Num: 23
Candidate Starts for Louie6_50:
(Start: 23 @32521 has 79 MA's), (27, 32485), (37, 32407),

Gene: Luchador_53 Start: 34634, Stop: 34419, Start Num: 21
Candidate Starts for Luchador_53:
(Start: 21 @34634 has 195 MA's), (33, 34547), (34, 34544), (35, 34541), (41, 34475),

Gene: Lucivia_49 Start: 31959, Stop: 31747, Start Num: 21
Candidate Starts for Lucivia_49:
(9, 32106), (Start: 21 @31959 has 195 MA's), (31, 31896),

Gene: Lucyedi_49 Start: 32067, Stop: 31858, Start Num: 21
Candidate Starts for Lucyedi_49:
(Start: 21 @32067 has 195 MA's), (29, 32019), (31, 32001), (41, 31914),

Gene: LugYA_54 Start: 32490, Stop: 32302, Start Num: 23
Candidate Starts for LugYA_54:
(Start: 23 @32490 has 79 MA's), (27, 32454), (37, 32376),

Gene: MaCh_49 Start: 31897, Stop: 31685, Start Num: 21
Candidate Starts for MaCh_49:
(Start: 21 @31897 has 195 MA's), (31, 31834),

Gene: Mabel_48 Start: 31499, Stop: 31287, Start Num: 21
Candidate Starts for Mabel_48:
(Start: 21 @31499 has 195 MA's), (31, 31436),

Gene: MadMarie_51 Start: 32491, Stop: 32303, Start Num: 23
Candidate Starts for MadMarie_51:
(Start: 23 @32491 has 79 MA's), (27, 32455), (37, 32377),

Gene: Mainiac_51 Start: 32483, Stop: 32295, Start Num: 23
Candidate Starts for Mainiac_51:
(Start: 23 @32483 has 79 MA's), (27, 32447), (37, 32369),

Gene: Malec_48 Start: 33057, Stop: 32848, Start Num: 21
Candidate Starts for Malec_48:
(12, 33159), (Start: 21 @33057 has 195 MA's), (41, 32901),

Gene: Malinsilva_53 Start: 32481, Stop: 32293, Start Num: 23
Candidate Starts for Malinsilva_53:
(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: Maminiaina_47 Start: 32071, Stop: 31844, Start Num: 21
Candidate Starts for Maminiaina_47:
(11, 32191), (12, 32179), (Start: 21 @32071 has 195 MA's), (Start: 25 @32053 has 1 MA's), (26, 32047), (31, 32011), (32, 32008), (41, 31918),

Gene: Manu_51 Start: 32389, Stop: 32201, Start Num: 23
Candidate Starts for Manu_51:
(Start: 23 @32389 has 79 MA's), (27, 32353), (37, 32275),

Gene: MarQuardt_51 Start: 32491, Stop: 32303, Start Num: 23
Candidate Starts for MarQuardt_51:
(Start: 23 @32491 has 79 MA's), (27, 32455), (37, 32377),

Gene: Marie_51 Start: 32489, Stop: 32301, Start Num: 23
Candidate Starts for Marie_51:
(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: Marius_52 Start: 32386, Stop: 32198, Start Num: 23
Candidate Starts for Marius_52:
(Start: 23 @32386 has 79 MA's), (27, 32350), (37, 32272),

Gene: McFly_50 Start: 31346, Stop: 31137, Start Num: 21
Candidate Starts for McFly_50:
(12, 31454), (Start: 21 @31346 has 195 MA's), (24, 31328), (27, 31304), (41, 31187),

Gene: Microwolf_51 Start: 32490, Stop: 32302, Start Num: 23
Candidate Starts for Microwolf_51:
(Start: 23 @32490 has 79 MA's), (27, 32454), (37, 32376),

Gene: MiculUcigas_48 Start: 32290, Stop: 32078, Start Num: 21
Candidate Starts for MiculUcigas_48:
(12, 32392), (14, 32380), (Start: 21 @32290 has 195 MA's), (41, 32134),

Gene: Miko_45 Start: 32443, Stop: 32240, Start Num: 21
Candidate Starts for Miko_45:
(Start: 21 @32443 has 195 MA's), (24, 32425), (Start: 25 @32422 has 1 MA's), (30, 32395), (41, 32287), (47, 32251),

Gene: Misomonster_52 Start: 32519, Stop: 32331, Start Num: 23
Candidate Starts for Misomonster_52:
(Start: 23 @32519 has 79 MA's), (27, 32483), (37, 32405),

Gene: MoneyMay_51 Start: 32489, Stop: 32301, Start Num: 23
Candidate Starts for MoneyMay_51:
(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: MuchMore_54 Start: 32481, Stop: 32293, Start Num: 23
Candidate Starts for MuchMore_54:
(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: Mulciber_48 Start: 31461, Stop: 31249, Start Num: 21
Candidate Starts for Mulciber_48:
(Start: 21 @31461 has 195 MA's), (31, 31398),

Gene: Munch_49 Start: 31910, Stop: 31698, Start Num: 21
Candidate Starts for Munch_49:
(9, 32057), (Start: 21 @31910 has 195 MA's), (31, 31847),

Gene: Myxus_48 Start: 32318, Stop: 32106, Start Num: 21
Candidate Starts for Myxus_48:
(4, 32576), (5, 32570), (11, 32438), (12, 32426), (Start: 21 @32318 has 195 MA's), (31, 32261), (32, 32258), (41, 32168),

Gene: NaSiaTalie_48 Start: 32387, Stop: 32175, Start Num: 21
Candidate Starts for NaSiaTalie_48:
(12, 32489), (14, 32477), (Start: 21 @32387 has 195 MA's), (41, 32231),

Gene: Neeharika16_49 Start: 30806, Stop: 30597, Start Num: 21
Candidate Starts for Neeharika16_49:
(12, 30914), (Start: 21 @30806 has 195 MA's), (24, 30788), (27, 30764), (41, 30647),

Gene: Newrala_50 Start: 31357, Stop: 31148, Start Num: 21
Candidate Starts for Newrala_50:
(12, 31465), (Start: 21 @31357 has 195 MA's), (24, 31339), (27, 31315), (41, 31198),

Gene: NothingSpecial_46 Start: 32902, Stop: 32702, Start Num: 21
Candidate Starts for NothingSpecial_46:
(11, 33016), (12, 33004), (14, 32992), (Start: 21 @32902 has 195 MA's), (30, 32854), (33, 32818), (41, 32746),

Gene: Odin_47 Start: 31075, Stop: 30872, Start Num: 21
Candidate Starts for Odin_47:
(Start: 21 @31075 has 195 MA's), (24, 31057), (28, 31033), (41, 30919),

Gene: OlanP_50 Start: 32559, Stop: 32371, Start Num: 23
Candidate Starts for OlanP_50:
(Start: 23 @32559 has 79 MA's), (27, 32523), (37, 32445),

Gene: Ollie_51 Start: 32360, Stop: 32172, Start Num: 23
Candidate Starts for Ollie_51:
(Start: 23 @32360 has 79 MA's), (27, 32324), (37, 32246),

Gene: Orange_48 Start: 31459, Stop: 31247, Start Num: 21
Candidate Starts for Orange_48:

(Start: 21 @31459 has 195 MA's), (31, 31396),

Gene: P28Green_52 Start: 32492, Stop: 32304, Start Num: 23

Candidate Starts for P28Green_52:

(Start: 23 @32492 has 79 MA's), (27, 32456), (37, 32378),

Gene: PGHhamlin_53 Start: 32481, Stop: 32293, Start Num: 23

Candidate Starts for PGHhamlin_53:

(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: PackMan_47 Start: 32318, Stop: 32106, Start Num: 21

Candidate Starts for PackMan_47:

(4, 32576), (5, 32570), (11, 32438), (12, 32426), (Start: 21 @32318 has 195 MA's), (31, 32261), (32, 32258), (41, 32168),

Gene: PainterBoy_49 Start: 32003, Stop: 31794, Start Num: 21

Candidate Starts for PainterBoy_49:

(Start: 21 @32003 has 195 MA's), (29, 31955), (31, 31937), (41, 31850),

Gene: Pawn_51 Start: 32393, Stop: 32205, Start Num: 23

Candidate Starts for Pawn_51:

(Start: 23 @32393 has 79 MA's), (27, 32357), (37, 32279),

Gene: Pembroke_51 Start: 32490, Stop: 32302, Start Num: 23

Candidate Starts for Pembroke_51:

(Start: 23 @32490 has 79 MA's), (27, 32454), (37, 32376),

Gene: Penny1_52 Start: 32493, Stop: 32305, Start Num: 23

Candidate Starts for Penny1_52:

(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: Petersenfast_47 Start: 31466, Stop: 31254, Start Num: 21

Candidate Starts for Petersenfast_47:

(Start: 21 @31466 has 195 MA's), (31, 31403),

Gene: Ph8s_50 Start: 31708, Stop: 31499, Start Num: 21

Candidate Starts for Ph8s_50:

(12, 31816), (14, 31804), (Start: 21 @31708 has 195 MA's), (26, 31681), (29, 31663), (31, 31645), (32, 31642), (41, 31552),

Gene: Phaded_49 Start: 33539, Stop: 33336, Start Num: 21

Candidate Starts for Phaded_49:

(17, 33590), (Start: 21 @33539 has 195 MA's), (24, 33521), (Start: 25 @33518 has 1 MA's), (27, 33500), (28, 33497), (41, 33383),

Gene: Phaeder_48 Start: 32318, Stop: 32106, Start Num: 21

Candidate Starts for Phaeder_48:

(4, 32576), (5, 32570), (11, 32438), (12, 32426), (Start: 21 @32318 has 195 MA's), (31, 32261), (32, 32258), (41, 32168),

Gene: Pharaoh_42 Start: 31876, Stop: 31682, Start Num: 22

Candidate Starts for Pharaoh_42:

(Start: 22 @31876 has 1 MA's), (31, 31816), (40, 31738), (41, 31723),

Gene: PhishRPhriends_49 Start: 31567, Stop: 31379, Start Num: 23

Candidate Starts for PhishRPhriends_49:

(Start: 23 @31567 has 79 MA's), (27, 31531), (37, 31453),

Gene: Phlei_37 Start: 31812, Stop: 31606, Start Num: 21

Candidate Starts for Phlei_37:

(Start: 21 @31812 has 195 MA's), (38, 31692), (39, 31674), (41, 31656),

Gene: Phoebe_52 Start: 32482, Stop: 32294, Start Num: 23

Candidate Starts for Phoebe_52:

(Start: 23 @32482 has 79 MA's), (27, 32446), (37, 32368),

Gene: Phonnegut_48 Start: 32367, Stop: 32155, Start Num: 21

Candidate Starts for Phonnegut_48:

(4, 32625), (5, 32619), (11, 32487), (12, 32475), (Start: 21 @32367 has 195 MA's), (31, 32310), (32, 32307), (41, 32217),

Gene: Phoxy_51 Start: 32517, Stop: 32329, Start Num: 23

Candidate Starts for Phoxy_51:

(Start: 23 @32517 has 79 MA's), (27, 32481), (37, 32403),

Gene: Phranny_52 Start: 32375, Stop: 32187, Start Num: 23

Candidate Starts for Phranny_52:

(Start: 23 @32375 has 79 MA's), (27, 32339), (37, 32261),

Gene: Pioneer_48 Start: 32367, Stop: 32155, Start Num: 21

Candidate Starts for Pioneer_48:

(4, 32625), (5, 32619), (11, 32487), (12, 32475), (Start: 21 @32367 has 195 MA's), (31, 32310), (32, 32307), (41, 32217),

Gene: Piro94_48 Start: 32731, Stop: 32528, Start Num: 21

Candidate Starts for Piro94_48:

(12, 32833), (14, 32821), (Start: 21 @32731 has 195 MA's), (24, 32713), (34, 32644), (41, 32575), (46, 32551),

Gene: Pmask_50 Start: 31358, Stop: 31149, Start Num: 21

Candidate Starts for Pmask_50:

(12, 31466), (Start: 21 @31358 has 195 MA's), (24, 31340), (27, 31316), (41, 31199),

Gene: Pomar16_50 Start: 32153, Stop: 31947, Start Num: 21

Candidate Starts for Pomar16_50:

(Start: 21 @32153 has 195 MA's), (29, 32105), (41, 31994),

Gene: PotatoSplit_53 Start: 32493, Stop: 32305, Start Num: 23

Candidate Starts for PotatoSplit_53:

(Start: 23 @32493 has 79 MA's), (27, 32457), (37, 32379),

Gene: Power_47 Start: 32356, Stop: 32147, Start Num: 21

Candidate Starts for Power_47:

(11, 32470), (12, 32458), (Start: 21 @32356 has 195 MA's), (41, 32200),

Gene: Priamo_51 Start: 30975, Stop: 30766, Start Num: 21

Candidate Starts for Priamo_51:
(Start: 21 @30975 has 195 MA's), (24, 30957), (27, 30933), (41, 30816),

Gene: Priya_48 Start: 32385, Stop: 32173, Start Num: 21
Candidate Starts for Priya_48:
(4, 32643), (5, 32637), (11, 32505), (12, 32493), (Start: 21 @32385 has 195 MA's), (31, 32328), (32, 32325), (41, 32235),

Gene: Pukovnik_47 Start: 33141, Stop: 32941, Start Num: 21
Candidate Starts for Pukovnik_47:
(12, 33243), (Start: 21 @33141 has 195 MA's), (Start: 25 @33120 has 1 MA's), (27, 33102), (28, 33099), (34, 33054), (41, 32985),

Gene: PurpleHaze_51 Start: 32388, Stop: 32200, Start Num: 23
Candidate Starts for PurpleHaze_51:
(Start: 23 @32388 has 79 MA's), (27, 32352), (37, 32274),

Gene: Qobbit_48 Start: 32347, Stop: 32135, Start Num: 21
Candidate Starts for Qobbit_48:
(4, 32605), (5, 32599), (11, 32467), (12, 32455), (Start: 21 @32347 has 195 MA's), (31, 32290), (32, 32287), (41, 32197),

Gene: QueenB2_47 Start: 32316, Stop: 32107, Start Num: 21
Candidate Starts for QueenB2_47:
(11, 32430), (12, 32418), (Start: 21 @32316 has 195 MA's), (31, 32253), (41, 32160),

Gene: QueenBeesly_48 Start: 32303, Stop: 32094, Start Num: 21
Candidate Starts for QueenBeesly_48:
(11, 32417), (12, 32405), (Start: 21 @32303 has 195 MA's), (41, 32147),

Gene: Rahalelujah_47 Start: 31625, Stop: 31404, Start Num: 21
Candidate Starts for Rahalelujah_47:
(10, 31760), (13, 31736), (Start: 21 @31625 has 195 MA's), (31, 31565), (32, 31562), (41, 31472),

Gene: Reba_51 Start: 32048, Stop: 31860, Start Num: 23
Candidate Starts for Reba_51:
(Start: 23 @32048 has 79 MA's), (27, 32012), (37, 31934),

Gene: RedRock_50 Start: 33508, Stop: 33305, Start Num: 21
Candidate Starts for RedRock_50:
(Start: 21 @33508 has 195 MA's), (30, 33460), (41, 33352),

Gene: Refuge_47 Start: 33529, Stop: 33323, Start Num: 21
Candidate Starts for Refuge_47:
(12, 33637), (Start: 21 @33529 has 195 MA's), (26, 33502), (28, 33487), (31, 33466), (32, 33463), (38, 33409), (41, 33373),

Gene: Retro23_49 Start: 32710, Stop: 32501, Start Num: 21
Candidate Starts for Retro23_49:
(11, 32824), (12, 32812), (Start: 21 @32710 has 195 MA's), (41, 32554),

Gene: Rifter_51 Start: 30909, Stop: 30703, Start Num: 21
Candidate Starts for Rifter_51:

(12, 31017), (Start: 21 @30909 has 195 MA's), (27, 30870), (30, 30861), (31, 30846), (41, 30753),

Gene: Roksolana_51 Start: 31394, Stop: 31185, Start Num: 21

Candidate Starts for Roksolana_51:

(Start: 21 @31394 has 195 MA's), (24, 31376), (27, 31352), (41, 31235),

Gene: Rummer_50 Start: 32520, Stop: 32332, Start Num: 23

Candidate Starts for Rummer_50:

(Start: 23 @32520 has 79 MA's), (27, 32484), (37, 32406),

Gene: Sabia_51 Start: 32483, Stop: 32295, Start Num: 23

Candidate Starts for Sabia_51:

(Start: 23 @32483 has 79 MA's), (27, 32447), (37, 32369),

Gene: Sabinator_50 Start: 32488, Stop: 32300, Start Num: 23

Candidate Starts for Sabinator_50:

(Start: 23 @32488 has 79 MA's), (27, 32452), (37, 32374),

Gene: Salz_47 Start: 31437, Stop: 31225, Start Num: 21

Candidate Starts for Salz_47:

(Start: 21 @31437 has 195 MA's), (31, 31374),

Gene: Scherzo_48 Start: 32556, Stop: 32344, Start Num: 21

Candidate Starts for Scherzo_48:

(4, 32814), (5, 32808), (11, 32676), (12, 32664), (Start: 21 @32556 has 195 MA's), (31, 32499), (32, 32496), (41, 32406),

Gene: SemperFi_49 Start: 32571, Stop: 32362, Start Num: 21

Candidate Starts for SemperFi_49:

(11, 32685), (12, 32673), (Start: 21 @32571 has 195 MA's), (41, 32415),

Gene: Serenity_48 Start: 31452, Stop: 31246, Start Num: 21

Candidate Starts for Serenity_48:

(9, 31605), (Start: 21 @31452 has 195 MA's), (Start: 25 @31431 has 1 MA's), (41, 31296),

Gene: Sham4_48 Start: 31465, Stop: 31253, Start Num: 21

Candidate Starts for Sham4_48:

(Start: 21 @31465 has 195 MA's), (31, 31402),

Gene: SheaKeira_47 Start: 31905, Stop: 31681, Start Num: 21

Candidate Starts for SheaKeira_47:

(3, 32196), (6, 32154), (7, 32124), (14, 32001), (Start: 21 @31905 has 195 MA's), (26, 31884), (31, 31848), (32, 31845), (41, 31755),

Gene: Smeagan_51 Start: 33023, Stop: 32814, Start Num: 21

Candidate Starts for Smeagan_51:

(11, 33137), (12, 33125), (Start: 21 @33023 has 195 MA's), (41, 32867),

Gene: SmellyB_50 Start: 31346, Stop: 31137, Start Num: 21

Candidate Starts for SmellyB_50:

(12, 31454), (Start: 21 @31346 has 195 MA's), (24, 31328), (27, 31304), (41, 31187),

Gene: SnapTap_48 Start: 32382, Stop: 32173, Start Num: 21

Candidate Starts for SnapTap_48:
(11, 32496), (12, 32484), (Start: 21 @32382 has 195 MA's), (41, 32226),

Gene: Snape_48 Start: 31463, Stop: 31251, Start Num: 21
Candidate Starts for Snape_48:
(Start: 21 @31463 has 195 MA's), (31, 31400),

Gene: Snickers_51 Start: 32463, Stop: 32275, Start Num: 23
Candidate Starts for Snickers_51:
(Start: 23 @32463 has 79 MA's), (27, 32427), (37, 32349),

Gene: SoYo_51 Start: 32401, Stop: 32213, Start Num: 23
Candidate Starts for SoYo_51:
(Start: 23 @32401 has 79 MA's), (27, 32365), (37, 32287),

Gene: SoilDragon_51 Start: 31937, Stop: 31749, Start Num: 23
Candidate Starts for SoilDragon_51:
(Start: 23 @31937 has 79 MA's), (27, 31901), (37, 31823),

Gene: SororFago_51 Start: 33958, Stop: 33743, Start Num: 21
Candidate Starts for SororFago_51:
(Start: 21 @33958 has 195 MA's), (34, 33868), (35, 33865), (41, 33799),

Gene: Soshari_53 Start: 32516, Stop: 32328, Start Num: 23
Candidate Starts for Soshari_53:
(Start: 23 @32516 has 79 MA's), (27, 32480), (37, 32402),

Gene: Spike509_51 Start: 32517, Stop: 32329, Start Num: 23
Candidate Starts for Spike509_51:
(Start: 23 @32517 has 79 MA's), (27, 32481), (37, 32403),

Gene: Spouty_46 Start: 32384, Stop: 32172, Start Num: 21
Candidate Starts for Spouty_46:
(4, 32642), (5, 32636), (11, 32504), (12, 32492), (Start: 21 @32384 has 195 MA's), (31, 32327), (32, 32324), (41, 32234),

Gene: Stagni_51 Start: 32492, Stop: 32304, Start Num: 23
Candidate Starts for Stagni_51:
(Start: 23 @32492 has 79 MA's), (27, 32456), (37, 32378),

Gene: StarStuff_50 Start: 32115, Stop: 31909, Start Num: 21
Candidate Starts for StarStuff_50:
(Start: 21 @32115 has 195 MA's), (29, 32067), (41, 31956),

Gene: Steamy_44 Start: 31813, Stop: 31595, Start Num: 21
Candidate Starts for Steamy_44:
(Start: 21 @31813 has 195 MA's), (Start: 25 @31792 has 1 MA's), (29, 31765), (34, 31723), (35, 31720),

Gene: StepMih_51 Start: 32483, Stop: 32295, Start Num: 23
Candidate Starts for StepMih_51:
(Start: 23 @32483 has 79 MA's), (27, 32447), (37, 32369),

Gene: SuperAwesome_50 Start: 31357, Stop: 31148, Start Num: 21
Candidate Starts for SuperAwesome_50:
(12, 31465), (Start: 21 @31357 has 195 MA's), (24, 31339), (27, 31315), (41, 31198),

Gene: SuperCallie99_49 Start: 31230, Stop: 31021, Start Num: 21
Candidate Starts for SuperCallie99_49:
(12, 31338), (Start: 21 @31230 has 195 MA's), (24, 31212), (27, 31188), (41, 31071),

Gene: Superchunk_47 Start: 30926, Stop: 30723, Start Num: 21
Candidate Starts for Superchunk_47:
(Start: 21 @30926 has 195 MA's), (24, 30908), (28, 30884), (41, 30770),

Gene: SweetiePie_48 Start: 32511, Stop: 32302, Start Num: 21
Candidate Starts for SweetiePie_48:
(11, 32625), (12, 32613), (Start: 21 @32511 has 195 MA's), (41, 32355),

Gene: SwirlSquare_53 Start: 31593, Stop: 31390, Start Num: 21
Candidate Starts for SwirlSquare_53:
(12, 31701), (14, 31689), (Start: 21 @31593 has 195 MA's), (31, 31530), (32, 31527), (41, 31437),

Gene: TarsusIV_46 Start: 32170, Stop: 31961, Start Num: 21
Candidate Starts for TarsusIV_46:
(19, 32188), (Start: 21 @32170 has 195 MA's), (24, 32152), (41, 32014), (45, 31987),

Gene: Taurus_52 Start: 32489, Stop: 32301, Start Num: 23
Candidate Starts for Taurus_52:
(Start: 23 @32489 has 79 MA's), (27, 32453), (37, 32375),

Gene: Tiffany_51 Start: 32375, Stop: 32187, Start Num: 23
Candidate Starts for Tiffany_51:
(Start: 23 @32375 has 79 MA's), (27, 32339), (37, 32261),

Gene: Timothy_48 Start: 31440, Stop: 31228, Start Num: 21
Candidate Starts for Timothy_48:
(Start: 21 @31440 has 195 MA's), (31, 31377),

Gene: TinyTimmy_47 Start: 31483, Stop: 31271, Start Num: 21
Candidate Starts for TinyTimmy_47:
(Start: 21 @31483 has 195 MA's), (31, 31420),

Gene: Toaka_47 Start: 31887, Stop: 31669, Start Num: 21
Candidate Starts for Toaka_47:
(2, 32235), (20, 31899), (Start: 21 @31887 has 195 MA's), (31, 31827), (32, 31824), (41, 31734),

Gene: Tomathan_50 Start: 32112, Stop: 31906, Start Num: 21
Candidate Starts for Tomathan_50:
(Start: 21 @32112 has 195 MA's), (29, 32064), (41, 31953),

Gene: ToneTone_47 Start: 31070, Stop: 30864, Start Num: 21
Candidate Starts for ToneTone_47:
(12, 31178), (Start: 21 @31070 has 195 MA's), (27, 31031), (30, 31022), (31, 31007), (41, 30914),

Gene: Trixie_46 Start: 32430, Stop: 32230, Start Num: 21

Candidate Starts for Trixie_46:

(Start: 21 @32430 has 195 MA's), (24, 32412), (30, 32382), (33, 32346), (41, 32274),

Gene: Trooper_49 Start: 32735, Stop: 32523, Start Num: 21

Candidate Starts for Trooper_49:

(12, 32837), (14, 32825), (Start: 21 @32735 has 195 MA's), (34, 32648), (41, 32579),

Gene: Tubs_48 Start: 32318, Stop: 32106, Start Num: 21

Candidate Starts for Tubs_48:

(4, 32576), (5, 32570), (11, 32438), (12, 32426), (Start: 21 @32318 has 195 MA's), (31, 32261), (32, 32258), (41, 32168),

Gene: Tucker_50 Start: 30957, Stop: 30751, Start Num: 21

Candidate Starts for Tucker_50:

(12, 31065), (Start: 21 @30957 has 195 MA's), (30, 30909), (41, 30801),

Gene: Turbido_49 Start: 32766, Stop: 32557, Start Num: 21

Candidate Starts for Turbido_49:

(11, 32880), (12, 32868), (Start: 21 @32766 has 195 MA's), (31, 32703), (41, 32610),

Gene: Ugenie5_45 Start: 32555, Stop: 32343, Start Num: 21

Candidate Starts for Ugenie5_45:

(4, 32813), (5, 32807), (11, 32675), (12, 32663), (Start: 21 @32555 has 195 MA's), (31, 32498), (32, 32495), (41, 32405),

Gene: Updawg_49 Start: 32631, Stop: 32419, Start Num: 21

Candidate Starts for Updawg_49:

(12, 32733), (14, 32721), (Start: 21 @32631 has 195 MA's), (41, 32475),

Gene: VA6_48 Start: 32486, Stop: 32277, Start Num: 21

Candidate Starts for VA6_48:

(1, 32870), (10, 32606), (Start: 21 @32486 has 195 MA's), (41, 32330),

Gene: VC3_51 Start: 32552, Stop: 32346, Start Num: 21

Candidate Starts for VC3_51:

(Start: 21 @32552 has 195 MA's), (32, 32483), (34, 32462), (41, 32393), (45, 32369),

Gene: Vanisoa_47 Start: 32916, Stop: 32698, Start Num: 21

Candidate Starts for Vanisoa_47:

(15, 33006), (20, 32925), (Start: 21 @32916 has 195 MA's), (31, 32856), (32, 32853), (41, 32763),

Gene: Vix_51 Start: 32572, Stop: 32384, Start Num: 23

Candidate Starts for Vix_51:

(Start: 23 @32572 has 79 MA's), (27, 32536), (37, 32458),

Gene: VohminGhazi_50 Start: 31347, Stop: 31138, Start Num: 21

Candidate Starts for VohminGhazi_50:

(12, 31455), (Start: 21 @31347 has 195 MA's), (24, 31329), (27, 31305), (41, 31188),

Gene: Watson_51 Start: 32481, Stop: 32293, Start Num: 23

Candidate Starts for Watson_51:

(Start: 23 @32481 has 79 MA's), (27, 32445), (37, 32367),

Gene: Whabigail7_49 Start: 32751, Stop: 32542, Start Num: 21
Candidate Starts for Whabigail7_49:
(11, 32865), (12, 32853), (Start: 21 @32751 has 195 MA's), (41, 32595),

Gene: WideWale_49 Start: 32631, Stop: 32419, Start Num: 21
Candidate Starts for WideWale_49:
(12, 32733), (14, 32721), (Start: 21 @32631 has 195 MA's), (41, 32475),

Gene: Wiks_49 Start: 31138, Stop: 30932, Start Num: 21
Candidate Starts for Wiks_49:
(12, 31246), (Start: 21 @31138 has 195 MA's), (27, 31099), (30, 31090), (31, 31075), (41, 30982),

Gene: Wooldri_53 Start: 32401, Stop: 32213, Start Num: 23
Candidate Starts for Wooldri_53:
(Start: 23 @32401 has 79 MA's), (27, 32365), (37, 32287),

Gene: WunderPhul_50 Start: 31136, Stop: 30930, Start Num: 21
Candidate Starts for WunderPhul_50:
(12, 31244), (Start: 21 @31136 has 195 MA's), (27, 31097), (30, 31088), (31, 31073), (41, 30980),

Gene: XianYue_47 Start: 32071, Stop: 31886, Start Num: 25
Candidate Starts for XianYue_47:
(Start: 21 @32092 has 195 MA's), (Start: 25 @32071 has 1 MA's), (27, 32053), (28, 32050), (30, 32044), (41, 31936),

Gene: Yecey3_49 Start: 31785, Stop: 31579, Start Num: 21
Candidate Starts for Yecey3_49:
(11, 31905), (12, 31893), (Start: 21 @31785 has 195 MA's), (31, 31725), (41, 31632),

Gene: Yokurt_50 Start: 31138, Stop: 30932, Start Num: 21
Candidate Starts for Yokurt_50:
(12, 31246), (Start: 21 @31138 has 195 MA's), (27, 31099), (30, 31090), (31, 31075), (41, 30982),

Gene: Zaka_50 Start: 31138, Stop: 30932, Start Num: 21
Candidate Starts for Zaka_50:
(12, 31246), (Start: 21 @31138 has 195 MA's), (27, 31099), (30, 31090), (31, 31075), (41, 30982),

Gene: Zetzy_50 Start: 32052, Stop: 31864, Start Num: 23
Candidate Starts for Zetzy_50:
(Start: 23 @32052 has 79 MA's), (27, 32016), (37, 31938),

Gene: Zimmer_45 Start: 33020, Stop: 32820, Start Num: 21
Candidate Starts for Zimmer_45:
(12, 33128), (16, 33083), (Start: 21 @33020 has 195 MA's), (26, 32993), (28, 32978), (31, 32957), (41, 32864),

Gene: Zulu_50 Start: 30938, Stop: 30732, Start Num: 21
Candidate Starts for Zulu_50:
(12, 31046), (Start: 21 @30938 has 195 MA's), (30, 30890), (41, 30782),