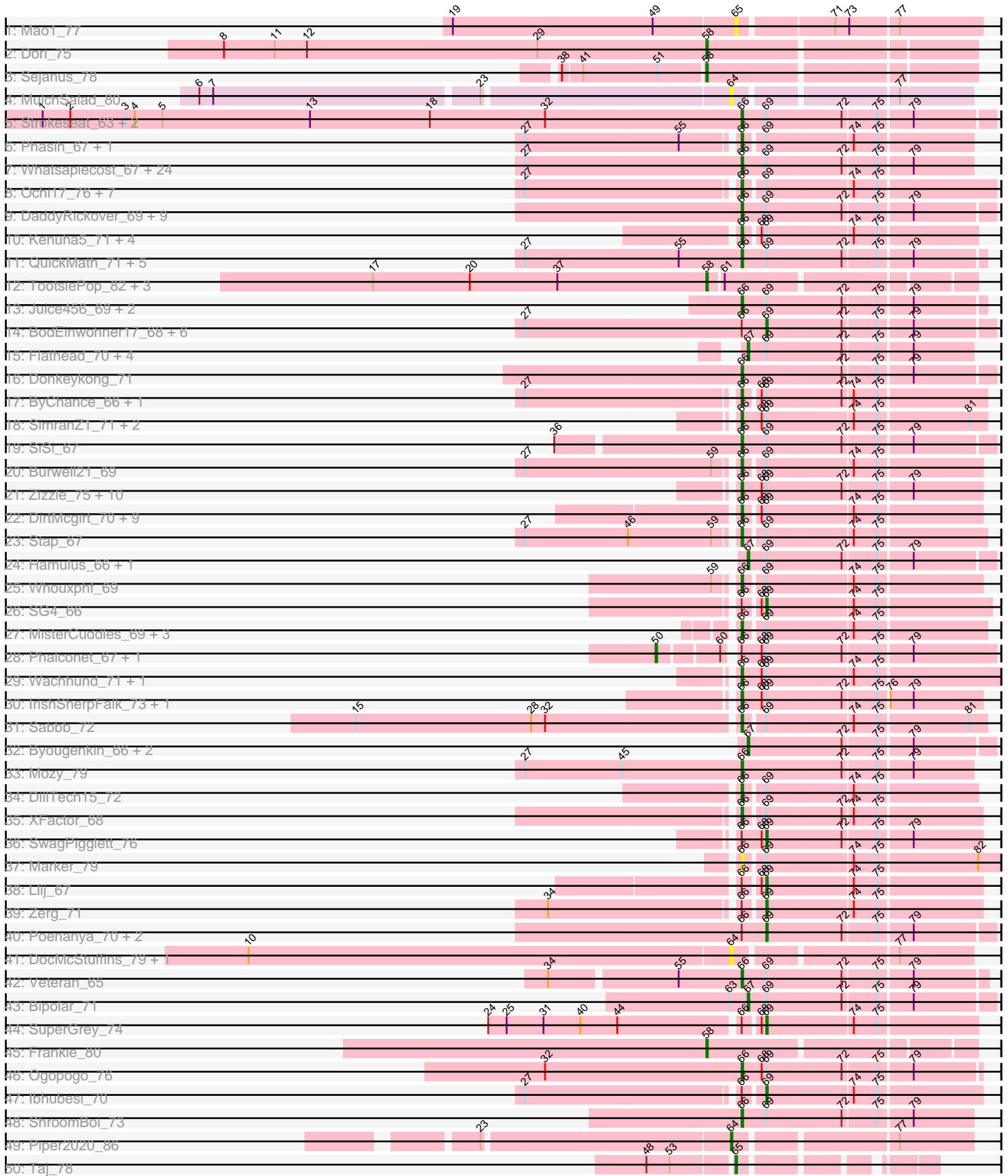
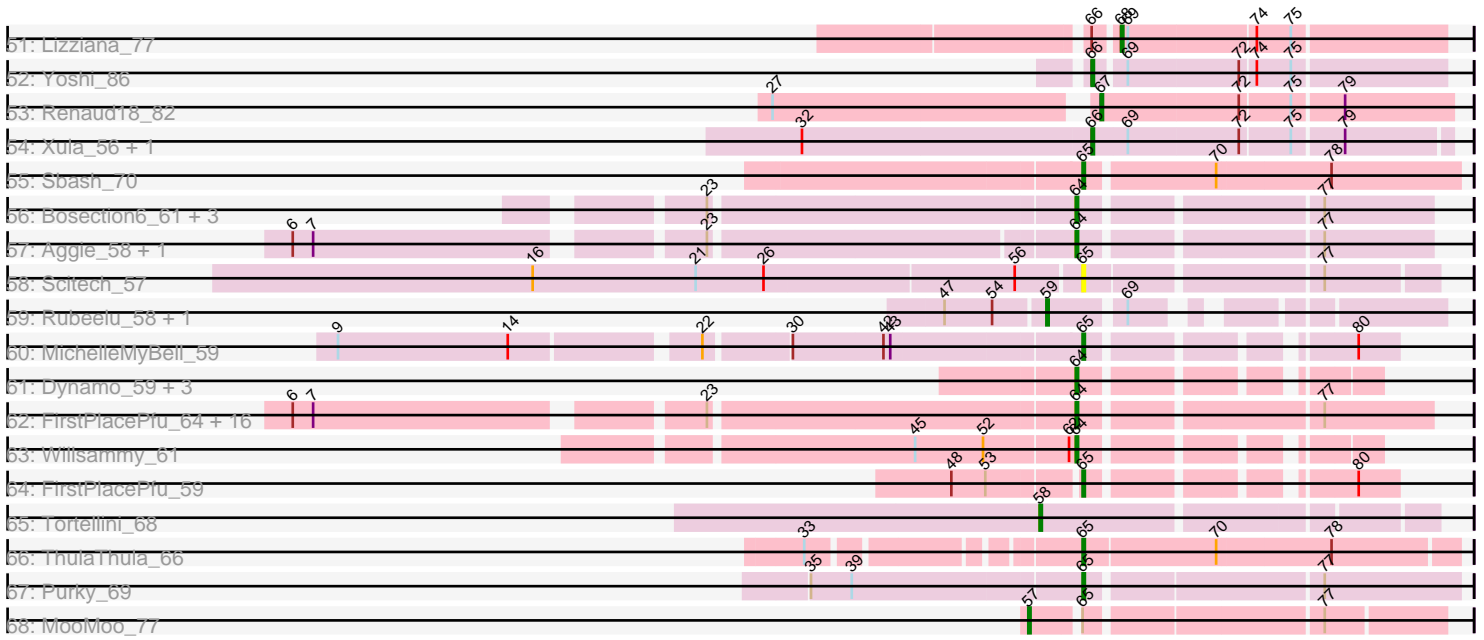


Pham 163360



Pham 163360



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 163360 Report

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

Pham number 163360 has 194 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Mao1_77
- Track 2 : Dori_75
- Track 3 : Sejanus_78
- Track 4 : MulchSalad_80
- Track 5 : Strokeseat_63, Hlubikazi_63, Mandlovu_63
- Track 6 : Phasih_67, Byougenkin_71
- Track 7 : Whatsapiecost_67, Melissauren88_65, Scottish_66, KingMidas_67, Ovechkin_67, DotProduct_62, Wee_73, Nimbo_61, Hegedechwinu_69, Akhila_58, Ms6_64, Seagreen_66, Filuzino_66, Geralt_62, IbOuu_70, Fruitloop_64, Shauna1_65, Deb65_62, DLane_63, StAnnes_67, Gandalph_72, Rialto_73, Empress_66, Quico_75, Taj_73
- Track 8 : Ochi17_76, Llama_77, Jinglebell_77, AlpineSix_77, MadMen_70, Bubbles123_68, Seabastian_78, OfUltron_78
- Track 9 : DaddyRickover_69, Sassafras_68, PHappiness_68, JoeyJr_68, Inventum_65, RedBird_68, Kingsley_68, Dorothy_68, Daenerys_67, RitaG_68
- Track 10 : Kenuha5_71, GigiOuiOui_68, Totinger_72, Madiba_76, Tweety_73
- Track 11 : QuickMath_71, Kimberlium_72, Blarby_80, Soul22_76, Zapner_81, Jabbawokkie_82
- Track 12 : TootsiePop_82, Misha28_82, Awesomesauce_83, LilSpotty_79
- Track 13 : Juice456_69, JalFarm20_81, KristaRAM_71
- Track 14 : BodEinwohner17_68, DeadP_74, Florinda_78, Girafales_75, MilanaBonita_57, OldBen_65, Phanphagia_63
- Track 15 : Flathead_70, Chevrolet_82, ArcusAngelus_77, ThetaBob_76, Dante_68
- Track 16 : Donkeykong_71
- Track 17 : ByChance_66, ShowerHandel_74
- Track 18 : SimranZ1_71, Radiance_69, Karhdo_69
- Track 19 : SiSi_67
- Track 20 : Burwell21_69
- Track 21 : Zizzle_75, Jarcob_72, BobaPhett_75, Clifton_65, Saal_72, LastJedi_64, DRBy19_76, Philus_75, Gorge_74, OlympiaSaint_72, Mattes_74
- Track 22 : DirtMcgirt_70, UncleRicky_70, Demsculpinboyz_83, Drago_68, Leozinho_72, Martik_74, Alexphander_74, Enby_72, Maravista_74, Lorde_71
- Track 23 : Stap_67
- Track 24 : Hamulus_66, Ardmore_58
- Track 25 : Whouxphf_69
- Track 26 : SG4_66
- Track 27 : MisterCuddles_69, Girr_69, Krakatau_67, Ruby_67

- Track 28 : Phalconet_67, PhesterPhotato_72
- Track 29 : Wachhund_71, Avani_79
- Track 30 : IrishSherpFalk_73, WillSterrel_73
- Track 31 : Sabbb_72
- Track 32 : Byougenkin_66, Bobi_70, Batiatus_64
- Track 33 : Mozy_79
- Track 34 : DillTech15_72
- Track 35 : XFactor_68
- Track 36 : SwagPigglett_76
- Track 37 : Marker_79
- Track 38 : Llij_67
- Track 39 : Zerg_71
- Track 40 : Poenanya_70, Leperchaun_65, Polka14_71
- Track 41 : DocMcStuffins_79, ChickenDinner_86
- Track 42 : Veteran_65
- Track 43 : Bipolar_71
- Track 44 : SuperGrey_74
- Track 45 : Frankie_80
- Track 46 : Ogopogo_76
- Track 47 : lbhubesi_70
- Track 48 : ShroomBoi_73
- Track 49 : Piper2020_86
- Track 50 : Taj_78
- Track 51 : Lizziana_77
- Track 52 : Yoshi_86
- Track 53 : Renaud18_82
- Track 54 : Xula_56, QueenHazel_57
- Track 55 : Sbash_70
- Track 56 : Bosection6_61, Charlie_59, Tapioca_60, Andies_56
- Track 57 : Aggie_58, Silvy_63
- Track 58 : Scitech_57
- Track 59 : Rubeelu_58, Butters_58
- Track 60 : MichelleMyBell_59
- Track 61 : Dynamo_59, HUHilltop_62, Sonah_60, Jebeks_60
- Track 62 : FirstPlacePfu_64, Pipsqueaks_63, Smurph_62, SkinnyPete_59, Magsby_61, Chewbacca_65, Schnauzer_63, Carcharodon_62, Philonius_62, Silvafighter_64, Fulbright_60, Xerxes_62, Phloss_60, Duplicity_60, Melville_67, Parmesanjohn_62, Gex_63
- Track 63 : Willsammy_61
- Track 64 : FirstPlacePfu_59
- Track 65 : Tortellini_68
- Track 66 : ThulaThula_66
- Track 67 : Purky_69
- Track 68 : MooMoo_77

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

The start number called the most often in the published annotations is 66, it was called in 103 of the 174 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_58, Alexphander_74, AlpineSix_77, Avani_79, Blarby_80, BobaPhett_75, Bubbles123_68, Burwell21_69, ByChance_66, Byougenkin_71, Clifton_65, DLane_63, DRBy19_76, DaddyRickover_69, Daenerys_67, Deb65_62, Demsculpinboyz_83, DillTech15_72, DirtMcgirt_70, Donkeykong_71, Dorothy_68, DotProduct_62, Drago_68, Empress_66, Enby_72, Filuzino_66, Fruitloop_64, Gandolph_72, Geralt_62, GigiOuiOui_68, Girr_69, Gorge_74, Hegedechwinu_69, Hlubikazi_63, IbOuu_70, Inventum_65, IrishSherpFalk_73, Jabbawokkie_82, JalFarm20_81, Jarcob_72, Jinglebell_77, JoeyJr_68, Juice456_69, Karhdo_69, Kenuha5_71, Kimberlium_72, KingMidas_67, Kingsley_68, Krakatau_67, KristaRAM_71, LastJedi_64, Leozinho_72, Llama_77, Lorde_71, MadMen_70, Madiba_76, Mandlovu_63, Maravista_74, Marker_79, Martik_74, Mattes_74, Melissauren88_65, MisterCuddles_69, Mozy_79, Ms6_64, Nimbo_61, Ochi17_76, OfUltron_78, Ogopogo_76, OlympiaSaint_72, Ovechkin_67, PHappiness_68, Phasih_67, Philus_75, QueenHazel_57, QuickMath_71, Quico_75, Radiance_69, RedBird_68, Rialto_73, RitaG_68, Ruby_67, Saal_72, Sabbb_72, Sassafra_68, Scottish_66, Seabastian_78, Seagreen_66, Shauna1_65, ShowerHandel_74, ShroomBoi_73, SiSi_67, SimranZ1_71, Soul22_76, StAnnes_67, Stap_67, Strokeseat_63, Taj_73, Totinger_72, Tweety_73, UncleRicky_70, Veteran_65, Wachhund_71, Wee_73, Whatsapiecost_67, Whouxphf_69, WillSterrel_73, XFactor_68, Xula_56, Yoshi_86, Zapner_81, Zizzle_75,

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

- BodEinwohner17_68, DeadP_74, Florinda_78, Girafales_75, Ibhubesi_70, Leperchaun_65, Lizziana_77, Llij_67, MilanaBonita_57, OldBen_65, Phalconet_67, Phanphagia_63, PhesterPhotato_72, Poenanya_70, Polka14_71, SG4_66, SuperGrey_74, SwagPiggett_76, Zerg_71,

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

- Aggie_58, Andies_56, ArcusAngelus_77, Ardmore_58, Awesomesauce_83, Batiatus_64, Bipolar_71, Bobi_70, Bosection6_61, Butters_58, Byougenkin_66, Carcharodon_62, Charlie_59, Chevrolet_82, Chewbacca_65, ChickenDinner_86, Dante_68, DocMcStuffins_79, Dori_75, Duplicity_60, Dynamo_59, FirstPlacePfu_59, FirstPlacePfu_64, Flathead_70, Frankie_80, Fulbright_60, Gex_63, HUHilltop_62, Hamulus_66, Jebeks_60, LilSpotty_79, Magsby_61, Mao1_77, Melville_67, MichelleMyBell_59, Misha28_82, MooMoo_77, MulchSalad_80, ParmesanJohn_62, Philonius_62, Phloss_60, Piper2020_86, Pipsqueaks_63, Purky_69, Renaud18_82, Rubeelu_58, Sbash_70, Schnauzer_63, Scitech_57, Sejanus_78, Silvafighter_64, Silvy_63, SkinnyPete_59, Smurph_62, Sonah_60, Taj_78, Tapioca_60, ThetaBob_76, ThulaThula_66, TootsiePop_82, Tortellini_68, Willsammy_61, Xerxes_62,

Summary by start number:

Start 50:

- Found in 2 of 194 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 174
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phalconet_67 (F1), PhesterPhotato_72 (F1),

Start 57:

- Found in 1 of 194 (0.5%) of genes in pham

- Manual Annotations of this start: 1 of 174
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MooMoo_77 (singleton),

Start 58:

- Found in 8 of 194 (4.1%) of genes in pham
- Manual Annotations of this start: 8 of 174
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Awesomesauce_83 (F1), Dori_75 (AD), Frankie_80 (F1), LilSpotty_79 (singleton), Misha28_82 (F1), Sejanus_78 (AD), TootsiePop_82 (F1), Tortellini_68 (P2),

Start 59:

- Found in 5 of 194 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 174
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Butters_58 (N), Rubeelu_58 (N),

Start 64:

- Found in 32 of 194 (16.5%) of genes in pham
- Manual Annotations of this start: 26 of 174
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie_58 (N), Andies_56 (N), Bosection6_61 (N), Carcharodon_62 (N), Charlie_59 (N), Chewbacca_65 (N), ChickenDinner_86 (F1), DocMcStuffins_79 (F1), Duplicity_60 (N), Dynamo_59 (P1), FirstPlacePfu_64 (P1), Fulbright_60 (N), Gex_63 (N), HUHilltop_62 (P1), Jebeks_60 (P1), Magsby_61 (N), Melville_67 (N), MulchSalad_80 (F), Parmesanjohn_62 (N), Philonius_62 (N), Phloss_60 (N), Piper2020_86 (F1), Pipsqueaks_63 (N), Schnauzer_63 (N), Silvafighter_64 (N), Silvy_63 (N), SkinnyPete_59 (N), Smurph_62 (N), Sonah_60 (P1), Tapioca_60 (N), Willsammy_61 (P1), Xerxes_62 (N),

Start 65:

- Found in 9 of 194 (4.6%) of genes in pham
- Manual Annotations of this start: 6 of 174
- Called 88.9% of time when present
- Phage (with cluster) where this start called: FirstPlacePfu_59 (P1), Mao1_77 (AD), MichelleMyBell_59 (N), Purky_69 (P6), Sbash_70 (I2), Scitech_57 (N), Taj_78 (F1), ThulaThula_66 (P5),

Start 66:

- Found in 131 of 194 (67.5%) of genes in pham
- Manual Annotations of this start: 103 of 174
- Called 85.5% of time when present
- Phage (with cluster) where this start called: Akhila_58 (F1), Alexphander_74 (F1), AlpineSix_77 (F1), Avani_79 (F2), Blarby_80 (F), BobaPhett_75 (F1), Bubbles123_68 (F1), Burwell21_69 (F1), ByChance_66 (F1), Byougenkin_71 (F1), Clifton_65 (F1), DLane_63 (F1), DRBy19_76 (F1), DaddyRickover_69 (F1), Daenerys_67 (F1), Deb65_62 (F1), Demsculpinboyz_83 (F2), DillTech15_72 (F1), DirtMcgirt_70 (F1), Donkeykong_71 (F1), Dorothy_68 (F1), DotProduct_62 (F1), Drago_68 (F1), Empress_66 (F1), Enby_72 (F1), Filuzino_66 (F1), Fruitloop_64 (F1), Gandalph_72 (F1), Geralt_62 (F1), GigiOuiOui_68 (F1), Girr_69 (F1), Gorge_74 (F1), Hegedechwinu_69 (F1), Hlubikazi_63 (F1), IbOuu_70 (F1), Inventum_65 (F1), IrishSherpFalk_73 (F1), Jabbawokkie_82 (F2), JalFarm20_81 (F1), Jarcob_72 (F1),

Jinglebell_77 (F1), JoeyJr_68 (F1), Juice456_69 (F1), Karhdo_69 (F1), Kenuha5_71 (F1), Kimberlium_72 (F1), KingMidas_67 (F1), Kingsley_68 (F1), Krakatau_67 (F1), KristaRAM_71 (F1), LastJedi_64 (F1), Leozinho_72 (F1), Llama_77 (F1), Lorde_71 (F1), MadMen_70 (F1), Madiba_76 (F1), Mandlovu_63 (F1), Maravista_74 (F1), Marker_79 (F1), Martik_74 (F1), Mattes_74 (F1), Meliss Lauren88_65 (F1), MisterCuddles_69 (F1), Mozy_79 (F1), Ms6_64 (F1), Nimbo_61 (F1), Ochi17_76 (F1), OfUltron_78 (F1), Ogopogo_76 (F1), OlympiaSaint_72 (F1), Ovechkin_67 (F1), PHappiness_68 (F1), Phasih_67 (F1), Philus_75 (F1), QueenHazel_57 (I1), QuickMath_71 (F1), Quico_75 (F1), Radiance_69 (F1), RedBird_68 (F1), Rialto_73 (F1), RitaG_68 (F1), Ruby_67 (F1), Saal_72 (F1), Sabbb_72 (F1), Sassafras_68 (F1), Scottish_66 (F1), Seabastian_78 (F1), Seagreen_66 (F1), Shauna1_65 (F1), ShowerHandel_74 (F1), ShroomBoi_73 (F1), SiSi_67 (F1), SimranZ1_71 (F1), Soul22_76 (F2), StAnnes_67 (F1), Stap_67 (F1), Strokeseat_63 (F1), Taj_73 (F1), Totinger_72 (F1), Tweety_73 (F1), UncleRicky_70 (F1), Veteran_65 (F1), Wachhund_71 (F1), Wee_73 (F1), Whatsapiecost_67 (F1), Whouxphf_69 (F1), WillSterrel_73 (F1), XFactor_68 (F1), Xula_56 (I1), Yoshi_86 (F2), Zapner_81 (F2), Zizzle_75 (F1),

Start 67:

- Found in 12 of 194 (6.2%) of genes in pham
- Manual Annotations of this start: 10 of 174
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcusAngelus_77 (F1), Ardmore_58 (F1), Batiatus_64 (F1), Bipolar_71 (F1), Bobi_70 (F1), Byougenkin_66 (F1), Chevrolet_82 (F1), Dante_68 (F1), Flathead_70 (F1), Hamulus_66 (F1), Renaud18_82 (F4), ThetaBob_76 (F4),

Start 68:

- Found in 43 of 194 (22.2%) of genes in pham
- Manual Annotations of this start: 1 of 174
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Lizziana_77 (F1),

Start 69:

- Found in 139 of 194 (71.6%) of genes in pham
- Manual Annotations of this start: 16 of 174
- Called 11.5% of time when present
- Phage (with cluster) where this start called: BodEinwohner17_68 (F1), DeadP_74 (F1), Florinda_78 (F1), Girafales_75 (F1), Ibhubesi_70 (F1), Leperchaun_65 (F1), Llij_67 (F1), MilanaBonita_57 (F1), OldBen_65 (F1), Phanphagia_63 (F1), Poenanya_70 (F1), Polka14_71 (F1), SG4_66 (F1), SuperGrey_74 (F1), SwagPigglett_76 (F1), Zerg_71 (F1),

Summary by clusters:

There are 13 clusters represented in this pham: P2, F1, F2, P1, P6, AD, P5, I1, I2, singleton, N, F, F4,

Info for manual annotations of cluster AD:

- Start number 58 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster F1:

- Start number 50 was manually annotated 1 time for cluster F1.
- Start number 58 was manually annotated 4 times for cluster F1.
- Start number 64 was manually annotated 1 time for cluster F1.
- Start number 65 was manually annotated 1 time for cluster F1.
- Start number 66 was manually annotated 95 times for cluster F1.
- Start number 67 was manually annotated 8 times for cluster F1.
- Start number 68 was manually annotated 1 time for cluster F1.
- Start number 69 was manually annotated 16 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 66 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 67 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster I1:

- Start number 66 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 65 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 59 was manually annotated 2 times for cluster N.
- Start number 64 was manually annotated 19 times for cluster N.
- Start number 65 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 64 was manually annotated 6 times for cluster P1.
- Start number 65 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P2:

- Start number 58 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P5:

- Start number 65 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 65 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Aggie_58 Start: 39856, Stop: 39999, Start Num: 64

Candidate Starts for Aggie_58:

(6, 39541), (7, 39550), (23, 39706), (Start: 64 @39856 has 26 MA's), (77, 39952),

Gene: Akhila_58 Start: 38471, Stop: 38626, Start Num: 66

Candidate Starts for Akhila_58:

(27, 38333), (Start: 66 @38471 has 103 MA's), (Start: 69 @38486 has 16 MA's), (72, 38534), (75, 38555), (79, 38576),

Gene: Alexphander_74 Start: 46512, Stop: 46661, Start Num: 66

Candidate Starts for Alexphander_74:

(Start: 66 @46512 has 103 MA's), (Start: 68 @46521 has 1 MA's), (Start: 69 @46524 has 16 MA's), (74, 46578), (75, 46593),

Gene: AlpineSix_77 Start: 47155, Stop: 47310, Start Num: 66

Candidate Starts for AlpineSix_77:

(27, 47023), (Start: 66 @47155 has 103 MA's), (Start: 69 @47167 has 16 MA's), (74, 47221), (75, 47236),

Gene: Andies_56 Start: 39301, Stop: 39444, Start Num: 64

Candidate Starts for Andies_56:

(23, 39148), (Start: 64 @39301 has 26 MA's), (77, 39397),

Gene: ArcusAngelus_77 Start: 47419, Stop: 47568, Start Num: 67

Candidate Starts for ArcusAngelus_77:

(Start: 67 @47419 has 10 MA's), (Start: 69 @47431 has 16 MA's), (72, 47479), (75, 47500), (79, 47521),

Gene: Ardmore_58 Start: 40412, Stop: 40564, Start Num: 67

Candidate Starts for Ardmore_58:

(Start: 67 @40412 has 10 MA's), (Start: 69 @40424 has 16 MA's), (72, 40472), (75, 40493), (79, 40514),

Gene: Avani_79 Start: 44144, Stop: 44293, Start Num: 66

Candidate Starts for Avani_79:

(Start: 66 @44144 has 103 MA's), (Start: 68 @44156 has 1 MA's), (Start: 69 @44159 has 16 MA's), (74, 44213), (75, 44228),

Gene: Awesomesauce_83 Start: 50467, Stop: 50625, Start Num: 58

Candidate Starts for Awesomesauce_83:

(17, 50251), (20, 50314), (37, 50371), (Start: 58 @50467 has 8 MA's), (61, 50476),

Gene: Batiatus_64 Start: 42288, Stop: 42440, Start Num: 67

Candidate Starts for Batiatus_64:

(Start: 67 @42288 has 10 MA's), (72, 42348), (75, 42369), (79, 42390),

Gene: Bipolar_71 Start: 44507, Stop: 44659, Start Num: 67

Candidate Starts for Bipolar_71:

(63, 44495), (Start: 67 @44507 has 10 MA's), (Start: 69 @44519 has 16 MA's), (72, 44567), (75, 44588), (79, 44609),

Gene: Blarby_80 Start: 44685, Stop: 44834, Start Num: 66

Candidate Starts for Blarby_80:

(27, 44547), (55, 44646), (Start: 66 @44685 has 103 MA's), (Start: 69 @44700 has 16 MA's), (72, 44748), (75, 44769), (79, 44790),

Gene: BobaPhett_75 Start: 48236, Stop: 48385, Start Num: 66

Candidate Starts for BobaPhett_75:

(Start: 66 @48236 has 103 MA's), (Start: 68 @48248 has 1 MA's), (Start: 69 @48251 has 16 MA's), (72, 48299), (75, 48320), (79, 48341),

Gene: Bobi_70 Start: 43891, Stop: 44043, Start Num: 67

Candidate Starts for Bobi_70:

(Start: 67 @43891 has 10 MA's), (72, 43951), (75, 43972), (79, 43993),

Gene: BodEinwohner17_68 Start: 43061, Stop: 43201, Start Num: 69

Candidate Starts for BodEinwohner17_68:

(27, 42908), (Start: 66 @43046 has 103 MA's), (Start: 69 @43061 has 16 MA's), (72, 43109), (75, 43130), (79, 43151),

Gene: Bosection6_61 Start: 38905, Stop: 39048, Start Num: 64

Candidate Starts for Bosection6_61:

(23, 38752), (Start: 64 @38905 has 26 MA's), (77, 39001),

Gene: Bubbles123_68 Start: 45742, Stop: 45888, Start Num: 66

Candidate Starts for Bubbles123_68:

(27, 45610), (Start: 66 @45742 has 103 MA's), (Start: 69 @45754 has 16 MA's), (74, 45808), (75, 45823),

Gene: Burwell21_69 Start: 45551, Stop: 45697, Start Num: 66

Candidate Starts for Burwell21_69:

(27, 45419), (Start: 59 @45539 has 2 MA's), (Start: 66 @45551 has 103 MA's), (Start: 69 @45563 has 16 MA's), (74, 45617), (75, 45632),

Gene: Butters_58 Start: 37292, Stop: 37432, Start Num: 59

Candidate Starts for Butters_58:

(47, 37250), (54, 37271), (Start: 59 @37292 has 2 MA's), (Start: 69 @37322 has 16 MA's),

Gene: ByChance_66 Start: 42651, Stop: 42800, Start Num: 66

Candidate Starts for ByChance_66:

(27, 42519), (Start: 66 @42651 has 103 MA's), (Start: 68 @42660 has 1 MA's), (Start: 69 @42663 has 16 MA's), (72, 42711), (74, 42717), (75, 42732),

Gene: Byougenkin_71 Start: 43611, Stop: 43757, Start Num: 66

Candidate Starts for Byougenkin_71:

(27, 43479), (55, 43578), (Start: 66 @43611 has 103 MA's), (Start: 69 @43623 has 16 MA's), (74, 43677), (75, 43692),

Gene: Byougenkin_66 Start: 42551, Stop: 42703, Start Num: 67

Candidate Starts for Byougenkin_66:

(Start: 67 @42551 has 10 MA's), (72, 42611), (75, 42632), (79, 42653),

Gene: Carcharodon_62 Start: 39203, Stop: 39346, Start Num: 64

Candidate Starts for Carcharodon_62:

(6, 38885), (7, 38894), (23, 39050), (Start: 64 @39203 has 26 MA's), (77, 39299),

Gene: Charlie_59 Start: 38529, Stop: 38672, Start Num: 64

Candidate Starts for Charlie_59:

(23, 38376), (Start: 64 @38529 has 26 MA's), (77, 38625),

Gene: Chevrolet_82 Start: 47420, Stop: 47569, Start Num: 67

Candidate Starts for Chevrolet_82:

(Start: 67 @47420 has 10 MA's), (Start: 69 @47432 has 16 MA's), (72, 47480), (75, 47501), (79, 47522),

Gene: Chewbacca_65 Start: 39098, Stop: 39241, Start Num: 64

Candidate Starts for Chewbacca_65:

(6, 38780), (7, 38789), (23, 38945), (Start: 64 @39098 has 26 MA's), (77, 39194),

Gene: ChickenDinner_86 Start: 50246, Stop: 50389, Start Num: 64

Candidate Starts for ChickenDinner_86:

(10, 49937), (Start: 64 @50246 has 26 MA's), (77, 50342),

Gene: Clifton_65 Start: 44067, Stop: 44216, Start Num: 66

Candidate Starts for Clifton_65:

(Start: 66 @44067 has 103 MA's), (Start: 68 @44079 has 1 MA's), (Start: 69 @44082 has 16 MA's), (72, 44130), (75, 44151), (79, 44172),

Gene: DLane_63 Start: 42015, Stop: 42170, Start Num: 66

Candidate Starts for DLane_63:

(27, 41877), (Start: 66 @42015 has 103 MA's), (Start: 69 @42030 has 16 MA's), (72, 42078), (75, 42099), (79, 42120),

Gene: DRBy19_76 Start: 47796, Stop: 47945, Start Num: 66

Candidate Starts for DRBy19_76:

(Start: 66 @47796 has 103 MA's), (Start: 68 @47808 has 1 MA's), (Start: 69 @47811 has 16 MA's), (72, 47859), (75, 47880), (79, 47901),

Gene: DaddyRickover_69 Start: 43982, Stop: 44137, Start Num: 66

Candidate Starts for DaddyRickover_69:

(Start: 66 @43982 has 103 MA's), (Start: 69 @43997 has 16 MA's), (72, 44045), (75, 44066), (79, 44087),

Gene: Daenerys_67 Start: 44101, Stop: 44256, Start Num: 66

Candidate Starts for Daenerys_67:

(Start: 66 @44101 has 103 MA's), (Start: 69 @44116 has 16 MA's), (72, 44164), (75, 44185), (79, 44206),

Gene: Dante_68 Start: 43688, Stop: 43840, Start Num: 67

Candidate Starts for Dante_68:

(Start: 67 @43688 has 10 MA's), (Start: 69 @43700 has 16 MA's), (72, 43748), (75, 43769), (79, 43790),

Gene: DeadP_74 Start: 45444, Stop: 45578, Start Num: 69

Candidate Starts for DeadP_74:

(27, 45291), (Start: 66 @45429 has 103 MA's), (Start: 69 @45444 has 16 MA's), (72, 45492), (75, 45513), (79, 45534),

Gene: Deb65_62 Start: 41821, Stop: 41976, Start Num: 66

Candidate Starts for Deb65_62:

(27, 41683), (Start: 66 @41821 has 103 MA's), (Start: 69 @41836 has 16 MA's), (72, 41884), (75, 41905), (79, 41926),

Gene: Demsculpinboyz_83 Start: 44211, Stop: 44369, Start Num: 66

Candidate Starts for Demsculpinboyz_83:

(Start: 66 @44211 has 103 MA's), (Start: 68 @44223 has 1 MA's), (Start: 69 @44226 has 16 MA's), (74, 44280), (75, 44295),

Gene: DillTech15_72 Start: 44035, Stop: 44178, Start Num: 66

Candidate Starts for DillTech15_72:

(Start: 66 @44035 has 103 MA's), (Start: 69 @44047 has 16 MA's), (74, 44101), (75, 44116),

Gene: DirtMcgirt_70 Start: 42990, Stop: 43136, Start Num: 66

Candidate Starts for DirtMcgirt_70:

(Start: 66 @42990 has 103 MA's), (Start: 68 @42999 has 1 MA's), (Start: 69 @43002 has 16 MA's), (74, 43056), (75, 43071),

Gene: DocMcStuffins_79 Start: 51876, Stop: 52019, Start Num: 64

Candidate Starts for DocMcStuffins_79:

(10, 51567), (Start: 64 @51876 has 26 MA's), (77, 51972),

Gene: Donkeykong_71 Start: 45836, Stop: 45991, Start Num: 66

Candidate Starts for Donkeykong_71:

(Start: 66 @45836 has 103 MA's), (72, 45899), (75, 45920), (79, 45941),

Gene: Dori_75 Start: 56198, Stop: 56362, Start Num: 58

Candidate Starts for Dori_75:

(8, 55886), (11, 55919), (12, 55940), (29, 56090), (Start: 58 @56198 has 8 MA's),

Gene: Dorothy_68 Start: 43156, Stop: 43311, Start Num: 66

Candidate Starts for Dorothy_68:

(Start: 66 @43156 has 103 MA's), (Start: 69 @43171 has 16 MA's), (72, 43219), (75, 43240), (79, 43261),

Gene: DotProduct_62 Start: 41324, Stop: 41479, Start Num: 66

Candidate Starts for DotProduct_62:

(27, 41186), (Start: 66 @41324 has 103 MA's), (Start: 69 @41339 has 16 MA's), (72, 41387), (75, 41408), (79, 41429),

Gene: Drago_68 Start: 42993, Stop: 43139, Start Num: 66

Candidate Starts for Drago_68:

(Start: 66 @42993 has 103 MA's), (Start: 68 @43002 has 1 MA's), (Start: 69 @43005 has 16 MA's), (74, 43059), (75, 43074),

Gene: Duplicity_60 Start: 38460, Stop: 38603, Start Num: 64

Candidate Starts for Duplicity_60:

(6, 38142), (7, 38151), (23, 38307), (Start: 64 @38460 has 26 MA's), (77, 38556),

Gene: Dynamo_59 Start: 39180, Stop: 39284, Start Num: 64

Candidate Starts for Dynamo_59:

(Start: 64 @39180 has 26 MA's),

Gene: Empress_66 Start: 43265, Stop: 43420, Start Num: 66

Candidate Starts for Empress_66:

(27, 43127), (Start: 66 @43265 has 103 MA's), (Start: 69 @43280 has 16 MA's), (72, 43328), (75, 43349), (79, 43370),

Gene: Enby_72 Start: 43269, Stop: 43415, Start Num: 66

Candidate Starts for Enby_72:

(Start: 66 @43269 has 103 MA's), (Start: 68 @43278 has 1 MA's), (Start: 69 @43281 has 16 MA's), (74, 43335), (75, 43350),

Gene: Filuzino_66 Start: 42350, Stop: 42505, Start Num: 66
Candidate Starts for Filuzino_66:
(27, 42212), (Start: 66 @42350 has 103 MA's), (Start: 69 @42365 has 16 MA's), (72, 42413), (75, 42434), (79, 42455),

Gene: FirstPlacePfu_64 Start: 39003, Stop: 39146, Start Num: 64
Candidate Starts for FirstPlacePfu_64:
(6, 38685), (7, 38694), (23, 38850), (Start: 64 @39003 has 26 MA's), (77, 39099),

Gene: FirstPlacePfu_59 Start: 37654, Stop: 37764, Start Num: 65
Candidate Starts for FirstPlacePfu_59:
(48, 37603), (53, 37618), (Start: 65 @37654 has 6 MA's), (80, 37747),

Gene: Flathead_70 Start: 44683, Stop: 44823, Start Num: 67
Candidate Starts for Flathead_70:
(Start: 67 @44683 has 10 MA's), (Start: 69 @44695 has 16 MA's), (72, 44743), (75, 44764), (79, 44785),

Gene: Florinda_78 Start: 44511, Stop: 44651, Start Num: 69
Candidate Starts for Florinda_78:
(27, 44358), (Start: 66 @44496 has 103 MA's), (Start: 69 @44511 has 16 MA's), (72, 44559), (75, 44580), (79, 44601),

Gene: Frankie_80 Start: 47540, Stop: 47701, Start Num: 58
Candidate Starts for Frankie_80:
(Start: 58 @47540 has 8 MA's),

Gene: Fruitloop_64 Start: 43656, Stop: 43811, Start Num: 66
Candidate Starts for Fruitloop_64:
(27, 43518), (Start: 66 @43656 has 103 MA's), (Start: 69 @43671 has 16 MA's), (72, 43719), (75, 43740), (79, 43761),

Gene: Fulbright_60 Start: 37897, Stop: 38040, Start Num: 64
Candidate Starts for Fulbright_60:
(6, 37579), (7, 37588), (23, 37744), (Start: 64 @37897 has 26 MA's), (77, 37993),

Gene: Gandalph_72 Start: 43639, Stop: 43785, Start Num: 66
Candidate Starts for Gandalph_72:
(27, 43501), (Start: 66 @43639 has 103 MA's), (Start: 69 @43654 has 16 MA's), (72, 43702), (75, 43723), (79, 43744),

Gene: Geralt_62 Start: 41820, Stop: 41975, Start Num: 66
Candidate Starts for Geralt_62:
(27, 41682), (Start: 66 @41820 has 103 MA's), (Start: 69 @41835 has 16 MA's), (72, 41883), (75, 41904), (79, 41925),

Gene: Gex_63 Start: 39219, Stop: 39362, Start Num: 64
Candidate Starts for Gex_63:
(6, 38901), (7, 38910), (23, 39066), (Start: 64 @39219 has 26 MA's), (77, 39315),

Gene: GigiOuiOui_68 Start: 45285, Stop: 45428, Start Num: 66
Candidate Starts for GigiOuiOui_68:

(Start: 66 @45285 has 103 MA's), (Start: 68 @45294 has 1 MA's), (Start: 69 @45297 has 16 MA's), (74, 45351), (75, 45366),

Gene: Girafales_75 Start: 44302, Stop: 44442, Start Num: 69

Candidate Starts for Girafales_75:

(27, 44149), (Start: 66 @44287 has 103 MA's), (Start: 69 @44302 has 16 MA's), (72, 44350), (75, 44371), (79, 44392),

Gene: Girr_69 Start: 45990, Stop: 46139, Start Num: 66

Candidate Starts for Girr_69:

(Start: 66 @45990 has 103 MA's), (Start: 69 @46002 has 16 MA's), (74, 46056), (75, 46071),

Gene: Gorge_74 Start: 47006, Stop: 47155, Start Num: 66

Candidate Starts for Gorge_74:

(Start: 66 @47006 has 103 MA's), (Start: 68 @47018 has 1 MA's), (Start: 69 @47021 has 16 MA's), (72, 47069), (75, 47090), (79, 47111),

Gene: HUHilltop_62 Start: 39403, Stop: 39507, Start Num: 64

Candidate Starts for HUHilltop_62:

(Start: 64 @39403 has 26 MA's),

Gene: Hamulus_66 Start: 42697, Stop: 42849, Start Num: 67

Candidate Starts for Hamulus_66:

(Start: 67 @42697 has 10 MA's), (Start: 69 @42709 has 16 MA's), (72, 42757), (75, 42778), (79, 42799),

Gene: Hegedechwinu_69 Start: 42429, Stop: 42584, Start Num: 66

Candidate Starts for Hegedechwinu_69:

(27, 42291), (Start: 66 @42429 has 103 MA's), (Start: 69 @42444 has 16 MA's), (72, 42492), (75, 42513), (79, 42534),

Gene: Hlubikazi_63 Start: 40435, Stop: 40590, Start Num: 66

Candidate Starts for Hlubikazi_63:

(1, 39982), (2, 40000), (3, 40036), (4, 40042), (5, 40060), (13, 40156), (18, 40234), (32, 40309), (Start: 66 @40435 has 103 MA's), (Start: 69 @40450 has 16 MA's), (72, 40498), (75, 40519), (79, 40540),

Gene: lbOuu_70 Start: 43870, Stop: 44019, Start Num: 66

Candidate Starts for lbOuu_70:

(27, 43732), (Start: 66 @43870 has 103 MA's), (Start: 69 @43885 has 16 MA's), (72, 43933), (75, 43954), (79, 43975),

Gene: lbhubesi_70 Start: 43411, Stop: 43545, Start Num: 69

Candidate Starts for lbhubesi_70:

(27, 43267), (Start: 66 @43399 has 103 MA's), (Start: 69 @43411 has 16 MA's), (74, 43465), (75, 43480),

Gene: Inventum_65 Start: 43354, Stop: 43509, Start Num: 66

Candidate Starts for Inventum_65:

(Start: 66 @43354 has 103 MA's), (Start: 69 @43369 has 16 MA's), (72, 43417), (75, 43438), (79, 43459),

Gene: IrishSherpFalk_73 Start: 46468, Stop: 46617, Start Num: 66

Candidate Starts for IrishSherpFalk_73:

(Start: 66 @46468 has 103 MA's), (Start: 68 @46480 has 1 MA's), (Start: 69 @46483 has 16 MA's), (72, 46531), (75, 46552), (76, 46558), (79, 46573),

Gene: Jabbawokkie_82 Start: 44605, Stop: 44754, Start Num: 66

Candidate Starts for Jabbawokkie_82:

(27, 44467), (55, 44566), (Start: 66 @44605 has 103 MA's), (Start: 69 @44620 has 16 MA's), (72, 44668), (75, 44689), (79, 44710),

Gene: JalFarm20_81 Start: 47224, Stop: 47373, Start Num: 66

Candidate Starts for JalFarm20_81:

(Start: 66 @47224 has 103 MA's), (Start: 69 @47239 has 16 MA's), (72, 47287), (75, 47308), (79, 47329),

Gene: Jaracob_72 Start: 46728, Stop: 46877, Start Num: 66

Candidate Starts for Jaracob_72:

(Start: 66 @46728 has 103 MA's), (Start: 68 @46740 has 1 MA's), (Start: 69 @46743 has 16 MA's), (72, 46791), (75, 46812), (79, 46833),

Gene: Jebeks_60 Start: 38700, Stop: 38804, Start Num: 64

Candidate Starts for Jebeks_60:

(Start: 64 @38700 has 26 MA's),

Gene: Jinglebell_77 Start: 47154, Stop: 47309, Start Num: 66

Candidate Starts for Jinglebell_77:

(27, 47022), (Start: 66 @47154 has 103 MA's), (Start: 69 @47166 has 16 MA's), (74, 47220), (75, 47235),

Gene: JoeyJr_68 Start: 44269, Stop: 44424, Start Num: 66

Candidate Starts for JoeyJr_68:

(Start: 66 @44269 has 103 MA's), (Start: 69 @44284 has 16 MA's), (72, 44332), (75, 44353), (79, 44374),

Gene: Juice456_69 Start: 45180, Stop: 45329, Start Num: 66

Candidate Starts for Juice456_69:

(Start: 66 @45180 has 103 MA's), (Start: 69 @45195 has 16 MA's), (72, 45243), (75, 45264), (79, 45285),

Gene: Karhdo_69 Start: 44419, Stop: 44571, Start Num: 66

Candidate Starts for Karhdo_69:

(Start: 66 @44419 has 103 MA's), (Start: 68 @44431 has 1 MA's), (Start: 69 @44434 has 16 MA's), (74, 44488), (75, 44503), (81, 44560),

Gene: Kenuha5_71 Start: 47003, Stop: 47146, Start Num: 66

Candidate Starts for Kenuha5_71:

(Start: 66 @47003 has 103 MA's), (Start: 68 @47012 has 1 MA's), (Start: 69 @47015 has 16 MA's), (74, 47069), (75, 47084),

Gene: Kimberlium_72 Start: 44776, Stop: 44925, Start Num: 66

Candidate Starts for Kimberlium_72:

(27, 44638), (55, 44737), (Start: 66 @44776 has 103 MA's), (Start: 69 @44791 has 16 MA's), (72, 44839), (75, 44860), (79, 44881),

Gene: KingMidas_67 Start: 43681, Stop: 43836, Start Num: 66

Candidate Starts for KingMidas_67:

(27, 43543), (Start: 66 @43681 has 103 MA's), (Start: 69 @43696 has 16 MA's), (72, 43744), (75, 43765), (79, 43786),

Gene: Kingsley_68 Start: 45553, Stop: 45708, Start Num: 66

Candidate Starts for Kingsley_68:

(Start: 66 @45553 has 103 MA's), (Start: 69 @45568 has 16 MA's), (72, 45616), (75, 45637), (79, 45658),

Gene: Krakatau_67 Start: 42370, Stop: 42519, Start Num: 66

Candidate Starts for Krakatau_67:

(Start: 66 @42370 has 103 MA's), (Start: 69 @42382 has 16 MA's), (74, 42436), (75, 42451),

Gene: KristaRAM_71 Start: 45549, Stop: 45698, Start Num: 66

Candidate Starts for KristaRAM_71:

(Start: 66 @45549 has 103 MA's), (Start: 69 @45564 has 16 MA's), (72, 45612), (75, 45633), (79, 45654),

Gene: LastJedi_64 Start: 44110, Stop: 44259, Start Num: 66

Candidate Starts for LastJedi_64:

(Start: 66 @44110 has 103 MA's), (Start: 68 @44122 has 1 MA's), (Start: 69 @44125 has 16 MA's), (72, 44173), (75, 44194), (79, 44215),

Gene: Leozinho_72 Start: 43788, Stop: 43934, Start Num: 66

Candidate Starts for Leozinho_72:

(Start: 66 @43788 has 103 MA's), (Start: 68 @43797 has 1 MA's), (Start: 69 @43800 has 16 MA's), (74, 43854), (75, 43869),

Gene: Leperchaun_65 Start: 43514, Stop: 43654, Start Num: 69

Candidate Starts for Leperchaun_65:

(Start: 66 @43499 has 103 MA's), (Start: 69 @43514 has 16 MA's), (72, 43562), (75, 43583), (79, 43604),

Gene: LilSpotty_79 Start: 45907, Stop: 46065, Start Num: 58

Candidate Starts for LilSpotty_79:

(17, 45691), (20, 45754), (37, 45811), (Start: 58 @45907 has 8 MA's), (61, 45916),

Gene: Lizziana_77 Start: 47466, Stop: 47603, Start Num: 68

Candidate Starts for Lizziana_77:

(Start: 66 @47457 has 103 MA's), (Start: 68 @47466 has 1 MA's), (Start: 69 @47469 has 16 MA's), (74, 47523), (75, 47538),

Gene: Llama_77 Start: 47009, Stop: 47164, Start Num: 66

Candidate Starts for Llama_77:

(27, 46877), (Start: 66 @47009 has 103 MA's), (Start: 69 @47021 has 16 MA's), (74, 47075), (75, 47090),

Gene: Llij_67 Start: 43159, Stop: 43293, Start Num: 69

Candidate Starts for Llij_67:

(Start: 66 @43147 has 103 MA's), (Start: 68 @43156 has 1 MA's), (Start: 69 @43159 has 16 MA's), (74, 43213), (75, 43228),

Gene: Lorde_71 Start: 42434, Stop: 42580, Start Num: 66

Candidate Starts for Lorde_71:

(Start: 66 @42434 has 103 MA's), (Start: 68 @42443 has 1 MA's), (Start: 69 @42446 has 16 MA's), (74, 42500), (75, 42515),

Gene: MadMen_70 Start: 44751, Stop: 44891, Start Num: 66

Candidate Starts for MadMen_70:

(27, 44619), (Start: 66 @44751 has 103 MA's), (Start: 69 @44763 has 16 MA's), (74, 44817), (75, 44832),

Gene: Madiba_76 Start: 47567, Stop: 47716, Start Num: 66

Candidate Starts for Madiba_76:

(Start: 66 @47567 has 103 MA's), (Start: 68 @47576 has 1 MA's), (Start: 69 @47579 has 16 MA's), (74, 47633), (75, 47648),

Gene: Magsby_61 Start: 39165, Stop: 39308, Start Num: 64

Candidate Starts for Magsby_61:

(6, 38847), (7, 38856), (23, 39012), (Start: 64 @39165 has 26 MA's), (77, 39261),

Gene: Mandlovu_63 Start: 40377, Stop: 40532, Start Num: 66

Candidate Starts for Mandlovu_63:

(1, 39924), (2, 39942), (3, 39978), (4, 39984), (5, 40002), (13, 40098), (18, 40176), (32, 40251), (Start: 66 @40377 has 103 MA's), (Start: 69 @40392 has 16 MA's), (72, 40440), (75, 40461), (79, 40482),

Gene: Mao1_77 Start: 54531, Stop: 54680, Start Num: 65

Candidate Starts for Mao1_77:

(19, 54357), (49, 54486), (Start: 65 @54531 has 6 MA's), (71, 54588), (73, 54597), (77, 54627),

Gene: Maravista_74 Start: 48467, Stop: 48613, Start Num: 66

Candidate Starts for Maravista_74:

(Start: 66 @48467 has 103 MA's), (Start: 68 @48476 has 1 MA's), (Start: 69 @48479 has 16 MA's), (74, 48533), (75, 48548),

Gene: Marker_79 Start: 45397, Stop: 45555, Start Num: 66

Candidate Starts for Marker_79:

(Start: 66 @45397 has 103 MA's), (Start: 69 @45409 has 16 MA's), (74, 45463), (75, 45478), (82, 45541),

Gene: Martik_74 Start: 47948, Stop: 48094, Start Num: 66

Candidate Starts for Martik_74:

(Start: 66 @47948 has 103 MA's), (Start: 68 @47957 has 1 MA's), (Start: 69 @47960 has 16 MA's), (74, 48014), (75, 48029),

Gene: Mattes_74 Start: 47131, Stop: 47280, Start Num: 66

Candidate Starts for Mattes_74:

(Start: 66 @47131 has 103 MA's), (Start: 68 @47143 has 1 MA's), (Start: 69 @47146 has 16 MA's), (72, 47194), (75, 47215), (79, 47236),

Gene: Melissauren88_65 Start: 41894, Stop: 42049, Start Num: 66

Candidate Starts for Melissauren88_65:

(27, 41756), (Start: 66 @41894 has 103 MA's), (Start: 69 @41909 has 16 MA's), (72, 41957), (75, 41978), (79, 41999),

Gene: Melville_67 Start: 38774, Stop: 38917, Start Num: 64

Candidate Starts for Melville_67:

(6, 38456), (7, 38465), (23, 38621), (Start: 64 @38774 has 26 MA's), (77, 38870),

Gene: MichelleMyBell_59 Start: 37278, Stop: 37388, Start Num: 65

Candidate Starts for MichelleMyBell_59:

(9, 36978), (14, 37053), (22, 37128), (30, 37161), (42, 37200), (43, 37203), (Start: 65 @37278 has 6 MA's), (80, 37371),

Gene: MilanaBonita_57 Start: 38486, Stop: 38626, Start Num: 69

Candidate Starts for MilanaBonita_57:

(27, 38333), (Start: 66 @38471 has 103 MA's), (Start: 69 @38486 has 16 MA's), (72, 38534), (75, 38555), (79, 38576),

Gene: Misha28_82 Start: 51166, Stop: 51324, Start Num: 58

Candidate Starts for Misha28_82:

(17, 50950), (20, 51013), (37, 51070), (Start: 58 @51166 has 8 MA's), (61, 51175),

Gene: MisterCuddles_69 Start: 45990, Stop: 46139, Start Num: 66

Candidate Starts for MisterCuddles_69:

(Start: 66 @45990 has 103 MA's), (Start: 69 @46002 has 16 MA's), (74, 46056), (75, 46071),

Gene: MooMoo_77 Start: 47555, Stop: 47719, Start Num: 57

Candidate Starts for MooMoo_77:

(Start: 57 @47555 has 1 MA's), (Start: 65 @47573 has 6 MA's), (77, 47669),

Gene: Mozy_79 Start: 45595, Stop: 45738, Start Num: 66

Candidate Starts for Mozy_79:

(27, 45457), (45, 45520), (Start: 66 @45595 has 103 MA's), (72, 45658), (75, 45679), (79, 45700),

Gene: Ms6_64 Start: 38259, Stop: 38414, Start Num: 66

Candidate Starts for Ms6_64:

(27, 38121), (Start: 66 @38259 has 103 MA's), (Start: 69 @38274 has 16 MA's), (72, 38322), (75, 38343), (79, 38364),

Gene: MulchSalad_80 Start: 48222, Stop: 48365, Start Num: 64

Candidate Starts for MulchSalad_80:

(6, 47892), (7, 47901), (23, 48069), (Start: 64 @48222 has 26 MA's), (77, 48318),

Gene: Nimbo_61 Start: 41823, Stop: 41978, Start Num: 66

Candidate Starts for Nimbo_61:

(27, 41685), (Start: 66 @41823 has 103 MA's), (Start: 69 @41838 has 16 MA's), (72, 41886), (75, 41907), (79, 41928),

Gene: Ochi17_76 Start: 46605, Stop: 46760, Start Num: 66

Candidate Starts for Ochi17_76:

(27, 46473), (Start: 66 @46605 has 103 MA's), (Start: 69 @46617 has 16 MA's), (74, 46671), (75, 46686),

Gene: OfUltron_78 Start: 47154, Stop: 47309, Start Num: 66

Candidate Starts for OfUltron_78:

(27, 47022), (Start: 66 @47154 has 103 MA's), (Start: 69 @47166 has 16 MA's), (74, 47220), (75, 47235),

Gene: Ogotogo_76 Start: 44956, Stop: 45102, Start Num: 66
Candidate Starts for Ogotogo_76:
(32, 44830), (Start: 66 @44956 has 103 MA's), (Start: 68 @44968 has 1 MA's), (Start: 69 @44971 has 16 MA's), (72, 45019), (75, 45040), (79, 45061),

Gene: OldBen_65 Start: 43231, Stop: 43371, Start Num: 69
Candidate Starts for OldBen_65:
(27, 43078), (Start: 66 @43216 has 103 MA's), (Start: 69 @43231 has 16 MA's), (72, 43279), (75, 43300), (79, 43321),

Gene: OlympiaSaint_72 Start: 46073, Stop: 46222, Start Num: 66
Candidate Starts for OlympiaSaint_72:
(Start: 66 @46073 has 103 MA's), (Start: 68 @46085 has 1 MA's), (Start: 69 @46088 has 16 MA's), (72, 46136), (75, 46157), (79, 46178),

Gene: Ovechkin_67 Start: 43210, Stop: 43365, Start Num: 66
Candidate Starts for Ovechkin_67:
(27, 43072), (Start: 66 @43210 has 103 MA's), (Start: 69 @43225 has 16 MA's), (72, 43273), (75, 43294), (79, 43315),

Gene: PHappiness_68 Start: 44045, Stop: 44200, Start Num: 66
Candidate Starts for PHappiness_68:
(Start: 66 @44045 has 103 MA's), (Start: 69 @44060 has 16 MA's), (72, 44108), (75, 44129), (79, 44150),

Gene: Parmesanjohn_62 Start: 39223, Stop: 39366, Start Num: 64
Candidate Starts for Parmesanjohn_62:
(6, 38905), (7, 38914), (23, 39070), (Start: 64 @39223 has 26 MA's), (77, 39319),

Gene: Phalconet_67 Start: 43045, Stop: 43245, Start Num: 50
Candidate Starts for Phalconet_67:
(Start: 50 @43045 has 1 MA's), (60, 43081), (Start: 66 @43087 has 103 MA's), (Start: 68 @43099 has 1 MA's), (Start: 69 @43102 has 16 MA's), (72, 43150), (75, 43171), (79, 43192),

Gene: Phanphagia_63 Start: 42771, Stop: 42911, Start Num: 69
Candidate Starts for Phanphagia_63:
(27, 42618), (Start: 66 @42756 has 103 MA's), (Start: 69 @42771 has 16 MA's), (72, 42819), (75, 42840), (79, 42861),

Gene: Phasih_67 Start: 44273, Stop: 44413, Start Num: 66
Candidate Starts for Phasih_67:
(27, 44141), (55, 44240), (Start: 66 @44273 has 103 MA's), (Start: 69 @44285 has 16 MA's), (74, 44339), (75, 44354),

Gene: PhesterPhotato_72 Start: 44766, Stop: 44963, Start Num: 50
Candidate Starts for PhesterPhotato_72:
(Start: 50 @44766 has 1 MA's), (60, 44802), (Start: 66 @44808 has 103 MA's), (Start: 68 @44820 has 1 MA's), (Start: 69 @44823 has 16 MA's), (72, 44871), (75, 44892), (79, 44913),

Gene: Philonius_62 Start: 39388, Stop: 39531, Start Num: 64
Candidate Starts for Philonius_62:
(6, 39070), (7, 39079), (23, 39235), (Start: 64 @39388 has 26 MA's), (77, 39484),

Gene: Philus_75 Start: 47772, Stop: 47921, Start Num: 66
Candidate Starts for Philus_75:
(Start: 66 @47772 has 103 MA's), (Start: 68 @47784 has 1 MA's), (Start: 69 @47787 has 16 MA's),
(72, 47835), (75, 47856), (79, 47877),

Gene: Phloss_60 Start: 38630, Stop: 38773, Start Num: 64
Candidate Starts for Phloss_60:
(6, 38312), (7, 38321), (23, 38477), (Start: 64 @38630 has 26 MA's), (77, 38726),

Gene: Piper2020_86 Start: 51987, Stop: 52130, Start Num: 64
Candidate Starts for Piper2020_86:
(23, 51834), (Start: 64 @51987 has 26 MA's), (77, 52083),

Gene: Pipsqueaks_63 Start: 39201, Stop: 39344, Start Num: 64
Candidate Starts for Pipsqueaks_63:
(6, 38883), (7, 38892), (23, 39048), (Start: 64 @39201 has 26 MA's), (77, 39297),

Gene: Poenanya_70 Start: 44545, Stop: 44685, Start Num: 69
Candidate Starts for Poenanya_70:
(Start: 66 @44530 has 103 MA's), (Start: 69 @44545 has 16 MA's), (72, 44593), (75, 44614), (79,
44635),

Gene: Polka14_71 Start: 45261, Stop: 45401, Start Num: 69
Candidate Starts for Polka14_71:
(Start: 66 @45246 has 103 MA's), (Start: 69 @45261 has 16 MA's), (72, 45309), (75, 45330), (79,
45351),

Gene: Purky_69 Start: 44331, Stop: 44486, Start Num: 65
Candidate Starts for Purky_69:
(35, 44220), (39, 44238), (Start: 65 @44331 has 6 MA's), (77, 44427),

Gene: QueenHazel_57 Start: 39547, Stop: 39696, Start Num: 66
Candidate Starts for QueenHazel_57:
(32, 39421), (Start: 66 @39547 has 103 MA's), (Start: 69 @39562 has 16 MA's), (72, 39610), (75,
39631), (79, 39652),

Gene: QuickMath_71 Start: 44999, Stop: 45148, Start Num: 66
Candidate Starts for QuickMath_71:
(27, 44861), (55, 44960), (Start: 66 @44999 has 103 MA's), (Start: 69 @45014 has 16 MA's), (72,
45062), (75, 45083), (79, 45104),

Gene: Quico_75 Start: 44316, Stop: 44471, Start Num: 66
Candidate Starts for Quico_75:
(27, 44178), (Start: 66 @44316 has 103 MA's), (Start: 69 @44331 has 16 MA's), (72, 44379), (75,
44400), (79, 44421),

Gene: Radiance_69 Start: 46419, Stop: 46571, Start Num: 66
Candidate Starts for Radiance_69:
(Start: 66 @46419 has 103 MA's), (Start: 68 @46431 has 1 MA's), (Start: 69 @46434 has 16 MA's),
(74, 46488), (75, 46503), (81, 46560),

Gene: RedBird_68 Start: 43035, Stop: 43190, Start Num: 66
Candidate Starts for RedBird_68:

(Start: 66 @43035 has 103 MA's), (Start: 69 @43050 has 16 MA's), (72, 43098), (75, 43119), (79, 43140),

Gene: Renaud18_82 Start: 46991, Stop: 47140, Start Num: 67

Candidate Starts for Renaud18_82:

(27, 46859), (Start: 67 @46991 has 10 MA's), (72, 47051), (75, 47072), (79, 47093),

Gene: Rialto_73 Start: 45931, Stop: 46086, Start Num: 66

Candidate Starts for Rialto_73:

(27, 45793), (Start: 66 @45931 has 103 MA's), (Start: 69 @45946 has 16 MA's), (72, 45994), (75, 46015), (79, 46036),

Gene: RitaG_68 Start: 44390, Stop: 44545, Start Num: 66

Candidate Starts for RitaG_68:

(Start: 66 @44390 has 103 MA's), (Start: 69 @44405 has 16 MA's), (72, 44453), (75, 44474), (79, 44495),

Gene: Rubeelu_58 Start: 37292, Stop: 37432, Start Num: 59

Candidate Starts for Rubeelu_58:

(47, 37250), (54, 37271), (Start: 59 @37292 has 2 MA's), (Start: 69 @37322 has 16 MA's),

Gene: Ruby_67 Start: 45991, Stop: 46140, Start Num: 66

Candidate Starts for Ruby_67:

(Start: 66 @45991 has 103 MA's), (Start: 69 @46003 has 16 MA's), (74, 46057), (75, 46072),

Gene: SG4_66 Start: 42817, Stop: 42957, Start Num: 69

Candidate Starts for SG4_66:

(Start: 66 @42805 has 103 MA's), (Start: 68 @42814 has 1 MA's), (Start: 69 @42817 has 16 MA's), (74, 42871), (75, 42886),

Gene: Saal_72 Start: 46825, Stop: 46974, Start Num: 66

Candidate Starts for Saal_72:

(Start: 66 @46825 has 103 MA's), (Start: 68 @46837 has 1 MA's), (Start: 69 @46840 has 16 MA's), (72, 46888), (75, 46909), (79, 46930),

Gene: Sabbb_72 Start: 43583, Stop: 43732, Start Num: 66

Candidate Starts for Sabbb_72:

(15, 43340), (28, 43454), (32, 43463), (Start: 66 @43583 has 103 MA's), (Start: 69 @43595 has 16 MA's), (74, 43649), (75, 43664), (81, 43721),

Gene: Sassafras_68 Start: 43353, Stop: 43508, Start Num: 66

Candidate Starts for Sassafras_68:

(Start: 66 @43353 has 103 MA's), (Start: 69 @43368 has 16 MA's), (72, 43416), (75, 43437), (79, 43458),

Gene: Sbash_70 Start: 46782, Stop: 46940, Start Num: 65

Candidate Starts for Sbash_70:

(Start: 65 @46782 has 6 MA's), (70, 46836), (78, 46884),

Gene: Schnauzer_63 Start: 39223, Stop: 39366, Start Num: 64

Candidate Starts for Schnauzer_63:

(6, 38905), (7, 38914), (23, 39070), (Start: 64 @39223 has 26 MA's), (77, 39319),

Gene: Scitech_57 Start: 38626, Stop: 38769, Start Num: 65
Candidate Starts for Scitech_57:
(16, 38389), (21, 38461), (26, 38491), (56, 38599), (Start: 65 @38626 has 6 MA's), (77, 38722),

Gene: Scottish_66 Start: 42936, Stop: 43091, Start Num: 66
Candidate Starts for Scottish_66:
(27, 42798), (Start: 66 @42936 has 103 MA's), (Start: 69 @42951 has 16 MA's), (72, 42999), (75, 43020), (79, 43041),

Gene: Seabastian_78 Start: 47155, Stop: 47310, Start Num: 66
Candidate Starts for Seabastian_78:
(27, 47023), (Start: 66 @47155 has 103 MA's), (Start: 69 @47167 has 16 MA's), (74, 47221), (75, 47236),

Gene: Seagreen_66 Start: 42125, Stop: 42280, Start Num: 66
Candidate Starts for Seagreen_66:
(27, 41987), (Start: 66 @42125 has 103 MA's), (Start: 69 @42140 has 16 MA's), (72, 42188), (75, 42209), (79, 42230),

Gene: Sejanus_78 Start: 56346, Stop: 56510, Start Num: 58
Candidate Starts for Sejanus_78:
(38, 56262), (41, 56274), (51, 56319), (Start: 58 @56346 has 8 MA's),

Gene: Shauna1_65 Start: 42665, Stop: 42820, Start Num: 66
Candidate Starts for Shauna1_65:
(27, 42527), (Start: 66 @42665 has 103 MA's), (Start: 69 @42680 has 16 MA's), (72, 42728), (75, 42749), (79, 42770),

Gene: ShowerHandel_74 Start: 46591, Stop: 46740, Start Num: 66
Candidate Starts for ShowerHandel_74:
(27, 46459), (Start: 66 @46591 has 103 MA's), (Start: 68 @46600 has 1 MA's), (Start: 69 @46603 has 16 MA's), (72, 46651), (74, 46657), (75, 46672),

Gene: ShroomBoi_73 Start: 46320, Stop: 46463, Start Num: 66
Candidate Starts for ShroomBoi_73:
(Start: 66 @46320 has 103 MA's), (Start: 69 @46335 has 16 MA's), (72, 46383), (75, 46404), (79, 46425),

Gene: SiSi_67 Start: 44560, Stop: 44715, Start Num: 66
Candidate Starts for SiSi_67:
(36, 44446), (Start: 66 @44560 has 103 MA's), (Start: 69 @44575 has 16 MA's), (72, 44623), (75, 44644), (79, 44665),

Gene: Silvafighter_64 Start: 38766, Stop: 38909, Start Num: 64
Candidate Starts for Silvafighter_64:
(6, 38448), (7, 38457), (23, 38613), (Start: 64 @38766 has 26 MA's), (77, 38862),

Gene: Silvy_63 Start: 39856, Stop: 39999, Start Num: 64
Candidate Starts for Silvy_63:
(6, 39541), (7, 39550), (23, 39706), (Start: 64 @39856 has 26 MA's), (77, 39952),

Gene: SimranZ1_71 Start: 45018, Stop: 45170, Start Num: 66
Candidate Starts for SimranZ1_71:

(Start: 66 @45018 has 103 MA's), (Start: 68 @45030 has 1 MA's), (Start: 69 @45033 has 16 MA's), (74, 45087), (75, 45102), (81, 45159),

Gene: SkinnyPete_59 Start: 38970, Stop: 39113, Start Num: 64

Candidate Starts for SkinnyPete_59:

(6, 38652), (7, 38661), (23, 38817), (Start: 64 @38970 has 26 MA's), (77, 39066),

Gene: Smurph_62 Start: 39223, Stop: 39366, Start Num: 64

Candidate Starts for Smurph_62:

(6, 38905), (7, 38914), (23, 39070), (Start: 64 @39223 has 26 MA's), (77, 39319),

Gene: Sonah_60 Start: 38874, Stop: 38978, Start Num: 64

Candidate Starts for Sonah_60:

(Start: 64 @38874 has 26 MA's),

Gene: Soul22_76 Start: 44557, Stop: 44706, Start Num: 66

Candidate Starts for Soul22_76:

(27, 44419), (55, 44518), (Start: 66 @44557 has 103 MA's), (Start: 69 @44572 has 16 MA's), (72, 44620), (75, 44641), (79, 44662),

Gene: StAnnes_67 Start: 43879, Stop: 44034, Start Num: 66

Candidate Starts for StAnnes_67:

(27, 43741), (Start: 66 @43879 has 103 MA's), (Start: 69 @43894 has 16 MA's), (72, 43942), (75, 43963), (79, 43984),

Gene: Stap_67 Start: 43236, Stop: 43385, Start Num: 66

Candidate Starts for Stap_67:

(27, 43104), (46, 43170), (Start: 59 @43224 has 2 MA's), (Start: 66 @43236 has 103 MA's), (Start: 69 @43248 has 16 MA's), (74, 43302), (75, 43317),

Gene: Strokeseat_63 Start: 40434, Stop: 40589, Start Num: 66

Candidate Starts for Strokeseat_63:

(1, 39981), (2, 39999), (3, 40035), (4, 40041), (5, 40059), (13, 40155), (18, 40233), (32, 40308), (Start: 66 @40434 has 103 MA's), (Start: 69 @40449 has 16 MA's), (72, 40497), (75, 40518), (79, 40539),

Gene: SuperGrey_74 Start: 48498, Stop: 48629, Start Num: 69

Candidate Starts for SuperGrey_74:

(24, 48330), (25, 48342), (31, 48366), (40, 48390), (44, 48414), (Start: 66 @48486 has 103 MA's), (Start: 68 @48495 has 1 MA's), (Start: 69 @48498 has 16 MA's), (74, 48552), (75, 48567),

Gene: SwagPigglett_76 Start: 47881, Stop: 48015, Start Num: 69

Candidate Starts for SwagPigglett_76:

(Start: 66 @47866 has 103 MA's), (Start: 68 @47878 has 1 MA's), (Start: 69 @47881 has 16 MA's), (72, 47929), (75, 47950), (79, 47971),

Gene: Taj_78 Start: 46564, Stop: 46665, Start Num: 65

Candidate Starts for Taj_78:

(48, 46513), (53, 46528), (Start: 65 @46564 has 6 MA's),

Gene: Taj_73 Start: 45199, Stop: 45354, Start Num: 66

Candidate Starts for Taj_73:

(27, 45061), (Start: 66 @45199 has 103 MA's), (Start: 69 @45214 has 16 MA's), (72, 45262), (75, 45283), (79, 45304),

Gene: Tapioca_60 Start: 39740, Stop: 39883, Start Num: 64

Candidate Starts for Tapioca_60:

(23, 39587), (Start: 64 @39740 has 26 MA's), (77, 39836),

Gene: ThetaBob_76 Start: 46222, Stop: 46368, Start Num: 67

Candidate Starts for ThetaBob_76:

(Start: 67 @46222 has 10 MA's), (Start: 69 @46234 has 16 MA's), (72, 46282), (75, 46303), (79, 46324),

Gene: ThulaThula_66 Start: 44182, Stop: 44340, Start Num: 65

Candidate Starts for ThulaThula_66:

(33, 44086), (Start: 65 @44182 has 6 MA's), (70, 44239), (78, 44287),

Gene: TootsiePop_82 Start: 51166, Stop: 51324, Start Num: 58

Candidate Starts for TootsiePop_82:

(17, 50950), (20, 51013), (37, 51070), (Start: 58 @51166 has 8 MA's), (61, 51175),

Gene: Tortellini_68 Start: 45349, Stop: 45510, Start Num: 58

Candidate Starts for Tortellini_68:

(Start: 58 @45349 has 8 MA's),

Gene: Totinger_72 Start: 44700, Stop: 44843, Start Num: 66

Candidate Starts for Totinger_72:

(Start: 66 @44700 has 103 MA's), (Start: 68 @44709 has 1 MA's), (Start: 69 @44712 has 16 MA's), (74, 44766), (75, 44781),

Gene: Tweety_73 Start: 47076, Stop: 47234, Start Num: 66

Candidate Starts for Tweety_73:

(Start: 66 @47076 has 103 MA's), (Start: 68 @47085 has 1 MA's), (Start: 69 @47088 has 16 MA's), (74, 47142), (75, 47157),

Gene: UncleRicky_70 Start: 44490, Stop: 44636, Start Num: 66

Candidate Starts for UncleRicky_70:

(Start: 66 @44490 has 103 MA's), (Start: 68 @44499 has 1 MA's), (Start: 69 @44502 has 16 MA's), (74, 44556), (75, 44571),

Gene: Veteran_65 Start: 44909, Stop: 45058, Start Num: 66

Candidate Starts for Veteran_65:

(34, 44792), (55, 44870), (Start: 66 @44909 has 103 MA's), (Start: 69 @44924 has 16 MA's), (72, 44972), (75, 44993), (79, 45014),

Gene: Wachhund_71 Start: 44201, Stop: 44362, Start Num: 66

Candidate Starts for Wachhund_71:

(Start: 66 @44201 has 103 MA's), (Start: 68 @44213 has 1 MA's), (Start: 69 @44216 has 16 MA's), (74, 44270), (75, 44285),

Gene: Wee_73 Start: 45275, Stop: 45430, Start Num: 66

Candidate Starts for Wee_73:

(27, 45137), (Start: 66 @45275 has 103 MA's), (Start: 69 @45290 has 16 MA's), (72, 45338), (75, 45359), (79, 45380),

Gene: Whatsapiecost_67 Start: 41846, Stop: 41989, Start Num: 66

Candidate Starts for Whatsapiecost_67:

(27, 41708), (Start: 66 @41846 has 103 MA's), (Start: 69 @41861 has 16 MA's), (72, 41909), (75, 41930), (79, 41951),

Gene: Whouxphf_69 Start: 45627, Stop: 45773, Start Num: 66

Candidate Starts for Whouxphf_69:

(Start: 59 @45615 has 2 MA's), (Start: 66 @45627 has 103 MA's), (Start: 69 @45639 has 16 MA's), (74, 45693), (75, 45708),

Gene: WillSterrel_73 Start: 46501, Stop: 46650, Start Num: 66

Candidate Starts for WillSterrel_73:

(Start: 66 @46501 has 103 MA's), (Start: 68 @46513 has 1 MA's), (Start: 69 @46516 has 16 MA's), (72, 46564), (75, 46585), (76, 46591), (79, 46606),

Gene: Willsammy_61 Start: 41085, Stop: 41189, Start Num: 64

Candidate Starts for Willsammy_61:

(45, 41016), (52, 41046), (62, 41082), (Start: 64 @41085 has 26 MA's),

Gene: XFactor_68 Start: 44921, Stop: 45067, Start Num: 66

Candidate Starts for XFactor_68:

(Start: 66 @44921 has 103 MA's), (Start: 69 @44933 has 16 MA's), (72, 44981), (74, 44987), (75, 45002),

Gene: Xerxes_62 Start: 39220, Stop: 39363, Start Num: 64

Candidate Starts for Xerxes_62:

(6, 38902), (7, 38911), (23, 39067), (Start: 64 @39220 has 26 MA's), (77, 39316),

Gene: Xula_56 Start: 39168, Stop: 39317, Start Num: 66

Candidate Starts for Xula_56:

(32, 39042), (Start: 66 @39168 has 103 MA's), (Start: 69 @39183 has 16 MA's), (72, 39231), (75, 39252), (79, 39273),

Gene: Yoshi_86 Start: 46688, Stop: 46834, Start Num: 66

Candidate Starts for Yoshi_86:

(Start: 66 @46688 has 103 MA's), (Start: 69 @46700 has 16 MA's), (72, 46748), (74, 46754), (75, 46769),

Gene: Zapner_81 Start: 44699, Stop: 44848, Start Num: 66

Candidate Starts for Zapner_81:

(27, 44561), (55, 44660), (Start: 66 @44699 has 103 MA's), (Start: 69 @44714 has 16 MA's), (72, 44762), (75, 44783), (79, 44804),

Gene: Zerg_71 Start: 45778, Stop: 45912, Start Num: 69

Candidate Starts for Zerg_71:

(34, 45649), (Start: 66 @45766 has 103 MA's), (Start: 69 @45778 has 16 MA's), (74, 45832), (75, 45847),

Gene: Zizzle_75 Start: 47154, Stop: 47303, Start Num: 66

Candidate Starts for Zizzle_75:

(Start: 66 @47154 has 103 MA's), (Start: 68 @47166 has 1 MA's), (Start: 69 @47169 has 16 MA's), (72, 47217), (75, 47238), (79, 47259),