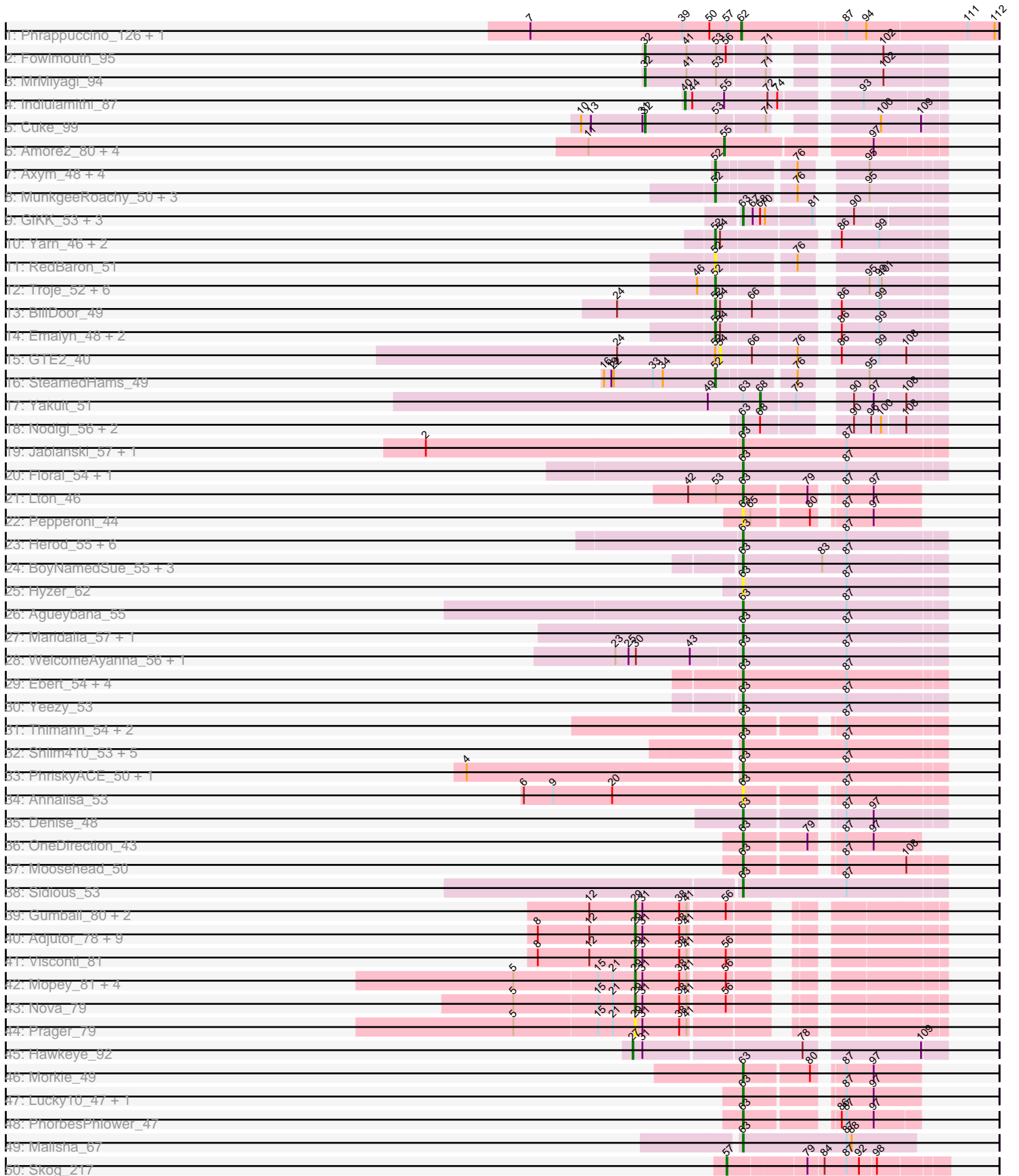
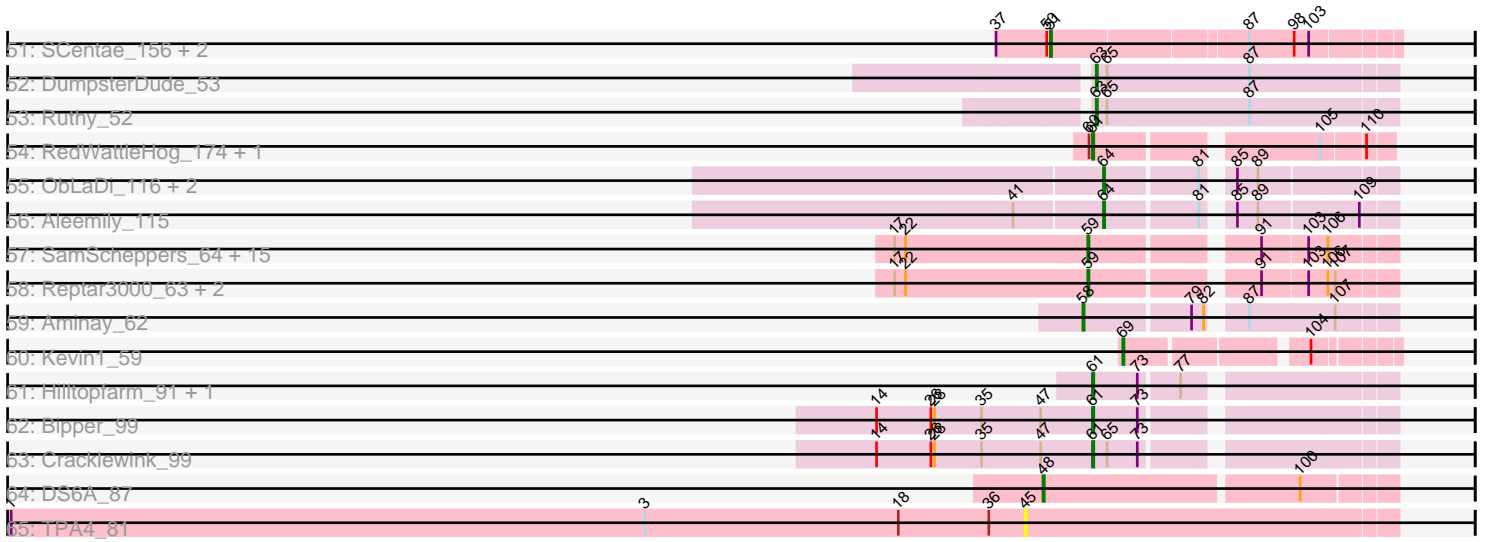


Pham 163395



Pham 163395



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 163395 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163395 has 156 members, 17 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 : Amore2_80, Austin_79, GMA7_69, HayZem_81, GTE7_68
- Track 7 : Axym_48, Typhonmacy_49, Burnsey_49, Agatha_49, Cozz_47
- Track 8 : MunkgeeRoachy_50, Quasar_49, Nina_48, SweatNTears_51
- Track 9 : GiKK_53, Margaret_54, Jamzy_53, Button_51
- Track 10 : Yarn_46, AndPeggy_46, Tolls_50
- Track 11 : RedBaron_51
- Track 12 : Troje_52, Biskit_52, SketchMex_50, Buttrmlkdreams_52, Horseradish_52, MScarn_54, Yummy_52
- Track 13 : BillDoor_49
- Track 14 : Emalyn_48, AikoCarson_50, Amok_50
- Track 15 : GTE2_40
- Track 16 : SteamedHams_49
- Track 17 : Yakult_51
- Track 18 : Nodigi_56, Orla_56, Hexbug_56
- Track 19 : Jablanski_57, Pytheas_57
- Track 20 : Floral_54, Pollux_56
- Track 21 : Lton_46
- Track 22 : Pepperoni_44
- Track 23 : Herod_55, Eviarto_57, BatStarr_56, Nymphadora_57, PantheRoc_57, TimTam_57, Hugley_53
- Track 24 : BoyNamedSue_55, Marteena_52, AlumE_55, EMSquaredA_53
- Track 25 : Hyzer_62
- Track 26 : Agueybana_55
- Track 27 : Maridalia_57, Bunnybear_49
- Track 28 : WelcomeAyanna_56, ThankyouJordi_56
- Track 29 : Ebert_54, Cashline_53, Ohgeesy_54, BaxterFox_57, Madeline_54
- Track 30 : Yeezy_53
- Track 31 : Thimann_54, Easley_49, Oregano_54
- Track 32 : Shlim410_53, Adora_52, Mcklovin_51, Hortense_55, Twinkle_54, Howe_55
- Track 33 : PhriskyACE_50, Powerball_51
- Track 34 : Annalisa_53

- Track 35 : Denise_48
- Track 36 : OneDirection_43
- Track 37 : Moosehead_50
- Track 38 : Sidious_53
- Track 39 : Gumball_80, PLOT_80, SirHarley_82
- Track 40 : Adjutor_78, Erk16_80, Delton_80, WaldoWhy_82, PBI1_76, Butterscotch_78, Chill_82, Thoth_80, Penelope2018_80, BigMama_78
- Track 41 : Visconti_81
- Track 42 : Mopey_81, Giuseppe_81, Troll4_79, Helpful_82, KandZ_77
- Track 43 : Nova_79
- Track 44 : Prager_79
- Track 45 : Hawkeye_92
- Track 46 : Morkie_49
- Track 47 : Lucky10_47, Faith5x5_42
- Track 48 : PhorbessPhlower_47
- Track 49 : Malisha_67
- Track 50 : Skog_217
- Track 51 : SCentae_156, Pupper_157, CherryTomatoes_162
- Track 52 : DumpsterDude_53
- Track 53 : Ruthy_52
- Track 54 : RedWattleHog_174, Stormageddon_175
- Track 55 : ObLaDi_116, Cafasso_117, ModicumRichard_117
- Track 56 : Aleemily_115
- Track 57 : SamScheppers_64, Eponine_68, Y2_64, Mitti_66, Cheetobro_66, Ruthiejr_67, Malthus_67, Taquito_65, Y10_64, Juliette_68, Fionnbharth_66, Wintermute_66, Chancellor_66, OmniCritical_65, Slarp_66, JF1_66
- Track 58 : Reptar3000_63, MissDaisy_63, Patt_62
- Track 59 : Aminay_62
- Track 60 : Kevin1_59
- Track 61 : Hilltopfarm_91, Typha_89
- Track 62 : Bipper_99
- Track 63 : Cracklewink_99
- Track 64 : DS6A_87
- Track 65 : TPA4_81

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

The start number called the most often in the published annotations is 63, it was called in 53 of the 139 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora_52, Agueybana_55, AlumE_55, Annalisa_53, BatStarr_56, BaxterFox_57, BoyNamedSue_55, Bunnybear_49, Button_51, Cashline_53, Denise_48, DumpsterDude_53, EMSquaredA_53, Easley_49, Ebert_54, Eviarto_57, Faith5x5_42, Floral_54, GiKK_53, Herod_55, Hexbug_56, Hortense_55, Howe_55, Hugley_53, Hyzer_62, Jablanski_57, Jamzy_53, Lton_46, Lucky10_47, Madeline_54, Malisha_67, Margaret_54, Maridalia_57, Marteena_52, Mcklovin_51, Moosehead_50, Morkie_49, Nodigi_56, Nymphadora_57, Ohgeesy_54, OneDirection_43, Oregano_54, Orla_56, PantheRoc_57, Pepperoni_44, PhorbessPhlower_47, PhriskyACE_50, Pollux_56, Powerball_51, Pytheas_57, Ruthy_52, Shlim410_53,

Sidious_53, ThankyouJordi_56, Thimann_54, TimTam_57, Twinkle_54, WelcomeAyanna_56, Yeezy_53,

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

- Yakult_51,

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

- Adjutor_78, Agatha_49, AikoCarson_50, Aleemily_115, Aminay_62, Amok_50, Amore2_80, AndPeggy_46, Austin_79, Axym_48, BigMama_78, BillDoor_49, Bipper_99, Biskit_52, Burnsey_49, Butterscotch_78, Buttrmlkdreams_52, Cafasso_117, Chancellor_66, Cheetobro_66, CherryTomatoes_162, Chill_82, Cozz_47, Cracklewink_99, Cuke_99, DS6A_87, Delton_80, Emalyn_48, Eponine_68, Erk16_80, Fionnbharth_66, Fowlmouth_95, GMA7_69, GTE2_40, GTE7_68, Giuseppe_81, Gumball_80, Hawkeye_92, HayZem_81, Helpful_82, Hilltopfarm_91, Horseradish_52, Indlulamithi_87, JF1_66, Juliette_68, KandZ_77, Kevin1_59, MScarn_54, Malthus_67, MissDaisy_63, Mitti_66, ModicumRichard_117, Mopey_81, MrMiyagi_94, MunkgeeRoachy_50, Nina_48, Nova_79, ObLaDi_116, OmniCritical_65, PBI1_76, PLOT_80, Patt_62, Penelope2018_80, Phrappuccino_126, Prager_79, Pupper_157, Quasar_49, RedBaron_51, RedWattleHog_174, Reptar3000_63, Ruthiejr_67, SCentae_156, SamScheppers_64, Settecandela_126, SirHarley_82, SketchMex_50, Skog_217, Slarp_66, SteamedHams_49, Stormageddon_175, SweatNTears_51, TPA4_81, Taquito_65, Thoth_80, Tolls_50, Troje_52, Troll4_79, Typha_89, Typhonomachy_49, Visconti_81, WaldoWhy_82, Wintermute_66, Y10_64, Y2_64, Yarn_46, Yummy_52,

Summary by start number:

Start 27:

- Found in 1 of 156 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye_92 (D2),

Start 29:

- Found in 21 of 156 (13.5%) of genes in pham
- Manual Annotations of this start: 20 of 139
- Called 100.0% 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), PBI1_76 (D1), PLOT_80 (D1), Penelope2018_80 (D1), Prager_79 (D1), SirHarley_82 (D1), Thoth_80 (D1), Troll4_79 (D1), Visconti_81 (D1), WaldoWhy_82 (D1),

Start 32:

- Found in 3 of 156 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cuke_99 (AC), Fowlmouth_95 (AC), MrMiyagi_94 (AC),

Start 40:

- Found in 1 of 156 (0.6%) of genes in pham

- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi_87 (AC),

Start 45:

- Found in 1 of 156 (0.6%) 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 48:

- Found in 1 of 156 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_87 (singleton),

Start 51:

- Found in 3 of 156 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_162 (DO), Pupper_157 (DO), SCentae_156 (DO),

Start 52:

- Found in 26 of 156 (16.7%) of genes in pham
- Manual Annotations of this start: 22 of 139
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Agatha_49 (CT), AikoCarson_50 (CT), Amok_50 (CT), AndPeggy_46 (CT), Axym_48 (CT), BillDoor_49 (CT), Biskit_52 (CT), Burnsey_49 (CT), Buttrmlkdreams_52 (CT), Cozz_47 (CT), Emalyn_48 (CT), Horseradish_52 (CT), MScarn_54 (CT), MunkgeeRoachy_50 (CT), Nina_48 (CT), Quasar_49 (CT), RedBaron_51 (CT), SketchMex_50 (CT), SteamedHams_49 (CT), SweatNTears_51 (CT), Tolls_50 (CT), Troje_52 (CT), Typhonmarchy_49 (CT), Yarn_46 (CT), Yummy_52 (CT),

Start 54:

- Found in 8 of 156 (5.1%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: GTE2_40 (CT),

Start 55:

- Found in 6 of 156 (3.8%) of genes in pham
- Manual Annotations of this start: 2 of 139
- Called 83.3% 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 57:

- Found in 3 of 156 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Skog_217 (DO),

Start 58:

- Found in 1 of 156 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_62 (K7),

Start 59:

- Found in 19 of 156 (12.2%) of genes in pham
- Manual Annotations of this start: 19 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chancellor_66 (K4), Cheetobro_66 (K4), Eponine_68 (K4), Fionnbharth_66 (K4), JF1_66 (K4), Juliette_68 (K4), Malthus_67 (K4), MissDaisy_63 (K4), Mitti_66 (K4), OmniCritical_65 (K4), Patt_62 (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),

Start 61:

- Found in 6 of 156 (3.8%) of genes in pham
- Manual Annotations of this start: 6 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper_99 (Y), Cracklewink_99 (Y), Hilltopfarm_91 (Y), RedWattleHog_174 (DX), Stormageddon_175 (DX), Typha_89 (Y),

Start 62:

- Found in 2 of 156 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_126 (AA), Settecandela_126 (AA),

Start 63:

- Found in 60 of 156 (38.5%) of genes in pham
- Manual Annotations of this start: 53 of 139
- Called 98.3% of time when present
- Phage (with cluster) where this start called: Adora_52 (CZ4), Agueybana_55 (CZ1), AlumE_55 (CZ1), Annalisa_53 (CZ4), BatStarr_56 (CZ1), BaxterFox_57 (CZ3), BoyNamedSue_55 (CZ1), Bunnybear_49 (CZ), Button_51 (CT), Cashline_53 (CY), Denise_48 (CZ5), DumpsterDude_53 (DW), EMSquaredA_53 (CY1), Easley_49 (CZ4), Ebert_54 (CZ2), Eviarto_57 (CZ1), Faith5x5_42 (CZ6), Floral_54 (CY1), GiKK_53 (CT), Herod_55 (CZ1), Hexbug_56 (CT), Hortense_55 (CZ4), Howe_55 (CZ4), Hugley_53 (CZ1), Hyzer_62 (CZ1), Jablanski_57 (CY), Jamzy_53 (CT), Lton_46 (CZ), Lucky10_47 (DH), Madeline_54 (CZ1), Malisha_67 (DN), Margaret_54 (CT), Maridalia_57 (CZ1), Marteena_52 (CY1), Mcklovin_51 (CZ4), Moosehead_50 (CZ6), Morkie_49 (DH), Nodigi_56 (CT), Nymphadora_57 (CZ1), Ohgeesy_54 (CZ), OneDirection_43 (CZ6), Oregano_54 (CZ4), Orla_56 (CT), PantheRoc_57 (CZ3), Pepperoni_44 (CZ), PhorbesPhlower_47 (DH), PhriskyACE_50 (CZ4), Pollux_56 (CY1), Powerball_51 (CZ4), Pytheas_57 (CY), Ruthy_52 (DW), Shlim410_53 (CZ4), Sidious_53 (CZ7), ThankyouJordi_56 (CZ1), Thimann_54 (CZ4), TimTam_57 (CZ1), Twinkle_54 (CZ4), WelcomeAyanna_56 (CZ1), Yeezy_53 (CZ3),

Start 64:

- Found in 4 of 156 (2.6%) of genes in pham
- Manual Annotations of this start: 3 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily_115 (DZ), Cafasso_117 (DZ), ModicumRichard_117 (DZ), ObLaDi_116 (DZ),

Start 68:

- Found in 8 of 156 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Yakult_51 (CT),

Start 69:

- Found in 1 of 156 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 139
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kevin1_59 (N),

Summary by clusters:

There are 27 clusters represented in this pham: DN, DO, singleton, DH, CZ2, CZ3, CZ1, CZ6, CY1, CZ4, CZ5, K7, DX, K4, DW, CS1, AA, AC, N, CZ, CY, Y, CT, CZ7, DZ, D2, D1,

Info for manual annotations of cluster AA:

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

Info for manual annotations of cluster AC:

- Start number 32 was manually annotated 3 times for cluster AC.
- Start number 40 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster CS1:

- Start number 55 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CT:

- Start number 52 was manually annotated 22 times for cluster CT.
- Start number 63 was manually annotated 7 times for cluster CT.
- Start number 68 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CY:

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

Info for manual annotations of cluster CY1:

- Start number 63 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CZ:

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

Info for manual annotations of cluster CZ1:

- Start number 63 was manually annotated 12 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 63 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 63 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 63 was manually annotated 10 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 3 times for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 63 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster D1:

- Start number 29 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 27 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster DH:

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

Info for manual annotations of cluster DN:

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

Info for manual annotations of cluster DO:

- Start number 51 was manually annotated 2 times for cluster DO.
- Start number 57 was manually annotated 1 time for cluster DO.

Info for manual annotations of cluster DW:

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

Info for manual annotations of cluster DX:

- Start number 61 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 64 was manually annotated 3 times for cluster DZ.

Info for manual annotations of cluster K4:

- Start number 59 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K7:

- Start number 58 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster N:

- Start number 69 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster Y:

- Start number 61 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: Adjutor_78 Start: 58520, Stop: 58834, Start Num: 29

Candidate Starts for Adjutor_78:

(8, 58403), (12, 58466), (Start: 29 @58520 has 20 MA's), (31, 58529), (38, 58574), (41, 58583),

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

Candidate Starts for Adora_52:

(Start: 63 @38735 has 53 MA's), (87, 38861),

Gene: Agatha_49 Start: 36030, Stop: 35797, Start Num: 52

Candidate Starts for Agatha_49:

(Start: 52 @36030 has 22 MA's), (76, 35946), (95, 35886),

Gene: Agueybana_55 Start: 39414, Stop: 39656, Start Num: 63

Candidate Starts for Agueybana_55:

(Start: 63 @39414 has 53 MA's), (87, 39540),

Gene: AikoCarson_50 Start: 36349, Stop: 36098, Start Num: 52

Candidate Starts for AikoCarson_50:

(Start: 52 @36349 has 22 MA's), (54, 36343), (86, 36220), (99, 36175),

Gene: Aleemily_115 Start: 64180, Stop: 63974, Start Num: 64

Candidate Starts for Aleemily_115:

(41, 64249), (Start: 64 @64180 has 3 MA's), (81, 64108), (85, 64093), (89, 64078), (109, 64000),

Gene: AlumE_55 Start: 39196, Stop: 39438, Start Num: 63

Candidate Starts for AlumE_55:

(Start: 63 @39196 has 53 MA's), (83, 39292), (87, 39322),

Gene: Aminay_62 Start: 41845, Stop: 42069, Start Num: 58

Candidate Starts for Aminay_62:

(Start: 58 @41845 has 1 MA's), (79, 41926), (82, 41935), (87, 41956), (107, 42025),

Gene: Amok_50 Start: 36274, Stop: 36023, Start Num: 52

Candidate Starts for Amok_50:

(Start: 52 @36274 has 22 MA's), (54, 36268), (86, 36145), (99, 36100),

Gene: Amore2_80 Start: 61514, Stop: 61275, Start Num: 55

Candidate Starts for Amore2_80:

(11, 61679), (Start: 55 @61514 has 2 MA's), (97, 61355),

Gene: AndPeggy_46 Start: 35560, Stop: 35309, Start Num: 52

Candidate Starts for AndPeggy_46:

(Start: 52 @35560 has 22 MA's), (54, 35554), (86, 35431), (99, 35386),

Gene: Annalisa_53 Start: 35580, Stop: 35795, Start Num: 63

Candidate Starts for Annalisa_53:

(6, 35316), (9, 35352), (20, 35424), (Start: 63 @35580 has 53 MA's), (87, 35679),

Gene: Austin_79 Start: 61512, Stop: 61273, Start Num: 55

Candidate Starts for Austin_79:
(11, 61677), (Start: 55 @61512 has 2 MA's), (97, 61353),

Gene: Axym_48 Start: 35927, Stop: 35694, Start Num: 52
Candidate Starts for Axym_48:
(Start: 52 @35927 has 22 MA's), (76, 35843), (95, 35783),

Gene: BatStarr_56 Start: 40720, Stop: 40962, Start Num: 63
Candidate Starts for BatStarr_56:
(Start: 63 @40720 has 53 MA's), (87, 40846),

Gene: BaxterFox_57 Start: 40474, Stop: 40716, Start Num: 63
Candidate Starts for BaxterFox_57:
(Start: 63 @40474 has 53 MA's), (87, 40600),

Gene: BigMama_78 Start: 58605, Stop: 58919, Start Num: 29
Candidate Starts for BigMama_78:
(8, 58488), (12, 58551), (Start: 29 @58605 has 20 MA's), (31, 58614), (38, 58659), (41, 58668),

Gene: BillDoor_49 Start: 35229, Stop: 34978, Start Num: 52
Candidate Starts for BillDoor_49:
(24, 35346), (Start: 52 @35229 has 22 MA's), (54, 35223), (66, 35187), (86, 35100), (99, 35055),

Gene: Bipper_99 Start: 62157, Stop: 62378, Start Num: 61
Candidate Starts for Bipper_99:
(14, 61980), (26, 62025), (28, 62028), (35, 62067), (47, 62115), (Start: 61 @62157 has 6 MA's), (73, 62193),

Gene: Biskit_52 Start: 36207, Stop: 35971, Start Num: 52
Candidate Starts for Biskit_52:
(46, 36225), (Start: 52 @36207 has 22 MA's), (95, 36060), (99, 36048), (101, 36045),

Gene: BoyNamedSue_55 Start: 39196, Stop: 39438, Start Num: 63
Candidate Starts for BoyNamedSue_55:
(Start: 63 @39196 has 53 MA's), (83, 39292), (87, 39322),

Gene: Bunnybear_49 Start: 37204, Stop: 37446, Start Num: 63
Candidate Starts for Bunnybear_49:
(Start: 63 @37204 has 53 MA's), (87, 37330),

Gene: Burnsey_49 Start: 36021, Stop: 35788, Start Num: 52
Candidate Starts for Burnsey_49:
(Start: 52 @36021 has 22 MA's), (76, 35937), (95, 35877),

Gene: Butterscotch_78 Start: 58571, Stop: 58885, Start Num: 29
Candidate Starts for Butterscotch_78:
(8, 58454), (12, 58517), (Start: 29 @58571 has 20 MA's), (31, 58580), (38, 58625), (41, 58634),

Gene: Button_51 Start: 36058, Stop: 35855, Start Num: 63
Candidate Starts for Button_51:
(Start: 63 @36058 has 53 MA's), (67, 36046), (Start: 68 @36037 has 1 MA's), (70, 36031), (81, 35980), (90, 35956),

Gene: Buttrmlkdreams_52 Start: 36654, Stop: 36418, Start Num: 52
Candidate Starts for Buttrmlkdreams_52:
(46, 36672), (Start: 52 @36654 has 22 MA's), (95, 36507), (99, 36495), (101, 36492),

Gene: Cafasso_117 Start: 64785, Stop: 64579, Start Num: 64
Candidate Starts for Cafasso_117:
(Start: 64 @64785 has 3 MA's), (81, 64713), (85, 64698), (89, 64683),

Gene: Cashline_53 Start: 39714, Stop: 39956, Start Num: 63
Candidate Starts for Cashline_53:
(Start: 63 @39714 has 53 MA's), (87, 39840),

Gene: Chancellor_66 Start: 41921, Stop: 42139, Start Num: 59
Candidate Starts for Chancellor_66:
(17, 41762), (22, 41771), (Start: 59 @41921 has 19 MA's), (91, 42038), (103, 42074), (106, 42089),

Gene: Cheetobro_66 Start: 41918, Stop: 42136, Start Num: 59
Candidate Starts for Cheetobro_66:
(17, 41759), (22, 41768), (Start: 59 @41918 has 19 MA's), (91, 42035), (103, 42071), (106, 42086),

Gene: CherryTomatoes_162 Start: 111644, Stop: 111907, Start Num: 51
Candidate Starts for CherryTomatoes_162:
(37, 111599), (50, 111641), (Start: 51 @111644 has 2 MA's), (87, 111794), (98, 111830), (103, 111842),

Gene: Chill_82 Start: 58548, Stop: 58862, Start Num: 29
Candidate Starts for Chill_82:
(8, 58431), (12, 58494), (Start: 29 @58548 has 20 MA's), (31, 58557), (38, 58602), (41, 58611),

Gene: Cozz_47 Start: 35618, Stop: 35385, Start Num: 52
Candidate Starts for Cozz_47:
(Start: 52 @35618 has 22 MA's), (76, 35534), (95, 35474),

Gene: Cracklewink_99 Start: 61392, Stop: 61613, Start Num: 61
Candidate Starts for Cracklewink_99:
(14, 61215), (26, 61260), (28, 61263), (35, 61302), (47, 61350), (Start: 61 @61392 has 6 MA's), (65, 61404), (73, 61428),

Gene: Cuke_99 Start: 56679, Stop: 56984, Start Num: 32
Candidate Starts for Cuke_99:
(10, 56601), (13, 56613), (31, 56676), (Start: 32 @56679 has 3 MA's), (53, 56766), (71, 56823), (100, 56910), (109, 56958),

Gene: DS6A_87 Start: 56210, Stop: 56485, Start Num: 48
Candidate Starts for DS6A_87:
(Start: 48 @56210 has 1 MA's), (100, 56414),

Gene: Delton_80 Start: 58981, Stop: 59295, Start Num: 29
Candidate Starts for Delton_80:
(8, 58864), (12, 58927), (Start: 29 @58981 has 20 MA's), (31, 58990), (38, 59035), (41, 59044),

Gene: Denise_48 Start: 33091, Stop: 33306, Start Num: 63
Candidate Starts for Denise_48:

(Start: 63 @33091 has 53 MA's), (87, 33190), (97, 33223),

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

Candidate Starts for DumpsterDude_53:

(Start: 63 @41558 has 53 MA's), (65, 41567), (87, 41684),

Gene: EMSquaredA_53 Start: 38371, Stop: 38613, Start Num: 63

Candidate Starts for EMSquaredA_53:

(Start: 63 @38371 has 53 MA's), (83, 38467), (87, 38497),

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

Candidate Starts for Easley_49:

(Start: 63 @35528 has 53 MA's), (87, 35627),

Gene: Ebert_54 Start: 34571, Stop: 34813, Start Num: 63

Candidate Starts for Ebert_54:

(Start: 63 @34571 has 53 MA's), (87, 34697),

Gene: Emalyn_48 Start: 35066, Stop: 34815, Start Num: 52

Candidate Starts for Emalyn_48:

(Start: 52 @35066 has 22 MA's), (54, 35060), (86, 34937), (99, 34892),

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

Candidate Starts for Eponine_68:

(17, 42605), (22, 42614), (Start: 59 @42764 has 19 MA's), (91, 42881), (103, 42917), (106, 42932),

Gene: Erk16_80 Start: 58641, Stop: 58955, Start Num: 29

Candidate Starts for Erk16_80:

(8, 58524), (12, 58587), (Start: 29 @58641 has 20 MA's), (31, 58650), (38, 58695), (41, 58704),

Gene: Eviarto_57 Start: 40695, Stop: 40937, Start Num: 63

Candidate Starts for Eviarto_57:

(Start: 63 @40695 has 53 MA's), (87, 40821),

Gene: Faith5x5_42 Start: 30278, Stop: 30463, Start Num: 63

Candidate Starts for Faith5x5_42:

(Start: 63 @30278 has 53 MA's), (87, 30377), (97, 30410),

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

Candidate Starts for Fionnbharth_66:

(17, 42003), (22, 42012), (Start: 59 @42162 has 19 MA's), (91, 42279), (103, 42315), (106, 42330),

Gene: Floral_54 Start: 40277, Stop: 40519, Start Num: 63

Candidate Starts for Floral_54:

(Start: 63 @40277 has 53 MA's), (87, 40403),

Gene: Fowlmouth_95 Start: 57786, Stop: 58094, Start Num: 32

Candidate Starts for Fowlmouth_95:

(Start: 32 @57786 has 3 MA's), (41, 57837), (53, 57873), (56, 57885), (71, 57930), (102, 58020),

Gene: GMA7_69 Start: 55728, Stop: 55489, Start Num: 55

Candidate Starts for GMA7_69:

(11, 55893), (Start: 55 @55728 has 2 MA's), (97, 55569),

Gene: GTE2_40 Start: 35662, Stop: 35417, Start Num: 54

Candidate Starts for GTE2_40:

(24, 35785), (Start: 52 @35668 has 22 MA's), (54, 35662), (66, 35626), (76, 35575), (86, 35539), (99, 35494), (108, 35461),

Gene: GTE7_68 Start: 55759, Stop: 55520, Start Num: 55

Candidate Starts for GTE7_68:

(11, 55924), (Start: 55 @55759 has 2 MA's), (97, 55600),

Gene: GiKK_53 Start: 36382, Stop: 36179, Start Num: 63

Candidate Starts for GiKK_53:

(Start: 63 @36382 has 53 MA's), (67, 36370), (Start: 68 @36361 has 1 MA's), (70, 36355), (81, 36304), (90, 36280),

Gene: Giuseppe_81 Start: 58355, Stop: 58669, Start Num: 29

Candidate Starts for Giuseppe_81:

(5, 58211), (15, 58310), (21, 58328), (Start: 29 @58355 has 20 MA's), (31, 58364), (38, 58409), (41, 58418), (56, 58460),

Gene: Gumball_80 Start: 58986, Stop: 59300, Start Num: 29

Candidate Starts for Gumball_80:

(12, 58932), (Start: 29 @58986 has 20 MA's), (31, 58995), (38, 59040), (41, 59049), (56, 59091),

Gene: Hawkeye_92 Start: 60485, Stop: 60838, Start Num: 27

Candidate Starts for Hawkeye_92:

(Start: 27 @60485 has 1 MA's), (31, 60497), (78, 60683), (109, 60809),

Gene: HayZem_81 Start: 61512, Stop: 61273, Start Num: 55

Candidate Starts for HayZem_81:

(11, 61677), (Start: 55 @61512 has 2 MA's), (97, 61353),

Gene: Helpful_82 Start: 58743, Stop: 59057, Start Num: 29

Candidate Starts for Helpful_82:

(5, 58599), (15, 58698), (21, 58716), (Start: 29 @58743 has 20 MA's), (31, 58752), (38, 58797), (41, 58806), (56, 58848),

Gene: Herod_55 Start: 40739, Stop: 40981, Start Num: 63

Candidate Starts for Herod_55:

(Start: 63 @40739 has 53 MA's), (87, 40865),

Gene: Hexbug_56 Start: 38441, Stop: 38238, Start Num: 63

Candidate Starts for Hexbug_56:

(Start: 63 @38441 has 53 MA's), (Start: 68 @38420 has 1 MA's), (90, 38339), (96, 38318), (100, 38309), (108, 38282),

Gene: Hilltopfarm_91 Start: 59257, Stop: 59478, Start Num: 61

Candidate Starts for Hilltopfarm_91:

(Start: 61 @59257 has 6 MA's), (73, 59293), (77, 59323),

Gene: Horseradish_52 Start: 36140, Stop: 35904, Start Num: 52

Candidate Starts for Horseradish_52:

(46, 36158), (Start: 52 @36140 has 22 MA's), (95, 35993), (99, 35981), (101, 35978),

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

Candidate Starts for Hortense_55:

(Start: 63 @40090 has 53 MA's), (87, 40216),

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

Candidate Starts for Howe_55:

(Start: 63 @40090 has 53 MA's), (87, 40216),

Gene: Hugley_53 Start: 40719, Stop: 40961, Start Num: 63

Candidate Starts for Hugley_53:

(Start: 63 @40719 has 53 MA's), (87, 40845),

Gene: Hyzer_62 Start: 42111, Stop: 42353, Start Num: 63

Candidate Starts for Hyzer_62:

(Start: 63 @42111 has 53 MA's), (87, 42237),

Gene: Indlulamithi_87 Start: 59764, Stop: 60048, Start Num: 40

Candidate Starts for Indlulamithi_87:

(Start: 40 @59764 has 1 MA's), (44, 59773), (Start: 55 @59809 has 2 MA's), (72, 59860), (74, 59872), (93, 59956),

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

Candidate Starts for JF1_66:

(17, 41920), (22, 41929), (Start: 59 @42079 has 19 MA's), (91, 42196), (103, 42232), (106, 42247),

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

Candidate Starts for Jablanski_57:

(2, 41396), (Start: 63 @41777 has 53 MA's), (87, 41903),

Gene: Jamzy_53 Start: 36362, Stop: 36159, Start Num: 63

Candidate Starts for Jamzy_53:

(Start: 63 @36362 has 53 MA's), (67, 36350), (Start: 68 @36341 has 1 MA's), (70, 36335), (81, 36284), (90, 36260),

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

Candidate Starts for Juliette_68:

(17, 42067), (22, 42076), (Start: 59 @42226 has 19 MA's), (91, 42343), (103, 42379), (106, 42394),

Gene: KandZ_77 Start: 58571, Stop: 58885, Start Num: 29

Candidate Starts for KandZ_77:

(5, 58427), (15, 58526), (21, 58544), (Start: 29 @58571 has 20 MA's), (31, 58580), (38, 58625), (41, 58634), (56, 58676),

Gene: Kevin1_59 Start: 36836, Stop: 37027, Start Num: 69

Candidate Starts for Kevin1_59:

(Start: 69 @36836 has 1 MA's), (104, 36968),

Gene: Lton_46 Start: 30324, Stop: 30512, Start Num: 63

Candidate Starts for Lton_46:

(42, 30261), (53, 30294), (Start: 63 @30324 has 53 MA's), (79, 30396), (87, 30423), (97, 30456),

Gene: Lucky10_47 Start: 33042, Stop: 33230, Start Num: 63

Candidate Starts for Lucky10_47:

(Start: 63 @33042 has 53 MA's), (87, 33141), (97, 33174),

Gene: MScarn_54 Start: 36322, Stop: 36086, Start Num: 52

Candidate Starts for MScarn_54:

(46, 36340), (Start: 52 @36322 has 22 MA's), (95, 36175), (99, 36163), (101, 36160),

Gene: Madeline_54 Start: 39604, Stop: 39846, Start Num: 63

Candidate Starts for Madeline_54:

(Start: 63 @39604 has 53 MA's), (87, 39730),

Gene: Malisha_67 Start: 41399, Stop: 41608, Start Num: 63

Candidate Starts for Malisha_67:

(Start: 63 @41399 has 53 MA's), (87, 41525), (88, 41531),

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

Candidate Starts for Malthus_67:

(17, 41755), (22, 41764), (Start: 59 @41914 has 19 MA's), (91, 42031), (103, 42067), (106, 42082),

Gene: Margaret_54 Start: 37114, Stop: 36911, Start Num: 63

Candidate Starts for Margaret_54:

(Start: 63 @37114 has 53 MA's), (67, 37102), (Start: 68 @37093 has 1 MA's), (70, 37087), (81, 37036), (90, 37012),

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

Candidate Starts for Maridalia_57:

(Start: 63 @38950 has 53 MA's), (87, 39076),

Gene: Marteena_52 Start: 38371, Stop: 38613, Start Num: 63

Candidate Starts for Marteena_52:

(Start: 63 @38371 has 53 MA's), (83, 38467), (87, 38497),

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

Candidate Starts for Mcklovin_51:

(Start: 63 @41557 has 53 MA's), (87, 41683),

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

Candidate Starts for MissDaisy_63:

(17, 40667), (22, 40676), (Start: 59 @40826 has 19 MA's), (91, 40943), (103, 40979), (106, 40994), (107, 41000),

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

Candidate Starts for Mitti_66:

(17, 41934), (22, 41943), (Start: 59 @42093 has 19 MA's), (91, 42210), (103, 42246), (106, 42261),

Gene: ModicumRichard_117 Start: 65073, Stop: 64867, Start Num: 64

Candidate Starts for ModicumRichard_117:

(Start: 64 @65073 has 3 MA's), (81, 65001), (85, 64986), (89, 64971),

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

Candidate Starts for Moosehead_50:

(Start: 63 @31430 has 53 MA's), (87, 31529), (108, 31601),

Gene: Mopey_81 Start: 58381, Stop: 58695, Start Num: 29
Candidate Starts for Mopey_81:
(5, 58237), (15, 58336), (21, 58354), (Start: 29 @58381 has 20 MA's), (31, 58390), (38, 58435), (41, 58444), (56, 58486),

Gene: Morkie_49 Start: 32379, Stop: 32567, Start Num: 63
Candidate Starts for Morkie_49:
(Start: 63 @32379 has 53 MA's), (80, 32454), (87, 32478), (97, 32511),

Gene: MrMiyagi_94 Start: 58054, Stop: 58362, Start Num: 32
Candidate Starts for MrMiyagi_94:
(Start: 32 @58054 has 3 MA's), (41, 58105), (53, 58141), (71, 58198), (102, 58288),

Gene: MunkgeeRoachy_50 Start: 35379, Stop: 35146, Start Num: 52
Candidate Starts for MunkgeeRoachy_50:
(Start: 52 @35379 has 22 MA's), (76, 35295), (95, 35235),

Gene: Nina_48 Start: 36199, Stop: 35966, Start Num: 52
Candidate Starts for Nina_48:
(Start: 52 @36199 has 22 MA's), (76, 36115), (95, 36055),

Gene: Nodigi_56 Start: 38471, Stop: 38268, Start Num: 63
Candidate Starts for Nodigi_56:
(Start: 63 @38471 has 53 MA's), (Start: 68 @38450 has 1 MA's), (90, 38369), (96, 38348), (100, 38339), (108, 38312),

Gene: Nova_79 Start: 58848, Stop: 59162, Start Num: 29
Candidate Starts for Nova_79:
(5, 58704), (15, 58803), (21, 58821), (Start: 29 @58848 has 20 MA's), (31, 58857), (38, 58902), (41, 58911), (56, 58953),

Gene: Nymphadora_57 Start: 40719, Stop: 40961, Start Num: 63
Candidate Starts for Nymphadora_57:
(Start: 63 @40719 has 53 MA's), (87, 40845),

Gene: ObLaDi_116 Start: 64475, Stop: 64269, Start Num: 64
Candidate Starts for ObLaDi_116:
(Start: 64 @64475 has 3 MA's), (81, 64403), (85, 64388), (89, 64373),

Gene: Ohgeesy_54 Start: 38818, Stop: 39060, Start Num: 63
Candidate Starts for Ohgeesy_54:
(Start: 63 @38818 has 53 MA's), (87, 38944),

Gene: OmniCritical_65 Start: 41983, Stop: 42201, Start Num: 59
Candidate Starts for OmniCritical_65:
(17, 41824), (22, 41833), (Start: 59 @41983 has 19 MA's), (91, 42100), (103, 42136), (106, 42151),

Gene: OneDirection_43 Start: 29772, Stop: 29960, Start Num: 63
Candidate Starts for OneDirection_43:
(Start: 63 @29772 has 53 MA's), (79, 29844), (87, 29871), (97, 29904),

Gene: Oregano_54 Start: 36212, Stop: 36427, Start Num: 63
Candidate Starts for Oregano_54:

(Start: 63 @36212 has 53 MA's), (87, 36311),

Gene: Orla_56 Start: 38400, Stop: 38197, Start Num: 63

Candidate Starts for Orla_56:

(Start: 63 @38400 has 53 MA's), (Start: 68 @38379 has 1 MA's), (90, 38298), (96, 38277), (100, 38268), (108, 38241),

Gene: PBI1_76 Start: 58502, Stop: 58816, Start Num: 29

Candidate Starts for PBI1_76:

(8, 58385), (12, 58448), (Start: 29 @58502 has 20 MA's), (31, 58511), (38, 58556), (41, 58565),

Gene: PLOT_80 Start: 58539, Stop: 58853, Start Num: 29

Candidate Starts for PLOT_80:

(12, 58485), (Start: 29 @58539 has 20 MA's), (31, 58548), (38, 58593), (41, 58602), (56, 58644),

Gene: PantheRoc_57 Start: 39540, Stop: 39782, Start Num: 63

Candidate Starts for PantheRoc_57:

(Start: 63 @39540 has 53 MA's), (87, 39666),

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

Candidate Starts for Patt_62:

(17, 40391), (22, 40400), (Start: 59 @40550 has 19 MA's), (91, 40667), (103, 40703), (106, 40718), (107, 40724),

Gene: Penelope2018_80 Start: 58570, Stop: 58884, Start Num: 29

Candidate Starts for Penelope2018_80:

(8, 58453), (12, 58516), (Start: 29 @58570 has 20 MA's), (31, 58579), (38, 58624), (41, 58633),

Gene: Pepperoni_44 Start: 31534, Stop: 31722, Start Num: 63

Candidate Starts for Pepperoni_44:

(Start: 63 @31534 has 53 MA's), (65, 31543), (80, 31609), (87, 31633), (97, 31666),

Gene: PhorbesPhlower_47 Start: 31528, Stop: 31713, Start Num: 63

Candidate Starts for PhorbesPhlower_47:

(Start: 63 @31528 has 53 MA's), (86, 31621), (87, 31627), (97, 31660),

Gene: Phrappuccino_126 Start: 92677, Stop: 92982, Start Num: 62

Candidate Starts for Phrappuccino_126:

(7, 92419), (39, 92605), (50, 92638), (Start: 57 @92659 has 1 MA's), (Start: 62 @92677 has 2 MA's), (87, 92800), (94, 92824), (111, 92944), (112, 92977),

Gene: PhriskyACE_50 Start: 36177, Stop: 36419, Start Num: 63

Candidate Starts for PhriskyACE_50:

(4, 35853), (Start: 63 @36177 has 53 MA's), (87, 36303),

Gene: Pollux_56 Start: 40277, Stop: 40519, Start Num: 63

Candidate Starts for Pollux_56:

(Start: 63 @40277 has 53 MA's), (87, 40403),

Gene: Powerball_51 Start: 36303, Stop: 36545, Start Num: 63

Candidate Starts for Powerball_51:

(4, 35979), (Start: 63 @36303 has 53 MA's), (87, 36429),

Gene: Prager_79 Start: 58475, Stop: 58789, Start Num: 29
Candidate Starts for Prager_79:
(5, 58331), (15, 58430), (21, 58448), (Start: 29 @58475 has 20 MA's), (31, 58484), (38, 58529), (41, 58538),

Gene: Pupper_157 Start: 111884, Stop: 112147, Start Num: 51
Candidate Starts for Pupper_157:
(37, 111839), (50, 111881), (Start: 51 @111884 has 2 MA's), (87, 112034), (98, 112070), (103, 112082),

Gene: Pytheas_57 Start: 41776, Stop: 42018, Start Num: 63
Candidate Starts for Pytheas_57:
(2, 41395), (Start: 63 @41776 has 53 MA's), (87, 41902),

Gene: Quasar_49 Start: 36624, Stop: 36391, Start Num: 52
Candidate Starts for Quasar_49:
(Start: 52 @36624 has 22 MA's), (76, 36540), (95, 36480),

Gene: RedBaron_51 Start: 36246, Stop: 36013, Start Num: 52
Candidate Starts for RedBaron_51:
(Start: 52 @36246 has 22 MA's), (76, 36162),

Gene: RedWattleHog_174 Start: 111466, Stop: 111675, Start Num: 61
Candidate Starts for RedWattleHog_174:
(60, 111463), (Start: 61 @111466 has 6 MA's), (105, 111625), (110, 111655),

Gene: Reptar3000_63 Start: 40538, Stop: 40756, Start Num: 59
Candidate Starts for Reptar3000_63:
(17, 40379), (22, 40388), (Start: 59 @40538 has 19 MA's), (91, 40655), (103, 40691), (106, 40706), (107, 40712),

Gene: Ruthiejr_67 Start: 41964, Stop: 42182, Start Num: 59
Candidate Starts for Ruthiejr_67:
(17, 41805), (22, 41814), (Start: 59 @41964 has 19 MA's), (91, 42081), (103, 42117), (106, 42132),

Gene: Ruthy_52 Start: 39090, Stop: 39332, Start Num: 63
Candidate Starts for Ruthy_52:
(Start: 63 @39090 has 53 MA's), (65, 39099), (87, 39216),

Gene: SCentae_156 Start: 112038, Stop: 112301, Start Num: 51
Candidate Starts for SCentae_156:
(37, 111993), (50, 112035), (Start: 51 @112038 has 2 MA's), (87, 112188), (98, 112224), (103, 112236),

Gene: SamScheppers_64 Start: 42393, Stop: 42611, Start Num: 59
Candidate Starts for SamScheppers_64:
(17, 42234), (22, 42243), (Start: 59 @42393 has 19 MA's), (91, 42510), (103, 42546), (106, 42561),

Gene: Settecandela_126 Start: 92677, Stop: 92982, Start Num: 62
Candidate Starts for Settecandela_126:
(7, 92419), (39, 92605), (50, 92638), (Start: 57 @92659 has 1 MA's), (Start: 62 @92677 has 2 MA's), (87, 92800), (94, 92824), (111, 92944), (112, 92977),

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

Candidate Starts for Shlim410_53:

(Start: 63 @40090 has 53 MA's), (87, 40216),

Gene: Sidious_53 Start: 38484, Stop: 38726, Start Num: 63

Candidate Starts for Sidious_53:

(Start: 63 @38484 has 53 MA's), (87, 38610),

Gene: SirHarley_82 Start: 58970, Stop: 59284, Start Num: 29

Candidate Starts for SirHarley_82:

(12, 58916), (Start: 29 @58970 has 20 MA's), (31, 58979), (38, 59024), (41, 59033), (56, 59075),

Gene: SketchMex_50 Start: 36207, Stop: 35971, Start Num: 52

Candidate Starts for SketchMex_50:

(46, 36225), (Start: 52 @36207 has 22 MA's), (95, 36060), (99, 36048), (101, 36045),

Gene: Skog_217 Start: 141536, Stop: 141781, Start Num: 57

Candidate Starts for Skog_217:

(Start: 57 @141536 has 1 MA's), (79, 141623), (84, 141641), (87, 141668), (92, 141683), (98, 141701),

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

Candidate Starts for Slarp_66:

(17, 41762), (22, 41771), (Start: 59 @41921 has 19 MA's), (91, 42038), (103, 42074), (106, 42089),

Gene: SteamedHams_49 Start: 35394, Stop: 35161, Start Num: 52

Candidate Starts for SteamedHams_49:

(16, 35529), (19, 35520), (22, 35517), (33, 35469), (34, 35457), (Start: 52 @35394 has 22 MA's), (76, 35310), (95, 35250),

Gene: Stormageddon_175 Start: 112431, Stop: 112640, Start Num: 61

Candidate Starts for Stormageddon_175:

(60, 112428), (Start: 61 @112431 has 6 MA's), (105, 112590), (110, 112620),

Gene: SweatNTears_51 Start: 36160, Stop: 35927, Start Num: 52

Candidate Starts for SweatNTears_51:

(Start: 52 @36160 has 22 MA's), (76, 36076), (95, 36016),

Gene: TPA4_81 Start: 53987, Stop: 54289, Start Num: 45

Candidate Starts for TPA4_81:

(1, 53147), (3, 53672), (18, 53882), (36, 53957), (45, 53987),

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

Candidate Starts for Taquito_65:

(17, 41997), (22, 42006), (Start: 59 @42156 has 19 MA's), (91, 42273), (103, 42309), (106, 42324),

Gene: ThankyouJordi_56 Start: 40759, Stop: 41001, Start Num: 63

Candidate Starts for ThankyouJordi_56:

(23, 40612), (25, 40627), (30, 40636), (43, 40702), (Start: 63 @40759 has 53 MA's), (87, 40885),

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

Candidate Starts for Thimann_54:

(Start: 63 @37092 has 53 MA's), (87, 37191),

Gene: Thoth_80 Start: 58624, Stop: 58938, Start Num: 29
Candidate Starts for Thoth_80:
(8, 58507), (12, 58570), (Start: 29 @58624 has 20 MA's), (31, 58633), (38, 58678), (41, 58687),

Gene: TimTam_57 Start: 40719, Stop: 40961, Start Num: 63
Candidate Starts for TimTam_57:
(Start: 63 @40719 has 53 MA's), (87, 40845),

Gene: Tolls_50 Start: 35802, Stop: 35551, Start Num: 52
Candidate Starts for Tolls_50:
(Start: 52 @35802 has 22 MA's), (54, 35796), (86, 35673), (99, 35628),

Gene: Troje_52 Start: 36545, Stop: 36309, Start Num: 52
Candidate Starts for Troje_52:
(46, 36563), (Start: 52 @36545 has 22 MA's), (95, 36398), (99, 36386), (101, 36383),

Gene: Troll4_79 Start: 58537, Stop: 58851, Start Num: 29
Candidate Starts for Troll4_79:
(5, 58393), (15, 58492), (21, 58510), (Start: 29 @58537 has 20 MA's), (31, 58546), (38, 58591), (41, 58600), (56, 58642),

Gene: Twinkle_54 Start: 41149, Stop: 41391, Start Num: 63
Candidate Starts for Twinkle_54:
(Start: 63 @41149 has 53 MA's), (87, 41275),

Gene: Typha_89 Start: 58872, Stop: 59093, Start Num: 61
Candidate Starts for Typha_89:
(Start: 61 @58872 has 6 MA's), (73, 58908), (77, 58938),

Gene: Typhonomachy_49 Start: 35740, Stop: 35507, Start Num: 52
Candidate Starts for Typhonomachy_49:
(Start: 52 @35740 has 22 MA's), (76, 35656), (95, 35596),

Gene: Visconti_81 Start: 58585, Stop: 58899, Start Num: 29
Candidate Starts for Visconti_81:
(8, 58468), (12, 58531), (Start: 29 @58585 has 20 MA's), (31, 58594), (38, 58639), (41, 58648), (56, 58690),

Gene: WaldoWhy_82 Start: 58548, Stop: 58862, Start Num: 29
Candidate Starts for WaldoWhy_82:
(8, 58431), (12, 58494), (Start: 29 @58548 has 20 MA's), (31, 58557), (38, 58602), (41, 58611),

Gene: WelcomeAyanna_56 Start: 40906, Stop: 41148, Start Num: 63
Candidate Starts for WelcomeAyanna_56:
(23, 40759), (25, 40774), (30, 40783), (43, 40849), (Start: 63 @40906 has 53 MA's), (87, 41032),

Gene: Wintermute_66 Start: 42151, Stop: 42369, Start Num: 59
Candidate Starts for Wintermute_66:
(17, 41992), (22, 42001), (Start: 59 @42151 has 19 MA's), (91, 42268), (103, 42304), (106, 42319),

Gene: Y10_64 Start: 42079, Stop: 42297, Start Num: 59
Candidate Starts for Y10_64:

(17, 41920), (22, 41929), (Start: 59 @42079 has 19 MA's), (91, 42196), (103, 42232), (106, 42247),

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

Candidate Starts for Y2_64:

(17, 41920), (22, 41929), (Start: 59 @42079 has 19 MA's), (91, 42196), (103, 42232), (106, 42247),

Gene: Yakult_51 Start: 37137, Stop: 36952, Start Num: 68

Candidate Starts for Yakult_51:

(49, 37200), (Start: 63 @37158 has 53 MA's), (Start: 68 @37137 has 1 MA's), (75, 37098), (90, 37056), (97, 37032), (108, 36996),

Gene: Yarn_46 Start: 35565, Stop: 35314, Start Num: 52

Candidate Starts for Yarn_46:

(Start: 52 @35565 has 22 MA's), (54, 35559), (86, 35436), (99, 35391),

Gene: Yeezy_53 Start: 37368, Stop: 37610, Start Num: 63

Candidate Starts for Yeezy_53:

(Start: 63 @37368 has 53 MA's), (87, 37494),

Gene: Yummy_52 Start: 36254, Stop: 36018, Start Num: 52

Candidate Starts for Yummy_52:

(46, 36272), (Start: 52 @36254 has 22 MA's), (95, 36107), (99, 36095), (101, 36092),