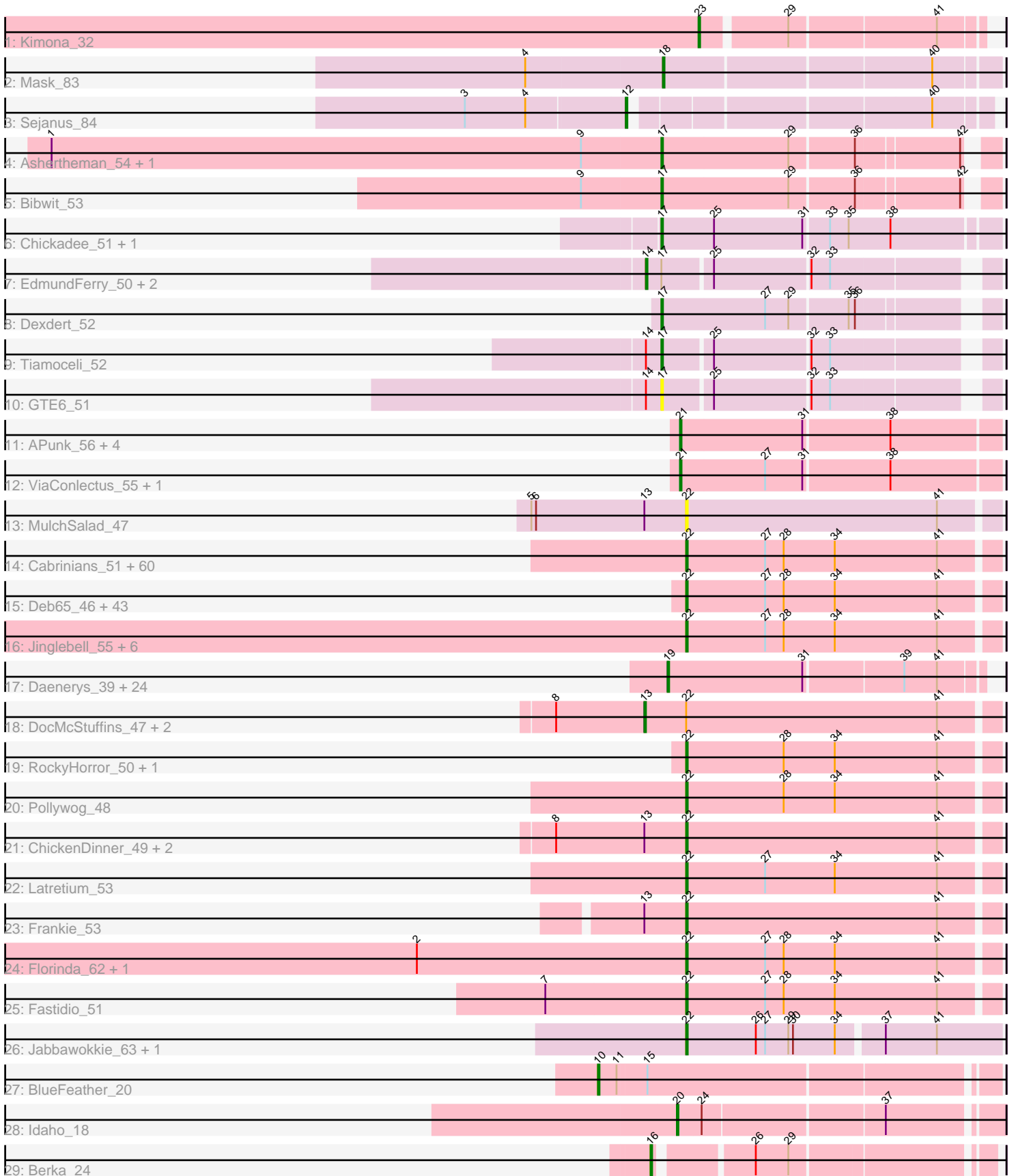


Pham 193771



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 193771 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193771 has 178 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Kimona_32
- Track 2 : Mask_83
- Track 3 : Sejanus_84
- Track 4 : Ashertheman_54, Gaea_53
- Track 5 : Bibwit_53
- Track 6 : Chickadee_51, Kwekel_51
- Track 7 : EdmundFerry_50, RoadKill_49, Twonlo_49
- Track 8 : Dexdert_52
- Track 9 : Tiamoceli_52
- Track 10 : GTE6_51
- Track 11 : APunk_56, Sampson_55, Scioto_56, Natkenzie_55, Abblin_55
- Track 12 : ViaConlectus_55, Tardus_57
- Track 13 : MulchSalad_47
- Track 14 : Cabrinians_51, TDanisky_54, Madiba_46, Jarcob_50, Seagreen_51, Eradicator_43, Dante_49, Llij_47, Girr_50, LilMoolah_49, Yorick_49, Lizziana_56, Leozinho_51, Kimberlium_53, Karhdo_49, Drago_49, Marker_50, QuickMath_52, Martik_50, Starcevich_50, Koella_44, PopTart_45, ShowerHandel_52, Chevrolet_56, Nitzel_45, Che8_52, Maravista_52, DotProduct_46, Priscilla_50, Ibhubesi_49, MadMen_44, Tweety_49, Ruby_48, Royals2015_52, ArcusAngelus_53, Sabbb_56, Mahavrat_48, Totinger_50, NormanBulbieJr_50, Bubbles123_47, ShiLan_49, Nivrat_47, JalFarm20_59, GigiOuiOui_47, MisterCuddles_50, Aubs_49, FreddyB_50, UncleRicky_50, Doug_52, Tootsieroll_53, Eish_50, Crumble_45, MulchExplorer_57, Sparkdehlily_54, DirtMcgirt_50, Burwell21_48, LittleShirley_50, Phatniss_49, Avani_58, Plumbus_52, SassyB_45
- Track 15 : Deb65_46, OlympiaSaint_50, BlueCrab_47, Dorothy_47, Gandalph_51, Empress_49, Doomphist_49, Poenanya_49, Harley_52, BuzzLyseyear_55, Hamulus_51, Spoonbill_48, Blexus_48, Scottish_49, Leperchaun_43, OwlsT2W_49, Kersh_53, Veteran_47, Daenerys_45, JoeyJr_46, Stap_49, GUmbe_47, PMC_44, PHappiness_46, Mantra_47, Radiance_50, Boomer_52, Krakatau_48, Job42_50, RitaG_46, DaddyRickover_50, KingMidas_50, Oksu_54, IbOuu_52, Spikelee_56, Polka14_47, Nimbo_45, Ramsey_51, Pacc40_45, SiSi_49, BodEinwohner17_50, RedBird_47, Cornie_43, Rockne_48
- Track 16 : Jinglebell_55, Ochi17_53, Llama_55, Modragons_54, AlpineSix_55, Seabastian_55, OfUltron_55
- Track 17 : Daenerys_39, Inventum_39, Leozinho_42, Dante_40, Pollywog_41, Spoonbill_40, Job42_43, Ogoopogo_43, Veteran_40, Blexus_40, Sassafras_41, OwlsT2W_40, Chuckly_41, JoeyJr_40, GUmbe_40, Empress_41, Royals2015_42,

Tootsieroll_44, IbOuu_43, Radiance_41, Polka14_41, OlympiaSaint_40, Scottish_41, Sandalphon_44, Eish_41

- Track 18 : DocMcStuffins_47, Misha28_46, TootsiePop_46
- Track 19 : RockyHorror_50, Zerg_49
- Track 20 : Pollywog_48
- Track 21 : ChickenDinner_49, Awesomesauce_48, Piper2020_48
- Track 22 : Latretium_53
- Track 23 : Frankie_53
- Track 24 : Florinda_62, Quico_59
- Track 25 : Fastidio_51
- Track 26 : Jabbawokkie_63, Zapner_62
- Track 27 : BlueFeather_20
- Track 28 : Idaho_18
- Track 29 : Berka_24

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

The start number called the most often in the published annotations is 22, it was called in 120 of the 167 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlpineSix_55, ArcusAngelus_53, Aubs_49, Avani_58, Awesomesauce_48, Blexus_48, BlueCrab_47, BodEinwohner17_50, Boomer_52, Bubbles123_47, Burwell21_48, BuzzLyseyear_55, Cabrinians_51, Che8_52, Chevrolet_56, ChickenDinner_49, Cornie_43, Crumble_45, DaddyRickover_50, Daenerys_45, Dante_49, Deb65_46, DirtMcgirt_50, Doomphist_49, Dorothy_47, DotProduct_46, Doug_52, Drago_49, Eish_50, Empress_49, Eradicator_43, Fastidio_51, Florinda_62, Frankie_53, FreddyB_50, GUmble_47, Gandolph_51, GigiOuiOui_47, Girr_50, Hamulus_51, Harley_52, IbOuu_52, Ihubesi_49, Jabbawokkie_63, JalFarm20_59, Jarcob_50, Jinglebell_55, Job42_50, JoeyJr_46, Karhdo_49, Kersh_53, Kimberlium_53, KingMidas_50, Koella_44, Krakatau_48, Latretium_53, Leozinho_51, Leperchaun_43, LilMoolah_49, LittleShirley_50, Lizziana_56, Llama_55, Llij_47, MadMen_44, Madiba_46, Mahavrat_48, Mantra_47, Maravista_52, Marker_50, Martik_50, MisterCuddles_50, Modragons_54, MulchExplorer_57, MulchSalad_47, Nimbo_45, Nitzel_45, Nivrat_47, NormanBulbieJr_50, Ochi17_53, OfUltron_55, Oksu_54, OlympiaSaint_50, OwlsT2W_49, PHappiness_46, PMC_44, Pacc40_45, Phatniss_49, Piper2020_48, Plumbus_52, Poenanya_49, Polka14_47, Pollywog_48, PopTart_45, Priscilla_50, QuickMath_52, Quico_59, Radiance_50, Ramsey_51, RedBird_47, RitaG_46, Rockne_48, RockyHorror_50, Royals2015_52, Ruby_48, Sabbb_56, SassyB_45, Scottish_49, Sebastian_55, Seagreen_51, ShiLan_49, ShowerHandel_52, SiSi_49, Sparkdehlily_54, Spikelee_56, Spoonbill_48, Stap_49, Starcevich_50, TDanisky_54, Tootsieroll_53, Totinger_50, Tweety_49, UncleRicky_50, Veteran_47, Yorick_49, Zapner_62, Zerg_49,

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

- DocMcStuffins_47, Misha28_46, TootsiePop_46,

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

- APunk_56, Abblin_55, Ashertheman_54, Berka_24, Bibwit_53, Blexus_40, BlueFeather_20, Chickadee_51, Chuckly_41, Daenerys_39, Dante_40, Dextert_52,

EdmundFerry_50, Eish_41, Empress_41, GTE6_51, GUmbie_40, Gaea_53, IbOuu_43, Idaho_18, Inventum_39, Job42_43, JoeyJr_40, Kimona_32, Kwekel_51, Leozinho_42, Mask_83, Natkenzie_55, Ogopogo_43, OlympiaSaint_40, OwlsT2W_40, Polka14_41, Pollywog_41, Radiance_41, RoadKill_49, Royals2015_42, Sampson_55, Sandalphon_44, Sassafras_41, Scioto_56, Scottish_41, Sejanus_84, Spoonbill_40, Tardus_57, Tiamoceli_52, Tootsieroll_44, Twonlo_49, Veteran_40, ViaConlectus_55,

Summary by start number:

Start 10:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueFeather_20 (FE),

Start 12:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sejanus_84 (AD),

Start 13:

- Found in 8 of 178 (4.5%) of genes in pham
- Manual Annotations of this start: 3 of 167
- Called 37.5% of time when present
- Phage (with cluster) where this start called: DocMcStuffins_47 (F1), Misha28_46 (F1), TootsiePop_46 (F1),

Start 14:

- Found in 5 of 178 (2.8%) of genes in pham
- Manual Annotations of this start: 3 of 167
- Called 60.0% of time when present
- Phage (with cluster) where this start called: EdmundFerry_50 (DE3), RoadKill_49 (DE3), Twonlo_49 (DE3),

Start 16:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Berka_24 (FE),

Start 17:

- Found in 11 of 178 (6.2%) of genes in pham
- Manual Annotations of this start: 7 of 167
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Ashertheman_54 (DE1), Bibwit_53 (DE1), Chickadee_51 (DE3), Dextert_52 (DE3), GTE6_51 (DE3), Gaea_53 (DE1), Kwekel_51 (DE3), Tiamoceli_52 (DE3),

Start 18:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mask_83 (AD),

Start 19:

- Found in 25 of 178 (14.0%) of genes in pham
- Manual Annotations of this start: 24 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blexus_40 (F1), Chuckly_41 (F1), Daenerys_39 (F1), Dante_40 (F1), Eish_41 (F1), Empress_41 (F1), GUmbe_40 (F1), IbOuu_43 (F1), Inventum_39 (F1), Job42_43 (F1), JoeyJr_40 (F1), Leozinho_42 (F1), Ogoogo_43 (F1), OlympiaSaint_40 (F1), OwlsT2W_40 (F1), Polka14_41 (F1), Pollywog_41 (F1), Radiance_41 (F1), Royals2015_42 (F1), Sandalphon_44 (F1), Sassafras_41 (F1), Scottish_41 (F1), Spoonbill_40 (F1), Tootsieroll_44 (F1), Veteran_40 (F1),

Start 20:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Idaho_18 (FE),

Start 21:

- Found in 7 of 178 (3.9%) of genes in pham
- Manual Annotations of this start: 4 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk_56 (DE4), Abblin_55 (DE4), Natkenzie_55 (DE4), Sampson_55 (DE4), Scioto_56 (DE4), Tardus_57 (DE4), ViaConlectus_55 (DE4),

Start 22:

- Found in 129 of 178 (72.5%) of genes in pham
- Manual Annotations of this start: 120 of 167
- Called 97.7% of time when present
- Phage (with cluster) where this start called: AlpineSix_55 (F1), ArcusAngelus_53 (F1), Aubs_49 (F1), Avani_58 (F2), Awesomesauce_48 (F1), Blexus_48 (F1), BlueCrab_47 (F1), BodEinwohner17_50 (F1), Boomer_52 (F1), Bubbles123_47 (F1), Burwell21_48 (F1), BuzzLyseyear_55 (F1), Cabrinians_51 (F1), Che8_52 (F1), Chevrolet_56 (F1), ChickenDinner_49 (F1), Cornie_43 (F5), Crumble_45 (F1), DaddyRickover_50 (F1), Daenerys_45 (F1), Dante_49 (F1), Deb65_46 (F1), DirtMcgirt_50 (F1), Doomphist_49 (F1), Dorothy_47 (F1), DotProduct_46 (F1), Doug_52 (F1), Drago_49 (F1), Eish_50 (F1), Empress_49 (F1), Eradicator_43 (F1), Fastidio_51 (F1), Florinda_62 (F1), Frankie_53 (F1), FreddyB_50 (F1), GUmbe_47 (F1), Gandolph_51 (F1), GigiOuiOui_47 (F1), Girr_50 (F1), Hamulus_51 (F1), Harley_52 (F1), IbOuu_52 (F1), Ibhuesi_49 (F1), Jabbawokkie_63 (F2), JalFarm20_59 (F1), Jarcob_50 (F1), Jinglebell_55 (F1), Job42_50 (F1), JoeyJr_46 (F1), Karhdo_49 (F1), Kersh_53 (F1), Kimberlium_53 (F1), KingMidas_50 (F1), Koella_44 (F1), Krakatau_48 (F1), Latretium_53 (F1), Leozinho_51 (F1), Leperchaun_43 (F1), LilMoolah_49 (F1), LittleShirley_50 (F1), Lizziana_56 (F1), Llama_55 (F1), Llij_47 (F1), MadMen_44 (F1), Madiba_46 (F1), Mahavrat_48 (F1), Mantra_47 (F1), Maravista_52 (F1), Marker_50 (F1), Martik_50 (F1), MisterCuddles_50 (F1), Modragons_54 (F1), MulchExplorer_57 (F1), MulchSalad_47 (F), Nimbo_45 (F1), Nitzel_45 (F1), Nivrat_47 (F1), NormanBulbieJr_50 (F1), Ochi17_53 (F1), OfUltron_55 (F1), Oksu_54 (F1), OlympiaSaint_50 (F1),

OwlsT2W_49 (F1), PHappiness_46 (F1), PMC_44 (F1), Pacc40_45 (F1), Phatniss_49 (F1), Piper2020_48 (F1), Plumbus_52 (F1), Poenanya_49 (F1), Polka14_47 (F1), Pollywog_48 (F1), PopTart_45 (F1), Priscilla_50 (F1), QuickMath_52 (F1), Quico_59 (F1), Radiance_50 (F1), Ramsey_51 (F1), RedBird_47 (F1), RitaG_46 (F1), Rockne_48 (F1), RockyHorror_50 (F1), Royals2015_52 (F1), Ruby_48 (F1), Sabbb_56 (F1), SassyB_45 (F1), Scottish_49 (F1), Seabastian_55 (F1), Seagreen_51 (F1), ShiLan_49 (F1), ShowerHandel_52 (F1), SiSi_49 (F1), Sparkdehlily_54 (F1), Spikelee_56 (F1), Spoonbill_48 (F1), Stap_49 (F1), Starcevich_50 (F1), TDanisky_54 (F1), Tootsieroll_53 (F1), Totinger_50 (F1), Tweety_49 (F1), UncleRicky_50 (F1), Veteran_47 (F1), Yorick_49 (F1), Zapner_62 (F2), Zerg_49 (F1),

Start 23:

- Found in 1 of 178 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona_32 (A19),

Summary by clusters:

There are 10 clusters represented in this pham: F1, F2, AD, F, DE1, DE3, DE4, FE, A19, F5,

Info for manual annotations of cluster A19:

- Start number 23 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster AD:

- Start number 12 was manually annotated 1 time for cluster AD.
- Start number 18 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster DE1:

- Start number 17 was manually annotated 3 times for cluster DE1.

Info for manual annotations of cluster DE3:

- Start number 14 was manually annotated 3 times for cluster DE3.
- Start number 17 was manually annotated 4 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 21 was manually annotated 4 times for cluster DE4.

Info for manual annotations of cluster F1:

- Start number 13 was manually annotated 3 times for cluster F1.
- Start number 19 was manually annotated 24 times for cluster F1.
- Start number 22 was manually annotated 116 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 22 was manually annotated 3 times for cluster F2.

Info for manual annotations of cluster F5:

- Start number 22 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FE:

- Start number 10 was manually annotated 1 time for cluster FE.
- Start number 16 was manually annotated 1 time for cluster FE.
- Start number 20 was manually annotated 1 time for cluster FE.

Gene Information:

Gene: APunk_56 Start: 45016, Stop: 45216, Start Num: 21

Candidate Starts for APunk_56:

(Start: 21 @45016 has 4 MA's), (31, 45094), (38, 45148),

Gene: Abblin_55 Start: 45502, Stop: 45702, Start Num: 21

Candidate Starts for Abblin_55:

(Start: 21 @45502 has 4 MA's), (31, 45580), (38, 45634),

Gene: AlpineSix_55 Start: 38663, Stop: 38860, Start Num: 22

Candidate Starts for AlpineSix_55:

(Start: 22 @38663 has 120 MA's), (27, 38714), (28, 38726), (34, 38759), (41, 38825),

Gene: ArcusAngelus_53 Start: 37779, Stop: 37976, Start Num: 22

Candidate Starts for ArcusAngelus_53:

(Start: 22 @37779 has 120 MA's), (27, 37830), (28, 37842), (34, 37875), (41, 37941),

Gene: Ashertheman_54 Start: 44467, Stop: 44664, Start Num: 17

Candidate Starts for Ashertheman_54:

(1, 44074), (9, 44416), (Start: 17 @44467 has 7 MA's), (29, 44548), (36, 44587), (42, 44650),

Gene: Aubs_49 Start: 36346, Stop: 36543, Start Num: 22

Candidate Starts for Aubs_49:

(Start: 22 @36346 has 120 MA's), (27, 36397), (28, 36409), (34, 36442), (41, 36508),

Gene: Avani_58 Start: 36654, Stop: 36851, Start Num: 22

Candidate Starts for Avani_58:

(Start: 22 @36654 has 120 MA's), (27, 36705), (28, 36717), (34, 36750), (41, 36816),

Gene: Awesomesauce_48 Start: 34991, Stop: 35188, Start Num: 22

Candidate Starts for Awesomesauce_48:

(8, 34907), (Start: 13 @34964 has 3 MA's), (Start: 22 @34991 has 120 MA's), (41, 35153),

Gene: Berka_24 Start: 13339, Stop: 13533, Start Num: 16

Candidate Starts for Berka_24:

(Start: 16 @13339 has 1 MA's), (26, 13393), (29, 13414),

Gene: Bibwit_53 Start: 43981, Stop: 44178, Start Num: 17

Candidate Starts for Bibwit_53:

(9, 43930), (Start: 17 @43981 has 7 MA's), (29, 44062), (36, 44101), (42, 44164),

Gene: Blexus_48 Start: 36433, Stop: 36630, Start Num: 22

Candidate Starts for Blexus_48:

(Start: 22 @36433 has 120 MA's), (27, 36484), (28, 36496), (34, 36529), (41, 36595),

Gene: Blexus_40 Start: 31585, Stop: 31391, Start Num: 19

Candidate Starts for Blexus_40:

(Start: 19 @31585 has 24 MA's), (31, 31498), (39, 31438), (41, 31417),

Gene: BlueCrab_47 Start: 36159, Stop: 36356, Start Num: 22

Candidate Starts for BlueCrab_47:

(Start: 22 @36159 has 120 MA's), (27, 36210), (28, 36222), (34, 36255), (41, 36321),

Gene: BlueFeather_20 Start: 14165, Stop: 14407, Start Num: 10

Candidate Starts for BlueFeather_20:

(Start: 10 @14165 has 1 MA's), (11, 14177), (15, 14195),

Gene: BodEinwohner17_50 Start: 36375, Stop: 36572, Start Num: 22

Candidate Starts for BodEinwohner17_50:

(Start: 22 @36375 has 120 MA's), (27, 36426), (28, 36438), (34, 36471), (41, 36537),

Gene: Boomer_52 Start: 37608, Stop: 37805, Start Num: 22

Candidate Starts for Boomer_52:

(Start: 22 @37608 has 120 MA's), (27, 37659), (28, 37671), (34, 37704), (41, 37770),

Gene: Bubbles123_47 Start: 37055, Stop: 37252, Start Num: 22

Candidate Starts for Bubbles123_47:

(Start: 22 @37055 has 120 MA's), (27, 37106), (28, 37118), (34, 37151), (41, 37217),

Gene: Burwell21_48 Start: 36717, Stop: 36914, Start Num: 22

Candidate Starts for Burwell21_48:

(Start: 22 @36717 has 120 MA's), (27, 36768), (28, 36780), (34, 36813), (41, 36879),

Gene: BuzzLyseyear_55 Start: 37985, Stop: 38182, Start Num: 22

Candidate Starts for BuzzLyseyear_55:

(Start: 22 @37985 has 120 MA's), (27, 38036), (28, 38048), (34, 38081), (41, 38147),

Gene: Cabrinians_51 Start: 36795, Stop: 36992, Start Num: 22

Candidate Starts for Cabrinians_51:

(Start: 22 @36795 has 120 MA's), (27, 36846), (28, 36858), (34, 36891), (41, 36957),

Gene: Che8_52 Start: 37604, Stop: 37801, Start Num: 22

Candidate Starts for Che8_52:

(Start: 22 @37604 has 120 MA's), (27, 37655), (28, 37667), (34, 37700), (41, 37766),

Gene: Chevrolet_56 Start: 37780, Stop: 37977, Start Num: 22

Candidate Starts for Chevrolet_56:

(Start: 22 @37780 has 120 MA's), (27, 37831), (28, 37843), (34, 37876), (41, 37942),

Gene: Chickadee_51 Start: 41286, Stop: 41495, Start Num: 17

Candidate Starts for Chickadee_51:

(Start: 17 @41286 has 7 MA's), (25, 41319), (31, 41376), (33, 41391), (35, 41403), (38, 41430),

Gene: ChickenDinner_49 Start: 35729, Stop: 35926, Start Num: 22

Candidate Starts for ChickenDinner_49:

(8, 35645), (Start: 13 @35702 has 3 MA's), (Start: 22 @35729 has 120 MA's), (41, 35891),

Gene: Chuckly_41 Start: 31551, Stop: 31357, Start Num: 19

Candidate Starts for Chuckly_41:

(Start: 19 @31551 has 24 MA's), (31, 31464), (39, 31404), (41, 31383),

Gene: Cornie_43 Start: 34495, Stop: 34692, Start Num: 22

Candidate Starts for Cornie_43:

(Start: 22 @34495 has 120 MA's), (27, 34546), (28, 34558), (34, 34591), (41, 34657),

Gene: Crumble_45 Start: 32731, Stop: 32928, Start Num: 22

Candidate Starts for Crumble_45:

(Start: 22 @32731 has 120 MA's), (27, 32782), (28, 32794), (34, 32827), (41, 32893),

Gene: DaddyRickover_50 Start: 37291, Stop: 37488, Start Num: 22

Candidate Starts for DaddyRickover_50:

(Start: 22 @37291 has 120 MA's), (27, 37342), (28, 37354), (34, 37387), (41, 37453),

Gene: Daenerys_39 Start: 31164, Stop: 30970, Start Num: 19

Candidate Starts for Daenerys_39:

(Start: 19 @31164 has 24 MA's), (31, 31077), (39, 31017), (41, 30996),

Gene: Daenerys_45 Start: 35102, Stop: 35299, Start Num: 22

Candidate Starts for Daenerys_45:

(Start: 22 @35102 has 120 MA's), (27, 35153), (28, 35165), (34, 35198), (41, 35264),

Gene: Dante_49 Start: 36138, Stop: 36335, Start Num: 22

Candidate Starts for Dante_49:

(Start: 22 @36138 has 120 MA's), (27, 36189), (28, 36201), (34, 36234), (41, 36300),

Gene: Dante_40 Start: 31281, Stop: 31087, Start Num: 19

Candidate Starts for Dante_40:

(Start: 19 @31281 has 24 MA's), (31, 31194), (39, 31134), (41, 31113),

Gene: Deb65_46 Start: 35071, Stop: 35268, Start Num: 22

Candidate Starts for Deb65_46:

(Start: 22 @35071 has 120 MA's), (27, 35122), (28, 35134), (34, 35167), (41, 35233),

Gene: Dextert_52 Start: 41572, Stop: 41766, Start Num: 17

Candidate Starts for Dextert_52:

(Start: 17 @41572 has 7 MA's), (27, 41638), (29, 41653), (35, 41689), (36, 41692),

Gene: DirtMcgirt_50 Start: 35836, Stop: 36033, Start Num: 22

Candidate Starts for DirtMcgirt_50:

(Start: 22 @35836 has 120 MA's), (27, 35887), (28, 35899), (34, 35932), (41, 35998),

Gene: DocMcStuffins_47 Start: 35702, Stop: 35926, Start Num: 13

Candidate Starts for DocMcStuffins_47:

(8, 35645), (Start: 13 @35702 has 3 MA's), (Start: 22 @35729 has 120 MA's), (41, 35891),

Gene: Doomphist_49 Start: 37373, Stop: 37570, Start Num: 22

Candidate Starts for Doomphist_49:

(Start: 22 @37373 has 120 MA's), (27, 37424), (28, 37436), (34, 37469), (41, 37535),

Gene: Dorothy_47 Start: 36172, Stop: 36369, Start Num: 22

Candidate Starts for Dorothy_47:

(Start: 22 @36172 has 120 MA's), (27, 36223), (28, 36235), (34, 36268), (41, 36334),

Gene: DotProduct_46 Start: 35833, Stop: 36027, Start Num: 22

Candidate Starts for DotProduct_46:

(Start: 22 @35833 has 120 MA's), (27, 35881), (28, 35893), (34, 35926), (41, 35992),

Gene: Doug_52 Start: 37491, Stop: 37688, Start Num: 22

Candidate Starts for Doug_52:

(Start: 22 @37491 has 120 MA's), (27, 37542), (28, 37554), (34, 37587), (41, 37653),

Gene: Drago_49 Start: 35839, Stop: 36036, Start Num: 22

Candidate Starts for Drago_49:

(Start: 22 @35839 has 120 MA's), (27, 35890), (28, 35902), (34, 35935), (41, 36001),

Gene: EdmundFerry_50 Start: 41346, Stop: 41549, Start Num: 14

Candidate Starts for EdmundFerry_50:

(Start: 14 @41346 has 3 MA's), (Start: 17 @41355 has 7 MA's), (25, 41385), (32, 41445), (33, 41457),

Gene: Eish_50 Start: 36718, Stop: 36915, Start Num: 22

Candidate Starts for Eish_50:

(Start: 22 @36718 has 120 MA's), (27, 36769), (28, 36781), (34, 36814), (41, 36880),

Gene: Eish_41 Start: 31869, Stop: 31675, Start Num: 19

Candidate Starts for Eish_41:

(Start: 19 @31869 has 24 MA's), (31, 31782), (39, 31722), (41, 31701),

Gene: Empress_49 Start: 36516, Stop: 36713, Start Num: 22

Candidate Starts for Empress_49:

(Start: 22 @36516 has 120 MA's), (27, 36567), (28, 36579), (34, 36612), (41, 36678),

Gene: Empress_41 Start: 32577, Stop: 32383, Start Num: 19

Candidate Starts for Empress_41:

(Start: 19 @32577 has 24 MA's), (31, 32490), (39, 32430), (41, 32409),

Gene: Eradicator_43 Start: 35055, Stop: 35252, Start Num: 22

Candidate Starts for Eradicator_43:

(Start: 22 @35055 has 120 MA's), (27, 35106), (28, 35118), (34, 35151), (41, 35217),

Gene: Fastidio_51 Start: 35796, Stop: 35993, Start Num: 22

Candidate Starts for Fastidio_51:

(7, 35706), (Start: 22 @35796 has 120 MA's), (27, 35847), (28, 35859), (34, 35892), (41, 35958),

Gene: Florinda_62 Start: 38976, Stop: 39173, Start Num: 22

Candidate Starts for Florinda_62:

(2, 38802), (Start: 22 @38976 has 120 MA's), (27, 39027), (28, 39039), (34, 39072), (41, 39138),

Gene: Frankie_53 Start: 37777, Stop: 37974, Start Num: 22

Candidate Starts for Frankie_53:

(Start: 13 @37750 has 3 MA's), (Start: 22 @37777 has 120 MA's), (41, 37939),

Gene: FreddyB_50 Start: 35643, Stop: 35840, Start Num: 22

Candidate Starts for FreddyB_50:

(Start: 22 @35643 has 120 MA's), (27, 35694), (28, 35706), (34, 35739), (41, 35805),

Gene: GTE6_51 Start: 41823, Stop: 42017, Start Num: 17
Candidate Starts for GTE6_51:
(Start: 14 @41814 has 3 MA's), (Start: 17 @41823 has 7 MA's), (25, 41853), (32, 41913), (33, 41925),

Gene: GUmbie_40 Start: 31183, Stop: 30989, Start Num: 19
Candidate Starts for GUmbie_40:
(Start: 19 @31183 has 24 MA's), (31, 31096), (39, 31036), (41, 31015),

Gene: GUmbie_47 Start: 36062, Stop: 36259, Start Num: 22
Candidate Starts for GUmbie_47:
(Start: 22 @36062 has 120 MA's), (27, 36113), (28, 36125), (34, 36158), (41, 36224),

Gene: Gaea_53 Start: 43767, Stop: 43964, Start Num: 17
Candidate Starts for Gaea_53:
(1, 43374), (9, 43716), (Start: 17 @43767 has 7 MA's), (29, 43848), (36, 43887), (42, 43950),

Gene: Gandalph_51 Start: 36305, Stop: 36502, Start Num: 22
Candidate Starts for Gandalph_51:
(Start: 22 @36305 has 120 MA's), (27, 36356), (28, 36368), (34, 36401), (41, 36467),

Gene: GigiOuiOui_47 Start: 35975, Stop: 36172, Start Num: 22
Candidate Starts for GigiOuiOui_47:
(Start: 22 @35975 has 120 MA's), (27, 36026), (28, 36038), (34, 36071), (41, 36137),

Gene: Girr_50 Start: 37034, Stop: 37231, Start Num: 22
Candidate Starts for Girr_50:
(Start: 22 @37034 has 120 MA's), (27, 37085), (28, 37097), (34, 37130), (41, 37196),

Gene: Hamulus_51 Start: 37417, Stop: 37614, Start Num: 22
Candidate Starts for Hamulus_51:
(Start: 22 @37417 has 120 MA's), (27, 37468), (28, 37480), (34, 37513), (41, 37579),

Gene: Harley_52 Start: 36770, Stop: 36967, Start Num: 22
Candidate Starts for Harley_52:
(Start: 22 @36770 has 120 MA's), (27, 36821), (28, 36833), (34, 36866), (41, 36932),

Gene: lbOuu_43 Start: 31738, Stop: 31544, Start Num: 19
Candidate Starts for lbOuu_43:
(Start: 19 @31738 has 24 MA's), (31, 31651), (39, 31591), (41, 31570),

Gene: lbOuu_52 Start: 37352, Stop: 37549, Start Num: 22
Candidate Starts for lbOuu_52:
(Start: 22 @37352 has 120 MA's), (27, 37403), (28, 37415), (34, 37448), (41, 37514),

Gene: lbhubesi_49 Start: 35857, Stop: 36054, Start Num: 22
Candidate Starts for lbhubesi_49:
(Start: 22 @35857 has 120 MA's), (27, 35908), (28, 35920), (34, 35953), (41, 36019),

Gene: Idaho_18 Start: 13771, Stop: 13965, Start Num: 20
Candidate Starts for Idaho_18:
(Start: 20 @13771 has 1 MA's), (24, 13786), (37, 13897),

Gene: Inventum_39 Start: 31844, Stop: 31650, Start Num: 19

Candidate Starts for Inventum_39:

(Start: 19 @31844 has 24 MA's), (31, 31757), (39, 31697), (41, 31676),

Gene: Jabbawokkie_63 Start: 37588, Stop: 37785, Start Num: 22

Candidate Starts for Jabbawokkie_63:

(Start: 22 @37588 has 120 MA's), (26, 37633), (27, 37639), (29, 37654), (30, 37657), (34, 37684), (37, 37711), (41, 37744),

Gene: JalFarm20_59 Start: 39334, Stop: 39531, Start Num: 22

Candidate Starts for JalFarm20_59:

(Start: 22 @39334 has 120 MA's), (27, 39385), (28, 39397), (34, 39430), (41, 39496),

Gene: Jarcob_50 Start: 36763, Stop: 36960, Start Num: 22

Candidate Starts for Jarcob_50:

(Start: 22 @36763 has 120 MA's), (27, 36814), (28, 36826), (34, 36859), (41, 36925),

Gene: Jinglebell_55 Start: 38662, Stop: 38859, Start Num: 22

Candidate Starts for Jinglebell_55:

(Start: 22 @38662 has 120 MA's), (27, 38713), (28, 38725), (34, 38758), (41, 38824),

Gene: Job42_43 Start: 33160, Stop: 32966, Start Num: 19

Candidate Starts for Job42_43:

(Start: 19 @33160 has 24 MA's), (31, 33073), (39, 33013), (41, 32992),

Gene: Job42_50 Start: 38024, Stop: 38221, Start Num: 22

Candidate Starts for Job42_50:

(Start: 22 @38024 has 120 MA's), (27, 38075), (28, 38087), (34, 38120), (41, 38186),

Gene: JoeyJr_46 Start: 35270, Stop: 35467, Start Num: 22

Candidate Starts for JoeyJr_46:

(Start: 22 @35270 has 120 MA's), (27, 35321), (28, 35333), (34, 35366), (41, 35432),

Gene: JoeyJr_40 Start: 31332, Stop: 31138, Start Num: 19

Candidate Starts for JoeyJr_40:

(Start: 19 @31332 has 24 MA's), (31, 31245), (39, 31185), (41, 31164),

Gene: Karhdo_49 Start: 36857, Stop: 37054, Start Num: 22

Candidate Starts for Karhdo_49:

(Start: 22 @36857 has 120 MA's), (27, 36908), (28, 36920), (34, 36953), (41, 37019),

Gene: Kersh_53 Start: 38807, Stop: 39004, Start Num: 22

Candidate Starts for Kersh_53:

(Start: 22 @38807 has 120 MA's), (27, 38858), (28, 38870), (34, 38903), (41, 38969),

Gene: Kimberlium_53 Start: 38669, Stop: 38866, Start Num: 22

Candidate Starts for Kimberlium_53:

(Start: 22 @38669 has 120 MA's), (27, 38720), (28, 38732), (34, 38765), (41, 38831),

Gene: Kimona_32 Start: 25489, Stop: 25322, Start Num: 23

Candidate Starts for Kimona_32:

(Start: 23 @25489 has 1 MA's), (29, 25438), (41, 25348),

Gene: KingMidas_50 Start: 36932, Stop: 37129, Start Num: 22

Candidate Starts for KingMidas_50:

(Start: 22 @36932 has 120 MA's), (27, 36983), (28, 36995), (34, 37028), (41, 37094),

Gene: Koella_44 Start: 32693, Stop: 32890, Start Num: 22

Candidate Starts for Koella_44:

(Start: 22 @32693 has 120 MA's), (27, 32744), (28, 32756), (34, 32789), (41, 32855),

Gene: Krakatau_48 Start: 36504, Stop: 36701, Start Num: 22

Candidate Starts for Krakatau_48:

(Start: 22 @36504 has 120 MA's), (27, 36555), (28, 36567), (34, 36600), (41, 36666),

Gene: Kwekel_51 Start: 41247, Stop: 41456, Start Num: 17

Candidate Starts for Kwekel_51:

(Start: 17 @41247 has 7 MA's), (25, 41280), (31, 41337), (33, 41352), (35, 41364), (38, 41391),

Gene: Latretium_53 Start: 37646, Stop: 37843, Start Num: 22

Candidate Starts for Latretium_53:

(Start: 22 @37646 has 120 MA's), (27, 37697), (34, 37742), (41, 37808),

Gene: Leozinho_42 Start: 31585, Stop: 31391, Start Num: 19

Candidate Starts for Leozinho_42:

(Start: 19 @31585 has 24 MA's), (31, 31498), (39, 31438), (41, 31417),

Gene: Leozinho_51 Start: 36607, Stop: 36804, Start Num: 22

Candidate Starts for Leozinho_51:

(Start: 22 @36607 has 120 MA's), (27, 36658), (28, 36670), (34, 36703), (41, 36769),

Gene: Leperchaun_43 Start: 34500, Stop: 34697, Start Num: 22

Candidate Starts for Leperchaun_43:

(Start: 22 @34500 has 120 MA's), (27, 34551), (28, 34563), (34, 34596), (41, 34662),

Gene: LilMoolah_49 Start: 36424, Stop: 36621, Start Num: 22

Candidate Starts for LilMoolah_49:

(Start: 22 @36424 has 120 MA's), (27, 36475), (28, 36487), (34, 36520), (41, 36586),

Gene: LittleShirley_50 Start: 37455, Stop: 37652, Start Num: 22

Candidate Starts for LittleShirley_50:

(Start: 22 @37455 has 120 MA's), (27, 37506), (28, 37518), (34, 37551), (41, 37617),

Gene: Lizziana_56 Start: 37766, Stop: 37963, Start Num: 22

Candidate Starts for Lizziana_56:

(Start: 22 @37766 has 120 MA's), (27, 37817), (28, 37829), (34, 37862), (41, 37928),

Gene: Llama_55 Start: 38660, Stop: 38857, Start Num: 22

Candidate Starts for Llama_55:

(Start: 22 @38660 has 120 MA's), (27, 38711), (28, 38723), (34, 38756), (41, 38822),

Gene: Llij_47 Start: 35993, Stop: 36190, Start Num: 22

Candidate Starts for Llij_47:

(Start: 22 @35993 has 120 MA's), (27, 36044), (28, 36056), (34, 36089), (41, 36155),

Gene: MadMen_44 Start: 35477, Stop: 35674, Start Num: 22

Candidate Starts for MadMen_44:

(Start: 22 @35477 has 120 MA's), (27, 35528), (28, 35540), (34, 35573), (41, 35639),

Gene: Madiba_46 Start: 34766, Stop: 34963, Start Num: 22

Candidate Starts for Madiba_46:

(Start: 22 @34766 has 120 MA's), (27, 34817), (28, 34829), (34, 34862), (41, 34928),

Gene: Mahavrat_48 Start: 35954, Stop: 36151, Start Num: 22

Candidate Starts for Mahavrat_48:

(Start: 22 @35954 has 120 MA's), (27, 36005), (28, 36017), (34, 36050), (41, 36116),

Gene: Mantra_47 Start: 35945, Stop: 36142, Start Num: 22

Candidate Starts for Mantra_47:

(Start: 22 @35945 has 120 MA's), (27, 35996), (28, 36008), (34, 36041), (41, 36107),

Gene: Maravista_52 Start: 38428, Stop: 38625, Start Num: 22

Candidate Starts for Maravista_52:

(Start: 22 @38428 has 120 MA's), (27, 38479), (28, 38491), (34, 38524), (41, 38590),

Gene: Marker_50 Start: 36326, Stop: 36523, Start Num: 22

Candidate Starts for Marker_50:

(Start: 22 @36326 has 120 MA's), (27, 36377), (28, 36389), (34, 36422), (41, 36488),

Gene: Martik_50 Start: 36719, Stop: 36916, Start Num: 22

Candidate Starts for Martik_50:

(Start: 22 @36719 has 120 MA's), (27, 36770), (28, 36782), (34, 36815), (41, 36881),

Gene: Mask_83 Start: 58809, Stop: 59012, Start Num: 18

Candidate Starts for Mask_83:

(4, 58722), (Start: 18 @58809 has 1 MA's), (40, 58974),

Gene: Misha28_46 Start: 34969, Stop: 35193, Start Num: 13

Candidate Starts for Misha28_46:

(8, 34912), (Start: 13 @34969 has 3 MA's), (Start: 22 @34996 has 120 MA's), (41, 35158),

Gene: MisterCuddles_50 Start: 37034, Stop: 37231, Start Num: 22

Candidate Starts for MisterCuddles_50:

(Start: 22 @37034 has 120 MA's), (27, 37085), (28, 37097), (34, 37130), (41, 37196),

Gene: Modragons_54 Start: 38506, Stop: 38703, Start Num: 22

Candidate Starts for Modragons_54:

(Start: 22 @38506 has 120 MA's), (27, 38557), (28, 38569), (34, 38602), (41, 38668),

Gene: MulchExplorer_57 Start: 38668, Stop: 38865, Start Num: 22

Candidate Starts for MulchExplorer_57:

(Start: 22 @38668 has 120 MA's), (27, 38719), (28, 38731), (34, 38764), (41, 38830),

Gene: MulchSalad_47 Start: 33570, Stop: 33767, Start Num: 22

Candidate Starts for MulchSalad_47:

(5, 33471), (6, 33474), (Start: 13 @33543 has 3 MA's), (Start: 22 @33570 has 120 MA's), (41, 33732),

Gene: Natkenzie_55 Start: 45502, Stop: 45702, Start Num: 21

Candidate Starts for Natkenzie_55:

(Start: 21 @45502 has 4 MA's), (31, 45580), (38, 45634),

Gene: Nimbo_45 Start: 35073, Stop: 35270, Start Num: 22
Candidate Starts for Nimbo_45:
(Start: 22 @35073 has 120 MA's), (27, 35124), (28, 35136), (34, 35169), (41, 35235),

Gene: Nitzel_45 Start: 35193, Stop: 35390, Start Num: 22
Candidate Starts for Nitzel_45:
(Start: 22 @35193 has 120 MA's), (27, 35244), (28, 35256), (34, 35289), (41, 35355),

Gene: Nivrat_47 Start: 36297, Stop: 36494, Start Num: 22
Candidate Starts for Nivrat_47:
(Start: 22 @36297 has 120 MA's), (27, 36348), (28, 36360), (34, 36393), (41, 36459),

Gene: NormanBulbieJr_50 Start: 36706, Stop: 36903, Start Num: 22
Candidate Starts for NormanBulbieJr_50:
(Start: 22 @36706 has 120 MA's), (27, 36757), (28, 36769), (34, 36802), (41, 36868),

Gene: Ochi17_53 Start: 38113, Stop: 38310, Start Num: 22
Candidate Starts for Ochi17_53:
(Start: 22 @38113 has 120 MA's), (27, 38164), (28, 38176), (34, 38209), (41, 38275),

Gene: OfUltron_55 Start: 38662, Stop: 38859, Start Num: 22
Candidate Starts for OfUltron_55:
(Start: 22 @38662 has 120 MA's), (27, 38713), (28, 38725), (34, 38758), (41, 38824),

Gene: Ogopogo_43 Start: 31095, Stop: 30901, Start Num: 19
Candidate Starts for Ogopogo_43:
(Start: 19 @31095 has 24 MA's), (31, 31008), (39, 30948), (41, 30927),

Gene: Oksu_54 Start: 38558, Stop: 38755, Start Num: 22
Candidate Starts for Oksu_54:
(Start: 22 @38558 has 120 MA's), (27, 38609), (28, 38621), (34, 38654), (41, 38720),

Gene: OlympiaSaint_50 Start: 36632, Stop: 36829, Start Num: 22
Candidate Starts for OlympiaSaint_50:
(Start: 22 @36632 has 120 MA's), (27, 36683), (28, 36695), (34, 36728), (41, 36794),

Gene: OlympiaSaint_40 Start: 31613, Stop: 31419, Start Num: 19
Candidate Starts for OlympiaSaint_40:
(Start: 19 @31613 has 24 MA's), (31, 31526), (39, 31466), (41, 31445),

Gene: OwlsT2W_49 Start: 36635, Stop: 36832, Start Num: 22
Candidate Starts for OwlsT2W_49:
(Start: 22 @36635 has 120 MA's), (27, 36686), (28, 36698), (34, 36731), (41, 36797),

Gene: OwlsT2W_40 Start: 31588, Stop: 31394, Start Num: 19
Candidate Starts for OwlsT2W_40:
(Start: 19 @31588 has 24 MA's), (31, 31501), (39, 31441), (41, 31420),

Gene: PHappiness_46 Start: 35046, Stop: 35243, Start Num: 22
Candidate Starts for PHappiness_46:
(Start: 22 @35046 has 120 MA's), (27, 35097), (28, 35109), (34, 35142), (41, 35208),

Gene: PMC_44 Start: 35844, Stop: 36041, Start Num: 22
Candidate Starts for PMC_44:
(Start: 22 @35844 has 120 MA's), (27, 35895), (28, 35907), (34, 35940), (41, 36006),

Gene: Pacc40_45 Start: 35120, Stop: 35317, Start Num: 22
Candidate Starts for Pacc40_45:
(Start: 22 @35120 has 120 MA's), (27, 35171), (28, 35183), (34, 35216), (41, 35282),

Gene: Phatniss_49 Start: 37088, Stop: 37285, Start Num: 22
Candidate Starts for Phatniss_49:
(Start: 22 @37088 has 120 MA's), (27, 37139), (28, 37151), (34, 37184), (41, 37250),

Gene: Piper2020_48 Start: 35712, Stop: 35909, Start Num: 22
Candidate Starts for Piper2020_48:
(8, 35628), (Start: 13 @35685 has 3 MA's), (Start: 22 @35712 has 120 MA's), (41, 35874),

Gene: Plumbus_52 Start: 36835, Stop: 37032, Start Num: 22
Candidate Starts for Plumbus_52:
(Start: 22 @36835 has 120 MA's), (27, 36886), (28, 36898), (34, 36931), (41, 36997),

Gene: Poenanya_49 Start: 37373, Stop: 37570, Start Num: 22
Candidate Starts for Poenanya_49:
(Start: 22 @37373 has 120 MA's), (27, 37424), (28, 37436), (34, 37469), (41, 37535),

Gene: Polka14_41 Start: 31785, Stop: 31591, Start Num: 19
Candidate Starts for Polka14_41:
(Start: 19 @31785 has 24 MA's), (31, 31698), (39, 31638), (41, 31617),

Gene: Polka14_47 Start: 35723, Stop: 35920, Start Num: 22
Candidate Starts for Polka14_47:
(Start: 22 @35723 has 120 MA's), (27, 35774), (28, 35786), (34, 35819), (41, 35885),

Gene: Pollywog_41 Start: 31707, Stop: 31513, Start Num: 19
Candidate Starts for Pollywog_41:
(Start: 19 @31707 has 24 MA's), (31, 31620), (39, 31560), (41, 31539),

Gene: Pollywog_48 Start: 36551, Stop: 36748, Start Num: 22
Candidate Starts for Pollywog_48:
(Start: 22 @36551 has 120 MA's), (28, 36614), (34, 36647), (41, 36713),

Gene: PopTart_45 Start: 35859, Stop: 36056, Start Num: 22
Candidate Starts for PopTart_45:
(Start: 22 @35859 has 120 MA's), (27, 35910), (28, 35922), (34, 35955), (41, 36021),

Gene: Priscilla_50 Start: 36805, Stop: 37002, Start Num: 22
Candidate Starts for Priscilla_50:
(Start: 22 @36805 has 120 MA's), (27, 36856), (28, 36868), (34, 36901), (41, 36967),

Gene: QuickMath_52 Start: 38892, Stop: 39089, Start Num: 22
Candidate Starts for QuickMath_52:
(Start: 22 @38892 has 120 MA's), (27, 38943), (28, 38955), (34, 38988), (41, 39054),

Gene: Quico_59 Start: 38796, Stop: 38993, Start Num: 22

Candidate Starts for Quico_59:
(2, 38622), (Start: 22 @38796 has 120 MA's), (27, 38847), (28, 38859), (34, 38892), (41, 38958),

Gene: Radiance_50 Start: 36960, Stop: 37157, Start Num: 22
Candidate Starts for Radiance_50:
(Start: 22 @36960 has 120 MA's), (27, 37011), (28, 37023), (34, 37056), (41, 37122),

Gene: Radiance_41 Start: 31335, Stop: 31141, Start Num: 19
Candidate Starts for Radiance_41:
(Start: 19 @31335 has 24 MA's), (31, 31248), (39, 31188), (41, 31167),

Gene: Ramsey_51 Start: 37587, Stop: 37784, Start Num: 22
Candidate Starts for Ramsey_51:
(Start: 22 @37587 has 120 MA's), (27, 37638), (28, 37650), (34, 37683), (41, 37749),

Gene: RedBird_47 Start: 36184, Stop: 36381, Start Num: 22
Candidate Starts for RedBird_47:
(Start: 22 @36184 has 120 MA's), (27, 36235), (28, 36247), (34, 36280), (41, 36346),

Gene: RitaG_46 Start: 35391, Stop: 35588, Start Num: 22
Candidate Starts for RitaG_46:
(Start: 22 @35391 has 120 MA's), (27, 35442), (28, 35454), (34, 35487), (41, 35553),

Gene: RoadKill_49 Start: 40844, Stop: 41047, Start Num: 14
Candidate Starts for RoadKill_49:
(Start: 14 @40844 has 3 MA's), (Start: 17 @40853 has 7 MA's), (25, 40883), (32, 40943), (33, 40955),

Gene: Rockne_48 Start: 35844, Stop: 36041, Start Num: 22
Candidate Starts for Rockne_48:
(Start: 22 @35844 has 120 MA's), (27, 35895), (28, 35907), (34, 35940), (41, 36006),

Gene: RockyHorror_50 Start: 36248, Stop: 36445, Start Num: 22
Candidate Starts for RockyHorror_50:
(Start: 22 @36248 has 120 MA's), (28, 36311), (34, 36344), (41, 36410),

Gene: Royals2015_42 Start: 31621, Stop: 31427, Start Num: 19
Candidate Starts for Royals2015_42:
(Start: 19 @31621 has 24 MA's), (31, 31534), (39, 31474), (41, 31453),

Gene: Royals2015_52 Start: 36653, Stop: 36850, Start Num: 22
Candidate Starts for Royals2015_52:
(Start: 22 @36653 has 120 MA's), (27, 36704), (28, 36716), (34, 36749), (41, 36815),

Gene: Ruby_48 Start: 37035, Stop: 37232, Start Num: 22
Candidate Starts for Ruby_48:
(Start: 22 @37035 has 120 MA's), (27, 37086), (28, 37098), (34, 37131), (41, 37197),

Gene: Sabbb_56 Start: 38083, Stop: 38280, Start Num: 22
Candidate Starts for Sabbb_56:
(Start: 22 @38083 has 120 MA's), (27, 38134), (28, 38146), (34, 38179), (41, 38245),

Gene: Sampson_55 Start: 45447, Stop: 45647, Start Num: 21
Candidate Starts for Sampson_55:

(Start: 21 @45447 has 4 MA's), (31, 45525), (38, 45579),

Gene: Sandalphon_44 Start: 32523, Stop: 32329, Start Num: 19

Candidate Starts for Sandalphon_44:

(Start: 19 @32523 has 24 MA's), (31, 32436), (39, 32376), (41, 32355),

Gene: Sassafras_41 Start: 31844, Stop: 31650, Start Num: 19

Candidate Starts for Sassafras_41:

(Start: 19 @31844 has 24 MA's), (31, 31757), (39, 31697), (41, 31676),

Gene: SassyB_45 Start: 35859, Stop: 36056, Start Num: 22

Candidate Starts for SassyB_45:

(Start: 22 @35859 has 120 MA's), (27, 35910), (28, 35922), (34, 35955), (41, 36021),

Gene: Scioto_56 Start: 45503, Stop: 45703, Start Num: 21

Candidate Starts for Scioto_56:

(Start: 21 @45503 has 4 MA's), (31, 45581), (38, 45635),

Gene: Scottish_49 Start: 36403, Stop: 36600, Start Num: 22

Candidate Starts for Scottish_49:

(Start: 22 @36403 has 120 MA's), (27, 36454), (28, 36466), (34, 36499), (41, 36565),

Gene: Scottish_41 Start: 32465, Stop: 32271, Start Num: 19

Candidate Starts for Scottish_41:

(Start: 19 @32465 has 24 MA's), (31, 32378), (39, 32318), (41, 32297),

Gene: Seabastian_55 Start: 38663, Stop: 38860, Start Num: 22

Candidate Starts for Seabastian_55:

(Start: 22 @38663 has 120 MA's), (27, 38714), (28, 38726), (34, 38759), (41, 38825),

Gene: Seagreen_51 Start: 36587, Stop: 36784, Start Num: 22

Candidate Starts for Seagreen_51:

(Start: 22 @36587 has 120 MA's), (27, 36638), (28, 36650), (34, 36683), (41, 36749),

Gene: Sejanus_84 Start: 57638, Stop: 57847, Start Num: 12

Candidate Starts for Sejanus_84:

(3, 57539), (4, 57578), (Start: 12 @57638 has 1 MA's), (40, 57815),

Gene: ShiLan_49 Start: 36752, Stop: 36949, Start Num: 22

Candidate Starts for ShiLan_49:

(Start: 22 @36752 has 120 MA's), (27, 36803), (28, 36815), (34, 36848), (41, 36914),

Gene: ShowerHandel_52 Start: 36719, Stop: 36916, Start Num: 22

Candidate Starts for ShowerHandel_52:

(Start: 22 @36719 has 120 MA's), (27, 36770), (28, 36782), (34, 36815), (41, 36881),

Gene: SiSi_49 Start: 36409, Stop: 36606, Start Num: 22

Candidate Starts for SiSi_49:

(Start: 22 @36409 has 120 MA's), (27, 36460), (28, 36472), (34, 36505), (41, 36571),

Gene: Sparkdehlily_54 Start: 37405, Stop: 37602, Start Num: 22

Candidate Starts for Sparkdehlily_54:

(Start: 22 @37405 has 120 MA's), (27, 37456), (28, 37468), (34, 37501), (41, 37567),

Gene: Spikelee_56 Start: 38143, Stop: 38340, Start Num: 22
Candidate Starts for Spikelee_56:
(Start: 22 @38143 has 120 MA's), (27, 38194), (28, 38206), (34, 38239), (41, 38305),

Gene: Spoonbill_40 Start: 31424, Stop: 31230, Start Num: 19
Candidate Starts for Spoonbill_40:
(Start: 19 @31424 has 24 MA's), (31, 31337), (39, 31277), (41, 31256),

Gene: Spoonbill_48 Start: 35345, Stop: 35542, Start Num: 22
Candidate Starts for Spoonbill_48:
(Start: 22 @35345 has 120 MA's), (27, 35396), (28, 35408), (34, 35441), (41, 35507),

Gene: Stap_49 Start: 36146, Stop: 36343, Start Num: 22
Candidate Starts for Stap_49:
(Start: 22 @36146 has 120 MA's), (27, 36197), (28, 36209), (34, 36242), (41, 36308),

Gene: Starcevich_50 Start: 37039, Stop: 37236, Start Num: 22
Candidate Starts for Starcevich_50:
(Start: 22 @37039 has 120 MA's), (27, 37090), (28, 37102), (34, 37135), (41, 37201),

Gene: TDanisky_54 Start: 37405, Stop: 37602, Start Num: 22
Candidate Starts for TDanisky_54:
(Start: 22 @37405 has 120 MA's), (27, 37456), (28, 37468), (34, 37501), (41, 37567),

Gene: Tardus_57 Start: 45204, Stop: 45404, Start Num: 21
Candidate Starts for Tardus_57:
(Start: 21 @45204 has 4 MA's), (27, 45258), (31, 45282), (38, 45336),

Gene: Tiamoceli_52 Start: 42144, Stop: 42338, Start Num: 17
Candidate Starts for Tiamoceli_52:
(Start: 14 @42135 has 3 MA's), (Start: 17 @42144 has 7 MA's), (25, 42174), (32, 42234), (33, 42246),

Gene: TootsiePop_46 Start: 34969, Stop: 35193, Start Num: 13
Candidate Starts for TootsiePop_46:
(8, 34912), (Start: 13 @34969 has 3 MA's), (Start: 22 @34996 has 120 MA's), (41, 35158),

Gene: Tootsieroll_44 Start: 31573, Stop: 31379, Start Num: 19
Candidate Starts for Tootsieroll_44:
(Start: 19 @31573 has 24 MA's), (31, 31486), (39, 31426), (41, 31405),

Gene: Tootsieroll_53 Start: 36596, Stop: 36793, Start Num: 22
Candidate Starts for Tootsieroll_53:
(Start: 22 @36596 has 120 MA's), (27, 36647), (28, 36659), (34, 36692), (41, 36758),

Gene: Totinger_50 Start: 36181, Stop: 36378, Start Num: 22
Candidate Starts for Totinger_50:
(Start: 22 @36181 has 120 MA's), (27, 36232), (28, 36244), (34, 36277), (41, 36343),

Gene: Tweety_49 Start: 36917, Stop: 37114, Start Num: 22
Candidate Starts for Tweety_49:
(Start: 22 @36917 has 120 MA's), (27, 36968), (28, 36980), (34, 37013), (41, 37079),

Gene: Twonlo_49 Start: 40765, Stop: 40968, Start Num: 14

Candidate Starts for Twonlo_49:

(Start: 14 @40765 has 3 MA's), (Start: 17 @40774 has 7 MA's), (25, 40804), (32, 40864), (33, 40876),

Gene: UncleRicky_50 Start: 37336, Stop: 37533, Start Num: 22

Candidate Starts for UncleRicky_50:

(Start: 22 @37336 has 120 MA's), (27, 37387), (28, 37399), (34, 37432), (41, 37498),

Gene: Veteran_40 Start: 31183, Stop: 30989, Start Num: 19

Candidate Starts for Veteran_40:

(Start: 19 @31183 has 24 MA's), (31, 31096), (39, 31036), (41, 31015),

Gene: Veteran_47 Start: 36053, Stop: 36250, Start Num: 22

Candidate Starts for Veteran_47:

(Start: 22 @36053 has 120 MA's), (27, 36104), (28, 36116), (34, 36149), (41, 36215),

Gene: ViaConlectus_55 Start: 44156, Stop: 44356, Start Num: 21

Candidate Starts for ViaConlectus_55:

(Start: 21 @44156 has 4 MA's), (27, 44210), (31, 44234), (38, 44288),

Gene: Yorick_49 Start: 37093, Stop: 37290, Start Num: 22

Candidate Starts for Yorick_49:

(Start: 22 @37093 has 120 MA's), (27, 37144), (28, 37156), (34, 37189), (41, 37255),

Gene: Zapner_62 Start: 37589, Stop: 37786, Start Num: 22

Candidate Starts for Zapner_62:

(Start: 22 @37589 has 120 MA's), (26, 37634), (27, 37640), (29, 37655), (30, 37658), (34, 37685), (37, 37712), (41, 37745),

Gene: Zerg_49 Start: 36357, Stop: 36554, Start Num: 22

Candidate Starts for Zerg_49:

(Start: 22 @36357 has 120 MA's), (28, 36420), (34, 36453), (41, 36519),