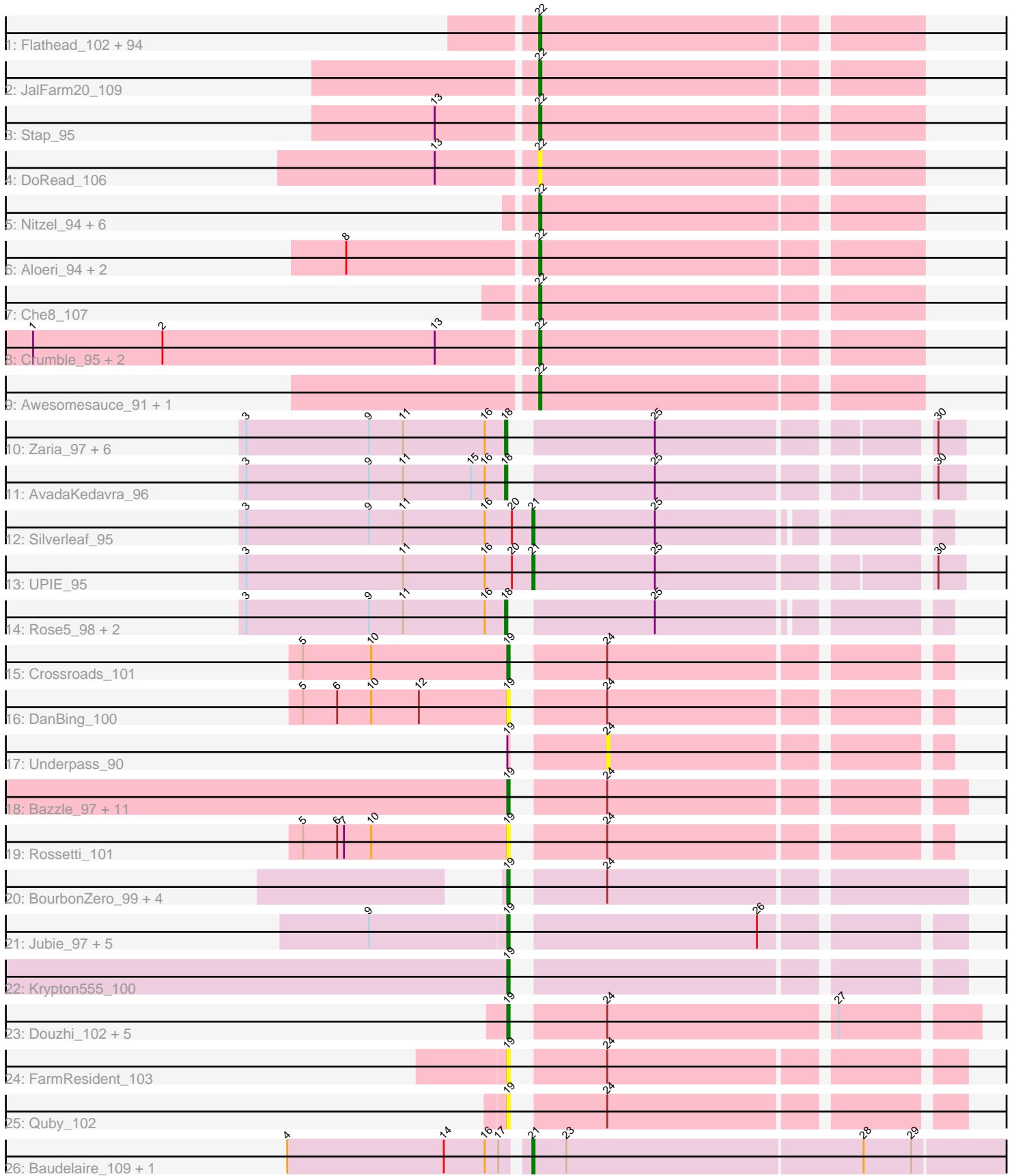


Pham 222928



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 222928 Report

This analysis was run 03/28/25 on database version 593.

Pham number 222928 has 165 members, 32 are drafts.

Phages represented in each track:

- Track 1 : Flathead_102, Brocalys_92, CaptainTrips_102, Guppsters_95, AlpineSix_98, Llama_107, Brookers_101, DotProduct_94, KristaRAM_108, Brushbloom_106, DosHalletts_97, IMpilo_98, Clifton_92, Eish_105, MisterCuddles_100, DLane_100, Zerg_98, MilleniumForce_100, Ochi17_106, Bubbles123_94, PhesterPhotato_104, Seabastian_107, MilanaBonita_93, Phalconet_101, DeadP_100, Filuzino_100, IbOuu_96, ShowerHandel_101, Sarma624_102, BobaPhett_102, Ardmore_84, Ms6_102, Coco12_101, Mozy_104, Rita_100, Philus_104, Violac_104, Seagreen_101, Chuckly_97, Aubs_100, LastJedi_91, Jinglebell_107, LittleShirley_108, Pippy_98, Corium_99, Cerasum_99, VRedHorse_101, Hamulus_100, Girr_99, Batiatus_100, SG4_101, Cabrinians_97, Burwell21_94, Lizziana_101, OfUltron_107, Mutaforma13_101, Mova_102, Kingsley_109, Royals2015_104, Hegedechwinu_108, Oksu_104, Slim_101, Karhdo_95, XFactor_91, Taj_106, Tweety_101, Firehouse51_94, James_104, Maravista_97, Emmaloid_101, SwagPiggett_102, Priscilla_101, NormanBulbieJr_98, Velveteen_97, BigPhil_97, Blexus_97, Martik_99, Jant_107, Wee_103, Melissauren88_90, Vivum_102, Bipolar_102, Phanphagia_105, Tootsieroll_94, Whatsapiecost_94, Cornucopia_100, Koella_93, Kenuha5_92, Fruitloop_98, Emma_105, Dante_98, Zizzle_103, Akhila_94, Shauna1_102, KingJulian_103
- Track 2 : JalFarm20_109
- Track 3 : Stap_95
- Track 4 : DoRead_106
- Track 5 : Nitzel_94, Florinda_112, StAnnes_104, Girafales_109, ShroomBoi_98, Quico_109, Job42_101
- Track 6 : Aloeri_94, ChickenDinner_94, DocMcStuffins_88
- Track 7 : Che8_107
- Track 8 : Crumble_95, OlympiaSaint_104, Sabbb_103
- Track 9 : Awesomesauce_91, Beakin_92
- Track 10 : Zaria_97, Wyatt2_97, Tyson_98, Halena_94, MAckerman_95, Acquire49_96, Calm_98
- Track 11 : AvadaKedavra_96
- Track 12 : Silverleaf_95
- Track 13 : UPIE_95
- Track 14 : Rose5_98, JoeDirt_98, Enceladus_93
- Track 15 : Crossroads_101
- Track 16 : DanBing_100
- Track 17 : Underpass_90

- Track 18 : Bazzle_97, Archie_97, Nicholasp3_100, Finemlucis_101, LilDestine_98, Itos_100, Kahlid_99, Gabriela_100, Zakai_101, SoJulia_102, Rumpelstiltskin_96, BobsGarage_99
- Track 19 : Rossetti_101
- Track 20 : BourbonZero_99, KirDoubleO7_96, Ellson_97, DuncansLeg_99, LiyuLake_97
- Track 21 : Jubie_97, Finnry_98, MsGreen_98, Clautastrophe_96, Bellis_96, Samty_97
- Track 22 : Krypton555_100
- Track 23 : Douzhi_102, Bromden_102, BrainDrainer_103, Sheng711_103, PYPDinur_102, Douge_102
- Track 24 : FarmResident_103
- Track 25 : Quby_102
- Track 26 : Baudelaire_109, Aegeus_109

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 97 of the 133 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila_94, Aloeri_94, AlpineSix_98, Ardmore_84, Aubs_100, Awesomesauce_91, Batiatus_100, Beakin_92, BigPhil_97, Bipolar_102, Blexus_97, BobaPhett_102, Brocalys_92, Brookers_101, Brushbloom_106, Bubbles123_94, Burwell21_94, Cabrinians_97, CaptainTrips_102, Cerasum_99, Che8_107, ChickenDinner_94, Chuckly_97, Clifton_92, Coco12_101, Corium_99, Cornucopia_100, Crumble_95, DLane_100, Dante_98, DeadP_100, DoRead_106, DocMcStuffins_88, DosHalletts_97, DotProduct_94, Eish_105, Emma_105, Emmaloid_101, Filuzino_100, Firehouse51_94, Flathead_102, Florinda_112, Fruitloop_98, Girafales_109, Girr_99, Guppsters_95, Hamulus_100, Hegedechwinu_108, IMpilo_98, IbOuu_96, JalFarm20_109, James_104, Jant_107, Jinglebell_107, Job42_101, Karhdo_95, Kenuha5_92, KingJulian_103, Kingsley_109, Koella_93, KristaRAM_108, LastJedi_91, LittleShirley_108, Lizziana_101, Llama_107, Maravista_97, Martik_99, Melissauren88_90, MilanaBonita_93, MilleniumForce_100, MisterCuddles_100, Mova_102, Mozy_104, Ms6_102, Mutaforma13_101, Nitzel_94, NormanBulbieJr_98, Ochi17_106, OfUltron_107, Oksu_104, OlympiaSaint_104, Phalconet_101, Phanphagia_105, PhesterPotato_104, Philus_104, Pippy_98, Priscilla_101, Quico_109, Rita_100, Royals2015_104, SG4_101, Sabbb_103, Sarma624_102, Seabastian_107, Seagreen_101, Shauna1_102, ShowerHandel_101, ShroomBoi_98, Slim_101, StAnnes_104, Stap_95, SwagPigglett_102, Taj_106, Tootsieroll_94, Tweety_101, VRedHorse_101, Velveteen_97, Violac_104, Vivum_102, Wee_103, Whatsapiecost_94, XFactor_91, Zerg_98, Zizzle_103,

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

-

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

- Acquire49_96, Aegeus_109, Archie_97, AvadaKedavra_96, Baudelaire_109, Bazzle_97, Bellis_96, BobsGarage_99, BourbonZero_99, BrainDrainer_103,

Bromden_102, Calm_98, Clautastrophe_96, Crossroads_101, DanBing_100, Douge_102, Douzhi_102, DuncansLeg_99, Ellson_97, Enceladus_93, FarmResident_103, Finemlucis_101, Finnry_98, Gabriela_100, Halena_94, Itos_100, JoeDirt_98, Jubie_97, Kahlid_99, KirDoubleO7_96, Krypton555_100, LilDestine_98, LiyuLake_97, MAckerman_95, MsGreen_98, Nicholasp3_100, PYPDinur_102, Quby_102, Rose5_98, Rossetti_101, Rumpelstiltskin_96, Samty_97, Sheng711_103, Silverleaf_95, SoJulia_102, Tyson_98, UPIE_95, Underpass_90, Wyatt2_97, Zakai_101, Zaria_97,

Summary by start number:

Start 18:

- Found in 11 of 165 (6.7%) of genes in pham
- Manual Annotations of this start: 11 of 133
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49_96 (L1), AvadaKedavra_96 (L1), Calm_98 (L1), Enceladus_93 (L1), Halena_94 (L1), JoeDirt_98 (L1), MAckerman_95 (L1), Rose5_98 (L1), Tyson_98 (L1), Wyatt2_97 (L1), Zaria_97 (L1),

Start 19:

- Found in 36 of 165 (21.8%) of genes in pham
- Manual Annotations of this start: 21 of 133
- Called 97.2% of time when present
- Phage (with cluster) where this start called: Archie_97 (L2), Bazzle_97 (L2), Bellis_96 (L3), BobsGarage_99 (L2), BourbonZero_99 (L3), BrainDrainer_103 (L4), Bromden_102 (L4), Clautastrophe_96 (L3), Crossroads_101 (L2), DanBing_100 (L2), Douge_102 (L4), Douzhi_102 (L4), DuncansLeg_99 (L3), Ellson_97 (L3), FarmResident_103 (L4), Finemlucis_101 (L2), Finnry_98 (L3), Gabriela_100 (L2), Itos_100 (L2), Jubie_97 (L3), Kahlid_99 (L2), KirDoubleO7_96 (L3), Krypton555_100 (L3), LilDestine_98 (L2), LiyuLake_97 (L3), MsGreen_98 (L3), Nicholasp3_100 (L2), PYPDinur_102 (L4), Quby_102 (L4), Rossetti_101 (L2), Rumpelstiltskin_96 (L2), Samty_97 (L3), Sheng711_103 (L4), SoJulia_102 (L2), Zakai_101 (L2),

Start 21:

- Found in 4 of 165 (2.4%) of genes in pham
- Manual Annotations of this start: 4 of 133
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_109 (L5), Baudelaire_109 (L5), Silverleaf_95 (L1), UPIE_95 (L1),

Start 22:

- Found in 114 of 165 (69.1%) of genes in pham
- Manual Annotations of this start: 97 of 133
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akhila_94 (F1), Aloeri_94 (F1), AlpineSix_98 (F1), Ardmore_84 (F1), Aubs_100 (F1), Awesomesauce_91 (F1), Batiatus_100 (F1), Beakin_92 (F1), BigPhil_97 (F1), Bipolar_102 (F1), Blexus_97 (F1), BobaPhett_102 (F1), Brocalys_92 (F1), Brookers_101 (F1), Brushbloom_106 (F1), Bubbles123_94 (F1), Burwell21_94 (F1), Cabrinians_97 (F1), CaptainTrips_102 (F1), Cerasum_99 (F1), Che8_107 (F1), ChickenDinner_94 (F1), Chuckly_97 (F1), Clifton_92 (F1), Coco12_101 (F1), Corium_99 (F1), Cornucopia_100 (F1), Crumble_95 (F1), DLane_100 (F1), Dante_98 (F1), DeadP_100 (F1), DoRead_106 (F1), DocMcStuffins_88 (F1), DosHalletts_97 (F1), DotProduct_94 (F1), Eish_105

(F1), Emma_105 (F1), Emmaloid_101 (F1), Filuzino_100 (F1), Firehouse51_94 (F1), Flathead_102 (F1), Florinda_112 (F1), Fruitloop_98 (F1), Girafales_109 (F1), Girr_99 (F1), Guppsters_95 (F1), Hamulus_100 (F1), Hegedechwinu_108 (F1), IMpilo_98 (F1), IbOuu_96 (F1), JalFarm20_109 (F1), James_104 (F1), Jant_107 (F1), Jinglebell_107 (F1), Job42_101 (F1), Karhdo_95 (F1), Kenuha5_92 (F1), KingJulian_103 (F1), Kingsley_109 (F1), Koella_93 (F1), KristaRAM_108 (F1), LastJedi_91 (F1), LittleShirley_108 (F1), Lizziana_101 (F1), Llama_107 (F1), Maravista_97 (F1), Martik_99 (F1), Melissauren88_90 (F1), MilanaBonita_93 (F1), MilleniumForce_100 (F1), MisterCuddles_100 (F1), Mova_102 (F1), Mozy_104 (F1), Ms6_102 (F1), Mutaforma13_101 (F1), Nitzel_94 (F1), NormanBulbieJr_98 (F1), Ochi17_106 (F1), OfUltron_107 (F1), Oksu_104 (F1), OlympiaSaint_104 (F1), Phalconet_101 (F1), Phanphagia_105 (F1), PhesterPhotato_104 (F1), Philus_104 (F1), Pippy_98 (F1), Priscilla_101 (F1), Quico_109 (F1), Rita_100 (F1), Royals2015_104 (F1), SG4_101 (F1), Sabbb_103 (F1), Sarma624_102 (F1), Sebastian_107 (F1), Seagreen_101 (F1), Shauna1_102 (F1), ShowerHandel_101 (F1), ShroomBoi_98 (F1), Slim_101 (F1), StAnnes_104 (F1), Stap_95 (F1), SwagPiggett_102 (F1), Taj_106 (F1), Tootsieroll_94 (F1), Tweety_101 (F1), VRedHorse_101 (F1), Velveteen_97 (F1), Violac_104 (F1), Vivum_102 (F1), Wee_103 (F1), Whatsapiecost_94 (F1), XFactor_91 (F1), Zerg_98 (F1), Zizzle_103 (F1),

Start 24:

- Found in 29 of 165 (17.6%) of genes in pham
- No Manual Annotations of this start.
- Called 3.4% of time when present
- Phage (with cluster) where this start called: Underpass_90 (L2),

Summary by clusters:

There are 6 clusters represented in this pham: F1, L4, L5, L2, L3, L1,

Info for manual annotations of cluster F1:

- Start number 22 was manually annotated 97 times for cluster F1.

Info for manual annotations of cluster L1:

- Start number 18 was manually annotated 11 times for cluster L1.
- Start number 21 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 19 was manually annotated 12 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 19 was manually annotated 7 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 19 was manually annotated 2 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 21 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Acquire49_96 Start: 59453, Stop: 59626, Start Num: 18
Candidate Starts for Acquire49_96:
(3, 59339), (9, 59393), (11, 59408), (16, 59444), (Start: 18 @59453 has 11 MA's), (25, 59507), (30, 59615),

Gene: Aegeus_109 Start: 63189, Stop: 63410, Start Num: 21
Candidate Starts for Aegeus_109:
(4, 63087), (14, 63156), (16, 63174), (17, 63180), (Start: 21 @63189 has 4 MA's), (23, 63204), (28, 63333), (29, 63354),

Gene: Akhila_94 Start: 52864, Stop: 53025, Start Num: 22
Candidate Starts for Akhila_94:
(Start: 22 @52864 has 97 MA's),

Gene: Aloeri_94 Start: 54002, Stop: 54163, Start Num: 22
Candidate Starts for Aloeri_94:
(8, 53921), (Start: 22 @54002 has 97 MA's),

Gene: AlpineSix_98 Start: 53582, Stop: 53743, Start Num: 22
Candidate Starts for AlpineSix_98:
(Start: 22 @53582 has 97 MA's),

Gene: Archie_97 Start: 61162, Stop: 61338, Start Num: 19
Candidate Starts for Archie_97:
(Start: 19 @61162 has 21 MA's), (24, 61195),

Gene: Ardmore_84 Start: 48753, Stop: 48914, Start Num: 22
Candidate Starts for Ardmore_84:
(Start: 22 @48753 has 97 MA's),

Gene: Aubs_100 Start: 55755, Stop: 55916, Start Num: 22
Candidate Starts for Aubs_100:
(Start: 22 @55755 has 97 MA's),

Gene: AvadaKedavra_96 Start: 59565, Stop: 59738, Start Num: 18
Candidate Starts for AvadaKedavra_96:
(3, 59451), (9, 59505), (11, 59520), (15, 59550), (16, 59556), (Start: 18 @59565 has 11 MA's), (25, 59619), (30, 59727),

Gene: Awesomesauce_91 Start: 54238, Stop: 54399, Start Num: 22
Candidate Starts for Awesomesauce_91:
(Start: 22 @54238 has 97 MA's),

Gene: Batiatus_100 Start: 54303, Stop: 54464, Start Num: 22
Candidate Starts for Batiatus_100:
(Start: 22 @54303 has 97 MA's),

Gene: Baudelaire_109 Start: 63189, Stop: 63410, Start Num: 21
Candidate Starts for Baudelaire_109:
(4, 63087), (14, 63156), (16, 63174), (17, 63180), (Start: 21 @63189 has 4 MA's), (23, 63204), (28, 63333), (29, 63354),

Gene: Bazzle_97 Start: 61718, Stop: 61894, Start Num: 19

Candidate Starts for Bazzle_97:
(Start: 19 @61718 has 21 MA's), (24, 61751),

Gene: Beakin_92 Start: 51276, Stop: 51437, Start Num: 22
Candidate Starts for Beakin_92:
(Start: 22 @51276 has 97 MA's),

Gene: Bellis_96 Start: 61495, Stop: 61671, Start Num: 19
Candidate Starts for Bellis_96:
(9, 61435), (Start: 19 @61495 has 21 MA's), (26, 61594),

Gene: BigPhil_97 Start: 51095, Stop: 51256, Start Num: 22
Candidate Starts for BigPhil_97:
(Start: 22 @51095 has 97 MA's),

Gene: Bipolar_102 Start: 56072, Stop: 56233, Start Num: 22
Candidate Starts for Bipolar_102:
(Start: 22 @56072 has 97 MA's),

Gene: Blexus_97 Start: 54682, Stop: 54843, Start Num: 22
Candidate Starts for Blexus_97:
(Start: 22 @54682 has 97 MA's),

Gene: BobaPhett_102 Start: 56361, Stop: 56522, Start Num: 22
Candidate Starts for BobaPhett_102:
(Start: 22 @56361 has 97 MA's),

Gene: BobsGarage_99 Start: 61936, Stop: 62106, Start Num: 19
Candidate Starts for BobsGarage_99:
(Start: 19 @61936 has 21 MA's), (24, 61969),

Gene: BourbonZero_99 Start: 61668, Stop: 61850, Start Num: 19
Candidate Starts for BourbonZero_99:
(Start: 19 @61668 has 21 MA's), (24, 61701),

Gene: BrainDrainer_103 Start: 61982, Stop: 62167, Start Num: 19
Candidate Starts for BrainDrainer_103:
(Start: 19 @61982 has 21 MA's), (24, 62015), (27, 62111),

Gene: Brocalys_92 Start: 51840, Stop: 52001, Start Num: 22
Candidate Starts for Brocalys_92:
(Start: 22 @51840 has 97 MA's),

Gene: Bromden_102 Start: 62718, Stop: 62903, Start Num: 19
Candidate Starts for Bromden_102:
(Start: 19 @62718 has 21 MA's), (24, 62751), (27, 62847),

Gene: Brookers_101 Start: 54046, Stop: 54207, Start Num: 22
Candidate Starts for Brookers_101:
(Start: 22 @54046 has 97 MA's),

Gene: Brushbloom_106 Start: 55347, Stop: 55508, Start Num: 22
Candidate Starts for Brushbloom_106:

(Start: 22 @55347 has 97 MA's),

Gene: Bubbles123_94 Start: 54115, Stop: 54276, Start Num: 22

Candidate Starts for Bubbles123_94:

(Start: 22 @54115 has 97 MA's),

Gene: Burwell21_94 Start: 54126, Stop: 54287, Start Num: 22

Candidate Starts for Burwell21_94:

(Start: 22 @54126 has 97 MA's),

Gene: Cabrinians_97 Start: 53761, Stop: 53922, Start Num: 22

Candidate Starts for Cabrinians_97:

(Start: 22 @53761 has 97 MA's),

Gene: Calm_98 Start: 59832, Stop: 60005, Start Num: 18

Candidate Starts for Calm_98:

(3, 59718), (9, 59772), (11, 59787), (16, 59823), (Start: 18 @59832 has 11 MA's), (25, 59886), (30, 59994),

Gene: CaptainTrips_102 Start: 53941, Stop: 54102, Start Num: 22

Candidate Starts for CaptainTrips_102:

(Start: 22 @53941 has 97 MA's),

Gene: Cerasum_99 Start: 51113, Stop: 51274, Start Num: 22

Candidate Starts for Cerasum_99:

(Start: 22 @51113 has 97 MA's),

Gene: Che8_107 Start: 55993, Stop: 56154, Start Num: 22

Candidate Starts for Che8_107:

(Start: 22 @55993 has 97 MA's),

Gene: ChickenDinner_94 Start: 54002, Stop: 54163, Start Num: 22

Candidate Starts for ChickenDinner_94:

(8, 53921), (Start: 22 @54002 has 97 MA's),

Gene: Chuckly_97 Start: 50983, Stop: 51144, Start Num: 22

Candidate Starts for Chuckly_97:

(Start: 22 @50983 has 97 MA's),

Gene: Clautastrophe_96 Start: 61490, Stop: 61666, Start Num: 19

Candidate Starts for Clautastrophe_96:

(9, 61430), (Start: 19 @61490 has 21 MA's), (26, 61589),

Gene: Clifton_92 Start: 52815, Stop: 52976, Start Num: 22

Candidate Starts for Clifton_92:

(Start: 22 @52815 has 97 MA's),

Gene: Coco12_101 Start: 55170, Stop: 55331, Start Num: 22

Candidate Starts for Coco12_101:

(Start: 22 @55170 has 97 MA's),

Gene: Corium_99 Start: 55970, Stop: 56131, Start Num: 22

Candidate Starts for Corium_99:

(Start: 22 @55970 has 97 MA's),

Gene: Cornucopia_100 Start: 52241, Stop: 52402, Start Num: 22

Candidate Starts for Cornucopia_100:

(Start: 22 @52241 has 97 MA's),

Gene: Crossroads_101 Start: 61823, Stop: 61993, Start Num: 19

Candidate Starts for Crossroads_101:

(5, 61733), (10, 61763), (Start: 19 @61823 has 21 MA's), (24, 61856),

Gene: Crumble_95 Start: 50509, Stop: 50670, Start Num: 22

Candidate Starts for Crumble_95:

(1, 50290), (2, 50347), (13, 50467), (Start: 22 @50509 has 97 MA's),

Gene: DLane_100 Start: 55223, Stop: 55384, Start Num: 22

Candidate Starts for DLane_100:

(Start: 22 @55223 has 97 MA's),

Gene: DanBing_100 Start: 61639, Stop: 61809, Start Num: 19

Candidate Starts for DanBing_100:

(5, 61549), (6, 61564), (10, 61579), (12, 61600), (Start: 19 @61639 has 21 MA's), (24, 61672),

Gene: Dante_98 Start: 55573, Stop: 55734, Start Num: 22

Candidate Starts for Dante_98:

(Start: 22 @55573 has 97 MA's),

Gene: DeadP_100 Start: 52801, Stop: 52962, Start Num: 22

Candidate Starts for DeadP_100:

(Start: 22 @52801 has 97 MA's),

Gene: DoRead_106 Start: 52714, Stop: 52875, Start Num: 22

Candidate Starts for DoRead_106:

(13, 52672), (Start: 22 @52714 has 97 MA's),

Gene: DocMcStuffins_88 Start: 55632, Stop: 55793, Start Num: 22

Candidate Starts for DocMcStuffins_88:

(8, 55551), (Start: 22 @55632 has 97 MA's),

Gene: DosHalletts_97 Start: 54563, Stop: 54724, Start Num: 22

Candidate Starts for DosHalletts_97:

(Start: 22 @54563 has 97 MA's),

Gene: DotProduct_94 Start: 51930, Stop: 52091, Start Num: 22

Candidate Starts for DotProduct_94:

(Start: 22 @51930 has 97 MA's),

Gene: Douge_102 Start: 61402, Stop: 61587, Start Num: 19

Candidate Starts for Douge_102:

(Start: 19 @61402 has 21 MA's), (24, 61435), (27, 61531),

Gene: Douzhi_102 Start: 61671, Stop: 61856, Start Num: 19

Candidate Starts for Douzhi_102:

(Start: 19 @61671 has 21 MA's), (24, 61704), (27, 61800),

Gene: DuncansLeg_99 Start: 61656, Stop: 61838, Start Num: 19
Candidate Starts for DuncansLeg_99:
(Start: 19 @61656 has 21 MA's), (24, 61689),

Gene: Eish_105 Start: 55239, Stop: 55400, Start Num: 22
Candidate Starts for Eish_105:
(Start: 22 @55239 has 97 MA's),

Gene: Ellson_97 Start: 61971, Stop: 62153, Start Num: 19
Candidate Starts for Ellson_97:
(Start: 19 @61971 has 21 MA's), (24, 62004),

Gene: Emma_105 Start: 53507, Stop: 53668, Start Num: 22
Candidate Starts for Emma_105:
(Start: 22 @53507 has 97 MA's),

Gene: Emmaloid_101 Start: 54427, Stop: 54588, Start Num: 22
Candidate Starts for Emmaloid_101:
(Start: 22 @54427 has 97 MA's),

Gene: Enceladus_93 Start: 59494, Stop: 59661, Start Num: 18
Candidate Starts for Enceladus_93:
(3, 59380), (9, 59434), (11, 59449), (16, 59485), (Start: 18 @59494 has 11 MA's), (25, 59548),

Gene: FarmResident_103 Start: 61588, Stop: 61764, Start Num: 19
Candidate Starts for FarmResident_103:
(Start: 19 @61588 has 21 MA's), (24, 61621),

Gene: Filuzino_100 Start: 55918, Stop: 56079, Start Num: 22
Candidate Starts for Filuzino_100:
(Start: 22 @55918 has 97 MA's),

Gene: Finemlucis_101 Start: 62639, Stop: 62809, Start Num: 19
Candidate Starts for Finemlucis_101:
(Start: 19 @62639 has 21 MA's), (24, 62672),

Gene: Finnry_98 Start: 61843, Stop: 62019, Start Num: 19
Candidate Starts for Finnry_98:
(9, 61783), (Start: 19 @61843 has 21 MA's), (26, 61942),

Gene: Firehouse51_94 Start: 54735, Stop: 54896, Start Num: 22
Candidate Starts for Firehouse51_94:
(Start: 22 @54735 has 97 MA's),

Gene: Flathead_102 Start: 54239, Stop: 54400, Start Num: 22
Candidate Starts for Flathead_102:
(Start: 22 @54239 has 97 MA's),

Gene: Florinda_112 Start: 56324, Stop: 56485, Start Num: 22
Candidate Starts for Florinda_112:
(Start: 22 @56324 has 97 MA's),

Gene: Fruitloop_98 Start: 55083, Stop: 55244, Start Num: 22
Candidate Starts for Fruitloop_98:
(Start: 22 @55083 has 97 MA's),

Gene: Gabriela_100 Start: 60925, Stop: 61095, Start Num: 19
Candidate Starts for Gabriela_100:
(Start: 19 @60925 has 21 MA's), (24, 60958),

Gene: Girafales_109 Start: 55929, Stop: 56090, Start Num: 22
Candidate Starts for Girafales_109:
(Start: 22 @55929 has 97 MA's),

Gene: Girr_99 Start: 54813, Stop: 54974, Start Num: 22
Candidate Starts for Girr_99:
(Start: 22 @54813 has 97 MA's),

Gene: Guppsters_95 Start: 51924, Stop: 52085, Start Num: 22
Candidate Starts for Guppsters_95:
(Start: 22 @51924 has 97 MA's),

Gene: Halena_94 Start: 58748, Stop: 58921, Start Num: 18
Candidate Starts for Halena_94:
(3, 58634), (9, 58688), (11, 58703), (16, 58739), (Start: 18 @58748 has 11 MA's), (25, 58802), (30, 58910),

Gene: Hamulus_100 Start: 53768, Stop: 53929, Start Num: 22
Candidate Starts for Hamulus_100:
(Start: 22 @53768 has 97 MA's),

Gene: Hegedechwinu_108 Start: 54304, Stop: 54465, Start Num: 22
Candidate Starts for Hegedechwinu_108:
(Start: 22 @54304 has 97 MA's),

Gene: IMpilo_98 Start: 52546, Stop: 52707, Start Num: 22
Candidate Starts for IMpilo_98:
(Start: 22 @52546 has 97 MA's),

Gene: IbOuu_96 Start: 51910, Stop: 52071, Start Num: 22
Candidate Starts for IbOuu_96:
(Start: 22 @51910 has 97 MA's),

Gene: Itos_100 Start: 60485, Stop: 60655, Start Num: 19
Candidate Starts for Itos_100:
(Start: 19 @60485 has 21 MA's), (24, 60518),

Gene: JalFarm20_109 Start: 56245, Stop: 56406, Start Num: 22
Candidate Starts for JalFarm20_109:
(Start: 22 @56245 has 97 MA's),

Gene: James_104 Start: 56416, Stop: 56577, Start Num: 22
Candidate Starts for James_104:
(Start: 22 @56416 has 97 MA's),

Gene: Jant_107 Start: 53731, Stop: 53892, Start Num: 22
Candidate Starts for Jant_107:
(Start: 22 @53731 has 97 MA's),

Gene: Jinglebell_107 Start: 55692, Stop: 55853, Start Num: 22
Candidate Starts for Jinglebell_107:
(Start: 22 @55692 has 97 MA's),

Gene: Job42_101 Start: 56590, Stop: 56751, Start Num: 22
Candidate Starts for Job42_101:
(Start: 22 @56590 has 97 MA's),

Gene: JoeDirt_98 Start: 60423, Stop: 60590, Start Num: 18
Candidate Starts for JoeDirt_98:
(3, 60309), (9, 60363), (11, 60378), (16, 60414), (Start: 18 @60423 has 11 MA's), (25, 60477),

Gene: Jubie_97 Start: 61625, Stop: 61801, Start Num: 19
Candidate Starts for Jubie_97:
(9, 61565), (Start: 19 @61625 has 21 MA's), (26, 61724),

Gene: Kahlid_99 Start: 61290, Stop: 61460, Start Num: 19
Candidate Starts for Kahlid_99:
(Start: 19 @61290 has 21 MA's), (24, 61323),

Gene: Karhdo_95 Start: 52179, Stop: 52340, Start Num: 22
Candidate Starts for Karhdo_95:
(Start: 22 @52179 has 97 MA's),

Gene: Kenuha5_92 Start: 53592, Stop: 53753, Start Num: 22
Candidate Starts for Kenuha5_92:
(Start: 22 @53592 has 97 MA's),

Gene: KingJulian_103 Start: 56834, Stop: 56995, Start Num: 22
Candidate Starts for KingJulian_103:
(Start: 22 @56834 has 97 MA's),

Gene: Kingsley_109 Start: 57777, Stop: 57938, Start Num: 22
Candidate Starts for Kingsley_109:
(Start: 22 @57777 has 97 MA's),

Gene: KirDoubleO7_96 Start: 61658, Stop: 61840, Start Num: 19
Candidate Starts for KirDoubleO7_96:
(Start: 19 @61658 has 21 MA's), (24, 61691),

Gene: Koella_93 Start: 51178, Stop: 51339, Start Num: 22
Candidate Starts for Koella_93:
(Start: 22 @51178 has 97 MA's),

Gene: KristaRAM_108 Start: 55500, Stop: 55661, Start Num: 22
Candidate Starts for KristaRAM_108:
(Start: 22 @55500 has 97 MA's),

Gene: Krypton555_100 Start: 61911, Stop: 62087, Start Num: 19

Candidate Starts for Krypton555_100:
(Start: 19 @61911 has 21 MA's),

Gene: LastJedi_91 Start: 52235, Stop: 52396, Start Num: 22
Candidate Starts for LastJedi_91:
(Start: 22 @52235 has 97 MA's),

Gene: LilDestine_98 Start: 61249, Stop: 61419, Start Num: 19
Candidate Starts for LilDestine_98:
(Start: 19 @61249 has 21 MA's), (24, 61282),

Gene: LittleShirley_108 Start: 55612, Stop: 55773, Start Num: 22
Candidate Starts for LittleShirley_108:
(Start: 22 @55612 has 97 MA's),

Gene: LiyuLake_97 Start: 61731, Stop: 61913, Start Num: 19
Candidate Starts for LiyuLake_97:
(Start: 19 @61731 has 21 MA's), (24, 61764),

Gene: Lizziana_101 Start: 55483, Stop: 55644, Start Num: 22
Candidate Starts for Lizziana_101:
(Start: 22 @55483 has 97 MA's),

Gene: Llama_107 Start: 55335, Stop: 55496, Start Num: 22
Candidate Starts for Llama_107:
(Start: 22 @55335 has 97 MA's),

Gene: MAckerman_95 Start: 58741, Stop: 58914, Start Num: 18
Candidate Starts for MAckerman_95:
(3, 58627), (9, 58681), (11, 58696), (16, 58732), (Start: 18 @58741 has 11 MA's), (25, 58795), (30, 58903),

Gene: Maravista_97 Start: 56143, Stop: 56304, Start Num: 22
Candidate Starts for Maravista_97:
(Start: 22 @56143 has 97 MA's),

Gene: Martik_99 Start: 55946, Stop: 56107, Start Num: 22
Candidate Starts for Martik_99:
(Start: 22 @55946 has 97 MA's),

Gene: Melissauren88_90 Start: 50968, Stop: 51129, Start Num: 22
Candidate Starts for Melissauren88_90:
(Start: 22 @50968 has 97 MA's),

Gene: MilanaBonita_93 Start: 52864, Stop: 53025, Start Num: 22
Candidate Starts for MilanaBonita_93:
(Start: 22 @52864 has 97 MA's),

Gene: MilleniumForce_100 Start: 54671, Stop: 54832, Start Num: 22
Candidate Starts for MilleniumForce_100:
(Start: 22 @54671 has 97 MA's),

Gene: MisterCuddles_100 Start: 54813, Stop: 54974, Start Num: 22

Candidate Starts for MisterCuddles_100:

(Start: 22 @54813 has 97 MA's),

Gene: Mova_102 Start: 54601, Stop: 54762, Start Num: 22

Candidate Starts for Mova_102:

(Start: 22 @54601 has 97 MA's),

Gene: Mozy_104 Start: 54236, Stop: 54397, Start Num: 22

Candidate Starts for Mozy_104:

(Start: 22 @54236 has 97 MA's),

Gene: Ms6_102 Start: 50859, Stop: 51020, Start Num: 22

Candidate Starts for Ms6_102:

(Start: 22 @50859 has 97 MA's),

Gene: MsGreen_98 Start: 61489, Stop: 61665, Start Num: 19

Candidate Starts for MsGreen_98:

(9, 61429), (Start: 19 @61489 has 21 MA's), (26, 61588),

Gene: Mutaforma13_101 Start: 54270, Stop: 54431, Start Num: 22

Candidate Starts for Mutaforma13_101:

(Start: 22 @54270 has 97 MA's),

Gene: Nicholasp3_100 Start: 61372, Stop: 61542, Start Num: 19

Candidate Starts for Nicholasp3_100:

(Start: 19 @61372 has 21 MA's), (24, 61405),

Gene: Nitzel_94 Start: 51429, Stop: 51590, Start Num: 22

Candidate Starts for Nitzel_94:

(Start: 22 @51429 has 97 MA's),

Gene: NormanBulbieJr_98 Start: 55192, Stop: 55353, Start Num: 22

Candidate Starts for NormanBulbieJr_98:

(Start: 22 @55192 has 97 MA's),

Gene: Ochi17_106 Start: 54930, Stop: 55091, Start Num: 22

Candidate Starts for Ochi17_106:

(Start: 22 @54930 has 97 MA's),

Gene: OfUltron_107 Start: 55479, Stop: 55640, Start Num: 22

Candidate Starts for OfUltron_107:

(Start: 22 @55479 has 97 MA's),

Gene: Oksu_104 Start: 56569, Stop: 56730, Start Num: 22

Candidate Starts for Oksu_104:

(Start: 22 @56569 has 97 MA's),

Gene: OlympiaSaint_104 Start: 55382, Stop: 55543, Start Num: 22

Candidate Starts for OlympiaSaint_104:

(1, 55163), (2, 55220), (13, 55340), (Start: 22 @55382 has 97 MA's),

Gene: PYPDinur_102 Start: 62234, Stop: 62419, Start Num: 19

Candidate Starts for PYPDinur_102:

(Start: 19 @62234 has 21 MA's), (24, 62267), (27, 62363),

Gene: Phalconet_101 Start: 54261, Stop: 54422, Start Num: 22

Candidate Starts for Phalconet_101:

(Start: 22 @54261 has 97 MA's),

Gene: Phanphagia_105 Start: 56016, Stop: 56177, Start Num: 22

Candidate Starts for Phanphagia_105:

(Start: 22 @56016 has 97 MA's),

Gene: PhesterPhotato_104 Start: 54235, Stop: 54396, Start Num: 22

Candidate Starts for PhesterPhotato_104:

(Start: 22 @54235 has 97 MA's),

Gene: Philus_104 Start: 56323, Stop: 56484, Start Num: 22

Candidate Starts for Philus_104:

(Start: 22 @56323 has 97 MA's),

Gene: Pippy_98 Start: 53463, Stop: 53624, Start Num: 22

Candidate Starts for Pippy_98:

(Start: 22 @53463 has 97 MA's),

Gene: Priscilla_101 Start: 55290, Stop: 55451, Start Num: 22

Candidate Starts for Priscilla_101:

(Start: 22 @55290 has 97 MA's),

Gene: Quby_102 Start: 61563, Stop: 61739, Start Num: 19

Candidate Starts for Quby_102:

(Start: 19 @61563 has 21 MA's), (24, 61596),

Gene: Quico_109 Start: 56144, Stop: 56305, Start Num: 22

Candidate Starts for Quico_109:

(Start: 22 @56144 has 97 MA's),

Gene: Rita_100 Start: 55860, Stop: 56021, Start Num: 22

Candidate Starts for Rita_100:

(Start: 22 @55860 has 97 MA's),

Gene: Rose5_98 Start: 60265, Stop: 60432, Start Num: 18

Candidate Starts for Rose5_98:

(3, 60151), (9, 60205), (11, 60220), (16, 60256), (Start: 18 @60265 has 11 MA's), (25, 60319),

Gene: Rossetti_101 Start: 61909, Stop: 62079, Start Num: 19

Candidate Starts for Rossetti_101:

(5, 61819), (6, 61834), (7, 61837), (10, 61849), (Start: 19 @61909 has 21 MA's), (24, 61942),

Gene: Royals2015_104 Start: 53395, Stop: 53556, Start Num: 22

Candidate Starts for Royals2015_104:

(Start: 22 @53395 has 97 MA's),

Gene: Rumpelstiltskin_96 Start: 61165, Stop: 61335, Start Num: 19

Candidate Starts for Rumpelstiltskin_96:

(Start: 19 @61165 has 21 MA's), (24, 61198),

Gene: SG4_101 Start: 55629, Stop: 55790, Start Num: 22
Candidate Starts for SG4_101:
(Start: 22 @55629 has 97 MA's),

Gene: Sabbb_103 Start: 52820, Stop: 52981, Start Num: 22
Candidate Starts for Sabbb_103:
(1, 52601), (2, 52658), (13, 52778), (Start: 22 @52820 has 97 MA's),

Gene: Samty_97 Start: 61587, Stop: 61763, Start Num: 19
Candidate Starts for Samty_97:
(9, 61527), (Start: 19 @61587 has 21 MA's), (26, 61686),

Gene: Sarma624_102 Start: 51789, Stop: 51950, Start Num: 22
Candidate Starts for Sarma624_102:
(Start: 22 @51789 has 97 MA's),

Gene: Seabastian_107 Start: 55480, Stop: 55641, Start Num: 22
Candidate Starts for Seabastian_107:
(Start: 22 @55480 has 97 MA's),

Gene: Seagreen_101 Start: 54767, Stop: 54928, Start Num: 22
Candidate Starts for Seagreen_101:
(Start: 22 @54767 has 97 MA's),

Gene: Shauna1_102 Start: 55632, Stop: 55793, Start Num: 22
Candidate Starts for Shauna1_102:
(Start: 22 @55632 has 97 MA's),

Gene: Sheng711_103 Start: 61758, Stop: 61943, Start Num: 19
Candidate Starts for Sheng711_103:
(Start: 19 @61758 has 21 MA's), (24, 61791), (27, 61887),

Gene: ShowerHandel_101 Start: 54136, Stop: 54297, Start Num: 22
Candidate Starts for ShowerHandel_101:
(Start: 22 @54136 has 97 MA's),

Gene: ShroomBoi_98 Start: 54184, Stop: 54345, Start Num: 22
Candidate Starts for ShroomBoi_98:
(Start: 22 @54184 has 97 MA's),

Gene: Silverleaf_95 Start: 59405, Stop: 59572, Start Num: 21
Candidate Starts for Silverleaf_95:
(3, 59279), (9, 59333), (11, 59348), (16, 59384), (20, 59396), (Start: 21 @59405 has 4 MA's), (25, 59459),

Gene: Slim_101 Start: 54418, Stop: 54579, Start Num: 22
Candidate Starts for Slim_101:
(Start: 22 @54418 has 97 MA's),

Gene: SoJulia_102 Start: 63096, Stop: 63266, Start Num: 19
Candidate Starts for SoJulia_102:
(Start: 19 @63096 has 21 MA's), (24, 63129),

Gene: StAnnes_104 Start: 55680, Stop: 55841, Start Num: 22
Candidate Starts for StAnnes_104:
(Start: 22 @55680 has 97 MA's),

Gene: Stap_95 Start: 51396, Stop: 51557, Start Num: 22
Candidate Starts for Stap_95:
(13, 51354), (Start: 22 @51396 has 97 MA's),

Gene: SwagPigglett_102 Start: 55990, Stop: 56151, Start Num: 22
Candidate Starts for SwagPigglett_102:
(Start: 22 @55990 has 97 MA's),

Gene: Taj_106 Start: 55638, Stop: 55799, Start Num: 22
Candidate Starts for Taj_106:
(Start: 22 @55638 has 97 MA's),

Gene: Tootsieroll_94 Start: 54782, Stop: 54943, Start Num: 22
Candidate Starts for Tootsieroll_94:
(Start: 22 @54782 has 97 MA's),

Gene: Tweety_101 Start: 55032, Stop: 55193, Start Num: 22
Candidate Starts for Tweety_101:
(Start: 22 @55032 has 97 MA's),

Gene: Tyson_98 Start: 60158, Stop: 60331, Start Num: 18
Candidate Starts for Tyson_98:
(3, 60044), (9, 60098), (11, 60113), (16, 60149), (Start: 18 @60158 has 11 MA's), (25, 60212), (30, 60320),

Gene: UPIE_95 Start: 59398, Stop: 59571, Start Num: 21
Candidate Starts for UPIE_95:
(3, 59272), (11, 59341), (16, 59377), (20, 59389), (Start: 21 @59398 has 4 MA's), (25, 59452), (30, 59560),

Gene: Underpass_90 Start: 56441, Stop: 56578, Start Num: 24
Candidate Starts for Underpass_90:
(Start: 19 @56408 has 21 MA's), (24, 56441),

Gene: VRedHorse_101 Start: 51888, Stop: 52049, Start Num: 22
Candidate Starts for VRedHorse_101:
(Start: 22 @51888 has 97 MA's),

Gene: Velveteen_97 Start: 51789, Stop: 51950, Start Num: 22
Candidate Starts for Velveteen_97:
(Start: 22 @51789 has 97 MA's),

Gene: Violac_104 Start: 55284, Stop: 55445, Start Num: 22
Candidate Starts for Violac_104:
(Start: 22 @55284 has 97 MA's),

Gene: Vivum_102 Start: 56225, Stop: 56386, Start Num: 22
Candidate Starts for Vivum_102:

(Start: 22 @56225 has 97 MA's),

Gene: Wee_103 Start: 55714, Stop: 55875, Start Num: 22

Candidate Starts for Wee_103:

(Start: 22 @55714 has 97 MA's),

Gene: Whatsapiecost_94 Start: 49439, Stop: 49600, Start Num: 22

Candidate Starts for Whatsapiecost_94:

(Start: 22 @49439 has 97 MA's),

Gene: Wyatt2_97 Start: 59821, Stop: 59994, Start Num: 18

Candidate Starts for Wyatt2_97:

(3, 59707), (9, 59761), (11, 59776), (16, 59812), (Start: 18 @59821 has 11 MA's), (25, 59875), (30, 59983),

Gene: XFactor_91 Start: 52230, Stop: 52391, Start Num: 22

Candidate Starts for XFactor_91:

(Start: 22 @52230 has 97 MA's),

Gene: Zakai_101 Start: 61981, Stop: 62151, Start Num: 19

Candidate Starts for Zakai_101:

(Start: 19 @61981 has 21 MA's), (24, 62014),

Gene: Zaria_97 Start: 59297, Stop: 59470, Start Num: 18

Candidate Starts for Zaria_97:

(3, 59183), (9, 59237), (11, 59252), (16, 59288), (Start: 18 @59297 has 11 MA's), (25, 59351), (30, 59459),

Gene: Zerg_98 Start: 54105, Stop: 54266, Start Num: 22

Candidate Starts for Zerg_98:

(Start: 22 @54105 has 97 MA's),

Gene: Zizzle_103 Start: 56181, Stop: 56342, Start Num: 22

Candidate Starts for Zizzle_103:

(Start: 22 @56181 has 97 MA's),