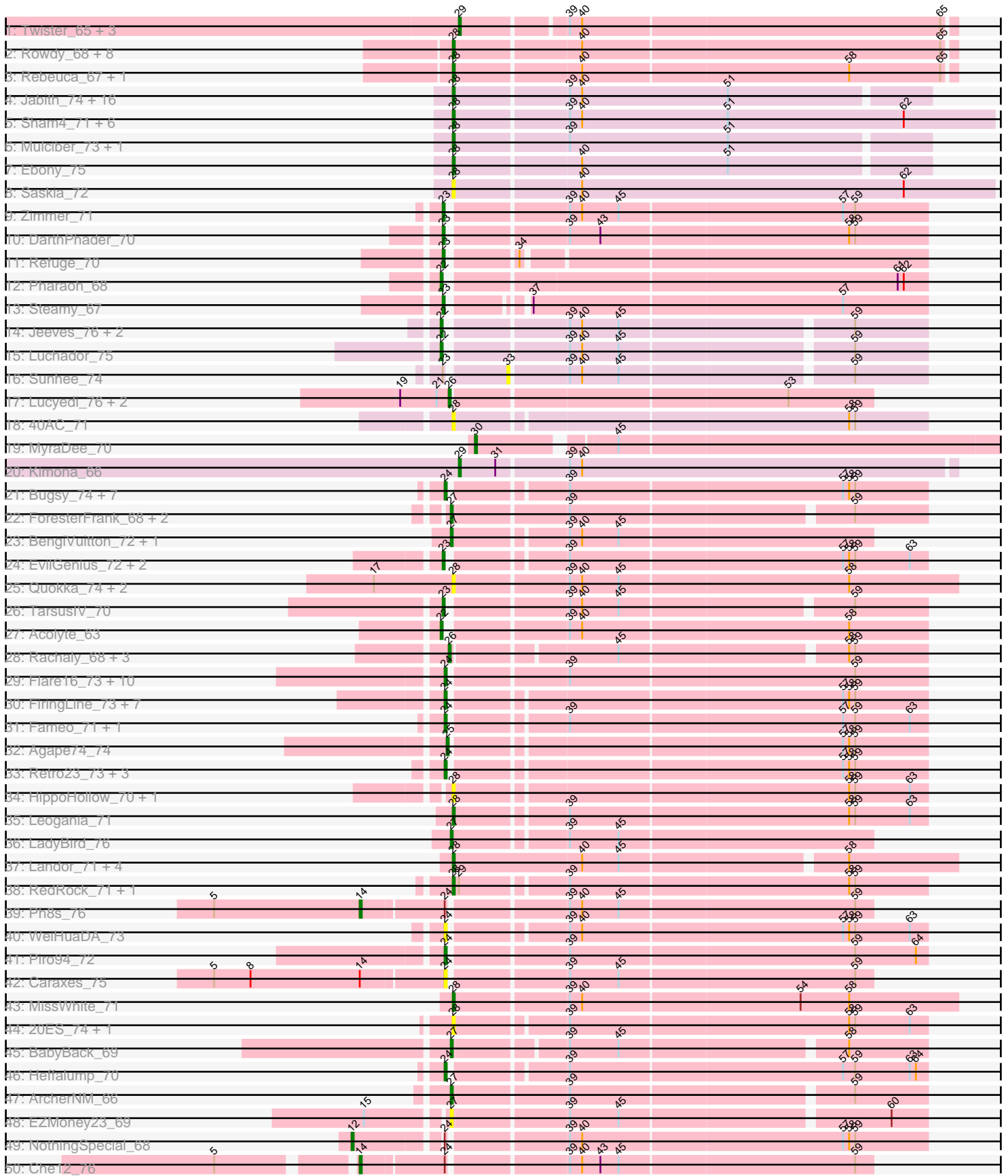


Pham 294377



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 294377 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294377 has 297 members, 60 are drafts.

Phages represented in each track:

- Track 1 : Twister_65, Edison31_63, Topanga_63, WalterMcMickey_65
- Track 2 : Rowdy_68, Severus_64, DustyMartin_68, Poompha_63, KittenMittens_63, PeaceMeal1_64, Shapes_68, Trike_63, Drake94_64
- Track 3 : Rebeuca_67, Kristoff_65
- Track 4 : Jabith_74, Wolpertinger_73, Aneem_76, Mabel_75, Orange_74, MaCh_75, Et2Brutus_74, Flaverint_76, Bowtie_76, Timothy_75, TinyTimmy_73, Joselito_74, Lucivia_76, Insomnia_74, Fibonacci_74, Munch_75, Kimba_72
- Track 5 : Sham4_71, Gilberta_72, Salz_70, Bud_70, Hutc2_70, Bachome_73, Petersenfast_69
- Track 6 : Mulciber_73, Snape_75
- Track 7 : Ebony_75
- Track 8 : Saskia_72
- Track 9 : Zimmer_71
- Track 10 : DarthPhader_70
- Track 11 : Refuge_70
- Track 12 : Pharaoh_68
- Track 13 : Steamy_67
- Track 14 : Jeeves_76, SororFago_74, Gail_74
- Track 15 : Luchador_75
- Track 16 : Sunhee_74
- Track 17 : Lucyedi_76, PainterBoy_75, EagleEye_77
- Track 18 : 40AC_71
- Track 19 : MyraDee_70
- Track 20 : Kimona_66
- Track 21 : Buggy_74, Dignity_74, Jerm_74, Leviathan_74, Smeagan_75, LilTurb_73, Turbido_73, Whabigail7_73
- Track 22 : ForesterFrank_68, Changeling_71, NicoleTera_70
- Track 23 : BengiVuitton_72, Deloris_72
- Track 24 : EvilGenius_72, ChipMunk_73, KingCyrus_72
- Track 25 : Quokka_74, Bradman_75, MajorMajor_74
- Track 26 : TarsusIV_70
- Track 27 : Acolyte_63
- Track 28 : Rachaly_68, BobSwaget_65, Miko_66, Lokk_66
- Track 29 : Flare16_73, Gratitude_70, Centaur_73, Baehexic_71, WideWale_73, NaSiaTalie_73, Updawg_73, Terrific_73, Sknot_73, MiculUcigas_73, Equemioh13_72
- Track 30 : FiringLine_73, Power_72, SnapTap_72, Georgie2_74, SemperFi_73, Crucio_73, SweetiePie_72, QueenBeesly_73

- Track 31 : Fameo_71, QueenB2_70
- Track 32 : Agape74_74
- Track 33 : Retro23_73, Dalmatian_73, DudeLittle_71, Anselm_74
- Track 34 : HippoHollow_70, LionsBait_72
- Track 35 : Leogania_71
- Track 36 : LadyBird_76
- Track 37 : Landor_71, IronMan_70, Phaded_68, Tristan_69, Jaan_71
- Track 38 : RedRock_71, AnnaL29_72
- Track 39 : Ph8s_76
- Track 40 : WeiHuaDA_73
- Track 41 : Piro94_72
- Track 42 : Caraxes_75
- Track 43 : MissWhite_71
- Track 44 : 20ES_74, First_0073
- Track 45 : BabyBack_69
- Track 46 : Heffalump_70
- Track 47 : ArcherNM_66
- Track 48 : EZMoney23_69
- Track 49 : NothingSpecial_68
- Track 50 : Che12_76
- Track 51 : Adzzy_76
- Track 52 : JoshKayV_73
- Track 53 : CRB1_74, HarryHoudini_73
- Track 54 : SwirlSquare_78
- Track 55 : Echild_73, Benvolio_70
- Track 56 : BiancaTri92_71
- Track 57 : Loser_74
- Track 58 : GaugeLDP_68
- Track 59 : Kalpine_72
- Track 60 : Odin_73
- Track 61 : Trooper_72
- Track 62 : Trixie_72
- Track 63 : Prudy_66
- Track 64 : XianYue_68
- Track 65 : Drake55_74
- Track 66 : Superchunk_74
- Track 67 : Pukovnik_69
- Track 68 : Colin_72
- Track 69 : Malec_70, Larenn_69
- Track 70 : Anthony_69
- Track 71 : FatCactus_67
- Track 72 : Kinmap_75
- Track 73 : BuzzBuzz_68, Louie6_73, Misomonster_75, TinyPebbles_73
- Track 74 : Grub_72, Lilith_72, Marie_72, Grif_72, Ollie_74, BreSam8_74, SoilDragon_73, Penny1_74, GtownJaz_74, Stagni_71, Beauxregard13_73, HashRod_75, Bxz2_69, Aglet_75, Gwennie_69, Pembroke_74, Fernando_74, Sabinator_72, Dieselweasel_74, EpicPhail_75, MadMarie_72, AgronaGT15_71, Montavir_69, Watson_73, LarryKay_74, PGHhamlin_76, MuchMore_77, Croquant_71, Lowa_71, Malinsilva_76, Bigflo_71, Snickers_74, AugsMagnumOpus_77, SoYo_71
- Track 75 : JenCasNa_75, Methuselah_67, Mainiac_73, Cullens_74, Colbster_70, Soshari_76, Hercules11_74, Sabia_72, LugYA_77, Microwolf_70, Taurus_75, MarQuardt_74, PotatoSplit_75, Vix_70, MoneyMay_73, Farber_74, Phoxy_74,

Wooldri_76, Tiffany_73, Anubis_77, Jobu08_70, LBerry_75, DaHudson_73,
 JHC117_70, Rummer_73, Spike509_74, P28Green_74, GingkoMaracino_74,
 Phoebe_75, Grum1_73
 • Track 76 : KADY_71
 • Track 77 : Daishi_73
 • Track 78 : Kalb97_74, Groupthink_74
 • Track 79 : Zetzy_71
 • Track 80 : Blinn1_78
 • Track 81 : Phonnegut_74, Conquerage_72, PackMan_73, Alma_72, Priya_72,
 Horex_72, Myxus_74, Tubs_74, Ayanochan_72, Qobbit_72, ExplosioNervosa_72,
 HortumSL17_75, Catalina_76, Beemo_74, Phaeder_74, Jiawan_71, Spouty_72,
 EdogawaKiddo_72, Aliter_75, Sachima_70, Pioneer_74, Lillekat_71, Ugenie5_69,
 Hanray_72, RyeScarlet_75, Scherzo_73, EmyBug_71, Onglai_72, Eidsmoe_72
 • Track 82 : Fayely_72
 • Track 83 : Bellris_72, CogOmlette_72, Minispark_72, Rahalelujah_74
 • Track 84 : SheaKeira_68
 • Track 85 : WorldCup_72
 • Track 86 : Keziacharles14_71
 • Track 87 : Darrell_75
 • Track 88 : Yecey3_76
 • Track 89 : LoneWolf_75
 • Track 90 : Alok_78, Chidiebere_83, Farrylous_80, Kabocha_84, MintFritos_79,
 Gray_83, Mikronejon_79, Argena_80, Amoonguss_80, Oogie_82, Toneprano_80,
 Beted_83, Pakusa_79, Twin_78, Lenoshki_83, Schomber_81, EmoNemo_78,
 Hanem_82
 • Track 91 : GMA6_66
 • Track 92 : FruityLoops_83, UBSmoodge_86
 • Track 93 : FlyingTortilla_84
 • Track 94 : ChisanaKitsune_80
 • Track 95 : ScarletRaider_83

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

The start number called the most often in the published annotations is 28, it was called in 47 of the 237 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• 20ES_74, 40AC_71, Aneem_76, AnnaL29_72, Bachome_73, BiancaTri92_71,
 Bowtie_76, Bradman_75, Bud_70, Drake94_64, DustyMartin_68, Ebony_75,
 Et2Brutus_74, Fibonacci_74, First_0073, Flaverint_76, Gilberta_72, HippoHollow_70,
 Hutc2_70, Insomnia_74, IronMan_70, Jaan_71, Jabith_74, Joselito_74, Kimba_72,
 Kinmap_75, KittenMittens_63, Kristoff_65, Landor_71, Larenn_69, Leogania_71,
 LionsBait_72, LoneWolf_75, Loser_74, Lucivia_76, MaCh_75, Mabel_75,
 MajorMajor_74, Malec_70, MissWhite_71, Mulciber_73, Munch_75, Orange_74,
 PeaceMeal1_64, Petersenfast_69, Phaded_68, Poompha_63, Prudy_66, Quokka_74,
 Rebeuca_67, RedRock_71, Rowdy_68, Salz_70, Saskia_72, Severus_64,
 Sham4_71, Shapes_68, Snape_75, Timothy_75, TinyTimmy_73, Trike_63,
 Tristan_69, Trooper_72, Wolpertinger_73,

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

•

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

- Acolyte_63, Adzzy_76, Agape74_74, Aglet_75, AgronaGT15_71, Aliter_75, Alma_72, Alok_i_78, Amoonguss_80, Anselm_74, Anthony_69, Anubis_77, ArcherNM_66, Argena_80, AugsMagnumOpus_77, Ayanochan_72, BabyBack_69, Baehexic_71, Beauxregard13_73, Beemo_74, Bellris_72, BengiVuitton_72, Benvolio_70, Beted_83, Bigflo_71, Blinn1_78, BobSwaget_65, BreSam8_74, Buggy_74, BuzzBuzz_68, Bxz2_69, CRB1_74, Caraxes_75, Catalina_76, Centaur_73, Changeling_71, Che12_76, Chidiebere_83, ChipMunk_73, ChisanaKitsune_80, CogOmlette_72, Colbster_70, Colin_72, Conquerage_72, Croquant_71, Crucio_73, Cullens_74, DaHudson_73, Daishi_73, Dalmatian_73, Darrell_75, DARTHPhader_70, Deloris_72, Dieselweasel_74, Dignity_74, Drake55_74, DudeLittle_71, EZMoney23_69, EagleEye_77, Echild_73, Edison31_63, EdogawaKiddo_72, Eidsmoe_72, EmoNemo_78, EmyBug_71, EpicPhail_75, Equemioh13_72, EvilGenius_72, ExplosioNervosa_72, Fameo_71, Farber_74, Farrylious_80, FatCactus_67, Fayely_72, Fernando_74, FiringLine_73, Flare16_73, FlyingTortilla_84, ForesterFrank_68, FruityLoops_83, GMA6_66, Gail_74, GaugeLDP_68, Georgie2_74, GingkoMaracino_74, Gratitude_70, Gray_83, Grif_72, Groupthink_74, Grub_72, Grum1_73, GtownJaz_74, Gwennie_69, Hanem_82, Hanray_72, HarryHoudini_73, HashRod_75, Heffalump_70, Hercules11_74, Horex_72, HortumSL17_75, JHC117_70, Jeeves_76, JenCasNa_75, Jerm_74, Jiawan_71, Jobu08_70, JoshKayV_73, KADY_71, Kabocha_84, Kalb97_74, Kalpine_72, Keziacharles14_71, Kimona_66, KingCyrus_72, LBerry_75, LadyBird_76, LarryKay_74, Lenoshki_83, Leviathan_74, LilTurb_73, Lilith_72, Lilleskat_71, Lökk_66, Louie6_73, Iowa_71, Luchador_75, Lucyedi_76, LugYA_77, MadMarie_72, Mainiac_73, Malinsilva_76, MarQuardt_74, Marie_72, Methuselah_67, Microwolf_70, MiculUcigas_73, Miko_66, Mikronejon_79, Minispark_72, MintFritos_79, Misomonster_75, MoneyMay_73, Montavir_69, MuchMore_77, MyraDee_70, Myxus_74, NaSiaTalie_73, NicoleTera_70, NothingSpecial_68, Odin_73, Ollie_74, Onglai_72, Oogie_82, P28Green_74, PGHhamlin_76, PackMan_73, PainterBoy_75, Pakusa_79, Pembroke_74, Penny1_74, Ph8s_76, Phaeder_74, Pharaoh_68, Phoebe_75, Phonnegut_74, Phoxy_74, Pioneer_74, Piro94_72, PotatoSplit_75, Power_72, Priya_72, Pukovnik_69, Qobbit_72, QueenB2_70, QueenBeesly_73, Rachaly_68, Rahalelujah_74, Refuge_70, Retro23_73, Rummer_73, RyeScarlet_75, Sabia_72, Sabinator_72, Sachima_70, ScarletRaider_83, Scherzo_73, Schomber_81, SemperFi_73, SheaKeira_68, Sknot_73, Smeagan_75, SnapTap_72, Snickers_74, SoYo_71, SoilDragon_73, SororFago_74, Soshari_76, Spike509_74, Spouty_72, Stagni_71, Steamy_67, Sunhee_74, Superchunk_74, SweetiePie_72, SwirlSquare_78, TarsusIV_70, Taurus_75, Terrific_73, Tiffany_73, TinyPebbles_73, Toneprano_80, Topanga_63, Trixie_72, Tubs_74, Turbido_73, Twin_78, Twister_65, UBSmoodge_86, Ugenie5_69, Updawg_73, Vix_70, WalterMcMickey_65, Watson_73, WeiHuaDA_73, Whabigail7_73, WideWale_73, Wooldri_76, WorldCup_72, XianYue_68, Yecy3_76, Zetty_71, Zimmer_71,

Summary by start number:

Start 12:

- Found in 1 of 297 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NothingSpecial_68 (A2),

Start 14:

- Found in 6 of 297 (2.0%) of genes in pham
- Manual Annotations of this start: 4 of 237
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Adzzy_76 (A2), Che12_76 (A2), Ph8s_76 (A2), Superchunk_74 (A2),

Start 15:

- Found in 2 of 297 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Blinn1_78 (A6),

Start 18:

- Found in 1 of 297 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darrell_75 (A9),

Start 20:

- Found in 5 of 297 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bellris_72 (A9), CogOmlette_72 (A9), Minispark_72 (A9), Rahalelujah_74 (A9), WorldCup_72 (A9),

Start 22:

- Found in 9 of 297 (3.0%) of genes in pham
- Manual Annotations of this start: 8 of 237
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Acolyte_63 (A2), Benvolio_70 (A2), Echild_73 (A2), Gail_74 (A14), Jeeves_76 (A14), Luchador_75 (A14), Pharaoh_68 (A12), SororFago_74 (A14),

Start 23:

- Found in 9 of 297 (3.0%) of genes in pham
- Manual Annotations of this start: 8 of 237
- Called 88.9% of time when present
- Phage (with cluster) where this start called: ChipMunk_73 (A2), DarthPhader_70 (A12), EvilGenius_72 (A2), KingCyrus_72 (A2), Refuge_70 (A12), Steamy_67 (A12), TarsusIV_70 (A2), Zimmer_71 (A12),

Start 24:

- Found in 45 of 297 (15.2%) of genes in pham
- Manual Annotations of this start: 36 of 237
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Anselm_74 (A2), Baehexic_71 (A2), Buggy_74 (A2), Caraxes_75 (A2), Centaur_73 (A2), Crucio_73 (A2), Dalmatian_73 (A2), Dignity_74 (A2), DudeLittle_71 (A2), Equemioh13_72 (A2), Fameo_71 (A2), FiringLine_73 (A2), Flare16_73 (A2), Georgie2_74 (A2), Gratitude_70 (A2), Heffalump_70 (A2), Jerm_74 (A2), Leviathan_74 (A2), LilTurb_73 (A2), MiculUcigas_73 (A2), NaSiaTalie_73 (A2), Odin_73 (A2), Piro94_72 (A2), Power_72

(A2), Pukovnik_69 (A2), QueenB2_70 (A2), QueenBeesly_73 (A2), Retro23_73 (A2), SemperFi_73 (A2), Sknot_73 (A2), Smeagan_75 (A2), SnapTap_72 (A2), SweetiePie_72 (A2), SwirlSquare_78 (A2), Terrific_73 (A2), Turbido_73 (A2), Updawg_73 (A2), WeiHuaDA_73 (A2), Whabigail7_73 (A2), WideWale_73 (A2),

Start 25:

- Found in 3 of 297 (1.0%) of genes in pham
- Manual Annotations of this start: 3 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agape74_74 (A2), Anthony_69 (A20), XianYue_68 (A2),

Start 26:

- Found in 11 of 297 (3.7%) of genes in pham
- Manual Annotations of this start: 10 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobSwaget_65 (A2), CRB1_74 (A2), Drake55_74 (A2), EagleEye_77 (A16), HarryHoudini_73 (A2), JoshKayV_73 (A2), Lokk_66 (A2), Lucyedi_76 (A16), Miko_66 (A2), PainterBoy_75 (A16), Rachaly_68 (A2),

Start 27:

- Found in 46 of 297 (15.5%) of genes in pham
- Manual Annotations of this start: 34 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_75 (A9), Alma_72 (A9), ArcherNM_66 (A2), Ayanochan_72 (A9), BabyBack_69 (A2), Beemo_74 (A9), BengiVuitton_72 (A2), Catalina_76 (A9), Changeling_71 (A2), Colin_72 (A2), Conquerage_72 (A9), Deloris_72 (A2), EZMoney23_69 (A2), EdogawaKiddo_72 (A9), Eidsmoe_72 (A9), EmyBug_71 (A9), ExplosioNervosa_72 (A9), Fayely_72 (A9), ForesterFrank_68 (A2), GaugeLDP_68 (A2), Hanray_72 (A9), Halex_72 (A9), HortumSL17_75 (A9), Jiawan_71 (A9), Kalpine_72 (A2), Keziacharles14_71 (A9), LadyBird_76 (A2), Lilleskat_71 (A9), Myxus_74 (A9), NicoleTera_70 (A2), Onglai_72 (A9), PackMan_73 (A9), Phaeder_74 (A9), Phonnegut_74 (A9), Pioneer_74 (A9), Priya_72 (A9), Qobbit_72 (A9), RyeScarlet_75 (A9), Sachima_70 (A9), Scherzo_73 (A9), SheaKeira_68 (A9), Spouty_72 (A9), Trixie_72 (A2), Tubs_74 (A9), Ugenie5_69 (A9), Yecey3_76 (A9),

Start 28:

- Found in 64 of 297 (21.5%) of genes in pham
- Manual Annotations of this start: 47 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 20ES_74 (A2), 40AC_71 (A17), Aneem_76 (A11), AnnaL29_72 (A2), Bachome_73 (A11), BiancaTri92_71 (A2), Bowtie_76 (A11), Bradman_75 (A2), Bud_70 (A11), Drake94_64 (A10), DustyMartin_68 (A10), Ebony_75 (A11), Et2Brutus_74 (A11), Fibonacci_74 (A11), First_0073 (A2), Flaverint_76 (A11), Gilberta_72 (A11), HippoHollow_70 (A2), Hutc2_70 (A11), Insomnia_74 (A11), IronMan_70 (A2), Jaan_71 (A2), Jabith_74 (A11), Joselito_74 (A11), Kimba_72 (A11), Kinmap_75 (A21), KittenMittens_63 (A10), Kristoff_65 (A10), Landor_71 (A2), Larenn_69 (A2), Leogania_71 (A2), LionsBait_72 (A2), LoneWolf_75 (A9), Loser_74 (A2), Lucivia_76 (A11), MaCh_75 (A11), Mabel_75 (A11), MajorMajor_74 (A2), Malec_70 (A2), MissWhite_71 (A2), Mulciber_73 (A11), Munch_75 (A11), Orange_74 (A11), PeaceMeal1_64 (A10), Petersenfast_69 (A11),

Phaded_68 (A2), Poompha_63 (A10), Prudy_66 (A2), Quokka_74 (A2), Rebeuca_67 (A10), RedRock_71 (A2), Rowdy_68 (A10), Salz_70 (A11), Saskia_72 (A11), Severus_64 (A10), Sham4_71 (A11), Shapes_68 (A10), Snape_75 (A11), Timothy_75 (A11), TinyTimmy_73 (A11), Trike_63 (A10), Tristan_69 (A2), Trooper_72 (A2), Wolpertinger_73 (A11),

Start 29:

- Found in 7 of 297 (2.4%) of genes in pham
- Manual Annotations of this start: 5 of 237
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Edison31_63 (A10), Kimona_66 (A19), Topanga_63 (A10), Twister_65 (A10), WalterMcMickey_65 (A10),

Start 30:

- Found in 1 of 297 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee_70 (A18),

Start 31:

- Found in 3 of 297 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 237
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Groupthink_74 (A3), Kalb97_74 (A3),

Start 32:

- Found in 71 of 297 (23.9%) of genes in pham
- Manual Annotations of this start: 35 of 237
- Called 49.3% of time when present
- Phage (with cluster) where this start called: Anubis_77 (A3), BuzzBuzz_68 (A3), Colbster_70 (A3), Cullens_74 (A3), DaHudson_73 (A3), Farber_74 (A3), GingkoMaracino_74 (A3), Grum1_73 (A3), Hercules11_74 (A3), JHC117_70 (A3), JenCasNa_75 (A3), Jobu08_70 (A3), LBerry_75 (A3), Louie6_73 (A3), LugYA_77 (A3), Mainiac_73 (A3), MarQuardt_74 (A3), Methuselah_67 (A3), Microwolf_70 (A3), Misomonster_75 (A3), MoneyMay_73 (A3), P28Green_74 (A3), Phoebe_75 (A3), Phoxy_74 (A3), PotatoSplit_75 (A3), Rummer_73 (A3), Sabia_72 (A3), Soshari_76 (A3), Spike509_74 (A3), Taurus_75 (A3), Tiffany_73 (A3), TinyPebbles_73 (A3), Vix_70 (A3), Wooldri_76 (A3), Zetzy_71 (A3),

Start 33:

- Found in 71 of 297 (23.9%) of genes in pham
- Manual Annotations of this start: 31 of 237
- Called 52.1% of time when present
- Phage (with cluster) where this start called: Aglet_75 (A3), AgronaGT15_71 (A3), AugsMagnumOpus_77 (A3), Beauxregard13_73 (A3), Bigflo_71 (A3), BreSam8_74 (A3), Bxz2_69 (A3), Croquant_71 (A3), Daishi_73 (A3), Dieselweasel_74 (A3), EpicPhail_75 (A3), Fernando_74 (A3), Grif_72 (A3), Grub_72 (A3), GtownJaz_74 (A3), Gwennie_69 (A3), HashRod_75 (A3), KADY_71 (A3), LarryKay_74 (A3), Lilit_72 (A3), Iowa_71 (A3), MadMarie_72 (A3), Malinsilva_76 (A3), Marie_72 (A3), Montavir_69 (A3), MuchMore_77 (A3), Ollie_74 (A3), PGHhamlin_76 (A3), Pembroke_74 (A3), Penny1_74 (A3), Sabinator_72 (A3), Snickers_74 (A3), SoYo_71 (A3), SoilDragon_73 (A3), Stagni_71 (A3), Sunhee_74 (A14), Watson_73 (A3),

Start 35:

- Found in 1 of 297 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FatCactus_67 (A20),

Start 38:

- Found in 24 of 297 (8.1%) of genes in pham
- Manual Annotations of this start: 9 of 237
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alok_i_78 (DQ), Amoonguss_80 (DQ), Argena_80 (DQ), Beted_83 (DQ), Chidiebere_83 (DQ), ChisanaKitsune_80 (DQ), EmoNemo_78 (DQ), Farrylious_80 (DQ), FlyingTortilla_84 (DQ), FruityLoops_83 (DQ), GMA6_66 (DQ), Gray_83 (DQ), Hanem_82 (DQ), Kabocha_84 (DQ), Lenoshki_83 (DQ), Mikronejon_79 (DQ), MintFritos_79 (DQ), Oogie_82 (DQ), Pakusa_79 (DQ), ScarletRaider_83 (DQ), Schomber_81 (DQ), Toneprano_80 (DQ), Twin_78 (DQ), UBSmoodge_86 (DQ),

Summary by clusters:

There are 15 clusters represented in this pham: A20, A21, A17, A16, A11, A10, A12, A19, A18, A3, A2, A6, A9, A14, DQ,

Info for manual annotations of cluster A10:

- Start number 28 was manually annotated 8 times for cluster A10.
- Start number 29 was manually annotated 4 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 28 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 22 was manually annotated 1 time for cluster A12.
- Start number 23 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 22 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A16:

- Start number 26 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 30 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 29 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 1 time for cluster A2.
- Start number 14 was manually annotated 4 times for cluster A2.
- Start number 22 was manually annotated 3 times for cluster A2.
- Start number 23 was manually annotated 4 times for cluster A2.
- Start number 24 was manually annotated 36 times for cluster A2.

- Start number 25 was manually annotated 2 times for cluster A2.
- Start number 26 was manually annotated 7 times for cluster A2.
- Start number 27 was manually annotated 10 times for cluster A2.
- Start number 28 was manually annotated 14 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 25 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 31 was manually annotated 2 times for cluster A3.
- Start number 32 was manually annotated 35 times for cluster A3.
- Start number 33 was manually annotated 31 times for cluster A3.

Info for manual annotations of cluster A6:

- Start number 15 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster A9:

- Start number 18 was manually annotated 1 time for cluster A9.
- Start number 20 was manually annotated 1 time for cluster A9.
- Start number 27 was manually annotated 24 times for cluster A9.
- Start number 28 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster DQ:

- Start number 38 was manually annotated 9 times for cluster DQ.

Gene Information:

Gene: 20ES_74 Start: 43517, Stop: 43293, Start Num: 28

Candidate Starts for 20ES_74:

(Start: 28 @43517 has 47 MA's), (39, 43466), (58, 43331), (59, 43328), (63, 43301),

Gene: 40AC_71 Start: 44020, Stop: 43796, Start Num: 28

Candidate Starts for 40AC_71:

(Start: 28 @44020 has 47 MA's), (58, 43834), (59, 43831),

Gene: Acolyte_63 Start: 41528, Stop: 41301, Start Num: 22

Candidate Starts for Acolyte_63:

(Start: 22 @41528 has 8 MA's), (39, 41474), (40, 41468), (58, 41339),

Gene: Adzzy_76 Start: 42404, Stop: 42165, Start Num: 14

Candidate Starts for Adzzy_76:

(5, 42464), (Start: 14 @42404 has 4 MA's), (Start: 24 @42365 has 36 MA's), (39, 42311), (40, 42305), (45, 42287), (59, 42173),

Gene: Agape74_74 Start: 43761, Stop: 43537, Start Num: 25

Candidate Starts for Agape74_74:

(Start: 25 @43761 has 3 MA's), (57, 43578), (58, 43575), (59, 43572),

Gene: Aglet_75 Start: 42842, Stop: 42630, Start Num: 33

Candidate Starts for Aglet_75:

(Start: 32 @42845 has 35 MA's), (Start: 33 @42842 has 31 MA's), (40, 42809), (58, 42680), (65, 42635),

Gene: AgronaGT15_71 Start: 42690, Stop: 42478, Start Num: 33

Candidate Starts for AgronaGT15_71:

(Start: 32 @42693 has 35 MA's), (Start: 33 @42690 has 31 MA's), (40, 42657), (58, 42528), (65, 42483),

Gene: Aliter_75 Start: 42851, Stop: 42633, Start Num: 27

Candidate Starts for Aliter_75:

(Start: 27 @42851 has 34 MA's), (40, 42794), (45, 42776),

Gene: Alma_72 Start: 42828, Stop: 42610, Start Num: 27

Candidate Starts for Alma_72:

(Start: 27 @42828 has 34 MA's), (40, 42771), (45, 42753),

Gene: Alok_i_78 Start: 63735, Stop: 63947, Start Num: 38

Candidate Starts for Alok_i_78:

(Start: 38 @63735 has 9 MA's), (55, 63849),

Gene: Amoonguss_80 Start: 63690, Stop: 63902, Start Num: 38

Candidate Starts for Amoonguss_80:

(Start: 38 @63690 has 9 MA's), (55, 63804),

Gene: Aneem_76 Start: 43515, Stop: 43288, Start Num: 28

Candidate Starts for Aneem_76:

(Start: 28 @43515 has 47 MA's), (39, 43461), (40, 43455), (51, 43383),

Gene: AnnaL29_72 Start: 43717, Stop: 43493, Start Num: 28

Candidate Starts for AnnaL29_72:

(Start: 28 @43717 has 47 MA's), (Start: 29 @43714 has 5 MA's), (39, 43666), (58, 43531), (59, 43528),

Gene: Anselm_74 Start: 43911, Stop: 43687, Start Num: 24

Candidate Starts for Anselm_74:

(Start: 24 @43911 has 36 MA's), (57, 43728), (58, 43725), (59, 43722),

Gene: Anthony_69 Start: 41982, Stop: 41797, Start Num: 25

Candidate Starts for Anthony_69:

(Start: 22 @41985 has 8 MA's), (Start: 25 @41982 has 3 MA's), (49, 41889), (59, 41805),

Gene: Anubis_77 Start: 42731, Stop: 42516, Start Num: 32

Candidate Starts for Anubis_77:

(Start: 32 @42731 has 35 MA's), (Start: 33 @42728 has 31 MA's), (40, 42695), (58, 42566), (65, 42521),

Gene: ArcherNM_66 Start: 42985, Stop: 42764, Start Num: 27

Candidate Starts for ArcherNM_66:

(Start: 27 @42985 has 34 MA's), (39, 42931), (59, 42799),

Gene: Argena_80 Start: 63702, Stop: 63914, Start Num: 38

Candidate Starts for Argena_80:

(Start: 38 @63702 has 9 MA's), (55, 63816),

Gene: AugsMagnumOpus_77 Start: 42833, Stop: 42621, Start Num: 33
Candidate Starts for AugsMagnumOpus_77:
(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: Ayanochan_72 Start: 42614, Stop: 42396, Start Num: 27
Candidate Starts for Ayanochan_72:
(Start: 27 @42614 has 34 MA's), (40, 42557), (45, 42539),

Gene: BabyBack_69 Start: 43490, Stop: 43272, Start Num: 27
Candidate Starts for BabyBack_69:
(Start: 27 @43490 has 34 MA's), (39, 43439), (45, 43415), (58, 43310),

Gene: Bachome_73 Start: 42394, Stop: 42131, Start Num: 28
Candidate Starts for Bachome_73:
(Start: 28 @42394 has 47 MA's), (39, 42340), (40, 42334), (51, 42262), (62, 42175),

Gene: Baehexic_71 Start: 43242, Stop: 43015, Start Num: 24
Candidate Starts for Baehexic_71:
(Start: 24 @43242 has 36 MA's), (39, 43188), (59, 43050),

Gene: Beauxregard13_73 Start: 42845, Stop: 42633, Start Num: 33
Candidate Starts for Beauxregard13_73:
(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Beemo_74 Start: 42869, Stop: 42651, Start Num: 27
Candidate Starts for Beemo_74:
(Start: 27 @42869 has 34 MA's), (40, 42812), (45, 42794),

Gene: Bellris_72 Start: 42751, Stop: 42518, Start Num: 20
Candidate Starts for Bellris_72:
(11, 42790), (Start: 20 @42751 has 1 MA's), (40, 42679), (45, 42661),

Gene: BengiVuitton_72 Start: 43467, Stop: 43270, Start Num: 27
Candidate Starts for BengiVuitton_72:
(Start: 27 @43467 has 34 MA's), (39, 43416), (40, 43410), (45, 43392),

Gene: Benvolio_70 Start: 43151, Stop: 42927, Start Num: 22
Candidate Starts for Benvolio_70:
(Start: 22 @43151 has 8 MA's), (39, 43100), (57, 42968), (58, 42965), (59, 42962),

Gene: Beted_83 Start: 65841, Stop: 66053, Start Num: 38
Candidate Starts for Beted_83:
(Start: 38 @65841 has 9 MA's), (55, 65955),

Gene: BiancaTri92_71 Start: 43505, Stop: 43281, Start Num: 28
Candidate Starts for BiancaTri92_71:
(Start: 28 @43505 has 47 MA's), (39, 43454), (58, 43319), (63, 43289),

Gene: Bigflo_71 Start: 42841, Stop: 42629, Start Num: 33
Candidate Starts for Bigflo_71:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Blinn1_78 Start: 42893, Stop: 42633, Start Num: 15

Candidate Starts for Blinn1_78:

(Start: 15 @42893 has 1 MA's), (45, 42776), (59, 42668),

Gene: BobSwaget_65 Start: 41376, Stop: 41158, Start Num: 26

Candidate Starts for BobSwaget_65:

(Start: 26 @41376 has 10 MA's), (45, 41301), (58, 41196), (59, 41193),

Gene: Bowtie_76 Start: 43522, Stop: 43295, Start Num: 28

Candidate Starts for Bowtie_76:

(Start: 28 @43522 has 47 MA's), (39, 43468), (40, 43462), (51, 43390),

Gene: Bradman_75 Start: 42863, Stop: 42621, Start Num: 28

Candidate Starts for Bradman_75:

(17, 42902), (Start: 28 @42863 has 47 MA's), (39, 42809), (40, 42803), (45, 42785), (58, 42674),

Gene: BreSam8_74 Start: 42835, Stop: 42623, Start Num: 33

Candidate Starts for BreSam8_74:

(Start: 32 @42838 has 35 MA's), (Start: 33 @42835 has 31 MA's), (40, 42802), (58, 42673), (65, 42628),

Gene: Bud_70 Start: 41952, Stop: 41689, Start Num: 28

Candidate Starts for Bud_70:

(Start: 28 @41952 has 47 MA's), (39, 41898), (40, 41892), (51, 41820), (62, 41733),

Gene: Buggy_74 Start: 43814, Stop: 43590, Start Num: 24

Candidate Starts for Buggy_74:

(Start: 24 @43814 has 36 MA's), (39, 43763), (57, 43631), (58, 43628), (59, 43625),

Gene: BuzzBuzz_68 Start: 42872, Stop: 42657, Start Num: 32

Candidate Starts for BuzzBuzz_68:

(Start: 32 @42872 has 35 MA's), (Start: 33 @42869 has 31 MA's), (40, 42836), (65, 42662),

Gene: Bxz2_69 Start: 42876, Stop: 42664, Start Num: 33

Candidate Starts for Bxz2_69:

(Start: 32 @42879 has 35 MA's), (Start: 33 @42876 has 31 MA's), (40, 42843), (58, 42714), (65, 42669),

Gene: CRB1_74 Start: 44013, Stop: 43816, Start Num: 26

Candidate Starts for CRB1_74:

(Start: 26 @44013 has 10 MA's), (39, 43962), (45, 43938), (59, 43824),

Gene: Caraxes_75 Start: 42129, Stop: 41929, Start Num: 24

Candidate Starts for Caraxes_75:

(5, 42240), (8, 42222), (Start: 14 @42168 has 4 MA's), (Start: 24 @42129 has 36 MA's), (39, 42075), (45, 42051), (59, 41937),

Gene: Catalina_76 Start: 42925, Stop: 42707, Start Num: 27

Candidate Starts for Catalina_76:

(Start: 27 @42925 has 34 MA's), (40, 42868), (45, 42850),

Gene: Centaur_73 Start: 43457, Stop: 43230, Start Num: 24

Candidate Starts for Centaur_73:

(Start: 24 @43457 has 36 MA's), (39, 43403), (59, 43265),

Gene: Changeling_71 Start: 43693, Stop: 43472, Start Num: 27

Candidate Starts for Changeling_71:

(Start: 27 @43693 has 34 MA's), (39, 43639), (59, 43507),

Gene: Che12_76 Start: 42288, Stop: 42049, Start Num: 14

Candidate Starts for Che12_76:

(5, 42348), (Start: 14 @42288 has 4 MA's), (Start: 24 @42249 has 36 MA's), (39, 42195), (40, 42189), (43, 42180), (45, 42171), (59, 42057),

Gene: Chidiebere_83 Start: 64268, Stop: 64480, Start Num: 38

Candidate Starts for Chidiebere_83:

(Start: 38 @64268 has 9 MA's), (55, 64382),

Gene: ChipMunk_73 Start: 44854, Stop: 44630, Start Num: 23

Candidate Starts for ChipMunk_73:

(Start: 23 @44854 has 8 MA's), (39, 44803), (57, 44671), (58, 44668), (59, 44665), (63, 44638),

Gene: ChisanaKitsune_80 Start: 63445, Stop: 63657, Start Num: 38

Candidate Starts for ChisanaKitsune_80:

(Start: 38 @63445 has 9 MA's), (55, 63559), (56, 63574),

Gene: CogOmlette_72 Start: 42748, Stop: 42515, Start Num: 20

Candidate Starts for CogOmlette_72:

(11, 42787), (Start: 20 @42748 has 1 MA's), (40, 42676), (45, 42658),

Gene: Colbster_70 Start: 42848, Stop: 42633, Start Num: 32

Candidate Starts for Colbster_70:

(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Colin_72 Start: 44437, Stop: 44219, Start Num: 27

Candidate Starts for Colin_72:

(Start: 27 @44437 has 34 MA's), (39, 44386), (45, 44362),

Gene: Conquerage_72 Start: 42600, Stop: 42382, Start Num: 27

Candidate Starts for Conquerage_72:

(Start: 27 @42600 has 34 MA's), (40, 42543), (45, 42525),

Gene: Croquant_71 Start: 42839, Stop: 42627, Start Num: 33

Candidate Starts for Croquant_71:

(Start: 32 @42842 has 35 MA's), (Start: 33 @42839 has 31 MA's), (40, 42806), (58, 42677), (65, 42632),

Gene: Crucio_73 Start: 43811, Stop: 43587, Start Num: 24

Candidate Starts for Crucio_73:

(Start: 24 @43811 has 36 MA's), (57, 43628), (58, 43625), (59, 43622),

Gene: Cullens_74 Start: 42844, Stop: 42629, Start Num: 32

Candidate Starts for Cullens_74:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: DaHudson_73 Start: 42837, Stop: 42622, Start Num: 32

Candidate Starts for DaHudson_73:

(Start: 32 @42837 has 35 MA's), (Start: 33 @42834 has 31 MA's), (40, 42801), (58, 42672), (65, 42627),

Gene: Daishi_73 Start: 41709, Stop: 41497, Start Num: 33

Candidate Starts for Daishi_73:

(Start: 32 @41712 has 35 MA's), (Start: 33 @41709 has 31 MA's), (36, 41703), (40, 41676), (58, 41547), (65, 41502),

Gene: Dalmatian_73 Start: 43630, Stop: 43406, Start Num: 24

Candidate Starts for Dalmatian_73:

(Start: 24 @43630 has 36 MA's), (57, 43447), (58, 43444), (59, 43441),

Gene: Darrell_75 Start: 43432, Stop: 43193, Start Num: 18

Candidate Starts for Darrell_75:

(10, 43462), (16, 43444), (Start: 18 @43432 has 1 MA's), (40, 43354), (45, 43336),

Gene: DARTHPhader_70 Start: 44013, Stop: 43786, Start Num: 23

Candidate Starts for DARTHPhader_70:

(Start: 23 @44013 has 8 MA's), (39, 43959), (43, 43944), (58, 43824), (59, 43821),

Gene: Deloris_72 Start: 43163, Stop: 42966, Start Num: 27

Candidate Starts for Deloris_72:

(Start: 27 @43163 has 34 MA's), (39, 43112), (40, 43106), (45, 43088),

Gene: Dieselweasel_74 Start: 42843, Stop: 42631, Start Num: 33

Candidate Starts for Dieselweasel_74:

(Start: 32 @42846 has 35 MA's), (Start: 33 @42843 has 31 MA's), (40, 42810), (58, 42681), (65, 42636),

Gene: Dignity_74 Start: 43852, Stop: 43628, Start Num: 24

Candidate Starts for Dignity_74:

(Start: 24 @43852 has 36 MA's), (39, 43801), (57, 43669), (58, 43666), (59, 43663),

Gene: Drake55_74 Start: 43531, Stop: 43331, Start Num: 26

Candidate Starts for Drake55_74:

(Start: 26 @43531 has 10 MA's), (39, 43477), (40, 43471), (45, 43453), (59, 43339),

Gene: Drake94_64 Start: 40814, Stop: 40575, Start Num: 28

Candidate Starts for Drake94_64:

(Start: 28 @40814 has 47 MA's), (40, 40754), (65, 40580),

Gene: DudeLittle_71 Start: 43396, Stop: 43172, Start Num: 24

Candidate Starts for DudeLittle_71:

(Start: 24 @43396 has 36 MA's), (57, 43213), (58, 43210), (59, 43207),

Gene: DustyMartin_68 Start: 41850, Stop: 41611, Start Num: 28

Candidate Starts for DustyMartin_68:

(Start: 28 @41850 has 47 MA's), (40, 41790), (65, 41616),

Gene: EZMoney23_69 Start: 43235, Stop: 43014, Start Num: 27

Candidate Starts for EZMoney23_69:

(Start: 15 @43271 has 1 MA's), (Start: 27 @43235 has 34 MA's), (39, 43181), (45, 43157), (60, 43031),

Gene: EagleEye_77 Start: 43527, Stop: 43327, Start Num: 26

Candidate Starts for EagleEye_77:

(19, 43551), (21, 43533), (Start: 26 @43527 has 10 MA's), (53, 43368),

Gene: Ebony_75 Start: 43086, Stop: 42859, Start Num: 28

Candidate Starts for Ebony_75:

(Start: 28 @43086 has 47 MA's), (40, 43026), (51, 42954),

Gene: Echild_73 Start: 43175, Stop: 42951, Start Num: 22

Candidate Starts for Echild_73:

(Start: 22 @43175 has 8 MA's), (39, 43124), (57, 42992), (58, 42989), (59, 42986),

Gene: Edison31_63 Start: 41608, Stop: 41375, Start Num: 29

Candidate Starts for Edison31_63:

(Start: 29 @41608 has 5 MA's), (39, 41560), (40, 41554), (65, 41380),

Gene: EdogawaKiddo_72 Start: 42891, Stop: 42673, Start Num: 27

Candidate Starts for EdogawaKiddo_72:

(Start: 27 @42891 has 34 MA's), (40, 42834), (45, 42816),

Gene: Eidsmoe_72 Start: 42592, Stop: 42374, Start Num: 27

Candidate Starts for Eidsmoe_72:

(Start: 27 @42592 has 34 MA's), (40, 42535), (45, 42517),

Gene: EmoNemo_78 Start: 63735, Stop: 63947, Start Num: 38

Candidate Starts for EmoNemo_78:

(Start: 38 @63735 has 9 MA's), (55, 63849),

Gene: EmyBug_71 Start: 42594, Stop: 42376, Start Num: 27

Candidate Starts for EmyBug_71:

(Start: 27 @42594 has 34 MA's), (40, 42537), (45, 42519),

Gene: EpicPhail_75 Start: 42845, Stop: 42633, Start Num: 33

Candidate Starts for EpicPhail_75:

(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Equemioh13_72 Start: 43362, Stop: 43135, Start Num: 24

Candidate Starts for Equemioh13_72:

(Start: 24 @43362 has 36 MA's), (39, 43308), (59, 43170),

Gene: Et2Brutus_74 Start: 43049, Stop: 42822, Start Num: 28

Candidate Starts for Et2Brutus_74:

(Start: 28 @43049 has 47 MA's), (39, 42995), (40, 42989), (51, 42917),

Gene: EvilGenius_72 Start: 44855, Stop: 44631, Start Num: 23

Candidate Starts for EvilGenius_72:

(Start: 23 @44855 has 8 MA's), (39, 44804), (57, 44672), (58, 44669), (59, 44666), (63, 44639),

Gene: ExplosioNervosa_72 Start: 42660, Stop: 42442, Start Num: 27

Candidate Starts for ExplosioNervosa_72:

(Start: 27 @42660 has 34 MA's), (40, 42603), (45, 42585),

Gene: Fameo_71 Start: 43438, Stop: 43214, Start Num: 24

Candidate Starts for Fameo_71:

(Start: 24 @43438 has 36 MA's), (39, 43387), (57, 43255), (59, 43249), (63, 43222),

Gene: Farber_74 Start: 42834, Stop: 42619, Start Num: 32

Candidate Starts for Farber_74:

(Start: 32 @42834 has 35 MA's), (Start: 33 @42831 has 31 MA's), (40, 42798), (58, 42669), (65, 42624),

Gene: Farrylious_80 Start: 63466, Stop: 63678, Start Num: 38

Candidate Starts for Farrylious_80:

(Start: 38 @63466 has 9 MA's), (55, 63580),

Gene: FatCactus_67 Start: 41591, Stop: 41430, Start Num: 35

Candidate Starts for FatCactus_67:

(2, 41792), (3, 41768), (35, 41591), (49, 41522), (50, 41519), (59, 41438),

Gene: Fayely_72 Start: 42561, Stop: 42343, Start Num: 27

Candidate Starts for Fayely_72:

(Start: 27 @42561 has 34 MA's), (40, 42504),

Gene: Fernando_74 Start: 42841, Stop: 42629, Start Num: 33

Candidate Starts for Fernando_74:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Fibonacci_74 Start: 43055, Stop: 42828, Start Num: 28

Candidate Starts for Fibonacci_74:

(Start: 28 @43055 has 47 MA's), (39, 43001), (40, 42995), (51, 42923),

Gene: FiringLine_73 Start: 43793, Stop: 43569, Start Num: 24

Candidate Starts for FiringLine_73:

(Start: 24 @43793 has 36 MA's), (57, 43610), (58, 43607), (59, 43604),

Gene: First_0073 Start: 43417, Stop: 43193, Start Num: 28

Candidate Starts for First_0073:

(Start: 28 @43417 has 47 MA's), (39, 43366), (58, 43231), (59, 43228), (63, 43201),

Gene: Flare16_73 Start: 43501, Stop: 43274, Start Num: 24

Candidate Starts for Flare16_73:

(Start: 24 @43501 has 36 MA's), (39, 43447), (59, 43309),

Gene: Flaverint_76 Start: 43513, Stop: 43286, Start Num: 28

Candidate Starts for Flaverint_76:

(Start: 28 @43513 has 47 MA's), (39, 43459), (40, 43453), (51, 43381),

Gene: FlyingTortilla_84 Start: 67913, Stop: 68119, Start Num: 38

Candidate Starts for FlyingTortilla_84:

(4, 67724), (6, 67745), (7, 67754), (Start: 38 @67913 has 9 MA's), (59, 68051),

Gene: ForesterFrank_68 Start: 43507, Stop: 43286, Start Num: 27

Candidate Starts for ForesterFrank_68:

(Start: 27 @43507 has 34 MA's), (39, 43453), (59, 43321),

Gene: FruityLoops_83 Start: 67214, Stop: 67420, Start Num: 38

Candidate Starts for FruityLoops_83:

(Start: 38 @67214 has 9 MA's), (59, 67352),

Gene: GMA6_66 Start: 54553, Stop: 54771, Start Num: 38

Candidate Starts for GMA6_66:

(21, 54493), (Start: 38 @54553 has 9 MA's), (41, 54565), (45, 54580), (52, 54643), (59, 54694),

Gene: Gail_74 Start: 43840, Stop: 43619, Start Num: 22

Candidate Starts for Gail_74:

(Start: 22 @43840 has 8 MA's), (39, 43786), (40, 43780), (45, 43762), (59, 43654),

Gene: GaugeLDP_68 Start: 43061, Stop: 42840, Start Num: 27

Candidate Starts for GaugeLDP_68:

(Start: 27 @43061 has 34 MA's), (39, 43007), (45, 42983),

Gene: Georgie2_74 Start: 43838, Stop: 43614, Start Num: 24

Candidate Starts for Georgie2_74:

(Start: 24 @43838 has 36 MA's), (57, 43655), (58, 43652), (59, 43649),

Gene: Gilberta_72 Start: 42389, Stop: 42126, Start Num: 28

Candidate Starts for Gilberta_72:

(Start: 28 @42389 has 47 MA's), (39, 42335), (40, 42329), (51, 42257), (62, 42170),

Gene: GingkoMaracino_74 Start: 42730, Stop: 42515, Start Num: 32

Candidate Starts for GingkoMaracino_74:

(Start: 32 @42730 has 35 MA's), (Start: 33 @42727 has 31 MA's), (40, 42694), (58, 42565), (65, 42520),

Gene: Gratitude_70 Start: 43362, Stop: 43135, Start Num: 24

Candidate Starts for Gratitude_70:

(Start: 24 @43362 has 36 MA's), (39, 43308), (59, 43170),

Gene: Gray_83 Start: 64199, Stop: 64411, Start Num: 38

Candidate Starts for Gray_83:

(Start: 38 @64199 has 9 MA's), (55, 64313),

Gene: Grif_72 Start: 42915, Stop: 42703, Start Num: 33

Candidate Starts for Grif_72:

(Start: 32 @42918 has 35 MA's), (Start: 33 @42915 has 31 MA's), (40, 42882), (58, 42753), (65, 42708),

Gene: Groupthink_74 Start: 42664, Stop: 42446, Start Num: 31

Candidate Starts for Groupthink_74:

(13, 42733), (Start: 31 @42664 has 2 MA's), (40, 42625), (48, 42589), (58, 42496), (65, 42451),

Gene: Grub_72 Start: 42833, Stop: 42621, Start Num: 33

Candidate Starts for Grub_72:

(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: Grum1_73 Start: 42844, Stop: 42629, Start Num: 32

Candidate Starts for Grum1_73:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: GtownJaz_74 Start: 42842, Stop: 42630, Start Num: 33

Candidate Starts for GtownJaz_74:

(Start: 32 @42845 has 35 MA's), (Start: 33 @42842 has 31 MA's), (40, 42809), (58, 42680), (65, 42635),

Gene: Gwennie_69 Start: 42845, Stop: 42633, Start Num: 33

Candidate Starts for Gwennie_69:

(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Hanem_82 Start: 63735, Stop: 63947, Start Num: 38

Candidate Starts for Hanem_82:

(Start: 38 @63735 has 9 MA's), (55, 63849),

Gene: Hanray_72 Start: 42923, Stop: 42705, Start Num: 27

Candidate Starts for Hanray_72:

(Start: 27 @42923 has 34 MA's), (40, 42866), (45, 42848),

Gene: HarryHoudini_73 Start: 43532, Stop: 43332, Start Num: 26

Candidate Starts for HarryHoudini_73:

(Start: 26 @43532 has 10 MA's), (39, 43478), (45, 43454), (59, 43340),

Gene: HashRod_75 Start: 42869, Stop: 42657, Start Num: 33

Candidate Starts for HashRod_75:

(Start: 32 @42872 has 35 MA's), (Start: 33 @42869 has 31 MA's), (40, 42836), (58, 42707), (65, 42662),

Gene: Heffalump_70 Start: 43906, Stop: 43682, Start Num: 24

Candidate Starts for Heffalump_70:

(Start: 24 @43906 has 36 MA's), (39, 43855), (57, 43723), (59, 43717), (63, 43690), (64, 43687),

Gene: Hercules11_74 Start: 42853, Stop: 42638, Start Num: 32

Candidate Starts for Hercules11_74:

(Start: 32 @42853 has 35 MA's), (Start: 33 @42850 has 31 MA's), (40, 42817), (58, 42688), (65, 42643),

Gene: HippoHollow_70 Start: 44531, Stop: 44307, Start Num: 28

Candidate Starts for HippoHollow_70:

(Start: 28 @44531 has 47 MA's), (58, 44345), (59, 44342), (63, 44315),

Gene: Horex_72 Start: 42939, Stop: 42721, Start Num: 27

Candidate Starts for Horex_72:

(Start: 27 @42939 has 34 MA's), (40, 42882), (45, 42864),

Gene: HortumSL17_75 Start: 42923, Stop: 42705, Start Num: 27

Candidate Starts for HortumSL17_75:

(Start: 27 @42923 has 34 MA's), (40, 42866), (45, 42848),

Gene: Hutc2_70 Start: 41938, Stop: 41675, Start Num: 28

Candidate Starts for Hutc2_70:

(Start: 28 @41938 has 47 MA's), (39, 41884), (40, 41878), (51, 41806), (62, 41719),

Gene: Insomnia_74 Start: 43230, Stop: 43003, Start Num: 28

Candidate Starts for Insomnia_74:

(Start: 28 @43230 has 47 MA's), (39, 43176), (40, 43170), (51, 43098),

Gene: IronMan_70 Start: 44663, Stop: 44424, Start Num: 28

Candidate Starts for IronMan_70:

(Start: 28 @44663 has 47 MA's), (40, 44600), (45, 44582), (58, 44477),

Gene: JHC117_70 Start: 42842, Stop: 42627, Start Num: 32

Candidate Starts for JHC117_70:

(Start: 32 @42842 has 35 MA's), (Start: 33 @42839 has 31 MA's), (40, 42806), (58, 42677), (65, 42632),

Gene: Jaan_71 Start: 44833, Stop: 44594, Start Num: 28

Candidate Starts for Jaan_71:

(Start: 28 @44833 has 47 MA's), (40, 44770), (45, 44752), (58, 44647),

Gene: Jabith_74 Start: 43247, Stop: 43020, Start Num: 28

Candidate Starts for Jabith_74:

(Start: 28 @43247 has 47 MA's), (39, 43193), (40, 43187), (51, 43115),

Gene: Jeeves_76 Start: 42825, Stop: 42604, Start Num: 22

Candidate Starts for Jeeves_76:

(Start: 22 @42825 has 8 MA's), (39, 42771), (40, 42765), (45, 42747), (59, 42639),

Gene: JenCasNa_75 Start: 42844, Stop: 42629, Start Num: 32

Candidate Starts for JenCasNa_75:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Jerm_74 Start: 43834, Stop: 43610, Start Num: 24

Candidate Starts for Jerm_74:

(Start: 24 @43834 has 36 MA's), (39, 43783), (57, 43651), (58, 43648), (59, 43645),

Gene: Jiawan_71 Start: 42955, Stop: 42737, Start Num: 27

Candidate Starts for Jiawan_71:

(Start: 27 @42955 has 34 MA's), (40, 42898), (45, 42880),

Gene: Jobu08_70 Start: 42676, Stop: 42461, Start Num: 32

Candidate Starts for Jobu08_70:

(Start: 32 @42676 has 35 MA's), (Start: 33 @42673 has 31 MA's), (40, 42640), (58, 42511), (65, 42466),

Gene: Joselito_74 Start: 43267, Stop: 43040, Start Num: 28

Candidate Starts for Joselito_74:
(Start: 28 @43267 has 47 MA's), (39, 43213), (40, 43207), (51, 43135),

Gene: JoshKayV_73 Start: 43858, Stop: 43661, Start Num: 26
Candidate Starts for JoshKayV_73:
(Start: 26 @43858 has 10 MA's), (45, 43783),

Gene: KADY_71 Start: 42869, Stop: 42657, Start Num: 33
Candidate Starts for KADY_71:
(Start: 32 @42872 has 35 MA's), (Start: 33 @42869 has 31 MA's), (40, 42836), (65, 42662),

Gene: Kabocha_84 Start: 65081, Stop: 65293, Start Num: 38
Candidate Starts for Kabocha_84:
(Start: 38 @65081 has 9 MA's), (55, 65195),

Gene: Kalb97_74 Start: 42663, Stop: 42445, Start Num: 31
Candidate Starts for Kalb97_74:
(13, 42732), (Start: 31 @42663 has 2 MA's), (40, 42624), (48, 42588), (58, 42495), (65, 42450),

Gene: Kalpine_72 Start: 43855, Stop: 43637, Start Num: 27
Candidate Starts for Kalpine_72:
(Start: 27 @43855 has 34 MA's), (39, 43804), (45, 43780), (63, 43645),

Gene: Keziacharles14_71 Start: 43500, Stop: 43279, Start Num: 27
Candidate Starts for Keziacharles14_71:
(Start: 27 @43500 has 34 MA's), (40, 43440), (45, 43422),

Gene: Kimba_72 Start: 42767, Stop: 42540, Start Num: 28
Candidate Starts for Kimba_72:
(Start: 28 @42767 has 47 MA's), (39, 42713), (40, 42707), (51, 42635),

Gene: Kimona_66 Start: 41475, Stop: 41236, Start Num: 29
Candidate Starts for Kimona_66:
(Start: 29 @41475 has 5 MA's), (Start: 31 @41457 has 2 MA's), (39, 41424), (40, 41418),

Gene: KingCyrus_72 Start: 44850, Stop: 44626, Start Num: 23
Candidate Starts for KingCyrus_72:
(Start: 23 @44850 has 8 MA's), (39, 44799), (57, 44667), (58, 44664), (59, 44661), (63, 44634),

Gene: Kinmap_75 Start: 42177, Stop: 41995, Start Num: 28
Candidate Starts for Kinmap_75:
(Start: 28 @42177 has 47 MA's), (42, 42123), (44, 42117), (46, 42102),

Gene: KittenMittens_63 Start: 40822, Stop: 40583, Start Num: 28
Candidate Starts for KittenMittens_63:
(Start: 28 @40822 has 47 MA's), (40, 40762), (65, 40588),

Gene: Kristoff_65 Start: 42136, Stop: 41897, Start Num: 28
Candidate Starts for Kristoff_65:
(Start: 28 @42136 has 47 MA's), (40, 42076), (58, 41947), (65, 41902),

Gene: LBerry_75 Start: 42848, Stop: 42633, Start Num: 32
Candidate Starts for LBerry_75:

(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: LadyBird_76 Start: 44079, Stop: 43882, Start Num: 27

Candidate Starts for LadyBird_76:

(Start: 27 @44079 has 34 MA's), (39, 44028), (45, 44004),

Gene: Landor_71 Start: 44756, Stop: 44517, Start Num: 28

Candidate Starts for Landor_71:

(Start: 28 @44756 has 47 MA's), (40, 44693), (45, 44675), (58, 44570),

Gene: Larenn_69 Start: 43196, Stop: 42972, Start Num: 28

Candidate Starts for Larenn_69:

(Start: 28 @43196 has 47 MA's), (39, 43145), (40, 43139), (57, 43013), (58, 43010), (59, 43007), (63, 42980),

Gene: LarryKay_74 Start: 42870, Stop: 42658, Start Num: 33

Candidate Starts for LarryKay_74:

(Start: 32 @42873 has 35 MA's), (Start: 33 @42870 has 31 MA's), (40, 42837), (58, 42708), (65, 42663),

Gene: Lenoshki_83 Start: 65841, Stop: 66053, Start Num: 38

Candidate Starts for Lenoshki_83:

(Start: 38 @65841 has 9 MA's), (55, 65955),

Gene: Leogania_71 Start: 43883, Stop: 43659, Start Num: 28

Candidate Starts for Leogania_71:

(Start: 28 @43883 has 47 MA's), (39, 43832), (58, 43697), (59, 43694), (63, 43667),

Gene: Leviathan_74 Start: 43901, Stop: 43677, Start Num: 24

Candidate Starts for Leviathan_74:

(Start: 24 @43901 has 36 MA's), (39, 43850), (57, 43718), (58, 43715), (59, 43712),

Gene: LilTurb_73 Start: 43715, Stop: 43491, Start Num: 24

Candidate Starts for LilTurb_73:

(Start: 24 @43715 has 36 MA's), (39, 43664), (57, 43532), (58, 43529), (59, 43526),

Gene: Lilith_72 Start: 42834, Stop: 42622, Start Num: 33

Candidate Starts for Lilith_72:

(Start: 32 @42837 has 35 MA's), (Start: 33 @42834 has 31 MA's), (40, 42801), (58, 42672), (65, 42627),

Gene: Lilleskat_71 Start: 42880, Stop: 42662, Start Num: 27

Candidate Starts for Lilleskat_71:

(Start: 27 @42880 has 34 MA's), (40, 42823), (45, 42805),

Gene: LionsBait_72 Start: 44532, Stop: 44308, Start Num: 28

Candidate Starts for LionsBait_72:

(Start: 28 @44532 has 47 MA's), (58, 44346), (59, 44343), (63, 44316),

Gene: Lokk_66 Start: 42000, Stop: 41782, Start Num: 26

Candidate Starts for Lokk_66:

(Start: 26 @42000 has 10 MA's), (45, 41925), (58, 41820), (59, 41817),

Gene: LoneWolf_75 Start: 43122, Stop: 42901, Start Num: 28

Candidate Starts for LoneWolf_75:

(Start: 28 @43122 has 47 MA's), (40, 43062), (45, 43044),

Gene: Loser_74 Start: 43958, Stop: 43734, Start Num: 28

Candidate Starts for Loser_74:

(Start: 28 @43958 has 47 MA's), (39, 43907), (58, 43772), (59, 43769),

Gene: Louie6_73 Start: 42874, Stop: 42659, Start Num: 32

Candidate Starts for Louie6_73:

(Start: 32 @42874 has 35 MA's), (Start: 33 @42871 has 31 MA's), (40, 42838), (65, 42664),

Gene: Lowa_71 Start: 42833, Stop: 42621, Start Num: 33

Candidate Starts for Lowa_71:

(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: Luchador_75 Start: 44307, Stop: 44086, Start Num: 22

Candidate Starts for Luchador_75:

(Start: 22 @44307 has 8 MA's), (39, 44253), (40, 44247), (45, 44229), (59, 44121),

Gene: Lucivia_76 Start: 43546, Stop: 43319, Start Num: 28

Candidate Starts for Lucivia_76:

(Start: 28 @43546 has 47 MA's), (39, 43492), (40, 43486), (51, 43414),

Gene: Lucyedi_76 Start: 43723, Stop: 43523, Start Num: 26

Candidate Starts for Lucyedi_76:

(19, 43747), (21, 43729), (Start: 26 @43723 has 10 MA's), (53, 43564),

Gene: LugYA_77 Start: 42845, Stop: 42630, Start Num: 32

Candidate Starts for LugYA_77:

(Start: 32 @42845 has 35 MA's), (Start: 33 @42842 has 31 MA's), (40, 42809), (58, 42680), (65, 42635),

Gene: MaCh_75 Start: 43510, Stop: 43283, Start Num: 28

Candidate Starts for MaCh_75:

(Start: 28 @43510 has 47 MA's), (39, 43456), (40, 43450), (51, 43378),

Gene: Mabel_75 Start: 43511, Stop: 43284, Start Num: 28

Candidate Starts for Mabel_75:

(Start: 28 @43511 has 47 MA's), (39, 43457), (40, 43451), (51, 43379),

Gene: MadMarie_72 Start: 42842, Stop: 42630, Start Num: 33

Candidate Starts for MadMarie_72:

(Start: 32 @42845 has 35 MA's), (Start: 33 @42842 has 31 MA's), (40, 42809), (58, 42680), (65, 42635),

Gene: Mainiac_73 Start: 42837, Stop: 42622, Start Num: 32

Candidate Starts for Mainiac_73:

(Start: 32 @42837 has 35 MA's), (Start: 33 @42834 has 31 MA's), (40, 42801), (58, 42672), (65, 42627),

Gene: MajorMajor_74 Start: 42863, Stop: 42621, Start Num: 28
Candidate Starts for MajorMajor_74:
(17, 42902), (Start: 28 @42863 has 47 MA's), (39, 42809), (40, 42803), (45, 42785), (58, 42674),

Gene: Malec_70 Start: 43763, Stop: 43539, Start Num: 28
Candidate Starts for Malec_70:
(Start: 28 @43763 has 47 MA's), (39, 43712), (40, 43706), (57, 43580), (58, 43577), (59, 43574), (63, 43547),

Gene: Malinsilva_76 Start: 42833, Stop: 42621, Start Num: 33
Candidate Starts for Malinsilva_76:
(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: MarQuardt_74 Start: 42846, Stop: 42631, Start Num: 32
Candidate Starts for MarQuardt_74:
(Start: 32 @42846 has 35 MA's), (Start: 33 @42843 has 31 MA's), (40, 42810), (58, 42681), (65, 42636),

Gene: Marie_72 Start: 42841, Stop: 42629, Start Num: 33
Candidate Starts for Marie_72:
(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Methuselah_67 Start: 42868, Stop: 42653, Start Num: 32
Candidate Starts for Methuselah_67:
(Start: 32 @42868 has 35 MA's), (Start: 33 @42865 has 31 MA's), (40, 42832), (58, 42703), (65, 42658),

Gene: Microwolf_70 Start: 42860, Stop: 42645, Start Num: 32
Candidate Starts for Microwolf_70:
(Start: 32 @42860 has 35 MA's), (Start: 33 @42857 has 31 MA's), (40, 42824), (58, 42695), (65, 42650),

Gene: MiculUcigas_73 Start: 43404, Stop: 43177, Start Num: 24
Candidate Starts for MiculUcigas_73:
(Start: 24 @43404 has 36 MA's), (39, 43350), (59, 43212),

Gene: Miko_66 Start: 42778, Stop: 42560, Start Num: 26
Candidate Starts for Miko_66:
(Start: 26 @42778 has 10 MA's), (45, 42703), (58, 42598), (59, 42595),

Gene: Mikronejon_79 Start: 63735, Stop: 63947, Start Num: 38
Candidate Starts for Mikronejon_79:
(Start: 38 @63735 has 9 MA's), (55, 63849),

Gene: Minispark_72 Start: 42745, Stop: 42512, Start Num: 20
Candidate Starts for Minispark_72:
(11, 42784), (Start: 20 @42745 has 1 MA's), (40, 42673), (45, 42655),

Gene: MintFritos_79 Start: 63706, Stop: 63918, Start Num: 38
Candidate Starts for MintFritos_79:
(Start: 38 @63706 has 9 MA's), (55, 63820),

Gene: Misomonster_75 Start: 42871, Stop: 42656, Start Num: 32
Candidate Starts for Misomonster_75:
(Start: 32 @42871 has 35 MA's), (Start: 33 @42868 has 31 MA's), (40, 42835), (65, 42661),

Gene: MissWhite_71 Start: 41889, Stop: 41647, Start Num: 28
Candidate Starts for MissWhite_71:
(Start: 28 @41889 has 47 MA's), (39, 41835), (40, 41829), (54, 41724), (58, 41700),

Gene: MoneyMay_73 Start: 42844, Stop: 42629, Start Num: 32
Candidate Starts for MoneyMay_73:
(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Montavir_69 Start: 42841, Stop: 42629, Start Num: 33
Candidate Starts for Montavir_69:
(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: MuchMore_77 Start: 42833, Stop: 42621, Start Num: 33
Candidate Starts for MuchMore_77:
(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: Mulciber_73 Start: 43052, Stop: 42825, Start Num: 28
Candidate Starts for Mulciber_73:
(Start: 28 @43052 has 47 MA's), (39, 42998), (51, 42920),

Gene: Munch_75 Start: 43515, Stop: 43288, Start Num: 28
Candidate Starts for Munch_75:
(Start: 28 @43515 has 47 MA's), (39, 43461), (40, 43455), (51, 43383),

Gene: MyraDee_70 Start: 40654, Stop: 40406, Start Num: 30
Candidate Starts for MyraDee_70:
(Start: 30 @40654 has 1 MA's), (45, 40594),

Gene: Myxus_74 Start: 42923, Stop: 42705, Start Num: 27
Candidate Starts for Myxus_74:
(Start: 27 @42923 has 34 MA's), (40, 42866), (45, 42848),

Gene: NaSiaTalie_73 Start: 43498, Stop: 43271, Start Num: 24
Candidate Starts for NaSiaTalie_73:
(Start: 24 @43498 has 36 MA's), (39, 43444), (59, 43306),

Gene: NicoleTera_70 Start: 43518, Stop: 43297, Start Num: 27
Candidate Starts for NicoleTera_70:
(Start: 27 @43518 has 34 MA's), (39, 43464), (59, 43332),

Gene: NothingSpecial_68 Start: 43574, Stop: 43308, Start Num: 12
Candidate Starts for NothingSpecial_68:
(Start: 12 @43574 has 1 MA's), (Start: 24 @43535 has 36 MA's), (39, 43481), (40, 43475), (57, 43349), (58, 43346), (59, 43343),

Gene: Odin_73 Start: 42517, Stop: 42317, Start Num: 24
Candidate Starts for Odin_73:
(9, 42586), (Start: 14 @42556 has 4 MA's), (Start: 24 @42517 has 36 MA's), (39, 42463), (45, 42439),
(59, 42325),

Gene: Ollie_74 Start: 42712, Stop: 42500, Start Num: 33
Candidate Starts for Ollie_74:
(Start: 32 @42715 has 35 MA's), (Start: 33 @42712 has 31 MA's), (40, 42679), (58, 42550), (65,
42505),

Gene: Onglai_72 Start: 41127, Stop: 40909, Start Num: 27
Candidate Starts for Onglai_72:
(Start: 27 @41127 has 34 MA's), (40, 41070), (45, 41052),

Gene: Oogie_82 Start: 65894, Stop: 66106, Start Num: 38
Candidate Starts for Oogie_82:
(Start: 38 @65894 has 9 MA's), (55, 66008),

Gene: Orange_74 Start: 43064, Stop: 42837, Start Num: 28
Candidate Starts for Orange_74:
(Start: 28 @43064 has 47 MA's), (39, 43010), (40, 43004), (51, 42932),

Gene: P28Green_74 Start: 42847, Stop: 42632, Start Num: 32
Candidate Starts for P28Green_74:
(Start: 32 @42847 has 35 MA's), (Start: 33 @42844 has 31 MA's), (40, 42811), (58, 42682), (65,
42637),

Gene: PGHhamlin_76 Start: 42833, Stop: 42621, Start Num: 33
Candidate Starts for PGHhamlin_76:
(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65,
42626),

Gene: PackMan_73 Start: 42798, Stop: 42580, Start Num: 27
Candidate Starts for PackMan_73:
(Start: 27 @42798 has 34 MA's), (40, 42741), (45, 42723),

Gene: PainterBoy_75 Start: 43432, Stop: 43232, Start Num: 26
Candidate Starts for PainterBoy_75:
(19, 43456), (21, 43438), (Start: 26 @43432 has 10 MA's), (53, 43273),

Gene: Pakusa_79 Start: 63461, Stop: 63673, Start Num: 38
Candidate Starts for Pakusa_79:
(Start: 38 @63461 has 9 MA's), (55, 63575),

Gene: PeaceMeal1_64 Start: 40823, Stop: 40584, Start Num: 28
Candidate Starts for PeaceMeal1_64:
(Start: 28 @40823 has 47 MA's), (40, 40763), (65, 40589),

Gene: Pembroke_74 Start: 42842, Stop: 42630, Start Num: 33
Candidate Starts for Pembroke_74:
(Start: 32 @42845 has 35 MA's), (Start: 33 @42842 has 31 MA's), (40, 42809), (58, 42680), (65,
42635),

Gene: Penny1_74 Start: 42845, Stop: 42633, Start Num: 33
Candidate Starts for Penny1_74:
(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Petersenfast_69 Start: 41946, Stop: 41683, Start Num: 28
Candidate Starts for Petersenfast_69:
(Start: 28 @41946 has 47 MA's), (39, 41892), (40, 41886), (51, 41814), (62, 41727),

Gene: Ph8s_76 Start: 42621, Stop: 42382, Start Num: 14
Candidate Starts for Ph8s_76:
(5, 42693), (Start: 14 @42621 has 4 MA's), (Start: 24 @42582 has 36 MA's), (39, 42528), (40, 42522), (45, 42504), (59, 42390),

Gene: Phaded_68 Start: 44715, Stop: 44476, Start Num: 28
Candidate Starts for Phaded_68:
(Start: 28 @44715 has 47 MA's), (40, 44652), (45, 44634), (58, 44529),

Gene: Phaeder_74 Start: 42798, Stop: 42580, Start Num: 27
Candidate Starts for Phaeder_74:
(Start: 27 @42798 has 34 MA's), (40, 42741), (45, 42723),

Gene: Pharaoh_68 Start: 42838, Stop: 42611, Start Num: 22
Candidate Starts for Pharaoh_68:
(Start: 22 @42838 has 8 MA's), (61, 42625), (62, 42622),

Gene: Phoebe_75 Start: 42837, Stop: 42622, Start Num: 32
Candidate Starts for Phoebe_75:
(Start: 32 @42837 has 35 MA's), (Start: 33 @42834 has 31 MA's), (40, 42801), (58, 42672), (65, 42627),

Gene: Phonnegut_74 Start: 42868, Stop: 42650, Start Num: 27
Candidate Starts for Phonnegut_74:
(Start: 27 @42868 has 34 MA's), (40, 42811), (45, 42793),

Gene: Phoxy_74 Start: 42869, Stop: 42654, Start Num: 32
Candidate Starts for Phoxy_74:
(Start: 32 @42869 has 35 MA's), (Start: 33 @42866 has 31 MA's), (40, 42833), (58, 42704), (65, 42659),

Gene: Pioneer_74 Start: 42868, Stop: 42650, Start Num: 27
Candidate Starts for Pioneer_74:
(Start: 27 @42868 has 34 MA's), (40, 42811), (45, 42793),

Gene: Piro94_72 Start: 43466, Stop: 43239, Start Num: 24
Candidate Starts for Piro94_72:
(Start: 24 @43466 has 36 MA's), (39, 43412), (59, 43274), (64, 43244),

Gene: Poompha_63 Start: 40821, Stop: 40582, Start Num: 28
Candidate Starts for Poompha_63:
(Start: 28 @40821 has 47 MA's), (40, 40761), (65, 40587),

Gene: PotatoSplit_75 Start: 42848, Stop: 42633, Start Num: 32

Candidate Starts for PotatoSplit_75:

(Start: 32 @42848 has 35 MA's), (Start: 33 @42845 has 31 MA's), (40, 42812), (58, 42683), (65, 42638),

Gene: Power_72 Start: 43836, Stop: 43612, Start Num: 24

Candidate Starts for Power_72:

(Start: 24 @43836 has 36 MA's), (57, 43653), (58, 43650), (59, 43647),

Gene: Priya_72 Start: 42595, Stop: 42377, Start Num: 27

Candidate Starts for Priya_72:

(Start: 27 @42595 has 34 MA's), (40, 42538), (45, 42520),

Gene: Prudy_66 Start: 43483, Stop: 43259, Start Num: 28

Candidate Starts for Prudy_66:

(11, 43528), (Start: 28 @43483 has 47 MA's), (40, 43426), (58, 43297), (59, 43294), (63, 43267),

Gene: Pukovnik_69 Start: 44363, Stop: 44136, Start Num: 24

Candidate Starts for Pukovnik_69:

(Start: 24 @44363 has 36 MA's), (39, 44309), (59, 44171), (64, 44141),

Gene: Qobbit_72 Start: 42557, Stop: 42339, Start Num: 27

Candidate Starts for Qobbit_72:

(Start: 27 @42557 has 34 MA's), (40, 42500), (45, 42482),

Gene: QueenB2_70 Start: 43119, Stop: 42895, Start Num: 24

Candidate Starts for QueenB2_70:

(Start: 24 @43119 has 36 MA's), (39, 43068), (57, 42936), (59, 42930), (63, 42903),

Gene: QueenBeesly_73 Start: 43793, Stop: 43569, Start Num: 24

Candidate Starts for QueenBeesly_73:

(Start: 24 @43793 has 36 MA's), (57, 43610), (58, 43607), (59, 43604),

Gene: Quokka_74 Start: 42863, Stop: 42621, Start Num: 28

Candidate Starts for Quokka_74:

(17, 42902), (Start: 28 @42863 has 47 MA's), (39, 42809), (40, 42803), (45, 42785), (58, 42674),

Gene: Rachaly_68 Start: 42923, Stop: 42705, Start Num: 26

Candidate Starts for Rachaly_68:

(Start: 26 @42923 has 10 MA's), (45, 42848), (58, 42743), (59, 42740),

Gene: Rahalelujah_74 Start: 42760, Stop: 42527, Start Num: 20

Candidate Starts for Rahalelujah_74:

(11, 42799), (Start: 20 @42760 has 1 MA's), (40, 42688), (45, 42670),

Gene: Rebeuca_67 Start: 42137, Stop: 41898, Start Num: 28

Candidate Starts for Rebeuca_67:

(Start: 28 @42137 has 47 MA's), (40, 42077), (58, 41948), (65, 41903),

Gene: RedRock_71 Start: 43761, Stop: 43537, Start Num: 28

Candidate Starts for RedRock_71:

(Start: 28 @43761 has 47 MA's), (Start: 29 @43758 has 5 MA's), (39, 43710), (58, 43575), (59, 43572),

Gene: Refuge_70 Start: 44062, Stop: 43841, Start Num: 23

Candidate Starts for Refuge_70:
(Start: 23 @44062 has 8 MA's), (34, 44032),

Gene: Retro23_73 Start: 43524, Stop: 43300, Start Num: 24
Candidate Starts for Retro23_73:
(Start: 24 @43524 has 36 MA's), (57, 43341), (58, 43338), (59, 43335),

Gene: Rowdy_68 Start: 41850, Stop: 41611, Start Num: 28
Candidate Starts for Rowdy_68:
(Start: 28 @41850 has 47 MA's), (40, 41790), (65, 41616),

Gene: Rummer_73 Start: 42872, Stop: 42657, Start Num: 32
Candidate Starts for Rummer_73:
(Start: 32 @42872 has 35 MA's), (Start: 33 @42869 has 31 MA's), (40, 42836), (58, 42707), (65, 42662),

Gene: RyeScarlet_75 Start: 42843, Stop: 42625, Start Num: 27
Candidate Starts for RyeScarlet_75:
(Start: 27 @42843 has 34 MA's), (40, 42786), (45, 42768),

Gene: Sabia_72 Start: 42852, Stop: 42637, Start Num: 32
Candidate Starts for Sabia_72:
(Start: 32 @42852 has 35 MA's), (Start: 33 @42849 has 31 MA's), (40, 42816), (58, 42687), (65, 42642),

Gene: Sabinator_72 Start: 42840, Stop: 42628, Start Num: 33
Candidate Starts for Sabinator_72:
(Start: 32 @42843 has 35 MA's), (Start: 33 @42840 has 31 MA's), (40, 42807), (58, 42678), (65, 42633),

Gene: Sachima_70 Start: 42824, Stop: 42606, Start Num: 27
Candidate Starts for Sachima_70:
(Start: 27 @42824 has 34 MA's), (40, 42767), (45, 42749),

Gene: Salz_70 Start: 41861, Stop: 41598, Start Num: 28
Candidate Starts for Salz_70:
(Start: 28 @41861 has 47 MA's), (39, 41807), (40, 41801), (51, 41729), (62, 41642),

Gene: Saskia_72 Start: 42409, Stop: 42146, Start Num: 28
Candidate Starts for Saskia_72:
(Start: 28 @42409 has 47 MA's), (40, 42349), (62, 42190),

Gene: ScarletRaider_83 Start: 67178, Stop: 67384, Start Num: 38
Candidate Starts for ScarletRaider_83:
(1, 66935), (2, 66956), (4, 66989), (6, 67010), (7, 67019), (Start: 38 @67178 has 9 MA's), (59, 67316),

Gene: Scherzo_73 Start: 43087, Stop: 42869, Start Num: 27
Candidate Starts for Scherzo_73:
(Start: 27 @43087 has 34 MA's), (40, 43030), (45, 43012),

Gene: Schomber_81 Start: 63469, Stop: 63681, Start Num: 38
Candidate Starts for Schomber_81:
(Start: 38 @63469 has 9 MA's), (55, 63583),

Gene: SemperFi_73 Start: 43681, Stop: 43457, Start Num: 24
Candidate Starts for SemperFi_73:
(Start: 24 @43681 has 36 MA's), (57, 43498), (58, 43495), (59, 43492),

Gene: Severus_64 Start: 40821, Stop: 40582, Start Num: 28
Candidate Starts for Severus_64:
(Start: 28 @40821 has 47 MA's), (40, 40761), (65, 40587),

Gene: Sham4_71 Start: 41945, Stop: 41682, Start Num: 28
Candidate Starts for Sham4_71:
(Start: 28 @41945 has 47 MA's), (39, 41891), (40, 41885), (51, 41813), (62, 41726),

Gene: Shapes_68 Start: 41850, Stop: 41611, Start Num: 28
Candidate Starts for Shapes_68:
(Start: 28 @41850 has 47 MA's), (40, 41790), (65, 41616),

Gene: SheaKeira_68 Start: 41846, Stop: 41625, Start Num: 27
Candidate Starts for SheaKeira_68:
(Start: 27 @41846 has 34 MA's), (39, 41792), (59, 41660),

Gene: Sknot_73 Start: 43498, Stop: 43271, Start Num: 24
Candidate Starts for Sknot_73:
(Start: 24 @43498 has 36 MA's), (39, 43444), (59, 43306),

Gene: Smeagan_75 Start: 43992, Stop: 43768, Start Num: 24
Candidate Starts for Smeagan_75:
(Start: 24 @43992 has 36 MA's), (39, 43941), (57, 43809), (58, 43806), (59, 43803),

Gene: SnapTap_72 Start: 43492, Stop: 43268, Start Num: 24
Candidate Starts for SnapTap_72:
(Start: 24 @43492 has 36 MA's), (57, 43309), (58, 43306), (59, 43303),

Gene: Snape_75 Start: 43054, Stop: 42827, Start Num: 28
Candidate Starts for Snape_75:
(Start: 28 @43054 has 47 MA's), (39, 43000), (51, 42922),

Gene: Snickers_74 Start: 42814, Stop: 42602, Start Num: 33
Candidate Starts for Snickers_74:
(Start: 32 @42817 has 35 MA's), (Start: 33 @42814 has 31 MA's), (40, 42781), (58, 42652), (65, 42607),

Gene: SoYo_71 Start: 42753, Stop: 42541, Start Num: 33
Candidate Starts for SoYo_71:
(Start: 32 @42756 has 35 MA's), (Start: 33 @42753 has 31 MA's), (40, 42720), (58, 42591), (65, 42546),

Gene: SoilDragon_73 Start: 42289, Stop: 42077, Start Num: 33
Candidate Starts for SoilDragon_73:
(Start: 32 @42292 has 35 MA's), (Start: 33 @42289 has 31 MA's), (40, 42256), (58, 42127), (65, 42082),

Gene: SororFago_74 Start: 44027, Stop: 43806, Start Num: 22

Candidate Starts for SororFago_74:

(Start: 22 @44027 has 8 MA's), (39, 43973), (40, 43967), (45, 43949), (59, 43841),

Gene: Soshari_76 Start: 42868, Stop: 42653, Start Num: 32

Candidate Starts for Soshari_76:

(Start: 32 @42868 has 35 MA's), (Start: 33 @42865 has 31 MA's), (40, 42832), (58, 42703), (65, 42658),

Gene: Spike509_74 Start: 42869, Stop: 42654, Start Num: 32

Candidate Starts for Spike509_74:

(Start: 32 @42869 has 35 MA's), (Start: 33 @42866 has 31 MA's), (40, 42833), (58, 42704), (65, 42659),

Gene: Spouty_72 Start: 42594, Stop: 42376, Start Num: 27

Candidate Starts for Spouty_72:

(Start: 27 @42594 has 34 MA's), (40, 42537), (45, 42519),

Gene: Stagni_71 Start: 42844, Stop: 42632, Start Num: 33

Candidate Starts for Stagni_71:

(Start: 32 @42847 has 35 MA's), (Start: 33 @42844 has 31 MA's), (40, 42811), (58, 42682), (65, 42637),

Gene: Steamy_67 Start: 42288, Stop: 42067, Start Num: 23

Candidate Starts for Steamy_67:

(Start: 23 @42288 has 8 MA's), (37, 42258), (57, 42108),

Gene: Sunhee_74 Start: 42052, Stop: 41858, Start Num: 33

Candidate Starts for Sunhee_74:

(Start: 23 @42079 has 8 MA's), (Start: 33 @42052 has 31 MA's), (39, 42025), (40, 42019), (45, 42001), (59, 41893),

Gene: Superchunk_74 Start: 42168, Stop: 41929, Start Num: 14

Candidate Starts for Superchunk_74:

(5, 42240), (8, 42222), (Start: 14 @42168 has 4 MA's), (Start: 24 @42129 has 36 MA's), (39, 42075), (45, 42051), (59, 41937),

Gene: SweetiePie_72 Start: 43624, Stop: 43400, Start Num: 24

Candidate Starts for SweetiePie_72:

(Start: 24 @43624 has 36 MA's), (57, 43441), (58, 43438), (59, 43435),

Gene: SwirlSquare_78 Start: 42851, Stop: 42651, Start Num: 24

Candidate Starts for SwirlSquare_78:

(Start: 24 @42851 has 36 MA's), (39, 42797), (40, 42791), (45, 42773),

Gene: TarsusIV_70 Start: 43465, Stop: 43244, Start Num: 23

Candidate Starts for TarsusIV_70:

(Start: 23 @43465 has 8 MA's), (39, 43411), (40, 43405), (45, 43387), (59, 43279),

Gene: Taurus_75 Start: 42844, Stop: 42629, Start Num: 32

Candidate Starts for Taurus_75:

(Start: 32 @42844 has 35 MA's), (Start: 33 @42841 has 31 MA's), (40, 42808), (58, 42679), (65, 42634),

Gene: Terrific_73 Start: 43472, Stop: 43245, Start Num: 24
Candidate Starts for Terrific_73:
(Start: 24 @43472 has 36 MA's), (39, 43418), (59, 43280),

Gene: Tiffany_73 Start: 42729, Stop: 42514, Start Num: 32
Candidate Starts for Tiffany_73:
(Start: 32 @42729 has 35 MA's), (Start: 33 @42726 has 31 MA's), (40, 42693), (58, 42564), (65, 42519),

Gene: Timothy_75 Start: 43031, Stop: 42804, Start Num: 28
Candidate Starts for Timothy_75:
(Start: 28 @43031 has 47 MA's), (39, 42977), (40, 42971), (51, 42899),

Gene: TinyPebbles_73 Start: 42874, Stop: 42659, Start Num: 32
Candidate Starts for TinyPebbles_73:
(Start: 32 @42874 has 35 MA's), (Start: 33 @42871 has 31 MA's), (40, 42838), (65, 42664),

Gene: TinyTimmy_73 Start: 42760, Stop: 42533, Start Num: 28
Candidate Starts for TinyTimmy_73:
(Start: 28 @42760 has 47 MA's), (39, 42706), (40, 42700), (51, 42628),

Gene: Toneprano_80 Start: 63704, Stop: 63916, Start Num: 38
Candidate Starts for Toneprano_80:
(Start: 38 @63704 has 9 MA's), (55, 63818),

Gene: Topanga_63 Start: 41611, Stop: 41378, Start Num: 29
Candidate Starts for Topanga_63:
(Start: 29 @41611 has 5 MA's), (39, 41563), (40, 41557), (65, 41383),

Gene: Trike_63 Start: 40825, Stop: 40589, Start Num: 28
Candidate Starts for Trike_63:
(Start: 28 @40825 has 47 MA's), (40, 40768), (65, 40594),

Gene: Tristan_69 Start: 44578, Stop: 44339, Start Num: 28
Candidate Starts for Tristan_69:
(Start: 28 @44578 has 47 MA's), (40, 44515), (45, 44497), (58, 44392),

Gene: Trixie_72 Start: 44253, Stop: 44035, Start Num: 27
Candidate Starts for Trixie_72:
(Start: 27 @44253 has 34 MA's), (39, 44202), (45, 44178), (54, 44091), (59, 44070), (63, 44043),

Gene: Trooper_72 Start: 43427, Stop: 43203, Start Num: 28
Candidate Starts for Trooper_72:
(Start: 28 @43427 has 47 MA's), (39, 43376), (40, 43370), (58, 43241), (59, 43238),

Gene: Tubs_74 Start: 42798, Stop: 42580, Start Num: 27
Candidate Starts for Tubs_74:
(Start: 27 @42798 has 34 MA's), (40, 42741), (45, 42723),

Gene: Turbido_73 Start: 43711, Stop: 43487, Start Num: 24
Candidate Starts for Turbido_73:
(Start: 24 @43711 has 36 MA's), (39, 43660), (57, 43528), (58, 43525), (59, 43522),

Gene: Twin_78 Start: 63734, Stop: 63946, Start Num: 38

Candidate Starts for Twin_78:

(Start: 38 @63734 has 9 MA's), (55, 63848),

Gene: Twister_65 Start: 41732, Stop: 41499, Start Num: 29

Candidate Starts for Twister_65:

(Start: 29 @41732 has 5 MA's), (39, 41684), (40, 41678), (65, 41504),

Gene: UBSmoodge_86 Start: 67618, Stop: 67824, Start Num: 38

Candidate Starts for UBSmoodge_86:

(Start: 38 @67618 has 9 MA's), (59, 67756),

Gene: Ugenie5_69 Start: 43086, Stop: 42868, Start Num: 27

Candidate Starts for Ugenie5_69:

(Start: 27 @43086 has 34 MA's), (40, 43029), (45, 43011),

Gene: Updawg_73 Start: 43362, Stop: 43135, Start Num: 24

Candidate Starts for Updawg_73:

(Start: 24 @43362 has 36 MA's), (39, 43308), (59, 43170),

Gene: Vix_70 Start: 42927, Stop: 42712, Start Num: 32

Candidate Starts for Vix_70:

(Start: 32 @42927 has 35 MA's), (Start: 33 @42924 has 31 MA's), (40, 42891), (58, 42762), (65, 42717),

Gene: WalterMcMickey_65 Start: 41732, Stop: 41499, Start Num: 29

Candidate Starts for WalterMcMickey_65:

(Start: 29 @41732 has 5 MA's), (39, 41684), (40, 41678), (65, 41504),

Gene: Watson_73 Start: 42833, Stop: 42621, Start Num: 33

Candidate Starts for Watson_73:

(Start: 32 @42836 has 35 MA's), (Start: 33 @42833 has 31 MA's), (40, 42800), (58, 42671), (65, 42626),

Gene: WeiHuaDA_73 Start: 44299, Stop: 44075, Start Num: 24

Candidate Starts for WeiHuaDA_73:

(Start: 24 @44299 has 36 MA's), (39, 44248), (40, 44242), (57, 44116), (58, 44113), (59, 44110), (63, 44083),

Gene: Whabigail7_73 Start: 43711, Stop: 43487, Start Num: 24

Candidate Starts for Whabigail7_73:

(Start: 24 @43711 has 36 MA's), (39, 43660), (57, 43528), (58, 43525), (59, 43522),

Gene: WideWale_73 Start: 43362, Stop: 43135, Start Num: 24

Candidate Starts for WideWale_73:

(Start: 24 @43362 has 36 MA's), (39, 43308), (59, 43170),

Gene: Wolpertinger_73 Start: 43063, Stop: 42836, Start Num: 28

Candidate Starts for Wolpertinger_73:

(Start: 28 @43063 has 47 MA's), (39, 43009), (40, 43003), (51, 42931),

Gene: Wooldri_76 Start: 42756, Stop: 42541, Start Num: 32

Candidate Starts for Wooldri_76:

(Start: 32 @42756 has 35 MA's), (Start: 33 @42753 has 31 MA's), (40, 42720), (58, 42591), (65, 42546),

Gene: WorldCup_72 Start: 42754, Stop: 42521, Start Num: 20

Candidate Starts for WorldCup_72:

(11, 42793), (Start: 20 @42754 has 1 MA's), (40, 42682), (45, 42664),

Gene: XianYue_68 Start: 43295, Stop: 43074, Start Num: 25

Candidate Starts for XianYue_68:

(Start: 25 @43295 has 3 MA's), (45, 43217), (58, 43112), (64, 43079),

Gene: Yecey3_76 Start: 42829, Stop: 42608, Start Num: 27

Candidate Starts for Yecey3_76:

(Start: 27 @42829 has 34 MA's), (40, 42769), (45, 42751), (54, 42664),

Gene: Zetzy_71 Start: 42407, Stop: 42192, Start Num: 32

Candidate Starts for Zetzy_71:

(Start: 32 @42407 has 35 MA's), (40, 42371), (47, 42338), (51, 42302), (58, 42242), (65, 42197),

Gene: Zimmer_71 Start: 43934, Stop: 43707, Start Num: 23

Candidate Starts for Zimmer_71:

(Start: 23 @43934 has 8 MA's), (39, 43880), (40, 43874), (45, 43856), (57, 43748), (59, 43742),