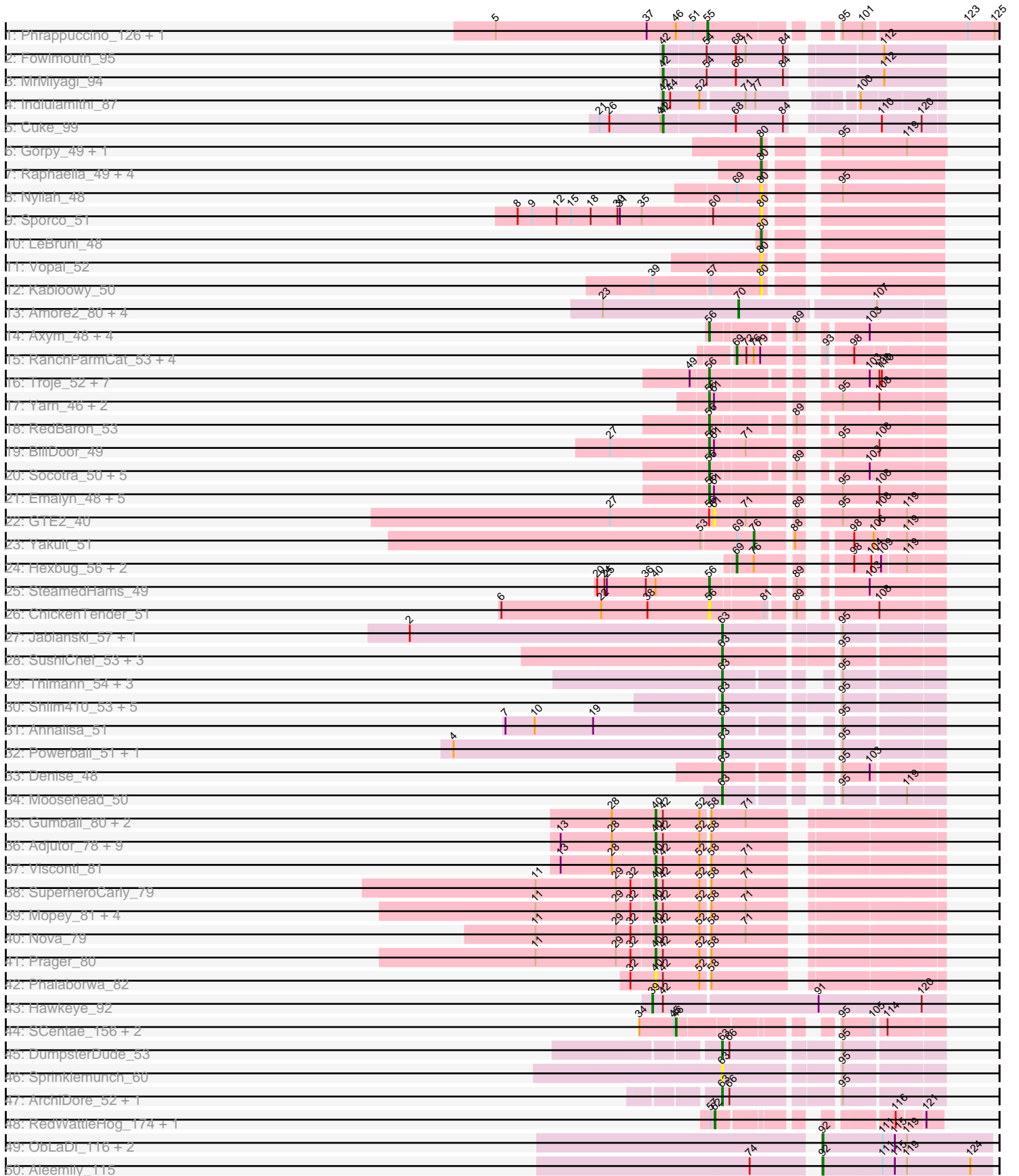
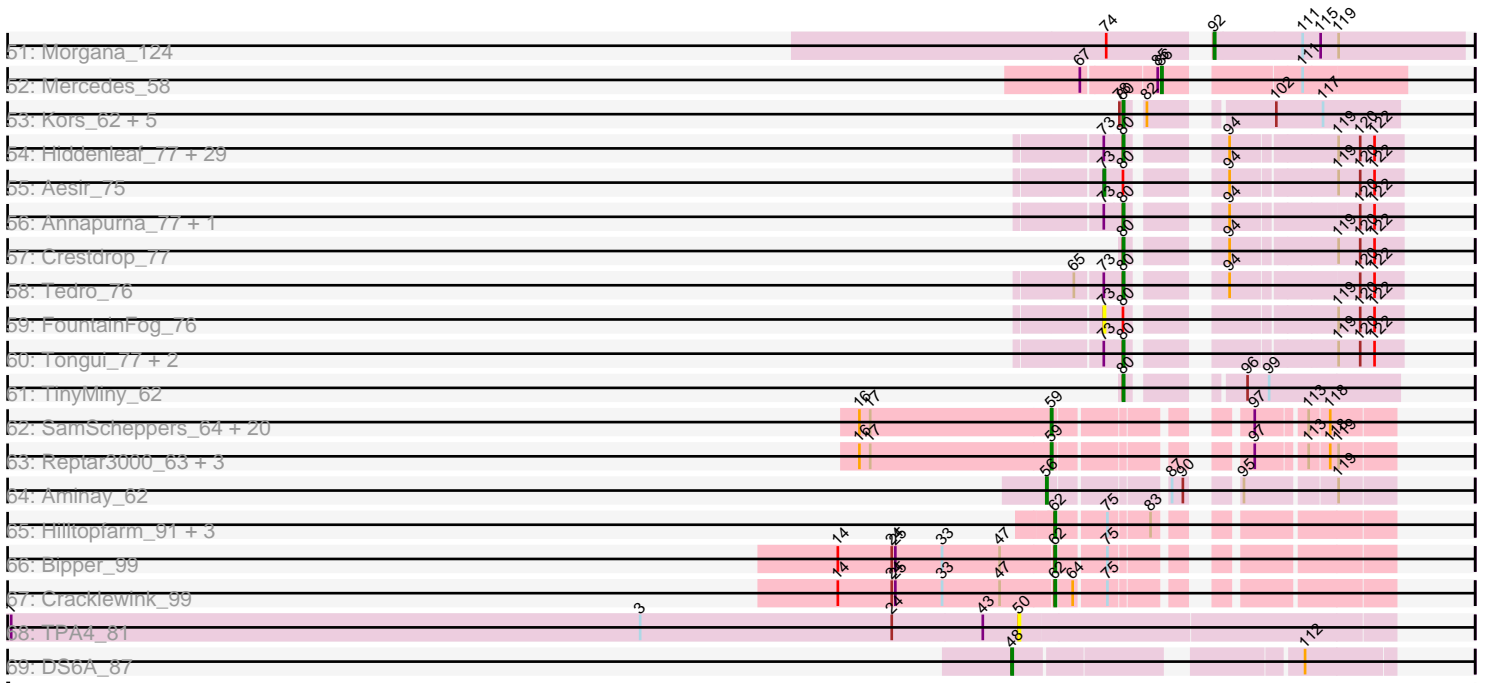


Pham 311238



Pham 311238



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 311238 Report

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

Pham number 311238 has 205 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino_126, Settecandela_126
- Track 2 : Fowlmouth_95
- Track 3 : MrMiyagi_94
- Track 4 : Indlulamithi_87
- Track 5 : Cuke_99
- Track 6 : Gorpy_49, Sakai_48
- Track 7 : Raphaella_49, Auxilium_46, Mapleville_46, YoungHarleezy_50, Tiff81_46
- Track 8 : Nyilah_48
- Track 9 : Sporco_51
- Track 10 : LeBruni_48
- Track 11 : Vopal_52
- Track 12 : Kabloowy_50
- Track 13 : Amore2_80, Austin_79, GMA7_69, HayZem_81, GTE7_68
- Track 14 : Axym_48, Typhonomachy_48, Burnsey_49, Agatha_49, Cozz_47
- Track 15 : RanchParmCat_53, GiKK_53, Margaret_54, Button_51, Jamzy_53
- Track 16 : Troje_52, Biskit_52, SketchMex_50, MScarn_54, Buttrmlkdreams_52, Blondies_53, Horseradish_52, Yummy_52
- Track 17 : Yarn_46, AndPeggy_46, Tolls_50
- Track 18 : RedBaron_53
- Track 19 : BillDoor_49
- Track 20 : Socotra_50, Bubble_47, Quasar_49, Nina_48, SweatNTears_51, MunkgeeRoachy_47
- Track 21 : Emalyn_48, CanesSauce_48, CaramelLatte_48, AikoCarson_50, Amok_50, ChocoMunchkin_48
- Track 22 : GTE2_40
- Track 23 : Yakult_51
- Track 24 : Hexbug_56, Nodigi_56, Orla_56
- Track 25 : SteamedHams_49
- Track 26 : ChickenTender_51
- Track 27 : Jablanski_57, Pytheas_57
- Track 28 : SushiChef_53, Madavieve_51, Maridalia_57, Bunnybear_49
- Track 29 : Thimann_54, Easley_49, Tuti_49, Oregano_54
- Track 30 : Shlim410_53, Adora_52, Mcklovin_51, Hortense_55, Twinkle_54, Howe_55
- Track 31 : Annalisa_51
- Track 32 : Powerball_51, PhriskyACE_49
- Track 33 : Denise_48

- Track 34 : Moosehead_50
- Track 35 : Gumball_80, PLOt_80, SirHarley_82
- Track 36 : Adjutor_78, Erk16_80, Delton_80, Butterscotch_78, WaldoWhy_82, PBI1_76, Chill_82, Thoth_80, Penelope2018_80, BigMama_78
- Track 37 : Visconti_81
- Track 38 : SuperheroCarly_79
- Track 39 : Mopey_81, Giuseppe_81, Troll4_79, Helpful_82, KandZ_77
- Track 40 : Nova_79
- Track 41 : Prager_80
- Track 42 : Phalaborwa_82
- Track 43 : Hawkeye_92
- Track 44 : SCentae_156, CherryTomatoes_158, Pupper_157
- Track 45 : DumpsterDude_53
- Track 46 : Sprinklemunch_60
- Track 47 : ArchiDore_52, Ruthy_52
- Track 48 : RedWattleHog_174, Stormageddon_175
- Track 49 : ObLaDi_116, Cafasso_117, ModicumRichard_117
- Track 50 : Aleemily_115
- Track 51 : Morgana_124
- Track 52 : Mercedes_58
- Track 53 : Kors_62, LordBart_62, Bramble_62, Sparcetus_62, RikSengupta_62, Ajin_62
- Track 54 : Hiddenleaf_77, JingleBells_76, PhunaPhoke_76, AnnaSerena_76, OverHedge_75, FreddieHg_77, Potty_75, Artiphact_76, NarutoRun_76, Cybele_76, MortySmith_74, Pharpay_75, Krampus_76, Tiggy93_75, JDawG_75, Neptune_76, Chivey_77, Anakin_76, Dauntless_75, Erudite_75, Gilda_76, CoolCookie_75, DannyDe_77, Haunter_77, Poultruss_75, Snakehole_77, Kate_76, OhDear_76, SilentWarrior_77, Rachella_76
- Track 55 : Aesir_75
- Track 56 : Annapurna_77, Karate_75
- Track 57 : Crestdrop_77
- Track 58 : Tedro_76
- Track 59 : FountainFog_76
- Track 60 : Tongui_77, Rie18_76, Hager_78
- Track 61 : TinyMiny_62
- Track 62 : SamScheppers_64, Eponine_68, Y2_64, Cheetobro_66, Ruthiejr_67, DanSyl44_69, Malthus_67, Taquito_65, Y10_64, Juliette_68, YasnayaPolyana_65, Fionnbharth_66, Slarp_66, Mitti_66, Wintermute_66, Qhanda_68, Kraw_66, Chancellor_66, OmniCritical_65, Lebo14_65, JF1_66
- Track 63 : Reptar3000_63, MissDaisy_63, Patt_62, Bobquesha_67
- Track 64 : Aminay_62
- Track 65 : Hilltopfarm_91, Faiyaz_91, AuntGwenStacy_90, Typha_89
- Track 66 : Bipper_99
- Track 67 : Cracklewink_99
- Track 68 : TPA4_81
- Track 69 : DS6A_87

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

The start number called the most often in the published annotations is 80, it was called in 49 of the 182 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ajin_62, Anakin_76, AnnaSerena_76, Annapurna_77, Artiphact_76, Auxilium_46, Bramble_62, Chivey_77, CoolCookie_75, Crestdrop_77, Cybele_76, DannyDe_77, Dauntless_75, Erudite_75, FreddieHg_77, Gilda_76, Gorpy_49, Hager_78, Haunter_77, Hiddenleaf_77, JDawG_75, JingleBells_76, Kabloowy_50, Karate_75, Kate_76, Kors_62, Krampus_76, LeBruni_48, LordBart_62, Mapleville_46, MortySmith_74, NarutoRun_76, Neptune_76, Nyilah_48, OhDear_76, OverHedge_75, Pharpay_75, PhunaPhoke_76, Potty_75, Poultruss_75, Rachella_76, Raphaella_49, Rie18_76, RikSengupta_62, Sakai_48, SilentWarrior_77, Snakehole_77, Sparcetus_62, Sporco_51, Tedro_76, Tiff81_46, Tiggy93_75, TinyMiny_62, Tongui_77, Vopal_52, YoungHarleezy_50,

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

- Aesir_75, FountainFog_76,

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

- Adjutor_78, Adora_52, Agatha_49, AikoCarson_50, Aleemily_115, Aminay_62, Amok_50, Amore2_80, AndPeggy_46, Annalisa_51, ArchiDore_52, AuntGwenStacy_90, Austin_79, Axym_48, BigMama_78, BillDoor_49, Bipper_99, Biskit_52, Blondies_53, Bobquesha_67, Bubble_47, Bunnybear_49, Burnsey_49, Butterscotch_78, Button_51, Buttrmilkdreams_52, Cafasso_117, CanesSauce_48, Caramellatte_48, Chancellor_66, Cheetobro_66, CherryTomatoes_158, ChickenTender_51, Chill_82, ChocoMunchkin_48, Cozz_47, Cracklewink_99, Cuke_99, DS6A_87, DanSyl44_69, Delton_80, Denise_48, DumpsterDude_53, Easley_49, Emalyn_48, Eponine_68, Erk16_80, Faiyaz_91, Fionnbharth_66, Fowlmouth_95, GMA7_69, GTE2_40, GTE7_68, GiKK_53, Giuseppe_81, Gumball_80, Hawkeye_92, HayZem_81, Helpful_82, Hexbug_56, Hilltopfarm_91, Horseradish_52, Hortense_55, Howe_55, Indlulamithi_87, JF1_66, Jablanski_57, Jamzy_53, Juliette_68, KandZ_77, Kraw_66, Lebo14_65, MScarn_54, Madavieve_51, Malthus_67, Margaret_54, Maridalia_57, Mcklovin_51, Mercedes_58, MissDaisy_63, Mitti_66, ModicumRichard_117, Moosehead_50, Mopey_81, Morgana_124, MrMiyagi_94, MunkgeeRoachy_47, Nina_48, Nodigi_56, Nova_79, ObLaDi_116, OmniCritical_65, Oregano_54, Orla_56, PBI1_76, PLOT_80, Patt_62, Penelope2018_80, Phalaborwa_82, Phrappuccino_126, PhriskyACE_49, Powerball_51, Prager_80, Pupper_157, Pytheas_57, Qhanda_68, Quasar_49, RanchParmCat_53, RedBaron_53, RedWattleHog_174, Reptar3000_63, Ruthiejr_67, Ruthy_52, SCentae_156, SamScheppers_64, Settecandela_126, Shlim410_53, SirHarley_82, SketchMex_50, Slarp_66, Socotra_50, Sprinklemunch_60, SteamedHams_49, Stormageddon_175, SuperheroCarly_79, SushiChef_53, SweatNTears_51, TPA4_81, Taquito_65, Thimann_54, Thoth_80, Tolls_50, Troje_52, Troll4_79, Tuti_49, Twinkle_54, Typha_89, Typhonomachy_48, Visconti_81, WaldoWhy_82, Wintermute_66, Y10_64, Y2_64, Yakult_51, Yarn_46, YasnayaPolyana_65, Yummy_52,

Summary by start number:

Start 39:

- Found in 2 of 205 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Hawkeye_92 (D2),

Start 40:

- Found in 24 of 205 (11.7%) of genes in pham
- Manual Annotations of this start: 22 of 182
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Adjutor_78 (D1), BigMama_78 (D1), Butterscotch_78 (D1), Chill_82 (D1), Delton_80 (D1), Erk16_80 (D1), Giuseppe_81 (D1), Gumball_80 (D1), Helpful_82 (D1), KandZ_77 (D1), Mopey_81 (D1), Nova_79 (D1), PB11_76 (D1), PLOT_80 (D1), Penelope2018_80 (D1), Phalaborwa_82 (D1), Prager_80 (D1), SirHarley_82 (D1), SuperheroCarly_79 (D1), Thoth_80 (D1), Troll4_79 (D1), Visconti_81 (D1), WaldoWhy_82 (D1),

Start 42:

- Found in 28 of 205 (13.7%) of genes in pham
- Manual Annotations of this start: 4 of 182
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Cuke_99 (AC), Fowlmouth_95 (AC), Indlulamithi_87 (AC), MrMiyagi_94 (AC),

Start 46:

- Found in 5 of 205 (2.4%) of genes in pham
- Manual Annotations of this start: 3 of 182
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_158 (DO), Pupper_157 (DO), SCentae_156 (DO),

Start 48:

- Found in 1 of 205 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_87 (singleton),

Start 50:

- Found in 1 of 205 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA4_81 (singleton),

Start 55:

- Found in 2 of 205 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_126 (AA), Settecandela_126 (AA),

Start 56:

- Found in 34 of 205 (16.6%) of genes in pham
- Manual Annotations of this start: 29 of 182
- Called 97.1% of time when present
- Phage (with cluster) where this start called: Agatha_49 (CT), AikoCarson_50 (CT), Aminay_62 (K7), Amok_50 (CT), AndPeggy_46 (CT), Axym_48 (CT), BillDoor_49 (CT), Biskit_52 (CT), Blondies_53 (CT), Bubble_47 (CT), Burnsey_49 (CT),

Buttrmlkdreams_52 (CT), CanesSauce_48 (CT), CaramelLatte_48 (CT), ChickenTender_51 (CT), ChocoMunchkin_48 (CT), Cozz_47 (CT), Emalyn_48 (CT), Horseradish_52 (CT), MScarn_54 (CT), MunkgeeRoachy_47 (CT), Nina_48 (CT), Quasar_49 (CT), RedBaron_53 (CT), SketchMex_50 (CT), Socotra_50 (CT), SteamedHams_49 (CT), SweatNTears_51 (CT), Tolls_50 (CT), Troje_52 (CT), Typhonmarchy_48 (CT), Yarn_46 (CT), Yummy_52 (CT),

Start 59:

- Found in 25 of 205 (12.2%) of genes in pham
- Manual Annotations of this start: 22 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha_67 (K4), Chancellor_66 (K4), Cheetobro_66 (K4), DanSyl44_69 (K4), Eponine_68 (K4), Fionnbharth_66 (K4), JF1_66 (K4), Juliette_68 (K4), Kraw_66 (K4), Lebo14_65 (K4), Malthus_67 (K4), MissDaisy_63 (K4), Mitti_66 (K4), OmniCritical_65 (K4), Patt_62 (K4), Qhanda_68 (K4), Reptar3000_63 (K4), Ruthiejr_67 (K4), SamScheppers_64 (K4), Slarp_66 (K4), Taquito_65 (K4), Wintermute_66 (K4), Y10_64 (K4), Y2_64 (K4), YasnayaPolyana_65 (K4),

Start 61:

- Found in 11 of 205 (5.4%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: GTE2_40 (CT),

Start 62:

- Found in 8 of 205 (3.9%) of genes in pham
- Manual Annotations of this start: 8 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_90 (Y), Bipper_99 (Y), Cracklewink_99 (Y), Faiyaz_91 (Y), Hilltopfarm_91 (Y), RedWattleHog_174 (DX), Stormageddon_175 (DX), Typha_89 (Y),

Start 63:

- Found in 25 of 205 (12.2%) of genes in pham
- Manual Annotations of this start: 22 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adora_52 (CZ4), Annalisa_51 (CZ4), ArchiDore_52 (DW), Bunnybear_49 (CZ), Denise_48 (CZ5), DumpsterDude_53 (DW), Easley_49 (CZ4), Hortense_55 (CZ4), Howe_55 (CZ4), Jablanski_57 (CY3), Madavieve_51 (CZ1), Maridalia_57 (CZ1), Mcklovin_51 (CZ4), Moosehead_50 (CZ6), Oregano_54 (CZ4), PhriskyACE_49 (CZ4), Powerball_51 (CZ4), Pytheas_57 (CY3), Ruthy_52 (DW), Shlim410_53 (CZ4), Sprinklemunch_60 (DW), SushiChef_53 (CZ), Thimann_54 (CZ4), Tuti_49 (CZ4), Twinkle_54 (CZ4),

Start 69:

- Found in 10 of 205 (4.9%) of genes in pham
- Manual Annotations of this start: 8 of 182
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Button_51 (CT), GiKK_53 (CT), Hexbug_56 (CT), Jamzy_53 (CT), Margaret_54 (CT), Nodigi_56 (CT), Orla_56 (CT), RanchParmCat_53 (CT),

Start 70:

- Found in 5 of 205 (2.4%) of genes in pham
- Manual Annotations of this start: 3 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amore2_80 (CS1), Austin_79 (CS1), GMA7_69 (CS1), GTE7_68 (CS1), HayZem_81 (CS1),

Start 73:

- Found in 38 of 205 (18.5%) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Aesir_75 (EF), FountainFog_76 (EF),

Start 76:

- Found in 9 of 205 (4.4%) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Yakult_51 (CT),

Start 80:

- Found in 58 of 205 (28.3%) of genes in pham
- Manual Annotations of this start: 49 of 182
- Called 96.6% of time when present
- Phage (with cluster) where this start called: Ajin_62 (EF), Anakin_76 (EF), AnnaSerena_76 (EF), Annapurna_77 (EF), Artiphact_76 (EF), Auxilium_46 (AY), Bramble_62 (EF), Chivey_77 (EF), CoolCookie_75 (EF), Crestdrop_77 (EF), Cybele_76 (EF), DannyDe_77 (EF), Dauntless_75 (EF), Erudite_75 (EF), FreddieHg_77 (EF), Gilda_76 (EF), Gorpy_49 (AY), Hager_78 (EF), Haunter_77 (EF), Hiddenleaf_77 (EF), JDawG_75 (EF), JingleBells_76 (EF), Kabloowy_50 (AY), Karate_75 (EF), Kate_76 (EF), Kors_62 (EF), Krampus_76 (EF), LeBruni_48 (AY), LordBart_62 (EF), Mapleville_46 (AY), MortySmith_74 (EF), NarutoRun_76 (EF), Neptune_76 (EF), Nyilah_48 (AY), OhDear_76 (EF), OverHedge_75 (EF), Pharpay_75 (EF), PhunaPhoke_76 (EF), Potty_75 (EF), Poultruss_75 (EF), Rachella_76 (EF), Raphaella_49 (AY), Rie18_76 (EF), RikSengupta_62 (EF), Sakai_48 (AY), SilentWarrior_77 (EF), Snakehole_77 (EF), Sparcetus_62 (EF), Sporco_51 (AY), Tedro_76 (EF), Tiff81_46 (AY), Tiggy93_75 (EF), TinyMiny_62 (EF), Tongui_77 (EF), Vopal_52 (AY), YoungHarleezy_50 (AY),

Start 86:

- Found in 1 of 205 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mercedes_58 (EA),

Start 92:

- Found in 5 of 205 (2.4%) of genes in pham
- Manual Annotations of this start: 5 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_115 (DZ), Cafasso_117 (DZ), ModicumRichard_117 (DZ), Morgana_124 (DZ), ObLaDi_116 (DZ),

Summary by clusters:

There are 23 clusters represented in this pham: DO, singleton, CZ1, CZ6, CZ4, CZ5, Y, K7, DX, K4, DW, CY3, CS1, AA, AC, EF, EA, CZ, AY, CT, DZ, D2, D1,

Info for manual annotations of cluster AA:

- Start number 55 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AC:

- Start number 42 was manually annotated 4 times for cluster AC.

Info for manual annotations of cluster AY:

- Start number 80 was manually annotated 8 times for cluster AY.

Info for manual annotations of cluster CS1:

- Start number 70 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CT:

- Start number 56 was manually annotated 28 times for cluster CT.
- Start number 69 was manually annotated 8 times for cluster CT.
- Start number 76 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY3:

- Start number 63 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CZ:

- Start number 63 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 63 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ4:

- Start number 63 was manually annotated 13 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 63 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 63 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster D1:

- Start number 40 was manually annotated 22 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 39 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DO:

- Start number 46 was manually annotated 3 times for cluster DO.

Info for manual annotations of cluster DW:

- Start number 63 was manually annotated 3 times for cluster DW.

Info for manual annotations of cluster DX:

- Start number 62 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 92 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EA:

- Start number 86 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EF:

- Start number 73 was manually annotated 1 time for cluster EF.
- Start number 80 was manually annotated 41 times for cluster EF.

Info for manual annotations of cluster K4:

- Start number 59 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K7:

- Start number 56 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster Y:

- Start number 62 was manually annotated 6 times for cluster Y.

Gene Information:

Gene: Adjutor_78 Start: 58520, Stop: 58834, Start Num: 40

Candidate Starts for Adjutor_78:

(13, 58403), (28, 58466), (Start: 40 @58520 has 22 MA's), (Start: 42 @58529 has 4 MA's), (52, 58574), (58, 58583),

Gene: Adora_52 Start: 38735, Stop: 38977, Start Num: 63

Candidate Starts for Adora_52:

(Start: 63 @38735 has 22 MA's), (95, 38861),

Gene: Aesir_75 Start: 52985, Stop: 53188, Start Num: 73

Candidate Starts for Aesir_75:

(Start: 73 @52985 has 1 MA's), (Start: 80 @53000 has 49 MA's), (94, 53057), (119, 53135), (120, 53153), (122, 53165),

Gene: Agatha_49 Start: 36030, Stop: 35797, Start Num: 56

Candidate Starts for Agatha_49:

(Start: 56 @36030 has 29 MA's), (89, 35946), (103, 35886),

Gene: AikoCarson_50 Start: 36349, Stop: 36098, Start Num: 56

Candidate Starts for AikoCarson_50:

(Start: 56 @36349 has 29 MA's), (61, 36343), (95, 36220), (108, 36175),

Gene: Ajin_62 Start: 42356, Stop: 42547, Start Num: 80

Candidate Starts for Ajin_62:

(78, 42353), (Start: 80 @42356 has 49 MA's), (82, 42365), (102, 42446), (117, 42485),

Gene: Aleemily_115 Start: 64180, Stop: 63974, Start Num: 92

Candidate Starts for Aleemily_115:

(74, 64249), (Start: 92 @64180 has 5 MA's), (111, 64108), (115, 64093), (119, 64078), (124, 64000),

Gene: Aminay_62 Start: 41845, Stop: 42069, Start Num: 56
Candidate Starts for Aminay_62:
(Start: 56 @41845 has 29 MA's), (87, 41926), (90, 41935), (95, 41956), (119, 42025),

Gene: Amok_50 Start: 36274, Stop: 36023, Start Num: 56
Candidate Starts for Amok_50:
(Start: 56 @36274 has 29 MA's), (61, 36268), (95, 36145), (108, 36100),

Gene: Amore2_80 Start: 61514, Stop: 61275, Start Num: 70
Candidate Starts for Amore2_80:
(23, 61679), (Start: 70 @61514 has 3 MA's), (107, 61355),

Gene: Anakin_76 Start: 53365, Stop: 53553, Start Num: 80
Candidate Starts for Anakin_76:
(Start: 73 @53350 has 1 MA's), (Start: 80 @53365 has 49 MA's), (94, 53422), (119, 53500), (120, 53518), (122, 53530),

Gene: AndPeggy_46 Start: 35560, Stop: 35309, Start Num: 56
Candidate Starts for AndPeggy_46:
(Start: 56 @35560 has 29 MA's), (61, 35554), (95, 35431), (108, 35386),

Gene: AnnaSerena_76 Start: 53399, Stop: 53587, Start Num: 80
Candidate Starts for AnnaSerena_76:
(Start: 73 @53384 has 1 MA's), (Start: 80 @53399 has 49 MA's), (94, 53456), (119, 53534), (120, 53552), (122, 53564),

Gene: Annalisa_51 Start: 35580, Stop: 35795, Start Num: 63
Candidate Starts for Annalisa_51:
(7, 35316), (10, 35352), (19, 35424), (Start: 63 @35580 has 22 MA's), (95, 35679),

Gene: Annapurna_77 Start: 52999, Stop: 53187, Start Num: 80
Candidate Starts for Annapurna_77:
(Start: 73 @52984 has 1 MA's), (Start: 80 @52999 has 49 MA's), (94, 53056), (120, 53152), (122, 53164),

Gene: ArchiDore_52 Start: 39524, Stop: 39766, Start Num: 63
Candidate Starts for ArchiDore_52:
(Start: 63 @39524 has 22 MA's), (66, 39533), (95, 39650),

Gene: Artiphact_76 Start: 53389, Stop: 53577, Start Num: 80
Candidate Starts for Artiphact_76:
(Start: 73 @53374 has 1 MA's), (Start: 80 @53389 has 49 MA's), (94, 53446), (119, 53524), (120, 53542), (122, 53554),

Gene: AuntGwenStacy_90 Start: 58871, Stop: 59092, Start Num: 62
Candidate Starts for AuntGwenStacy_90:
(Start: 62 @58871 has 8 MA's), (75, 58907), (83, 58937),

Gene: Austin_79 Start: 61512, Stop: 61273, Start Num: 70
Candidate Starts for Austin_79:
(23, 61677), (Start: 70 @61512 has 3 MA's), (107, 61353),

Gene: Auxilium_46 Start: 28442, Stop: 28633, Start Num: 80

Candidate Starts for Auxilium_46:
(Start: 80 @28442 has 49 MA's),

Gene: Axym_48 Start: 35927, Stop: 35694, Start Num: 56
Candidate Starts for Axym_48:
(Start: 56 @35927 has 29 MA's), (89, 35843), (103, 35783),

Gene: BigMama_78 Start: 58605, Stop: 58919, Start Num: 40
Candidate Starts for BigMama_78:
(13, 58488), (28, 58551), (Start: 40 @58605 has 22 MA's), (Start: 42 @58614 has 4 MA's), (52, 58659),
(58, 58668),

Gene: BillDoor_49 Start: 35229, Stop: 34978, Start Num: 56
Candidate Starts for BillDoor_49:
(27, 35346), (Start: 56 @35229 has 29 MA's), (61, 35223), (71, 35187), (95, 35100), (108, 35055),

Gene: Bipper_99 Start: 62157, Stop: 62378, Start Num: 62
Candidate Starts for Bipper_99:
(14, 61980), (24, 62025), (25, 62028), (33, 62067), (47, 62115), (Start: 62 @62157 has 8 MA's), (75,
62193),

Gene: Biskit_52 Start: 36207, Stop: 35971, Start Num: 56
Candidate Starts for Biskit_52:
(49, 36225), (Start: 56 @36207 has 29 MA's), (103, 36060), (108, 36048), (110, 36045),

Gene: Blondies_53 Start: 36524, Stop: 36288, Start Num: 56
Candidate Starts for Blondies_53:
(49, 36542), (Start: 56 @36524 has 29 MA's), (103, 36377), (108, 36365), (110, 36362),

Gene: Bobquesha_67 Start: 40811, Stop: 41029, Start Num: 59
Candidate Starts for Bobquesha_67:
(16, 40652), (17, 40661), (Start: 59 @40811 has 22 MA's), (97, 40928), (113, 40964), (118, 40979),
(119, 40985),

Gene: Bramble_62 Start: 42368, Stop: 42559, Start Num: 80
Candidate Starts for Bramble_62:
(78, 42365), (Start: 80 @42368 has 49 MA's), (82, 42377), (102, 42458), (117, 42497),

Gene: Bubble_47 Start: 35617, Stop: 35384, Start Num: 56
Candidate Starts for Bubble_47:
(Start: 56 @35617 has 29 MA's), (89, 35533), (103, 35473),

Gene: Bunnybear_49 Start: 37204, Stop: 37446, Start Num: 63
Candidate Starts for Bunnybear_49:
(Start: 63 @37204 has 22 MA's), (95, 37330),

Gene: Burnsey_49 Start: 36021, Stop: 35788, Start Num: 56
Candidate Starts for Burnsey_49:
(Start: 56 @36021 has 29 MA's), (89, 35937), (103, 35877),

Gene: Butterscotch_78 Start: 58571, Stop: 58885, Start Num: 40
Candidate Starts for Butterscotch_78:

(13, 58454), (28, 58517), (Start: 40 @58571 has 22 MA's), (Start: 42 @58580 has 4 MA's), (52, 58625), (58, 58634),

Gene: Button_51 Start: 36058, Stop: 35855, Start Num: 69

Candidate Starts for Button_51:

(Start: 69 @36058 has 8 MA's), (72, 36046), (Start: 76 @36037 has 1 MA's), (79, 36031), (93, 35980), (98, 35956),

Gene: Buttrmlkdreams_52 Start: 36654, Stop: 36418, Start Num: 56

Candidate Starts for Buttrmlkdreams_52:

(49, 36672), (Start: 56 @36654 has 29 MA's), (103, 36507), (108, 36495), (110, 36492),

Gene: Cafasso_117 Start: 64785, Stop: 64579, Start Num: 92

Candidate Starts for Cafasso_117:

(Start: 92 @64785 has 5 MA's), (111, 64713), (115, 64698), (119, 64683),

Gene: CanesSauce_48 Start: 35730, Stop: 35479, Start Num: 56

Candidate Starts for CanesSauce_48:

(Start: 56 @35730 has 29 MA's), (61, 35724), (95, 35601), (108, 35556),

Gene: CaramellLatte_48 Start: 35730, Stop: 35479, Start Num: 56

Candidate Starts for CaramellLatte_48:

(Start: 56 @35730 has 29 MA's), (61, 35724), (95, 35601), (108, 35556),

Gene: Chancellor_66 Start: 41921, Stop: 42139, Start Num: 59

Candidate Starts for Chancellor_66:

(16, 41762), (17, 41771), (Start: 59 @41921 has 22 MA's), (97, 42038), (113, 42074), (118, 42089),

Gene: Cheetobro_66 Start: 41918, Stop: 42136, Start Num: 59

Candidate Starts for Cheetobro_66:

(16, 41759), (17, 41768), (Start: 59 @41918 has 22 MA's), (97, 42035), (113, 42071), (118, 42086),

Gene: CherryTomatoes_158 Start: 111644, Stop: 111907, Start Num: 46

Candidate Starts for CherryTomatoes_158:

(34, 111599), (45, 111641), (Start: 46 @111644 has 3 MA's), (95, 111794), (105, 111830), (114, 111842),

Gene: ChickenTender_51 Start: 35574, Stop: 35341, Start Num: 56

Candidate Starts for ChickenTender_51:

(6, 35829), (22, 35706), (38, 35649), (Start: 56 @35574 has 29 MA's), (81, 35514), (89, 35490), (108, 35418),

Gene: Chill_82 Start: 58548, Stop: 58862, Start Num: 40

Candidate Starts for Chill_82:

(13, 58431), (28, 58494), (Start: 40 @58548 has 22 MA's), (Start: 42 @58557 has 4 MA's), (52, 58602), (58, 58611),

Gene: Chivey_77 Start: 52802, Stop: 52990, Start Num: 80

Candidate Starts for Chivey_77:

(Start: 73 @52787 has 1 MA's), (Start: 80 @52802 has 49 MA's), (94, 52859), (119, 52937), (120, 52955), (122, 52967),

Gene: ChocoMunchkin_48 Start: 35730, Stop: 35479, Start Num: 56

Candidate Starts for ChocoMunchkin_48:

(Start: 56 @35730 has 29 MA's), (61, 35724), (95, 35601), (108, 35556),

Gene: CoolCookie_75 Start: 53498, Stop: 53686, Start Num: 80

Candidate Starts for CoolCookie_75:

(Start: 73 @53483 has 1 MA's), (Start: 80 @53498 has 49 MA's), (94, 53555), (119, 53633), (120, 53651), (122, 53663),

Gene: Cozz_47 Start: 35618, Stop: 35385, Start Num: 56

Candidate Starts for Cozz_47:

(Start: 56 @35618 has 29 MA's), (89, 35534), (103, 35474),

Gene: Cracklewink_99 Start: 61392, Stop: 61613, Start Num: 62

Candidate Starts for Cracklewink_99:

(14, 61215), (24, 61260), (25, 61263), (33, 61302), (47, 61350), (Start: 62 @61392 has 8 MA's), (64, 61404), (75, 61428),

Gene: Crestdrop_77 Start: 53319, Stop: 53507, Start Num: 80

Candidate Starts for Crestdrop_77:

(Start: 80 @53319 has 49 MA's), (94, 53376), (119, 53454), (120, 53472), (122, 53484),

Gene: Cuke_99 Start: 56679, Stop: 56984, Start Num: 42

Candidate Starts for Cuke_99:

(21, 56601), (26, 56613), (41, 56676), (Start: 42 @56679 has 4 MA's), (68, 56766), (84, 56823), (110, 56910), (120, 56958),

Gene: Cybele_76 Start: 53395, Stop: 53583, Start Num: 80

Candidate Starts for Cybele_76:

(Start: 73 @53380 has 1 MA's), (Start: 80 @53395 has 49 MA's), (94, 53452), (119, 53530), (120, 53548), (122, 53560),

Gene: DS6A_87 Start: 56210, Stop: 56485, Start Num: 48

Candidate Starts for DS6A_87:

(Start: 48 @56210 has 1 MA's), (112, 56414),

Gene: DanSyl44_69 Start: 43112, Stop: 43330, Start Num: 59

Candidate Starts for DanSyl44_69:

(16, 42953), (17, 42962), (Start: 59 @43112 has 22 MA's), (97, 43229), (113, 43265), (118, 43280),

Gene: DannyDe_77 Start: 52804, Stop: 52992, Start Num: 80

Candidate Starts for DannyDe_77:

(Start: 73 @52789 has 1 MA's), (Start: 80 @52804 has 49 MA's), (94, 52861), (119, 52939), (120, 52957), (122, 52969),

Gene: Dauntless_75 Start: 53031, Stop: 53219, Start Num: 80

Candidate Starts for Dauntless_75:

(Start: 73 @53016 has 1 MA's), (Start: 80 @53031 has 49 MA's), (94, 53088), (119, 53166), (120, 53184), (122, 53196),

Gene: Delton_80 Start: 58981, Stop: 59295, Start Num: 40

Candidate Starts for Delton_80:

(13, 58864), (28, 58927), (Start: 40 @58981 has 22 MA's), (Start: 42 @58990 has 4 MA's), (52, 59035), (58, 59044),

Gene: Denise_48 Start: 33091, Stop: 33306, Start Num: 63

Candidate Starts for Denise_48:

(Start: 63 @33091 has 22 MA's), (95, 33190), (103, 33223),

Gene: DumpsterDude_53 Start: 41558, Stop: 41800, Start Num: 63

Candidate Starts for DumpsterDude_53:

(Start: 63 @41558 has 22 MA's), (66, 41567), (95, 41684),

Gene: Easley_49 Start: 35528, Stop: 35743, Start Num: 63

Candidate Starts for Easley_49:

(Start: 63 @35528 has 22 MA's), (95, 35627),

Gene: Emalyn_48 Start: 35066, Stop: 34815, Start Num: 56

Candidate Starts for Emalyn_48:

(Start: 56 @35066 has 29 MA's), (61, 35060), (95, 34937), (108, 34892),

Gene: Eponine_68 Start: 42764, Stop: 42982, Start Num: 59

Candidate Starts for Eponine_68:

(16, 42605), (17, 42614), (Start: 59 @42764 has 22 MA's), (97, 42881), (113, 42917), (118, 42932),

Gene: Erk16_80 Start: 58641, Stop: 58955, Start Num: 40

Candidate Starts for Erk16_80:

(13, 58524), (28, 58587), (Start: 40 @58641 has 22 MA's), (Start: 42 @58650 has 4 MA's), (52, 58695), (58, 58704),

Gene: Erudite_75 Start: 53031, Stop: 53219, Start Num: 80

Candidate Starts for Erudite_75:

(Start: 73 @53016 has 1 MA's), (Start: 80 @53031 has 49 MA's), (94, 53088), (119, 53166), (120, 53184), (122, 53196),

Gene: Faiyaz_91 Start: 58877, Stop: 59098, Start Num: 62

Candidate Starts for Faiyaz_91:

(Start: 62 @58877 has 8 MA's), (75, 58913), (83, 58943),

Gene: Fionnbharth_66 Start: 42162, Stop: 42380, Start Num: 59

Candidate Starts for Fionnbharth_66:

(16, 42003), (17, 42012), (Start: 59 @42162 has 22 MA's), (97, 42279), (113, 42315), (118, 42330),

Gene: FountainFog_76 Start: 52859, Stop: 53062, Start Num: 73

Candidate Starts for FountainFog_76:

(Start: 73 @52859 has 1 MA's), (Start: 80 @52874 has 49 MA's), (119, 53009), (120, 53027), (122, 53039),

Gene: Fowlmouth_95 Start: 57786, Stop: 58094, Start Num: 42

Candidate Starts for Fowlmouth_95:

(Start: 42 @57786 has 4 MA's), (54, 57837), (68, 57873), (71, 57885), (84, 57930), (112, 58020),

Gene: FreddieHg_77 Start: 52819, Stop: 53007, Start Num: 80

Candidate Starts for FreddieHg_77:

(Start: 73 @52804 has 1 MA's), (Start: 80 @52819 has 49 MA's), (94, 52876), (119, 52954), (120, 52972), (122, 52984),

Gene: GMA7_69 Start: 55728, Stop: 55489, Start Num: 70

Candidate Starts for GMA7_69:

(23, 55893), (Start: 70 @55728 has 3 MA's), (107, 55569),

Gene: GTE2_40 Start: 35662, Stop: 35417, Start Num: 61

Candidate Starts for GTE2_40:

(27, 35785), (Start: 56 @35668 has 29 MA's), (61, 35662), (71, 35626), (89, 35575), (95, 35539), (108, 35494), (119, 35461),

Gene: GTE7_68 Start: 55759, Stop: 55520, Start Num: 70

Candidate Starts for GTE7_68:

(23, 55924), (Start: 70 @55759 has 3 MA's), (107, 55600),

Gene: GiKK_53 Start: 36382, Stop: 36179, Start Num: 69

Candidate Starts for GiKK_53:

(Start: 69 @36382 has 8 MA's), (72, 36370), (Start: 76 @36361 has 1 MA's), (79, 36355), (93, 36304), (98, 36280),

Gene: Gilda_76 Start: 53387, Stop: 53575, Start Num: 80

Candidate Starts for Gilda_76:

(Start: 73 @53372 has 1 MA's), (Start: 80 @53387 has 49 MA's), (94, 53444), (119, 53522), (120, 53540), (122, 53552),

Gene: Giuseppe_81 Start: 58355, Stop: 58669, Start Num: 40

Candidate Starts for Giuseppe_81:

(11, 58211), (29, 58310), (32, 58328), (Start: 40 @58355 has 22 MA's), (Start: 42 @58364 has 4 MA's), (52, 58409), (58, 58418), (71, 58460),

Gene: Gorpy_49 Start: 31480, Stop: 31674, Start Num: 80

Candidate Starts for Gorpy_49:

(Start: 80 @31480 has 49 MA's), (95, 31549), (119, 31627),

Gene: Gumball_80 Start: 58986, Stop: 59300, Start Num: 40

Candidate Starts for Gumball_80:

(28, 58932), (Start: 40 @58986 has 22 MA's), (Start: 42 @58995 has 4 MA's), (52, 59040), (58, 59049), (71, 59091),

Gene: Hager_78 Start: 52853, Stop: 53041, Start Num: 80

Candidate Starts for Hager_78:

(Start: 73 @52838 has 1 MA's), (Start: 80 @52853 has 49 MA's), (119, 52988), (120, 53006), (122, 53018),

Gene: Haunter_77 Start: 52808, Stop: 52996, Start Num: 80

Candidate Starts for Haunter_77:

(Start: 73 @52793 has 1 MA's), (Start: 80 @52808 has 49 MA's), (94, 52865), (119, 52943), (120, 52961), (122, 52973),

Gene: Hawkeye_92 Start: 60485, Stop: 60838, Start Num: 39

Candidate Starts for Hawkeye_92:

(Start: 39 @60485 has 1 MA's), (Start: 42 @60497 has 4 MA's), (91, 60683), (120, 60809),

Gene: HayZem_81 Start: 61512, Stop: 61273, Start Num: 70

Candidate Starts for HayZem_81:

(23, 61677), (Start: 70 @61512 has 3 MA's), (107, 61353),

Gene: Helpful_82 Start: 58743, Stop: 59057, Start Num: 40

Candidate Starts for Helpful_82:

(11, 58599), (29, 58698), (32, 58716), (Start: 40 @58743 has 22 MA's), (Start: 42 @58752 has 4 MA's), (52, 58797), (58, 58806), (71, 58848),

Gene: Hexbug_56 Start: 38441, Stop: 38238, Start Num: 69

Candidate Starts for Hexbug_56:

(Start: 69 @38441 has 8 MA's), (Start: 76 @38420 has 1 MA's), (98, 38339), (104, 38318), (109, 38309), (119, 38282),

Gene: Hiddenleaf_77 Start: 52802, Stop: 52990, Start Num: 80

Candidate Starts for Hiddenleaf_77:

(Start: 73 @52787 has 1 MA's), (Start: 80 @52802 has 49 MA's), (94, 52859), (119, 52937), (120, 52955), (122, 52967),

Gene: Hilltopfarm_91 Start: 59257, Stop: 59478, Start Num: 62

Candidate Starts for Hilltopfarm_91:

(Start: 62 @59257 has 8 MA's), (75, 59293), (83, 59323),

Gene: Horseradish_52 Start: 36140, Stop: 35904, Start Num: 56

Candidate Starts for Horseradish_52:

(49, 36158), (Start: 56 @36140 has 29 MA's), (103, 35993), (108, 35981), (110, 35978),

Gene: Hortense_55 Start: 40090, Stop: 40332, Start Num: 63

Candidate Starts for Hortense_55:

(Start: 63 @40090 has 22 MA's), (95, 40216),

Gene: Howe_55 Start: 40090, Stop: 40332, Start Num: 63

Candidate Starts for Howe_55:

(Start: 63 @40090 has 22 MA's), (95, 40216),

Gene: Indlulamithi_87 Start: 59764, Stop: 60048, Start Num: 42

Candidate Starts for Indlulamithi_87:

(Start: 42 @59764 has 4 MA's), (44, 59773), (52, 59809), (71, 59860), (77, 59872), (100, 59956),

Gene: JDawG_75 Start: 52995, Stop: 53183, Start Num: 80

Candidate Starts for JDawG_75:

(Start: 73 @52980 has 1 MA's), (Start: 80 @52995 has 49 MA's), (94, 53052), (119, 53130), (120, 53148), (122, 53160),

Gene: JF1_66 Start: 42079, Stop: 42297, Start Num: 59

Candidate Starts for JF1_66:

(16, 41920), (17, 41929), (Start: 59 @42079 has 22 MA's), (97, 42196), (113, 42232), (118, 42247),

Gene: Jablanski_57 Start: 41777, Stop: 42019, Start Num: 63

Candidate Starts for Jablanski_57:

(2, 41396), (Start: 63 @41777 has 22 MA's), (95, 41903),

Gene: Jamzy_53 Start: 36362, Stop: 36159, Start Num: 69

Candidate Starts for Jamzy_53:

(Start: 69 @36362 has 8 MA's), (72, 36350), (Start: 76 @36341 has 1 MA's), (79, 36335), (93, 36284), (98, 36260),

Gene: JingleBells_76 Start: 52907, Stop: 53095, Start Num: 80

Candidate Starts for JingleBells_76:

(Start: 73 @52892 has 1 MA's), (Start: 80 @52907 has 49 MA's), (94, 52964), (119, 53042), (120, 53060), (122, 53072),

Gene: Juliette_68 Start: 42226, Stop: 42444, Start Num: 59

Candidate Starts for Juliette_68:

(16, 42067), (17, 42076), (Start: 59 @42226 has 22 MA's), (97, 42343), (113, 42379), (118, 42394),

Gene: Kabloowy_50 Start: 31539, Stop: 31730, Start Num: 80

Candidate Starts for Kabloowy_50:

(Start: 39 @31413 has 1 MA's), (57, 31482), (Start: 80 @31539 has 49 MA's),

Gene: KandZ_77 Start: 58571, Stop: 58885, Start Num: 40

Candidate Starts for KandZ_77:

(11, 58427), (29, 58526), (32, 58544), (Start: 40 @58571 has 22 MA's), (Start: 42 @58580 has 4 MA's), (52, 58625), (58, 58634), (71, 58676),

Gene: Karate_75 Start: 53099, Stop: 53287, Start Num: 80

Candidate Starts for Karate_75:

(Start: 73 @53084 has 1 MA's), (Start: 80 @53099 has 49 MA's), (94, 53156), (120, 53252), (122, 53264),

Gene: Kate_76 Start: 53310, Stop: 53498, Start Num: 80

Candidate Starts for Kate_76:

(Start: 73 @53295 has 1 MA's), (Start: 80 @53310 has 49 MA's), (94, 53367), (119, 53445), (120, 53463), (122, 53475),

Gene: Kors_62 Start: 42441, Stop: 42632, Start Num: 80

Candidate Starts for Kors_62:

(78, 42438), (Start: 80 @42441 has 49 MA's), (82, 42450), (102, 42531), (117, 42570),

Gene: Krampus_76 Start: 53400, Stop: 53588, Start Num: 80

Candidate Starts for Krampus_76:

(Start: 73 @53385 has 1 MA's), (Start: 80 @53400 has 49 MA's), (94, 53457), (119, 53535), (120, 53553), (122, 53565),

Gene: Kraw_66 Start: 41914, Stop: 42132, Start Num: 59

Candidate Starts for Kraw_66:

(16, 41755), (17, 41764), (Start: 59 @41914 has 22 MA's), (97, 42031), (113, 42067), (118, 42082),

Gene: LeBruni_48 Start: 29822, Stop: 30013, Start Num: 80

Candidate Starts for LeBruni_48:

(Start: 80 @29822 has 49 MA's),

Gene: Lebo14_65 Start: 42247, Stop: 42465, Start Num: 59

Candidate Starts for Lebo14_65:

(16, 42088), (17, 42097), (Start: 59 @42247 has 22 MA's), (97, 42364), (113, 42400), (118, 42415),

Gene: LordBart_62 Start: 42338, Stop: 42529, Start Num: 80

Candidate Starts for LordBart_62:

(78, 42335), (Start: 80 @42338 has 49 MA's), (82, 42347), (102, 42428), (117, 42467),

Gene: MScarn_54 Start: 36322, Stop: 36086, Start Num: 56

Candidate Starts for MScarn_54:

(49, 36340), (Start: 56 @36322 has 29 MA's), (103, 36175), (108, 36163), (110, 36160),

Gene: Madavieve_51 Start: 38160, Stop: 38402, Start Num: 63

Candidate Starts for Madavieve_51:

(Start: 63 @38160 has 22 MA's), (95, 38286),

Gene: Malthus_67 Start: 41914, Stop: 42132, Start Num: 59

Candidate Starts for Malthus_67:

(16, 41755), (17, 41764), (Start: 59 @41914 has 22 MA's), (97, 42031), (113, 42067), (118, 42082),

Gene: Mapleville_46 Start: 30349, Stop: 30540, Start Num: 80

Candidate Starts for Mapleville_46:

(Start: 80 @30349 has 49 MA's),

Gene: Margaret_54 Start: 37114, Stop: 36911, Start Num: 69

Candidate Starts for Margaret_54:

(Start: 69 @37114 has 8 MA's), (72, 37102), (Start: 76 @37093 has 1 MA's), (79, 37087), (93, 37036), (98, 37012),

Gene: Maridalia_57 Start: 38950, Stop: 39192, Start Num: 63

Candidate Starts for Maridalia_57:

(Start: 63 @38950 has 22 MA's), (95, 39076),

Gene: Mcklovin_51 Start: 41557, Stop: 41799, Start Num: 63

Candidate Starts for Mcklovin_51:

(Start: 63 @41557 has 22 MA's), (95, 41683),

Gene: Mercedes_58 Start: 39826, Stop: 40002, Start Num: 86

Candidate Starts for Mercedes_58:

(67, 39766), (85, 39823), (Start: 86 @39826 has 1 MA's), (111, 39919),

Gene: MissDaisy_63 Start: 40826, Stop: 41044, Start Num: 59

Candidate Starts for MissDaisy_63:

(16, 40667), (17, 40676), (Start: 59 @40826 has 22 MA's), (97, 40943), (113, 40979), (118, 40994), (119, 41000),

Gene: Mitti_66 Start: 42093, Stop: 42311, Start Num: 59

Candidate Starts for Mitti_66:

(16, 41934), (17, 41943), (Start: 59 @42093 has 22 MA's), (97, 42210), (113, 42246), (118, 42261),

Gene: ModicumRichard_117 Start: 65073, Stop: 64867, Start Num: 92

Candidate Starts for ModicumRichard_117:

(Start: 92 @65073 has 5 MA's), (111, 65001), (115, 64986), (119, 64971),

Gene: Moosehead_50 Start: 31430, Stop: 31645, Start Num: 63

Candidate Starts for Moosehead_50:

(Start: 63 @31430 has 22 MA's), (95, 31529), (119, 31601),

Gene: Mopey_81 Start: 58381, Stop: 58695, Start Num: 40
Candidate Starts for Mopey_81:
(11, 58237), (29, 58336), (32, 58354), (Start: 40 @58381 has 22 MA's), (Start: 42 @58390 has 4 MA's),
(52, 58435), (58, 58444), (71, 58486),

Gene: Morgana_124 Start: 67243, Stop: 67037, Start Num: 92
Candidate Starts for Morgana_124:
(74, 67312), (Start: 92 @67243 has 5 MA's), (111, 67171), (115, 67156), (119, 67141),

Gene: MortySmith_74 Start: 52505, Stop: 52693, Start Num: 80
Candidate Starts for MortySmith_74:
(Start: 73 @52490 has 1 MA's), (Start: 80 @52505 has 49 MA's), (94, 52562), (119, 52640), (120,
52658), (122, 52670),

Gene: MrMiyagi_94 Start: 58054, Stop: 58362, Start Num: 42
Candidate Starts for MrMiyagi_94:
(Start: 42 @58054 has 4 MA's), (54, 58105), (68, 58141), (84, 58198), (112, 58288),

Gene: MunkgeeRoachy_47 Start: 35379, Stop: 35146, Start Num: 56
Candidate Starts for MunkgeeRoachy_47:
(Start: 56 @35379 has 29 MA's), (89, 35295), (103, 35235),

Gene: NarutoRun_76 Start: 53365, Stop: 53553, Start Num: 80
Candidate Starts for NarutoRun_76:
(Start: 73 @53350 has 1 MA's), (Start: 80 @53365 has 49 MA's), (94, 53422), (119, 53500), (120,
53518), (122, 53530),

Gene: Neptune_76 Start: 53395, Stop: 53583, Start Num: 80
Candidate Starts for Neptune_76:
(Start: 73 @53380 has 1 MA's), (Start: 80 @53395 has 49 MA's), (94, 53452), (119, 53530), (120,
53548), (122, 53560),

Gene: Nina_48 Start: 36199, Stop: 35966, Start Num: 56
Candidate Starts for Nina_48:
(Start: 56 @36199 has 29 MA's), (89, 36115), (103, 36055),

Gene: Nodigi_56 Start: 38471, Stop: 38268, Start Num: 69
Candidate Starts for Nodigi_56:
(Start: 69 @38471 has 8 MA's), (Start: 76 @38450 has 1 MA's), (98, 38369), (104, 38348), (109,
38339), (119, 38312),

Gene: Nova_79 Start: 58848, Stop: 59162, Start Num: 40
Candidate Starts for Nova_79:
(11, 58704), (29, 58803), (32, 58821), (Start: 40 @58848 has 22 MA's), (Start: 42 @58857 has 4 MA's),
(52, 58902), (58, 58911), (71, 58953),

Gene: Nyilah_48 Start: 29132, Stop: 29323, Start Num: 80
Candidate Starts for Nyilah_48:
(Start: 69 @29102 has 8 MA's), (Start: 80 @29132 has 49 MA's), (95, 29201),

Gene: ObLaDi_116 Start: 64475, Stop: 64269, Start Num: 92
Candidate Starts for ObLaDi_116:
(Start: 92 @64475 has 5 MA's), (111, 64403), (115, 64388), (119, 64373),

Gene: OhDear_76 Start: 53363, Stop: 53551, Start Num: 80

Candidate Starts for OhDear_76:

(Start: 73 @53348 has 1 MA's), (Start: 80 @53363 has 49 MA's), (94, 53420), (119, 53498), (120, 53516), (122, 53528),

Gene: OmniCritical_65 Start: 41983, Stop: 42201, Start Num: 59

Candidate Starts for OmniCritical_65:

(16, 41824), (17, 41833), (Start: 59 @41983 has 22 MA's), (97, 42100), (113, 42136), (118, 42151),

Gene: Oregano_54 Start: 36212, Stop: 36427, Start Num: 63

Candidate Starts for Oregano_54:

(Start: 63 @36212 has 22 MA's), (95, 36311),

Gene: Orla_56 Start: 38400, Stop: 38197, Start Num: 69

Candidate Starts for Orla_56:

(Start: 69 @38400 has 8 MA's), (Start: 76 @38379 has 1 MA's), (98, 38298), (104, 38277), (109, 38268), (119, 38241),

Gene: OverHedge_75 Start: 53261, Stop: 53449, Start Num: 80

Candidate Starts for OverHedge_75:

(Start: 73 @53246 has 1 MA's), (Start: 80 @53261 has 49 MA's), (94, 53318), (119, 53396), (120, 53414), (122, 53426),

Gene: PBI1_76 Start: 58502, Stop: 58816, Start Num: 40

Candidate Starts for PBI1_76:

(13, 58385), (28, 58448), (Start: 40 @58502 has 22 MA's), (Start: 42 @58511 has 4 MA's), (52, 58556), (58, 58565),

Gene: PLOT_80 Start: 58539, Stop: 58853, Start Num: 40

Candidate Starts for PLOT_80:

(28, 58485), (Start: 40 @58539 has 22 MA's), (Start: 42 @58548 has 4 MA's), (52, 58593), (58, 58602), (71, 58644),

Gene: Patt_62 Start: 40550, Stop: 40768, Start Num: 59

Candidate Starts for Patt_62:

(16, 40391), (17, 40400), (Start: 59 @40550 has 22 MA's), (97, 40667), (113, 40703), (118, 40718), (119, 40724),

Gene: Penelope2018_80 Start: 58570, Stop: 58884, Start Num: 40

Candidate Starts for Penelope2018_80:

(13, 58453), (28, 58516), (Start: 40 @58570 has 22 MA's), (Start: 42 @58579 has 4 MA's), (52, 58624), (58, 58633),

Gene: Phalaborwa_82 Start: 59041, Stop: 59355, Start Num: 40

Candidate Starts for Phalaborwa_82:

(32, 59011), (Start: 40 @59041 has 22 MA's), (Start: 42 @59050 has 4 MA's), (52, 59095), (58, 59104),

Gene: Pharpay_75 Start: 53410, Stop: 53598, Start Num: 80

Candidate Starts for Pharpay_75:

(Start: 73 @53395 has 1 MA's), (Start: 80 @53410 has 49 MA's), (94, 53467), (119, 53545), (120, 53563), (122, 53575),

Gene: Phrappuccino_126 Start: 92677, Stop: 92982, Start Num: 55
Candidate Starts for Phrappuccino_126:
(5, 92419), (37, 92605), (Start: 46 @92638 has 3 MA's), (51, 92659), (Start: 55 @92677 has 2 MA's),
(95, 92800), (101, 92824), (123, 92944), (125, 92977),

Gene: PhriskyACE_49 Start: 36177, Stop: 36419, Start Num: 63
Candidate Starts for PhriskyACE_49:
(4, 35853), (Start: 63 @36177 has 22 MA's), (95, 36303),

Gene: PhunaPhoke_76 Start: 53380, Stop: 53568, Start Num: 80
Candidate Starts for PhunaPhoke_76:
(Start: 73 @53365 has 1 MA's), (Start: 80 @53380 has 49 MA's), (94, 53437), (119, 53515), (120,
53533), (122, 53545),

Gene: Potty_75 Start: 53310, Stop: 53498, Start Num: 80
Candidate Starts for Potty_75:
(Start: 73 @53295 has 1 MA's), (Start: 80 @53310 has 49 MA's), (94, 53367), (119, 53445), (120,
53463), (122, 53475),

Gene: Poultruss_75 Start: 53607, Stop: 53795, Start Num: 80
Candidate Starts for Poultruss_75:
(Start: 73 @53592 has 1 MA's), (Start: 80 @53607 has 49 MA's), (94, 53664), (119, 53742), (120,
53760), (122, 53772),

Gene: Powerball_51 Start: 36303, Stop: 36545, Start Num: 63
Candidate Starts for Powerball_51:
(4, 35979), (Start: 63 @36303 has 22 MA's), (95, 36429),

Gene: Prager_80 Start: 58475, Stop: 58789, Start Num: 40
Candidate Starts for Prager_80:
(11, 58331), (29, 58430), (32, 58448), (Start: 40 @58475 has 22 MA's), (Start: 42 @58484 has 4 MA's),
(52, 58529), (58, 58538),

Gene: Pupper_157 Start: 111884, Stop: 112147, Start Num: 46
Candidate Starts for Pupper_157:
(34, 111839), (45, 111881), (Start: 46 @111884 has 3 MA's), (95, 112034), (105, 112070), (114,
112082),

Gene: Pytheas_57 Start: 41776, Stop: 42018, Start Num: 63
Candidate Starts for Pytheas_57:
(2, 41395), (Start: 63 @41776 has 22 MA's), (95, 41902),

Gene: Qhanda_68 Start: 41930, Stop: 42148, Start Num: 59
Candidate Starts for Qhanda_68:
(16, 41771), (17, 41780), (Start: 59 @41930 has 22 MA's), (97, 42047), (113, 42083), (118, 42098),

Gene: Quasar_49 Start: 36624, Stop: 36391, Start Num: 56
Candidate Starts for Quasar_49:
(Start: 56 @36624 has 29 MA's), (89, 36540), (103, 36480),

Gene: Rachella_76 Start: 53391, Stop: 53579, Start Num: 80
Candidate Starts for Rachella_76:

(Start: 73 @53376 has 1 MA's), (Start: 80 @53391 has 49 MA's), (94, 53448), (119, 53526), (120, 53544), (122, 53556),

Gene: RanchParmCat_53 Start: 37255, Stop: 37052, Start Num: 69

Candidate Starts for RanchParmCat_53:

(Start: 69 @37255 has 8 MA's), (72, 37243), (Start: 76 @37234 has 1 MA's), (79, 37228), (93, 37177), (98, 37153),

Gene: Raphaella_49 Start: 30457, Stop: 30648, Start Num: 80

Candidate Starts for Raphaella_49:

(Start: 80 @30457 has 49 MA's),

Gene: RedBaron_53 Start: 36246, Stop: 36013, Start Num: 56

Candidate Starts for RedBaron_53:

(Start: 56 @36246 has 29 MA's), (89, 36162),

Gene: RedWattleHog_174 Start: 111466, Stop: 111675, Start Num: 62

Candidate Starts for RedWattleHog_174:

(57, 111463), (Start: 62 @111466 has 8 MA's), (116, 111625), (121, 111655),

Gene: Reptar3000_63 Start: 40538, Stop: 40756, Start Num: 59

Candidate Starts for Reptar3000_63:

(16, 40379), (17, 40388), (Start: 59 @40538 has 22 MA's), (97, 40655), (113, 40691), (118, 40706), (119, 40712),

Gene: Rie18_76 Start: 53133, Stop: 53321, Start Num: 80

Candidate Starts for Rie18_76:

(Start: 73 @53118 has 1 MA's), (Start: 80 @53133 has 49 MA's), (119, 53268), (120, 53286), (122, 53298),

Gene: RikSengupta_62 Start: 42469, Stop: 42660, Start Num: 80

Candidate Starts for RikSengupta_62:

(78, 42466), (Start: 80 @42469 has 49 MA's), (82, 42478), (102, 42559), (117, 42598),

Gene: Ruthiejr_67 Start: 41964, Stop: 42182, Start Num: 59

Candidate Starts for Ruthiejr_67:

(16, 41805), (17, 41814), (Start: 59 @41964 has 22 MA's), (97, 42081), (113, 42117), (118, 42132),

Gene: Ruthy_52 Start: 39090, Stop: 39332, Start Num: 63

Candidate Starts for Ruthy_52:

(Start: 63 @39090 has 22 MA's), (66, 39099), (95, 39216),

Gene: SCentae_156 Start: 112038, Stop: 112301, Start Num: 46

Candidate Starts for SCentae_156:

(34, 111993), (45, 112035), (Start: 46 @112038 has 3 MA's), (95, 112188), (105, 112224), (114, 112236),

Gene: Sakai_48 Start: 30191, Stop: 30385, Start Num: 80

Candidate Starts for Sakai_48:

(Start: 80 @30191 has 49 MA's), (95, 30260), (119, 30338),

Gene: SamScheppers_64 Start: 42393, Stop: 42611, Start Num: 59

Candidate Starts for SamScheppers_64:

(16, 42234), (17, 42243), (Start: 59 @42393 has 22 MA's), (97, 42510), (113, 42546), (118, 42561),

Gene: Settecandela_126 Start: 92677, Stop: 92982, Start Num: 55

Candidate Starts for Settecandela_126:

(5, 92419), (37, 92605), (Start: 46 @92638 has 3 MA's), (51, 92659), (Start: 55 @92677 has 2 MA's), (95, 92800), (101, 92824), (123, 92944), (125, 92977),

Gene: Shlim410_53 Start: 40090, Stop: 40332, Start Num: 63

Candidate Starts for Shlim410_53:

(Start: 63 @40090 has 22 MA's), (95, 40216),

Gene: SilentWarrior_77 Start: 52768, Stop: 52956, Start Num: 80

Candidate Starts for SilentWarrior_77:

(Start: 73 @52753 has 1 MA's), (Start: 80 @52768 has 49 MA's), (94, 52825), (119, 52903), (120, 52921), (122, 52933),

Gene: SirHarley_82 Start: 58970, Stop: 59284, Start Num: 40

Candidate Starts for SirHarley_82:

(28, 58916), (Start: 40 @58970 has 22 MA's), (Start: 42 @58979 has 4 MA's), (52, 59024), (58, 59033), (71, 59075),

Gene: SketchMex_50 Start: 36207, Stop: 35971, Start Num: 56

Candidate Starts for SketchMex_50:

(49, 36225), (Start: 56 @36207 has 29 MA's), (103, 36060), (108, 36048), (110, 36045),

Gene: Slarp_66 Start: 41921, Stop: 42139, Start Num: 59

Candidate Starts for Slarp_66:

(16, 41762), (17, 41771), (Start: 59 @41921 has 22 MA's), (97, 42038), (113, 42074), (118, 42089),

Gene: Snakehole_77 Start: 52751, Stop: 52939, Start Num: 80

Candidate Starts for Snakehole_77:

(Start: 73 @52736 has 1 MA's), (Start: 80 @52751 has 49 MA's), (94, 52808), (119, 52886), (120, 52904), (122, 52916),

Gene: Socotra_50 Start: 36029, Stop: 35796, Start Num: 56

Candidate Starts for Socotra_50:

(Start: 56 @36029 has 29 MA's), (89, 35945), (103, 35885),

Gene: Sparcetus_62 Start: 42346, Stop: 42537, Start Num: 80

Candidate Starts for Sparcetus_62:

(78, 42343), (Start: 80 @42346 has 49 MA's), (82, 42355), (102, 42436), (117, 42475),

Gene: Sporco_51 Start: 30638, Stop: 30829, Start Num: 80

Candidate Starts for Sporco_51:

(8, 30344), (9, 30362), (12, 30392), (15, 30410), (18, 30434), (30, 30467), (31, 30470), (35, 30497), (60, 30581), (Start: 80 @30638 has 49 MA's),

Gene: Sprinklemunch_60 Start: 41643, Stop: 41885, Start Num: 63

Candidate Starts for Sprinklemunch_60:

(Start: 63 @41643 has 22 MA's), (95, 41769),

Gene: SteamedHams_49 Start: 35394, Stop: 35161, Start Num: 56

Candidate Starts for SteamedHams_49:

(20, 35529), (24, 35520), (25, 35517), (36, 35469), (Start: 40 @35457 has 22 MA's), (Start: 56 @35394 has 29 MA's), (89, 35310), (103, 35250),

Gene: Stormageddon_175 Start: 112431, Stop: 112640, Start Num: 62

Candidate Starts for Stormageddon_175:

(57, 112428), (Start: 62 @112431 has 8 MA's), (116, 112590), (121, 112620),

Gene: SuperheroCarly_79 Start: 58560, Stop: 58877, Start Num: 40

Candidate Starts for SuperheroCarly_79:

(11, 58416), (29, 58515), (32, 58533), (Start: 40 @58560 has 22 MA's), (Start: 42 @58569 has 4 MA's), (52, 58614), (58, 58623), (71, 58665),

Gene: SushiChef_53 Start: 39718, Stop: 39960, Start Num: 63

Candidate Starts for SushiChef_53:

(Start: 63 @39718 has 22 MA's), (95, 39844),

Gene: SweatNTears_51 Start: 36160, Stop: 35927, Start Num: 56

Candidate Starts for SweatNTears_51:

(Start: 56 @36160 has 29 MA's), (89, 36076), (103, 36016),

Gene: TPA4_81 Start: 53987, Stop: 54289, Start Num: 50

Candidate Starts for TPA4_81:

(1, 53147), (3, 53672), (24, 53882), (43, 53957), (50, 53987),

Gene: Taquito_65 Start: 42156, Stop: 42374, Start Num: 59

Candidate Starts for Taquito_65:

(16, 41997), (17, 42006), (Start: 59 @42156 has 22 MA's), (97, 42273), (113, 42309), (118, 42324),

Gene: Tedro_76 Start: 52895, Stop: 53083, Start Num: 80

Candidate Starts for Tedro_76:

(65, 52859), (Start: 73 @52880 has 1 MA's), (Start: 80 @52895 has 49 MA's), (94, 52952), (120, 53048), (122, 53060),

Gene: Thimann_54 Start: 37092, Stop: 37307, Start Num: 63

Candidate Starts for Thimann_54:

(Start: 63 @37092 has 22 MA's), (95, 37191),

Gene: Thoth_80 Start: 58624, Stop: 58938, Start Num: 40

Candidate Starts for Thoth_80:

(13, 58507), (28, 58570), (Start: 40 @58624 has 22 MA's), (Start: 42 @58633 has 4 MA's), (52, 58678), (58, 58687),

Gene: Tiff81_46 Start: 28970, Stop: 29161, Start Num: 80

Candidate Starts for Tiff81_46:

(Start: 80 @28970 has 49 MA's),

Gene: Tiggy93_75 Start: 53409, Stop: 53597, Start Num: 80

Candidate Starts for Tiggy93_75:

(Start: 73 @53394 has 1 MA's), (Start: 80 @53409 has 49 MA's), (94, 53466), (119, 53544), (120, 53562), (122, 53574),

Gene: TinyMiny_62 Start: 42368, Stop: 42559, Start Num: 80

Candidate Starts for TinyMiny_62:

(Start: 80 @42368 has 49 MA's), (96, 42434), (99, 42452),

Gene: Tolls_50 Start: 35802, Stop: 35551, Start Num: 56

Candidate Starts for Tolls_50:

(Start: 56 @35802 has 29 MA's), (61, 35796), (95, 35673), (108, 35628),

Gene: Tongui_77 Start: 53245, Stop: 53433, Start Num: 80

Candidate Starts for Tongui_77:

(Start: 73 @53230 has 1 MA's), (Start: 80 @53245 has 49 MA's), (119, 53380), (120, 53398), (122, 53410),

Gene: Troje_52 Start: 36545, Stop: 36309, Start Num: 56

Candidate Starts for Troje_52:

(49, 36563), (Start: 56 @36545 has 29 MA's), (103, 36398), (108, 36386), (110, 36383),

Gene: Troll4_79 Start: 58537, Stop: 58851, Start Num: 40

Candidate Starts for Troll4_79:

(11, 58393), (29, 58492), (32, 58510), (Start: 40 @58537 has 22 MA's), (Start: 42 @58546 has 4 MA's), (52, 58591), (58, 58600), (71, 58642),

Gene: Tuti_49 Start: 36960, Stop: 37175, Start Num: 63

Candidate Starts for Tuti_49:

(Start: 63 @36960 has 22 MA's), (95, 37059),

Gene: Twinkle_54 Start: 41149, Stop: 41391, Start Num: 63

Candidate Starts for Twinkle_54:

(Start: 63 @41149 has 22 MA's), (95, 41275),

Gene: Typha_89 Start: 58872, Stop: 59093, Start Num: 62

Candidate Starts for Typha_89:

(Start: 62 @58872 has 8 MA's), (75, 58908), (83, 58938),

Gene: Typhonomachy_48 Start: 35740, Stop: 35507, Start Num: 56

Candidate Starts for Typhonomachy_48:

(Start: 56 @35740 has 29 MA's), (89, 35656), (103, 35596),

Gene: Visconti_81 Start: 58585, Stop: 58899, Start Num: 40

Candidate Starts for Visconti_81:

(13, 58468), (28, 58531), (Start: 40 @58585 has 22 MA's), (Start: 42 @58594 has 4 MA's), (52, 58639), (58, 58648), (71, 58690),

Gene: Vopal_52 Start: 33686, Stop: 33877, Start Num: 80

Candidate Starts for Vopal_52:

(Start: 80 @33686 has 49 MA's),

Gene: WaldoWhy_82 Start: 58548, Stop: 58862, Start Num: 40

Candidate Starts for WaldoWhy_82:

(13, 58431), (28, 58494), (Start: 40 @58548 has 22 MA's), (Start: 42 @58557 has 4 MA's), (52, 58602), (58, 58611),

Gene: Wintermute_66 Start: 42151, Stop: 42369, Start Num: 59

Candidate Starts for Wintermute_66:

(16, 41992), (17, 42001), (Start: 59 @42151 has 22 MA's), (97, 42268), (113, 42304), (118, 42319),

Gene: Y10_64 Start: 42079, Stop: 42297, Start Num: 59

Candidate Starts for Y10_64:

(16, 41920), (17, 41929), (Start: 59 @42079 has 22 MA's), (97, 42196), (113, 42232), (118, 42247),

Gene: Y2_64 Start: 42079, Stop: 42297, Start Num: 59

Candidate Starts for Y2_64:

(16, 41920), (17, 41929), (Start: 59 @42079 has 22 MA's), (97, 42196), (113, 42232), (118, 42247),

Gene: Yakult_51 Start: 37137, Stop: 36952, Start Num: 76

Candidate Starts for Yakult_51:

(53, 37200), (Start: 69 @37158 has 8 MA's), (Start: 76 @37137 has 1 MA's), (88, 37098), (98, 37056), (106, 37032), (119, 36996),

Gene: Yarn_46 Start: 35565, Stop: 35314, Start Num: 56

Candidate Starts for Yarn_46:

(Start: 56 @35565 has 29 MA's), (61, 35559), (95, 35436), (108, 35391),

Gene: YasnayaPolyana_65 Start: 42004, Stop: 42222, Start Num: 59

Candidate Starts for YasnayaPolyana_65:

(16, 41845), (17, 41854), (Start: 59 @42004 has 22 MA's), (97, 42121), (113, 42157), (118, 42172),

Gene: YoungHarleezy_50 Start: 31023, Stop: 31214, Start Num: 80

Candidate Starts for YoungHarleezy_50:

(Start: 80 @31023 has 49 MA's),

Gene: Yummy_52 Start: 36254, Stop: 36018, Start Num: 56

Candidate Starts for Yummy_52:

(49, 36272), (Start: 56 @36254 has 29 MA's), (103, 36107), (108, 36095), (110, 36092),