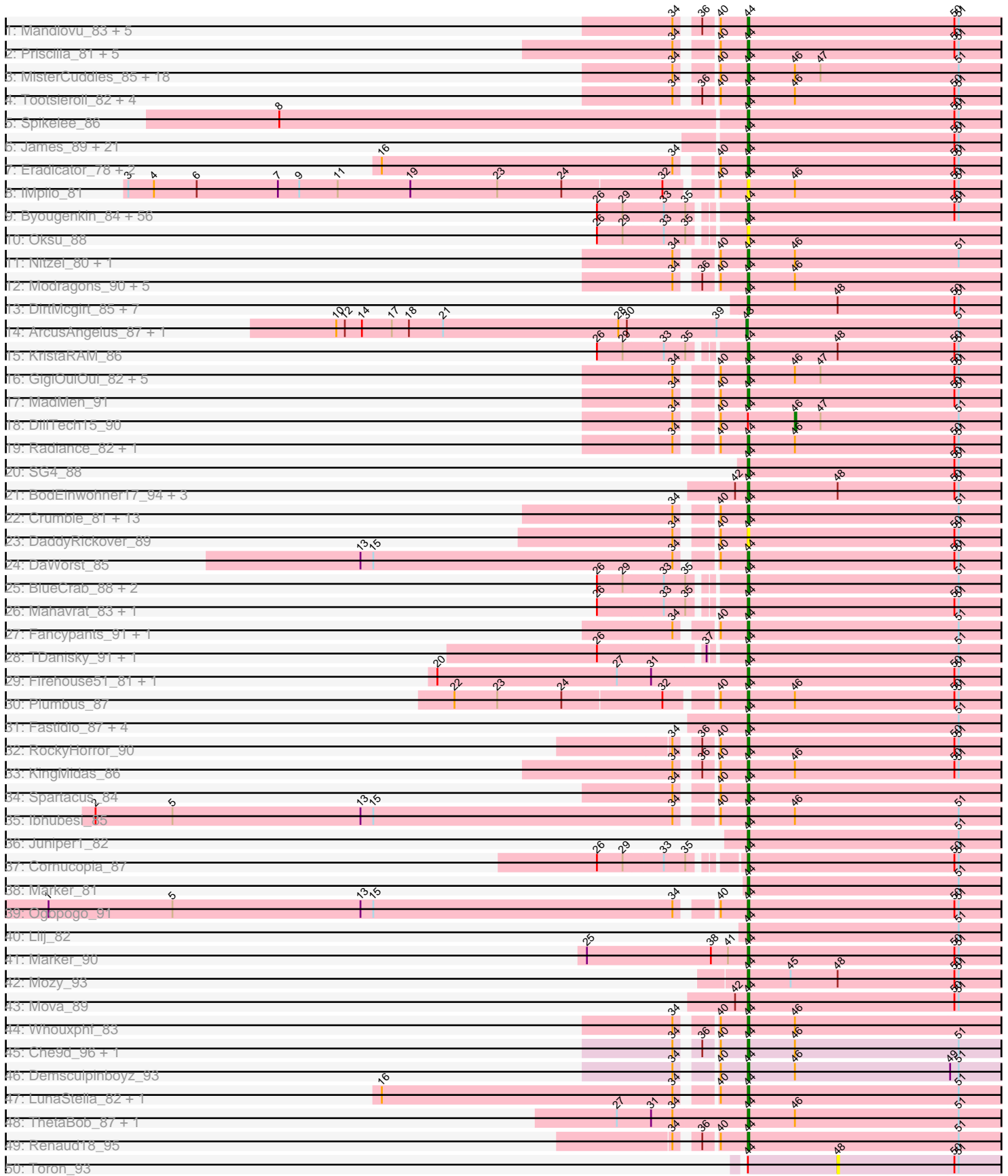


Pham 199992



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 199992 Report

This analysis was run 01/18/25 on database version 583.

Pham number 199992 has 210 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Mandlovu_83, Hlubikazi_83, PopTart_79, SassyB_79, Strokeseat_83, Wachhund_83
- Track 2 : Priscilla_81, NormanBulbieJr_79, Nivrat_84, LilMoolah_86, Koella_73, Shauna1_85
- Track 3 : MisterCuddles_85, PHappiness_86, Zerg_86, RitaG_86, QuickMath_87, MulchExplorer_91, Nimbo_78, Geralt_79, Ovechkin_91, Juice456_85, Girr_84, SiSi_83, OldBen_83, Veteran_79, Mantra_84, Deb65_79, Kimberlium_89, Ruby_82, Daenerys_85
- Track 4 : Tootsieroll_82, Seagreen_86, Polka14_91, Doomphist_90, Poenanya_90
- Track 5 : Spikelee_86
- Track 6 : James_89, Hegedechwinu_86, Galactic_86, JalFarm20_93, ShiLan_88, Jabbawokkie_93, Spoonbill_84, Beakin_78, OlympiaSaint_88, Moonbeam_86, Empress_86, Che8_91, MilleniumForce_87, Mattes_85, CaptainTrips_88, Jarcob_88, Rialto_89, Hades_85, MinionDave_84, Blarby_93, Phasih_82, Zapner_92
- Track 7 : Eradicator_78, DoRead_91, ShroomBoi_84
- Track 8 : IMpilo_81
- Track 9 : Byougenkin_84, Phalconet_84, Madiba_87, Kenuha5_81, Emma_90, Batiatus_85, Royals2015_92, Girafales_93, Inventum_83, Cerasum_81, Aubs_86, Hegedechwinu_95, Flathead_89, PhesterPhotato_91, Yorick_78, IbOuu_83, Taj_94, Quico_93, Bubbles123_80, WillSterrel_84, Bobi_90, Eish_92, MilanaBonita_81, Soul22_87, Hamulus_87, Ramsey_90, Blexus_82, Coco12_84, Squirty_86, Guppsters_80, RedBird_86, Dorothy_86, Krakatau_79, BigPhil_80, Donkeykong_92, Leperchaun_87, StAnnes_91, Velveteen_81, Tweety_87, IrishSherpFalk_85, Job42_86, Phanphagia_88, Sarma624_86, BuzzLyseyear_94, Sassafras_87, Florinda_96, Ms6_88, OwlsT2W_85, Gandalph_85, SuperGrey_86, Akhila_82, Whatsapiecost_78, JoeyJr_89, DeadP_88, Spartacus_92, Stap_82, Kingsley_91
- Track 10 : Oksu_88
- Track 11 : Nitzel_80, Estave1_90
- Track 12 : Modragons_90, Seabastian_93, Jinglebell_92, Llama_92, OfUltron_93, Ochi17_91
- Track 13 : DirtMcgirt_85, Boomer_89, Lorde_86, Enby_87, UncleRicky_85, Rockne_87, PMC_83, Drago_83
- Track 14 : ArcusAngelus_87, Chevrolet_90
- Track 15 : KristaRAM_86
- Track 16 : GigiOuiOui_82, Alexphander_89, Vivum_90, Starcevich_87, Karhdo_82, GUmbe_84
- Track 17 : MadMen_91

- Track 18 : DillTech15_90
- Track 19 : Radiance_82, Clifton_77
- Track 20 : SG4_88
- Track 21 : BodEinwohner17_94, Philus_88, DRBy19_89, Scottish_86
- Track 22 : Crumble_81, FreddyB_94, Pippy_81, Burwell21_80, Cabrinians_82, Saal_82, BobaPhett_86, Leozinho_84, Lizziana_87, LastJedi_76, SwagPigglett_87, Gorge_84, Brocalys_76, Maravista_83
- Track 23 : DaddyRickover_89
- Track 24 : DaWorst_85
- Track 25 : BlueCrab_88, EleanorGeorge_83, Sabbb_87
- Track 26 : Mahavrat_83, Grimmer_97
- Track 27 : Fancypants_91, Harley_87
- Track 28 : TDanisky_91, Sparkdehlily_90
- Track 29 : Firehouse51_81, Mutaforma13_88
- Track 30 : Plumbus_87
- Track 31 : Fastidio_87, LittleShirley_91, Totinger_87, Zizzle_89, Kersh_87
- Track 32 : RockyHorror_90
- Track 33 : KingMidas_86
- Track 34 : Spartacus_84
- Track 35 : lbhubesi_85
- Track 36 : Juniper1_82
- Track 37 : Cornucopia_87
- Track 38 : Marker_81
- Track 39 : Ogopogo_91
- Track 40 : Llij_82
- Track 41 : Marker_90
- Track 42 : Mozy_93
- Track 43 : Mova_89
- Track 44 : Whouxphf_83
- Track 45 : Che9d_96, SimranZ1_85
- Track 46 : Demsculpinboyz_93
- Track 47 : LunaStella_82, TChen_84
- Track 48 : ThetaBob_87, MooMoo_82
- Track 49 : Renaud18_95
- Track 50 : Toron_93

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

The start number called the most often in the published annotations is 44, it was called in 196 of the 199 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Akhila_82, Alexphander_89, Aubs_86, Batiatus_85, Beakin_78, BigPhil_80, Blarby_93, Blexus_82, BlueCrab_88, BobaPhett_86, Bobi_90, BodEinwohner17_94, Boomer_89, Brocalys_76, Bubbles123_80, Burwell21_80, BuzzLyseyear_94, Byougenkin_84, Cabrinians_82, CaptainTrips_88, Cerasum_81, Che8_91, Che9d_96, Clifton_77, Coco12_84, Cornucopia_87, Crumble_81, DRBy19_89, DaWorst_85, DaddyRickover_89, Daenerys_85, DeadP_88, Deb65_79, Demsculpinboyz_93, DirtMcgirt_85, DoRead_91, Donkeykong_92, Doomphist_90, Dorothy_86, Drago_83, Eish_92, EleanorGeorge_83, Emma_90, Empress_86,

Enby_87, Eradicator_78, Estave1_90, Fancypants_91, Fastidio_87, Firehouse51_81, Flathead_89, Florinda_96, FreddyB_94, GUmbie_84, Galactic_86, Gandalph_85, Geralt_79, GigiOuiOui_82, Girafales_93, Girr_84, Gorge_84, Grimmer_97, Guppsters_80, Hades_85, Hamulus_87, Harley_87, Hegedechwinu_86, Hegedechwinu_95, Hlubikazi_83, IMpilo_81, IbOuu_83, Ibhubesi_85, Inventum_83, IrishSherpFalk_85, Jabbawokkie_93, JalFarm20_93, James_89, Jarcob_88, Jinglebell_92, Job42_86, JoeyJr_89, Juice456_85, Juniper1_82, Karhdo_82, Kenuha5_81, Kersh_87, Kimberlium_89, KingMidas_86, Kingsley_91, Koella_73, Krakatau_79, KristaRAM_86, LastJedi_76, Leozinho_84, Leperchaun_87, LilMoolah_86, LittleShirley_91, Lizziana_87, Llama_92, Llij_82, Lorde_86, LunaStella_82, MadMen_91, Madiba_87, Mahavrat_83, Mandlovu_83, Mantra_84, Maravista_83, Marker_81, Marker_90, Mattes_85, MilanaBonita_81, MilleniumForce_87, MinionDave_84, MisterCuddles_85, Modragons_90, MooMoo_82, Moonbeam_86, Mova_89, Mozy_93, Ms6_88, MulchExplorer_91, Mutaforma13_88, Nimbo_78, Nitzel_80, Nivrat_84, NormanBulbieJr_79, Ochi17_91, OfUltron_93, Ogopogo_91, Oksu_88, OldBen_83, OlympiaSaint_88, Ovechkin_91, OwlsT2W_85, PHappiness_86, PMC_83, Phalconet_84, Phanphagia_88, Phasih_82, PhesterPhotato_91, Philus_88, Pippy_81, Plumbus_87, Poenanya_90, Polka14_91, PopTart_79, Priscilla_81, QuickMath_87, Quico_93, Radiance_82, Ramsey_90, RedBird_86, Renaud18_95, Rialto_89, RitaG_86, Rockne_87, RockyHorror_90, Royals2015_92, Ruby_82, SG4_88, Saal_82, Sabbb_87, Sarma624_86, Sassafras_87, SassyB_79, Scottish_86, Seabastian_93, Seagreen_86, Shauna1_85, ShiLan_88, ShroomBoi_84, SiSi_83, SimranZ1_85, Soul22_87, Sparkdehlily_90, Spartacus_84, Spartacus_92, Spikelee_86, Spoonbill_84, Squirty_86, StAnnes_91, Stap_82, Starcevich_87, Strokeseat_83, SuperGrey_86, SwagPigglett_87, TChen_84, TDanisky_91, Taj_94, ThetaBob_87, Tootsieroll_82, Totinger_87, Tweety_87, UncleRicky_85, Velveteen_81, Veteran_79, Vivum_90, Wachhund_83, Whatsapiecost_78, Whouxphf_83, WillSterrel_84, Yorick_78, Zapner_92, Zerg_86, Zizzle_89,

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

- DillTech15_90, Toron_93,

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

- ArcusAngelus_87, Chevrolet_90,

Summary by start number:

Start 43:

- Found in 2 of 210 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 199
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcusAngelus_87 (F1), Chevrolet_90 (F1),

Start 44:

- Found in 208 of 210 (99.0%) of genes in pham
- Manual Annotations of this start: 196 of 199
- Called 99.0% of time when present
- Phage (with cluster) where this start called: Akhila_82 (F1), Alexphander_89 (F1), Aubs_86 (F1), Batiatus_85 (F1), Beakin_78 (F1), BigPhil_80 (F1), Blarby_93 (F), Blexus_82 (F1), BlueCrab_88 (F1), BobaPhett_86 (F1), Bobi_90 (F1), BodEinwohner17_94 (F1), Boomer_89 (F1), Brocalys_76 (F1), Bubbles123_80 (F1),

Burwell21_80 (F1), BuzzLyseyear_94 (F1), Byougenkin_84 (F1), Cabrinians_82 (F1), CaptainTrips_88 (F1), Cerasum_81 (F1), Che8_91 (F1), Che9d_96 (F2), Clifton_77 (F1), Coco12_84 (F1), Cornucopia_87 (F1), Crumble_81 (F1), DRBy19_89 (F1), DaWorst_85 (F1), DaddyRickover_89 (F1), Daenerys_85 (F1), DeadP_88 (F1), Deb65_79 (F1), Demsculpinboyz_93 (F2), DirtMcgirt_85 (F1), DoRead_91 (F1), Donkeykong_92 (F1), Doomphist_90 (F1), Dorothy_86 (F1), Drago_83 (F1), Eish_92 (F1), EleanorGeorge_83 (F1), Emma_90 (F1), Empress_86 (F1), Enby_87 (F1), Eradicator_78 (F1), Estave1_90 (F1), Fancypants_91 (F1), Fastidio_87 (F1), Firehouse51_81 (F1), Flathead_89 (F1), Florinda_96 (F1), FreddyB_94 (F1), GUmbe_84 (F1), Galactic_86 (F1), Gandolph_85 (F1), Geralt_79 (F1), GigiOuiOui_82 (F1), Girafales_93 (F1), Girr_84 (F1), Gorge_84 (F1), Grimmer_97 (F1), Guppsters_80 (F1), Hades_85 (F1), Hamulus_87 (F1), Harley_87 (F1), Hegedechwinu_86 (F1), Hegedechwinu_95 (F1), Hlubikazi_83 (F1), IMpilo_81 (F1), IbOuu_83 (F1), Ibhubesi_85 (F1), Inventum_83 (F1), IrishSherpFalk_85 (F1), Jabbawokkie_93 (F2), JalFarm20_93 (F1), James_89 (F1), Jarcob_88 (F1), Jinglebell_92 (F1), Job42_86 (F1), JoeyJr_89 (F1), Juice456_85 (F1), Juniper1_82 (F1), Karhdo_82 (F1), Kenuha5_81 (F1), Kersh_87 (F1), Kimberlium_89 (F1), KingMidas_86 (F1), Kingsley_91 (F1), Koella_73 (F1), Krakatau_79 (F1), KristaRAM_86 (F1), LastJedi_76 (F1), Leozinho_84 (F1), Leperchaun_87 (F1), LilMoolah_86 (F1), LittleShirley_91 (F1), Lizziana_87 (F1), Llama_92 (F1), Llij_82 (F1), Lorde_86 (F1), LunaStella_82 (F4), MadMen_91 (F1), Madiba_87 (F1), Mahavrat_83 (F1), Mandlovu_83 (F1), Mantra_84 (F1), Maravista_83 (F1), Marker_81 (F1), Marker_90 (F1), Mattes_85 (F1), MilanaBonita_81 (F1), MilleniumForce_87 (F1), MinionDave_84 (F1), MisterCuddles_85 (F1), Modragons_90 (F1), MooMoo_82 (singleton), Moonbeam_86 (F1), Mova_89 (F1), Mozy_93 (F1), Ms6_88 (F1), MulchExplorer_91 (F1), Mutaforma13_88 (F1), Nimbo_78 (F1), Nitzel_80 (F1), Nivrat_84 (F1), NormanBulbieJr_79 (F1), Ochi17_91 (F1), OfUltron_93 (F1), OgoPogo_91 (F1), Oksu_88 (F1), OldBen_83 (F1), OlympiaSaint_88 (F1), Ovechkin_91 (F1), OwlsT2W_85 (F1), PHappiness_86 (F1), PMC_83 (F1), Phalconet_84 (F1), Phanphagia_88 (F1), Phasih_82 (F1), PhesterPotato_91 (F1), Philus_88 (F1), Pippy_81 (F1), Plumbus_87 (F1), Poenanya_90 (F1), Polka14_91 (F1), PopTart_79 (F1), Priscilla_81 (F1), QuickMath_87 (F1), Quico_93 (F1), Radiance_82 (F1), Ramsey_90 (F1), RedBird_86 (F1), Renaud18_95 (F4), Rialto_89 (F1), RitaG_86 (F1), Rockne_87 (F1), RockyHorror_90 (F1), Royals2015_92 (F1), Ruby_82 (F1), SG4_88 (F1), Saal_82 (F1), Sabbb_87 (F1), Sarma624_86 (F1), Sassafras_87 (F1), SassyB_79 (F1), Scottish_86 (F1), Seabastian_93 (F1), Seagreen_86 (F1), Shauna1_85 (F1), ShiLan_88 (F1), ShroomBoi_84 (F1), SiSi_83 (F1), SimranZ1_85 (F1), Soul22_87 (F2), Sparkdehlily_90 (F1), Spartacus_84 (F1), Spartacus_92 (F1), Spikelee_86 (F1), Spoonbill_84 (F1), Squirty_86 (F3), StAnnes_91 (F1), Stap_82 (F1), StarceVich_87 (F1), Strokeseat_83 (F1), SuperGrey_86 (F1), SwagPigglett_87 (F1), TChen_84 (F4), TDanisky_91 (F1), Taj_94 (F1), ThetaBob_87 (F4), Tootsieroll_82 (F1), Totinger_87 (F1), Tweety_87 (F1), UncleRicky_85 (F1), Velveteen_81 (F1), Veteran_79 (F1), Vivum_90 (F1), Wachhund_83 (F1), Whatsapiecost_78 (F1), Whouxphf_83 (F1), WillSterrel_84 (F1), Yorick_78 (F1), Zapner_92 (F2), Zerg_86 (F1), Zizzle_89 (F1),

Start 46:

- Found in 51 of 210 (24.3%) of genes in pham
- Manual Annotations of this start: 1 of 199
- Called 2.0% of time when present
- Phage (with cluster) where this start called: DillTech15_90 (F1),

Start 48:

- Found in 15 of 210 (7.1%) of genes in pham
- No Manual Annotations of this start.
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Toron_93 (F6),

Summary by clusters:

There are 7 clusters represented in this pham: F1, F2, F3, F4, F6, F, singleton,

Info for manual annotations of cluster F1:

- Start number 43 was manually annotated 2 times for cluster F1.
- Start number 44 was manually annotated 185 times for cluster F1.
- Start number 46 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 44 was manually annotated 5 times for cluster F2.

Info for manual annotations of cluster F3:

- Start number 44 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 44 was manually annotated 4 times for cluster F4.

Gene Information:

Gene: Akhila_82 Start: 49158, Stop: 49349, Start Num: 44

Candidate Starts for Akhila_82:

(26, 49068), (29, 49086), (33, 49113), (35, 49128), (Start: 44 @49158 has 196 MA's), (50, 49302), (51, 49305),

Gene: Alexphander_89 Start: 51574, Stop: 51765, Start Num: 44

Candidate Starts for Alexphander_89:

(34, 51535), (40, 51556), (Start: 44 @51574 has 196 MA's), (Start: 46 @51607 has 1 MA's), (47, 51625), (50, 51718), (51, 51721),

Gene: ArcusAngelus_87 Start: 51185, Stop: 51376, Start Num: 43

Candidate Starts for ArcusAngelus_87:

(10, 50897), (12, 50903), (14, 50915), (17, 50936), (18, 50948), (21, 50972), (28, 51095), (30, 51101), (39, 51164), (Start: 43 @51185 has 2 MA's), (51, 51332),

Gene: Aubs_86 Start: 50998, Stop: 51189, Start Num: 44

Candidate Starts for Aubs_86:

(26, 50908), (29, 50926), (33, 50953), (35, 50968), (Start: 44 @50998 has 196 MA's), (50, 51142), (51, 51145),

Gene: Batiatus_85 Start: 50156, Stop: 50347, Start Num: 44

Candidate Starts for Batiatus_85:

(26, 50066), (29, 50084), (33, 50111), (35, 50126), (Start: 44 @50156 has 196 MA's), (50, 50300), (51, 50303),

Gene: Beakin_78 Start: 46641, Stop: 46835, Start Num: 44
Candidate Starts for Beakin_78:
(Start: 44 @46641 has 196 MA's), (50, 46785), (51, 46788),

Gene: BigPhil_80 Start: 46481, Stop: 46672, Start Num: 44
Candidate Starts for BigPhil_80:
(26, 46391), (29, 46409), (33, 46436), (35, 46451), (Start: 44 @46481 has 196 MA's), (50, 46625), (51, 46628),

Gene: Blarby_93 Start: 48509, Stop: 48700, Start Num: 44
Candidate Starts for Blarby_93:
(Start: 44 @48509 has 196 MA's), (50, 48653), (51, 48656),

Gene: Blexus_82 Start: 50332, Stop: 50523, Start Num: 44
Candidate Starts for Blexus_82:
(26, 50242), (29, 50260), (33, 50287), (35, 50302), (Start: 44 @50332 has 196 MA's), (50, 50476), (51, 50479),

Gene: BlueCrab_88 Start: 51366, Stop: 51557, Start Num: 44
Candidate Starts for BlueCrab_88:
(26, 51276), (29, 51294), (33, 51321), (35, 51336), (Start: 44 @51366 has 196 MA's), (51, 51513),

Gene: BobaPhett_86 Start: 52098, Stop: 52289, Start Num: 44
Candidate Starts for BobaPhett_86:
(34, 52059), (40, 52080), (Start: 44 @52098 has 196 MA's), (51, 52245),

Gene: Bobi_90 Start: 51901, Stop: 52092, Start Num: 44
Candidate Starts for Bobi_90:
(26, 51811), (29, 51829), (33, 51856), (35, 51871), (Start: 44 @51901 has 196 MA's), (50, 52045), (51, 52048),

Gene: BodEinwohner17_94 Start: 52790, Stop: 52981, Start Num: 44
Candidate Starts for BodEinwohner17_94:
(42, 52781), (Start: 44 @52790 has 196 MA's), (48, 52853), (50, 52934), (51, 52937),

Gene: Boomer_89 Start: 50947, Stop: 51138, Start Num: 44
Candidate Starts for Boomer_89:
(Start: 44 @50947 has 196 MA's), (48, 51010), (50, 51091), (51, 51094),

Gene: Brocalys_76 Start: 47578, Stop: 47769, Start Num: 44
Candidate Starts for Brocalys_76:
(34, 47539), (40, 47560), (Start: 44 @47578 has 196 MA's), (51, 47725),

Gene: Bubbles123_80 Start: 49875, Stop: 50066, Start Num: 44
Candidate Starts for Bubbles123_80:
(26, 49785), (29, 49803), (33, 49830), (35, 49845), (Start: 44 @49875 has 196 MA's), (50, 50019), (51, 50022),

Gene: Burwell21_80 Start: 49864, Stop: 50055, Start Num: 44
Candidate Starts for Burwell21_80:
(34, 49825), (40, 49846), (Start: 44 @49864 has 196 MA's), (51, 50011),

Gene: BuzzLyseyear_94 Start: 53072, Stop: 53266, Start Num: 44
Candidate Starts for BuzzLyseyear_94:
(26, 52982), (29, 53000), (33, 53027), (35, 53042), (Start: 44 @53072 has 196 MA's), (50, 53216), (51, 53219),

Gene: Byougenkin_84 Start: 47756, Stop: 47947, Start Num: 44
Candidate Starts for Byougenkin_84:
(26, 47666), (29, 47684), (33, 47711), (35, 47726), (Start: 44 @47756 has 196 MA's), (50, 47900), (51, 47903),

Gene: Cabrinians_82 Start: 49498, Stop: 49689, Start Num: 44
Candidate Starts for Cabrinians_82:
(34, 49459), (40, 49480), (Start: 44 @49498 has 196 MA's), (51, 49645),

Gene: CaptainTrips_88 Start: 50521, Stop: 50715, Start Num: 44
Candidate Starts for CaptainTrips_88:
(Start: 44 @50521 has 196 MA's), (50, 50665), (51, 50668),

Gene: Cerasum_81 Start: 46499, Stop: 46690, Start Num: 44
Candidate Starts for Cerasum_81:
(26, 46409), (29, 46427), (33, 46454), (35, 46469), (Start: 44 @46499 has 196 MA's), (50, 46643), (51, 46646),

Gene: Che8_91 Start: 51257, Stop: 51448, Start Num: 44
Candidate Starts for Che8_91:
(Start: 44 @51257 has 196 MA's), (50, 51401), (51, 51404),

Gene: Che9d_96 Start: 50082, Stop: 50273, Start Num: 44
Candidate Starts for Che9d_96:
(34, 50043), (36, 50055), (40, 50064), (Start: 44 @50082 has 196 MA's), (Start: 46 @50115 has 1 MA's), (51, 50229),

Gene: Chevrolet_90 Start: 51186, Stop: 51377, Start Num: 43
Candidate Starts for Chevrolet_90:
(10, 50898), (12, 50904), (14, 50916), (17, 50937), (18, 50949), (21, 50973), (28, 51096), (30, 51102), (39, 51165), (Start: 43 @51186 has 2 MA's), (51, 51333),

Gene: Clifton_77 Start: 48485, Stop: 48676, Start Num: 44
Candidate Starts for Clifton_77:
(34, 48446), (40, 48467), (Start: 44 @48485 has 196 MA's), (Start: 46 @48518 has 1 MA's), (50, 48629), (51, 48632),

Gene: Coco12_84 Start: 50556, Stop: 50747, Start Num: 44
Candidate Starts for Coco12_84:
(26, 50466), (29, 50484), (33, 50511), (35, 50526), (Start: 44 @50556 has 196 MA's), (50, 50700), (51, 50703),

Gene: Cornucopia_87 Start: 49024, Stop: 49215, Start Num: 44
Candidate Starts for Cornucopia_87:
(26, 48937), (29, 48955), (33, 48982), (35, 48997), (Start: 44 @49024 has 196 MA's), (50, 49168), (51, 49171),

Gene: Crumble_81 Start: 46223, Stop: 46414, Start Num: 44

Candidate Starts for Crumble_81:
(34, 46184), (40, 46205), (Start: 44 @46223 has 196 MA's), (51, 46370),

Gene: DRBy19_89 Start: 52206, Stop: 52397, Start Num: 44
Candidate Starts for DRBy19_89:
(42, 52197), (Start: 44 @52206 has 196 MA's), (48, 52269), (50, 52350), (51, 52353),

Gene: DaWorst_85 Start: 49498, Stop: 49689, Start Num: 44
Candidate Starts for DaWorst_85:
(13, 49240), (15, 49249), (34, 49459), (40, 49480), (Start: 44 @49498 has 196 MA's), (50, 49642), (51, 49645),

Gene: DaddyRickover_89 Start: 51447, Stop: 51641, Start Num: 44
Candidate Starts for DaddyRickover_89:
(34, 51408), (40, 51429), (Start: 44 @51447 has 196 MA's), (50, 51591), (51, 51594),

Gene: Daenerys_85 Start: 51607, Stop: 51801, Start Num: 44
Candidate Starts for Daenerys_85:
(34, 51568), (40, 51589), (Start: 44 @51607 has 196 MA's), (Start: 46 @51640 has 1 MA's), (47, 51658), (51, 51754),

Gene: DeadP_88 Start: 49580, Stop: 49771, Start Num: 44
Candidate Starts for DeadP_88:
(26, 49490), (29, 49508), (33, 49535), (35, 49550), (Start: 44 @49580 has 196 MA's), (50, 49724), (51, 49727),

Gene: Deb65_79 Start: 49330, Stop: 49524, Start Num: 44
Candidate Starts for Deb65_79:
(34, 49291), (40, 49312), (Start: 44 @49330 has 196 MA's), (Start: 46 @49363 has 1 MA's), (47, 49381), (51, 49477),

Gene: Demsculpinboyz_93 Start: 47969, Stop: 48160, Start Num: 44
Candidate Starts for Demsculpinboyz_93:
(34, 47930), (40, 47951), (Start: 44 @47969 has 196 MA's), (Start: 46 @48002 has 1 MA's), (49, 48110), (51, 48116),

Gene: DillTech15_90 Start: 49750, Stop: 49911, Start Num: 46
Candidate Starts for DillTech15_90:
(34, 49678), (40, 49699), (Start: 44 @49717 has 196 MA's), (Start: 46 @49750 has 1 MA's), (47, 49768), (51, 49864),

Gene: DirtMcgirt_85 Start: 47557, Stop: 47748, Start Num: 44
Candidate Starts for DirtMcgirt_85:
(Start: 44 @47557 has 196 MA's), (48, 47620), (50, 47701), (51, 47704),

Gene: DoRead_91 Start: 48589, Stop: 48786, Start Num: 44
Candidate Starts for DoRead_91:
(16, 48346), (34, 48550), (40, 48571), (Start: 44 @48589 has 196 MA's), (50, 48733), (51, 48736),

Gene: Donkeykong_92 Start: 52603, Stop: 52794, Start Num: 44
Candidate Starts for Donkeykong_92:
(26, 52513), (29, 52531), (33, 52558), (35, 52573), (Start: 44 @52603 has 196 MA's), (50, 52747), (51, 52750),

Gene: Doomphist_90 Start: 51293, Stop: 51484, Start Num: 44
Candidate Starts for Doomphist_90:
(34, 51254), (36, 51266), (40, 51275), (Start: 44 @51293 has 196 MA's), (Start: 46 @51326 has 1 MA's), (50, 51437), (51, 51440),

Gene: Dorothy_86 Start: 51975, Stop: 52166, Start Num: 44
Candidate Starts for Dorothy_86:
(26, 51885), (29, 51903), (33, 51930), (35, 51945), (Start: 44 @51975 has 196 MA's), (50, 52119), (51, 52122),

Gene: Drago_83 Start: 47560, Stop: 47751, Start Num: 44
Candidate Starts for Drago_83:
(Start: 44 @47560 has 196 MA's), (48, 47623), (50, 47704), (51, 47707),

Gene: Eish_92 Start: 51904, Stop: 52095, Start Num: 44
Candidate Starts for Eish_92:
(26, 51814), (29, 51832), (33, 51859), (35, 51874), (Start: 44 @51904 has 196 MA's), (50, 52048), (51, 52051),

Gene: EleanorGeorge_83 Start: 49812, Stop: 50003, Start Num: 44
Candidate Starts for EleanorGeorge_83:
(26, 49722), (29, 49740), (33, 49767), (35, 49782), (Start: 44 @49812 has 196 MA's), (51, 49959),

Gene: Emma_90 Start: 49602, Stop: 49793, Start Num: 44
Candidate Starts for Emma_90:
(26, 49512), (29, 49530), (33, 49557), (35, 49572), (Start: 44 @49602 has 196 MA's), (50, 49746), (51, 49749),

Gene: Empress_86 Start: 50288, Stop: 50479, Start Num: 44
Candidate Starts for Empress_86:
(Start: 44 @50288 has 196 MA's), (50, 50432), (51, 50435),

Gene: Enby_87 Start: 47836, Stop: 48027, Start Num: 44
Candidate Starts for Enby_87:
(Start: 44 @47836 has 196 MA's), (48, 47899), (50, 47980), (51, 47983),

Gene: Eradicator_78 Start: 48518, Stop: 48712, Start Num: 44
Candidate Starts for Eradicator_78:
(16, 48275), (34, 48479), (40, 48500), (Start: 44 @48518 has 196 MA's), (50, 48662), (51, 48665),

Gene: Estave1_90 Start: 52818, Stop: 53009, Start Num: 44
Candidate Starts for Estave1_90:
(34, 52779), (40, 52800), (Start: 44 @52818 has 196 MA's), (Start: 46 @52851 has 1 MA's), (51, 52965),

Gene: Fancypants_91 Start: 51836, Stop: 52027, Start Num: 44
Candidate Starts for Fancypants_91:
(34, 51797), (40, 51818), (Start: 44 @51836 has 196 MA's), (51, 51983),

Gene: Fastidio_87 Start: 47612, Stop: 47806, Start Num: 44
Candidate Starts for Fastidio_87:
(Start: 44 @47612 has 196 MA's), (51, 47759),

Gene: Firehouse51_81 Start: 51230, Stop: 51421, Start Num: 44
Candidate Starts for Firehouse51_81:
(20, 51014), (27, 51140), (31, 51164), (Start: 44 @51230 has 196 MA's), (50, 51374), (51, 51377),

Gene: Flathead_89 Start: 50736, Stop: 50927, Start Num: 44
Candidate Starts for Flathead_89:
(26, 50646), (29, 50664), (33, 50691), (35, 50706), (Start: 44 @50736 has 196 MA's), (50, 50880), (51, 50883),

Gene: Florinda_96 Start: 51997, Stop: 52188, Start Num: 44
Candidate Starts for Florinda_96:
(26, 51907), (29, 51925), (33, 51952), (35, 51967), (Start: 44 @51997 has 196 MA's), (50, 52141), (51, 52144),

Gene: FreddyB_94 Start: 51145, Stop: 51336, Start Num: 44
Candidate Starts for FreddyB_94:
(34, 51106), (40, 51127), (Start: 44 @51145 has 196 MA's), (51, 51292),

Gene: GUmbie_84 Start: 50333, Stop: 50527, Start Num: 44
Candidate Starts for GUmbie_84:
(34, 50294), (40, 50315), (Start: 44 @50333 has 196 MA's), (Start: 46 @50366 has 1 MA's), (47, 50384), (50, 50477), (51, 50480),

Gene: Galactic_86 Start: 49992, Stop: 50183, Start Num: 44
Candidate Starts for Galactic_86:
(Start: 44 @49992 has 196 MA's), (50, 50136), (51, 50139),

Gene: Gandalph_85 Start: 47567, Stop: 47758, Start Num: 44
Candidate Starts for Gandalph_85:
(26, 47477), (29, 47495), (33, 47522), (35, 47537), (Start: 44 @47567 has 196 MA's), (50, 47711), (51, 47714),

Gene: Geralt_79 Start: 49328, Stop: 49522, Start Num: 44
Candidate Starts for Geralt_79:
(34, 49289), (40, 49310), (Start: 44 @49328 has 196 MA's), (Start: 46 @49361 has 1 MA's), (47, 49379), (51, 49475),

Gene: GigiOuiOui_82 Start: 49726, Stop: 49917, Start Num: 44
Candidate Starts for GigiOuiOui_82:
(34, 49687), (40, 49708), (Start: 44 @49726 has 196 MA's), (Start: 46 @49759 has 1 MA's), (47, 49777), (50, 49870), (51, 49873),

Gene: Girafales_93 Start: 51602, Stop: 51793, Start Num: 44
Candidate Starts for Girafales_93:
(26, 51512), (29, 51530), (33, 51557), (35, 51572), (Start: 44 @51602 has 196 MA's), (50, 51746), (51, 51749),

Gene: Girr_84 Start: 50725, Stop: 50919, Start Num: 44
Candidate Starts for Girr_84:
(34, 50686), (40, 50707), (Start: 44 @50725 has 196 MA's), (Start: 46 @50758 has 1 MA's), (47, 50776), (51, 50872),

Gene: Gorge_84 Start: 50772, Stop: 50963, Start Num: 44
Candidate Starts for Gorge_84:
(34, 50733), (40, 50754), (Start: 44 @50772 has 196 MA's), (51, 50919),

Gene: Grimmer_97 Start: 50723, Stop: 50917, Start Num: 44
Candidate Starts for Grimmer_97:
(26, 50633), (33, 50678), (35, 50693), (Start: 44 @50723 has 196 MA's), (50, 50867), (51, 50870),

Gene: Guppsters_80 Start: 47829, Stop: 48020, Start Num: 44
Candidate Starts for Guppsters_80:
(26, 47739), (29, 47757), (33, 47784), (35, 47799), (Start: 44 @47829 has 196 MA's), (50, 47973), (51, 47976),

Gene: Hades_85 Start: 48319, Stop: 48510, Start Num: 44
Candidate Starts for Hades_85:
(Start: 44 @48319 has 196 MA's), (50, 48463), (51, 48466),

Gene: Hamulus_87 Start: 50245, Stop: 50436, Start Num: 44
Candidate Starts for Hamulus_87:
(26, 50155), (29, 50173), (33, 50200), (35, 50215), (Start: 44 @50245 has 196 MA's), (50, 50389), (51, 50392),

Gene: Harley_87 Start: 50249, Stop: 50440, Start Num: 44
Candidate Starts for Harley_87:
(34, 50210), (40, 50231), (Start: 44 @50249 has 196 MA's), (51, 50396),

Gene: Hegedechwinu_86 Start: 49091, Stop: 49282, Start Num: 44
Candidate Starts for Hegedechwinu_86:
(Start: 44 @49091 has 196 MA's), (50, 49235), (51, 49238),

Gene: Hegedechwinu_95 Start: 51291, Stop: 51482, Start Num: 44
Candidate Starts for Hegedechwinu_95:
(26, 51201), (29, 51219), (33, 51246), (35, 51261), (Start: 44 @51291 has 196 MA's), (50, 51435), (51, 51438),

Gene: Hlubikazi_83 Start: 48105, Stop: 48296, Start Num: 44
Candidate Starts for Hlubikazi_83:
(34, 48066), (36, 48078), (40, 48087), (Start: 44 @48105 has 196 MA's), (50, 48249), (51, 48252),

Gene: IMpilo_81 Start: 48163, Stop: 48354, Start Num: 44
Candidate Starts for IMpilo_81:
(3, 47743), (4, 47761), (6, 47791), (7, 47848), (9, 47863), (11, 47890), (19, 47941), (23, 48001), (24, 48046), (32, 48115), (40, 48145), (Start: 44 @48163 has 196 MA's), (Start: 46 @48196 has 1 MA's), (50, 48307), (51, 48310),

Gene: IbOuu_83 Start: 48576, Stop: 48767, Start Num: 44
Candidate Starts for IbOuu_83:
(26, 48486), (29, 48504), (33, 48531), (35, 48546), (Start: 44 @48576 has 196 MA's), (50, 48720), (51, 48723),

Gene: Ibhubesi_85 Start: 48630, Stop: 48821, Start Num: 44
Candidate Starts for Ibhubesi_85:

(2, 48186), (5, 48240), (13, 48372), (15, 48381), (34, 48591), (40, 48612), (Start: 44 @48630 has 196 MA's), (Start: 46 @48663 has 1 MA's), (51, 48777),

Gene: Inventum_83 Start: 50160, Stop: 50351, Start Num: 44

Candidate Starts for Inventum_83:

(26, 50070), (29, 50088), (33, 50115), (35, 50130), (Start: 44 @50160 has 196 MA's), (50, 50304), (51, 50307),

Gene: IrishSherpFalk_85 Start: 50523, Stop: 50714, Start Num: 44

Candidate Starts for IrishSherpFalk_85:

(26, 50433), (29, 50451), (33, 50478), (35, 50493), (Start: 44 @50523 has 196 MA's), (50, 50667), (51, 50670),

Gene: Jabbawokkie_93 Start: 48429, Stop: 48620, Start Num: 44

Candidate Starts for Jabbawokkie_93:

(Start: 44 @48429 has 196 MA's), (50, 48573), (51, 48576),

Gene: JalFarm20_93 Start: 51108, Stop: 51299, Start Num: 44

Candidate Starts for JalFarm20_93:

(Start: 44 @51108 has 196 MA's), (50, 51252), (51, 51255),

Gene: James_89 Start: 52290, Stop: 52481, Start Num: 44

Candidate Starts for James_89:

(Start: 44 @52290 has 196 MA's), (50, 52434), (51, 52437),

Gene: Jacob_88 Start: 51889, Stop: 52080, Start Num: 44

Candidate Starts for Jacob_88:

(Start: 44 @51889 has 196 MA's), (50, 52033), (51, 52036),

Gene: Jinglebell_92 Start: 50797, Stop: 50988, Start Num: 44

Candidate Starts for Jinglebell_92:

(34, 50758), (36, 50770), (40, 50779), (Start: 44 @50797 has 196 MA's), (Start: 46 @50830 has 1 MA's),

Gene: Job42_86 Start: 52824, Stop: 53018, Start Num: 44

Candidate Starts for Job42_86:

(26, 52734), (29, 52752), (33, 52779), (35, 52794), (Start: 44 @52824 has 196 MA's), (50, 52968), (51, 52971),

Gene: JoeyJr_89 Start: 52069, Stop: 52260, Start Num: 44

Candidate Starts for JoeyJr_89:

(26, 51979), (29, 51997), (33, 52024), (35, 52039), (Start: 44 @52069 has 196 MA's), (50, 52213), (51, 52216),

Gene: Juice456_85 Start: 50234, Stop: 50428, Start Num: 44

Candidate Starts for Juice456_85:

(34, 50195), (40, 50216), (Start: 44 @50234 has 196 MA's), (Start: 46 @50267 has 1 MA's), (47, 50285), (51, 50381),

Gene: Juniper1_82 Start: 49262, Stop: 49456, Start Num: 44

Candidate Starts for Juniper1_82:

(Start: 44 @49262 has 196 MA's), (51, 49409),

Gene: Karhdo_82 Start: 48112, Stop: 48303, Start Num: 44

Candidate Starts for Karhdo_82:

(34, 48073), (40, 48094), (Start: 44 @48112 has 196 MA's), (Start: 46 @48145 has 1 MA's), (47, 48163), (50, 48256), (51, 48259),

Gene: Kenuha5_81 Start: 50648, Stop: 50839, Start Num: 44

Candidate Starts for Kenuha5_81:

(26, 50558), (29, 50576), (33, 50603), (35, 50618), (Start: 44 @50648 has 196 MA's), (50, 50792), (51, 50795),

Gene: Kersh_87 Start: 51927, Stop: 52118, Start Num: 44

Candidate Starts for Kersh_87:

(Start: 44 @51927 has 196 MA's), (51, 52074),

Gene: Kimberlium_89 Start: 50334, Stop: 50528, Start Num: 44

Candidate Starts for Kimberlium_89:

(34, 50295), (40, 50316), (Start: 44 @50334 has 196 MA's), (Start: 46 @50367 has 1 MA's), (47, 50385), (51, 50481),

Gene: KingMidas_86 Start: 50519, Stop: 50710, Start Num: 44

Candidate Starts for KingMidas_86:

(34, 50480), (36, 50492), (40, 50501), (Start: 44 @50519 has 196 MA's), (Start: 46 @50552 has 1 MA's), (50, 50663), (51, 50666),

Gene: Kingsley_91 Start: 53163, Stop: 53354, Start Num: 44

Candidate Starts for Kingsley_91:

(26, 53073), (29, 53091), (33, 53118), (35, 53133), (Start: 44 @53163 has 196 MA's), (50, 53307), (51, 53310),

Gene: Koella_73 Start: 45397, Stop: 45588, Start Num: 44

Candidate Starts for Koella_73:

(34, 45358), (40, 45379), (Start: 44 @45397 has 196 MA's), (50, 45541), (51, 45544),

Gene: Krakatau_79 Start: 46133, Stop: 46327, Start Num: 44

Candidate Starts for Krakatau_79:

(26, 46043), (29, 46061), (33, 46088), (35, 46103), (Start: 44 @46133 has 196 MA's), (50, 46277), (51, 46280),

Gene: KristaRAM_86 Start: 49807, Stop: 49998, Start Num: 44

Candidate Starts for KristaRAM_86:

(26, 49717), (29, 49735), (33, 49762), (35, 49777), (Start: 44 @49807 has 196 MA's), (48, 49870), (50, 49951), (51, 49954),

Gene: LastJedi_76 Start: 47972, Stop: 48163, Start Num: 44

Candidate Starts for LastJedi_76:

(34, 47933), (40, 47954), (Start: 44 @47972 has 196 MA's), (51, 48119),

Gene: Leozinho_84 Start: 47775, Stop: 47969, Start Num: 44

Candidate Starts for Leozinho_84:

(34, 47736), (40, 47757), (Start: 44 @47775 has 196 MA's), (51, 47922),

Gene: Leperchaun_87 Start: 51303, Stop: 51494, Start Num: 44

Candidate Starts for Leperchaun_87:

(26, 51213), (29, 51231), (33, 51258), (35, 51273), (Start: 44 @51303 has 196 MA's), (50, 51447), (51, 51450),

Gene: LilMoolah_86 Start: 50912, Stop: 51106, Start Num: 44

Candidate Starts for LilMoolah_86:

(34, 50873), (40, 50894), (Start: 44 @50912 has 196 MA's), (50, 51056), (51, 51059),

Gene: LittleShirley_91 Start: 50888, Stop: 51082, Start Num: 44

Candidate Starts for LittleShirley_91:

(Start: 44 @50888 has 196 MA's), (51, 51035),

Gene: Lizziana_87 Start: 51221, Stop: 51412, Start Num: 44

Candidate Starts for Lizziana_87:

(34, 51182), (40, 51203), (Start: 44 @51221 has 196 MA's), (51, 51368),

Gene: Llama_92 Start: 50653, Stop: 50844, Start Num: 44

Candidate Starts for Llama_92:

(34, 50614), (36, 50626), (40, 50635), (Start: 44 @50653 has 196 MA's), (Start: 46 @50686 has 1 MA's),

Gene: Llij_82 Start: 48031, Stop: 48237, Start Num: 44

Candidate Starts for Llij_82:

(Start: 44 @48031 has 196 MA's), (51, 48178),

Gene: Lorde_86 Start: 47001, Stop: 47192, Start Num: 44

Candidate Starts for Lorde_86:

(Start: 44 @47001 has 196 MA's), (48, 47064), (50, 47145), (51, 47148),

Gene: LunaStella_82 Start: 49031, Stop: 49222, Start Num: 44

Candidate Starts for LunaStella_82:

(16, 48788), (34, 48992), (40, 49013), (Start: 44 @49031 has 196 MA's), (51, 49178),

Gene: MadMen_91 Start: 50786, Stop: 50977, Start Num: 44

Candidate Starts for MadMen_91:

(34, 50747), (40, 50768), (Start: 44 @50786 has 196 MA's), (50, 50930), (51, 50933),

Gene: Madiba_87 Start: 50422, Stop: 50613, Start Num: 44

Candidate Starts for Madiba_87:

(26, 50332), (29, 50350), (33, 50377), (35, 50392), (Start: 44 @50422 has 196 MA's), (50, 50566), (51, 50569),

Gene: Mahavrat_83 Start: 48291, Stop: 48485, Start Num: 44

Candidate Starts for Mahavrat_83:

(26, 48201), (33, 48246), (35, 48261), (Start: 44 @48291 has 196 MA's), (50, 48435), (51, 48438),

Gene: Mandlovu_83 Start: 48047, Stop: 48238, Start Num: 44

Candidate Starts for Mandlovu_83:

(34, 48008), (36, 48020), (40, 48029), (Start: 44 @48047 has 196 MA's), (50, 48191), (51, 48194),

Gene: Mantra_84 Start: 50297, Stop: 50491, Start Num: 44

Candidate Starts for Mantra_84:

(34, 50258), (40, 50279), (Start: 44 @50297 has 196 MA's), (Start: 46 @50330 has 1 MA's), (47, 50348), (51, 50444),

Gene: Maravista_83 Start: 51829, Stop: 52020, Start Num: 44
Candidate Starts for Maravista_83:
(34, 51790), (40, 51811), (Start: 44 @51829 has 196 MA's), (51, 51976),

Gene: Marker_81 Start: 47828, Stop: 48019, Start Num: 44
Candidate Starts for Marker_81:
(Start: 44 @47828 has 196 MA's), (51, 47975),

Gene: Marker_90 Start: 50417, Stop: 50608, Start Num: 44
Candidate Starts for Marker_90:
(25, 50306), (38, 50393), (41, 50405), (Start: 44 @50417 has 196 MA's), (50, 50561), (51, 50564),

Gene: Mattes_85 Start: 51022, Stop: 51213, Start Num: 44
Candidate Starts for Mattes_85:
(Start: 44 @51022 has 196 MA's), (50, 51166), (51, 51169),

Gene: MilanaBonita_81 Start: 49158, Stop: 49349, Start Num: 44
Candidate Starts for MilanaBonita_81:
(26, 49068), (29, 49086), (33, 49113), (35, 49128), (Start: 44 @49158 has 196 MA's), (50, 49302), (51, 49305),

Gene: MilleniumForce_87 Start: 51123, Stop: 51314, Start Num: 44
Candidate Starts for MilleniumForce_87:
(Start: 44 @51123 has 196 MA's), (50, 51267), (51, 51270),

Gene: MinionDave_84 Start: 50521, Stop: 50715, Start Num: 44
Candidate Starts for MinionDave_84:
(Start: 44 @50521 has 196 MA's), (50, 50665), (51, 50668),

Gene: MisterCuddles_85 Start: 50725, Stop: 50919, Start Num: 44
Candidate Starts for MisterCuddles_85:
(34, 50686), (40, 50707), (Start: 44 @50725 has 196 MA's), (Start: 46 @50758 has 1 MA's), (47, 50776), (51, 50872),

Gene: Modragons_90 Start: 50641, Stop: 50832, Start Num: 44
Candidate Starts for Modragons_90:
(34, 50602), (36, 50614), (40, 50623), (Start: 44 @50641 has 196 MA's), (Start: 46 @50674 has 1 MA's),

Gene: MooMoo_82 Start: 48612, Stop: 48803, Start Num: 44
Candidate Starts for MooMoo_82:
(27, 48522), (31, 48546), (34, 48561), (Start: 44 @48612 has 196 MA's), (Start: 46 @48645 has 1 MA's), (51, 48759),

Gene: Moonbeam_86 Start: 50370, Stop: 50561, Start Num: 44
Candidate Starts for Moonbeam_86:
(Start: 44 @50370 has 196 MA's), (50, 50514), (51, 50517),

Gene: Mova_89 Start: 50668, Stop: 50859, Start Num: 44
Candidate Starts for Mova_89:
(42, 50659), (Start: 44 @50668 has 196 MA's), (50, 50812), (51, 50815),

Gene: Mozy_93 Start: 50398, Stop: 50589, Start Num: 44
Candidate Starts for Mozy_93:
(Start: 44 @50398 has 196 MA's), (45, 50428), (48, 50461), (50, 50542), (51, 50545),

Gene: Ms6_88 Start: 47292, Stop: 47483, Start Num: 44
Candidate Starts for Ms6_88:
(26, 47202), (29, 47220), (33, 47247), (35, 47262), (Start: 44 @47292 has 196 MA's), (50, 47436), (51, 47439),

Gene: MulchExplorer_91 Start: 50005, Stop: 50199, Start Num: 44
Candidate Starts for MulchExplorer_91:
(34, 49966), (40, 49987), (Start: 44 @50005 has 196 MA's), (Start: 46 @50038 has 1 MA's), (47, 50056), (51, 50152),

Gene: Mutaforma13_88 Start: 50073, Stop: 50264, Start Num: 44
Candidate Starts for Mutaforma13_88:
(20, 49857), (27, 49983), (31, 50007), (Start: 44 @50073 has 196 MA's), (50, 50217), (51, 50220),

Gene: Nimbo_78 Start: 49330, Stop: 49524, Start Num: 44
Candidate Starts for Nimbo_78:
(34, 49291), (40, 49312), (Start: 44 @49330 has 196 MA's), (Start: 46 @49363 has 1 MA's), (47, 49381), (51, 49477),

Gene: Nitzel_80 Start: 47396, Stop: 47587, Start Num: 44
Candidate Starts for Nitzel_80:
(34, 47357), (40, 47378), (Start: 44 @47396 has 196 MA's), (Start: 46 @47429 has 1 MA's), (51, 47543),

Gene: Nivrat_84 Start: 50785, Stop: 50979, Start Num: 44
Candidate Starts for Nivrat_84:
(34, 50746), (40, 50767), (Start: 44 @50785 has 196 MA's), (50, 50929), (51, 50932),

Gene: NormanBulbieJr_79 Start: 49411, Stop: 49602, Start Num: 44
Candidate Starts for NormanBulbieJr_79:
(34, 49372), (40, 49393), (Start: 44 @49411 has 196 MA's), (50, 49555), (51, 49558),

Gene: Ochi17_91 Start: 50248, Stop: 50439, Start Num: 44
Candidate Starts for Ochi17_91:
(34, 50209), (36, 50221), (40, 50230), (Start: 44 @50248 has 196 MA's), (Start: 46 @50281 has 1 MA's),

Gene: OfUltron_93 Start: 50797, Stop: 50988, Start Num: 44
Candidate Starts for OfUltron_93:
(34, 50758), (36, 50770), (40, 50779), (Start: 44 @50797 has 196 MA's), (Start: 46 @50830 has 1 MA's),

Gene: Ogopogo_91 Start: 50054, Stop: 50248, Start Num: 44
Candidate Starts for Ogopogo_91:
(1, 49577), (5, 49664), (13, 49796), (15, 49805), (34, 50015), (40, 50036), (Start: 44 @50054 has 196 MA's), (50, 50198), (51, 50201),

Gene: Oksu_88 Start: 51378, Stop: 51569, Start Num: 44
Candidate Starts for Oksu_88:

(26, 51288), (29, 51306), (33, 51333), (35, 51348), (Start: 44 @51378 has 196 MA's),

Gene: OldBen_83 Start: 50722, Stop: 50916, Start Num: 44

Candidate Starts for OldBen_83:

(34, 50683), (40, 50704), (Start: 44 @50722 has 196 MA's), (Start: 46 @50755 has 1 MA's), (47, 50773), (51, 50869),

Gene: OlympiaSaint_88 Start: 51232, Stop: 51423, Start Num: 44

Candidate Starts for OlympiaSaint_88:

(Start: 44 @51232 has 196 MA's), (50, 51376), (51, 51379),

Gene: Ovechkin_91 Start: 51496, Stop: 51687, Start Num: 44

Candidate Starts for Ovechkin_91:

(34, 51457), (40, 51478), (Start: 44 @51496 has 196 MA's), (Start: 46 @51529 has 1 MA's), (47, 51547), (51, 51643),

Gene: OwlsT2W_85 Start: 49397, Stop: 49591, Start Num: 44

Candidate Starts for OwlsT2W_85:

(26, 49307), (29, 49325), (33, 49352), (35, 49367), (Start: 44 @49397 has 196 MA's), (50, 49541), (51, 49544),

Gene: PHappiness_86 Start: 51551, Stop: 51745, Start Num: 44

Candidate Starts for PHappiness_86:

(34, 51512), (40, 51533), (Start: 44 @51551 has 196 MA's), (Start: 46 @51584 has 1 MA's), (47, 51602), (51, 51698),

Gene: PMC_83 Start: 49171, Stop: 49362, Start Num: 44

Candidate Starts for PMC_83:

(Start: 44 @49171 has 196 MA's), (48, 49234), (50, 49315), (51, 49318),

Gene: Phalconet_84 Start: 49500, Stop: 49691, Start Num: 44

Candidate Starts for Phalconet_84:

(26, 49410), (29, 49428), (33, 49455), (35, 49470), (Start: 44 @49500 has 196 MA's), (50, 49644), (51, 49647),

Gene: Phanphagia_88 Start: 51402, Stop: 51593, Start Num: 44

Candidate Starts for Phanphagia_88:

(26, 51312), (29, 51330), (33, 51357), (35, 51372), (Start: 44 @51402 has 196 MA's), (50, 51546), (51, 51549),

Gene: Phasih_82 Start: 48915, Stop: 49109, Start Num: 44

Candidate Starts for Phasih_82:

(Start: 44 @48915 has 196 MA's), (50, 49059), (51, 49062),

Gene: PhesterPhotato_91 Start: 50668, Stop: 50859, Start Num: 44

Candidate Starts for PhesterPhotato_91:

(26, 50578), (29, 50596), (33, 50623), (35, 50638), (Start: 44 @50668 has 196 MA's), (50, 50812), (51, 50815),

Gene: Philus_88 Start: 52182, Stop: 52373, Start Num: 44

Candidate Starts for Philus_88:

(42, 52173), (Start: 44 @52182 has 196 MA's), (48, 52245), (50, 52326), (51, 52329),

Gene: Pippy_81 Start: 48881, Stop: 49072, Start Num: 44
Candidate Starts for Pippy_81:
(34, 48842), (40, 48863), (Start: 44 @48881 has 196 MA's), (51, 49028),

Gene: Plumbus_87 Start: 48034, Stop: 48225, Start Num: 44
Candidate Starts for Plumbus_87:
(22, 47842), (23, 47872), (24, 47917), (32, 47986), (40, 48016), (Start: 44 @48034 has 196 MA's),
(Start: 46 @48067 has 1 MA's), (50, 48178), (51, 48181),

Gene: Poenanya_90 Start: 51293, Stop: 51484, Start Num: 44
Candidate Starts for Poenanya_90:
(34, 51254), (36, 51266), (40, 51275), (Start: 44 @51293 has 196 MA's), (Start: 46 @51326 has 1
MA's), (50, 51437), (51, 51440),

Gene: Polka14_91 Start: 52083, Stop: 52274, Start Num: 44
Candidate Starts for Polka14_91:
(34, 52044), (36, 52056), (40, 52065), (Start: 44 @52083 has 196 MA's), (Start: 46 @52116 has 1
MA's), (50, 52227), (51, 52230),

Gene: PopTart_79 Start: 47647, Stop: 47841, Start Num: 44
Candidate Starts for PopTart_79:
(34, 47608), (36, 47620), (40, 47629), (Start: 44 @47647 has 196 MA's), (50, 47791), (51, 47794),

Gene: Priscilla_81 Start: 49509, Stop: 49700, Start Num: 44
Candidate Starts for Priscilla_81:
(34, 49470), (40, 49491), (Start: 44 @49509 has 196 MA's), (50, 49653), (51, 49656),

Gene: QuickMath_87 Start: 50586, Stop: 50780, Start Num: 44
Candidate Starts for QuickMath_87:
(34, 50547), (40, 50568), (Start: 44 @50586 has 196 MA's), (Start: 46 @50619 has 1 MA's), (47,
50637), (51, 50733),

Gene: Quico_93 Start: 51817, Stop: 52008, Start Num: 44
Candidate Starts for Quico_93:
(26, 51727), (29, 51745), (33, 51772), (35, 51787), (Start: 44 @51817 has 196 MA's), (50, 51961), (51,
51964),

Gene: Radiance_82 Start: 49827, Stop: 50018, Start Num: 44
Candidate Starts for Radiance_82:
(34, 49788), (40, 49809), (Start: 44 @49827 has 196 MA's), (Start: 46 @49860 has 1 MA's), (50,
49971), (51, 49974),

Gene: Ramsey_90 Start: 52082, Stop: 52276, Start Num: 44
Candidate Starts for Ramsey_90:
(26, 51992), (29, 52010), (33, 52037), (35, 52052), (Start: 44 @52082 has 196 MA's), (50, 52226), (51,
52229),

Gene: RedBird_86 Start: 51845, Stop: 52036, Start Num: 44
Candidate Starts for RedBird_86:
(26, 51755), (29, 51773), (33, 51800), (35, 51815), (Start: 44 @51845 has 196 MA's), (50, 51989), (51,
51992),

Gene: Renaud18_95 Start: 51127, Stop: 51318, Start Num: 44

Candidate Starts for Renaud18_95:
(34, 51088), (36, 51100), (40, 51109), (Start: 44 @51127 has 196 MA's), (51, 51274),

Gene: Rialto_89 Start: 50466, Stop: 50657, Start Num: 44
Candidate Starts for Rialto_89:
(Start: 44 @50466 has 196 MA's), (50, 50610), (51, 50613),

Gene: RitaG_86 Start: 51353, Stop: 51547, Start Num: 44
Candidate Starts for RitaG_86:
(34, 51314), (40, 51335), (Start: 44 @51353 has 196 MA's), (Start: 46 @51386 has 1 MA's), (47, 51404), (51, 51500),

Gene: Rockne_87 Start: 49183, Stop: 49374, Start Num: 44
Candidate Starts for Rockne_87:
(Start: 44 @49183 has 196 MA's), (48, 49246), (50, 49327), (51, 49330),

Gene: RockyHorror_90 Start: 50340, Stop: 50534, Start Num: 44
Candidate Starts for RockyHorror_90:
(34, 50301), (36, 50313), (40, 50322), (Start: 44 @50340 has 196 MA's), (50, 50484), (51, 50487),

Gene: Royals2015_92 Start: 50165, Stop: 50356, Start Num: 44
Candidate Starts for Royals2015_92:
(26, 50075), (29, 50093), (33, 50120), (35, 50135), (Start: 44 @50165 has 196 MA's), (50, 50309), (51, 50312),

Gene: Ruby_82 Start: 50726, Stop: 50920, Start Num: 44
Candidate Starts for Ruby_82:
(34, 50687), (40, 50708), (Start: 44 @50726 has 196 MA's), (Start: 46 @50759 has 1 MA's), (47, 50777), (51, 50873),

Gene: SG4_88 Start: 51448, Stop: 51639, Start Num: 44
Candidate Starts for SG4_88:
(Start: 44 @51448 has 196 MA's), (50, 51592), (51, 51595),

Gene: Saal_82 Start: 50592, Stop: 50783, Start Num: 44
Candidate Starts for Saal_82:
(34, 50553), (40, 50574), (Start: 44 @50592 has 196 MA's), (51, 50739),

Gene: Sabbb_87 Start: 48021, Stop: 48212, Start Num: 44
Candidate Starts for Sabbb_87:
(26, 47931), (29, 47949), (33, 47976), (35, 47991), (Start: 44 @48021 has 196 MA's), (51, 48168),

Gene: Sarma624_86 Start: 47175, Stop: 47366, Start Num: 44
Candidate Starts for Sarma624_86:
(26, 47085), (29, 47103), (33, 47130), (35, 47145), (Start: 44 @47175 has 196 MA's), (50, 47319), (51, 47322),

Gene: Sassafras_87 Start: 50159, Stop: 50350, Start Num: 44
Candidate Starts for Sassafras_87:
(26, 50069), (29, 50087), (33, 50114), (35, 50129), (Start: 44 @50159 has 196 MA's), (50, 50303), (51, 50306),

Gene: SassyB_79 Start: 47647, Stop: 47841, Start Num: 44

Candidate Starts for SassyB_79:
(34, 47608), (36, 47620), (40, 47629), (Start: 44 @47647 has 196 MA's), (50, 47791), (51, 47794),

Gene: Scottish_86 Start: 49958, Stop: 50149, Start Num: 44
Candidate Starts for Scottish_86:
(42, 49949), (Start: 44 @49958 has 196 MA's), (48, 50021), (50, 50102), (51, 50105),

Gene: Seabastian_93 Start: 50798, Stop: 50989, Start Num: 44
Candidate Starts for Seabastian_93:
(34, 50759), (36, 50771), (40, 50780), (Start: 44 @50798 has 196 MA's), (Start: 46 @50831 has 1 MA's),

Gene: Seagreen_86 Start: 50834, Stop: 51025, Start Num: 44
Candidate Starts for Seagreen_86:
(34, 50795), (36, 50807), (40, 50816), (Start: 44 @50834 has 196 MA's), (Start: 46 @50867 has 1 MA's), (50, 50978), (51, 50981),

Gene: Shauna1_85 Start: 51018, Stop: 51209, Start Num: 44
Candidate Starts for Shauna1_85:
(34, 50979), (40, 51000), (Start: 44 @51018 has 196 MA's), (50, 51162), (51, 51165),

Gene: ShiLan_88 Start: 52745, Stop: 52936, Start Num: 44
Candidate Starts for ShiLan_88:
(Start: 44 @52745 has 196 MA's), (50, 52889), (51, 52892),

Gene: ShroomBoi_84 Start: 49987, Stop: 50181, Start Num: 44
Candidate Starts for ShroomBoi_84:
(16, 49744), (34, 49948), (40, 49969), (Start: 44 @49987 has 196 MA's), (50, 50131), (51, 50134),

Gene: SiSi_83 Start: 49822, Stop: 50016, Start Num: 44
Candidate Starts for SiSi_83:
(34, 49783), (40, 49804), (Start: 44 @49822 has 196 MA's), (Start: 46 @49855 has 1 MA's), (47, 49873), (51, 49969),

Gene: SimranZ1_85 Start: 49492, Stop: 49683, Start Num: 44
Candidate Starts for SimranZ1_85:
(34, 49453), (36, 49465), (40, 49474), (Start: 44 @49492 has 196 MA's), (Start: 46 @49525 has 1 MA's), (51, 49639),

Gene: Soul22_87 Start: 48510, Stop: 48701, Start Num: 44
Candidate Starts for Soul22_87:
(26, 48420), (29, 48438), (33, 48465), (35, 48480), (Start: 44 @48510 has 196 MA's), (50, 48654), (51, 48657),

Gene: Sparkdehlily_90 Start: 48520, Stop: 48711, Start Num: 44
Candidate Starts for Sparkdehlily_90:
(26, 48430), (37, 48499), (Start: 44 @48520 has 196 MA's), (51, 48667),

Gene: Spartacus_84 Start: 50812, Stop: 51003, Start Num: 44
Candidate Starts for Spartacus_84:
(34, 50773), (40, 50794), (Start: 44 @50812 has 196 MA's),

Gene: Spartacus_92 Start: 52968, Stop: 53159, Start Num: 44

Candidate Starts for Spartacus_92:

(26, 52878), (29, 52896), (33, 52923), (35, 52938), (Start: 44 @52968 has 196 MA's), (50, 53112), (51, 53115),

Gene: Spikelee_86 Start: 51144, Stop: 51335, Start Num: 44

Candidate Starts for Spikelee_86:

(8, 50820), (Start: 44 @51144 has 196 MA's), (50, 51288), (51, 51291),

Gene: Spoonbill_84 Start: 48658, Stop: 48849, Start Num: 44

Candidate Starts for Spoonbill_84:

(Start: 44 @48658 has 196 MA's), (50, 48802), (51, 48805),

Gene: Squirty_86 Start: 54093, Stop: 54284, Start Num: 44

Candidate Starts for Squirty_86:

(26, 54003), (29, 54021), (33, 54048), (35, 54063), (Start: 44 @54093 has 196 MA's), (50, 54237), (51, 54240),

Gene: StAnnes_91 Start: 52176, Stop: 52367, Start Num: 44

Candidate Starts for StAnnes_91:

(26, 52086), (29, 52104), (33, 52131), (35, 52146), (Start: 44 @52176 has 196 MA's), (50, 52320), (51, 52323),

Gene: Stap_82 Start: 47808, Stop: 47999, Start Num: 44

Candidate Starts for Stap_82:

(26, 47718), (29, 47736), (33, 47763), (35, 47778), (Start: 44 @47808 has 196 MA's), (50, 47952), (51, 47955),

Gene: Starcevich_87 Start: 51682, Stop: 51873, Start Num: 44

Candidate Starts for Starcevich_87:

(34, 51643), (40, 51664), (Start: 44 @51682 has 196 MA's), (Start: 46 @51715 has 1 MA's), (47, 51733), (50, 51826), (51, 51829),

Gene: Strokeseat_83 Start: 48104, Stop: 48295, Start Num: 44

Candidate Starts for Strokeseat_83:

(34, 48065), (36, 48077), (40, 48086), (Start: 44 @48104 has 196 MA's), (50, 48248), (51, 48251),

Gene: SuperGrey_86 Start: 52315, Stop: 52506, Start Num: 44

Candidate Starts for SuperGrey_86:

(26, 52225), (29, 52243), (33, 52270), (35, 52285), (Start: 44 @52315 has 196 MA's), (50, 52459), (51, 52462),

Gene: SwagPigglett_87 Start: 51728, Stop: 51919, Start Num: 44

Candidate Starts for SwagPigglett_87:

(34, 51689), (40, 51710), (Start: 44 @51728 has 196 MA's), (51, 51875),

Gene: TChen_84 Start: 50982, Stop: 51173, Start Num: 44

Candidate Starts for TChen_84:

(16, 50739), (34, 50943), (40, 50964), (Start: 44 @50982 has 196 MA's), (51, 51129),

Gene: TDanisky_91 Start: 48520, Stop: 48711, Start Num: 44

Candidate Starts for TDanisky_91:

(26, 48430), (37, 48499), (Start: 44 @48520 has 196 MA's), (51, 48667),

Gene: Taj_94 Start: 52417, Stop: 52608, Start Num: 44

Candidate Starts for Taj_94:

(26, 52327), (29, 52345), (33, 52372), (35, 52387), (Start: 44 @52417 has 196 MA's), (50, 52561), (51, 52564),

Gene: ThetaBob_87 Start: 49422, Stop: 49613, Start Num: 44

Candidate Starts for ThetaBob_87:

(27, 49332), (31, 49356), (34, 49371), (Start: 44 @49422 has 196 MA's), (Start: 46 @49455 has 1 MA's), (51, 49569),

Gene: Tootsieroll_82 Start: 50768, Stop: 50959, Start Num: 44

Candidate Starts for Tootsieroll_82:

(34, 50729), (36, 50741), (40, 50750), (Start: 44 @50768 has 196 MA's), (Start: 46 @50801 has 1 MA's), (50, 50912), (51, 50915),

Gene: Toron_93 Start: 53533, Stop: 53661, Start Num: 48

Candidate Starts for Toron_93:

(Start: 44 @53470 has 196 MA's), (48, 53533), (50, 53614), (51, 53617),

Gene: Totinger_87 Start: 49965, Stop: 50159, Start Num: 44

Candidate Starts for Totinger_87:

(Start: 44 @49965 has 196 MA's), (51, 50112),

Gene: Tweety_87 Start: 51494, Stop: 51688, Start Num: 44

Candidate Starts for Tweety_87:

(26, 51404), (29, 51422), (33, 51449), (35, 51464), (Start: 44 @51494 has 196 MA's), (50, 51638), (51, 51641),

Gene: UncleRicky_85 Start: 49057, Stop: 49248, Start Num: 44

Candidate Starts for UncleRicky_85:

(Start: 44 @49057 has 196 MA's), (48, 49120), (50, 49201), (51, 49204),

Gene: Velveteen_81 Start: 47175, Stop: 47366, Start Num: 44

Candidate Starts for Velveteen_81:

(26, 47085), (29, 47103), (33, 47130), (35, 47145), (Start: 44 @47175 has 196 MA's), (50, 47319), (51, 47322),

Gene: Veteran_79 Start: 49690, Stop: 49884, Start Num: 44

Candidate Starts for Veteran_79:

(34, 49651), (40, 49672), (Start: 44 @49690 has 196 MA's), (Start: 46 @49723 has 1 MA's), (47, 49741), (51, 49837),

Gene: Vivum_90 Start: 52771, Stop: 52962, Start Num: 44

Candidate Starts for Vivum_90:

(34, 52732), (40, 52753), (Start: 44 @52771 has 196 MA's), (Start: 46 @52804 has 1 MA's), (47, 52822), (50, 52915), (51, 52918),

Gene: Wachhund_83 Start: 47446, Stop: 47637, Start Num: 44

Candidate Starts for Wachhund_83:

(34, 47407), (36, 47419), (40, 47428), (Start: 44 @47446 has 196 MA's), (50, 47590), (51, 47593),

Gene: Whatsapiecost_78 Start: 45288, Stop: 45479, Start Num: 44

Candidate Starts for Whatsapiecost_78:

(26, 45198), (29, 45216), (33, 45243), (35, 45258), (Start: 44 @45288 has 196 MA's), (50, 45432), (51, 45435),

Gene: Whouxphf_83 Start: 49899, Stop: 50090, Start Num: 44

Candidate Starts for Whouxphf_83:

(34, 49860), (40, 49881), (Start: 44 @49899 has 196 MA's), (Start: 46 @49932 has 1 MA's),

Gene: WillSterrel_84 Start: 50556, Stop: 50747, Start Num: 44

Candidate Starts for WillSterrel_84:

(26, 50466), (29, 50484), (33, 50511), (35, 50526), (Start: 44 @50556 has 196 MA's), (50, 50700), (51, 50703),

Gene: Yorick_78 Start: 50209, Stop: 50403, Start Num: 44

Candidate Starts for Yorick_78:

(26, 50119), (29, 50137), (33, 50164), (35, 50179), (Start: 44 @50209 has 196 MA's), (50, 50353), (51, 50356),

Gene: Zapner_92 Start: 48523, Stop: 48714, Start Num: 44

Candidate Starts for Zapner_92:

(Start: 44 @48523 has 196 MA's), (50, 48667), (51, 48670),

Gene: Zerg_86 Start: 50153, Stop: 50347, Start Num: 44

Candidate Starts for Zerg_86:

(34, 50114), (40, 50135), (Start: 44 @50153 has 196 MA's), (Start: 46 @50186 has 1 MA's), (47, 50204), (51, 50300),

Gene: Zizzle_89 Start: 51868, Stop: 52059, Start Num: 44

Candidate Starts for Zizzle_89:

(Start: 44 @51868 has 196 MA's), (51, 52015),