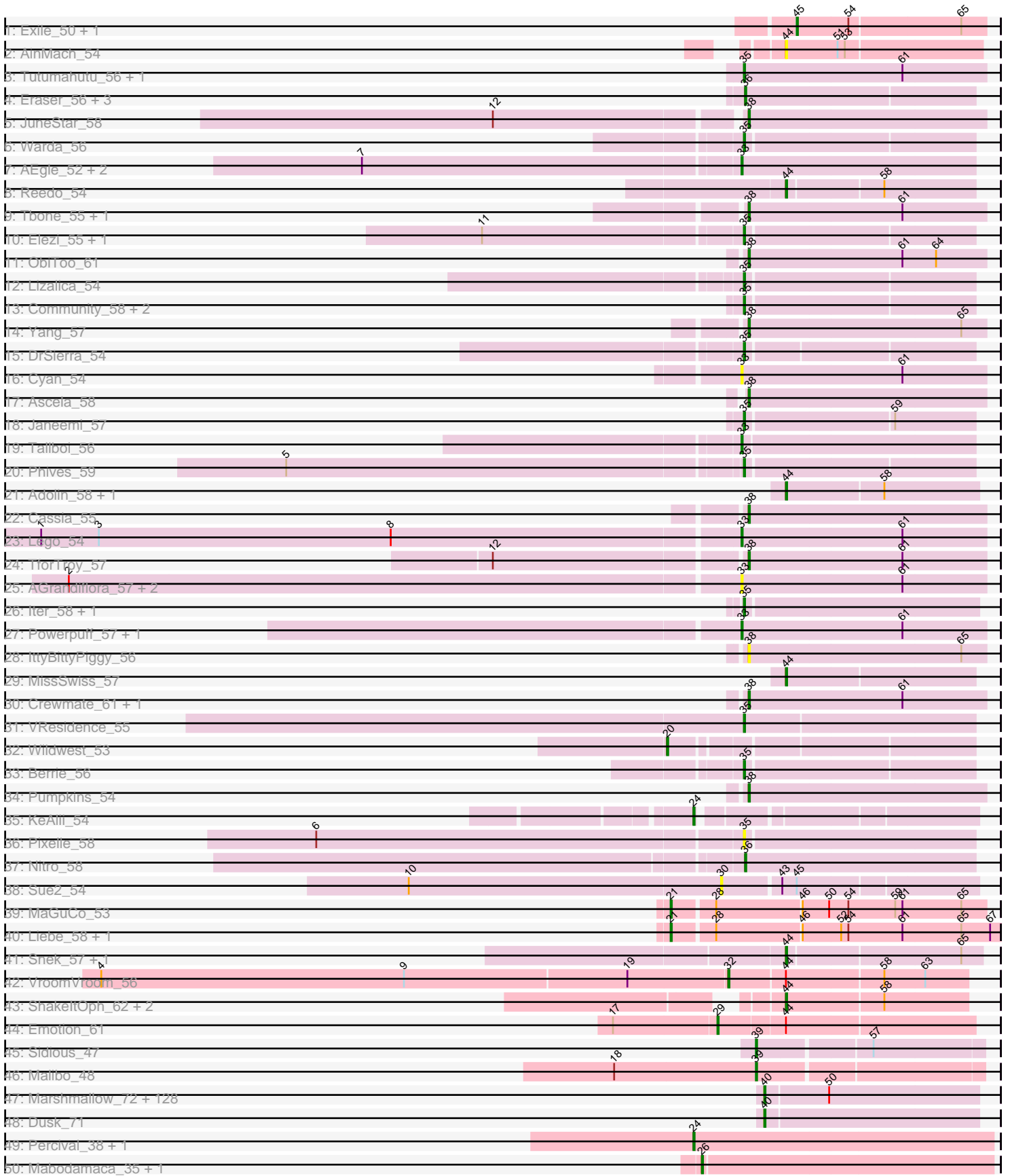
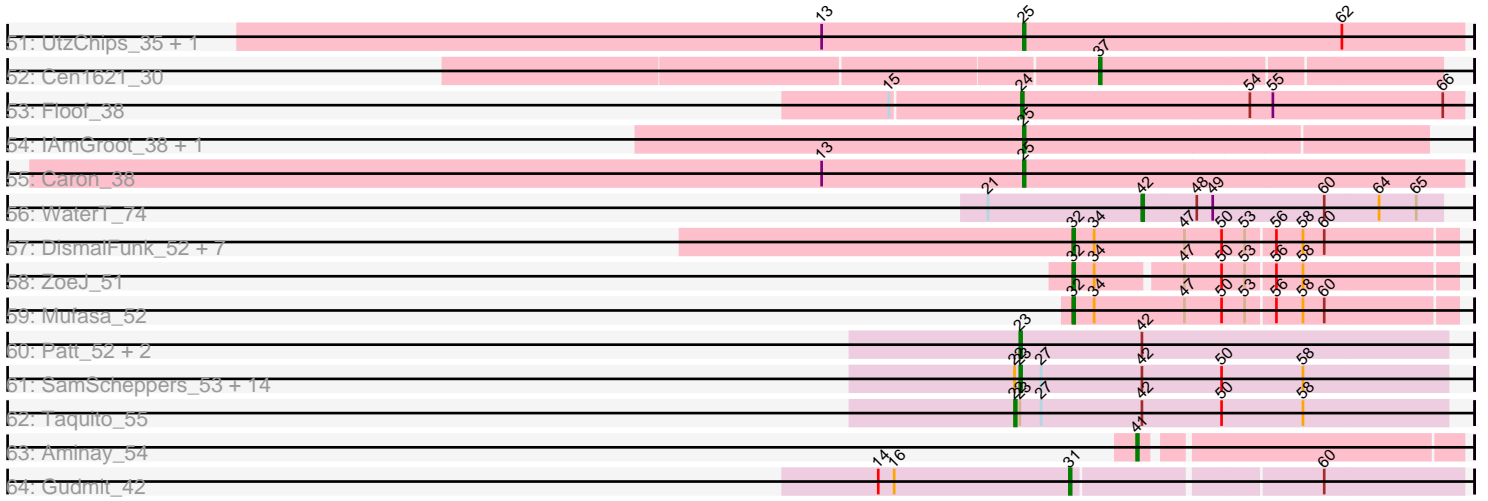


Pham 169687



Pham 169687



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 169687 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169687 has 240 members, 26 are drafts.

Phages represented in each track:

- Track 1 : Exile_50, Soondubu_51
- Track 2 : AinMach_54
- Track 3 : Tutumahutu_56, Kaylissa_56
- Track 4 : Eraser_56, Niobe_56, Asa16_56, London_56
- Track 5 : JuneStar_58
- Track 6 : Warda_56
- Track 7 : AEgle_52, Turab_53, Adumb2043_53
- Track 8 : Reedo_54
- Track 9 : Tbone_55, Mudpuppy_53
- Track 10 : Elezi_55, Jstan_57
- Track 11 : ObiToo_61
- Track 12 : Lizalica_54
- Track 13 : Community_58, Amyev_57, Tian_56
- Track 14 : Yang_57
- Track 15 : DrSierra_54
- Track 16 : Cyan_54
- Track 17 : Ascela_58
- Track 18 : Janeemi_57
- Track 19 : Tallboi_56
- Track 20 : Phives_59
- Track 21 : Adolin_58, DrManhattan_58
- Track 22 : Cassia_55
- Track 23 : Lego_54
- Track 24 : TforTroy_57
- Track 25 : AGrandiflora_57, Joemato_57, Simpson_57
- Track 26 : Iter_58, Tuck_58
- Track 27 : Powerpuff_57, YesChef_55
- Track 28 : IttyBittyPiggy_56
- Track 29 : MissSwiss_57
- Track 30 : Crewmate_61, JohnDoe_55
- Track 31 : VResidence_55
- Track 32 : Wildwest_53
- Track 33 : Berrie_56
- Track 34 : Pumpkins_54
- Track 35 : KeAlii_54
- Track 36 : Pixelle_58
- Track 37 : Nitro_58

- Track 38 : Sue2_54
- Track 39 : MaGuCo_53
- Track 40 : Liebe_58, Maureen_58
- Track 41 : Snek_57, Tweety19_58
- Track 42 : VroomVroom_56
- Track 43 : ShakeltOph_62, MiniMommy_63, JasmineDragon_60
- Track 44 : Emotion_61
- Track 45 : Sidious_47
- Track 46 : Malibo_48
- Track 47 : Marshmallow_72, Barbarian_73, Traaww1_70, Mindy_73, Myrale_74, AmericanBeauty_81, Dumbo_74, Flypotenuse_70, Hoonter_77, TBrady12_77, Kostya_74, Manda_75, Daikon_76, Lilac_76, Filch_75, Easy2Say_75, ShereKhan_73, Rimmer_75, Contagion_70, OrionPax_73, Teaspoon_75, ShamWow_74, Miniwave_69, Phaux_76, Buck_75, Tomaszewski_69, Porky_73, Amao_74, Highbury_73, SophKB_71, Ukulele_69, Cactus_77, NelitzaMV_72, NoSleep_75, Glexan_73, Eureka_72, Nala_76, xkcd_77, Elph10_74, Adnama_78, Sassay_69, CrystalP_73, SirDuracell_73, TeardropMSU_70, RiverMonster_74, Pat3_72, BigBubba_74, Phrux_71, GoldenSpark_78, Lilizi_75, Thresher_76, IHOP_72, Hopey_74, Cookies_71, GooberAzure_77, Youngblood_77, Goldilocks_77, MPhalcon_75, Harella_74, Icee_75, Terminus_77, ChotaBhai_74, Czyszczone1_75, Murphy_74, Murica_77, Bench_77, Balomoji_74, Gator_72, Kanye_71, Command613_76, Saints25_73, Gemini_79, Stark_75, 244_75, Elite2014_73, PhatBacter_78, BugsBunny_74, Asriel_73, Maxxinista_76, Mosby_70, Cjw1_74, DrDrey_74, JeTaime_74, Nimrod_75, Inca_71, ChosenOne_74, HufflyPuff_77, Pharsalus_71, Emmina_74, Misfit_75, Gage_76, Goku_72, Simpliphy_73, Kimchi_78, BadStone_71, Henry_72, BaboJay_71, Policronamos_78, ABCat_71, DoctorDiddles_73, Argent26_78, Phaja_72, Bask21_74, Petra64142_78, Bruin_71, WiggIn_76, FireRed_78, MISSy_75, Xandras_73, Pumpkin_77, Palpatine_76, HanKaySha_74, Sotrice96_75, Tuco_75, StolenFromERC_77, Rakim_75, Holt_79, Paperbeatsrock_73, Qualification_75, Moldemort_77, Toto_72, Lilpickle_73, Tarkin_73, MadamMonkfish_74, StellaBean_72, Willez_69, BilboSwaggins_73, Stank_77, YassJohnny_71
- Track 48 : Dusk_71
- Track 49 : Percival_38, Gretchen_38
- Track 50 : Mabodamaca_35, SuMoo_35
- Track 51 : UtzChips_35, Barnstormer_35
- Track 52 : Cen1621_30
- Track 53 : Floof_38
- Track 54 : IAmGroot_38, GardenState_38
- Track 55 : Caron_38
- Track 56 : WaterT_74
- Track 57 : DismalFunk_52, Findley_52, DismalStressor_52, Marcoliusprime_52, Milly_52, Strobilo_52, TM4_47, BoostSeason_52
- Track 58 : ZoeJ_51
- Track 59 : Mufasa_52
- Track 60 : Patt_52, Reptar3000_53, MissDaisy_53
- Track 61 : SamScheppers_53, Fionnbharth_55, Juliette_57, Cheetobro_55, Slarp_55, JF1_55, Wintermute_55, OmniCritical_54, Eponine_57, Ruthiejr_56, Malthus_56, Y10_54, Y2_54, Mitti_55, Chancellor_55
- Track 62 : Taquito_55
- Track 63 : Aminay_54
- Track 64 : Gudmit_42

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

The start number called the most often in the published annotations is 40, it was called in 122 of the 214 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_75, ABCat_71, Adnama_78, Amao_74, AmericanBeauty_81, Argent26_78, Asriel_73, BaboJay_71, BadStone_71, Balomoji_74, Barbarian_73, Bask21_74, Bench_77, BigBubba_74, BilboSwaggins_73, Bruin_71, Buck_75, BugsBunny_74, Cactus_77, ChosenOne_74, ChotaBhai_74, Cjw1_74, Command613_76, Contagion_70, Cookies_71, CrystalP_73, Czyszczonek1_75, Daikon_76, DoctorDiddles_73, DrDrey_74, Dumbo_74, Dusk_71, Easy2Say_75, Elite2014_73, Elph10_74, Emmina_74, Eureka_72, Filch_75, FireRed_78, Flypotenuse_70, Gage_76, Gator_72, Gemini_79, Glexan_73, Goku_72, GoldenSpark_78, Goldilocks_77, GooberAzure_77, HanKaySha_74, Harella_74, Henry_72, Highbury_73, Holt_79, Hoonter_77, Hopey_74, HuffyPuff_77, IHOP_72, Icee_75, Inca_71, JeTaime_74, Kanye_71, Kimchi_78, Kostya_74, Lilac_76, Lilizi_75, Lilpickle_73, MISSy_75, MPhalcon_75, MadamMonkfish_74, Manda_75, Marshmallow_72, Maxxinista_76, Mindy_73, Miniwave_69, Misfit_75, Moldemort_77, Mosby_70, Murica_77, Murphy_74, Myrale_74, Nala_76, NelitzaMV_72, Nimrod_75, NoSleep_75, OrionPax_73, Palpatine_76, Paperbeatsrock_73, Pat3_72, Petra64142_78, Phaja_72, Pharsalus_71, PhatBacter_78, Phaux_76, Phrux_71, Policronamos_78, Porky_73, Pumpkin_77, Quallification_75, Rakim_75, Rimmer_75, RiverMonster_74, Saints25_73, Sassay_69, ShamWow_74, ShereKhan_73, Simpliphy_73, SirDuracell_73, SophKB_71, Sotrice96_75, Stank_77, Stark_75, StellaBean_72, StolenFromERC_77, TBrady12_77, Tarkin_73, TeardropMSU_70, Teaspoon_75, Terminus_77, Thresher_76, Tomaszewski_69, Toto_72, Traaww1_70, Tuco_75, Ukulele_69, Wiggins_76, Willez_69, Xandras_73, YassJohnny_71, Youngblood_77, xkcd_77,

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

-

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

- AEgle_52, AGrandiflora_57, Adolin_58, Adumb2043_53, AinMach_54, Aminay_54, Amyev_57, Asa16_56, Ascela_58, Barnstormer_35, Berrie_56, BoostSeason_52, Caron_38, Cassia_55, Cen1621_30, Chancellor_55, Cheetobro_55, Community_58, Crewmate_61, Cyan_54, DismalFunk_52, DismalStressor_52, DrManhattan_58, DrSierra_54, Elezi_55, Emotion_61, Eponine_57, Eraser_56, Exile_50, Findley_52, Fionnbharth_55, Floof_38, GardenState_38, Gretchen_38, Gudmit_42, IAmGroot_38, Iter_58, IttyBittyPiggy_56, JF1_55, Janeemi_57, JasmineDragon_60, Joemato_57, JohnDoe_55, Jstan_57, Juliette_57, JuneStar_58, Kaylissa_56, KeAlii_54, Lego_54, Liebe_58, Lizalica_54, London_56, MaGuCo_53, Mabodamaca_35, Malibo_48, Malthus_56, Marcoliusprime_52, Maureen_58, Milly_52, MiniMommy_63, MissDaisy_53, MissSwiss_57, Mitti_55, Mudpuppy_53, Mufasa_52, Niobe_56, Nitro_58, ObiToo_61, OmniCritical_54, Patt_52, Percival_38, Phives_59, Pixelle_58, Powerpuff_57, Pumpkins_54, Reedo_54, Reptar3000_53, Ruthiejr_56, SamScheppers_53, ShakeltOph_62, Sidious_47, Simpson_57, Slarp_55, Snek_57, Soondubu_51, Strobilo_52, SuMoo_35, Sue2_54, TM4_47, Tallboi_56, Taquito_55, Tbone_55, TforTroy_57, Tian_56, Tuck_58, Turab_53, Tutumahutu_56,

Tweety19_58, UtzChips_35, VResidence_55, VroomVroom_56, Warda_56, WaterT_74, Wildwest_53, Wintermute_55, Y10_54, Y2_54, Yang_57, YesChef_55, ZoeJ_51,

Summary by start number:

Start 20:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wildwest_53 (AZ1),

Start 21:

- Found in 4 of 240 (1.7%) of genes in pham
- Manual Annotations of this start: 3 of 214
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Liebe_58 (AZ2), MaGuCo_53 (AZ2), Maureen_58 (AZ2),

Start 22:

- Found in 16 of 240 (6.7%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Taquito_55 (K4),

Start 23:

- Found in 19 of 240 (7.9%) of genes in pham
- Manual Annotations of this start: 18 of 214
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Chancellor_55 (K4), Cheetobro_55 (K4), Eponine_57 (K4), Fionnbharth_55 (K4), JF1_55 (K4), Juliette_57 (K4), Malthus_56 (K4), MissDaisy_53 (K4), Mitti_55 (K4), OmniCritical_54 (K4), Patt_52 (K4), Reptar3000_53 (K4), Ruthiejr_56 (K4), SamScheppers_53 (K4), Slarp_55 (K4), Wintermute_55 (K4), Y10_54 (K4), Y2_54 (K4),

Start 24:

- Found in 4 of 240 (1.7%) of genes in pham
- Manual Annotations of this start: 4 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Floof_38 (EH), Gretchen_38 (EH), KeAlii_54 (AZ1), Percival_38 (EH),

Start 25:

- Found in 5 of 240 (2.1%) of genes in pham
- Manual Annotations of this start: 5 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnstormer_35 (EH), Caron_38 (EH), GardenState_38 (EH), IAmGroot_38 (EH), UtzChips_35 (EH),

Start 26:

- Found in 2 of 240 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Mabodamaca_35 (EH), SuMoo_35 (EH),

Start 29:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Emotion_61 (AZ4),

Start 30:

- Found in 1 of 240 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sue2_54 (AZ1),

Start 31:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_42 (singleton),

Start 32:

- Found in 11 of 240 (4.6%) of genes in pham
- Manual Annotations of this start: 11 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_52 (K2), DismalFunk_52 (K2), DismalStressor_52 (K2), Findley_52 (K2), Marcoliusprime_52 (K2), Milly_52 (K2), Mufasa_52 (K2), Strobilo_52 (K2), TM4_47 (K2), VroomVroom_56 (AZ4), ZoeJ_51 (K2),

Start 33:

- Found in 11 of 240 (4.6%) of genes in pham
- Manual Annotations of this start: 5 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_52 (AZ1), AGrandiflora_57 (AZ1), Adumb2043_53 (AZ1), Cyan_54 (AZ1), Joemato_57 (AZ1), Lego_54 (AZ1), Powerpuff_57 (AZ1), Simpson_57 (AZ1), Tallboi_56 (AZ1), Turab_53 (AZ1), YesChef_55 (AZ1),

Start 35:

- Found in 17 of 240 (7.1%) of genes in pham
- Manual Annotations of this start: 13 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amyev_57 (AZ1), Berrie_56 (AZ1), Community_58 (AZ1), DrSierra_54 (AZ1), Elezi_55 (AZ1), Iter_58 (AZ1), Janeemi_57 (AZ1), Jstan_57 (AZ1), Kaylissa_56 (AZ1), Lizalica_54 (AZ1), Phives_59 (AZ1), Pixelle_58 (AZ1), Tian_56 (AZ1), Tuck_58 (AZ1), Tutumahutu_56 (AZ1), VResidence_55 (AZ1), Warda_56 (AZ1),

Start 36:

- Found in 5 of 240 (2.1%) of genes in pham
- Manual Annotations of this start: 5 of 214
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Asa16_56 (AZ1), Eraser_56 (AZ1), London_56 (AZ1), Niobe_56 (AZ1), Nitro_58 (AZ1),

Start 37:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cen1621_30 (EH),

Start 38:

- Found in 12 of 240 (5.0%) of genes in pham
- Manual Annotations of this start: 10 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ascela_58 (AZ1), Cassia_55 (AZ1), Crewmate_61 (AZ1), IttyBittyPiggy_56 (AZ1), JohnDoe_55 (AZ1), JuneStar_58 (AZ1), Mudpuppy_53 (AZ1), ObiToo_61 (AZ1), Pumpkins_54 (AZ1), Tbone_55 (AZ1), TforTroy_57 (AZ1), Yang_57 (AZ1),

Start 39:

- Found in 2 of 240 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Malibo_48 (DW), Sidious_47 (CZ7),

Start 40:

- Found in 130 of 240 (54.2%) of genes in pham
- Manual Annotations of this start: 122 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244_75 (E), ABCat_71 (E), Adnama_78 (E), Amao_74 (E), AmericanBeauty_81 (E), Argent26_78 (E), Asriel_73 (E), BaboJay_71 (E), BadStone_71 (E), Balomoji_74 (E), Barbarian_73 (E), Bask21_74 (E), Bench_77 (E), BigBubba_74 (E), BilboSwaggins_73 (E), Bruin_71 (E), Buck_75 (E), BugsBunny_74 (E), Cactus_77 (E), ChosenOne_74 (E), ChotaBhai_74 (E), Cjw1_74 (E), Command613_76 (E), Contagion_70 (E), Cookies_71 (E), CrystalP_73 (E), Czyszczonek_75 (E), Daikon_76 (E), DoctorDiddles_73 (E), DrDrey_74 (E), Dumbo_74 (E), Dusk_71 (E), Easy2Say_75 (E), Elite2014_73 (E), Elph10_74 (E), Emmina_74 (E), Eureka_72 (E), Filch_75 (E), FireRed_78 (E), Flypotenuse_70 (E), Gage_76 (E), Gator_72 (E), Gemini_79 (E), Glexan_73 (E), Goku_72 (E), GoldenSpark_78 (E), Goldilocks_77 (E), GooberAzure_77 (E), HanKaySha_74 (E), Harella_74 (E), Henry_72 (E), Highbury_73 (E), Holt_79 (E), Hoonter_77 (E), Hopey_74 (E), HufflyPuff_77 (E), IHOP_72 (E), Icee_75 (E), Inca_71 (E), JeTaime_74 (E), Kanye_71 (E), Kimchi_78 (E), Kostya_74 (E), Lilac_76 (E), Lilizi_75 (E), Lilpickle_73 (E), MISSy_75 (E), MPhalcon_75 (E), MadamMonkfish_74 (E), Manda_75 (E), Marshmallow_72 (E), Maxxinista_76 (E), Mindy_73 (E), Miniwave_69 (E), Misfit_75 (E), Moldemort_77 (E), Mosby_70 (E), Murica_77 (E), Murphy_74 (E), Myrale_74 (E), Nala_76 (E), NelitzaMV_72 (E), Nimrod_75 (E), NoSleep_75 (E), OrionPax_73 (E), Palpatine_76 (E), Paperbeatsrock_73 (E), Pat3_72 (E), Petra64142_78 (E), Phaja_72 (E), Pharsalus_71 (E), PhatBacter_78 (E), Phaux_76 (E), Phrux_71 (E), Policronamos_78 (E), Porky_73 (E), Pumpkin_77 (E), Quallification_75 (E), Rakim_75 (E), Rimmer_75 (E), RiverMonster_74 (E), Saints25_73 (E), Sassay_69 (E), ShamWow_74 (E), ShereKhan_73 (E), Simpliphy_73 (E), SirDuracell_73 (E), SophKB_71 (E), Sotrice96_75 (E), Stank_77 (E), Stark_75 (E), StellaBean_72 (E), StolenFromERC_77 (E), TBrady12_77 (E),

Tarkin_73 (E), TeardropMSU_70 (E), Teaspoon_75 (E), Terminus_77 (E), Thresher_76 (E), Tomaszewski_69 (E), Toto_72 (E), Traaww1_70 (E), Tuco_75 (E), Ukulele_69 (E), Wiggin_76 (E), Willez_69 (E), Xandras_73 (E), YassJohnny_71 (E), Youngblood_77 (E), xkcd_77 (E),

Start 41:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_54 (K7),

Start 42:

- Found in 20 of 240 (8.3%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 5.0% of time when present
- Phage (with cluster) where this start called: WaterT_74 (GB),

Start 44:

- Found in 12 of 240 (5.0%) of genes in pham
- Manual Annotations of this start: 7 of 214
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Adolin_58 (AZ1), AinMach_54 (AZ), DrManhattan_58 (AZ1), JasmineDragon_60 (AZ4), MiniMommy_63 (AZ4), MissSwiss_57 (AZ1), Reedo_54 (AZ1), ShakeltOph_62 (AZ4), Snek_57 (AZ3), Tweety19_58 (AZ3),

Start 45:

- Found in 3 of 240 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 214
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Exile_50 (AZ), Soondubu_51 (AZ),

Summary by clusters:

There are 14 clusters represented in this pham: singleton, AZ, E, EH, CZ7, DW, K2, K7, GB, K4, AZ1, AZ2, AZ3, AZ4,

Info for manual annotations of cluster AZ:

- Start number 45 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 20 was manually annotated 1 time for cluster AZ1.
- Start number 24 was manually annotated 1 time for cluster AZ1.
- Start number 33 was manually annotated 5 times for cluster AZ1.
- Start number 35 was manually annotated 13 times for cluster AZ1.
- Start number 36 was manually annotated 5 times for cluster AZ1.
- Start number 38 was manually annotated 10 times for cluster AZ1.
- Start number 44 was manually annotated 4 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 21 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 44 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 29 was manually annotated 1 time for cluster AZ4.
- Start number 32 was manually annotated 1 time for cluster AZ4.
- Start number 44 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster CZ7:

- Start number 39 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DW:

- Start number 39 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster E:

- Start number 40 was manually annotated 122 times for cluster E.

Info for manual annotations of cluster EH:

- Start number 24 was manually annotated 3 times for cluster EH.
- Start number 25 was manually annotated 5 times for cluster EH.
- Start number 26 was manually annotated 1 time for cluster EH.
- Start number 37 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster GB:

- Start number 42 was manually annotated 1 time for cluster GB.

Info for manual annotations of cluster K2:

- Start number 32 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K4:

- Start number 22 was manually annotated 1 time for cluster K4.
- Start number 23 was manually annotated 18 times for cluster K4.

Info for manual annotations of cluster K7:

- Start number 41 was manually annotated 1 time for cluster K7.

Gene Information:

Gene: 244_75 Start: 47793, Stop: 47966, Start Num: 40

Candidate Starts for 244_75:

(Start: 40 @47793 has 122 MA's), (50, 47844),

Gene: ABCat_71 Start: 48146, Stop: 48319, Start Num: 40

Candidate Starts for ABCat_71:

(Start: 40 @48146 has 122 MA's), (50, 48197),

Gene: AEgle_52 Start: 37591, Stop: 37782, Start Num: 33

Candidate Starts for AEgle_52:

(7, 37285), (Start: 33 @37591 has 5 MA's),

Gene: AGrandiflora_57 Start: 38760, Stop: 38960, Start Num: 33

Candidate Starts for AGrandiflora_57:

(2, 38211), (Start: 33 @38760 has 5 MA's), (61, 38892),

Gene: Adnama_78 Start: 48172, Stop: 48345, Start Num: 40
Candidate Starts for Adnama_78:
(Start: 40 @48172 has 122 MA's), (50, 48223),

Gene: Adolin_58 Start: 37478, Stop: 37633, Start Num: 44
Candidate Starts for Adolin_58:
(Start: 44 @37478 has 7 MA's), (58, 37556),

Gene: Adumb2043_53 Start: 37614, Stop: 37805, Start Num: 33
Candidate Starts for Adumb2043_53:
(7, 37308), (Start: 33 @37614 has 5 MA's),

Gene: AinMach_54 Start: 37308, Stop: 37466, Start Num: 44
Candidate Starts for AinMach_54:
(Start: 44 @37308 has 7 MA's), (51, 37350), (53, 37356),

Gene: Amao_74 Start: 47566, Stop: 47739, Start Num: 40
Candidate Starts for Amao_74:
(Start: 40 @47566 has 122 MA's), (50, 47617),

Gene: AmericanBeauty_81 Start: 48315, Stop: 48488, Start Num: 40
Candidate Starts for AmericanBeauty_81:
(Start: 40 @48315 has 122 MA's), (50, 48366),

Gene: Aminay_54 Start: 38354, Stop: 38521, Start Num: 41
Candidate Starts for Aminay_54:
(Start: 41 @38354 has 1 MA's),

Gene: Amyev_57 Start: 40846, Stop: 41031, Start Num: 35
Candidate Starts for Amyev_57:
(Start: 35 @40846 has 13 MA's),

Gene: Argent26_78 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for Argent26_78:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: Asa16_56 Start: 39543, Stop: 39728, Start Num: 36
Candidate Starts for Asa16_56:
(Start: 36 @39543 has 5 MA's),

Gene: Ascela_58 Start: 39002, Stop: 39196, Start Num: 38
Candidate Starts for Ascela_58:
(Start: 38 @39002 has 10 MA's),

Gene: Asriel_73 Start: 46509, Stop: 46682, Start Num: 40
Candidate Starts for Asriel_73:
(Start: 40 @46509 has 122 MA's), (50, 46560),

Gene: BaboJay_71 Start: 47346, Stop: 47519, Start Num: 40
Candidate Starts for BaboJay_71:
(Start: 40 @47346 has 122 MA's), (50, 47397),

Gene: BadStone_71 Start: 47715, Stop: 47888, Start Num: 40
Candidate Starts for BadStone_71:
(Start: 40 @47715 has 122 MA's), (50, 47766),

Gene: Balomoji_74 Start: 48276, Stop: 48449, Start Num: 40
Candidate Starts for Balomoji_74:
(Start: 40 @48276 has 122 MA's), (50, 48327),

Gene: Barbarian_73 Start: 46509, Stop: 46682, Start Num: 40
Candidate Starts for Barbarian_73:
(Start: 40 @46509 has 122 MA's), (50, 46560),

Gene: Barnstormer_35 Start: 24679, Stop: 24924, Start Num: 25
Candidate Starts for Barnstormer_35:
(13, 24565), (Start: 25 @24679 has 5 MA's), (62, 24856),

Gene: Bask21_74 Start: 47129, Stop: 47302, Start Num: 40
Candidate Starts for Bask21_74:
(Start: 40 @47129 has 122 MA's), (50, 47180),

Gene: Bench_77 Start: 47813, Stop: 47992, Start Num: 40
Candidate Starts for Bench_77:
(Start: 40 @47813 has 122 MA's), (50, 47864),

Gene: Berrie_56 Start: 38817, Stop: 38999, Start Num: 35
Candidate Starts for Berrie_56:
(Start: 35 @38817 has 13 MA's),

Gene: BigBubba_74 Start: 47525, Stop: 47704, Start Num: 40
Candidate Starts for BigBubba_74:
(Start: 40 @47525 has 122 MA's), (50, 47576),

Gene: BilboSwaggins_73 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for BilboSwaggins_73:
(Start: 40 @48154 has 122 MA's), (50, 48205),

Gene: BoostSeason_52 Start: 38177, Stop: 38386, Start Num: 32
Candidate Starts for BoostSeason_52:
(Start: 32 @38177 has 11 MA's), (34, 38189), (47, 38240), (50, 38261), (53, 38273), (56, 38288), (58, 38303), (60, 38315),

Gene: Bruin_71 Start: 46689, Stop: 46868, Start Num: 40
Candidate Starts for Bruin_71:
(Start: 40 @46689 has 122 MA's), (50, 46740),

Gene: Buck_75 Start: 48394, Stop: 48567, Start Num: 40
Candidate Starts for Buck_75:
(Start: 40 @48394 has 122 MA's), (50, 48445),

Gene: BugsBunny_74 Start: 48221, Stop: 48400, Start Num: 40
Candidate Starts for BugsBunny_74:
(Start: 40 @48221 has 122 MA's), (50, 48272),

Gene: Cactus_77 Start: 47170, Stop: 47343, Start Num: 40
Candidate Starts for Cactus_77:
(Start: 40 @47170 has 122 MA's), (50, 47221),

Gene: Caron_38 Start: 25164, Stop: 25409, Start Num: 25
Candidate Starts for Caron_38:
(13, 25050), (Start: 25 @25164 has 5 MA's),

Gene: Cassia_55 Start: 38504, Stop: 38698, Start Num: 38
Candidate Starts for Cassia_55:
(Start: 38 @38504 has 10 MA's),

Gene: Cen1621_30 Start: 22502, Stop: 22687, Start Num: 37
Candidate Starts for Cen1621_30:
(Start: 37 @22502 has 1 MA's),

Gene: Chancellor_55 Start: 37968, Stop: 38207, Start Num: 23
Candidate Starts for Chancellor_55:
(Start: 22 @37965 has 1 MA's), (Start: 23 @37968 has 18 MA's), (27, 37980), (Start: 42 @38037 has 1 MA's), (50, 38082), (58, 38127),

Gene: Cheetobro_55 Start: 37965, Stop: 38204, Start Num: 23
Candidate Starts for Cheetobro_55:
(Start: 22 @37962 has 1 MA's), (Start: 23 @37965 has 18 MA's), (27, 37977), (Start: 42 @38034 has 1 MA's), (50, 38079), (58, 38124),

Gene: ChosenOne_74 Start: 47170, Stop: 47343, Start Num: 40
Candidate Starts for ChosenOne_74:
(Start: 40 @47170 has 122 MA's), (50, 47221),

Gene: ChotaBhai_74 Start: 47494, Stop: 47667, Start Num: 40
Candidate Starts for ChotaBhai_74:
(Start: 40 @47494 has 122 MA's), (50, 47545),

Gene: Cjw1_74 Start: 48867, Stop: 49040, Start Num: 40
Candidate Starts for Cjw1_74:
(Start: 40 @48867 has 122 MA's), (50, 48918),

Gene: Command613_76 Start: 48209, Stop: 48382, Start Num: 40
Candidate Starts for Command613_76:
(Start: 40 @48209 has 122 MA's), (50, 48260),

Gene: Community_58 Start: 40395, Stop: 40577, Start Num: 35
Candidate Starts for Community_58:
(Start: 35 @40395 has 13 MA's),

Gene: Contagion_70 Start: 46970, Stop: 47149, Start Num: 40
Candidate Starts for Contagion_70:
(Start: 40 @46970 has 122 MA's), (50, 47021),

Gene: Cookies_71 Start: 47351, Stop: 47524, Start Num: 40
Candidate Starts for Cookies_71:

(Start: 40 @47351 has 122 MA's), (50, 47402),

Gene: Crewmate_61 Start: 40124, Stop: 40318, Start Num: 38

Candidate Starts for Crewmate_61:

(Start: 38 @40124 has 10 MA's), (61, 40250),

Gene: CrystalP_73 Start: 48154, Stop: 48327, Start Num: 40

Candidate Starts for CrystalP_73:

(Start: 40 @48154 has 122 MA's), (50, 48205),

Gene: Cyan_54 Start: 38301, Stop: 38501, Start Num: 33

Candidate Starts for Cyan_54:

(Start: 33 @38301 has 5 MA's), (61, 38433),

Gene: Czyszczone1_75 Start: 47676, Stop: 47855, Start Num: 40

Candidate Starts for Czyszczone1_75:

(Start: 40 @47676 has 122 MA's), (50, 47727),

Gene: Daikon_76 Start: 48297, Stop: 48470, Start Num: 40

Candidate Starts for Daikon_76:

(Start: 40 @48297 has 122 MA's), (50, 48348),

Gene: DismalFunk_52 Start: 38608, Stop: 38817, Start Num: 32

Candidate Starts for DismalFunk_52:

(Start: 32 @38608 has 11 MA's), (34, 38620), (47, 38671), (50, 38692), (53, 38704), (56, 38719), (58, 38734), (60, 38746),

Gene: DismalStressor_52 Start: 38608, Stop: 38817, Start Num: 32

Candidate Starts for DismalStressor_52:

(Start: 32 @38608 has 11 MA's), (34, 38620), (47, 38671), (50, 38692), (53, 38704), (56, 38719), (58, 38734), (60, 38746),

Gene: DoctorDiddles_73 Start: 47538, Stop: 47711, Start Num: 40

Candidate Starts for DoctorDiddles_73:

(Start: 40 @47538 has 122 MA's), (50, 47589),

Gene: DrDrey_74 Start: 48595, Stop: 48774, Start Num: 40

Candidate Starts for DrDrey_74:

(Start: 40 @48595 has 122 MA's), (50, 48646),

Gene: DrManhattan_58 Start: 37046, Stop: 37201, Start Num: 44

Candidate Starts for DrManhattan_58:

(Start: 44 @37046 has 7 MA's), (58, 37124),

Gene: DrSierra_54 Start: 37220, Stop: 37399, Start Num: 35

Candidate Starts for DrSierra_54:

(Start: 35 @37220 has 13 MA's),

Gene: Dumbo_74 Start: 47075, Stop: 47248, Start Num: 40

Candidate Starts for Dumbo_74:

(Start: 40 @47075 has 122 MA's), (50, 47126),

Gene: Dusk_71 Start: 47375, Stop: 47548, Start Num: 40

Candidate Starts for Dusk_71:
(Start: 40 @47375 has 122 MA's),

Gene: Easy2Say_75 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for Easy2Say_75:
(Start: 40 @48619 has 122 MA's), (50, 48670),

Gene: Elezi_55 Start: 39303, Stop: 39485, Start Num: 35
Candidate Starts for Elezi_55:
(11, 39096), (Start: 35 @39303 has 13 MA's),

Gene: Elite2014_73 Start: 47169, Stop: 47342, Start Num: 40
Candidate Starts for Elite2014_73:
(Start: 40 @47169 has 122 MA's), (50, 47220),

Gene: Elph10_74 Start: 47174, Stop: 47353, Start Num: 40
Candidate Starts for Elph10_74:
(Start: 40 @47174 has 122 MA's), (50, 47225),

Gene: Emmina_74 Start: 47076, Stop: 47249, Start Num: 40
Candidate Starts for Emmina_74:
(Start: 40 @47076 has 122 MA's), (50, 47127),

Gene: Emotion_61 Start: 40785, Stop: 40988, Start Num: 29
Candidate Starts for Emotion_61:
(17, 40701), (Start: 29 @40785 has 1 MA's), (Start: 44 @40836 has 7 MA's),

Gene: Eponine_57 Start: 38805, Stop: 39044, Start Num: 23
Candidate Starts for Eponine_57:
(Start: 22 @38802 has 1 MA's), (Start: 23 @38805 has 18 MA's), (27, 38817), (Start: 42 @38874 has 1 MA's), (50, 38919), (58, 38964),

Gene: Eraser_56 Start: 39550, Stop: 39735, Start Num: 36
Candidate Starts for Eraser_56:
(Start: 36 @39550 has 5 MA's),

Gene: Eureka_72 Start: 47640, Stop: 47813, Start Num: 40
Candidate Starts for Eureka_72:
(Start: 40 @47640 has 122 MA's), (50, 47691),

Gene: Exile_50 Start: 40505, Stop: 40657, Start Num: 45
Candidate Starts for Exile_50:
(Start: 45 @40505 has 1 MA's), (54, 40547), (65, 40637),

Gene: Filch_75 Start: 47101, Stop: 47280, Start Num: 40
Candidate Starts for Filch_75:
(Start: 40 @47101 has 122 MA's), (50, 47152),

Gene: Findley_52 Start: 38601, Stop: 38810, Start Num: 32
Candidate Starts for Findley_52:
(Start: 32 @38601 has 11 MA's), (34, 38613), (47, 38664), (50, 38685), (53, 38697), (56, 38712), (58, 38727), (60, 38739),

Gene: Fionnbharth_55 Start: 38203, Stop: 38442, Start Num: 23
Candidate Starts for Fionnbharth_55:
(Start: 22 @38200 has 1 MA's), (Start: 23 @38203 has 18 MA's), (27, 38215), (Start: 42 @38272 has 1 MA's), (50, 38317), (58, 38362),

Gene: FireRed_78 Start: 48663, Stop: 48836, Start Num: 40
Candidate Starts for FireRed_78:
(Start: 40 @48663 has 122 MA's), (50, 48714),

Gene: Floof_38 Start: 25665, Stop: 25910, Start Num: 24
Candidate Starts for Floof_38:
(15, 25593), (Start: 24 @25665 has 4 MA's), (54, 25791), (55, 25803), (66, 25899),

Gene: Flypotenuse_70 Start: 47160, Stop: 47333, Start Num: 40
Candidate Starts for Flypotenuse_70:
(Start: 40 @47160 has 122 MA's), (50, 47211),

Gene: Gage_76 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for Gage_76:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: GardenState_38 Start: 25346, Stop: 25567, Start Num: 25
Candidate Starts for GardenState_38:
(Start: 25 @25346 has 5 MA's),

Gene: Gator_72 Start: 48006, Stop: 48185, Start Num: 40
Candidate Starts for Gator_72:
(Start: 40 @48006 has 122 MA's), (50, 48057),

Gene: Gemini_79 Start: 48470, Stop: 48643, Start Num: 40
Candidate Starts for Gemini_79:
(Start: 40 @48470 has 122 MA's), (50, 48521),

Gene: Glexan_73 Start: 48290, Stop: 48463, Start Num: 40
Candidate Starts for Glexan_73:
(Start: 40 @48290 has 122 MA's), (50, 48341),

Gene: Goku_72 Start: 47369, Stop: 47542, Start Num: 40
Candidate Starts for Goku_72:
(Start: 40 @47369 has 122 MA's), (50, 47420),

Gene: GoldenSpark_78 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for GoldenSpark_78:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: Goldilocks_77 Start: 47451, Stop: 47624, Start Num: 40
Candidate Starts for Goldilocks_77:
(Start: 40 @47451 has 122 MA's), (50, 47502),

Gene: GooberAzure_77 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for GooberAzure_77:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: Gretchen_38 Start: 26776, Stop: 27021, Start Num: 24
Candidate Starts for Gretchen_38:
(Start: 24 @26776 has 4 MA's),

Gene: Gudmit_42 Start: 28762, Stop: 28971, Start Num: 31
Candidate Starts for Gudmit_42:
(14, 28654), (16, 28663), (Start: 31 @28762 has 1 MA's), (60, 28894),

Gene: HanKaySha_74 Start: 47254, Stop: 47433, Start Num: 40
Candidate Starts for HanKaySha_74:
(Start: 40 @47254 has 122 MA's), (50, 47305),

Gene: Harella_74 Start: 48806, Stop: 48979, Start Num: 40
Candidate Starts for Harella_74:
(Start: 40 @48806 has 122 MA's), (50, 48857),

Gene: Henry_72 Start: 47594, Stop: 47767, Start Num: 40
Candidate Starts for Henry_72:
(Start: 40 @47594 has 122 MA's), (50, 47645),

Gene: Highbury_73 Start: 47242, Stop: 47415, Start Num: 40
Candidate Starts for Highbury_73:
(Start: 40 @47242 has 122 MA's), (50, 47293),

Gene: Holt_79 Start: 48367, Stop: 48540, Start Num: 40
Candidate Starts for Holt_79:
(Start: 40 @48367 has 122 MA's), (50, 48418),

Gene: Hoonter_77 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for Hoonter_77:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: Hokey_74 Start: 47786, Stop: 47965, Start Num: 40
Candidate Starts for Hokey_74:
(Start: 40 @47786 has 122 MA's), (50, 47837),

Gene: HufflyPuff_77 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for HufflyPuff_77:
(Start: 40 @48619 has 122 MA's), (50, 48670),

Gene: IAmGroot_38 Start: 26011, Stop: 26232, Start Num: 25
Candidate Starts for IAmGroot_38:
(Start: 25 @26011 has 5 MA's),

Gene: IHOP_72 Start: 47718, Stop: 47891, Start Num: 40
Candidate Starts for IHOP_72:
(Start: 40 @47718 has 122 MA's), (50, 47769),

Gene: Icee_75 Start: 47617, Stop: 47790, Start Num: 40
Candidate Starts for Icee_75:
(Start: 40 @47617 has 122 MA's), (50, 47668),

Gene: Inca_71 Start: 46243, Stop: 46416, Start Num: 40

Candidate Starts for Inca_71:
(Start: 40 @46243 has 122 MA's), (50, 46294),

Gene: Iter_58 Start: 38994, Stop: 39182, Start Num: 35
Candidate Starts for Iter_58:
(Start: 35 @38994 has 13 MA's),

Gene: IttyBittyPiggy_56 Start: 38132, Stop: 38326, Start Num: 38
Candidate Starts for IttyBittyPiggy_56:
(Start: 38 @38132 has 10 MA's), (65, 38306),

Gene: JF1_55 Start: 38120, Stop: 38359, Start Num: 23
Candidate Starts for JF1_55:
(Start: 22 @38117 has 1 MA's), (Start: 23 @38120 has 18 MA's), (27, 38132), (Start: 42 @38189 has 1 MA's), (50, 38234), (58, 38279),

Gene: Janeemi_57 Start: 39872, Stop: 40054, Start Num: 35
Candidate Starts for Janeemi_57:
(Start: 35 @39872 has 13 MA's), (59, 39989),

Gene: JasmineDragon_60 Start: 40141, Stop: 40287, Start Num: 44
Candidate Starts for JasmineDragon_60:
(Start: 44 @40141 has 7 MA's), (58, 40219),

Gene: JeTaime_74 Start: 48435, Stop: 48608, Start Num: 40
Candidate Starts for JeTaime_74:
(Start: 40 @48435 has 122 MA's), (50, 48486),

Gene: Joemato_57 Start: 38382, Stop: 38582, Start Num: 33
Candidate Starts for Joemato_57:
(2, 37833), (Start: 33 @38382 has 5 MA's), (61, 38514),

Gene: JohnDoe_55 Start: 38368, Stop: 38562, Start Num: 38
Candidate Starts for JohnDoe_55:
(Start: 38 @38368 has 10 MA's), (61, 38494),

Gene: Jstan_57 Start: 39307, Stop: 39489, Start Num: 35
Candidate Starts for Jstan_57:
(11, 39100), (Start: 35 @39307 has 13 MA's),

Gene: Juliette_57 Start: 38273, Stop: 38512, Start Num: 23
Candidate Starts for Juliette_57:
(Start: 22 @38270 has 1 MA's), (Start: 23 @38273 has 18 MA's), (27, 38285), (Start: 42 @38342 has 1 MA's), (50, 38387), (58, 38432),

Gene: JuneStar_58 Start: 41416, Stop: 41610, Start Num: 38
Candidate Starts for JuneStar_58:
(12, 41221), (Start: 38 @41416 has 10 MA's),

Gene: Kanye_71 Start: 47299, Stop: 47472, Start Num: 40
Candidate Starts for Kanye_71:
(Start: 40 @47299 has 122 MA's), (50, 47350),

Gene: Kaylissa_56 Start: 38763, Stop: 38960, Start Num: 35
Candidate Starts for Kaylissa_56:
(Start: 35 @38763 has 13 MA's), (61, 38892),

Gene: KeAlii_54 Start: 38009, Stop: 38218, Start Num: 24
Candidate Starts for KeAlii_54:
(Start: 24 @38009 has 4 MA's),

Gene: Kimchi_78 Start: 47956, Stop: 48129, Start Num: 40
Candidate Starts for Kimchi_78:
(Start: 40 @47956 has 122 MA's), (50, 48007),

Gene: Kostya_74 Start: 47817, Stop: 47990, Start Num: 40
Candidate Starts for Kostya_74:
(Start: 40 @47817 has 122 MA's), (50, 47868),

Gene: Lego_54 Start: 38079, Stop: 38279, Start Num: 33
Candidate Starts for Lego_54:
(1, 37506), (3, 37554), (8, 37797), (Start: 33 @38079 has 5 MA's), (61, 38211),

Gene: Liebe_58 Start: 41412, Stop: 41675, Start Num: 21
Candidate Starts for Liebe_58:
(Start: 21 @41412 has 3 MA's), (28, 41445), (46, 41514), (52, 41544), (54, 41550), (61, 41595), (65, 41643), (67, 41667),

Gene: Lilac_76 Start: 47571, Stop: 47750, Start Num: 40
Candidate Starts for Lilac_76:
(Start: 40 @47571 has 122 MA's), (50, 47622),

Gene: Lilizi_75 Start: 47284, Stop: 47463, Start Num: 40
Candidate Starts for Lilizi_75:
(Start: 40 @47284 has 122 MA's), (50, 47335),

Gene: Lilpickle_73 Start: 47169, Stop: 47342, Start Num: 40
Candidate Starts for Lilpickle_73:
(Start: 40 @47169 has 122 MA's), (50, 47220),

Gene: Lizalica_54 Start: 37826, Stop: 38008, Start Num: 35
Candidate Starts for Lizalica_54:
(Start: 35 @37826 has 13 MA's),

Gene: London_56 Start: 39541, Stop: 39726, Start Num: 36
Candidate Starts for London_56:
(Start: 36 @39541 has 5 MA's),

Gene: MISSy_75 Start: 47675, Stop: 47854, Start Num: 40
Candidate Starts for MISSy_75:
(Start: 40 @47675 has 122 MA's), (50, 47726),

Gene: MPhalcon_75 Start: 47668, Stop: 47847, Start Num: 40
Candidate Starts for MPhalcon_75:
(Start: 40 @47668 has 122 MA's), (50, 47719),

Gene: MaGuCo_53 Start: 39882, Stop: 40133, Start Num: 21
Candidate Starts for MaGuCo_53:
(Start: 21 @39882 has 3 MA's), (28, 39915), (46, 39984), (50, 40005), (54, 40020), (59, 40059), (61, 40065), (65, 40113),

Gene: Mabodamaca_35 Start: 25059, Stop: 25295, Start Num: 26
Candidate Starts for Mabodamaca_35:
(Start: 26 @25059 has 1 MA's),

Gene: MadamMonkfish_74 Start: 46893, Stop: 47066, Start Num: 40
Candidate Starts for MadamMonkfish_74:
(Start: 40 @46893 has 122 MA's), (50, 46944),

Gene: Malibo_48 Start: 36272, Stop: 36448, Start Num: 39
Candidate Starts for Malibo_48:
(18, 36155), (Start: 39 @36272 has 2 MA's),

Gene: Malthus_56 Start: 37961, Stop: 38200, Start Num: 23
Candidate Starts for Malthus_56:
(Start: 22 @37958 has 1 MA's), (Start: 23 @37961 has 18 MA's), (27, 37973), (Start: 42 @38030 has 1 MA's), (50, 38075), (58, 38120),

Gene: Manda_75 Start: 48755, Stop: 48928, Start Num: 40
Candidate Starts for Manda_75:
(Start: 40 @48755 has 122 MA's), (50, 48806),

Gene: Marcoliusprime_52 Start: 38608, Stop: 38817, Start Num: 32
Candidate Starts for Marcoliusprime_52:
(Start: 32 @38608 has 11 MA's), (34, 38620), (47, 38671), (50, 38692), (53, 38704), (56, 38719), (58, 38734), (60, 38746),

Gene: Marshmallow_72 Start: 48448, Stop: 48621, Start Num: 40
Candidate Starts for Marshmallow_72:
(Start: 40 @48448 has 122 MA's), (50, 48499),

Gene: Maureen_58 Start: 41411, Stop: 41674, Start Num: 21
Candidate Starts for Maureen_58:
(Start: 21 @41411 has 3 MA's), (28, 41444), (46, 41513), (52, 41543), (54, 41549), (61, 41594), (65, 41642), (67, 41666),

Gene: Maxxinista_76 Start: 47544, Stop: 47723, Start Num: 40
Candidate Starts for Maxxinista_76:
(Start: 40 @47544 has 122 MA's), (50, 47595),

Gene: Milly_52 Start: 38581, Stop: 38790, Start Num: 32
Candidate Starts for Milly_52:
(Start: 32 @38581 has 11 MA's), (34, 38593), (47, 38644), (50, 38665), (53, 38677), (56, 38692), (58, 38707), (60, 38719),

Gene: Mindy_73 Start: 46760, Stop: 46933, Start Num: 40
Candidate Starts for Mindy_73:
(Start: 40 @46760 has 122 MA's), (50, 46811),

Gene: MiniMommy_63 Start: 40144, Stop: 40290, Start Num: 44
Candidate Starts for MiniMommy_63:
(Start: 44 @40144 has 7 MA's), (58, 40222),

Gene: Miniwave_69 Start: 47213, Stop: 47386, Start Num: 40
Candidate Starts for Miniwave_69:
(Start: 40 @47213 has 122 MA's), (50, 47264),

Gene: Misfit_75 Start: 48687, Stop: 48866, Start Num: 40
Candidate Starts for Misfit_75:
(Start: 40 @48687 has 122 MA's), (50, 48738),

Gene: MissDaisy_53 Start: 37493, Stop: 37732, Start Num: 23
Candidate Starts for MissDaisy_53:
(Start: 23 @37493 has 18 MA's), (Start: 42 @37562 has 1 MA's),

Gene: MissSwiss_57 Start: 37199, Stop: 37351, Start Num: 44
Candidate Starts for MissSwiss_57:
(Start: 44 @37199 has 7 MA's),

Gene: Mitti_55 Start: 38140, Stop: 38379, Start Num: 23
Candidate Starts for Mitti_55:
(Start: 22 @38137 has 1 MA's), (Start: 23 @38140 has 18 MA's), (27, 38152), (Start: 42 @38209 has 1 MA's), (50, 38254), (58, 38299),

Gene: Moldemort_77 Start: 47772, Stop: 47945, Start Num: 40
Candidate Starts for Moldemort_77:
(Start: 40 @47772 has 122 MA's), (50, 47823),

Gene: Mosby_70 Start: 46970, Stop: 47149, Start Num: 40
Candidate Starts for Mosby_70:
(Start: 40 @46970 has 122 MA's), (50, 47021),

Gene: Mudpuppy_53 Start: 38242, Stop: 38436, Start Num: 38
Candidate Starts for Mudpuppy_53:
(Start: 38 @38242 has 10 MA's), (61, 38368),

Gene: Mufasa_52 Start: 38162, Stop: 38371, Start Num: 32
Candidate Starts for Mufasa_52:
(Start: 32 @38162 has 11 MA's), (34, 38174), (47, 38225), (50, 38246), (53, 38258), (56, 38273), (58, 38288), (60, 38300),

Gene: Murica_77 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for Murica_77:
(Start: 40 @48619 has 122 MA's), (50, 48670),

Gene: Murphy_74 Start: 48056, Stop: 48235, Start Num: 40
Candidate Starts for Murphy_74:
(Start: 40 @48056 has 122 MA's), (50, 48107),

Gene: Myrale_74 Start: 48313, Stop: 48486, Start Num: 40
Candidate Starts for Myrale_74:
(Start: 40 @48313 has 122 MA's), (50, 48364),

Gene: Nala_76 Start: 48177, Stop: 48350, Start Num: 40
Candidate Starts for Nala_76:
(Start: 40 @48177 has 122 MA's), (50, 48228),

Gene: NelitzaMV_72 Start: 47259, Stop: 47432, Start Num: 40
Candidate Starts for NelitzaMV_72:
(Start: 40 @47259 has 122 MA's), (50, 47310),

Gene: Nimrod_75 Start: 48880, Stop: 49053, Start Num: 40
Candidate Starts for Nimrod_75:
(Start: 40 @48880 has 122 MA's), (50, 48931),

Gene: Niobe_56 Start: 39544, Stop: 39729, Start Num: 36
Candidate Starts for Niobe_56:
(Start: 36 @39544 has 5 MA's),

Gene: Nitro_58 Start: 40465, Stop: 40653, Start Num: 36
Candidate Starts for Nitro_58:
(Start: 36 @40465 has 5 MA's),

Gene: NoSleep_75 Start: 47514, Stop: 47687, Start Num: 40
Candidate Starts for NoSleep_75:
(Start: 40 @47514 has 122 MA's), (50, 47565),

Gene: ObiToo_61 Start: 39721, Stop: 39915, Start Num: 38
Candidate Starts for ObiToo_61:
(Start: 38 @39721 has 10 MA's), (61, 39847), (64, 39874),

Gene: OmniCritical_54 Start: 37949, Stop: 38188, Start Num: 23
Candidate Starts for OmniCritical_54:
(Start: 22 @37946 has 1 MA's), (Start: 23 @37949 has 18 MA's), (27, 37961), (Start: 42 @38018 has 1 MA's), (50, 38063), (58, 38108),

Gene: OrionPax_73 Start: 47265, Stop: 47438, Start Num: 40
Candidate Starts for OrionPax_73:
(Start: 40 @47265 has 122 MA's), (50, 47316),

Gene: Palpatine_76 Start: 48646, Stop: 48825, Start Num: 40
Candidate Starts for Palpatine_76:
(Start: 40 @48646 has 122 MA's), (50, 48697),

Gene: Paperbeatsrock_73 Start: 47891, Stop: 48064, Start Num: 40
Candidate Starts for Paperbeatsrock_73:
(Start: 40 @47891 has 122 MA's), (50, 47942),

Gene: Pat3_72 Start: 46423, Stop: 46596, Start Num: 40
Candidate Starts for Pat3_72:
(Start: 40 @46423 has 122 MA's), (50, 46474),

Gene: Patt_52 Start: 37217, Stop: 37456, Start Num: 23
Candidate Starts for Patt_52:
(Start: 23 @37217 has 18 MA's), (Start: 42 @37286 has 1 MA's),

Gene: Percival_38 Start: 26610, Stop: 26855, Start Num: 24
Candidate Starts for Percival_38:
(Start: 24 @26610 has 4 MA's),

Gene: Petra64142_78 Start: 49110, Stop: 49283, Start Num: 40
Candidate Starts for Petra64142_78:
(Start: 40 @49110 has 122 MA's), (50, 49161),

Gene: Phaja_72 Start: 47717, Stop: 47890, Start Num: 40
Candidate Starts for Phaja_72:
(Start: 40 @47717 has 122 MA's), (50, 47768),

Gene: Pharsalus_71 Start: 47691, Stop: 47864, Start Num: 40
Candidate Starts for Pharsalus_71:
(Start: 40 @47691 has 122 MA's), (50, 47742),

Gene: PhatBacter_78 Start: 48663, Stop: 48842, Start Num: 40
Candidate Starts for PhatBacter_78:
(Start: 40 @48663 has 122 MA's), (50, 48714),

Gene: Phaux_76 Start: 48658, Stop: 48837, Start Num: 40
Candidate Starts for Phaux_76:
(Start: 40 @48658 has 122 MA's), (50, 48709),

Gene: Phives_59 Start: 40511, Stop: 40693, Start Num: 35
Candidate Starts for Phives_59:
(5, 40142), (Start: 35 @40511 has 13 MA's),

Gene: Phrux_71 Start: 47254, Stop: 47433, Start Num: 40
Candidate Starts for Phrux_71:
(Start: 40 @47254 has 122 MA's), (50, 47305),

Gene: Pixelle_58 Start: 40947, Stop: 41132, Start Num: 35
Candidate Starts for Pixelle_58:
(6, 40599), (Start: 35 @40947 has 13 MA's),

Gene: Policronamos_78 Start: 48658, Stop: 48837, Start Num: 40
Candidate Starts for Policronamos_78:
(Start: 40 @48658 has 122 MA's), (50, 48709),

Gene: Porky_73 Start: 47084, Stop: 47257, Start Num: 40
Candidate Starts for Porky_73:
(Start: 40 @47084 has 122 MA's), (50, 47135),

Gene: Powerpuff_57 Start: 39483, Stop: 39683, Start Num: 33
Candidate Starts for Powerpuff_57:
(Start: 33 @39483 has 5 MA's), (61, 39615),

Gene: Pumpkin_77 Start: 48312, Stop: 48491, Start Num: 40
Candidate Starts for Pumpkin_77:
(Start: 40 @48312 has 122 MA's), (50, 48363),

Gene: Pumpkins_54 Start: 39127, Stop: 39321, Start Num: 38
Candidate Starts for Pumpkins_54:
(Start: 38 @39127 has 10 MA's),

Gene: Quallification_75 Start: 48299, Stop: 48472, Start Num: 40
Candidate Starts for Quallification_75:
(Start: 40 @48299 has 122 MA's), (50, 48350),

Gene: Rakim_75 Start: 47768, Stop: 47947, Start Num: 40
Candidate Starts for Rakim_75:
(Start: 40 @47768 has 122 MA's), (50, 47819),

Gene: Reedo_54 Start: 36267, Stop: 36416, Start Num: 44
Candidate Starts for Reedo_54:
(Start: 44 @36267 has 7 MA's), (58, 36342),

Gene: Reptar3000_53 Start: 37205, Stop: 37444, Start Num: 23
Candidate Starts for Reptar3000_53:
(Start: 23 @37205 has 18 MA's), (Start: 42 @37274 has 1 MA's),

Gene: Rimmer_75 Start: 48004, Stop: 48177, Start Num: 40
Candidate Starts for Rimmer_75:
(Start: 40 @48004 has 122 MA's), (50, 48055),

Gene: RiverMonster_74 Start: 47832, Stop: 48011, Start Num: 40
Candidate Starts for RiverMonster_74:
(Start: 40 @47832 has 122 MA's), (50, 47883),

Gene: Ruthiejr_56 Start: 38011, Stop: 38250, Start Num: 23
Candidate Starts for Ruthiejr_56:
(Start: 22 @38008 has 1 MA's), (Start: 23 @38011 has 18 MA's), (27, 38023), (Start: 42 @38080 has 1 MA's), (50, 38125), (58, 38170),

Gene: Saints25_73 Start: 47242, Stop: 47415, Start Num: 40
Candidate Starts for Saints25_73:
(Start: 40 @47242 has 122 MA's), (50, 47293),

Gene: SamScheppers_53 Start: 38440, Stop: 38679, Start Num: 23
Candidate Starts for SamScheppers_53:
(Start: 22 @38437 has 1 MA's), (Start: 23 @38440 has 18 MA's), (27, 38452), (Start: 42 @38509 has 1 MA's), (50, 38554), (58, 38599),

Gene: Sassay_69 Start: 45932, Stop: 46111, Start Num: 40
Candidate Starts for Sassay_69:
(Start: 40 @45932 has 122 MA's), (50, 45983),

Gene: ShakeltOph_62 Start: 40141, Stop: 40287, Start Num: 44
Candidate Starts for ShakeltOph_62:
(Start: 44 @40141 has 7 MA's), (58, 40219),

Gene: ShamWow_74 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for ShamWow_74:
(Start: 40 @48154 has 122 MA's), (50, 48205),

Gene: ShereKhan_73 Start: 48223, Stop: 48396, Start Num: 40
Candidate Starts for ShereKhan_73:
(Start: 40 @48223 has 122 MA's), (50, 48274),

Gene: Sidious_47 Start: 36440, Stop: 36616, Start Num: 39
Candidate Starts for Sidious_47:
(Start: 39 @36440 has 2 MA's), (57, 36527),

Gene: Simpliphy_73 Start: 47232, Stop: 47405, Start Num: 40
Candidate Starts for Simpliphy_73:
(Start: 40 @47232 has 122 MA's), (50, 47283),

Gene: Simpson_57 Start: 38386, Stop: 38586, Start Num: 33
Candidate Starts for Simpson_57:
(2, 37837), (Start: 33 @38386 has 5 MA's), (61, 38518),

Gene: SirDuracell_73 Start: 46518, Stop: 46691, Start Num: 40
Candidate Starts for SirDuracell_73:
(Start: 40 @46518 has 122 MA's), (50, 46569),

Gene: Slarp_55 Start: 37968, Stop: 38207, Start Num: 23
Candidate Starts for Slarp_55:
(Start: 22 @37965 has 1 MA's), (Start: 23 @37968 has 18 MA's), (27, 37980), (Start: 42 @38037 has 1 MA's), (50, 38082), (58, 38127),

Gene: Snek_57 Start: 37403, Stop: 37558, Start Num: 44
Candidate Starts for Snek_57:
(Start: 44 @37403 has 7 MA's), (65, 37541),

Gene: Soondubu_51 Start: 41018, Stop: 41170, Start Num: 45
Candidate Starts for Soondubu_51:
(Start: 45 @41018 has 1 MA's), (54, 41060), (65, 41150),

Gene: SophKB_71 Start: 46910, Stop: 47083, Start Num: 40
Candidate Starts for SophKB_71:
(Start: 40 @46910 has 122 MA's), (50, 46961),

Gene: Sotrice96_75 Start: 47913, Stop: 48086, Start Num: 40
Candidate Starts for Sotrice96_75:
(Start: 40 @47913 has 122 MA's), (50, 47964),

Gene: Stank_77 Start: 48171, Stop: 48344, Start Num: 40
Candidate Starts for Stank_77:
(Start: 40 @48171 has 122 MA's), (50, 48222),

Gene: Stark_75 Start: 47715, Stop: 47894, Start Num: 40
Candidate Starts for Stark_75:
(Start: 40 @47715 has 122 MA's), (50, 47766),

Gene: StellaBean_72 Start: 47478, Stop: 47651, Start Num: 40
Candidate Starts for StellaBean_72:
(Start: 40 @47478 has 122 MA's), (50, 47529),

Gene: StolenFromERC_77 Start: 47953, Stop: 48126, Start Num: 40

Candidate Starts for StolenFromERC_77:
(Start: 40 @47953 has 122 MA's), (50, 48004),

Gene: Strobilo_52 Start: 38583, Stop: 38792, Start Num: 32

Candidate Starts for Strobilo_52:
(Start: 32 @38583 has 11 MA's), (34, 38595), (47, 38646), (50, 38667), (53, 38679), (56, 38694), (58, 38709), (60, 38721),

Gene: SuMoo_35 Start: 24005, Stop: 24241, Start Num: 26

Candidate Starts for SuMoo_35:
(Start: 26 @24005 has 1 MA's),

Gene: Sue2_54 Start: 38086, Stop: 38286, Start Num: 30

Candidate Starts for Sue2_54:
(10, 37828), (30, 38086), (43, 38131), (Start: 45 @38143 has 1 MA's),

Gene: TBrady12_77 Start: 47652, Stop: 47825, Start Num: 40

Candidate Starts for TBrady12_77:
(Start: 40 @47652 has 122 MA's), (50, 47703),

Gene: TM4_47 Start: 32969, Stop: 33172, Start Num: 32

Candidate Starts for TM4_47:
(Start: 32 @32969 has 11 MA's), (34, 32981), (47, 33026), (50, 33047), (53, 33059), (56, 33074), (58, 33089), (60, 33101),

Gene: Tallboi_56 Start: 39686, Stop: 39874, Start Num: 33

Candidate Starts for Tallboi_56:
(Start: 33 @39686 has 5 MA's),

Gene: Taquito_55 Start: 38293, Stop: 38535, Start Num: 22

Candidate Starts for Taquito_55:
(Start: 22 @38293 has 1 MA's), (Start: 23 @38296 has 18 MA's), (27, 38308), (Start: 42 @38365 has 1 MA's), (50, 38410), (58, 38455),

Gene: Tarkin_73 Start: 47900, Stop: 48073, Start Num: 40

Candidate Starts for Tarkin_73:
(Start: 40 @47900 has 122 MA's), (50, 47951),

Gene: Tbone_55 Start: 38934, Stop: 39128, Start Num: 38

Candidate Starts for Tbone_55:
(Start: 38 @38934 has 10 MA's), (61, 39060),

Gene: TeardropMSU_70 Start: 46900, Stop: 47073, Start Num: 40

Candidate Starts for TeardropMSU_70:
(Start: 40 @46900 has 122 MA's), (50, 46951),

Gene: Teaspoon_75 Start: 47794, Stop: 47967, Start Num: 40

Candidate Starts for Teaspoon_75:
(Start: 40 @47794 has 122 MA's), (50, 47845),

Gene: Terminus_77 Start: 48687, Stop: 48866, Start Num: 40

Candidate Starts for Terminus_77:
(Start: 40 @48687 has 122 MA's), (50, 48738),

Gene: TforTroy_57 Start: 39052, Stop: 39246, Start Num: 38
Candidate Starts for TforTroy_57:
(12, 38854), (Start: 38 @39052 has 10 MA's), (61, 39178),

Gene: Thresher_76 Start: 48774, Stop: 48953, Start Num: 40
Candidate Starts for Thresher_76:
(Start: 40 @48774 has 122 MA's), (50, 48825),

Gene: Tian_56 Start: 40845, Stop: 41030, Start Num: 35
Candidate Starts for Tian_56:
(Start: 35 @40845 has 13 MA's),

Gene: Tomaszewski_69 Start: 47063, Stop: 47236, Start Num: 40
Candidate Starts for Tomaszewski_69:
(Start: 40 @47063 has 122 MA's), (50, 47114),

Gene: Toto_72 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for Toto_72:
(Start: 40 @48154 has 122 MA's), (50, 48205),

Gene: Traaww1_70 Start: 47338, Stop: 47511, Start Num: 40
Candidate Starts for Traaww1_70:
(Start: 40 @47338 has 122 MA's), (50, 47389),

Gene: Tuck_58 Start: 40300, Stop: 40482, Start Num: 35
Candidate Starts for Tuck_58:
(Start: 35 @40300 has 13 MA's),

Gene: Tuco_75 Start: 48662, Stop: 48835, Start Num: 40
Candidate Starts for Tuco_75:
(Start: 40 @48662 has 122 MA's), (50, 48713),

Gene: Turab_53 Start: 37635, Stop: 37826, Start Num: 33
Candidate Starts for Turab_53:
(7, 37329), (Start: 33 @37635 has 5 MA's),

Gene: Tutumahutu_56 Start: 38356, Stop: 38553, Start Num: 35
Candidate Starts for Tutumahutu_56:
(Start: 35 @38356 has 13 MA's), (61, 38485),

Gene: Tweety19_58 Start: 37403, Stop: 37558, Start Num: 44
Candidate Starts for Tweety19_58:
(Start: 44 @37403 has 7 MA's), (65, 37541),

Gene: Ukulele_69 Start: 47045, Stop: 47218, Start Num: 40
Candidate Starts for Ukulele_69:
(Start: 40 @47045 has 122 MA's), (50, 47096),

Gene: UtzChips_35 Start: 24664, Stop: 24909, Start Num: 25
Candidate Starts for UtzChips_35:

(13, 24550), (Start: 25 @24664 has 5 MA's), (62, 24841),

Gene: VResidence_55 Start: 37492, Stop: 37677, Start Num: 35

Candidate Starts for VResidence_55:

(Start: 35 @37492 has 13 MA's),

Gene: VroomVroom_56 Start: 39271, Stop: 39462, Start Num: 32

Candidate Starts for VroomVroom_56:

(4, 38755), (9, 39007), (19, 39190), (Start: 32 @39271 has 11 MA's), (Start: 44 @39316 has 7 MA's), (58, 39394), (63, 39427),

Gene: Warda_56 Start: 38671, Stop: 38853, Start Num: 35

Candidate Starts for Warda_56:

(Start: 35 @38671 has 13 MA's),

Gene: WaterT_74 Start: 43421, Stop: 43254, Start Num: 42

Candidate Starts for WaterT_74:

(Start: 21 @43508 has 3 MA's), (Start: 42 @43421 has 1 MA's), (48, 43391), (49, 43382), (60, 43319), (64, 43289), (65, 43268),

Gene: Wiggin_76 Start: 47739, Stop: 47912, Start Num: 40

Candidate Starts for Wiggin_76:

(Start: 40 @47739 has 122 MA's), (50, 47790),

Gene: Wildwest_53 Start: 38260, Stop: 38493, Start Num: 20

Candidate Starts for Wildwest_53:

(Start: 20 @38260 has 1 MA's),

Gene: Willez_69 Start: 45932, Stop: 46111, Start Num: 40

Candidate Starts for Willez_69:

(Start: 40 @45932 has 122 MA's), (50, 45983),

Gene: Wintermute_55 Start: 38198, Stop: 38437, Start Num: 23

Candidate Starts for Wintermute_55:

(Start: 22 @38195 has 1 MA's), (Start: 23 @38198 has 18 MA's), (27, 38210), (Start: 42 @38267 has 1 MA's), (50, 38312), (58, 38357),

Gene: Xandras_73 Start: 47147, Stop: 47326, Start Num: 40

Candidate Starts for Xandras_73:

(Start: 40 @47147 has 122 MA's), (50, 47198),

Gene: Y10_54 Start: 38120, Stop: 38359, Start Num: 23

Candidate Starts for Y10_54:

(Start: 22 @38117 has 1 MA's), (Start: 23 @38120 has 18 MA's), (27, 38132), (Start: 42 @38189 has 1 MA's), (50, 38234), (58, 38279),

Gene: Y2_54 Start: 38120, Stop: 38359, Start Num: 23

Candidate Starts for Y2_54:

(Start: 22 @38117 has 1 MA's), (Start: 23 @38120 has 18 MA's), (27, 38132), (Start: 42 @38189 has 1 MA's), (50, 38234), (58, 38279),

Gene: Yang_57 Start: 39052, Stop: 39246, Start Num: 38

Candidate Starts for Yang_57:

(Start: 38 @39052 has 10 MA's), (65, 39226),

Gene: YassJohnny_71 Start: 47102, Stop: 47275, Start Num: 40

Candidate Starts for YassJohnny_71:

(Start: 40 @47102 has 122 MA's), (50, 47153),

Gene: YesChef_55 Start: 38342, Stop: 38542, Start Num: 33

Candidate Starts for YesChef_55:

(Start: 33 @38342 has 5 MA's), (61, 38474),

Gene: Youngblood_77 Start: 48614, Stop: 48793, Start Num: 40

Candidate Starts for Youngblood_77:

(Start: 40 @48614 has 122 MA's), (50, 48665),

Gene: ZoeJ_51 Start: 38060, Stop: 38263, Start Num: 32

Candidate Starts for ZoeJ_51:

(Start: 32 @38060 has 11 MA's), (34, 38072), (47, 38117), (50, 38138), (53, 38150), (56, 38165), (58, 38180),

Gene: xkcd_77 Start: 48804, Stop: 48977, Start Num: 40

Candidate Starts for xkcd_77:

(Start: 40 @48804 has 122 MA's), (50, 48855),