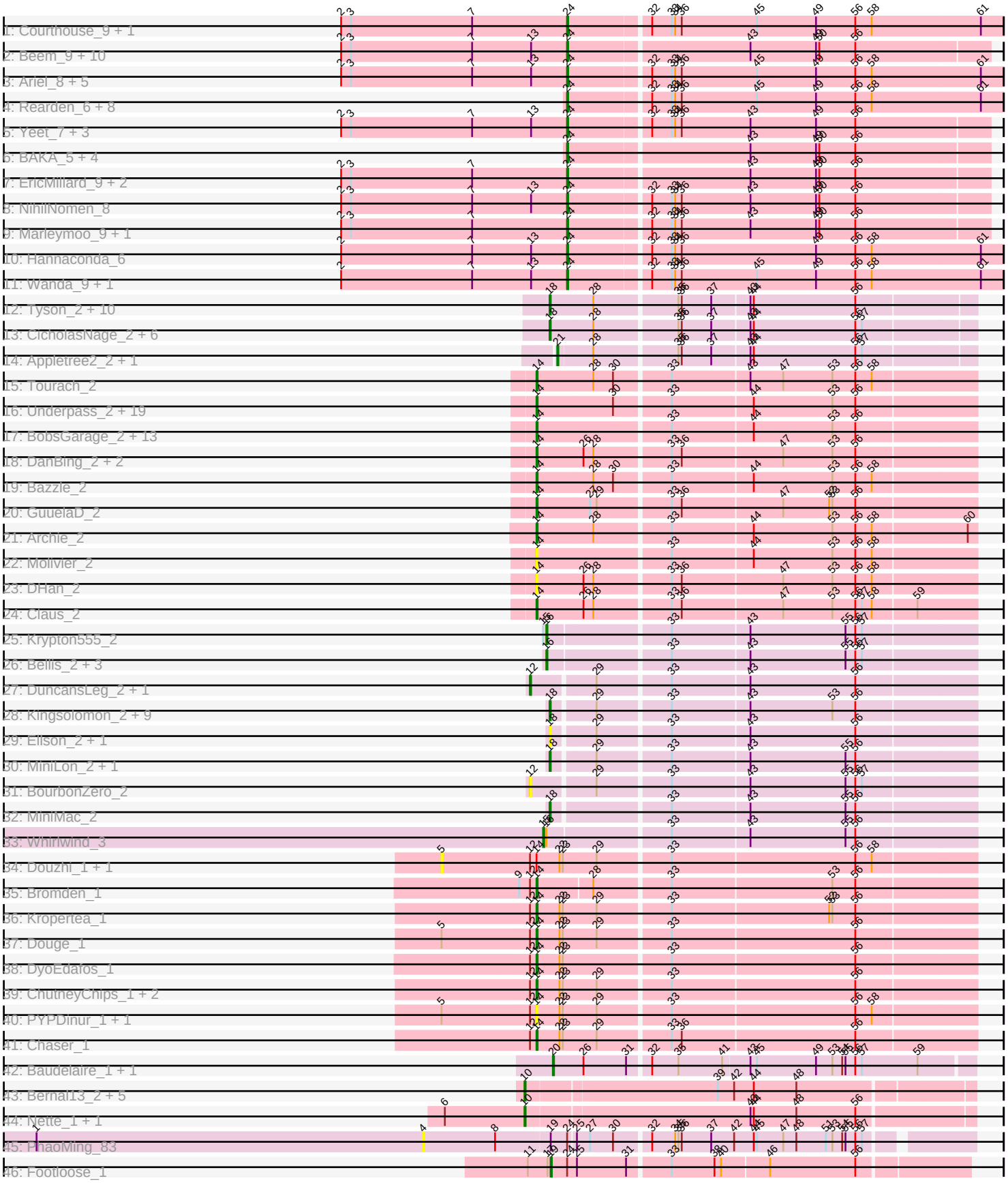
Pham 347337


1: Courthouse_9 + 1
2: Beem_9 + 10
3: Ariel_8 + 5
4: Rearden_6 + 8
5: Yeet_7 + 3
6: BAKA_5 + 4
7: EricMillard_9 + 2
8: NihilNomen_8
9: Marleymoo_9 + 1
10: Hannaconda_6
11: Wanda_9 + 1
12: Tyson_2 + 10
13: CicholasNage_2 + 6
14: Appletree2_2 + 1
15: Tourach_2
16: Underpass_2 + 19
17: BobsGarage_2 + 13
18: DanBing_2 + 2
19: Bazzle_2
20: GuuelaD_2
21: Archie_2
22: Molivier_2
23: DHan_2
24: Claus_2
25: Krypton555_2
26: Bellis_2 + 3
27: DuncansLeg_2 + 1
28: Kingsolomon_2 + 9
29: Ellson_2 + 1
30: MiniLon_2 + 1
31: BourbonZero_2
32: MiniMac_2
33: Whirlwind_3
34: Douzhi_1 + 1
35: Bromden_1
36: Kropertea_1
37: Douge_1
38: DyoEdafos_1
39: ChutneyChips_1 + 2
40: PYPDinur_1 + 1
41: Chaser_1
42: Baudelaire_1 + 1
43: Bernal13_2 + 5
44: Nette_1 + 1
45: PhaoMing_83
46: Footloose_1

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 347337 Report

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

Pham number 347337 has 158 members, 34 are drafts.

Phages represented in each track:
• Track 1 : Courthouse_9, Superphikiman_9
• Track 2 : Beem_9, Minerva_8, DmpstrDiver_8, ThreeRngTarjay_8, Dallas_8, Redno2_8, Ejimix_10, Hughesyang_8, JuicyJay_10, Halley_9, Kalah2_9
• Track 3 : Ariel_8, Porcelain_9, MiaZeal_9, Lucky2013_9, Bobby_10, Squint_9
• Track 4 : Rearden_6, BronnyJames_5, Omega_10, Shaboozey_5, KashFlow_3, Nibley_5, Nekros_7, LittleE_8, Gonephishing_9
• Track 5 : Yeet_7, Pound_8, Schatzie_7, Hidrated_8
• Track 6 : BAKA_5, Duke13_5, Optimus_6, Thibault_5, Constella_4
• Track 7 : EricMillard_9, Odette_8, Phoebus_9
• Track 8 : NihilNomen_8
• Track 9 : Marleymoo_9, Zelink_9
• Track 10 : Hannaconda_6
• Track 11 : Wanda_9, Klein_9
• Track 12 : Tyson_2, Wyatt2_2, Zaria_2, AvadaKedavra_2, Wamburgrxpress_2, Rose5_2, Calm_2, MAckerman_2, Poochiewood_2, Halena_2, Acquire49_2
• Track 13 : CicholasNage_2, LeBron_2, JoeDirt_2, UPIE_2, Enceladus_2, DirkDirk_2, Silverleaf_2
• Track 14 : Appletree2_2, OhShagHennessy_2
• Track 15 : Tourach_2
• Track 16 : Underpass_2, Vetrix_2, Soap141_2, Lynnae_2, Kahlid_2, OverPar_2, LilDestine_2, Sarshaun_2, Finemlucis_2, Nicholasp3_2, Loadrie_2, Gardann_2, Wilder_2, ChengKai98_2, Hiraya_2, MkaliMitinis3_2, Hafay_2, Crossroads_2, Wigglewiggle_2, Rumpelstiltskin_2
• Track 17 : BobsGarage_2, Netyap_2, Miley16_2, Gabriela_2, Winky_2, Zakai_2, Lewan_2, Rossetti_2, DrSeegs_2, Breezona_2, SoJulia_2, Itos_2, BigCheese_2, Faith1_2
• Track 18 : DanBing_2, ZhongYanYuan_2, Baoshan_2
• Track 19 : Bazzle_2
• Track 20 : GuuelaD_2
• Track 21 : Archie_2
• Track 22 : Molivier_2
• Track 23 : DHan_2
• Track 24 : Claus_2
• Track 25 : Krypton555_2
• Track 26 : Bellis_2, Moostard_2, Samty_2, Finnry_2
• Track 27 : DuncansLeg_2, LiyuLake_2

• Track 28 : Kingsolomon_2, Nicholas_2, Lumos_2, Red305_2, TriFive_2, Snenia_2, MsGreen_2, Jubie_2, Clautastrophe_2, Jobypre_2
• Track 29 : Ellson_2, KirDoubleO7_2
• Track 30 : MiniLon_2, Lolly9_2
• Track 31 : BourbonZero_2
• Track 32 : MiniMac_2
• Track 33 : Whirlwind_3
• Track 34 : Douzhi_1, BrainDrainer_1
• Track 35 : Bromden_1
• Track 36 : Kropertea_1
• Track 37 : Douge_1
• Track 38 : DyoEdafos_1
• Track 39 : ChutneyChips_1, Quby_1, FarmResident_1
• Track 40 : PYPDinur_1, Sheng711_1
• Track 41 : Chaser_1
• Track 42 : Baudelaire_1, Aegeus_1
• Track 43 : Bernal13_2, ZenTime222_2, Ibrahim_2, RonRayGun_2, Nairb_2, Whitty_2
• Track 44 : Nette_1, Mendokysei_1
• Track 45 : PhaoMing_83
• Track 46 : Footloose_1

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

The start number called the most often in the published annotations is 24, it was called in 38 of the 124 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Ariel_8, BAKA_5, Beem_9, Bobby_10, BronnyJames_5, Constella_4, Courthouse_9, Dallas_8, DmpstrDiver_8, Duke13_5, Ejimix_10, EricMillard_9, Gonephishing_9, Halley_9, Hannaconda_6, Hidrated_8, Hughesyang_8, JuicyJay_10, Kalah2_9, KashFlow_3, Klein_9, LittleE_8, Lucky2013_9, Marleymoo_9, MiaZeal_9, Minerva_8, Nekros_7, Nibley_5, NihilNomen_8, Odette_8, Omega_10, Optimus_6, Phoebus_9, Porcelain_9, Pound_8, Rearden_6, Redno2_8, Schatzie_7, Shaboozey_5, Squint_9, Superphikiman_9, Thibault_5, ThreeRngTarjay_8, Wanda_9, Yeet_7, Zelink_9,

Genes that have the "Most Annotated" start but do not call it:
• Footloose_1, PhaoMing_83,

Genes that do not have the "Most Annotated" start:
• Acquire49_2, Aegeus_1, Appletree2_2, Archie_2, AvadaKedavra_2, Baoshan_2, Baudelaire_1, Bazzle_2, Bellis_2, Bernal13_2, BigCheese_2, BobsGarage_2, BourbonZero_2, BrainDrainer_1, Breezona_2, Bromden_1, Calm_2, Chaser_1, ChengKai98_2, ChutneyChips_1, CicholasNage_2, Claus_2, Clautastrophe_2, Crossroads_2, DHan_2, DanBing_2, DirkDirk_2, Douge_1, Douzhi_1, DrSeegs_2, DuncansLeg_2, DyoEdafos_1, Ellson_2, Enceladus_2, Faith1_2, FarmResident_1, Finemlucis_2, Finnry_2, Gabriela_2, Gardann_2, GuuelaD_2, Hafay_2, Halena_2, Hiraya_2, Ibrahim_2, Itos_2, Jobypre_2, JoeDirt_2, Jubie_2, Kahlid_2, Kingsolomon_2, KirDoubleO7_2, Kropertea_1, Krypton555_2, LeBron_2, Lewan_2,

LilDestine_2, LiyuLake_2, Loadrie_2, Lolly9_2, Lumos_2, Lynnae_2, MAckerman_2, Mendokysei_1, Miley16_2, MiniLon_2, MiniMac_2, MkaliMitinis3_2, Molivier_2, Moostard_2, MsGreen_2, Nairb_2, Nette_1, Netyap_2, Nicholas_2, Nicholasp3_2, OhShagHennessy_2, OverPar_2, PYPDinur_1, Poochiewood_2, Quby_1, Red305_2, RonRayGun_2, Rose5_2, Rossetti_2, Rumpelstiltskin_2, Samty_2, Sarshaun_2, Sheng711_1, Silverleaf_2, Snenia_2, SoJulia_2, Soap141_2, Tourach_2, TriFive_2, Tyson_2, UPIE_2, Underpass_2, Vetrix_2, Wamburgrxpress_2, Whirlwind_3, Whitty_2, Wigglewiggle_2, Wilder_2, Winky_2, Wyatt2_2, Zakai_2, Zaria_2, ZenTime222_2, ZhongYanYuan_2,

Summary by start number:

Start 4:
• Found in 1 of 158 (0.6%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PhaoMing_83 (UNK),

Start 5:
• Found in 5 of 158 (3.2%) of genes in pham
• No Manual Annotations of this start.
• Called 40.0% of time when present
• Phage (with cluster) where this start called: BrainDrainer_1 (L4), Douzhi_1 (L4),

Start 10:
• Found in 8 of 158 (5.1%) of genes in pham
• Manual Annotations of this start: 7 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Bernal13_2 (T), Ibrahim_2 (T), Mendokysei_1 (T), Nairb_2 (T), Nette_1 (T), RonRayGun_2 (T), Whitty_2 (T), ZenTime222_2 (T),

Start 12:
• Found in 15 of 158 (9.5%) of genes in pham
• Manual Annotations of this start: 1 of 124
• Called 20.0% of time when present
• Phage (with cluster) where this start called: BourbonZero_2 (L3), DuncansLeg_2 (L3), LiyuLake_2 (L3),

Start 14:
• Found in 56 of 158 (35.4%) of genes in pham
• Manual Annotations of this start: 38 of 124
• Called 96.4% of time when present
• Phage (with cluster) where this start called: Archie_2 (L2), Baoshan_2 (L2), Bazzle_2 (L2), BigCheese_2 (L2), BobsGarage_2 (L2), Breezona_2 (L2), Bromden_1 (L4), Chaser_1 (L4), ChengKai98_2 (L2), ChutneyChips_1 (L4), Claus_2 (L2), Crossroads_2 (L2), DHan_2 (L2), DanBing_2 (L2), Douge_1 (L4), DrSeegs_2 (L2), DyoEdafos_1 (L4), Faith1_2 (L2), FarmResident_1 (L4), Finemlucis_2 (L2), Gabriela_2 (L2), Gardann_2 (L2), GuuelaD_2 (L2), Hafay_2 (L2), Hiraya_2 (L2), Itos_2 (L2), Kahlid_2 (L2), Kropertea_1 (L4), Lewan_2 (L2), LilDestine_2 (L2), Loadrie_2 (L2), Lynnae_2 (L2), Miley16_2 (L2), MkaliMitinis3_2 (L2), Molivier_2 (L2), Netyap_2 (L2), Nicholasp3_2 (L2), OverPar_2 (L2), PYPDinur_1 (L4), Quby_1 (L4), Rossetti_2 (L2), Rumpelstiltskin_2 (L2), Sarshaun_2 (L2), Sheng711_1 (L4),

SoJulia_2 (L2), Soap141_2 (L2), Tourach_2 (L2), Underpass_2 (L2), Vetrix_2 (L2), Wigglewiggle_2 (L2), Wilder_2 (L2), Winky_2 (L2), Zakai_2 (L2), ZhongYanYuan_2 (L2),

Start 15:
• Found in 2 of 158 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 124
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Whirlwind_3 (L3),

Start 16:
• Found in 6 of 158 (3.8%) of genes in pham
• Manual Annotations of this start: 5 of 124
• Called 83.3% of time when present
• Phage (with cluster) where this start called: Bellis_2 (L3), Finnry_2 (L3), Krypton555_2 (L3), Moostard_2 (L3), Samty_2 (L3),

Start 18:
• Found in 33 of 158 (20.9%) of genes in pham
• Manual Annotations of this start: 29 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acquire49_2 (L1), AvadaKedavra_2 (L1), Calm_2 (L1), CicholasNage_2 (L1), Clautastrophe_2 (L3), DirkDirk_2 (L1), Ellson_2 (L3), Enceladus_2 (L1), Halena_2 (L1), Jobypre_2 (L3), JoeDirt_2 (L1), Jubie_2 (L3), Kingsolomon_2 (L3), KirDoubleO7_2 (L3), LeBron_2 (L1), Lolly9_2 (L3), Lumos_2 (L3), MAckerman_2 (L1), MiniLon_2 (L3), MiniMac_2 (L3), MsGreen_2 (L3), Nicholas_2 (L3), Poochiewood_2 (L1), Red305_2 (L3), Rose5_2 (L1), Silverleaf_2 (L1), Snenia_2 (L3), TriFive_2 (L3), Tyson_2 (L1), UPIE_2 (L1), Wamburgrxpress_2 (L1), Wyatt2_2 (L1), Zaria_2 (L1),

Start 19:
• Found in 2 of 158 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 124
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Footloose_1 (singleton),

Start 20:
• Found in 2 of 158 (1.3%) of genes in pham
• Manual Annotations of this start: 2 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aegeus_1 (L5), Baudelaire_1 (L5),

Start 21:
• Found in 2 of 158 (1.3%) of genes in pham
• Manual Annotations of this start: 2 of 124
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Appletree2_2 (L1), OhShagHennessy_2 (L1),

Start 24:
• Found in 48 of 158 (30.4%) of genes in pham
• Manual Annotations of this start: 38 of 124
• Called 95.8% of time when present

• Phage (with cluster) where this start called: Ariel_8 (J), BAKA_5 (J), Beem_9 (J), Bobby_10 (J), BronnyJames_5 (J), Constella_4 (J), Courthouse_9 (J), Dallas_8 (J), DmpstrDiver_8 (J), Duke13_5 (J), Ejimix_10 (J), EricMillard_9 (J), Gonephishing_9 (J), Halley_9 (J), Hannaconda_6 (J), Hidrated_8 (J), Hughesyang_8 (J), JuicyJay_10 (J), Kalah2_9 (J), KashFlow_3 (J), Klein_9 (J), LittleE_8 (J), Lucky2013_9 (J), Marleymoo_9 (J), MiaZeal_9 (J), Minerva_8 (J), Nekros_7 (J), Nibley_5 (J), NihilNomen_8 (J), Odette_8 (J), Omega_10 (J), Optimus_6 (J), Phoebus_9 (J), Porcelain_9 (J), Pound_8 (J), Rearden_6 (J), Redno2_8 (J), Schatzie_7 (J), Shaboozey_5 (J), Squint_9 (J), Superphikiman_9 (J), Thibault_5 (J), ThreeRngTarjay_8 (J), Wanda_9 (J), Yeet_7 (J), Zelink_9 (J),

Summary by clusters:

There are 9 clusters represented in this pham: singleton, J, L4, L5, L2, L3, L1, UNK, T,

Info for manual annotations of cluster J:
•Start number 24 was manually annotated 38 times for cluster J.

Info for manual annotations of cluster L1:
•Start number 18 was manually annotated 17 times for cluster L1.
•Start number 21 was manually annotated 2 times for cluster L1.

Info for manual annotations of cluster L2:
•Start number 14 was manually annotated 32 times for cluster L2.

Info for manual annotations of cluster L3:
•Start number 12 was manually annotated 1 time for cluster L3.
•Start number 15 was manually annotated 1 time for cluster L3.
•Start number 16 was manually annotated 5 times for cluster L3.
•Start number 18 was manually annotated 12 times for cluster L3.

Info for manual annotations of cluster L4:
•Start number 14 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster L5:
•Start number 20 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster T:
•Start number 10 was manually annotated 7 times for cluster T.

Gene Information:

Gene: Acquire49_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Acquire49_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Aegeus_1 Start: 126, Stop: 497, Start Num: 20
Candidate Starts for Aegeus_1:

(Start: 20 @126 has 2 MA's), (26, 153), (31, 192), (32, 210), (35, 234), (41, 273), (43, 297), (45, 303), (49, 357), (53, 372), (54, 381), (55, 384), (56, 393), (57, 399), (59, 450),

Gene: Appletree2_2 Start: 456, Stop: 821, Start Num: 21
Candidate Starts for Appletree2_2:
(Start: 21 @456 has 2 MA's), (28, 486), (35, 558), (36, 561), (37, 588), (43, 621), (44, 624), (56, 717), (57, 723),

Gene: Archie_2 Start: 442, Stop: 831, Start Num: 14
Candidate Starts for Archie_2:
(Start: 14 @442 has 38 MA's), (28, 493), (33, 559), (44, 631), (53, 703), (56, 724), (58, 739), (60, 823),

Gene: Ariel_8 Start: 2563, Stop: 2952, Start Num: 24
Candidate Starts for Ariel_8:
(2, 2356), (3, 2365), (7, 2476), (13, 2530), (Start: 24 @2563 has 38 MA's), (32, 2632), (33, 2650), (34, 2653), (36, 2659), (45, 2728), (49, 2782), (56, 2818), (58, 2833), (61, 2932),

Gene: AvadaKedavra_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for AvadaKedavra_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: BAKA_5 Start: 2395, Stop: 2769, Start Num: 24
Candidate Starts for BAKA_5:
(Start: 24 @2395 has 38 MA's), (43, 2554), (49, 2614), (50, 2617), (56, 2650),

Gene: Baoshan_2 Start: 489, Stop: 878, Start Num: 14
Candidate Starts for Baoshan_2:
(Start: 14 @489 has 38 MA's), (26, 531), (28, 540), (33, 606), (36, 615), (47, 705), (53, 750), (56, 771),

Gene: Baudelaire_1 Start: 126, Stop: 497, Start Num: 20
Candidate Starts for Baudelaire_1:
(Start: 20 @126 has 2 MA's), (26, 153), (31, 192), (32, 210), (35, 234), (41, 273), (43, 297), (45, 303), (49, 357), (53, 372), (54, 381), (55, 384), (56, 393), (57, 399), (59, 450),

Gene: Bazzle_2 Start: 478, Stop: 867, Start Num: 14
Candidate Starts for Bazzle_2:
(Start: 14 @478 has 38 MA's), (28, 529), (30, 547), (33, 595), (44, 667), (53, 739), (56, 760), (58, 775),

Gene: Beem_9 Start: 2758, Stop: 3132, Start Num: 24
Candidate Starts for Beem_9:
(2, 2551), (3, 2560), (7, 2671), (13, 2725), (Start: 24 @2758 has 38 MA's), (43, 2917), (49, 2977), (50, 2980), (56, 3013),

Gene: Bellis_2 Start: 465, Stop: 842, Start Num: 16
Candidate Starts for Bellis_2:
(Start: 16 @465 has 5 MA's), (33, 570), (43, 639), (55, 726), (56, 735), (57, 741),

Gene: Bernal13_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for Bernal13_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: BigCheese_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for BigCheese_2:

(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Bobby_10 Start: 3493, Stop: 3882, Start Num: 24
Candidate Starts for Bobby_10:
(2, 3286), (3, 3295), (7, 3406), (13, 3460), (Start: 24 @3493 has 38 MA's), (32, 3562), (33, 3580), (34, 3583), (36, 3589), (45, 3658), (49, 3712), (56, 3748), (58, 3763), (61, 3862),

Gene: BobsGarage_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for BobsGarage_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: BourbonZero_2 Start: 464, Stop: 853, Start Num: 12
Candidate Starts for BourbonZero_2:
(Start: 12 @464 has 1 MA's), (29, 518), (33, 581), (43, 650), (55, 737), (56, 746), (57, 752),

Gene: BrainDrainer_1 Start: 45, Stop: 518, Start Num: 5
Candidate Starts for BrainDrainer_1:
(5, 45), (Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411), (58, 426),

Gene: Breezona_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Breezona_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Bromden_1 Start: 131, Stop: 517, Start Num: 14
Candidate Starts for Bromden_1:
(9, 116), (Start: 12 @125 has 1 MA's), (Start: 14 @131 has 38 MA's), (28, 179), (33, 245), (53, 389), (56, 410),

Gene: BronnyJames_5 Start: 1913, Stop: 2302, Start Num: 24
Candidate Starts for BronnyJames_5:
(Start: 24 @1913 has 38 MA's), (32, 1982), (33, 2000), (34, 2003), (36, 2009), (45, 2078), (49, 2132), (56, 2168), (58, 2183), (61, 2282),

Gene: Calm_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Calm_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Chaser_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for Chaser_1:
(Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (36, 255), (56, 411),

Gene: ChengKai98_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for ChengKai98_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: ChutneyChips_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for ChutneyChips_1:
(Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411),

Gene: CicholasNage_2 Start: 475, Stop: 849, Start Num: 18

Candidate Starts for CicholasNage_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: Claus_2 Start: 489, Stop: 878, Start Num: 14
Candidate Starts for Claus_2:
(Start: 14 @489 has 38 MA's), (26, 531), (28, 540), (33, 606), (36, 615), (47, 705), (53, 750), (56, 771), (57, 777), (58, 786), (59, 825),

Gene: Clautastrophe_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Clautastrophe_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Constella_4 Start: 1576, Stop: 1950, Start Num: 24
Candidate Starts for Constella_4:
(Start: 24 @1576 has 38 MA's), (43, 1735), (49, 1795), (50, 1798), (56, 1831),

Gene: Courthouse_9 Start: 3362, Stop: 3751, Start Num: 24
Candidate Starts for Courthouse_9:
(2, 3155), (3, 3164), (7, 3275), (Start: 24 @3362 has 38 MA's), (32, 3431), (33, 3449), (34, 3452), (36, 3458), (45, 3527), (49, 3581), (56, 3617), (58, 3632), (61, 3731),

Gene: Crossroads_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Crossroads_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: DHan_2 Start: 488, Stop: 877, Start Num: 14
Candidate Starts for DHan_2:
(Start: 14 @488 has 38 MA's), (26, 530), (28, 539), (33, 605), (36, 614), (47, 704), (53, 749), (56, 770), (58, 785),

Gene: Dallas_8 Start: 2297, Stop: 2671, Start Num: 24
Candidate Starts for Dallas_8:
(2, 2090), (3, 2099), (7, 2210), (13, 2264), (Start: 24 @2297 has 38 MA's), (43, 2456), (49, 2516), (50, 2519), (56, 2552),

Gene: DanBing_2 Start: 489, Stop: 878, Start Num: 14
Candidate Starts for DanBing_2:
(Start: 14 @489 has 38 MA's), (26, 531), (28, 540), (33, 606), (36, 615), (47, 705), (53, 750), (56, 771),

Gene: DirkDirk_2 Start: 475, Stop: 849, Start Num: 18
Candidate Starts for DirkDirk_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: DmpstrDiver_8 Start: 2938, Stop: 3312, Start Num: 24
Candidate Starts for DmpstrDiver_8:
(2, 2731), (3, 2740), (7, 2851), (13, 2905), (Start: 24 @2938 has 38 MA's), (43, 3097), (49, 3157), (50, 3160), (56, 3193),

Gene: Douge_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for Douge_1:

(5, 45), (Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411),

Gene: Douzhi_1 Start: 45, Stop: 518, Start Num: 5
Candidate Starts for Douzhi_1:
(5, 45), (Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411), (58, 426),

Gene: DrSeegs_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for DrSeegs_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Duke13_5 Start: 2323, Stop: 2697, Start Num: 24
Candidate Starts for Duke13_5:
(Start: 24 @2323 has 38 MA's), (43, 2482), (49, 2542), (50, 2545), (56, 2578),

Gene: DuncansLeg_2 Start: 466, Stop: 855, Start Num: 12
Candidate Starts for DuncansLeg_2:
(Start: 12 @466 has 1 MA's), (29, 520), (33, 583), (43, 652), (56, 748),

Gene: DyoEdafos_1 Start: 128, Stop: 517, Start Num: 14
Candidate Starts for DyoEdafos_1:
(Start: 12 @122 has 1 MA's), (Start: 14 @128 has 38 MA's), (22, 149), (23, 152), (33, 245), (56, 410),

Gene: Ejimix_10 Start: 3508, Stop: 3882, Start Num: 24
Candidate Starts for Ejimix_10:
(2, 3301), (3, 3310), (7, 3421), (13, 3475), (Start: 24 @3508 has 38 MA's), (43, 3667), (49, 3727), (50, 3730), (56, 3763),

Gene: Ellson_2 Start: 493, Stop: 864, Start Num: 18
Candidate Starts for Ellson_2:
(Start: 18 @493 has 29 MA's), (29, 529), (33, 592), (43, 661), (56, 757),

Gene: Enceladus_2 Start: 475, Stop: 849, Start Num: 18
Candidate Starts for Enceladus_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: EricMillard_9 Start: 3043, Stop: 3417, Start Num: 24
Candidate Starts for EricMillard_9:
(2, 2836), (3, 2845), (7, 2956), (Start: 24 @3043 has 38 MA's), (43, 3202), (49, 3262), (50, 3265), (56, 3298),

Gene: Faith1_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Faith1_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: FarmResident_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for FarmResident_1:
(Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411),

Gene: Finemlucis_2 Start: 477, Stop: 866, Start Num: 14

Candidate Starts for Finemlucis_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Finnry_2 Start: 465, Stop: 842, Start Num: 16
Candidate Starts for Finnry_2:
(Start: 16 @465 has 5 MA's), (33, 570), (43, 639), (55, 726), (56, 735), (57, 741),

Gene: Footloose_1 Start: 79, Stop: 444, Start Num: 19
Candidate Starts for Footloose_1:
(11, 58), (17, 76), (Start: 19 @79 has 1 MA's), (Start: 24 @94 has 38 MA's), (25, 103), (31, 148), (33, 184), (38, 223), (40, 229), (46, 271), (56, 349),

Gene: Gabriela_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Gabriela_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Gardann_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Gardann_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Gonephishing_9 Start: 3890, Stop: 4279, Start Num: 24
Candidate Starts for Gonephishing_9:
(Start: 24 @3890 has 38 MA's), (32, 3959), (33, 3977), (34, 3980), (36, 3986), (45, 4055), (49, 4109), (56, 4145), (58, 4160), (61, 4259),

Gene: GuuelaD_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for GuuelaD_2:
(Start: 14 @477 has 38 MA's), (27, 525), (29, 531), (33, 594), (36, 603), (47, 693), (52, 735), (53, 738), (56, 759),

Gene: Hafay_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Hafay_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Halena_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Halena_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Halley_9 Start: 2758, Stop: 3132, Start Num: 24
Candidate Starts for Halley_9:
(2, 2551), (3, 2560), (7, 2671), (13, 2725), (Start: 24 @2758 has 38 MA's), (43, 2917), (49, 2977), (50, 2980), (56, 3013),

Gene: Hannaconda_6 Start: 2042, Stop: 2431, Start Num: 24
Candidate Starts for Hannaconda_6:
(2, 1835), (7, 1955), (13, 2009), (Start: 24 @2042 has 38 MA's), (32, 2111), (33, 2129), (34, 2132), (36, 2138), (49, 2261), (56, 2297), (58, 2312), (61, 2411),

Gene: Hidrated_8 Start: 2813, Stop: 3187, Start Num: 24
Candidate Starts for Hidrated_8:
(2, 2606), (3, 2615), (7, 2726), (13, 2780), (Start: 24 @2813 has 38 MA's), (32, 2882), (33, 2900), (34, 2903), (36, 2909), (43, 2972), (49, 3032), (56, 3068),

Gene: Hiraya_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Hiraya_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Hughesyang_8 Start: 2938, Stop: 3312, Start Num: 24
Candidate Starts for Hughesyang_8:
(2, 2731), (3, 2740), (7, 2851), (13, 2905), (Start: 24 @2938 has 38 MA's), (43, 3097), (49, 3157), (50, 3160), (56, 3193),

Gene: Ibrahim_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for Ibrahim_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: Itos_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Itos_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Jobypre_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Jobypre_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: JoeDirt_2 Start: 475, Stop: 849, Start Num: 18
Candidate Starts for JoeDirt_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: Jubie_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Jubie_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: JuicyJay_10 Start: 3588, Stop: 3962, Start Num: 24
Candidate Starts for JuicyJay_10:
(2, 3381), (3, 3390), (7, 3501), (13, 3555), (Start: 24 @3588 has 38 MA's), (43, 3747), (49, 3807), (50, 3810), (56, 3843),

Gene: Kahlid_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Kahlid_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Kalah2_9 Start: 3357, Stop: 3731, Start Num: 24
Candidate Starts for Kalah2_9:
(2, 3150), (3, 3159), (7, 3270), (13, 3324), (Start: 24 @3357 has 38 MA's), (43, 3516), (49, 3576), (50, 3579), (56, 3612),

Gene: KashFlow_3 Start: 1608, Stop: 1997, Start Num: 24
Candidate Starts for KashFlow_3:
(Start: 24 @1608 has 38 MA's), (32, 1677), (33, 1695), (34, 1698), (36, 1704), (45, 1773), (49, 1827), (56, 1863), (58, 1878), (61, 1977),

Gene: Kingsolomon_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Kingsolomon_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: KirDoubleO7_2 Start: 493, Stop: 864, Start Num: 18
Candidate Starts for KirDoubleO7_2:
(Start: 18 @493 has 29 MA's), (29, 529), (33, 592), (43, 661), (56, 757),

Gene: Klein_9 Start: 3342, Stop: 3731, Start Num: 24
Candidate Starts for Klein_9:
(2, 3135), (7, 3255), (13, 3309), (Start: 24 @3342 has 38 MA's), (32, 3411), (33, 3429), (34, 3432), (36, 3438), (45, 3507), (49, 3561), (56, 3597), (58, 3612), (61, 3711),

Gene: Kropertea_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for Kropertea_1:
(Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (52, 387), (53, 390), (56, 411),

Gene: Krypton555_2 Start: 464, Stop: 841, Start Num: 16
Candidate Starts for Krypton555_2:
(Start: 15 @461 has 1 MA's), (Start: 16 @464 has 5 MA's), (33, 569), (43, 638), (55, 725), (56, 734), (57, 740),

Gene: LeBron_2 Start: 475, Stop: 849, Start Num: 18
Candidate Starts for LeBron_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: Lewan_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Lewan_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: LilDestine_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for LilDestine_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: LittleE_8 Start: 2721, Stop: 3110, Start Num: 24
Candidate Starts for LittleE_8:
(Start: 24 @2721 has 38 MA's), (32, 2790), (33, 2808), (34, 2811), (36, 2817), (45, 2886), (49, 2940), (56, 2976), (58, 2991), (61, 3090),

Gene: LiyuLake_2 Start: 466, Stop: 855, Start Num: 12
Candidate Starts for LiyuLake_2:
(Start: 12 @466 has 1 MA's), (29, 520), (33, 583), (43, 652), (56, 748),

Gene: Loadrie_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Loadrie_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Lolly9_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Lolly9_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (55, 736), (56, 745),

Gene: Lucky2013_9 Start: 3112, Stop: 3501, Start Num: 24
Candidate Starts for Lucky2013_9:
(2, 2905), (3, 2914), (7, 3025), (13, 3079), (Start: 24 @3112 has 38 MA's), (32, 3181), (33, 3199), (34, 3202), (36, 3208), (45, 3277), (49, 3331), (56, 3367), (58, 3382), (61, 3481),

Gene: Lumos_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Lumos_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Lynnae_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Lynnae_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: MAckerman_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for MAckerman_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Marleymoo_9 Start: 3358, Stop: 3732, Start Num: 24
Candidate Starts for Marleymoo_9:
(2, 3151), (3, 3160), (7, 3271), (Start: 24 @3358 has 38 MA's), (32, 3427), (33, 3445), (34, 3448), (36, 3454), (43, 3517), (49, 3577), (50, 3580), (56, 3613),

Gene: Mendokysei_1 Start: 90, Stop: 485, Start Num: 10
Candidate Starts for Mendokysei_1:
(6, 18), (Start: 10 @90 has 7 MA's), (43, 288), (44, 291), (48, 330), (56, 384),

Gene: MiaZeal_9 Start: 3181, Stop: 3570, Start Num: 24
Candidate Starts for MiaZeal_9:
(2, 2974), (3, 2983), (7, 3094), (13, 3148), (Start: 24 @3181 has 38 MA's), (32, 3250), (33, 3268), (34, 3271), (36, 3277), (45, 3346), (49, 3400), (56, 3436), (58, 3451), (61, 3550),

Gene: Miley16_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Miley16_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Minerva_8 Start: 2817, Stop: 3191, Start Num: 24
Candidate Starts for Minerva_8:
(2, 2610), (3, 2619), (7, 2730), (13, 2784), (Start: 24 @2817 has 38 MA's), (43, 2976), (49, 3036), (50, 3039), (56, 3072),

Gene: MiniLon_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for MiniLon_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (55, 736), (56, 745),

Gene: MiniMac_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for MiniMac_2:
(Start: 18 @481 has 29 MA's), (33, 580), (43, 649), (55, 736), (56, 745),

Gene: MkaliMitinis3_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for MkaliMitinis3_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Molivier_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Molivier_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759), (58, 774),

Gene: Moostard_2 Start: 465, Stop: 842, Start Num: 16

Candidate Starts for Moostard_2:
(Start: 16 @465 has 5 MA's), (33, 570), (43, 639), (55, 726), (56, 735), (57, 741),

Gene: MsGreen_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for MsGreen_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Nairb_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for Nairb_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: Nekros_7 Start: 3229, Stop: 3618, Start Num: 24
Candidate Starts for Nekros_7:
(Start: 24 @3229 has 38 MA's), (32, 3298), (33, 3316), (34, 3319), (36, 3325), (45, 3394), (49, 3448), (56, 3484), (58, 3499), (61, 3598),

Gene: Nette_1 Start: 90, Stop: 485, Start Num: 10
Candidate Starts for Nette_1:
(6, 18), (Start: 10 @90 has 7 MA's), (43, 288), (44, 291), (48, 330), (56, 384),

Gene: Netyap_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Netyap_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Nibley_5 Start: 1913, Stop: 2302, Start Num: 24
Candidate Starts for Nibley_5:
(Start: 24 @1913 has 38 MA's), (32, 1982), (33, 2000), (34, 2003), (36, 2009), (45, 2078), (49, 2132), (56, 2168), (58, 2183), (61, 2282),

Gene: Nicholas_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Nicholas_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Nicholasp3_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Nicholasp3_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: NihilNomen_8 Start: 2817, Stop: 3191, Start Num: 24
Candidate Starts for NihilNomen_8:
(2, 2610), (3, 2619), (7, 2730), (13, 2784), (Start: 24 @2817 has 38 MA's), (32, 2886), (33, 2904), (34, 2907), (36, 2913), (43, 2976), (49, 3036), (50, 3039), (56, 3072),

Gene: Odette_8 Start: 2296, Stop: 2670, Start Num: 24
Candidate Starts for Odette_8:
(2, 2089), (3, 2098), (7, 2209), (Start: 24 @2296 has 38 MA's), (43, 2455), (49, 2515), (50, 2518), (56, 2551),

Gene: OhShagHennessy_2 Start: 456, Stop: 821, Start Num: 21
Candidate Starts for OhShagHennessy_2:
(Start: 21 @456 has 2 MA's), (28, 486), (35, 558), (36, 561), (37, 588), (43, 621), (44, 624), (56, 717), (57, 723),

Gene: Omega_10 Start: 4066, Stop: 4455, Start Num: 24

Candidate Starts for Omega_10:
(Start: 24 @4066 has 38 MA's), (32, 4135), (33, 4153), (34, 4156), (36, 4162), (45, 4231), (49, 4285), (56, 4321), (58, 4336), (61, 4435),

Gene: Optimus_6 Start: 2323, Stop: 2697, Start Num: 24
Candidate Starts for Optimus_6:
(Start: 24 @2323 has 38 MA's), (43, 2482), (49, 2542), (50, 2545), (56, 2578),

Gene: OverPar_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for OverPar_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: PYPDinur_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for PYPDinur_1:
(5, 45), (Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411), (58, 426),

Gene: PhaoMing_83 Start: 48936, Stop: 438, Start Num: 4
Candidate Starts for PhaoMing_83:
(1, 48582), (4, 48936), (8, 49002), (Start: 19 @49050 has 1 MA's), (Start: 24 @49065 has 38 MA's), (25, 49071), (27, 49083), (30, 49104), (32, 49134), (34, 49155), (35, 49158), (36, 49161), (37, 49188), (42, 49209), (44, 49227), (45, 49230), (47, 49254), (48, 49266), (51, 49293), (53, 49299), (54, 49308), (55, 49311), (56, 49320), (57, 49326),

Gene: Phoebus_9 Start: 3043, Stop: 3417, Start Num: 24
Candidate Starts for Phoebus_9:
(2, 2836), (3, 2845), (7, 2956), (Start: 24 @3043 has 38 MA's), (43, 3202), (49, 3262), (50, 3265), (56, 3298),

Gene: Poochiewood_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Poochiewood_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Porcelain_9 Start: 3181, Stop: 3570, Start Num: 24
Candidate Starts for Porcelain_9:
(2, 2974), (3, 2983), (7, 3094), (13, 3148), (Start: 24 @3181 has 38 MA's), (32, 3250), (33, 3268), (34, 3271), (36, 3277), (45, 3346), (49, 3400), (56, 3436), (58, 3451), (61, 3550),

Gene: Pound_8 Start: 2813, Stop: 3187, Start Num: 24
Candidate Starts for Pound_8:
(2, 2606), (3, 2615), (7, 2726), (13, 2780), (Start: 24 @2813 has 38 MA's), (32, 2882), (33, 2900), (34, 2903), (36, 2909), (43, 2972), (49, 3032), (56, 3068),

Gene: Quby_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for Quby_1:
(Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411),

Gene: Rearden_6 Start: 1991, Stop: 2380, Start Num: 24
Candidate Starts for Rearden_6:
(Start: 24 @1991 has 38 MA's), (32, 2060), (33, 2078), (34, 2081), (36, 2087), (45, 2156), (49, 2210), (56, 2246), (58, 2261), (61, 2360),

Gene: Red305_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Red305_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Redno2_8 Start: 2528, Stop: 2902, Start Num: 24
Candidate Starts for Redno2_8:
(2, 2321), (3, 2330), (7, 2441), (13, 2495), (Start: 24 @2528 has 38 MA's), (43, 2687), (49, 2747), (50, 2750), (56, 2783),

Gene: RonRayGun_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for RonRayGun_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: Rose5_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Rose5_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Rossetti_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Rossetti_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Rumpelstiltskin_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Rumpelstiltskin_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Samty_2 Start: 465, Stop: 842, Start Num: 16
Candidate Starts for Samty_2:
(Start: 16 @465 has 5 MA's), (33, 570), (43, 639), (55, 726), (56, 735), (57, 741),

Gene: Sarshaun_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Sarshaun_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Schatzie_7 Start: 2067, Stop: 2441, Start Num: 24
Candidate Starts for Schatzie_7:
(2, 1860), (3, 1869), (7, 1980), (13, 2034), (Start: 24 @2067 has 38 MA's), (32, 2136), (33, 2154), (34, 2157), (36, 2163), (43, 2226), (49, 2286), (56, 2322),

Gene: Shaboozey_5 Start: 1913, Stop: 2302, Start Num: 24
Candidate Starts for Shaboozey_5:
(Start: 24 @1913 has 38 MA's), (32, 1982), (33, 2000), (34, 2003), (36, 2009), (45, 2078), (49, 2132), (56, 2168), (58, 2183), (61, 2282),

Gene: Sheng711_1 Start: 129, Stop: 518, Start Num: 14
Candidate Starts for Sheng711_1:
(5, 45), (Start: 12 @123 has 1 MA's), (Start: 14 @129 has 38 MA's), (22, 150), (23, 153), (29, 183), (33, 246), (56, 411), (58, 426),

Gene: Silverleaf_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Silverleaf_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744), (57, 750),

Gene: Snenia_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for Snenia_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: SoJulia_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for SoJulia_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Soap141_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Soap141_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Squint_9 Start: 3112, Stop: 3501, Start Num: 24
Candidate Starts for Squint_9:
(2, 2905), (3, 2914), (7, 3025), (13, 3079), (Start: 24 @3112 has 38 MA's), (32, 3181), (33, 3199), (34, 3202), (36, 3208), (45, 3277), (49, 3331), (56, 3367), (58, 3382), (61, 3481),

Gene: Superphikiman_9 Start: 3362, Stop: 3751, Start Num: 24
Candidate Starts for Superphikiman_9:
(2, 3155), (3, 3164), (7, 3275), (Start: 24 @3362 has 38 MA's), (32, 3431), (33, 3449), (34, 3452), (36, 3458), (45, 3527), (49, 3581), (56, 3617), (58, 3632), (61, 3731),

Gene: Thibault_5 Start: 2323, Stop: 2697, Start Num: 24
Candidate Starts for Thibault_5:
(Start: 24 @2323 has 38 MA's), (43, 2482), (49, 2542), (50, 2545), (56, 2578),

Gene: ThreeRngTarjay_8 Start: 2813, Stop: 3187, Start Num: 24
Candidate Starts for ThreeRngTarjay_8:
(2, 2606), (3, 2615), (7, 2726), (13, 2780), (Start: 24 @2813 has 38 MA's), (43, 2972), (49, 3032), (50, 3035), (56, 3068),

Gene: Tourach_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Tourach_2:
(Start: 14 @477 has 38 MA's), (28, 528), (30, 546), (33, 594), (43, 663), (47, 693), (53, 738), (56, 759), (58, 774),

Gene: TriFive_2 Start: 481, Stop: 852, Start Num: 18
Candidate Starts for TriFive_2:
(Start: 18 @481 has 29 MA's), (29, 517), (33, 580), (43, 649), (53, 724), (56, 745),

Gene: Tyson_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Tyson_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: UPIE_2 Start: 475, Stop: 849, Start Num: 18
Candidate Starts for UPIE_2:
(Start: 18 @475 has 29 MA's), (28, 514), (35, 586), (36, 589), (37, 616), (43, 649), (44, 652), (56, 745), (57, 751),

Gene: Underpass_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Underpass_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Vetrix_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Vetrix_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Wamburgrxpress_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Wamburgrxpress_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Wanda_9 Start: 3342, Stop: 3731, Start Num: 24
Candidate Starts for Wanda_9:
(2, 3135), (7, 3255), (13, 3309), (Start: 24 @3342 has 38 MA's), (32, 3411), (33, 3429), (34, 3432), (36, 3438), (45, 3507), (49, 3561), (56, 3597), (58, 3612), (61, 3711),

Gene: Whirlwind_3 Start: 461, Stop: 841, Start Num: 15
Candidate Starts for Whirlwind_3:
(Start: 15 @461 has 1 MA's), (Start: 16 @464 has 5 MA's), (33, 569), (43, 638), (55, 725), (56, 734),

Gene: Whitty_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for Whitty_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: Wigglewiggle_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Wigglewiggle_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Wilder_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Wilder_2:
(Start: 14 @477 has 38 MA's), (30, 546), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Winky_2 Start: 477, Stop: 866, Start Num: 14
Candidate Starts for Winky_2:
(Start: 14 @477 has 38 MA's), (33, 594), (44, 666), (53, 738), (56, 759),

Gene: Wyatt2_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Wyatt2_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Yeet_7 Start: 2067, Stop: 2441, Start Num: 24
Candidate Starts for Yeet_7:
(2, 1860), (3, 1869), (7, 1980), (13, 2034), (Start: 24 @2067 has 38 MA's), (32, 2136), (33, 2154), (34, 2157), (36, 2163), (43, 2226), (49, 2286), (56, 2322),

Gene: Zakai_2 Start: 465, Stop: 854, Start Num: 14
Candidate Starts for Zakai_2:
(Start: 14 @465 has 38 MA's), (33, 582), (44, 654), (53, 726), (56, 747),

Gene: Zaria_2 Start: 474, Stop: 848, Start Num: 18
Candidate Starts for Zaria_2:
(Start: 18 @474 has 29 MA's), (28, 513), (35, 585), (36, 588), (37, 615), (43, 648), (44, 651), (56, 744),

Gene: Zelink_9 Start: 2841, Stop: 3215, Start Num: 24
Candidate Starts for Zelink_9:

(2, 2634), (3, 2643), (7, 2754), (Start: 24 @2841 has 38 MA's), (32, 2910), (33, 2928), (34, 2931), (36, 2937), (43, 3000), (49, 3060), (50, 3063), (56, 3096),

Gene: ZenTime222_2 Start: 332, Stop: 724, Start Num: 10
Candidate Starts for ZenTime222_2:
(Start: 10 @332 has 7 MA's), (39, 500), (42, 515), (44, 533), (48, 572),

Gene: ZhongYanYuan_2 Start: 489, Stop: 878, Start Num: 14
Candidate Starts for ZhongYanYuan_2:
(Start: 14 @489 has 38 MA's), (26, 531), (28, 540), (33, 606), (36, 615), (47, 705), (53, 750), (56, 771),