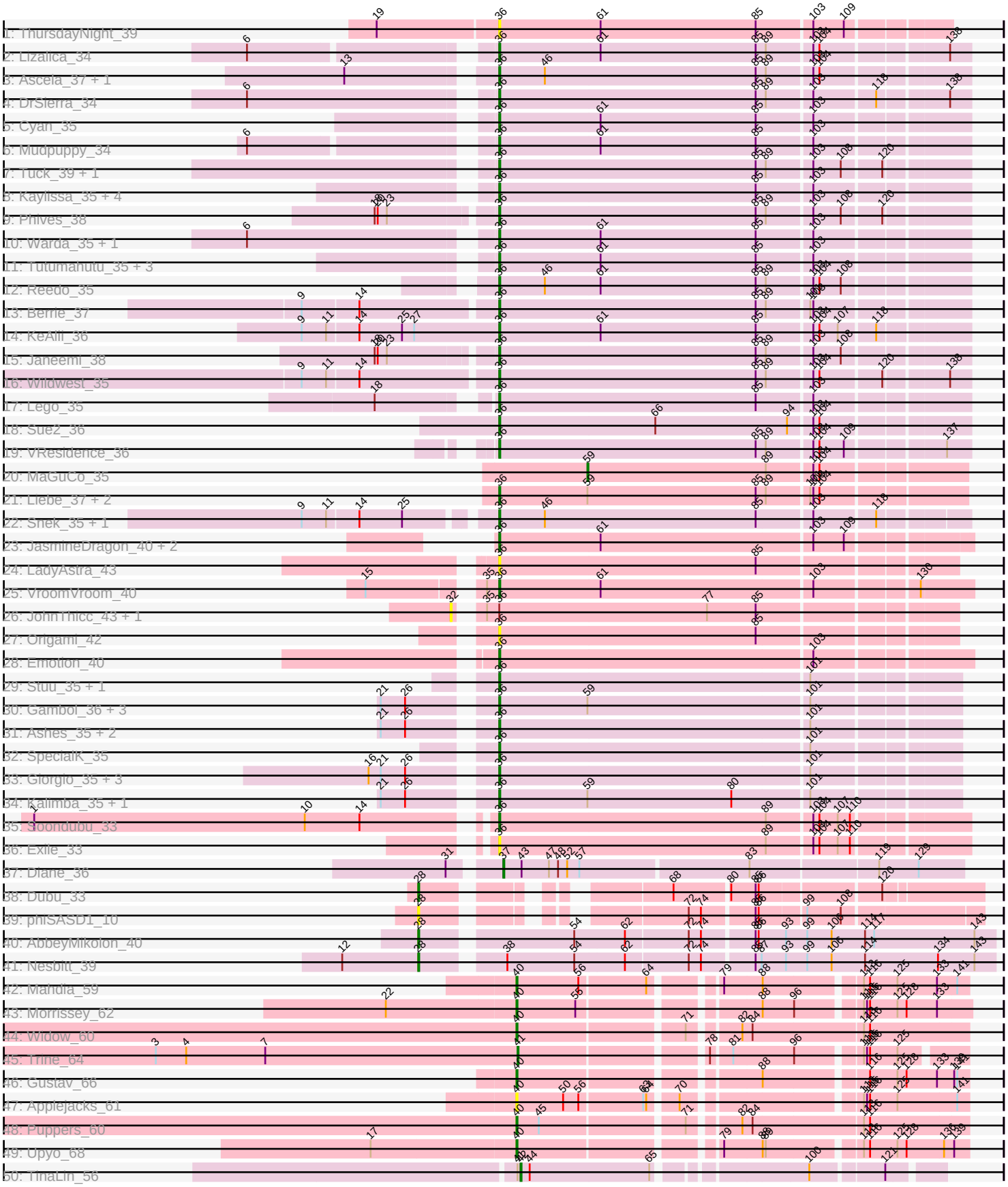
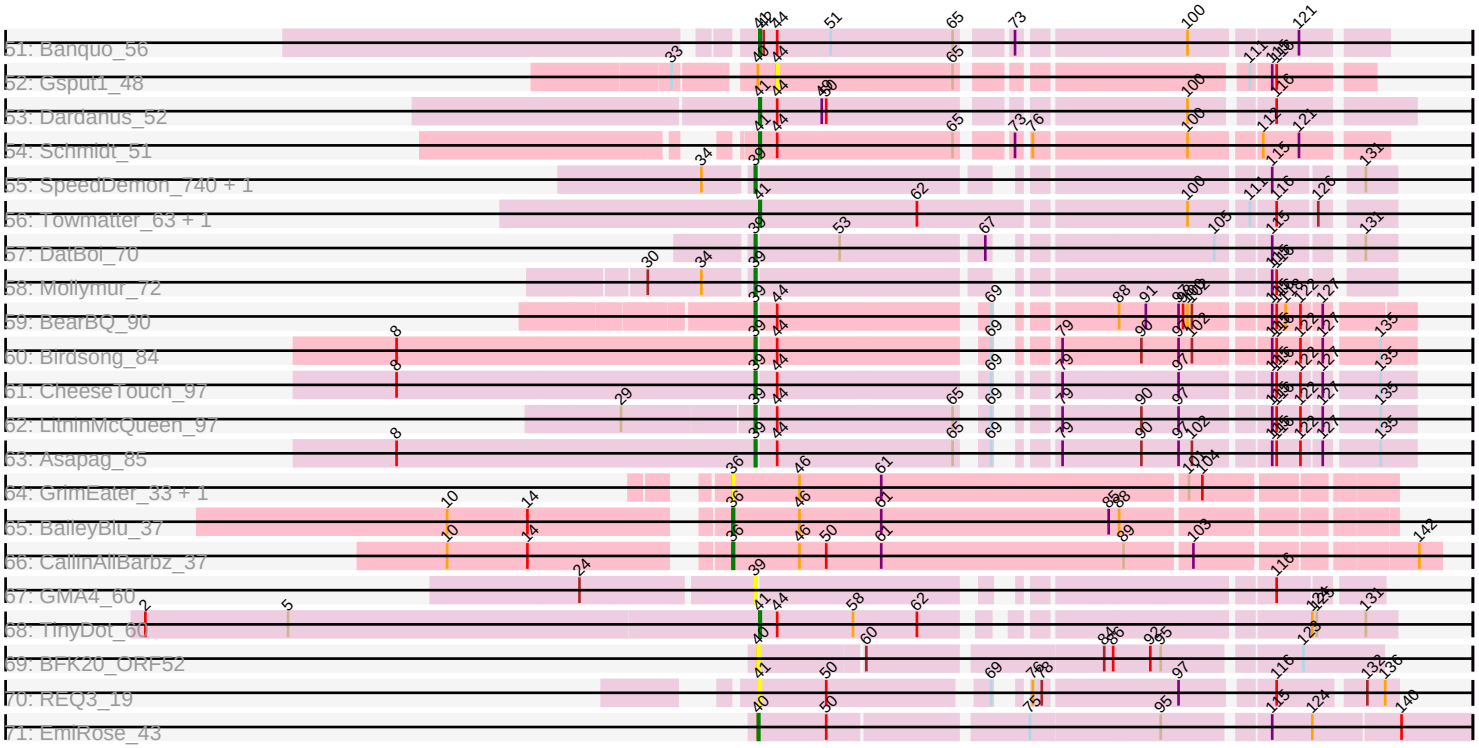
Pham 280283


1: ThursdayNight_39
2: Lizalica_34
3: Ascela_37 + 1
4: DrSierra_34
5: Cyan_35
6: Mudpuppy_34
7: Tuck_39 + 1
8: Kaylissa_35 + 4
9: Phives_38
10: Warda_35 + 1
11: Tutumanutu_35 + 3
12: Reedo_35
13: Bernie_37
14: KeAm_36
15: Janeemi_38
16: Wildwest_35
17: Lego_35
18: Sue2_36
19: VResidence_36
20: MaGuCo_35
21: Liebe_37 + 2
22: Snek_35 + 1
23: JasmineDragon_40 + 2
24: LadyAstra_43
25: VroomVroom_40
26: JohnThicc_43 + 1
27: Origami_42
28: Emotion_40
29: Stuu_35 + 1
30: Gambol_36 + 3
31: Ashes_35 + 2
32: SpecialK_35
33: Giorgio_35 + 3
34: Kalimba_35 + 1
35: Soondubu_33
36: Exile_33
37: Diane_36
38: Dubu_33
39: phiSASD1_10
40: AbbeyMikolon_40
41: Nesbitt_39
42: Mandla_59
43: Morrissey_62
44: Widow_60
45: Trine_64
46: Gustav_66
47: Applejacks_61
48: Puppers_60
49: Upyo_68
50: TinaLin_56

Pham 280283


51: Banquo_56
52: Gsput1_48
53: Dardanus_52
54: Schmidt_51
55: SpeedDemon_740 + 1
56: Towmatter_63 + 1
57: DatBoi_70
58: Mollymur_72
59: BearBQ_90
60: Birdsong_84
61: CheeseTouch_97
62: LithinMcQueen_97
63: Asapag_85
64: GrimEater_33 + 1
65: BalleyBlu_37
66: CallinAllBarbz_37
67: GMA4_60
68: TinyDot_60
69: BFK20_ORF52
70: REQ3_19
71: EmiRose_43

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 280283 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280283 has 100 members, 20 are drafts.

Phages represented in each track:
- Track 1 : ThursdayNight_39
- Track 2 : Lizalica_34
- Track 3 : Ascela_37, Iter_37
- Track 4 : DrSierra_34
- Track 5 : Cyan_35
- Track 6 : Mudpuppy_34
- Track 7 : Tuck_39, Community_38
- Track 8 : Kaylissa_35, JohnDoe_35, AGrandiflora_36, Powerpuff_37, YesChef_35
- Track 9 : Phives_38
- Track 10 : Warda_35, Tbone_34
- Track 11 : Tutumahutu_35, Joemato_35, Flutur_35, Simpson_37
- Track 12 : Reedo_35
- Track 13 : Berrie_37
- Track 14 : KeAlii_36
- Track 15 : Janeemi_38
- Track 16 : Wildwest_35
- Track 17 : Lego_35
- Track 18 : Sue2_36
- Track 19 : VResidence_36
- Track 20 : MaGuCo_35
- Track 21 : Liebe_37, Maureen_37, IUFootball_37
- Track 22 : Snek_35, Tweety19_35
- Track 23 : JasmineDragon_40, ShakeItOph_40, MiniMommy_39
- Track 24 : LadyAstra_43
- Track 25 : VroomVroom_40
- Track 26 : JohnThicc_43, FiveHead_44
- Track 27 : Origami_42
- Track 28 : Emotion_40
- Track 29 : Stuu_35, Mysterium_35
- Track 30 : Gambol_36, Sooty_35, Cappuccino_35, Sabourin_38
- Track 31 : Ashes_35, Halsey_35, Beaupre_35
- Track 32 : SpecialK_35
- Track 33 : Giorgio_35, RockScotty_35, Moss_35, Gumpizza_35
- Track 34 : Kalimba_35, Donkey_35
- Track 35 : Soondubu_33
- Track 36 : Exile_33
- Track 37 : Diane_36

• Track 38 : Dubu_33
• Track 39 : phiSASD1_10
• Track 40 : AbbeyMikolon_40
• Track 41 : Nesbitt_39
• Track 42 : Mahdia_59
• Track 43 : Morrissey_62
• Track 44 : Widow_60
• Track 45 : Trine_64
• Track 46 : Gustav_66
• Track 47 : Applejacks_61
• Track 48 : Puppers_60
• Track 49 : Upyo_68
• Track 50 : TinaLin_56
• Track 51 : Banquo_56
• Track 52 : Gsput1_48
• Track 53 : Dardanus_52
• Track 54 : Schmidt_51
• Track 55 : SpeedDemon_740, Bantam_72
• Track 56 : Towmatter_63, Daredevil_63
• Track 57 : DatBoi_70
• Track 58 : Mollymur_72
• Track 59 : BearBQ_90
• Track 60 : Birdsong_84
• Track 61 : CheeseTouch_97
• Track 62 : LitninMcQueen_97
• Track 63 : Asapag_85
• Track 64 : GrimEater_33, Jankie_35
• Track 65 : BaileyBlu_37
• Track 66 : CallinAllBarbz_37
• Track 67 : GMA4_60
• Track 68 : TinyDot_60
• Track 69 : BFK20_ORF52
• Track 70 : REQ3_19
• Track 71 : EmiRose_43

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

The start number called the most often in the published annotations is 36, it was called in 51 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AGrandiflora_36, Ascela_37, Ashes_35, BaileyBlu_37, Beaupre_35, Berrie_37, CallinAllBarbz_37, Cappuccino_35, Community_38, Cyan_35, Donkey_35, DrSierra_34, Emotion_40, Exile_33, Flutur_35, Gambol_36, Giorgio_35, GrimEater_33, Gumpizza_35, Halsey_35, IUFootball_37, Iter_37, Janeemi_38, Jankie_35, JasmineDragon_40, Joemato_35, JohnDoe_35, Kalimba_35, Kaylissa_35, KeAlii_36, LadyAstra_43, Lego_35, Liebe_37, Lizalica_34, Maureen_37, MiniMommy_39, Moss_35, Mudpuppy_34, Mysterium_35, Origami_42, Phives_38, Powerpuff_37, Reedo_35, RockScotty_35, Sabourin_38, ShakeItOph_40, Simpson_37, Snek_35, Soondubu_33, Sooty_35, SpecialK_35, Stuu_35, Sue2_36,

Tbone_34, ThursdayNight_39, Tuck_39, Tutumahutu_35, Tweety19_35, VResidence_36, VroomVroom_40, Warda_35, Wildwest_35, YesChef_35,

Genes that have the "Most Annotated" start but do not call it:
• FiveHead_44, JohnThicc_43,

Genes that do not have the "Most Annotated" start:
• AbbeyMikolon_40, Applejacks_61, Asapag_85, BFK20_ORF52, Banquo_56, Bantam_72, BearBQ_90, Birdsong_84, CheeseTouch_97, Dardanus_52, Daredevil_63, DatBoi_70, Diane_36, Dubu_33, EmiRose_43, GMA4_60, Gsput1_48, Gustav_66, LitninMcQueen_97, MaGuCo_35, Mahdia_59, Mollymur_72, Morrissey_62, Nesbitt_39, Puppers_60, REQ3_19, Schmidt_51, SpeedDemon_740, TinaLin_56, TinyDot_60, Towmatter_63, Trine_64, Upyo_68, Widow_60, phiSASD1_10,

Summary by start number:

Start 28:
• Found in 4 of 100 (4.0%) of genes in pham
• Manual Annotations of this start: 3 of 80
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AbbeyMikolon_40 (BL), Dubu_33 (BJ), Nesbitt_39 (BL), phiSASD1_10 (BJ),

Start 32:
• Found in 2 of 100 (2.0%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: FiveHead_44 (AZ4), JohnThicc_43 (AZ4),

Start 36:
• Found in 65 of 100 (65.0%) of genes in pham
• Manual Annotations of this start: 51 of 80
• Called 96.9% of time when present
• Phage (with cluster) where this start called: AGrandiflora_36 (AZ1), Ascela_37 (AZ1), Ashes_35 (AZ5), BaileyBlu_37 (FP), Beaupre_35 (AZ5), Berrie_37 (AZ1), CallinAllBarbz_37 (FP), Cappuccino_35 (AZ5), Community_38 (AZ1), Cyan_35 (AZ1), Donkey_35 (AZ5), DrSierra_34 (AZ1), Emotion_40 (AZ4), Exile_33 (AZ6), Flutur_35 (AZ), Gambol_36 (AZ5), Giorgio_35 (AZ5), GrimEater_33 (FP), Gumpizza_35 (AZ5), Halsey_35 (AZ5), IUFootball_37 (AZ2), Iter_37 (AZ1), Janeemi_38 (AZ1), Jankie_35 (FP), JasmineDragon_40 (AZ4), Joemato_35 (AZ1), JohnDoe_35 (AZ1), Kalimba_35 (AZ5), Kaylissa_35 (AZ1), KeAlii_36 (AZ1), LadyAstra_43 (AZ4), Lego_35 (AZ1), Liebe_37 (AZ2), Lizalica_34 (AZ1), Maureen_37 (AZ2), MiniMommy_39 (AZ4), Moss_35 (AZ5), Mudpuppy_34 (AZ1), Mysterium_35 (AZ5), Origami_42 (AZ4), Phives_38 (AZ1), Powerpuff_37 (AZ1), Reedo_35 (AZ1), RockScotty_35 (AZ5), Sabourin_38 (AZ5), ShakeItOph_40 (AZ4), Simpson_37 (AZ1), Snek_35 (AZ3), Soondubu_33 (AZ6), Sooty_35 (AZ5), SpecialK_35 (AZ5), Stuu_35 (AZ5), Sue2_36 (AZ1), Tbone_34 (AZ1), ThursdayNight_39 (AZ), Tuck_39 (AZ1), Tutumahutu_35 (AZ1), Tweety19_35 (AZ3), VResidence_36 (AZ1), VroomVroom_40 (AZ4), Warda_35 (AZ1), Wildwest_35 (AZ1), YesChef_35 (AZ1),

Start 37:

• Found in 1 of 100 (1.0%) of genes in pham
• Manual Annotations of this start: 1 of 80
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Diane_36 (BD2),

Start 39:
• Found in 10 of 100 (10.0%) of genes in pham
• Manual Annotations of this start: 9 of 80
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Asapag_85 (DN1), Bantam_72 (DL), BearBQ_90 (DN), Birdsong_84 (DN), CheeseTouch_97 (DN1), DatBoi_70 (DL), GMA4_60 (singleton), LitninMcQueen_97 (DN1), Mollymur_72 (DL), SpeedDemon_740 (DL),

Start 40:
• Found in 10 of 100 (10.0%) of genes in pham
• Manual Annotations of this start: 7 of 80
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Applejacks_61 (CD), BFK20_ORF52 (singleton), EmiRose_43 (singleton), Gustav_66 (CD), Mahdia_59 (CD), Morrissey_62 (CD), Puppers_60 (CD), Upyo_68 (CD), Widow_60 (CD),

Start 41:
• Found in 9 of 100 (9.0%) of genes in pham
• Manual Annotations of this start: 7 of 80
• Called 88.9% of time when present
• Phage (with cluster) where this start called: Banquo_56 (CU1), Dardanus_52 (CU3), Daredevil_63 (DL), REQ3_19 (singleton), Schmidt_51 (CU4), TinyDot_60 (singleton), Towmatter_63 (DL), Trine_64 (CD),

Start 42:
• Found in 2 of 100 (2.0%) of genes in pham
• Manual Annotations of this start: 1 of 80
• Called 50.0% of time when present
• Phage (with cluster) where this start called: TinaLin_56 (CU1),

Start 44:
• Found in 11 of 100 (11.0%) of genes in pham
• No Manual Annotations of this start.
• Called 9.1% of time when present
• Phage (with cluster) where this start called: Gsput1_48 (CU2),

Start 59:
• Found in 10 of 100 (10.0%) of genes in pham
• Manual Annotations of this start: 1 of 80
• Called 10.0% of time when present
• Phage (with cluster) where this start called: MaGuCo_35 (AZ2),

Summary by clusters:

There are 20 clusters represented in this pham: FP, DN, DL, AZ, CU3, CU2, CU1, BL, singleton, BJ, CD, CU4, DN1, BD2, AZ1, AZ2, AZ3, AZ4, AZ5, AZ6,

Info for manual annotations of cluster AZ1:
•Start number 36 was manually annotated 24 times for cluster AZ1.

Info for manual annotations of cluster AZ2:
•Start number 36 was manually annotated 2 times for cluster AZ2.
•Start number 59 was manually annotated 1 time for cluster AZ2.

Info for manual annotations of cluster AZ3:
•Start number 36 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:
•Start number 36 was manually annotated 5 times for cluster AZ4.

Info for manual annotations of cluster AZ5:
•Start number 36 was manually annotated 15 times for cluster AZ5.

Info for manual annotations of cluster AZ6:
•Start number 36 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster BD2:
•Start number 37 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BJ:
•Start number 28 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BL:
•Start number 28 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster CD:
•Start number 40 was manually annotated 6 times for cluster CD.
•Start number 41 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CU1:
•Start number 41 was manually annotated 1 time for cluster CU1.
•Start number 42 was manually annotated 1 time for cluster CU1.

Info for manual annotations of cluster CU3:
•Start number 41 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:
•Start number 41 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster DL:
•Start number 39 was manually annotated 4 times for cluster DL.
•Start number 41 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DN:
•Start number 39 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 39 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster FP:
•Start number 36 was manually annotated 2 times for cluster FP.

Gene Information:

Gene: AGrandiflora_36 Start: 25133, Stop: 25576, Start Num: 36
Candidate Starts for AGrandiflora_36:
(Start: 36 @25133 has 51 MA's), (85, 25385), (103, 25436),

Gene: AbbeyMikolon_40 Start: 26256, Stop: 26795, Start Num: 28
Candidate Starts for AbbeyMikolon_40:
(Start: 28 @26256 has 3 MA's), (54, 26391), (62, 26439), (72, 26499), (74, 26511), (85, 26559), (86, 26562), (93, 26589), (99, 26610), (106, 26634), (114, 26667), (117, 26676), (143, 26775),

Gene: Applejacks_61 Start: 41338, Stop: 41739, Start Num: 40
Candidate Starts for Applejacks_61:
(Start: 40 @41338 has 7 MA's), (50, 41383), (56, 41398), (63, 41458), (64, 41461), (70, 41485), (113, 41638), (115, 41641), (116, 41644), (125, 41671), (141, 41728),

Gene: Asapag_85 Start: 49353, Stop: 49730, Start Num: 39
Candidate Starts for Asapag_85:
(8, 49113), (Start: 39 @49353 has 9 MA's), (44, 49365), (65, 49482), (69, 49494), (79, 49515), (90, 49566), (97, 49590), (102, 49599), (115, 49644), (116, 49647), (122, 49662), (127, 49674), (135, 49707),

Gene: Ascela_37 Start: 25854, Stop: 26297, Start Num: 36
Candidate Starts for Ascela_37:
(13, 25725), (Start: 36 @25854 has 51 MA's), (46, 25899), (85, 26106), (89, 26115), (103, 26157), (104, 26163),

Gene: Ashes_35 Start: 24212, Stop: 24646, Start Num: 36
Candidate Starts for Ashes_35:
(21, 24116), (26, 24140), (Start: 36 @24212 has 51 MA's), (101, 24512),

Gene: BFK20_ORF52 Start: 41172, Stop: 41558, Start Num: 40
Candidate Starts for BFK20_ORF52:
(Start: 40 @41172 has 7 MA's), (60, 41238), (84, 41385), (86, 41391), (92, 41415), (95, 41421), (123, 41505),

Gene: BaileyBlu_37 Start: 25414, Stop: 25836, Start Num: 36
Candidate Starts for BaileyBlu_37:
(10, 25246), (14, 25300), (Start: 36 @25414 has 51 MA's), (46, 25459), (61, 25513), (85, 25666), (88, 25672),

Gene: Banquo_56 Start: 37048, Stop: 37422, Start Num: 41
Candidate Starts for Banquo_56:
(Start: 41 @37048 has 7 MA's), (Start: 42 @37051 has 1 MA's), (44, 37060), (51, 37096), (65, 37177), (73, 37204), (100, 37306), (121, 37372),

Gene: Bantam_72 Start: 52490, Stop: 52125, Start Num: 39

Candidate Starts for Bantam_72:
(34, 52520), (Start: 39 @52490 has 9 MA's), (115, 52193), (131, 52145),

Gene: BearBQ_90 Start: 50811, Stop: 51185, Start Num: 39
Candidate Starts for BearBQ_90:
(Start: 39 @50811 has 9 MA's), (44, 50823), (69, 50952), (88, 51009), (91, 51027), (97, 51048), (98, 51051), (100, 51054), (102, 51057), (115, 51102), (116, 51105), (118, 51111), (122, 51120), (127, 51132),

Gene: Beaupre_35 Start: 24213, Stop: 24647, Start Num: 36
Candidate Starts for Beaupre_35:
(21, 24117), (26, 24141), (Start: 36 @24213 has 51 MA's), (101, 24513),

Gene: Berrie_37 Start: 26747, Stop: 27190, Start Num: 36
Candidate Starts for Berrie_37:
(9, 26564), (14, 26618), (Start: 36 @26747 has 51 MA's), (85, 26999), (89, 27008), (101, 27047), (103, 27050),

Gene: Birdsong_84 Start: 49089, Stop: 49466, Start Num: 39
Candidate Starts for Birdsong_84:
(8, 48849), (Start: 39 @49089 has 9 MA's), (44, 49101), (69, 49230), (79, 49251), (90, 49302), (97, 49326), (102, 49335), (115, 49380), (116, 49383), (122, 49398), (127, 49410), (135, 49443),

Gene: CallinAllBarbz_37 Start: 25811, Stop: 26263, Start Num: 36
Candidate Starts for CallinAllBarbz_37:
(10, 25643), (14, 25697), (Start: 36 @25811 has 51 MA's), (46, 25856), (50, 25874), (61, 25910), (89, 26072), (103, 26114), (142, 26249),

Gene: Cappuccino_35 Start: 24079, Stop: 24513, Start Num: 36
Candidate Starts for Cappuccino_35:
(21, 23983), (26, 24007), (Start: 36 @24079 has 51 MA's), (Start: 59 @24166 has 1 MA's), (101, 24379),

Gene: CheeseTouch_97 Start: 48676, Stop: 49053, Start Num: 39
Candidate Starts for CheeseTouch_97:
(8, 48436), (Start: 39 @48676 has 9 MA's), (44, 48688), (69, 48817), (79, 48838), (97, 48913), (115, 48967), (116, 48970), (122, 48985), (127, 48997), (135, 49030),

Gene: Community_38 Start: 27474, Stop: 27917, Start Num: 36
Candidate Starts for Community_38:
(Start: 36 @27474 has 51 MA's), (85, 27726), (89, 27735), (103, 27777), (108, 27804), (120, 27840),

Gene: Cyan_35 Start: 25187, Stop: 25630, Start Num: 36
Candidate Starts for Cyan_35:
(Start: 36 @25187 has 51 MA's), (61, 25286), (85, 25439), (103, 25490),

Gene: Dardanus_52 Start: 35477, Stop: 35866, Start Num: 41
Candidate Starts for Dardanus_52:
(Start: 41 @35477 has 7 MA's), (44, 35489), (49, 35519), (50, 35522), (100, 35735), (116, 35783),

Gene: Daredevil_63 Start: 48481, Stop: 48092, Start Num: 41
Candidate Starts for Daredevil_63:
(Start: 41 @48481 has 7 MA's), (62, 48376), (100, 48208), (111, 48172), (116, 48157), (126, 48133),

Gene: DatBoi_70 Start: 52480, Stop: 52115, Start Num: 39
Candidate Starts for DatBoi_70:
(Start: 39 @52480 has 9 MA's), (53, 52426), (67, 52336), (105, 52213), (115, 52183), (131, 52135),

Gene: Diane_36 Start: 27972, Stop: 28412, Start Num: 37
Candidate Starts for Diane_36:
(31, 27930), (Start: 37 @27972 has 1 MA's), (43, 27990), (47, 28017), (48, 28026), (52, 28035), (57, 28047), (83, 28209), (119, 28329), (129, 28368),

Gene: Donkey_35 Start: 24069, Stop: 24503, Start Num: 36
Candidate Starts for Donkey_35:
(21, 23973), (26, 23997), (Start: 36 @24069 has 51 MA's), (Start: 59 @24156 has 1 MA's), (80, 24297), (101, 24369),

Gene: DrSierra_34 Start: 24046, Stop: 24489, Start Num: 36
Candidate Starts for DrSierra_34:
(6, 23824), (Start: 36 @24046 has 51 MA's), (85, 24298), (89, 24307), (103, 24349), (118, 24406), (138, 24469),

Gene: Dubu_33 Start: 24220, Stop: 24681, Start Num: 28
Candidate Starts for Dubu_33:
(Start: 28 @24220 has 3 MA's), (68, 24400), (80, 24451), (85, 24475), (86, 24478), (120, 24589),

Gene: EmiRose_43 Start: 35914, Stop: 36360, Start Num: 40
Candidate Starts for EmiRose_43:
(Start: 40 @35914 has 7 MA's), (50, 35959), (75, 36082), (95, 36166), (115, 36229), (124, 36256), (140, 36313),

Gene: Emotion_40 Start: 26793, Stop: 27239, Start Num: 36
Candidate Starts for Emotion_40:
(Start: 36 @26793 has 51 MA's), (103, 27096),

Gene: Exile_33 Start: 27350, Stop: 27793, Start Num: 36
Candidate Starts for Exile_33:
(Start: 36 @27350 has 51 MA's), (89, 27611), (103, 27653), (104, 27659), (107, 27677), (110, 27689),

Gene: FiveHead_44 Start: 26853, Stop: 27311, Start Num: 32
Candidate Starts for FiveHead_44:
(32, 26853), (35, 26868), (Start: 36 @26880 has 51 MA's), (77, 27084), (85, 27132),

Gene: Flutur_35 Start: 25445, Stop: 25888, Start Num: 36
Candidate Starts for Flutur_35:
(Start: 36 @25445 has 51 MA's), (61, 25544), (85, 25697), (103, 25748),

Gene: GMA4_60 Start: 40216, Stop: 40572, Start Num: 39
Candidate Starts for GMA4_60:
(24, 40105), (Start: 39 @40216 has 9 MA's), (116, 40510),

Gene: Gambol_36 Start: 24088, Stop: 24522, Start Num: 36
Candidate Starts for Gambol_36:
(21, 23992), (26, 24016), (Start: 36 @24088 has 51 MA's), (Start: 59 @24175 has 1 MA's), (101, 24388),

Gene: Giorgio_35 Start: 24196, Stop: 24630, Start Num: 36
Candidate Starts for Giorgio_35:
(16, 24088), (21, 24100), (26, 24124), (Start: 36 @24196 has 51 MA's), (101, 24496),

Gene: GrimEater_33 Start: 24325, Stop: 24750, Start Num: 36
Candidate Starts for GrimEater_33:
(Start: 36 @24325 has 51 MA's), (46, 24370), (61, 24424), (101, 24625), (104, 24634),

Gene: Gsput1_48 Start: 35124, Stop: 35474, Start Num: 44
Candidate Starts for Gsput1_48:
(33, 35067), (Start: 40 @35112 has 7 MA's), (44, 35124), (65, 35241), (111, 35403), (115, 35415), (116, 35418),

Gene: Gumpizza_35 Start: 24152, Stop: 24586, Start Num: 36
Candidate Starts for Gumpizza_35:
(16, 24044), (21, 24056), (26, 24080), (Start: 36 @24152 has 51 MA's), (101, 24452),

Gene: Gustav_66 Start: 43170, Stop: 43571, Start Num: 40
Candidate Starts for Gustav_66:
(Start: 40 @43170 has 7 MA's), (88, 43383), (116, 43476), (125, 43503), (128, 43512), (133, 43542), (139, 43557), (141, 43560),

Gene: Halsey_35 Start: 24217, Stop: 24651, Start Num: 36
Candidate Starts for Halsey_35:
(21, 24121), (26, 24145), (Start: 36 @24217 has 51 MA's), (101, 24517),

Gene: IUFootball_37 Start: 26991, Stop: 27434, Start Num: 36
Candidate Starts for IUFootball_37:
(Start: 36 @26991 has 51 MA's), (Start: 59 @27078 has 1 MA's), (85, 27243), (89, 27252), (101, 27291), (103, 27294), (104, 27300),

Gene: Iter_37 Start: 25853, Stop: 26296, Start Num: 36
Candidate Starts for Iter_37:
(13, 25724), (Start: 36 @25853 has 51 MA's), (46, 25898), (85, 26105), (89, 26114), (103, 26156), (104, 26162),

Gene: Janeemi_38 Start: 27485, Stop: 27928, Start Num: 36
Candidate Starts for Janeemi_38:
(18, 27377), (20, 27380), (23, 27389), (Start: 36 @27485 has 51 MA's), (85, 27737), (89, 27746), (103, 27788), (108, 27815),

Gene: Jankie_35 Start: 24505, Stop: 24930, Start Num: 36
Candidate Starts for Jankie_35:
(Start: 36 @24505 has 51 MA's), (46, 24550), (61, 24604), (101, 24805), (104, 24814),

Gene: JasmineDragon_40 Start: 26737, Stop: 27180, Start Num: 36
Candidate Starts for JasmineDragon_40:
(Start: 36 @26737 has 51 MA's), (61, 26836), (103, 27040), (109, 27070),

Gene: Joemato_35 Start: 25218, Stop: 25661, Start Num: 36
Candidate Starts for Joemato_35:
(Start: 36 @25218 has 51 MA's), (61, 25317), (85, 25470), (103, 25521),

Gene: JohnDoe_35 Start: 25209, Stop: 25652, Start Num: 36
Candidate Starts for JohnDoe_35:
(Start: 36 @25209 has 51 MA's), (85, 25461), (103, 25512),

Gene: JohnThicc_43 Start: 26853, Stop: 27311, Start Num: 32
Candidate Starts for JohnThicc_43:
(32, 26853), (35, 26868), (Start: 36 @26880 has 51 MA's), (77, 27084), (85, 27132),

Gene: Kalimba_35 Start: 24066, Stop: 24500, Start Num: 36
Candidate Starts for Kalimba_35:
(21, 23970), (26, 23994), (Start: 36 @24066 has 51 MA's), (Start: 59 @24153 has 1 MA's), (80, 24294), (101, 24366),

Gene: Kaylissa_35 Start: 25154, Stop: 25597, Start Num: 36
Candidate Starts for Kaylissa_35:
(Start: 36 @25154 has 51 MA's), (85, 25406), (103, 25457),

Gene: KeAlii_36 Start: 25807, Stop: 26250, Start Num: 36
Candidate Starts for KeAlii_36:
(9, 25615), (11, 25639), (14, 25669), (25, 25711), (27, 25723), (Start: 36 @25807 has 51 MA's), (61, 25906), (85, 26059), (103, 26110), (104, 26116), (107, 26134), (118, 26167),

Gene: LadyAstra_43 Start: 26980, Stop: 27411, Start Num: 36
Candidate Starts for LadyAstra_43:
(Start: 36 @26980 has 51 MA's), (85, 27232),

Gene: Lego_35 Start: 25100, Stop: 25543, Start Num: 36
Candidate Starts for Lego_35:
(18, 25007), (Start: 36 @25100 has 51 MA's), (85, 25352), (103, 25403),

Gene: Liebe_37 Start: 26991, Stop: 27434, Start Num: 36
Candidate Starts for Liebe_37:
(Start: 36 @26991 has 51 MA's), (Start: 59 @27078 has 1 MA's), (85, 27243), (89, 27252), (101, 27291), (103, 27294), (104, 27300),

Gene: LitninMcQueen_97 Start: 51856, Stop: 52233, Start Num: 39
Candidate Starts for LitninMcQueen_97:
(29, 51772), (Start: 39 @51856 has 9 MA's), (44, 51868), (65, 51985), (69, 51997), (79, 52018), (90, 52069), (97, 52093), (115, 52147), (116, 52150), (122, 52165), (127, 52177), (135, 52210),

Gene: Lizalica_34 Start: 25001, Stop: 25444, Start Num: 36
Candidate Starts for Lizalica_34:
(6, 24788), (Start: 36 @25001 has 51 MA's), (61, 25100), (85, 25253), (89, 25262), (103, 25304), (104, 25310), (138, 25424),

Gene: MaGuCo_35 Start: 25925, Stop: 26281, Start Num: 59
Candidate Starts for MaGuCo_35:
(Start: 59 @25925 has 1 MA's), (89, 26099), (103, 26141), (104, 26147),

Gene: Mahdia_59 Start: 41385, Stop: 41786, Start Num: 40
Candidate Starts for Mahdia_59:

(Start: 40 @41385 has 7 MA's), (56, 41445), (64, 41508), (79, 41562), (88, 41598), (113, 41685), (116, 41691), (125, 41718), (133, 41757), (141, 41775),

Gene: Maureen_37 Start: 26991, Stop: 27434, Start Num: 36
Candidate Starts for Maureen_37:
(Start: 36 @26991 has 51 MA's), (Start: 59 @27078 has 1 MA's), (85, 27243), (89, 27252), (101, 27291), (103, 27294), (104, 27300),

Gene: MiniMommy_39 Start: 26738, Stop: 27181, Start Num: 36
Candidate Starts for MiniMommy_39:
(Start: 36 @26738 has 51 MA's), (61, 26837), (103, 27041), (109, 27071),

Gene: Mollymur_72 Start: 52998, Stop: 52633, Start Num: 39
Candidate Starts for Mollymur_72:
(30, 53064), (34, 53028), (Start: 39 @52998 has 9 MA's), (115, 52701), (116, 52698),

Gene: Morrissey_62 Start: 43281, Stop: 43685, Start Num: 40
Candidate Starts for Morrissey_62:
(22, 43155), (Start: 40 @43281 has 7 MA's), (55, 43338), (88, 43494), (96, 43524), (113, 43581), (115, 43584), (116, 43587), (125, 43614), (128, 43623), (133, 43653),

Gene: Moss_35 Start: 24158, Stop: 24592, Start Num: 36
Candidate Starts for Moss_35:
(16, 24050), (21, 24062), (26, 24086), (Start: 36 @24158 has 51 MA's), (101, 24458),

Gene: Mudpuppy_34 Start: 24965, Stop: 25408, Start Num: 36
Candidate Starts for Mudpuppy_34:
(6, 24752), (Start: 36 @24965 has 51 MA's), (61, 25064), (85, 25217), (103, 25268),

Gene: Mysterium_35 Start: 24178, Stop: 24612, Start Num: 36
Candidate Starts for Mysterium_35:
(Start: 36 @24178 has 51 MA's), (101, 24478),

Gene: Nesbitt_39 Start: 26358, Stop: 26897, Start Num: 28
Candidate Starts for Nesbitt_39:
(12, 26283), (Start: 28 @26358 has 3 MA's), (38, 26427), (54, 26493), (62, 26541), (72, 26601), (74, 26613), (85, 26661), (87, 26667), (93, 26691), (99, 26712), (106, 26736), (114, 26769), (134, 26841), (143, 26877),

Gene: Origami_42 Start: 26772, Stop: 27203, Start Num: 36
Candidate Starts for Origami_42:
(Start: 36 @26772 has 51 MA's), (85, 27024),

Gene: Phives_38 Start: 27302, Stop: 27745, Start Num: 36
Candidate Starts for Phives_38:
(18, 27194), (20, 27197), (23, 27206), (Start: 36 @27302 has 51 MA's), (85, 27554), (89, 27563), (103, 27605), (108, 27632), (120, 27668),

Gene: Powerpuff_37 Start: 26303, Stop: 26746, Start Num: 36
Candidate Starts for Powerpuff_37:
(Start: 36 @26303 has 51 MA's), (85, 26555), (103, 26606),

Gene: Puppers_60 Start: 41273, Stop: 41683, Start Num: 40

Candidate Starts for Puppers_60:
(Start: 40 @41273 has 7 MA's), (45, 41294), (71, 41426), (82, 41468), (84, 41477), (113, 41582), (116, 41588),

Gene: REQ3_19 Start: 8920, Stop: 9282, Start Num: 41
Candidate Starts for REQ3_19:
(Start: 41 @8920 has 7 MA's), (50, 8965), (69, 9061), (76, 9067), (78, 9073), (97, 9157), (116, 9211), (132, 9262), (136, 9274),

Gene: Reedo_35 Start: 24148, Stop: 24591, Start Num: 36
Candidate Starts for Reedo_35:
(Start: 36 @24148 has 51 MA's), (46, 24193), (61, 24247), (85, 24400), (89, 24409), (103, 24451), (104, 24457), (108, 24478),

Gene: RockScotty_35 Start: 24176, Stop: 24610, Start Num: 36
Candidate Starts for RockScotty_35:
(16, 24068), (21, 24080), (26, 24104), (Start: 36 @24176 has 51 MA's), (101, 24476),

Gene: Sabourin_38 Start: 24066, Stop: 24500, Start Num: 36
Candidate Starts for Sabourin_38:
(21, 23970), (26, 23994), (Start: 36 @24066 has 51 MA's), (Start: 59 @24153 has 1 MA's), (101, 24366),

Gene: Schmidt_51 Start: 34772, Stop: 35146, Start Num: 41
Candidate Starts for Schmidt_51:
(Start: 41 @34772 has 7 MA's), (44, 34784), (65, 34901), (73, 34928), (76, 34934), (100, 35030), (112, 35072), (121, 35096),

Gene: ShakeItOph_40 Start: 26737, Stop: 27180, Start Num: 36
Candidate Starts for ShakeItOph_40:
(Start: 36 @26737 has 51 MA's), (61, 26836), (103, 27040), (109, 27070),

Gene: Simpson_37 Start: 25218, Stop: 25661, Start Num: 36
Candidate Starts for Simpson_37:
(Start: 36 @25218 has 51 MA's), (61, 25317), (85, 25470), (103, 25521),

Gene: Snek_35 Start: 24475, Stop: 24915, Start Num: 36
Candidate Starts for Snek_35:
(9, 24304), (11, 24328), (14, 24358), (25, 24400), (Start: 36 @24475 has 51 MA's), (46, 24520), (85, 24727), (103, 24778), (118, 24835),

Gene: Soondubu_33 Start: 27354, Stop: 27797, Start Num: 36
Candidate Starts for Soondubu_33:
(1, 26925), (10, 27192), (14, 27246), (Start: 36 @27354 has 51 MA's), (89, 27615), (103, 27657), (104, 27663), (107, 27681), (110, 27693),

Gene: Sooty_35 Start: 24081, Stop: 24515, Start Num: 36
Candidate Starts for Sooty_35:
(21, 23985), (26, 24009), (Start: 36 @24081 has 51 MA's), (Start: 59 @24168 has 1 MA's), (101, 24381),

Gene: SpecialK_35 Start: 24066, Stop: 24500, Start Num: 36
Candidate Starts for SpecialK_35:

(Start: 36 @24066 has 51 MA's), (101, 24366),

Gene: SpeedDemon_740 Start: 54721, Stop: 54356, Start Num: 39
Candidate Starts for SpeedDemon_740:
(34, 54751), (Start: 39 @54721 has 9 MA's), (115, 54424), (131, 54376),

Gene: Stuu_35 Start: 24178, Stop: 24612, Start Num: 36
Candidate Starts for Stuu_35:
(Start: 36 @24178 has 51 MA's), (101, 24478),

Gene: Sue2_36 Start: 26239, Stop: 26682, Start Num: 36
Candidate Starts for Sue2_36:
(Start: 36 @26239 has 51 MA's), (66, 26392), (94, 26521), (103, 26542), (104, 26548),

Gene: Tbone_34 Start: 25013, Stop: 25456, Start Num: 36
Candidate Starts for Tbone_34:
(6, 24791), (Start: 36 @25013 has 51 MA's), (61, 25112), (85, 25265), (103, 25316),

Gene: ThursdayNight_39 Start: 26870, Stop: 27295, Start Num: 36
Candidate Starts for ThursdayNight_39:
(19, 26753), (Start: 36 @26870 has 51 MA's), (61, 26969), (85, 27122), (103, 27173), (109, 27203),

Gene: TinaLin_56 Start: 36975, Stop: 37346, Start Num: 42
Candidate Starts for TinaLin_56:
(Start: 41 @36972 has 7 MA's), (Start: 42 @36975 has 1 MA's), (44, 36984), (65, 37101), (100, 37230), (121, 37296),

Gene: TinyDot_60 Start: 38014, Stop: 38394, Start Num: 41
Candidate Starts for TinyDot_60:
(2, 37603), (5, 37699), (Start: 41 @38014 has 7 MA's), (44, 38026), (58, 38077), (62, 38119), (124, 38338), (125, 38341), (131, 38374),

Gene: Towmatter_63 Start: 48560, Stop: 48171, Start Num: 41
Candidate Starts for Towmatter_63:
(Start: 41 @48560 has 7 MA's), (62, 48455), (100, 48287), (111, 48251), (116, 48236), (126, 48212),

Gene: Trine_64 Start: 42629, Stop: 43021, Start Num: 41
Candidate Starts for Trine_64:
(3, 42272), (4, 42302), (7, 42380), (Start: 41 @42629 has 7 MA's), (78, 42797), (81, 42815), (96, 42872), (113, 42929), (115, 42932), (116, 42935), (125, 42962),

Gene: Tuck_39 Start: 27855, Stop: 28298, Start Num: 36
Candidate Starts for Tuck_39:
(Start: 36 @27855 has 51 MA's), (85, 28107), (89, 28116), (103, 28158), (108, 28185), (120, 28221),

Gene: Tutumahutu_35 Start: 25185, Stop: 25628, Start Num: 36
Candidate Starts for Tutumahutu_35:
(Start: 36 @25185 has 51 MA's), (61, 25284), (85, 25437), (103, 25488),

Gene: Tweety19_35 Start: 24474, Stop: 24914, Start Num: 36
Candidate Starts for Tweety19_35:
(9, 24303), (11, 24327), (14, 24357), (25, 24399), (Start: 36 @24474 has 51 MA's), (46, 24519), (85, 24726), (103, 24777), (118, 24834),

Gene: Upyo_68 Start: 44581, Stop: 44982, Start Num: 40
Candidate Starts for Upyo_68:
(17, 44440), (Start: 40 @44581 has 7 MA's), (79, 44758), (88, 44794), (89, 44797), (113, 44881), (116, 44887), (125, 44914), (128, 44923), (136, 44959), (139, 44968),

Gene: VResidence_36 Start: 25348, Stop: 25791, Start Num: 36
Candidate Starts for VResidence_36:
(Start: 36 @25348 has 51 MA's), (85, 25600), (89, 25609), (103, 25651), (104, 25657), (109, 25681), (137, 25768),

Gene: VroomVroom_40 Start: 26879, Stop: 27325, Start Num: 36
Candidate Starts for VroomVroom_40:
(15, 26771), (35, 26867), (Start: 36 @26879 has 51 MA's), (61, 26978), (103, 27182), (130, 27275),

Gene: Warda_35 Start: 25189, Stop: 25632, Start Num: 36
Candidate Starts for Warda_35:
(6, 24967), (Start: 36 @25189 has 51 MA's), (61, 25288), (85, 25441), (103, 25492),

Gene: Widow_60 Start: 41819, Stop: 42229, Start Num: 40
Candidate Starts for Widow_60:
(Start: 40 @41819 has 7 MA's), (71, 41972), (82, 42014), (84, 42023), (113, 42128), (116, 42134),

Gene: Wildwest_35 Start: 25377, Stop: 25820, Start Num: 36
Candidate Starts for Wildwest_35:
(9, 25194), (11, 25218), (14, 25248), (Start: 36 @25377 has 51 MA's), (85, 25629), (89, 25638), (103, 25680), (104, 25686), (120, 25743), (138, 25800),

Gene: YesChef_35 Start: 25162, Stop: 25605, Start Num: 36
Candidate Starts for YesChef_35:
(Start: 36 @25162 has 51 MA's), (85, 25414), (103, 25465),

Gene: phiSASD1_10 Start: 25051, Stop: 25515, Start Num: 28
Candidate Starts for phiSASD1_10:
(Start: 28 @25051 has 3 MA's), (72, 25246), (74, 25258), (85, 25306), (86, 25309), (99, 25351), (108, 25384),