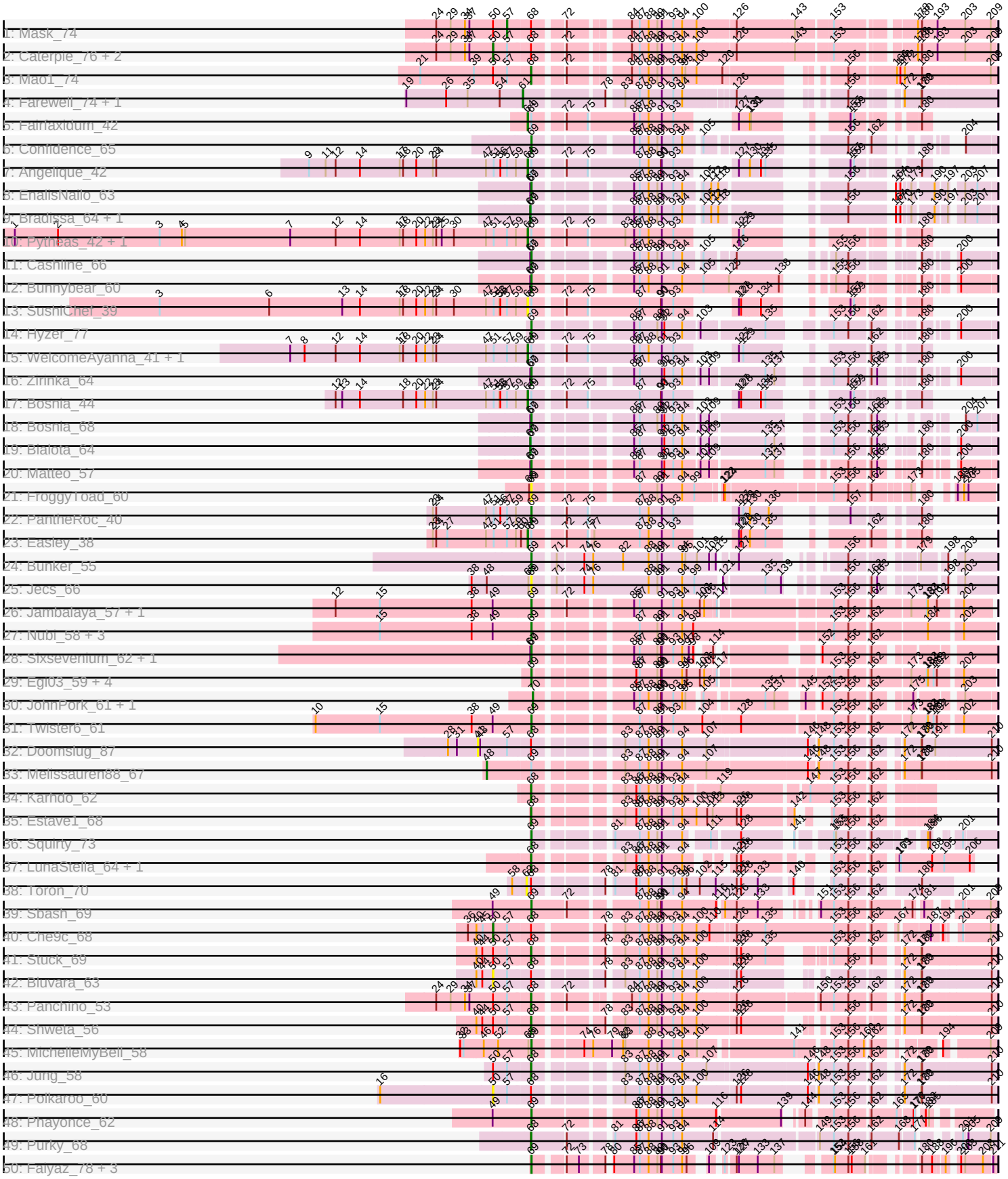
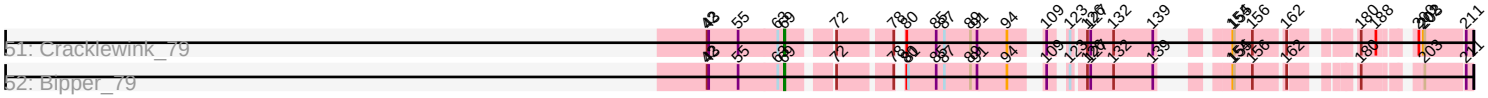
Pham 347570


1: Mask_74
2: Caterpie_76 + 2
3: Mao1_74
4: Farewell_74 + 1
5: Fairfaxidium_42
6: Confidence_65
7: Angelique_42
8: EnalisNallo_63
9: Bradyssa_64 + 1
10: Pytheas_42 + 1
11: Cashline_66
12: Bunnybear_60
13: SushiChef_39
14: Hyzer_77
15: WelcomeAyanna_41 + 1
16: Zirinka_64
17: Bosnia_44
18: Bosnia_68
19: Blalota_64
20: Matteo_57
21: FroggyToad_60
22: PantheRoc_40
23: Easley_38
24: Bunker_55
25: Jecs_66
26: Jambalaya_57 + 1
27: Nubi_58 + 3
28: Sixsevenium_62 + 1
29: Egli03_59 + 4
30: JohnPork_61 + 1
31: Twister6_61
32: Doomslug_87
33: Melissaaren88_67
34: Kamdo_62
35: Estave1_68
36: Squirty_73
37: LunaStella_64 + 1
38: Toron_70
39: Sbash_69
40: Che9c_68
41: Stuck_69
42: Bluvara_63
43: Panchino_53
44: Shweta_56
45: MichelleMyBell_58
46: Jung_58
47: Polkaroo_60
48: Phayonce_62
49: Purky_68
50: Faiyaz_78 + 3

Pham 347570



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 347570 Report

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

Pham number 347570 has 72 members, 13 are drafts.

Phages represented in each track:
- Track 1 : Mask_74
- Track 2 : Caterpie_76, JohnLord_75, Sejanus_73
- Track 3 : Mao1_74
- Track 4 : Farewell_74, Sparky_73
- Track 5 : Fairfaxidum_42
- Track 6 : Confidence_65
- Track 7 : Angelique_42
- Track 8 : EnalisNailo_63
- Track 9 : Bradissa_64, Lilas_64
- Track 10 : Pytheas_42, Jablanski_42
- Track 11 : Cashline_66
- Track 12 : Bunnybear_60
- Track 13 : SushiChef_39
- Track 14 : Hyzer_77
- Track 15 : WelcomeAyanna_41, ThankyouJordi_41
- Track 16 : Zirinka_64
- Track 17 : Bosnia_44
- Track 18 : Bosnia_68
- Track 19 : Bialota_64
- Track 20 : Matteo_57
- Track 21 : FroggyToad_60
- Track 22 : PantheRoc_40
- Track 23 : Easley_38
- Track 24 : Bunker_55
- Track 25 : Jecs_66
- Track 26 : Jambalaya_57, Savbucketdawg_57
- Track 27 : Nubi_58, Sendy_59, Evamon_57, Salvador_57
- Track 28 : Sixsevenium_62, Bakery_64
- Track 29 : Egi03_59, Shinji_58, SmokingBunny_59, Togo_58, Mutzi_58
- Track 30 : JohnPork_61, Portcullis_60
- Track 31 : Twister6_61
- Track 32 : Doomslug_87
- Track 33 : Melissauren88_67
- Track 34 : Karhdo_62
- Track 35 : Estave1_68
- Track 36 : Squirty_73
- Track 37 : LunaStella_64, TChen_66

• Track 38 : Toron_70
• Track 39 : Sbash_69
• Track 40 : Che9c_68
• Track 41 : Stuck_69
• Track 42 : Bluvara_63
• Track 43 : Panchino_53
• Track 44 : Shweta_56
• Track 45 : MichelleMyBell_58
• Track 46 : Jung_58
• Track 47 : Polkaroo_60
• Track 48 : Phayonce_62
• Track 49 : Purky_68
• Track 50 : Faiyaz_78, Hilltopfarm_77, Typha_76, AuntGwenStacy_77
• Track 51 : Cracklewink_79
• Track 52 : Bipper_79

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

The start number called the most often in the published annotations is 69, it was called in 31 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AuntGwenStacy_77, Bakery_64, Bipper_79, Bosnia_68, Bunker_55, Bunnybear_60, Cashline_66, Confidence_65, Cracklewink_79, Egi03_59, EnalisNailo_63, Evamon_57, Faiyaz_78, FroggyToad_60, Hilltopfarm_77, Hyzer_77, Jambalaya_57, Jecs_66, Matteo_57, MichelleMyBell_58, Mutzi_58, Nubi_58, PantheRoc_40, Phayonce_62, Salvador_57, Savbucketdawg_57, Sbash_69, Sendy_59, Shinji_58, Sixsevenium_62, SmokingBunny_59, Squirty_73, Togo_58, Twister6_61, Typha_76, Zirinka_64,

Genes that have the "Most Annotated" start but do not call it:
• Angelique_42, Bialota_64, Bosnia_44, Bradissa_64, Easley_38, Fairfaxidum_42, Jablanski_42, Lilas_64, Melissauren88_67, Pytheas_42, SushiChef_39, ThankyouJordi_41, WelcomeAyanna_41,

Genes that do not have the "Most Annotated" start:
• Bluvara_63, Caterpie_76, Che9c_68, Doomslug_87, Estave1_68, Farewell_74, JohnLord_75, JohnPork_61, Jung_58, Karhdo_62, LunaStella_64, Mao1_74, Mask_74, Panchino_53, Polkaroo_60, Portcullis_60, Purky_68, Sejanus_73, Shweta_56, Sparky_73, Stuck_69, TChen_66, Toron_70,

Summary by start number:

Start 41:
• Found in 1 of 72 (1.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Doomslug_87 (F),

Start 48:

• Found in 2 of 72 (2.8%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Melissauren88_67 (F1),

Start 50:
• Found in 12 of 72 (16.7%) of genes in pham
• Manual Annotations of this start: 2 of 59
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Bluvara_63 (I3), Caterpie_76 (AD), Che9c_68 (I2), JohnLord_75 (AD), Polkaroo_60 (P1), Sejanus_73 (AD),

Start 57:
• Found in 22 of 72 (30.6%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 4.5% of time when present
• Phage (with cluster) where this start called: Mask_74 (AD),

Start 61:
• Found in 2 of 72 (2.8%) of genes in pham
• Manual Annotations of this start: 2 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Farewell_74 (AF), Sparky_73 (AF),

Start 62:
• Found in 1 of 72 (1.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Toron_70 (F6),

Start 64:
• Found in 9 of 72 (12.5%) of genes in pham
• Manual Annotations of this start: 8 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Angelique_42 (CY1), Bosnia_44 (CZ1), Easley_38 (CZ4), Fairfaxidum_42 (CV), Jablanski_42 (CY3), Pytheas_42 (CY3), SushiChef_39 (CZ), ThankyouJordi_41 (CZ1), WelcomeAyanna_41 (CZ1),

Start 67:
• Found in 11 of 72 (15.3%) of genes in pham
• Manual Annotations of this start: 3 of 59
• Called 27.3% of time when present
• Phage (with cluster) where this start called: Bialota_64 (CZ1), Bradissa_64 (CY1), Lilas_64 (CY1),

Start 68:
• Found in 19 of 72 (26.4%) of genes in pham
• Manual Annotations of this start: 10 of 59
• Called 52.6% of time when present
• Phage (with cluster) where this start called: Estave1_68 (F1), Jung_58 (P1), Karhdo_62 (F1), LunaStella_64 (F4), Mao1_74 (AD), Panchino_53 (N), Purky_68 (P6), Shweta_56 (N), Stuck_69 (I2), TChen_66 (F4),

Start 69:
• Found in 49 of 72 (68.1%) of genes in pham
• Manual Annotations of this start: 31 of 59
• Called 73.5% of time when present
• Phage (with cluster) where this start called: AuntGwenStacy_77 (Y), Bakery_64 (DC1), Bipper_79 (Y), Bosnia_68 (CZ1), Bunker_55 (DB), Bunnybear_60 (CZ), Cashline_66 (CY6), Confidence_65 (CY1), Cracklewink_79 (Y), Egi03_59 (DC1), EnalisNailo_63 (CY1), Evamon_57 (DC1), Faiyaz_78 (Y), FroggyToad_60 (CZ2), Hilltopfarm_77 (Y), Hyzer_77 (CZ1), Jambalaya_57 (DC1), Jecs_66 (DB), Matteo_57 (CZ2), MichelleMyBell_58 (N), Mutzi_58 (DC1), Nubi_58 (DC1), PantheRoc_40 (CZ3), Phayonce_62 (P5), Salvador_57 (DC1), Savbucketdawg_57 (DC1), Sbash_69 (I2), Sendy_59 (DC1), Shinji_58 (DC1), Sixsevenium_62 (DC1), SmokingBunny_59 (DC1), Squirty_73 (F3), Togo_58 (DC1), Twister6_61 (DC1), Typha_76 (Y), Zirinka_64 (CZ1),

Start 70:
• Found in 2 of 72 (2.8%) of genes in pham
• Manual Annotations of this start: 1 of 59
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JohnPork_61 (DC1), Portcullis_60 (DC1),

Summary by clusters:

There are 25 clusters represented in this pham: CZ2, CZ3, CZ1, DB, CZ4, CY6, F, I3, I2, P5, CY3, CY1, P1, P6, AD, AF, N, CZ, Y, CV, DC1, F1, F3, F4, F6,

Info for manual annotations of cluster AD:
•Start number 50 was manually annotated 1 time for cluster AD.
•Start number 57 was manually annotated 1 time for cluster AD.
•Start number 68 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AF:
•Start number 61 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster CV:
•Start number 64 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CY1:
•Start number 64 was manually annotated 1 time for cluster CY1.
•Start number 67 was manually annotated 2 times for cluster CY1.
•Start number 69 was manually annotated 2 times for cluster CY1.

Info for manual annotations of cluster CY3:
•Start number 64 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY6:
•Start number 69 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CZ:
•Start number 69 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

•Start number 64 was manually annotated 3 times for cluster CZ1.
•Start number 67 was manually annotated 1 time for cluster CZ1.
•Start number 69 was manually annotated 3 times for cluster CZ1.

Info for manual annotations of cluster CZ2:
•Start number 69 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ3:
•Start number 69 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:
•Start number 64 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster DB:
•Start number 69 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DC1:
•Start number 69 was manually annotated 11 times for cluster DC1.
•Start number 70 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster F1:
•Start number 48 was manually annotated 1 time for cluster F1.
•Start number 68 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F3:
•Start number 69 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 68 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster I2:
•Start number 50 was manually annotated 1 time for cluster I2.
•Start number 68 was manually annotated 1 time for cluster I2.
•Start number 69 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:
•Start number 68 was manually annotated 2 times for cluster N.
•Start number 69 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:
•Start number 68 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P5:
•Start number 69 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:
•Start number 68 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster Y:
•Start number 69 was manually annotated 6 times for cluster Y.

Gene Information:

Gene: Angelique_42 Start: 32816, Stop: 33574, Start Num: 64
Candidate Starts for Angelique_42:
(9, 32225), (11, 32270), (12, 32297), (14, 32363), (17, 32471), (18, 32480), (20, 32516), (23, 32561), (24, 32570), (47, 32705), (51, 32726), (56, 32744), (Start: 57 @32762 has 1 MA's), (59, 32786), (Start: 64 @32816 has 8 MA's), (Start: 69 @32825 has 31 MA's), (72, 32891), (75, 32948), (87, 33080), (88, 33104), (90, 33137), (91, 33140), (93, 33170), (127, 33239), (130, 33266), (134, 33296), (135, 33308), (157, 33422), (159, 33431), (180, 33548),

Gene: AuntGwenStacy_77 Start: 50977, Stop: 51888, Start Num: 69
Candidate Starts for AuntGwenStacy_77:
(Start: 69 @50977 has 31 MA's), (72, 51043), (73, 51076), (78, 51133), (80, 51136), (85, 51190), (87, 51205), (88, 51229), (89, 51253), (90, 51262), (91, 51265), (93, 51295), (94, 51319), (96, 51331), (109, 51358), (123, 51379), (126, 51400), (127, 51406), (133, 51457), (137, 51502), (153, 51574), (154, 51577), (156, 51613), (158, 51622), (161, 51658), (180, 51736), (188, 51763), (196, 51787), (200, 51805), (203, 51811), (208, 51859), (211, 51880),

Gene: Bakery_64 Start: 46591, Stop: 47565, Start Num: 69
Candidate Starts for Bakery_64:
(Start: 67 @46588 has 3 MA's), (Start: 69 @46591 has 31 MA's), (85, 46804), (87, 46819), (89, 46867), (90, 46876), (91, 46879), (93, 46909), (94, 46933), (97, 46951), (98, 46963), (114, 46987), (152, 47194), (156, 47260), (162, 47311),

Gene: Bialota_64 Start: 45261, Stop: 46223, Start Num: 67
Candidate Starts for Bialota_64:
(Start: 67 @45261 has 3 MA's), (Start: 69 @45264 has 31 MA's), (85, 45477), (87, 45492), (91, 45552), (92, 45558), (93, 45582), (94, 45606), (103, 45645), (109, 45666), (135, 45801), (137, 45825), (153, 45912), (156, 45951), (162, 46002), (163, 46011), (180, 46077), (200, 46134),

Gene: Bipper_79 Start: 52013, Stop: 52936, Start Num: 69
Candidate Starts for Bipper_79:
(42, 51872), (43, 51875), (55, 51929), (63, 52001), (Start: 69 @52013 has 31 MA's), (72, 52079), (78, 52169), (80, 52172), (81, 52175), (85, 52226), (87, 52241), (89, 52289), (91, 52301), (94, 52355), (109, 52394), (123, 52415), (126, 52436), (127, 52442), (132, 52484), (139, 52556), (154, 52616), (155, 52619), (156, 52652), (162, 52703), (180, 52781), (203, 52856), (211, 52925),

Gene: Bluvara_63 Start: 41630, Stop: 42733, Start Num: 50
Candidate Starts for Bluvara_63:
(40, 41588), (44, 41603), (Start: 50 @41630 has 2 MA's), (Start: 57 @41666 has 1 MA's), (Start: 68 @41723 has 10 MA's), (78, 41879), (83, 41912), (87, 41951), (88, 41975), (89, 41999), (91, 42011), (93, 42041), (94, 42065), (100, 42104), (126, 42200), (128, 42212), (156, 42398), (172, 42497), (179, 42536), (180, 42539), (210, 42719),

Gene: Bosnia_44 Start: 35804, Stop: 36562, Start Num: 64
Candidate Starts for Bosnia_44:
(12, 35285), (13, 35303), (14, 35351), (18, 35468), (20, 35504), (22, 35528), (23, 35549), (24, 35558), (47, 35693), (51, 35714), (53, 35729), (56, 35732), (Start: 57 @35750 has 1 MA's), (59, 35774), (Start: 64 @35804 has 8 MA's), (Start: 69 @35813 has 31 MA's), (72, 35879), (75, 35936), (87, 36068), (90, 36125), (91, 36128), (93, 36158), (127, 36227), (128, 36233), (134, 36284), (135, 36296), (157,

36410), (159, 36419), (180, 36536),

Gene: Bosnia_68 Start: 47556, Stop: 48464, Start Num: 69
Candidate Starts for Bosnia_68:
(Start: 67 @47553 has 3 MA's), (Start: 69 @47556 has 31 MA's), (85, 47769), (87, 47784), (89, 47832), (91, 47844), (92, 47850), (93, 47874), (94, 47898), (103, 47937), (109, 47958), (153, 48201), (156, 48240), (162, 48291), (163, 48300), (204, 48387), (207, 48417),

Gene: Bradissa_64 Start: 45613, Stop: 46590, Start Num: 67
Candidate Starts for Bradissa_64:
(Start: 67 @45613 has 3 MA's), (Start: 69 @45616 has 31 MA's), (85, 45829), (87, 45844), (88, 45868), (89, 45892), (91, 45904), (93, 45934), (94, 45958), (105, 45997), (112, 46018), (118, 46036), (156, 46279), (164, 46381), (170, 46393), (173, 46408), (190, 46459), (197, 46486), (203, 46510), (207, 46543),

Gene: Bunker_55 Start: 40051, Stop: 41034, Start Num: 69
Candidate Starts for Bunker_55:
(Start: 69 @40051 has 31 MA's), (71, 40099), (74, 40165), (76, 40189), (82, 40267), (88, 40336), (89, 40360), (91, 40372), (94, 40426), (95, 40435), (101, 40459), (109, 40492), (115, 40510), (127, 40546), (156, 40738), (179, 40873), (198, 40933), (203, 40954),

Gene: Bunnybear_60 Start: 43979, Stop: 44938, Start Num: 69
Candidate Starts for Bunnybear_60:
(Start: 67 @43976 has 3 MA's), (Start: 69 @43979 has 31 MA's), (85, 44192), (87, 44207), (88, 44231), (91, 44267), (94, 44321), (105, 44378), (125, 44447), (138, 44582), (155, 44633), (156, 44666), (180, 44792), (200, 44849),

Gene: Cashline_66 Start: 46415, Stop: 47329, Start Num: 69
Candidate Starts for Cashline_66:
(Start: 67 @46412 has 3 MA's), (Start: 69 @46415 has 31 MA's), (85, 46628), (87, 46643), (88, 46667), (89, 46691), (91, 46703), (93, 46733), (94, 46757), (105, 46796), (126, 46859), (155, 47024), (156, 47057), (180, 47183), (200, 47240),

Gene: Caterpie_76 Start: 52831, Stop: 54024, Start Num: 50
Candidate Starts for Caterpie_76:
(24, 52678), (29, 52717), (34, 52756), (37, 52768), (Start: 50 @52831 has 2 MA's), (Start: 57 @52867 has 1 MA's), (Start: 68 @52924 has 10 MA's), (72, 52990), (84, 53125), (87, 53146), (88, 53170), (89, 53194), (91, 53206), (93, 53236), (94, 53260), (100, 53299), (126, 53395), (143, 53551), (153, 53635), (178, 53818), (180, 53827), (193, 53869), (203, 53944), (209, 54013),

Gene: Che9c_68 Start: 47787, Stop: 48947, Start Num: 50
Candidate Starts for Che9c_68:
(36, 47724), (40, 47745), (45, 47760), (Start: 50 @47787 has 2 MA's), (Start: 57 @47823 has 1 MA's), (Start: 68 @47880 has 10 MA's), (78, 48045), (83, 48078), (87, 48117), (88, 48141), (89, 48165), (91, 48177), (93, 48207), (94, 48231), (100, 48270), (110, 48300), (126, 48357), (135, 48435), (153, 48621), (156, 48660), (162, 48711), (167, 48753), (187, 48822), (194, 48846), (201, 48867), (209, 48936),

Gene: Confidence_65 Start: 43164, Stop: 44039, Start Num: 69
Candidate Starts for Confidence_65:
(Start: 69 @43164 has 31 MA's), (85, 43377), (87, 43392), (88, 43416), (89, 43440), (91, 43452), (93, 43482), (94, 43506), (105, 43545), (156, 43815), (162, 43866), (204, 43962),

Gene: Cracklewink_79 Start: 51047, Stop: 51973, Start Num: 69
Candidate Starts for Cracklewink_79:
(42, 50906), (43, 50909), (55, 50963), (63, 51035), (Start: 69 @51047 has 31 MA's), (72, 51113), (78, 51203), (80, 51206), (85, 51260), (87, 51275), (89, 51323), (91, 51335), (94, 51389), (109, 51428), (123, 51449), (126, 51470), (127, 51476), (132, 51518), (139, 51590), (154, 51650), (155, 51653), (156, 51686), (162, 51737), (180, 51818), (188, 51845), (200, 51887), (202, 51890), (203, 51893), (211, 51962),

Gene: Doomslug_87 Start: 46538, Stop: 47755, Start Num: 41
Candidate Starts for Doomslug_87:
(28, 46457), (31, 46481), (41, 46538), (43, 46544), (Start: 57 @46613 has 1 MA's), (Start: 68 @46667 has 10 MA's), (83, 46856), (87, 46895), (88, 46919), (89, 46943), (91, 46955), (94, 47009), (107, 47072), (146, 47321), (148, 47342), (153, 47378), (156, 47417), (162, 47468), (172, 47516), (179, 47558), (180, 47561), (191, 47597), (210, 47741),

Gene: Easley_38 Start: 29182, Stop: 29937, Start Num: 64
Candidate Starts for Easley_38:
(23, 28927), (24, 28936), (27, 28966), (47, 29071), (51, 29092), (Start: 57 @29128 has 1 MA's), (59, 29152), (60, 29164), (Start: 64 @29182 has 8 MA's), (Start: 69 @29191 has 31 MA's), (72, 29257), (75, 29314), (77, 29323), (87, 29446), (88, 29470), (91, 29506), (93, 29536), (127, 29605), (128, 29611), (130, 29632), (135, 29674), (162, 29833), (180, 29914),

Gene: Egi03_59 Start: 44017, Stop: 45090, Start Num: 69
Candidate Starts for Egi03_59:
(Start: 69 @44017 has 31 MA's), (86, 44224), (87, 44233), (89, 44281), (90, 44290), (91, 44293), (94, 44347), (96, 44359), (102, 44386), (106, 44398), (117, 44425), (153, 44701), (156, 44740), (162, 44791), (173, 44884), (183, 44926), (184, 44929), (189, 44944), (192, 44953), (202, 45010),

Gene: EnalisNailo_63 Start: 45150, Stop: 46124, Start Num: 69
Candidate Starts for EnalisNailo_63:
(Start: 67 @45147 has 3 MA's), (Start: 69 @45150 has 31 MA's), (85, 45363), (87, 45378), (88, 45402), (89, 45426), (91, 45438), (93, 45468), (94, 45492), (105, 45531), (112, 45552), (118, 45570), (156, 45813), (164, 45915), (170, 45927), (173, 45942), (190, 45993), (197, 46020), (203, 46044), (207, 46077),

Gene: Estave1_68 Start: 43517, Stop: 44377, Start Num: 68
Candidate Starts for Estave1_68:
(Start: 68 @43517 has 10 MA's), (83, 43706), (86, 43736), (87, 43745), (88, 43769), (89, 43793), (91, 43805), (93, 43835), (94, 43859), (100, 43898), (108, 43925), (113, 43940), (126, 44003), (128, 44015), (142, 44144), (153, 44165), (156, 44204), (162, 44255),

Gene: Evamon_57 Start: 43585, Stop: 44697, Start Num: 69
Candidate Starts for Evamon_57:
(15, 43177), (38, 43426), (49, 43483), (Start: 69 @43585 has 31 MA's), (87, 43807), (89, 43855), (91, 43867), (94, 43921), (98, 43951), (153, 44308), (156, 44347), (162, 44398), (184, 44536), (202, 44617),

Gene: Fairfaxidum_42 Start: 32933, Stop: 33688, Start Num: 64
Candidate Starts for Fairfaxidum_42:
(Start: 64 @32933 has 8 MA's), (Start: 69 @32942 has 31 MA's), (72, 33008), (75, 33065), (85, 33182), (87, 33197), (88, 33221), (91, 33257), (93, 33287), (127, 33356), (130, 33383), (131, 33386), (157, 33539), (159, 33548), (180, 33665),

Gene: Faiyaz_78 Start: 50983, Stop: 51894, Start Num: 69
Candidate Starts for Faiyaz_78:
(Start: 69 @50983 has 31 MA's), (72, 51049), (73, 51082), (78, 51139), (80, 51142), (85, 51196), (87, 51211), (88, 51235), (89, 51259), (90, 51268), (91, 51271), (93, 51301), (94, 51325), (96, 51337), (109, 51364), (123, 51385), (126, 51406), (127, 51412), (133, 51463), (137, 51508), (153, 51580), (154, 51583), (156, 51619), (158, 51628), (161, 51664), (180, 51742), (188, 51769), (196, 51793), (200, 51811), (203, 51817), (208, 51865), (211, 51886),

Gene: Farewell_74 Start: 49357, Stop: 50385, Start Num: 61
Candidate Starts for Farewell_74:
(19, 49045), (26, 49153), (35, 49210), (54, 49297), (Start: 61 @49357 has 2 MA's), (78, 49543), (83, 49576), (87, 49615), (88, 49639), (91, 49675), (93, 49705), (94, 49729), (126, 49849), (156, 50047), (172, 50146), (179, 50185), (180, 50188),

Gene: FroggyToad_60 Start: 40470, Stop: 41480, Start Num: 69
Candidate Starts for FroggyToad_60:
(66, 40467), (Start: 69 @40470 has 31 MA's), (87, 40692), (89, 40740), (91, 40752), (94, 40806), (99, 40839), (122, 40899), (124, 40902), (153, 41166), (156, 41205), (162, 41256), (173, 41334), (199, 41391), (202, 41400), (205, 41409),

Gene: Hilltopfarm_77 Start: 50683, Stop: 51594, Start Num: 69
Candidate Starts for Hilltopfarm_77:
(Start: 69 @50683 has 31 MA's), (72, 50749), (73, 50782), (78, 50839), (80, 50842), (85, 50896), (87, 50911), (88, 50935), (89, 50959), (90, 50968), (91, 50971), (93, 51001), (94, 51025), (96, 51037), (109, 51064), (123, 51085), (126, 51106), (127, 51112), (133, 51163), (137, 51208), (153, 51280), (154, 51283), (156, 51319), (158, 51328), (161, 51364), (180, 51442), (188, 51469), (196, 51493), (200, 51511), (203, 51517), (208, 51565), (211, 51586),

Gene: Hyzer_77 Start: 51291, Stop: 52247, Start Num: 69
Candidate Starts for Hyzer_77:
(Start: 69 @51291 has 31 MA's), (85, 51504), (87, 51519), (89, 51567), (91, 51579), (92, 51585), (94, 51633), (103, 51672), (135, 51828), (153, 51936), (156, 51975), (162, 52026), (180, 52101), (200, 52158),

Gene: Jablanski_42 Start: 33173, Stop: 33928, Start Num: 64
Candidate Starts for Jablanski_42:
(1, 31784), (2, 31901), (3, 32177), (4, 32237), (5, 32246), (7, 32531), (12, 32654), (14, 32720), (17, 32828), (18, 32837), (20, 32873), (22, 32897), (23, 32918), (24, 32927), (25, 32942), (30, 32975), (47, 33062), (51, 33083), (Start: 57 @33119 has 1 MA's), (59, 33143), (Start: 64 @33173 has 8 MA's), (Start: 69 @33182 has 31 MA's), (72, 33248), (75, 33305), (83, 33398), (85, 33422), (87, 33437), (88, 33461), (91, 33497), (93, 33527), (127, 33596), (129, 33608), (180, 33905),

Gene: Jambalaya_57 Start: 43481, Stop: 44557, Start Num: 69
Candidate Starts for Jambalaya_57:
(12, 42953), (15, 43073), (38, 43322), (49, 43379), (Start: 69 @43481 has 31 MA's), (72, 43547), (85, 43694), (87, 43709), (91, 43769), (93, 43799), (94, 43823), (102, 43862), (106, 43874), (117, 43901), (153, 44177), (156, 44216), (162, 44267), (173, 44360), (183, 44402), (184, 44405), (192, 44429), (202, 44486),

Gene: Jecs_66 Start: 42787, Stop: 43806, Start Num: 69
Candidate Starts for Jecs_66:
(38, 42637), (Start: 48 @42676 has 1 MA's), (65, 42781), (Start: 69 @42787 has 31 MA's), (71, 42835), (74, 42901), (76, 42925), (88, 43072), (89, 43096), (91, 43108), (94, 43162), (99, 43195), (121, 43255),

(135, 43360), (139, 43402), (156, 43510), (162, 43561), (163, 43570), (198, 43705), (203, 43726),

Gene: JohnLord_75 Start: 52291, Stop: 53484, Start Num: 50
Candidate Starts for JohnLord_75:
(24, 52138), (29, 52177), (34, 52216), (37, 52228), (Start: 50 @52291 has 2 MA's), (Start: 57 @52327 has 1 MA's), (Start: 68 @52384 has 10 MA's), (72, 52450), (84, 52585), (87, 52606), (88, 52630), (89, 52654), (91, 52666), (93, 52696), (94, 52720), (100, 52759), (126, 52855), (143, 53011), (153, 53095), (178, 53278), (180, 53287), (193, 53329), (203, 53404), (209, 53473),

Gene: JohnPork_61 Start: 43893, Stop: 44867, Start Num: 70
Candidate Starts for JohnPork_61:
(Start: 70 @43893 has 1 MA's), (85, 44100), (87, 44115), (88, 44139), (89, 44163), (90, 44172), (91, 44175), (93, 44205), (94, 44229), (95, 44238), (105, 44268), (135, 44409), (137, 44433), (145, 44481), (152, 44508), (153, 44535), (156, 44574), (162, 44625), (175, 44694), (203, 44784),

Gene: Jung_58 Start: 38220, Stop: 39305, Start Num: 68
Candidate Starts for Jung_58:
(Start: 50 @38127 has 2 MA's), (Start: 57 @38163 has 1 MA's), (Start: 68 @38220 has 10 MA's), (83, 38409), (87, 38448), (88, 38472), (89, 38496), (91, 38508), (94, 38562), (107, 38625), (146, 38874), (148, 38895), (153, 38931), (156, 38970), (162, 39021), (172, 39069), (179, 39108), (180, 39111), (210, 39291),

Gene: Karhdo_62 Start: 41895, Stop: 42809, Start Num: 68
Candidate Starts for Karhdo_62:
(Start: 68 @41895 has 10 MA's), (83, 42084), (86, 42114), (87, 42123), (88, 42147), (89, 42171), (91, 42183), (93, 42213), (94, 42237), (119, 42324), (147, 42534), (153, 42597), (156, 42636), (162, 42687),

Gene: Lilas_64 Start: 46685, Stop: 47662, Start Num: 67
Candidate Starts for Lilas_64:
(Start: 67 @46685 has 3 MA's), (Start: 69 @46688 has 31 MA's), (85, 46901), (87, 46916), (88, 46940), (89, 46964), (91, 46976), (93, 47006), (94, 47030), (105, 47069), (112, 47090), (118, 47108), (156, 47351), (164, 47453), (170, 47465), (173, 47480), (190, 47531), (197, 47558), (203, 47582), (207, 47615),

Gene: LunaStella_64 Start: 41657, Stop: 42571, Start Num: 68
Candidate Starts for LunaStella_64:
(Start: 68 @41657 has 10 MA's), (83, 41846), (86, 41876), (87, 41885), (88, 41909), (89, 41933), (91, 41945), (94, 41999), (126, 42077), (128, 42089), (153, 42251), (156, 42290), (162, 42341), (169, 42380), (171, 42383), (188, 42458), (195, 42491), (206, 42560),

Gene: Mao1_74 Start: 53504, Stop: 54538, Start Num: 68
Candidate Starts for Mao1_74:
(21, 53216), (39, 53360), (Start: 50 @53411 has 2 MA's), (Start: 57 @53447 has 1 MA's), (Start: 68 @53504 has 10 MA's), (72, 53570), (84, 53705), (87, 53726), (88, 53750), (89, 53774), (91, 53786), (93, 53816), (94, 53840), (95, 53849), (100, 53879), (120, 53945), (156, 54170), (166, 54284), (170, 54293), (172, 54305), (180, 54347), (209, 54524),

Gene: Mask_74 Start: 55334, Stop: 56491, Start Num: 57
Candidate Starts for Mask_74:
(24, 55145), (29, 55184), (34, 55223), (37, 55235), (Start: 50 @55298 has 2 MA's), (Start: 57 @55334 has 1 MA's), (Start: 68 @55391 has 10 MA's), (72, 55457), (84, 55592), (87, 55613), (88, 55637), (89, 55661), (91, 55673), (93, 55703), (94, 55727), (100, 55766), (126, 55862), (143, 56018), (153, 56102),

(178, 56285), (180, 56294), (193, 56336), (203, 56411), (209, 56480),

Gene: Matteo_57 Start: 38326, Stop: 39264, Start Num: 69
Candidate Starts for Matteo_57:
(Start: 67 @38323 has 3 MA's), (Start: 69 @38326 has 31 MA's), (85, 38539), (87, 38554), (91, 38614), (92, 38620), (93, 38644), (94, 38668), (103, 38707), (109, 38728), (135, 38863), (137, 38887), (156, 38992), (162, 39043), (163, 39052), (180, 39118), (200, 39175),

Gene: Melissauren88_67 Start: 42455, Stop: 43651, Start Num: 48
Candidate Starts for Melissauren88_67:
(Start: 48 @42455 has 1 MA's), (Start: 69 @42566 has 31 MA's), (83, 42755), (87, 42794), (88, 42818), (89, 42842), (91, 42854), (94, 42908), (107, 42971), (146, 43220), (148, 43241), (153, 43277), (156, 43316), (162, 43367), (172, 43415), (179, 43454), (180, 43457), (210, 43637),

Gene: MichelleMyBell_58 Start: 36242, Stop: 37285, Start Num: 69
Candidate Starts for MichelleMyBell_58:
(32, 36056), (33, 36065), (46, 36116), (52, 36155), (65, 36236), (Start: 69 @36242 has 31 MA's), (74, 36356), (76, 36380), (79, 36431), (82, 36458), (83, 36464), (88, 36527), (91, 36563), (93, 36593), (94, 36617), (101, 36650), (141, 36881), (153, 36965), (156, 37004), (160, 37046), (162, 37055), (194, 37169), (209, 37271),

Gene: Mutzi_58 Start: 45499, Stop: 46572, Start Num: 69
Candidate Starts for Mutzi_58:
(Start: 69 @45499 has 31 MA's), (86, 45706), (87, 45715), (89, 45763), (90, 45772), (91, 45775), (94, 45829), (96, 45841), (102, 45868), (106, 45880), (117, 45907), (153, 46183), (156, 46222), (162, 46273), (173, 46366), (183, 46408), (184, 46411), (189, 46426), (192, 46435), (202, 46492),

Gene: Nubi_58 Start: 43690, Stop: 44802, Start Num: 69
Candidate Starts for Nubi_58:
(15, 43282), (38, 43531), (49, 43588), (Start: 69 @43690 has 31 MA's), (87, 43912), (89, 43960), (91, 43972), (94, 44026), (98, 44056), (153, 44413), (156, 44452), (162, 44503), (184, 44641), (202, 44722),

Gene: Panchino_53 Start: 37157, Stop: 38233, Start Num: 68
Candidate Starts for Panchino_53:
(24, 36911), (29, 36950), (34, 36989), (37, 37001), (Start: 50 @37064 has 2 MA's), (Start: 57 @37100 has 1 MA's), (Start: 68 @37157 has 10 MA's), (72, 37223), (84, 37358), (87, 37379), (88, 37403), (89, 37427), (91, 37439), (93, 37469), (94, 37493), (100, 37532), (126, 37628), (150, 37829), (153, 37859), (156, 37898), (162, 37949), (172, 37997), (179, 38036), (180, 38039), (210, 38219),

Gene: PantheRoc_40 Start: 31175, Stop: 31924, Start Num: 69
Candidate Starts for PantheRoc_40:
(23, 30911), (24, 30920), (47, 31055), (51, 31076), (56, 31094), (Start: 57 @31112 has 1 MA's), (59, 31136), (Start: 69 @31175 has 31 MA's), (72, 31241), (75, 31298), (87, 31430), (88, 31454), (91, 31490), (93, 31520), (127, 31589), (129, 31601), (130, 31616), (136, 31667), (157, 31772), (180, 31898),

Gene: Phayonce_62 Start: 41740, Stop: 42756, Start Num: 69
Candidate Starts for Phayonce_62:
(49, 41635), (Start: 69 @41740 has 31 MA's), (86, 41974), (87, 41983), (88, 42007), (89, 42031), (91, 42043), (93, 42073), (94, 42097), (116, 42184), (139, 42343), (144, 42364), (153, 42412), (156, 42451), (162, 42502), (165, 42562), (176, 42595), (177, 42598), (182, 42613), (185, 42622),

Gene: Polkaroo_60 Start: 39586, Stop: 40767, Start Num: 50
Candidate Starts for Polkaroo_60:
(16, 39283), (Start: 50 @39586 has 2 MA's), (Start: 57 @39622 has 1 MA's), (Start: 68 @39679 has 10 MA's), (83, 39868), (87, 39907), (88, 39931), (89, 39955), (91, 39967), (93, 39997), (94, 40021), (100, 40060), (126, 40156), (128, 40168), (146, 40336), (148, 40357), (153, 40393), (156, 40432), (162, 40483), (172, 40531), (179, 40570), (180, 40573), (210, 40753),

Gene: Portcullis_60 Start: 43893, Stop: 44867, Start Num: 70
Candidate Starts for Portcullis_60:
(Start: 70 @43893 has 1 MA's), (85, 44100), (87, 44115), (88, 44139), (89, 44163), (90, 44172), (91, 44175), (93, 44205), (94, 44229), (95, 44238), (105, 44268), (135, 44409), (137, 44433), (145, 44481), (152, 44508), (153, 44535), (156, 44574), (162, 44625), (175, 44694), (203, 44784),

Gene: Purky_68 Start: 43277, Stop: 44338, Start Num: 68
Candidate Starts for Purky_68:
(Start: 68 @43277 has 10 MA's), (72, 43364), (81, 43454), (86, 43511), (87, 43520), (88, 43544), (91, 43580), (93, 43610), (94, 43634), (114, 43718), (149, 43970), (153, 44006), (156, 44045), (162, 44096), (168, 44156), (177, 44189), (201, 44255), (205, 44264), (209, 44324),

Gene: Pytheas_42 Start: 33172, Stop: 33927, Start Num: 64
Candidate Starts for Pytheas_42:
(1, 31783), (2, 31900), (3, 32176), (4, 32236), (5, 32245), (7, 32530), (12, 32653), (14, 32719), (17, 32827), (18, 32836), (20, 32872), (22, 32896), (23, 32917), (24, 32926), (25, 32941), (30, 32974), (47, 33061), (51, 33082), (Start: 57 @33118 has 1 MA's), (59, 33142), (Start: 64 @33172 has 8 MA's), (Start: 69 @33181 has 31 MA's), (72, 33247), (75, 33304), (83, 33397), (85, 33421), (87, 33436), (88, 33460), (91, 33496), (93, 33526), (127, 33595), (129, 33607), (180, 33904),

Gene: Salvador_57 Start: 43583, Stop: 44695, Start Num: 69
Candidate Starts for Salvador_57:
(15, 43175), (38, 43424), (49, 43481), (Start: 69 @43583 has 31 MA's), (87, 43805), (89, 43853), (91, 43865), (94, 43919), (98, 43949), (153, 44306), (156, 44345), (162, 44396), (184, 44534), (202, 44615),

Gene: Savbucketdawg_57 Start: 43481, Stop: 44557, Start Num: 69
Candidate Starts for Savbucketdawg_57:
(12, 42953), (15, 43073), (38, 43322), (49, 43379), (Start: 69 @43481 has 31 MA's), (72, 43547), (85, 43694), (87, 43709), (91, 43769), (93, 43799), (94, 43823), (102, 43862), (106, 43874), (117, 43901), (153, 44177), (156, 44216), (162, 44267), (173, 44360), (183, 44402), (184, 44405), (192, 44429), (202, 44486),

Gene: Sbash_69 Start: 45812, Stop: 46789, Start Num: 69
Candidate Starts for Sbash_69:
(49, 45707), (Start: 69 @45812 has 31 MA's), (72, 45899), (87, 46055), (88, 46079), (89, 46103), (90, 46112), (91, 46115), (94, 46169), (116, 46253), (124, 46262), (126, 46289), (133, 46346), (151, 46439), (153, 46466), (156, 46505), (162, 46556), (174, 46640), (181, 46655), (201, 46706), (209, 46775),

Gene: Sejanus_73 Start: 53759, Stop: 54952, Start Num: 50
Candidate Starts for Sejanus_73:
(24, 53606), (29, 53645), (34, 53684), (37, 53696), (Start: 50 @53759 has 2 MA's), (Start: 57 @53795 has 1 MA's), (Start: 68 @53852 has 10 MA's), (72, 53918), (84, 54053), (87, 54074), (88, 54098), (89, 54122), (91, 54134), (93, 54164), (94, 54188), (100, 54227), (126, 54323), (143, 54479), (153, 54563), (178, 54746), (180, 54755), (193, 54797), (203, 54872), (209, 54941),

Gene: Sendy_59 Start: 43891, Stop: 45003, Start Num: 69
Candidate Starts for Sendy_59:
(15, 43483), (38, 43732), (49, 43789), (Start: 69 @43891 has 31 MA's), (87, 44113), (89, 44161), (91, 44173), (94, 44227), (98, 44257), (153, 44614), (156, 44653), (162, 44704), (184, 44842), (202, 44923),

Gene: Shinji_58 Start: 43933, Stop: 45006, Start Num: 69
Candidate Starts for Shinji_58:
(Start: 69 @43933 has 31 MA's), (86, 44140), (87, 44149), (89, 44197), (90, 44206), (91, 44209), (94, 44263), (96, 44275), (102, 44302), (106, 44314), (117, 44341), (153, 44617), (156, 44656), (162, 44707), (173, 44800), (183, 44842), (184, 44845), (189, 44860), (192, 44869), (202, 44926),

Gene: Shweta_56 Start: 36930, Stop: 37940, Start Num: 68
Candidate Starts for Shweta_56:
(40, 36795), (44, 36810), (Start: 50 @36837 has 2 MA's), (Start: 57 @36873 has 1 MA's), (Start: 68 @36930 has 10 MA's), (78, 37086), (83, 37119), (87, 37158), (88, 37182), (89, 37206), (91, 37218), (93, 37248), (94, 37272), (100, 37311), (126, 37407), (128, 37419), (156, 37605), (172, 37704), (179, 37743), (180, 37746), (210, 37926),

Gene: Sixsevenium_62 Start: 45820, Stop: 46794, Start Num: 69
Candidate Starts for Sixsevenium_62:
(Start: 67 @45817 has 3 MA's), (Start: 69 @45820 has 31 MA's), (85, 46033), (87, 46048), (89, 46096), (90, 46105), (91, 46108), (93, 46138), (94, 46162), (97, 46180), (98, 46192), (114, 46216), (152, 46423), (156, 46489), (162, 46540),

Gene: SmokingBunny_59 Start: 44365, Stop: 45438, Start Num: 69
Candidate Starts for SmokingBunny_59:
(Start: 69 @44365 has 31 MA's), (86, 44572), (87, 44581), (89, 44629), (90, 44638), (91, 44641), (94, 44695), (96, 44707), (102, 44734), (106, 44746), (117, 44773), (153, 45049), (156, 45088), (162, 45139), (173, 45232), (183, 45274), (184, 45277), (189, 45292), (192, 45301), (202, 45358),

Gene: Sparky_73 Start: 50951, Stop: 51979, Start Num: 61
Candidate Starts for Sparky_73:
(19, 50639), (26, 50747), (35, 50804), (54, 50891), (Start: 61 @50951 has 2 MA's), (78, 51137), (83, 51170), (87, 51209), (88, 51233), (91, 51269), (93, 51299), (94, 51323), (126, 51443), (156, 51641), (172, 51740), (179, 51779), (180, 51782),

Gene: Squirty_73 Start: 48317, Stop: 49249, Start Num: 69
Candidate Starts for Squirty_73:
(Start: 69 @48317 has 31 MA's), (81, 48473), (87, 48539), (88, 48563), (89, 48587), (91, 48599), (94, 48653), (111, 48704), (128, 48764), (141, 48875), (153, 48938), (155, 48944), (156, 48977), (162, 49028), (184, 49124), (186, 49130), (201, 49166),

Gene: Stuck_69 Start: 46576, Stop: 47604, Start Num: 68
Candidate Starts for Stuck_69:
(40, 46441), (44, 46456), (Start: 50 @46483 has 2 MA's), (Start: 57 @46519 has 1 MA's), (Start: 68 @46576 has 10 MA's), (78, 46732), (83, 46765), (87, 46804), (88, 46828), (89, 46852), (91, 46864), (93, 46894), (94, 46918), (100, 46957), (126, 47053), (128, 47065), (135, 47131), (153, 47230), (156, 47269), (162, 47320), (172, 47368), (179, 47407), (180, 47410), (210, 47590),

Gene: SushiChef_39 Start: 32073, Stop: 32831, Start Num: 64
Candidate Starts for SushiChef_39:

(3, 31077), (6, 31374), (13, 31572), (14, 31620), (17, 31728), (18, 31737), (20, 31773), (22, 31797), (23, 31818), (24, 31827), (30, 31875), (47, 31962), (51, 31983), (53, 31998), (56, 32001), (Start: 57 @32019 has 1 MA's), (59, 32043), (Start: 64 @32073 has 8 MA's), (Start: 69 @32082 has 31 MA's), (72, 32148), (75, 32205), (87, 32337), (90, 32394), (91, 32397), (93, 32427), (127, 32496), (128, 32502), (134, 32553), (157, 32679), (159, 32688), (180, 32805),

Gene: TChen_66 Start: 43608, Stop: 44522, Start Num: 68
Candidate Starts for TChen_66:
(Start: 68 @43608 has 10 MA's), (83, 43797), (86, 43827), (87, 43836), (88, 43860), (89, 43884), (91, 43896), (94, 43950), (126, 44028), (128, 44040), (153, 44202), (156, 44241), (162, 44292), (169, 44331), (171, 44334), (188, 44409), (195, 44442), (206, 44511),

Gene: ThankyouJordi_41 Start: 33401, Stop: 34156, Start Num: 64
Candidate Starts for ThankyouJordi_41:
(7, 32759), (8, 32798), (12, 32882), (14, 32948), (17, 33056), (18, 33065), (20, 33101), (22, 33125), (23, 33146), (24, 33155), (47, 33290), (51, 33311), (Start: 57 @33347 has 1 MA's), (59, 33371), (Start: 64 @33401 has 8 MA's), (Start: 69 @33410 has 31 MA's), (72, 33476), (75, 33533), (85, 33650), (87, 33665), (88, 33689), (91, 33725), (93, 33755), (127, 33824), (129, 33836), (162, 34052), (180, 34133),

Gene: Togo_58 Start: 44365, Stop: 45438, Start Num: 69
Candidate Starts for Togo_58:
(Start: 69 @44365 has 31 MA's), (86, 44572), (87, 44581), (89, 44629), (90, 44638), (91, 44641), (94, 44695), (96, 44707), (102, 44734), (106, 44746), (117, 44773), (153, 45049), (156, 45088), (162, 45139), (173, 45232), (183, 45274), (184, 45277), (189, 45292), (192, 45301), (202, 45358),

Gene: Toron_70 Start: 43464, Stop: 44393, Start Num: 62
Candidate Starts for Toron_70:
(58, 43431), (62, 43464), (Start: 68 @43476 has 10 MA's), (78, 43632), (81, 43638), (86, 43695), (87, 43704), (88, 43728), (91, 43764), (93, 43794), (94, 43818), (96, 43830), (102, 43860), (115, 43899), (126, 43953), (128, 43965), (133, 44010), (140, 44088), (153, 44121), (156, 44160), (162, 44211), (180, 44310),

Gene: Twister6_61 Start: 44083, Stop: 45177, Start Num: 69
Candidate Starts for Twister6_61:
(10, 43501), (15, 43675), (38, 43924), (49, 43981), (Start: 69 @44083 has 31 MA's), (87, 44305), (89, 44353), (91, 44365), (93, 44395), (104, 44470), (128, 44560), (153, 44788), (156, 44827), (162, 44878), (173, 44971), (183, 45013), (184, 45016), (189, 45031), (192, 45040), (202, 45097),

Gene: Typha_76 Start: 50977, Stop: 51888, Start Num: 69
Candidate Starts for Typha_76:
(Start: 69 @50977 has 31 MA's), (72, 51043), (73, 51076), (78, 51133), (80, 51136), (85, 51190), (87, 51205), (88, 51229), (89, 51253), (90, 51262), (91, 51265), (93, 51295), (94, 51319), (96, 51331), (109, 51358), (123, 51379), (126, 51400), (127, 51406), (133, 51457), (137, 51502), (153, 51574), (154, 51577), (156, 51613), (158, 51622), (161, 51658), (180, 51736), (188, 51763), (196, 51787), (200, 51805), (203, 51811), (208, 51859), (211, 51880),

Gene: WelcomeAyanna_41 Start: 33548, Stop: 34303, Start Num: 64
Candidate Starts for WelcomeAyanna_41:
(7, 32906), (8, 32945), (12, 33029), (14, 33095), (17, 33203), (18, 33212), (20, 33248), (22, 33272), (23, 33293), (24, 33302), (47, 33437), (51, 33458), (Start: 57 @33494 has 1 MA's), (59, 33518), (Start: 64 @33548 has 8 MA's), (Start: 69 @33557 has 31 MA's), (72, 33623), (75, 33680), (85, 33797), (87, 33812), (88, 33836), (91, 33872), (93, 33902), (127, 33971), (129, 33983), (162, 34199), (180, 34280),

Gene: Zirinka_64 Start: 45252, Stop: 46211, Start Num: 69
Candidate Starts for Zirinka_64:
(Start: 67 @45249 has 3 MA's), (Start: 69 @45252 has 31 MA's), (85, 45465), (87, 45480), (91, 45540), (92, 45546), (93, 45570), (94, 45594), (103, 45633), (109, 45654), (135, 45789), (137, 45813), (153, 45900), (156, 45939), (162, 45990), (163, 45999), (180, 46065), (200, 46122),