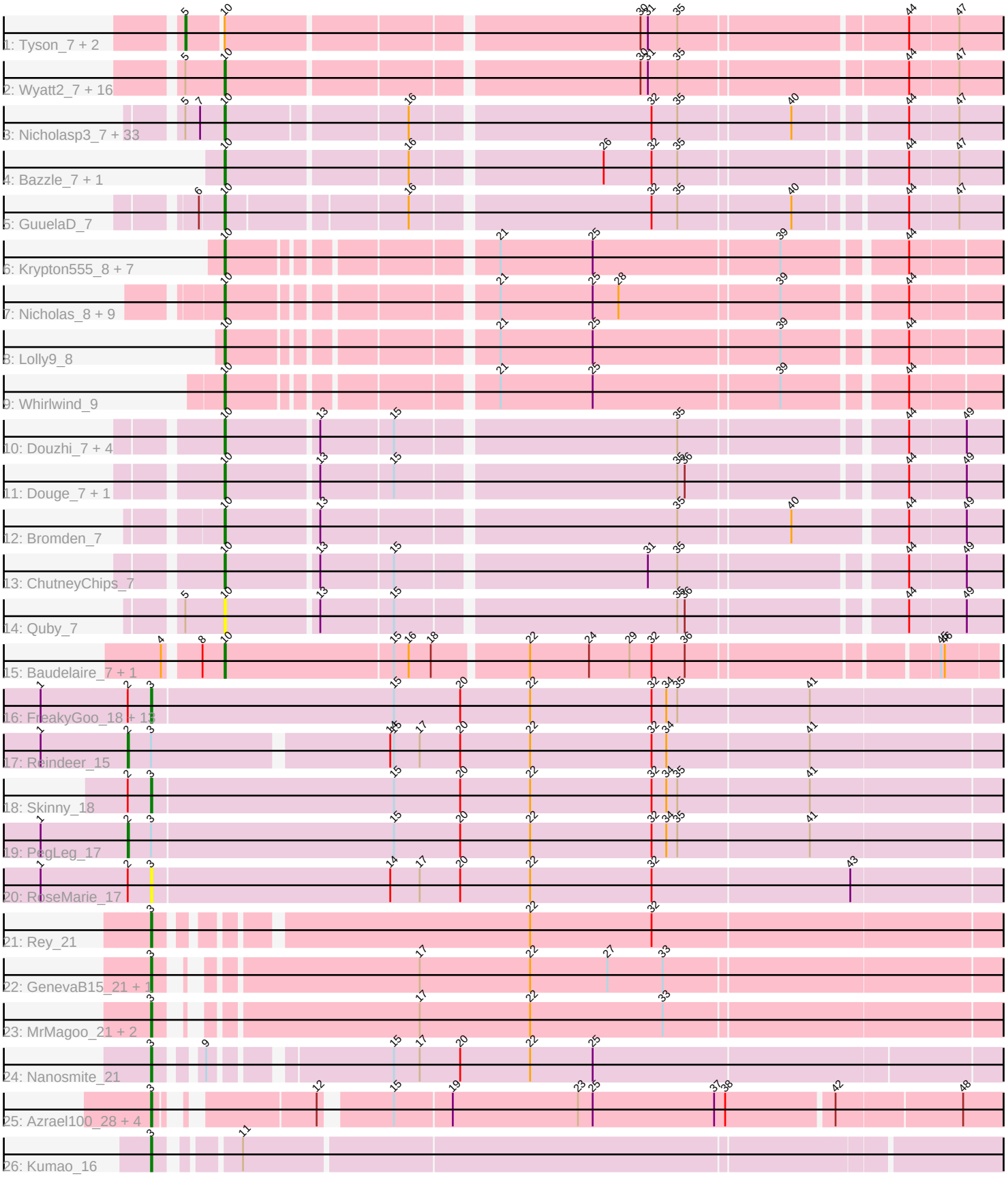
Pham 343777


1: Tyson_7 + 2
2: Wyatt2_7 + 16
3: Nicholasp3_7 + 33
4: Bazzle_7 + 1
5: GuuelaD_7
6: Krypton555_8 + 7
7: Nicholas_8 + 9
8: Lolly9_8
9: Whirlwind_9
10: Douzhi_7 + 4
11: Douge_7 + 1
12: Bromden_7
13: ChutneyChips_7
14: Quby_7
15: Baudelaire_7 + 1
16: FreakyGoo_18 + 15
17: Reindeer_15
18: Skinny_18
19: PegLeg_17
20: RoseMarie_17
21: Rey_21
22: GenevaB15_21 + 1
23: MrMagoo_21 + 2
24: Nanosmite_21
25: Azrael100_28 + 4
26: Kumao_16

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 343777 Report

This analysis was run 11/14/26 on database version 672.

Pham number 343777 has 120 members, 23 are drafts.

Phages represented in each track:
• Track 1 : Tyson_7, LeBron_7, UPIE_7
• Track 2 : Wyatt2_7, Zaria_7, CicholasNage_7, AvadaKedavra_7, JoeDirt_7, Wamburgrxpress_7, Appletree2_7, Rose5_7, Calm_7, MAckerman_7, Enceladus_7, DirkDirk_7, Poochiewood_7, Silverleaf_7, Halena_7, Acquire49_7, OhShagHennessy_7
• Track 3 : Nicholasp3_7, Underpass_7, Vetrix_7, Soap141_7, Hiraya_7, BobsGarage_7, Lynnae_7, OverPar_7, Netyap_7, Miley16_7, Gabriela_7, LilDestine_7, Faith1_7, Winky_7, Sarshaun_7, Kahlid_7, BigCheese_7, Finemlucis_7, Zakai_7, Lewan_7, Loadrie_7, Molivier_7, Gardann_7, DrSeegs_7, Wilder_7, Breezona_7, SoJulia_7, ChengKai98_7, MkaliMitinis3_7, Hafay_7, Itos_7, Crossroads_7, Wigglewiggle_7, Rumpelstiltskin_7
• Track 4 : Bazzle_7, Archie_7
• Track 5 : GuuelaD_7
• Track 6 : Krypton555_8, DuncansLeg_8, Ellson_8, MiniLon_8, MiniMac_8, KirDoubleO7_6, BourbonZero_7, LiyuLake_8
• Track 7 : Nicholas_8, Lumos_8, Red305_8, Snenia_8, MsGreen_8, Kingsolomon_8, Jubie_8, Clautastrophe_8, Jobypre_8, TriFive_8
• Track 8 : Lolly9_8
• Track 9 : Whirlwind_9
• Track 10 : Douzhi_7, BrainDrainer_8, PYPDinur_7, Chaser_7, Sheng711_7
• Track 11 : Douge_7, FarmResident_7
• Track 12 : Bromden_7
• Track 13 : ChutneyChips_7
• Track 14 : Quby_7
• Track 15 : Baudelaire_7, Aegeus_7
• Track 16 : FreakyGoo_18, IPhane7_17, Auspice_17, Bricole_17, TpudiCK_18, Diminimus_18, KleverKiS_17, Izel_18, Glaske16_18, LilhomieP_16, TyDawg_17, SlimJimmy_16, Bongo_17, Dulcita_18
• Track 17 : Reindeer_15
• Track 18 : Skinny_18
• Track 19 : PegLeg_17
• Track 20 : RoseMarie_17
• Track 21 : Rey_21
• Track 22 : GenevaB15_21, Aziz_21
• Track 23 : MrMagoo_21, GardenSalsa_21, Estes_22
• Track 24 : Nanosmite_21
• Track 25 : Azrael100_28, EniyanLRS_26, MaryV_29, Cosmo_29, Wildcat_29

• Track 26 : Kumao_16

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

The start number called the most often in the published annotations is 10, it was called in 66 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acquire49_7, Aegeus_7, Appletree2_7, Archie_7, AvadaKedavra_7, Baudelaire_7, Bazzle_7, BigCheese_7, BobsGarage_7, BourbonZero_7, BrainDrainer_8, Breezona_7, Bromden_7, Calm_7, Chaser_7, ChengKai98_7, ChutneyChips_7, CicholasNage_7, Clautastrophe_8, Crossroads_7, DirkDirk_7, Douge_7, Douzhi_7, DrSeegs_7, DuncansLeg_8, Ellson_8, Enceladus_7, Faith1_7, FarmResident_7, Finemlucis_7, Gabriela_7, Gardann_7, GuuelaD_7, Hafay_7, Halena_7, Hiraya_7, Itos_7, Jobypre_8, JoeDirt_7, Jubie_8, Kahlid_7, Kingsolomon_8, KirDoubleO7_6, Krypton555_8, Lewan_7, LilDestine_7, LiyuLake_8, Loadrie_7, Lolly9_8, Lumos_8, Lynnae_7, MAckerman_7, Miley16_7, MiniLon_8, MiniMac_8, MkaliMitinis3_7, Molivier_7, MsGreen_8, Netyap_7, Nicholas_8, Nicholasp3_7, OhShagHennessy_7, OverPar_7, PYPDinur_7, Poochiewood_7, Quby_7, Red305_8, Rose5_7, Rumpelstiltskin_7, Sarshaun_7, Sheng711_7, Silverleaf_7, Snenia_8, SoJulia_7, Soap141_7, TriFive_8, Underpass_7, Vetrix_7, Wamburgrxpress_7, Whirlwind_9, Wigglewiggle_7, Wilder_7, Winky_7, Wyatt2_7, Zakai_7, Zaria_7,

Genes that have the "Most Annotated" start but do not call it:
• LeBron_7, Tyson_7, UPIE_7,

Genes that do not have the "Most Annotated" start:
• Auspice_17, Aziz_21, Azrael100_28, Bongo_17, Bricole_17, Cosmo_29, Diminimus_18, Dulcita_18, EniyanLRS_26, Estes_22, FreakyGoo_18, GardenSalsa_21, GenevaB15_21, Glaske16_18, IPhane7_17, Izel_18, KleverKiS_17, Kumao_16, LilhomieP_16, MaryV_29, MrMagoo_21, Nanosmite_21, PegLeg_17, Reindeer_15, Rey_21, RoseMarie_17, Skinny_18, SlimJimmy_16, TpudiCK_18, TyDawg_17, Wildcat_29,

Summary by start number:

Start 2:
• Found in 18 of 120 (15.0%) of genes in pham
• Manual Annotations of this start: 2 of 97
• Called 11.1% of time when present
• Phage (with cluster) where this start called: PegLeg_17 (M1), Reindeer_15 (M1),

Start 3:
• Found in 31 of 120 (25.8%) of genes in pham
• Manual Annotations of this start: 26 of 97
• Called 93.5% of time when present
• Phage (with cluster) where this start called: Auspice_17 (M1), Aziz_21 (M2), Azrael100_28 (V), Bongo_17 (M1), Bricole_17 (M1), Cosmo_29 (V), Diminimus_18 (M1), Dulcita_18 (M1), EniyanLRS_26 (V), Estes_22 (M2), FreakyGoo_18 (M1), GardenSalsa_21 (M2), GenevaB15_21 (M2), Glaske16_18 (M1), IPhane7_17 (M1),

Izel_18 (M1), KleverKiS_17 (M1), Kumao_16 (singleton), LilhomieP_16 (M1), MaryV_29 (V), MrMagoo_21 (M2), Nanosmite_21 (M3), Rey_21 (M2), RoseMarie_17 (M1), Skinny_18 (M1), SlimJimmy_16 (M1), TpudiCK_18 (M1), TyDawg_17 (M1), Wildcat_29 (V),

Start 5:
• Found in 55 of 120 (45.8%) of genes in pham
• Manual Annotations of this start: 3 of 97
• Called 5.5% of time when present
• Phage (with cluster) where this start called: LeBron_7 (L1), Tyson_7 (L1), UPIE_7 (L1),

Start 10:
• Found in 89 of 120 (74.2%) of genes in pham
• Manual Annotations of this start: 66 of 97
• Called 96.6% of time when present
• Phage (with cluster) where this start called: Acquire49_7 (L1), Aegeus_7 (L5), Appletree2_7 (L1), Archie_7 (L2), AvadaKedavra_7 (L1), Baudelaire_7 (L5), Bazzle_7 (L2), BigCheese_7 (L2), BobsGarage_7 (L2), BourbonZero_7 (L3), BrainDrainer_8 (L4), Breezona_7 (L2), Bromden_7 (L4), Calm_7 (L1), Chaser_7 (L4), ChengKai98_7 (L2), ChutneyChips_7 (L4), CicholasNage_7 (L1), Clautastrophe_8 (L3), Crossroads_7 (L2), DirkDirk_7 (L1), Douge_7 (L4), Douzhi_7 (L4), DrSeegs_7 (L2), DuncansLeg_8 (L3), Ellson_8 (L3), Enceladus_7 (L1), Faith1_7 (L2), FarmResident_7 (L4), Finemlucis_7 (L2), Gabriela_7 (L2), Gardann_7 (L2), GuuelaD_7 (L2), Hafay_7 (L2), Halena_7 (L1), Hiraya_7 (L2), Itos_7 (L2), Jobypre_8 (L3), JoeDirt_7 (L1), Jubie_8 (L3), Kahlid_7 (L2), Kingsolomon_8 (L3), KirDoubleO7_6 (L3), Krypton555_8 (L3), Lewan_7 (L2), LilDestine_7 (L2), LiyuLake_8 (L3), Loadrie_7 (L2), Lolly9_8 (L3), Lumos_8 (L3), Lynnae_7 (L2), MAckerman_7 (L1), Miley16_7 (L2), MiniLon_8 (L3), MiniMac_8 (L3), MkaliMitinis3_7 (L2), Molivier_7 (L2), MsGreen_8 (L3), Netyap_7 (L2), Nicholas_8 (L3), Nicholasp3_7 (L2), OhShagHennessy_7 (L1), OverPar_7 (L2), PYPDinur_7 (L4), Poochiewood_7 (L1), Quby_7 (L4), Red305_8 (L3), Rose5_7 (L1), Rumpelstiltskin_7 (L2), Sarshaun_7 (L2), Sheng711_7 (L4), Silverleaf_7 (L1), Snenia_8 (L3), SoJulia_7 (L2), Soap141_7 (L2), TriFive_8 (L3), Underpass_7 (L2), Vetrix_7 (L2), Wamburgrxpress_7 (L1), Whirlwind_9 (L3), Wigglewiggle_7 (L2), Wilder_7 (L2), Winky_7 (L2), Wyatt2_7 (L1), Zakai_7 (L2), Zaria_7 (L1),

Summary by clusters:

There are 10 clusters represented in this pham: V, L1, singleton, L4, L5, L2, L3, M3, M2, M1,

Info for manual annotations of cluster L1:
•Start number 5 was manually annotated 3 times for cluster L1.
•Start number 10 was manually annotated 16 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 10 was manually annotated 29 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 10 was manually annotated 15 times for cluster L3.

Info for manual annotations of cluster L4:
•Start number 10 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster L5:
•Start number 10 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:
•Start number 2 was manually annotated 2 times for cluster M1.
•Start number 3 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:
•Start number 3 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:
•Start number 3 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:
•Start number 3 was manually annotated 5 times for cluster V.

Gene Information:

Gene: Acquire49_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for Acquire49_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Aegeus_7 Start: 5028, Stop: 5621, Start Num: 10
Candidate Starts for Aegeus_7:
(4, 4989), (8, 5013), (Start: 10 @5028 has 66 MA's), (15, 5163), (16, 5175), (18, 5193), (22, 5265), (24, 5313), (29, 5346), (32, 5364), (36, 5391), (45, 5577), (46, 5580),

Gene: Appletree2_7 Start: 5403, Stop: 6014, Start Num: 10
Candidate Starts for Appletree2_7:
(Start: 5 @5376 has 3 MA's), (Start: 10 @5403 has 66 MA's), (30, 5718), (31, 5724), (35, 5748), (44, 5922), (47, 5961),

Gene: Archie_7 Start: 5396, Stop: 6001, Start Num: 10
Candidate Starts for Archie_7:
(Start: 10 @5396 has 66 MA's), (16, 5537), (26, 5681), (32, 5720), (35, 5741), (44, 5909), (47, 5948),

Gene: Auspice_17 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for Auspice_17:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: AvadaKedavra_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for AvadaKedavra_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Aziz_21 Start: 9693, Stop: 10367, Start Num: 3
Candidate Starts for Aziz_21:
(Start: 3 @9693 has 26 MA's), (17, 9870), (22, 9960), (27, 10023), (33, 10068),

Gene: Azrael100_28 Start: 12267, Stop: 12920, Start Num: 3
Candidate Starts for Azrael100_28:
(Start: 3 @12267 has 26 MA's), (12, 12366), (15, 12414), (19, 12459), (23, 12561), (25, 12573), (37, 12672), (38, 12681), (42, 12765), (48, 12864),

Gene: Baudelaire_7 Start: 5028, Stop: 5621, Start Num: 10
Candidate Starts for Baudelaire_7:
(4, 4989), (8, 5013), (Start: 10 @5028 has 66 MA's), (15, 5163), (16, 5175), (18, 5193), (22, 5265), (24, 5313), (29, 5346), (32, 5364), (36, 5391), (45, 5577), (46, 5580),

Gene: Bazzle_7 Start: 5372, Stop: 5977, Start Num: 10
Candidate Starts for Bazzle_7:
(Start: 10 @5372 has 66 MA's), (16, 5513), (26, 5657), (32, 5696), (35, 5717), (44, 5885), (47, 5924),

Gene: BigCheese_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for BigCheese_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: BobsGarage_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for BobsGarage_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Bongo_17 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for Bongo_17:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: BourbonZero_7 Start: 5543, Stop: 6142, Start Num: 10
Candidate Starts for BourbonZero_7:
(Start: 10 @5543 has 66 MA's), (21, 5729), (25, 5804), (39, 5951), (44, 6041),

Gene: BrainDrainer_8 Start: 5236, Stop: 5844, Start Num: 10
Candidate Starts for BrainDrainer_8:
(Start: 10 @5236 has 66 MA's), (13, 5308), (15, 5365), (35, 5581), (44, 5749), (49, 5794),

Gene: Breezona_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Breezona_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Bricole_17 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for Bricole_17:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: Bromden_7 Start: 5140, Stop: 5754, Start Num: 10
Candidate Starts for Bromden_7:
(Start: 10 @5140 has 66 MA's), (13, 5212), (35, 5485), (40, 5572), (44, 5659), (49, 5704),

Gene: Calm_7 Start: 5430, Stop: 6041, Start Num: 10

Candidate Starts for Calm_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),

Gene: Chaser_7 Start: 5142, Stop: 5759, Start Num: 10
Candidate Starts for Chaser_7:
(Start: 10 @5142 has 66 MA's), (13, 5214), (15, 5271), (35, 5487), (44, 5664), (49, 5709),

Gene: ChengKai98_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for ChengKai98_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: ChutneyChips_7 Start: 5139, Stop: 5747, Start Num: 10
Candidate Starts for ChutneyChips_7:
(Start: 10 @5139 has 66 MA's), (13, 5211), (15, 5268), (31, 5460), (35, 5484), (44, 5652), (49, 5697),

Gene: CicholasNage_7 Start: 5430, Stop: 6041, Start Num: 10
Candidate Starts for CicholasNage_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),

Gene: Clautastrophe_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Clautastrophe_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Cosmo_29 Start: 12274, Stop: 12927, Start Num: 3
Candidate Starts for Cosmo_29:
(Start: 3 @12274 has 26 MA's), (12, 12373), (15, 12421), (19, 12466), (23, 12568), (25, 12580), (37, 12679), (38, 12688), (42, 12772), (48, 12871),

Gene: Crossroads_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Crossroads_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Diminimus_18 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for Diminimus_18:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: DirkDirk_7 Start: 5431, Stop: 6042, Start Num: 10
Candidate Starts for DirkDirk_7:
(Start: 5 @5404 has 3 MA's), (Start: 10 @5431 has 66 MA's), (30, 5746), (31, 5752), (35, 5776), (44, 5950), (47, 5989),

Gene: Douge_7 Start: 5097, Stop: 5705, Start Num: 10
Candidate Starts for Douge_7:
(Start: 10 @5097 has 66 MA's), (13, 5169), (15, 5226), (35, 5442), (36, 5448), (44, 5610), (49, 5655),

Gene: Douzhi_7 Start: 5097, Stop: 5705, Start Num: 10
Candidate Starts for Douzhi_7:
(Start: 10 @5097 has 66 MA's), (13, 5169), (15, 5226), (35, 5442), (44, 5610), (49, 5655),

Gene: DrSeegs_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for DrSeegs_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Dulcita_18 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for Dulcita_18:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: DuncansLeg_8 Start: 5545, Stop: 6144, Start Num: 10
Candidate Starts for DuncansLeg_8:
(Start: 10 @5545 has 66 MA's), (21, 5731), (25, 5806), (39, 5953), (44, 6043),

Gene: Ellson_8 Start: 5554, Stop: 6153, Start Num: 10
Candidate Starts for Ellson_8:
(Start: 10 @5554 has 66 MA's), (21, 5740), (25, 5815), (39, 5962), (44, 6052),

Gene: Enceladus_7 Start: 5431, Stop: 6042, Start Num: 10
Candidate Starts for Enceladus_7:
(Start: 5 @5404 has 3 MA's), (Start: 10 @5431 has 66 MA's), (30, 5746), (31, 5752), (35, 5776), (44, 5950), (47, 5989),

Gene: EniyanLRS_26 Start: 11965, Stop: 12621, Start Num: 3
Candidate Starts for EniyanLRS_26:
(Start: 3 @11965 has 26 MA's), (12, 12067), (15, 12115), (19, 12160), (23, 12262), (25, 12274), (37, 12373), (38, 12382), (42, 12466), (48, 12565),

Gene: Estes_22 Start: 9832, Stop: 10506, Start Num: 3
Candidate Starts for Estes_22:
(Start: 3 @9832 has 26 MA's), (17, 10009), (22, 10099), (33, 10207),

Gene: Faith1_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Faith1_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: FarmResident_7 Start: 5136, Stop: 5750, Start Num: 10
Candidate Starts for FarmResident_7:
(Start: 10 @5136 has 66 MA's), (13, 5205), (15, 5262), (35, 5478), (36, 5484), (44, 5655), (49, 5700),

Gene: Finemlucis_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Finemlucis_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: FreakyGoo_18 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for FreakyGoo_18:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: Gabriela_7 Start: 5422, Stop: 6027, Start Num: 10

Candidate Starts for Gabriela_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Gardann_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Gardann_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: GardenSalsa_21 Start: 9666, Stop: 10340, Start Num: 3
Candidate Starts for GardenSalsa_21:
(Start: 3 @9666 has 26 MA's), (17, 9843), (22, 9933), (33, 10041),

Gene: GenevaB15_21 Start: 9693, Stop: 10367, Start Num: 3
Candidate Starts for GenevaB15_21:
(Start: 3 @9693 has 26 MA's), (17, 9870), (22, 9960), (27, 10023), (33, 10068),

Gene: Glaske16_18 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for Glaske16_18:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: GuuelaD_7 Start: 5462, Stop: 6061, Start Num: 10
Candidate Starts for GuuelaD_7:
(6, 5447), (Start: 10 @5462 has 66 MA's), (16, 5597), (32, 5780), (35, 5801), (40, 5888), (44, 5969), (47, 6008),

Gene: Hafay_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for Hafay_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: Halena_7 Start: 5430, Stop: 6041, Start Num: 10
Candidate Starts for Halena_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),

Gene: Hiraya_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Hiraya_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: IPhane7_17 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for IPhane7_17:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: Itos_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Itos_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Izel_18 Start: 9092, Stop: 9808, Start Num: 3

Candidate Starts for Izel_18:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: Jobypre_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Jobypre_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: JoeDirt_7 Start: 5430, Stop: 6041, Start Num: 10
Candidate Starts for JoeDirt_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),

Gene: Jubie_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Jubie_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Kahlid_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Kahlid_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Kingsolomon_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Kingsolomon_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: KirDoubleO7_6 Start: 5554, Stop: 6153, Start Num: 10
Candidate Starts for KirDoubleO7_6:
(Start: 10 @5554 has 66 MA's), (21, 5740), (25, 5815), (39, 5962), (44, 6052),

Gene: KleverKiS_17 Start: 9089, Stop: 9805, Start Num: 3
Candidate Starts for KleverKiS_17:
(1, 9002), (Start: 2 @9071 has 2 MA's), (Start: 3 @9089 has 26 MA's), (15, 9284), (20, 9338), (22, 9395), (32, 9494), (34, 9506), (35, 9515), (41, 9620),

Gene: Krypton555_8 Start: 5533, Stop: 6132, Start Num: 10
Candidate Starts for Krypton555_8:
(Start: 10 @5533 has 66 MA's), (21, 5719), (25, 5794), (39, 5941), (44, 6031),

Gene: Kumao_16 Start: 8489, Stop: 9151, Start Num: 3
Candidate Starts for Kumao_16:
(Start: 3 @8489 has 26 MA's), (11, 8540),

Gene: LeBron_7 Start: 5403, Stop: 6041, Start Num: 5
Candidate Starts for LeBron_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),

Gene: Lewan_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Lewan_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: LilDestine_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for LilDestine_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: LilhomieP_16 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for LilhomieP_16:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: LiyuLake_8 Start: 5545, Stop: 6144, Start Num: 10
Candidate Starts for LiyuLake_8:
(Start: 10 @5545 has 66 MA's), (21, 5731), (25, 5806), (39, 5953), (44, 6043),

Gene: Loadrie_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for Loadrie_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: Lolly9_8 Start: 5548, Stop: 6147, Start Num: 10
Candidate Starts for Lolly9_8:
(Start: 10 @5548 has 66 MA's), (21, 5734), (25, 5809), (39, 5956), (44, 6046),

Gene: Lumos_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Lumos_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Lynnae_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Lynnae_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: MAckerman_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for MAckerman_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: MaryV_29 Start: 12237, Stop: 12893, Start Num: 3
Candidate Starts for MaryV_29:
(Start: 3 @12237 has 26 MA's), (12, 12339), (15, 12387), (19, 12432), (23, 12534), (25, 12546), (37, 12645), (38, 12654), (42, 12738), (48, 12837),

Gene: Miley16_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Miley16_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: MiniLon_8 Start: 5548, Stop: 6147, Start Num: 10
Candidate Starts for MiniLon_8:
(Start: 10 @5548 has 66 MA's), (21, 5734), (25, 5809), (39, 5956), (44, 6046),

Gene: MiniMac_8 Start: 5548, Stop: 6147, Start Num: 10
Candidate Starts for MiniMac_8:

(Start: 10 @5548 has 66 MA's), (21, 5734), (25, 5809), (39, 5956), (44, 6046),

Gene: MkaliMitinis3_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for MkaliMitinis3_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Molivier_7 Start: 5428, Stop: 6033, Start Num: 10
Candidate Starts for Molivier_7:
(Start: 5 @5401 has 3 MA's), (7, 5413), (Start: 10 @5428 has 66 MA's), (16, 5566), (32, 5749), (35, 5770), (40, 5857), (44, 5938), (47, 5977),

Gene: MrMagoo_21 Start: 9666, Stop: 10340, Start Num: 3
Candidate Starts for MrMagoo_21:
(Start: 3 @9666 has 26 MA's), (17, 9843), (22, 9933), (33, 10041),

Gene: MsGreen_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for MsGreen_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Nanosmite_21 Start: 9886, Stop: 10557, Start Num: 3
Candidate Starts for Nanosmite_21:
(Start: 3 @9886 has 26 MA's), (9, 9913), (15, 10039), (17, 10060), (20, 10093), (22, 10150), (25, 10201),

Gene: Netyap_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Netyap_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Nicholas_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Nicholas_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Nicholasp3_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Nicholasp3_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: OhShagHennessy_7 Start: 5403, Stop: 6014, Start Num: 10
Candidate Starts for OhShagHennessy_7:
(Start: 5 @5376 has 3 MA's), (Start: 10 @5403 has 66 MA's), (30, 5718), (31, 5724), (35, 5748), (44, 5922), (47, 5961),

Gene: OverPar_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for OverPar_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: PYPDinur_7 Start: 5097, Stop: 5705, Start Num: 10
Candidate Starts for PYPDinur_7:
(Start: 10 @5097 has 66 MA's), (13, 5169), (15, 5226), (35, 5442), (44, 5610), (49, 5655),

Gene: PegLeg_17 Start: 9074, Stop: 9808, Start Num: 2
Candidate Starts for PegLeg_17:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: Poochiewood_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for Poochiewood_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Quby_7 Start: 5096, Stop: 5704, Start Num: 10
Candidate Starts for Quby_7:
(Start: 5 @5069 has 3 MA's), (Start: 10 @5096 has 66 MA's), (13, 5168), (15, 5225), (35, 5441), (36, 5447), (44, 5609), (49, 5654),

Gene: Red305_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Red305_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: Reindeer_15 Start: 8937, Stop: 9662, Start Num: 2
Candidate Starts for Reindeer_15:
(1, 8868), (Start: 2 @8937 has 2 MA's), (Start: 3 @8955 has 26 MA's), (14, 9138), (15, 9141), (17, 9162), (20, 9195), (22, 9252), (32, 9351), (34, 9363), (41, 9477),

Gene: Rey_21 Start: 9898, Stop: 10575, Start Num: 3
Candidate Starts for Rey_21:
(Start: 3 @9898 has 26 MA's), (22, 10165), (32, 10264),

Gene: Rose5_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for Rose5_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: RoseMarie_17 Start: 9337, Stop: 10053, Start Num: 3
Candidate Starts for RoseMarie_17:
(1, 9250), (Start: 2 @9319 has 2 MA's), (Start: 3 @9337 has 26 MA's), (14, 9529), (17, 9553), (20, 9586), (22, 9643), (32, 9742), (43, 9901),

Gene: Rumpelstiltskin_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Rumpelstiltskin_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Sarshaun_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for Sarshaun_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: Sheng711_7 Start: 5097, Stop: 5705, Start Num: 10
Candidate Starts for Sheng711_7:
(Start: 10 @5097 has 66 MA's), (13, 5169), (15, 5226), (35, 5442), (44, 5610), (49, 5655),

Gene: Silverleaf_7 Start: 5429, Stop: 6040, Start Num: 10

Candidate Starts for Silverleaf_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Skinny_18 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for Skinny_18:
(Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: SlimJimmy_16 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for SlimJimmy_16:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: Snenia_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for Snenia_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: SoJulia_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for SoJulia_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Soap141_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for Soap141_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: TpudiCK_18 Start: 9092, Stop: 9808, Start Num: 3
Candidate Starts for TpudiCK_18:
(1, 9005), (Start: 2 @9074 has 2 MA's), (Start: 3 @9092 has 26 MA's), (15, 9287), (20, 9341), (22, 9398), (32, 9497), (34, 9509), (35, 9518), (41, 9623),

Gene: TriFive_8 Start: 5542, Stop: 6141, Start Num: 10
Candidate Starts for TriFive_8:
(Start: 10 @5542 has 66 MA's), (21, 5728), (25, 5803), (28, 5824), (39, 5950), (44, 6040),

Gene: TyDawg_17 Start: 9093, Stop: 9809, Start Num: 3
Candidate Starts for TyDawg_17:
(1, 9006), (Start: 2 @9075 has 2 MA's), (Start: 3 @9093 has 26 MA's), (15, 9288), (20, 9342), (22, 9399), (32, 9498), (34, 9510), (35, 9519), (41, 9624),

Gene: Tyson_7 Start: 5402, Stop: 6040, Start Num: 5
Candidate Starts for Tyson_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: UPIE_7 Start: 5400, Stop: 6038, Start Num: 5
Candidate Starts for UPIE_7:
(Start: 5 @5400 has 3 MA's), (Start: 10 @5427 has 66 MA's), (30, 5742), (31, 5748), (35, 5772), (44, 5946), (47, 5985),

Gene: Underpass_7 Start: 5422, Stop: 6027, Start Num: 10

Candidate Starts for Underpass_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Vetrix_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Vetrix_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Wamburgrxpress_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for Wamburgrxpress_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Whirlwind_9 Start: 5535, Stop: 6134, Start Num: 10
Candidate Starts for Whirlwind_9:
(Start: 10 @5535 has 66 MA's), (21, 5721), (25, 5796), (39, 5943), (44, 6033),

Gene: Wigglewiggle_7 Start: 5455, Stop: 6060, Start Num: 10
Candidate Starts for Wigglewiggle_7:
(Start: 5 @5428 has 3 MA's), (7, 5440), (Start: 10 @5455 has 66 MA's), (16, 5593), (32, 5776), (35, 5797), (40, 5884), (44, 5965), (47, 6004),

Gene: Wildcat_29 Start: 12247, Stop: 12903, Start Num: 3
Candidate Starts for Wildcat_29:
(Start: 3 @12247 has 26 MA's), (12, 12349), (15, 12397), (19, 12442), (23, 12544), (25, 12556), (37, 12655), (38, 12664), (42, 12748), (48, 12847),

Gene: Wilder_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Wilder_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Winky_7 Start: 5422, Stop: 6027, Start Num: 10
Candidate Starts for Winky_7:
(Start: 5 @5395 has 3 MA's), (7, 5407), (Start: 10 @5422 has 66 MA's), (16, 5560), (32, 5743), (35, 5764), (40, 5851), (44, 5932), (47, 5971),

Gene: Wyatt2_7 Start: 5429, Stop: 6040, Start Num: 10
Candidate Starts for Wyatt2_7:
(Start: 5 @5402 has 3 MA's), (Start: 10 @5429 has 66 MA's), (30, 5744), (31, 5750), (35, 5774), (44, 5948), (47, 5987),

Gene: Zakai_7 Start: 5410, Stop: 6015, Start Num: 10
Candidate Starts for Zakai_7:
(Start: 5 @5383 has 3 MA's), (7, 5395), (Start: 10 @5410 has 66 MA's), (16, 5548), (32, 5731), (35, 5752), (40, 5839), (44, 5920), (47, 5959),

Gene: Zaria_7 Start: 5430, Stop: 6041, Start Num: 10
Candidate Starts for Zaria_7:
(Start: 5 @5403 has 3 MA's), (Start: 10 @5430 has 66 MA's), (30, 5745), (31, 5751), (35, 5775), (44, 5949), (47, 5988),