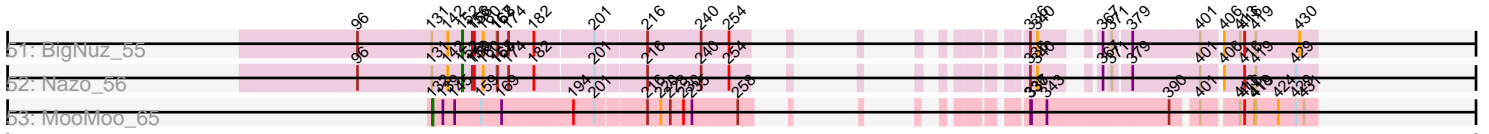


1: Conboy_80 + 4	97	109	132	149	168	189	208	218	230	239	306	324	341	357	376	388	403	424	438
2: JaNo_81 + 8	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
3: Dryang_79	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
4: KBurousta_81	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
5: Chubster_83	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
6: Arv1_069	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
7: PrincessInna_83	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
8: Colucci_85	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
9: Lymara_79	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
10: Wocket_66	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
11: Beipnegor_66	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
12: Lliac_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
13: Conum_67 + 1	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
14: Shingonika_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
15: BlueCrab_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
16: Akhila_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
17: Dorothy_68	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
18: Younger_68	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
19: Wee_78 + 1	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
20: Bobi_73	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
21: Poika14_65	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
22: Moya_72	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
23: DRNny_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
24: PatoPoderoso_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
25: Harley_68	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
26: Awesomesauld	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
27: SG4_70	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
28: Kersh_68	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
29: Pnaiconet_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
30: Martik_66	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
31: StAnnes_70	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
32: Mantra_64	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
33: Hegedechn	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
34: Owis12W_66	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
35: Bipolar_71	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
36: SmiLan_65	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
37: TootsEPol	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
38: Filuzino_74	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
39: PollyWog_67	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
40: Starcavich	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
41: Okabe_69	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
42: Hannahonda_142	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
43: Boilgate_58	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
44: Megiddo_53	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
45: Majeke_63	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
46: KiiKor_53 + 6	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
47: CactusJack_56 + 1	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
48: Brusacoram_55	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
49: Thespis_55	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438
50: Atcoo_55	97	109	125	143	163	184	206	218	230	239	306	324	341	357	376	388	403	424	438

Pham 311493



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 311493 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311493 has 84 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Conboy_80, JayCookie_82, MoyaNatalis_81, Linus_82, RosiePosie_82
- Track 2 : JaNo_81, Chocolat_82, EdgarPoe_81, Scavito_83, Kabreeze_82, Chipper1996_830, Mordred_82, HumptyDumpty_82, Tophat_83
- Track 3 : DrYang_79
- Track 4 : KBurroustX_81
- Track 5 : Chubster_83
- Track 6 : ArV1_069
- Track 7 : PrincessTrina_83
- Track 8 : Colucci_85
- Track 9 : Lymara_79
- Track 10 : Wocket_66
- Track 11 : Belphegor_66
- Track 12 : Lilac_101
- Track 13 : Corium_67, KingJulian_72
- Track 14 : ShroomBoi_67
- Track 15 : BlueCrab_67, FreddyB_67
- Track 16 : Akhila_67, MilanaBonita_66
- Track 17 : Dorothy_75, RedBird_75
- Track 18 : Totinger_66
- Track 19 : Wee_78, Taj_79
- Track 20 : Bobi_73
- Track 21 : Polka14_65, PHappiness_62, Daenerys_61, Leperchaun_59, JoeyJr_62, RitaG_62
- Track 22 : Mova_70
- Track 23 : DRBy19_70, Philus_70
- Track 24 : PatoPoderoso_67
- Track 25 : Harley_68
- Track 26 : Awesomesauce_76
- Track 27 : SG4_70
- Track 28 : Kersh_68
- Track 29 : Phalconet_70
- Track 30 : Martik_66
- Track 31 : StAnnes_70
- Track 32 : Mantra_64
- Track 33 : Hegedechwinu_73
- Track 34 : OwlsT2W_66
- Track 35 : Bipolar_76

- Track 36 : ShiLan_65
- Track 37 : TootsiePop_75, Misha28_75
- Track 38 : Filuzino_74
- Track 39 : Pollywog_67
- Track 40 : Starcevich_66
- Track 41 : Okabe_69
- Track 42 : Hannaconda_142
- Track 43 : Boilgate_58
- Track 44 : Megiddo_53
- Track 45 : Majeke_63, Mangethe_63, Phegasus_63
- Track 46 : KilKor_53, Willsammy_52
- Track 47 : CactusJack_53, StressBall_53, Glaske_53, Phalm_53, Gavriela_53
- Track 48 : Brusacoram_55
- Track 49 : Thespis_55
- Track 50 : Atcoo_55
- Track 51 : BigNuz_55
- Track 52 : Nazo_56
- Track 53 : MooMoo_65

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

The start number called the most often in the published annotations is 97, it was called in 17 of the 79 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Chipper1996_830, Chocolat_82, Chubster_83, Conboy_80, DrYang_79, EdgarPoe_81, HumptyDumpty_82, JaNo_81, JayCookie_82, Kabreeze_82, Linus_82, Lymara_79, Mordred_82, MoyaNatalis_81, PrincessTrina_83, RosiePosie_82, Scavito_83, Tophat_83,

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

- Akhila_67, Bobi_73, Dorothy_75, Hegedechwinu_73, Lilac_101, Mantra_64, MilanaBonita_66, Mova_70, Okabe_69, Phalconet_70, RedBird_75, ShiLan_65, Taj_79, Totinger_66, Wee_78,

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

- ArV1_069, Atcoo_55, Awesomesauce_76, Belphegor_66, BigNuz_55, Bipolar_76, BlueCrab_67, Boilgate_58, Brusacoram_55, CactusJack_53, Colucci_85, Corium_67, DRBy19_70, Daenerys_61, Filuzino_74, FreddyB_67, Gavriela_53, Glaske_53, Hannaconda_142, Harley_68, JoeyJr_62, KBurroustX_81, Kersh_68, KilKor_53, KingJulian_72, Leperchaun_59, Majeke_63, Mangethe_63, Martik_66, Megiddo_53, Misha28_75, MooMoo_65, Nazo_56, OwlsT2W_66, PHappiness_62, PatoPoderoso_67, Phalm_53, Phegasus_63, Philus_70, Polka14_65, Pollywog_67, RitaG_62, SG4_70, ShroomBoi_67, StAnnes_70, Starcevich_66, StressBall_53, Thespis_55, TootsiePop_75, Willsammy_52, Wocket_66,

Summary by start number:

Start 13:

- Found in 3 of 84 (3.6%) of genes in pham

- Manual Annotations of this start: 1 of 79
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Corium_67 (F1), KingJulian_72 (F1),

Start 14:

- Found in 2 of 84 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dorothy_75 (F1), RedBird_75 (F1),

Start 16:

- Found in 3 of 84 (3.6%) of genes in pham
- Manual Annotations of this start: 3 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Awesomesauce_76 (F1), Misha28_75 (F1), TootsiePop_75 (F1),

Start 17:

- Found in 7 of 84 (8.3%) of genes in pham
- Manual Annotations of this start: 7 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueCrab_67 (F1), DRBy19_70 (F1), FreddyB_67 (F1), Martik_66 (F1), Philus_70 (F1), ShiLan_65 (F1), Starceвич_66 (F1),

Start 35:

- Found in 3 of 84 (3.6%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: PatoPoderoso_67 (F1),

Start 38:

- Found in 4 of 84 (4.8%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Atcoo_55 (P1),

Start 39:

- Found in 8 of 84 (9.5%) of genes in pham
- Manual Annotations of this start: 8 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CactusJack_53 (P1), Gavriela_53 (P1), Glaske_53 (P1), KilKor_53 (P1), Megiddo_53 (P1), Phalm_53 (P1), StressBall_53 (P1), Willsammy_52 (P1),

Start 41:

- Found in 6 of 84 (7.1%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Bipolar_76 (F1),

Start 53:

- Found in 3 of 84 (3.6%) of genes in pham

- Manual Annotations of this start: 2 of 79
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bobi_73 (F1), SG4_70 (F1),

Start 54:

- Found in 12 of 84 (14.3%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Hegedechwinu_73 (F1),

Start 56:

- Found in 10 of 84 (11.9%) of genes in pham
- Manual Annotations of this start: 8 of 79
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Akhila_67 (F1), Filuzino_74 (F1), MilanaBonita_66 (F1), Okabe_69 (F8), OwlsT2W_66 (F1), Phalconet_70 (F1), Pollywog_67 (F1), Taj_79 (F1), Wee_78 (F1),

Start 57:

- Found in 4 of 84 (4.8%) of genes in pham
- Manual Annotations of this start: 4 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kersh_68 (F1), Mantra_64 (F1), Mova_70 (F1), Totinger_66 (F1),

Start 59:

- Found in 1 of 84 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAnnes_70 (F1),

Start 61:

- Found in 10 of 84 (11.9%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Lilac_101 (E),

Start 62:

- Found in 1 of 84 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hannaconda_142 (J),

Start 81:

- Found in 3 of 84 (3.6%) of genes in pham
- Manual Annotations of this start: 3 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Majeke_63 (P1), Mangethe_63 (P1), Phegasus_63 (P1),

Start 97:

- Found in 33 of 84 (39.3%) of genes in pham
- Manual Annotations of this start: 17 of 79

- Called 54.5% of time when present
- Phage (with cluster) where this start called: Chipper1996_830 (AR), Chocolat_82 (AR), Chubster_83 (AR), Conboy_80 (AR), DrYang_79 (AR), EdgarPoe_81 (AR), HumptyDumpty_82 (AR), JaNo_81 (AR), JayCookie_82 (AR), Kabreeze_82 (AR), Linus_82 (AR), Lymara_79 (AR), Mordred_82 (AR), MoyaNatalis_81 (AR), PrincessTrina_83 (AR), RosiePosie_82 (AR), Scavito_83 (AR), Tophat_83 (AR),

Start 115:

- Found in 1 of 84 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belphegor_66 (DE2),

Start 125:

- Found in 8 of 84 (9.5%) of genes in pham
- Manual Annotations of this start: 8 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daenerys_61 (F1), Harley_68 (F1), JoeyJr_62 (F1), Leperchaun_59 (F1), PHappiness_62 (F1), Polka14_65 (F1), RitaG_62 (F1), ShroomBoi_67 (F1),

Start 128:

- Found in 2 of 84 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Boilgate_58 (K8),

Start 132:

- Found in 22 of 84 (26.2%) of genes in pham
- Manual Annotations of this start: 3 of 79
- Called 18.2% of time when present
- Phage (with cluster) where this start called: ArV1_069 (AR), Colucci_85 (AR), KBurrousTX_81 (AR), MooMoo_65 (singleton),

Start 152:

- Found in 3 of 84 (3.6%) of genes in pham
- Manual Annotations of this start: 3 of 79
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigNuz_55 (P4), Nazo_56 (P4), Wocket_66 (CV),

Start 164:

- Found in 2 of 84 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Thespis_55 (P1),

Start 179:

- Found in 2 of 84 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 79
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Brusacoram_55 (P1),

Summary by clusters:

There are 11 clusters represented in this pham: F1, singleton, P1, E, P4, F8, DE2, J, AR, K8, CV,

Info for manual annotations of cluster AR:

- Start number 97 was manually annotated 17 times for cluster AR.
- Start number 132 was manually annotated 2 times for cluster AR.

Info for manual annotations of cluster CV:

- Start number 152 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DE2:

- Start number 115 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster E:

- Start number 61 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster F1:

- Start number 13 was manually annotated 1 time for cluster F1.
- Start number 14 was manually annotated 2 times for cluster F1.
- Start number 16 was manually annotated 3 times for cluster F1.
- Start number 17 was manually annotated 7 times for cluster F1.
- Start number 41 was manually annotated 1 time for cluster F1.
- Start number 53 was manually annotated 2 times for cluster F1.
- Start number 54 was manually annotated 1 time for cluster F1.
- Start number 56 was manually annotated 8 times for cluster F1.
- Start number 57 was manually annotated 4 times for cluster F1.
- Start number 59 was manually annotated 1 time for cluster F1.
- Start number 125 was manually annotated 8 times for cluster F1.

Info for manual annotations of cluster J:

- Start number 62 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster K8:

- Start number 128 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster P1:

- Start number 38 was manually annotated 1 time for cluster P1.
- Start number 39 was manually annotated 8 times for cluster P1.
- Start number 81 was manually annotated 3 times for cluster P1.
- Start number 164 was manually annotated 1 time for cluster P1.
- Start number 179 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P4:

- Start number 152 was manually annotated 2 times for cluster P4.

Gene Information:

Gene: Akhila_67 Start: 42333, Stop: 45014, Start Num: 56

Candidate Starts for Akhila_67:

(Start: 41 @42243 has 1 MA's), (42, 42252), (Start: 56 @42333 has 8 MA's), (64, 42393), (67, 42429), (70, 42462), (Start: 97 @42663 has 17 MA's), (103, 42696), (144, 42873), (151, 42897), (161, 42960), (167, 42984), (168, 42987), (171, 43005), (173, 43008), (186, 43107), (187, 43128), (204, 43260), (209, 43341), (222, 43422), (242, 43536), (253, 43593), (264, 43665), (268, 43749), (273, 43767), (275, 43788), (279, 43857), (280, 43875), (281, 43908), (287, 44022), (288, 44028), (290, 44046), (291, 44067), (300, 44109), (308, 44151), (320, 44196), (323, 44208), (336, 44313), (341, 44334), (342, 44343), (343, 44355), (345, 44379), (349, 44421), (377, 44520), (401, 44706), (413, 44808), (416, 44820), (418, 44847),

Gene: ArV1_069 Start: 53043, Stop: 54641, Start Num: 132

Candidate Starts for ArV1_069:

(Start: 132 @53043 has 3 MA's), (149, 53115), (156, 53151), (158, 53157), (159, 53175), (162, 53193), (174, 53250), (177, 53286), (182, 53316), (184, 53328), (189, 53391), (208, 53520), (214, 53589), (218, 53616), (234, 53697), (237, 53712), (240, 53727), (247, 53769), (252, 53778), (254, 53796), (257, 53814), (259, 53829), (305, 53913), (327, 53979), (329, 53985), (334, 54039), (337, 54066), (340, 54081), (343, 54105), (345, 54129), (347, 54150), (361, 54213), (375, 54267), (376, 54291), (392, 54405), (409, 54429), (413, 54447), (417, 54468), (423, 54537), (424, 54546), (427, 54588), (432, 54621),

Gene: Atcoo_55 Start: 37344, Stop: 39803, Start Num: 38

Candidate Starts for Atcoo_55:

(15, 37242), (18, 37251), (23, 37278), (Start: 38 @37344 has 1 MA's), (49, 37404), (55, 37443), (60, 37473), (68, 37563), (69, 37590), (76, 37653), (77, 37659), (78, 37662), (79, 37680), (95, 37800), (103, 37842), (112, 37899), (167, 38169), (175, 38208), (195, 38373), (203, 38436), (215, 38568), (217, 38589), (225, 38625), (228, 38631), (232, 38670), (239, 38706), (244, 38739), (248, 38760), (272, 38865), (286, 38940), (297, 39012), (336, 39258), (339, 39276), (343, 39300), (365, 39435), (373, 39465), (377, 39501), (395, 39603), (401, 39660), (405, 39720), (410, 39753), (414, 39762), (415, 39765),

Gene: Awesomesauce_76 Start: 46078, Stop: 48528, Start Num: 16

Candidate Starts for Awesomesauce_76:

(Start: 16 @46078 has 3 MA's), (21, 46108), (30, 46138), (36, 46174), (44, 46207), (71, 46438), (77, 46489), (78, 46492), (95, 46630), (103, 46672), (112, 46729), (167, 46999), (175, 47038), (195, 47203), (203, 47266), (215, 47398), (217, 47419), (225, 47455), (228, 47461), (232, 47500), (239, 47536), (244, 47569), (248, 47590), (310, 47725), (336, 47827), (337, 47830), (343, 47869), (349, 47950), (376, 48061), (377, 48064), (395, 48166), (401, 48223), (413, 48325), (416, 48337), (417, 48346), (419, 48367),

Gene: Belphegor_66 Start: 51910, Stop: 53616, Start Num: 115

Candidate Starts for Belphegor_66:

(113, 51907), (Start: 115 @51910 has 1 MA's), (119, 51937), (127, 51979), (135, 52006), (140, 52027), (143, 52036), (160, 52114), (172, 52165), (181, 52216), (188, 52267), (198, 52312), (214, 52456), (223, 52504), (240, 52600), (249, 52645), (259, 52702), (262, 52714), (336, 52918), (343, 52960), (363, 53080), (376, 53146), (407, 53383), (409, 53398), (413, 53416), (422, 53503), (424, 53515), (431, 53584),

Gene: BigNuz_55 Start: 38221, Stop: 39756, Start Num: 152

Candidate Starts for BigNuz_55:

(96, 37939), (131, 38140), (142, 38182), (Start: 152 @38221 has 3 MA's), (156, 38248), (158, 38254), (160, 38278), (167, 38314), (168, 38317), (174, 38347), (182, 38413), (201, 38563), (216, 38686), (240, 38824), (254, 38896), (336, 39142), (340, 39160), (367, 39250), (371, 39259), (379, 39301), (401, 39466), (406, 39511), (413, 39553), (416, 39565), (419, 39595), (430, 39709),

Gene: Bipolar_76 Start: 46390, Stop: 48396, Start Num: 41

Candidate Starts for Bipolar_76:

(Start: 41 @46390 has 1 MA's), (Start: 56 @46483 has 8 MA's), (Start: 61 @46513 has 1 MA's), (64, 46543), (67, 46579), (70, 46612), (73, 46657), (79, 46699), (80, 46702), (82, 46735), (83, 46741), (98, 46822), (118, 46864), (121, 46879), (148, 46972), (176, 47062), (178, 47074), (200, 47206), (221, 47326), (243, 47449), (260, 47536), (336, 47671), (341, 47692), (342, 47701), (343, 47713), (345, 47737), (376, 47905), (377, 47908), (401, 48088), (402, 48118), (413, 48190), (416, 48202), (417, 48211), (418, 48229), (430, 48346),

Gene: BlueCrab_67 Start: 43881, Stop: 46157, Start Num: 17

Candidate Starts for BlueCrab_67:

(2, 43704), (3, 43710), (4, 43719), (5, 43728), (8, 43767), (12, 43824), (Start: 17 @43881 has 7 MA's), (30, 43938), (44, 44007), (71, 44238), (79, 44310), (95, 44430), (103, 44472), (112, 44529), (167, 44799), (175, 44838), (195, 45003), (203, 45066), (215, 45198), (217, 45219), (225, 45255), (228, 45261), (232, 45300), (239, 45336), (244, 45369), (248, 45390), (323, 45555), (324, 45558), (336, 45642), (343, 45684), (395, 45957), (401, 46014), (405, 46074), (410, 46107), (414, 46116), (415, 46119),

Gene: Bobi_73 Start: 44682, Stop: 46739, Start Num: 53

Candidate Starts for Bobi_73:

(Start: 53 @44682 has 2 MA's), (Start: 61 @44721 has 1 MA's), (64, 44751), (67, 44787), (70, 44820), (73, 44865), (90, 45009), (Start: 97 @45030 has 17 MA's), (120, 45162), (136, 45243), (154, 45324), (175, 45438), (183, 45495), (191, 45567), (203, 45651), (207, 45690), (211, 45759), (219, 45810), (227, 45843), (241, 45924), (242, 45930), (244, 45948), (248, 45969), (271, 46053), (292, 46095), (336, 46218), (341, 46239), (342, 46248), (343, 46260), (345, 46284), (347, 46305), (353, 46338), (368, 46383), (370, 46395), (376, 46434), (377, 46437), (391, 46539), (401, 46596), (405, 46656), (411, 46689), (414, 46698), (415, 46701),

Gene: Boilgate_58 Start: 41641, Stop: 43257, Start Num: 128

Candidate Starts for Boilgate_58:

(110, 41533), (117, 41566), (Start: 128 @41641 has 1 MA's), (133, 41668), (141, 41698), (158, 41767), (185, 41941), (190, 41992), (191, 41998), (202, 42073), (216, 42193), (256, 42400), (257, 42403), (265, 42451), (284, 42469), (336, 42622), (339, 42640), (342, 42655), (347, 42712), (387, 42904), (413, 43054), (419, 43096), (424, 43153), (431, 43222), (434, 43246),

Gene: Brusacoram_55 Start: 36850, Stop: 38346, Start Num: 179

Candidate Starts for Brusacoram_55:

(Start: 164 @36748 has 1 MA's), (165, 36757), (170, 36784), (Start: 179 @36850 has 1 MA's), (187, 36910), (192, 36949), (196, 36979), (205, 37036), (212, 37123), (229, 37201), (236, 37246), (272, 37408), (286, 37483), (297, 37555), (336, 37801), (339, 37819), (343, 37843), (365, 37978), (373, 38008), (377, 38044), (395, 38146), (401, 38203), (405, 38263), (410, 38296), (414, 38305), (415, 38308),

Gene: CactusJack_53 Start: 36390, Stop: 38582, Start Num: 39

Candidate Starts for CactusJack_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (78, 36705), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (175, 37251), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (348, 38145), (349, 38151), (359, 38181), (361, 38187), (377, 38253), (401, 38439), (405, 38499), (410, 38532), (414, 38541), (415, 38544),

Gene: Chipper1996_830 Start: 54205, Stop: 56127, Start Num: 97

Candidate Starts for Chipper1996_830:

(Start: 97 @54205 has 17 MA's), (109, 54277), (Start: 132 @54409 has 3 MA's), (149, 54481), (156, 54517), (159, 54541), (162, 54559), (174, 54616), (177, 54652), (182, 54682), (184, 54694), (208, 54886), (214, 54955), (218, 54982), (234, 55063), (237, 55078), (240, 55093), (252, 55144), (254, 55162), (259, 55195), (305, 55279), (314, 55306), (327, 55345), (329, 55351), (334, 55405), (335, 55426), (336, 55429), (337, 55432), (340, 55447), (345, 55495), (347, 55516), (361, 55579), (369, 55603), (372, 55621), (374, 55630), (376, 55657), (398, 55792), (399, 55810), (403, 55879), (408, 55903), (409, 55915), (410, 55924), (413, 55933), (423, 56023), (424, 56032), (432, 56107), (433, 56113),

Gene: Chocolat_82 Start: 53912, Stop: 55834, Start Num: 97

Candidate Starts for Chocolat_82:

(Start: 97 @53912 has 17 MA's), (109, 53984), (Start: 132 @54116 has 3 MA's), (149, 54188), (156, 54224), (159, 54248), (162, 54266), (174, 54323), (177, 54359), (182, 54389), (184, 54401), (208, 54593), (214, 54662), (218, 54689), (234, 54770), (237, 54785), (240, 54800), (252, 54851), (254, 54869), (259, 54902), (305, 54986), (314, 55013), (327, 55052), (329, 55058), (334, 55112), (335, 55133), (336, 55136), (337, 55139), (340, 55154), (345, 55202), (347, 55223), (361, 55286), (369, 55310), (372, 55328), (374, 55337), (376, 55364), (398, 55499), (399, 55517), (403, 55586), (408, 55610), (409, 55622), (410, 55631), (413, 55640), (423, 55730), (424, 55739), (432, 55814), (433, 55820),

Gene: Chubster_83 Start: 54594, Stop: 56483, Start Num: 97

Candidate Starts for Chubster_83:

(Start: 97 @54594 has 17 MA's), (109, 54666), (Start: 132 @54798 has 3 MA's), (149, 54837), (156, 54873), (159, 54897), (162, 54915), (174, 54972), (177, 55008), (182, 55038), (184, 55050), (208, 55242), (218, 55338), (234, 55419), (237, 55434), (240, 55449), (252, 55500), (254, 55518), (259, 55551), (305, 55635), (327, 55701), (329, 55707), (334, 55761), (335, 55782), (336, 55785), (337, 55788), (340, 55803), (345, 55851), (347, 55872), (361, 55935), (369, 55959), (372, 55977), (374, 55986), (376, 56013), (398, 56148), (399, 56166), (403, 56235), (408, 56259), (409, 56271), (410, 56280), (413, 56289), (422, 56376), (423, 56379), (424, 56388), (432, 56463), (433, 56469),

Gene: Colucci_85 Start: 54914, Stop: 56491, Start Num: 132

Candidate Starts for Colucci_85:

(Start: 132 @54914 has 3 MA's), (156, 55001), (158, 55007), (159, 55025), (174, 55100), (177, 55136), (182, 55166), (214, 55439), (218, 55466), (234, 55547), (237, 55562), (240, 55577), (247, 55619), (252, 55628), (254, 55646), (259, 55679), (327, 55829), (329, 55835), (334, 55889), (337, 55916), (340, 55931), (345, 55979), (347, 56000), (352, 56036), (361, 56063), (375, 56117), (376, 56141), (392, 56255), (408, 56267), (413, 56297), (423, 56387), (424, 56396), (432, 56471),

Gene: Conboy_80 Start: 53694, Stop: 55583, Start Num: 97

Candidate Starts for Conboy_80:

(Start: 97 @53694 has 17 MA's), (109, 53766), (Start: 132 @53898 has 3 MA's), (149, 53937), (156, 53973), (159, 53997), (162, 54015), (174, 54072), (177, 54108), (182, 54138), (184, 54150), (208, 54342), (214, 54411), (218, 54438), (234, 54519), (237, 54534), (240, 54549), (252, 54600), (254, 54618), (259, 54651), (305, 54735), (327, 54801), (329, 54807), (334, 54861), (335, 54882), (336, 54885), (337, 54888), (340, 54903), (345, 54951), (347, 54972), (361, 55035), (369, 55059), (372, 55077), (374, 55086), (376, 55113), (398, 55248), (399, 55266), (403, 55335), (408, 55359), (409, 55371), (410, 55380), (413, 55389), (423, 55479), (424, 55488), (432, 55563), (433, 55569),

Gene: Corium_67 Start: 44493, Stop: 46790, Start Num: 13

Candidate Starts for Corium_67:

(9, 44409), (10, 44421), (Start: 13 @44493 has 1 MA's), (35, 44592), (44, 44622), (49, 44652), (Start: 54 @44688 has 1 MA's), (60, 44721), (68, 44811), (69, 44838), (76, 44901), (77, 44907), (79, 44928), (95, 45048), (103, 45090), (112, 45147), (167, 45417), (195, 45621), (203, 45684), (215, 45816), (217, 45837), (225, 45873), (228, 45879), (232, 45918), (239, 45954), (244, 45987), (248, 46008), (256, 46050), (263, 46092), (285, 46128), (336, 46251), (339, 46269), (343, 46293), (383, 46530), (397, 46593), (401, 46647), (405, 46707), (410, 46740), (414, 46749), (415, 46752),

Gene: DRBy19_70 Start: 44260, Stop: 46806, Start Num: 17

Candidate Starts for DRBy19_70:

(2, 44083), (3, 44089), (4, 44098), (5, 44107), (12, 44203), (Start: 17 @44260 has 7 MA's), (30, 44317), (36, 44353), (42, 44377), (44, 44386), (71, 44617), (77, 44668), (78, 44671), (95, 44809), (103, 44851), (112, 44908), (167, 45178), (175, 45217), (195, 45382), (203, 45445), (215, 45577), (217, 45598), (225, 45634), (228, 45640), (232, 45679), (239, 45715), (244, 45748), (248, 45769), (289, 45961), (294, 46009), (302, 46045), (312, 46135), (318, 46153), (336, 46276), (339, 46294), (342, 46306), (343, 46318), (346, 46363), (351, 46411), (395, 46606), (401, 46663), (405, 46723), (410, 46756), (414, 46765), (415, 46768),

Gene: Daenerys_61 Start: 41682, Stop: 43196, Start Num: 125

Candidate Starts for Daenerys_61:

(87, 41505), (Start: 125 @41682 has 8 MA's), (141, 41739), (150, 41775), (156, 41808), (190, 42030), (197, 42072), (210, 42198), (213, 42216), (224, 42276), (233, 42318), (235, 42330), (257, 42423), (261, 42447), (302, 42507), (336, 42630), (341, 42651), (342, 42660), (350, 42753), (387, 42933), (401, 43053), (405, 43113), (410, 43146), (414, 43155), (415, 43158),

Gene: Dorothy_75 Start: 45729, Stop: 48410, Start Num: 14

Candidate Starts for Dorothy_75:

(Start: 14 @45729 has 2 MA's), (21, 45768), (30, 45798), (36, 45834), (44, 45867), (71, 46098), (76, 46143), (77, 46149), (78, 46152), (79, 46170), (80, 46173), (90, 46272), (Start: 97 @46293 has 17 MA's), (120, 46425), (136, 46506), (154, 46587), (175, 46701), (183, 46758), (191, 46830), (203, 46914), (207, 46953), (211, 47022), (219, 47073), (241, 47187), (242, 47193), (244, 47211), (248, 47232), (269, 47379), (283, 47415), (299, 47484), (310, 47532), (321, 47565), (328, 47592), (336, 47685), (341, 47706), (342, 47715), (345, 47751), (365, 47853), (376, 47916), (377, 47919), (389, 47997), (401, 48105), (413, 48207), (416, 48219), (417, 48228), (418, 48246), (430, 48363),

Gene: DrYang_79 Start: 54332, Stop: 56248, Start Num: 97

Candidate Starts for DrYang_79:

(Start: 97 @54332 has 17 MA's), (109, 54404), (123, 54491), (Start: 132 @54536 has 3 MA's), (149, 54602), (156, 54638), (159, 54662), (160, 54668), (167, 54704), (174, 54737), (177, 54773), (182, 54803), (208, 55007), (214, 55076), (218, 55103), (234, 55184), (237, 55199), (240, 55214), (247, 55256), (252, 55265), (257, 55301), (259, 55316), (327, 55466), (329, 55472), (334, 55526), (335, 55547), (336, 55550), (337, 55553), (340, 55568), (344, 55595), (345, 55616), (347, 55637), (361, 55700), (369, 55724), (376, 55778), (385, 55847), (399, 55931), (403, 56000), (407, 56021), (409, 56036), (410, 56045), (413, 56054), (417, 56075), (419, 56096), (423, 56144), (424, 56153), (432, 56228),

Gene: EdgarPoe_81 Start: 54069, Stop: 55991, Start Num: 97

Candidate Starts for EdgarPoe_81:

(Start: 97 @54069 has 17 MA's), (109, 54141), (Start: 132 @54273 has 3 MA's), (149, 54345), (156, 54381), (159, 54405), (162, 54423), (174, 54480), (177, 54516), (182, 54546), (184, 54558), (208, 54750), (214, 54819), (218, 54846), (234, 54927), (237, 54942), (240, 54957), (252, 55008), (254, 55026), (259, 55059), (305, 55143), (314, 55170), (327, 55209), (329, 55215), (334, 55269), (335, 55290), (336, 55293), (337, 55296), (340, 55311), (345, 55359), (347, 55380), (361, 55443), (369, 55467), (372, 55485), (374, 55494), (376, 55521), (398, 55656), (399, 55674), (403, 55743), (408,

55767), (409, 55779), (410, 55788), (413, 55797), (423, 55887), (424, 55896), (432, 55971), (433, 55977),

Gene: Filuzino_74 Start: 46234, Stop: 48309, Start Num: 56

Candidate Starts for Filuzino_74:

(28, 46084), (31, 46099), (40, 46135), (Start: 56 @46234 has 8 MA's), (Start: 61 @46264 has 1 MA's), (64, 46294), (67, 46330), (70, 46363), (73, 46408), (79, 46450), (80, 46453), (93, 46555), (101, 46603), (111, 46657), (120, 46696), (134, 46771), (137, 46783), (148, 46828), (157, 46873), (176, 46978), (178, 46990), (200, 47122), (243, 47365), (260, 47452), (336, 47587), (341, 47608), (342, 47617), (345, 47653), (365, 47755), (376, 47818), (377, 47821), (386, 47884), (401, 48001), (413, 48103), (416, 48115), (418, 48142), (430, 48259),

Gene: FreddyB_67 Start: 41676, Stop: 43952, Start Num: 17

Candidate Starts for FreddyB_67:

(2, 41499), (3, 41505), (4, 41514), (5, 41523), (8, 41562), (12, 41619), (Start: 17 @41676 has 7 MA's), (30, 41733), (44, 41802), (71, 42033), (79, 42105), (95, 42225), (103, 42267), (112, 42324), (167, 42594), (175, 42633), (195, 42798), (203, 42861), (215, 42993), (217, 43014), (225, 43050), (228, 43056), (232, 43095), (239, 43131), (244, 43164), (248, 43185), (323, 43350), (324, 43353), (336, 43437), (343, 43479), (395, 43752), (401, 43809), (405, 43869), (410, 43902), (414, 43911), (415, 43914),

Gene: Gavriela_53 Start: 36390, Stop: 38582, Start Num: 39

Candidate Starts for Gavriela_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (78, 36705), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (175, 37251), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (348, 38145), (349, 38151), (359, 38181), (361, 38187), (377, 38253), (401, 38439), (405, 38499), (410, 38532), (414, 38541), (415, 38544),

Gene: Glaske_53 Start: 36390, Stop: 38582, Start Num: 39

Candidate Starts for Glaske_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (78, 36705), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (175, 37251), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (348, 38145), (349, 38151), (359, 38181), (361, 38187), (377, 38253), (401, 38439), (405, 38499), (410, 38532), (414, 38541), (415, 38544),

Gene: Hannaconda_142 Start: 76662, Stop: 78896, Start Num: 62

Candidate Starts for Hannaconda_142:

(Start: 62 @76662 has 1 MA's), (70, 76770), (72, 76815), (82, 76893), (83, 76899), (95, 76977), (103, 77019), (112, 77076), (167, 77346), (195, 77550), (203, 77613), (215, 77745), (217, 77766), (225, 77802), (228, 77808), (232, 77847), (239, 77883), (244, 77916), (248, 77937), (263, 78021), (265, 78030), (336, 78231), (342, 78261), (345, 78297), (376, 78438), (377, 78441), (393, 78558), (408, 78690), (409, 78702), (410, 78711), (413, 78720), (417, 78741), (418, 78759), (420, 78795),

Gene: Harley_68 Start: 43294, Stop: 44805, Start Num: 125

Candidate Starts for Harley_68:

(86, 43117), (88, 43123), (92, 43132), (Start: 125 @43294 has 8 MA's), (141, 43351), (150, 43387), (156, 43420), (190, 43642), (197, 43684), (210, 43810), (213, 43828), (224, 43888), (233, 43930),

(235, 43942), (257, 44035), (261, 44059), (302, 44119), (336, 44242), (341, 44263), (342, 44272), (345, 44308), (365, 44410), (376, 44473), (377, 44476), (401, 44662), (405, 44722), (410, 44755), (414, 44764), (415, 44767),

Gene: Hegedechwinu_73 Start: 43329, Stop: 44918, Start Num: 54

Candidate Starts for Hegedechwinu_73:

(Start: 54 @43329 has 1 MA's), (Start: 61 @43368 has 1 MA's), (64, 43398), (67, 43434), (70, 43467), (Start: 97 @43668 has 17 MA's), (103, 43701), (144, 43878), (151, 43902), (161, 43965), (167, 43989), (168, 43992), (322, 44226), (336, 44328), (341, 44349), (342, 44358), (345, 44394), (396, 44553), (401, 44610), (413, 44712), (416, 44724), (417, 44733), (419, 44754), (430, 44868),

Gene: HumptyDumpty_82 Start: 53872, Stop: 55794, Start Num: 97

Candidate Starts for HumptyDumpty_82:

(Start: 97 @53872 has 17 MA's), (109, 53944), (Start: 132 @54076 has 3 MA's), (149, 54148), (156, 54184), (159, 54208), (162, 54226), (174, 54283), (177, 54319), (182, 54349), (184, 54361), (208, 54553), (214, 54622), (218, 54649), (234, 54730), (237, 54745), (240, 54760), (252, 54811), (254, 54829), (259, 54862), (305, 54946), (314, 54973), (327, 55012), (329, 55018), (334, 55072), (335, 55093), (336, 55096), (337, 55099), (340, 55114), (345, 55162), (347, 55183), (361, 55246), (369, 55270), (372, 55288), (374, 55297), (376, 55324), (398, 55459), (399, 55477), (403, 55546), (408, 55570), (409, 55582), (410, 55591), (413, 55600), (423, 55690), (424, 55699), (432, 55774), (433, 55780),

Gene: JaNo_81 Start: 53843, Stop: 55765, Start Num: 97

Candidate Starts for JaNo_81:

(Start: 97 @53843 has 17 MA's), (109, 53915), (Start: 132 @54047 has 3 MA's), (149, 54119), (156, 54155), (159, 54179), (162, 54197), (174, 54254), (177, 54290), (182, 54320), (184, 54332), (208, 54524), (214, 54593), (218, 54620), (234, 54701), (237, 54716), (240, 54731), (252, 54782), (254, 54800), (259, 54833), (305, 54917), (314, 54944), (327, 54983), (329, 54989), (334, 55043), (335, 55064), (336, 55067), (337, 55070), (340, 55085), (345, 55133), (347, 55154), (361, 55217), (369, 55241), (372, 55259), (374, 55268), (376, 55295), (398, 55430), (399, 55448), (403, 55517), (408, 55541), (409, 55553), (410, 55562), (413, 55571), (423, 55661), (424, 55670), (432, 55745), (433, 55751),

Gene: JayCookie_82 Start: 54405, Stop: 56327, Start Num: 97

Candidate Starts for JayCookie_82:

(Start: 97 @54405 has 17 MA's), (109, 54477), (Start: 132 @54609 has 3 MA's), (149, 54681), (156, 54717), (159, 54741), (162, 54759), (174, 54816), (177, 54852), (182, 54882), (184, 54894), (208, 55086), (214, 55155), (218, 55182), (234, 55263), (237, 55278), (240, 55293), (252, 55344), (254, 55362), (259, 55395), (305, 55479), (327, 55545), (329, 55551), (334, 55605), (335, 55626), (336, 55629), (337, 55632), (340, 55647), (345, 55695), (347, 55716), (361, 55779), (369, 55803), (372, 55821), (374, 55830), (376, 55857), (398, 55992), (399, 56010), (403, 56079), (408, 56103), (409, 56115), (410, 56124), (413, 56133), (423, 56223), (424, 56232), (432, 56307), (433, 56313),

Gene: JoeyJr_62 Start: 41850, Stop: 43364, Start Num: 125

Candidate Starts for JoeyJr_62:

(87, 41673), (Start: 125 @41850 has 8 MA's), (141, 41907), (150, 41943), (156, 41976), (190, 42198), (197, 42240), (210, 42366), (213, 42384), (224, 42444), (233, 42486), (235, 42498), (257, 42591), (261, 42615), (302, 42675), (336, 42798), (341, 42819), (342, 42828), (350, 42921), (387, 43101), (401, 43221), (405, 43281), (410, 43314), (414, 43323), (415, 43326),

Gene: KBurrousTX_81 Start: 56110, Stop: 57699, Start Num: 132

Candidate Starts for KBurrousTX_81:

(124, 56071), (Start: 132 @56110 has 3 MA's), (149, 56176), (156, 56212), (158, 56218), (159, 56236), (174, 56311), (177, 56347), (182, 56377), (208, 56581), (214, 56650), (218, 56677), (234, 56758), (237, 56773), (240, 56788), (247, 56830), (252, 56839), (254, 56857), (257, 56875), (259, 56890), (327, 57040), (329, 57046), (334, 57100), (336, 57124), (340, 57142), (344, 57169), (345, 57190), (347, 57211), (356, 57256), (361, 57274), (375, 57331), (376, 57355), (378, 57361), (381, 57382), (409, 57493), (413, 57511), (417, 57532), (423, 57601), (424, 57610), (426, 57625), (432, 57685), (433, 57691),

Gene: Kabreeze_82 Start: 53929, Stop: 55851, Start Num: 97

Candidate Starts for Kabreeze_82:

(Start: 97 @53929 has 17 MA's), (109, 54001), (Start: 132 @54133 has 3 MA's), (149, 54205), (156, 54241), (159, 54265), (162, 54283), (174, 54340), (177, 54376), (182, 54406), (184, 54418), (208, 54610), (214, 54679), (218, 54706), (234, 54787), (237, 54802), (240, 54817), (252, 54868), (254, 54886), (259, 54919), (305, 55003), (314, 55030), (327, 55069), (329, 55075), (334, 55129), (335, 55150), (336, 55153), (337, 55156), (340, 55171), (345, 55219), (347, 55240), (361, 55303), (369, 55327), (372, 55345), (374, 55354), (376, 55381), (398, 55516), (399, 55534), (403, 55603), (408, 55627), (409, 55639), (410, 55648), (413, 55657), (423, 55747), (424, 55756), (432, 55831), (433, 55837),

Gene: Kersh_68 Start: 45094, Stop: 47070, Start Num: 57

Candidate Starts for Kersh_68:

(33, 44980), (Start: 57 @45094 has 4 MA's), (64, 45151), (66, 45163), (70, 45220), (84, 45361), (85, 45391), (91, 45406), (103, 45454), (114, 45505), (126, 45568), (140, 45616), (144, 45631), (146, 45640), (151, 45655), (155, 45679), (166, 45736), (167, 45742), (168, 45745), (171, 45763), (173, 45766), (265, 46036), (276, 46084), (296, 46120), (311, 46210), (317, 46228), (336, 46351), (339, 46369), (342, 46381), (343, 46393), (365, 46519), (376, 46582), (377, 46585), (401, 46765), (402, 46795), (413, 46867), (416, 46879), (419, 46909),

Gene: KilKor_53 Start: 36390, Stop: 38570, Start Num: 39

Candidate Starts for KilKor_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (256, 37845), (336, 38052), (342, 38082), (343, 38094), (377, 38268), (394, 38370), (401, 38427), (404, 38472), (405, 38487), (410, 38520), (414, 38529), (415, 38532),

Gene: KingJulian_72 Start: 44493, Stop: 46790, Start Num: 13

Candidate Starts for KingJulian_72:

(9, 44409), (10, 44421), (Start: 13 @44493 has 1 MA's), (35, 44592), (44, 44622), (49, 44652), (Start: 54 @44688 has 1 MA's), (60, 44721), (68, 44811), (69, 44838), (76, 44901), (77, 44907), (79, 44928), (95, 45048), (103, 45090), (112, 45147), (167, 45417), (195, 45621), (203, 45684), (215, 45816), (217, 45837), (225, 45873), (228, 45879), (232, 45918), (239, 45954), (244, 45987), (248, 46008), (256, 46050), (263, 46092), (285, 46128), (336, 46251), (339, 46269), (343, 46293), (383, 46530), (397, 46593), (401, 46647), (405, 46707), (410, 46740), (414, 46749), (415, 46752),

Gene: Leperchaun_59 Start: 41080, Stop: 42594, Start Num: 125

Candidate Starts for Leperchaun_59:

(87, 40903), (Start: 125 @41080 has 8 MA's), (141, 41137), (150, 41173), (156, 41206), (190, 41428), (197, 41470), (210, 41596), (213, 41614), (224, 41674), (233, 41716), (235, 41728), (257, 41821), (261, 41845), (302, 41905), (336, 42028), (341, 42049), (342, 42058), (350, 42151), (387, 42331), (401, 42451), (405, 42511), (410, 42544), (414, 42553), (415, 42556),

Gene: Lilac_101 Start: 58401, Stop: 60605, Start Num: 61

Candidate Starts for Lilac_101:

(34, 58254), (43, 58284), (50, 58332), (51, 58347), (Start: 53 @58359 has 2 MA's), (Start: 61 @58401 has 1 MA's), (63, 58419), (70, 58515), (73, 58560), (83, 58644), (90, 58704), (Start: 97 @58725 has 17 MA's), (120, 58857), (136, 58938), (154, 59019), (175, 59133), (183, 59190), (191, 59262), (203, 59346), (207, 59385), (211, 59454), (219, 59505), (227, 59538), (241, 59619), (242, 59625), (244, 59643), (248, 59664), (271, 59748), (295, 59793), (303, 59805), (336, 59910), (337, 59913), (343, 59952), (354, 60039), (376, 60141), (377, 60144), (388, 60207), (413, 60426), (419, 60468), (420, 60501), (423, 60516),

Gene: Linus_82 Start: 54377, Stop: 56299, Start Num: 97

Candidate Starts for Linus_82:

(Start: 97 @54377 has 17 MA's), (109, 54449), (Start: 132 @54581 has 3 MA's), (149, 54653), (156, 54689), (159, 54713), (162, 54731), (174, 54788), (177, 54824), (182, 54854), (184, 54866), (208, 55058), (214, 55127), (218, 55154), (234, 55235), (237, 55250), (240, 55265), (252, 55316), (254, 55334), (259, 55367), (305, 55451), (327, 55517), (329, 55523), (334, 55577), (335, 55598), (336, 55601), (337, 55604), (340, 55619), (345, 55667), (347, 55688), (361, 55751), (369, 55775), (372, 55793), (374, 55802), (376, 55829), (398, 55964), (399, 55982), (403, 56051), (408, 56075), (409, 56087), (410, 56096), (413, 56105), (423, 56195), (424, 56204), (432, 56279), (433, 56285),

Gene: Lymara_79 Start: 53015, Stop: 54817, Start Num: 97

Candidate Starts for Lymara_79:

(Start: 97 @53015 has 17 MA's), (123, 53174), (Start: 132 @53219 has 3 MA's), (147, 53285), (149, 53291), (156, 53327), (159, 53351), (162, 53369), (174, 53426), (177, 53462), (182, 53492), (184, 53504), (189, 53567), (208, 53696), (214, 53765), (218, 53792), (234, 53873), (237, 53888), (240, 53903), (252, 53954), (254, 53972), (259, 54005), (305, 54089), (314, 54116), (327, 54155), (329, 54161), (334, 54215), (335, 54236), (337, 54242), (340, 54257), (343, 54281), (345, 54305), (347, 54326), (361, 54389), (369, 54413), (376, 54467), (409, 54605), (413, 54623), (423, 54713), (424, 54722), (427, 54764), (432, 54797),

Gene: Majeke_63 Start: 39197, Stop: 40675, Start Num: 81

Candidate Starts for Majeke_63:

(75, 39146), (78, 39161), (Start: 81 @39197 has 3 MA's), (99, 39290), (100, 39308), (108, 39344), (114, 39368), (121, 39404), (129, 39437), (153, 39527), (166, 39596), (167, 39602), (168, 39605), (171, 39623), (173, 39626), (329, 39869), (330, 39872), (336, 39956), (342, 39986), (343, 39998), (355, 40085), (376, 40187), (377, 40190), (384, 40253), (401, 40367), (413, 40469), (416, 40481), (418, 40508), (430, 40625),

Gene: Mangethe_63 Start: 39197, Stop: 40675, Start Num: 81

Candidate Starts for Mangethe_63:

(75, 39146), (78, 39161), (Start: 81 @39197 has 3 MA's), (99, 39290), (100, 39308), (108, 39344), (114, 39368), (121, 39404), (129, 39437), (153, 39527), (166, 39596), (167, 39602), (168, 39605), (171, 39623), (173, 39626), (329, 39869), (330, 39872), (336, 39956), (342, 39986), (343, 39998), (355, 40085), (376, 40187), (377, 40190), (384, 40253), (401, 40367), (413, 40469), (416, 40481), (418, 40508), (430, 40625),

Gene: Mantra_64 Start: 42536, Stop: 44860, Start Num: 57

Candidate Starts for Mantra_64:

(48, 42488), (Start: 57 @42536 has 4 MA's), (64, 42593), (70, 42662), (Start: 97 @42863 has 17 MA's), (103, 42896), (144, 43073), (151, 43097), (161, 43160), (166, 43178), (167, 43184), (171, 43205), (187, 43328), (231, 43532), (274, 43826), (298, 43922), (313, 44003), (315, 44009), (326, 44042), (336, 44141), (341, 44162), (342, 44171), (345, 44207), (365, 44309), (376, 44372), (377, 44375), (401, 44555), (412, 44654), (413, 44657), (416, 44669), (417, 44678), (419, 44699), (435, 44852),

Gene: Martik_66 Start: 42749, Stop: 45055, Start Num: 17

Candidate Starts for Martik_66:

(Start: 17 @42749 has 7 MA's), (30, 42806), (32, 42818), (Start: 38 @42845 has 1 MA's), (44, 42875), (71, 43106), (77, 43157), (78, 43160), (83, 43220), (95, 43298), (103, 43340), (112, 43397), (167, 43667), (195, 43871), (203, 43934), (215, 44066), (217, 44087), (225, 44123), (228, 44129), (232, 44168), (239, 44204), (244, 44237), (248, 44258), (323, 44423), (324, 44426), (336, 44510), (343, 44552), (365, 44687), (373, 44717), (377, 44753), (395, 44855), (401, 44912), (405, 44972), (410, 45005), (414, 45014), (415, 45017),

Gene: Megiddo_53 Start: 36390, Stop: 38585, Start Num: 39

Candidate Starts for Megiddo_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (256, 37845), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (383, 38325), (397, 38388), (401, 38442), (405, 38502), (410, 38535), (414, 38544), (415, 38547),

Gene: MilanaBonita_66 Start: 42333, Stop: 45014, Start Num: 56

Candidate Starts for MilanaBonita_66:

(Start: 41 @42243 has 1 MA's), (42, 42252), (Start: 56 @42333 has 8 MA's), (64, 42393), (67, 42429), (70, 42462), (Start: 97 @42663 has 17 MA's), (103, 42696), (144, 42873), (151, 42897), (161, 42960), (167, 42984), (168, 42987), (171, 43005), (173, 43008), (186, 43107), (187, 43128), (204, 43260), (209, 43341), (222, 43422), (242, 43536), (253, 43593), (264, 43665), (268, 43749), (273, 43767), (275, 43788), (279, 43857), (280, 43875), (281, 43908), (287, 44022), (288, 44028), (290, 44046), (291, 44067), (300, 44109), (308, 44151), (320, 44196), (323, 44208), (336, 44313), (341, 44334), (342, 44343), (343, 44355), (345, 44379), (349, 44421), (377, 44520), (401, 44706), (413, 44808), (416, 44820), (418, 44847),

Gene: Misha28_75 Start: 46524, Stop: 48974, Start Num: 16

Candidate Starts for Misha28_75:

(6, 46422), (7, 46431), (11, 46458), (Start: 16 @46524 has 3 MA's), (25, 46560), (30, 46584), (36, 46620), (44, 46653), (71, 46884), (77, 46935), (78, 46938), (95, 47076), (103, 47118), (112, 47175), (167, 47445), (175, 47484), (195, 47649), (203, 47712), (215, 47844), (217, 47865), (225, 47901), (228, 47907), (232, 47946), (239, 47982), (244, 48015), (248, 48036), (310, 48171), (336, 48273), (337, 48276), (343, 48315), (349, 48396), (376, 48507), (377, 48510), (395, 48612), (401, 48669), (413, 48771), (416, 48783), (417, 48792), (419, 48813),

Gene: MooMoo_65 Start: 41964, Stop: 43592, Start Num: 132

Candidate Starts for MooMoo_65:

(Start: 132 @41964 has 3 MA's), (139, 41991), (145, 42021), (159, 42090), (169, 42144), (194, 42321), (201, 42378), (216, 42501), (220, 42534), (228, 42555), (230, 42588), (235, 42603), (258, 42708), (336, 42912), (337, 42915), (343, 42954), (390, 43245), (401, 43302), (413, 43389), (416, 43401), (418, 43428), (419, 43431), (424, 43488), (429, 43536), (431, 43557),

Gene: Mordred_82 Start: 53968, Stop: 55890, Start Num: 97

Candidate Starts for Mordred_82:

(Start: 97 @53968 has 17 MA's), (109, 54040), (Start: 132 @54172 has 3 MA's), (149, 54244), (156, 54280), (159, 54304), (162, 54322), (174, 54379), (177, 54415), (182, 54445), (184, 54457), (208, 54649), (214, 54718), (218, 54745), (234, 54826), (237, 54841), (240, 54856), (252, 54907), (254, 54925), (259, 54958), (305, 55042), (314, 55069), (327, 55108), (329, 55114), (334, 55168), (335, 55189), (336, 55192), (337, 55195), (340, 55210), (345, 55258), (347, 55279), (361, 55342), (369,

55366), (372, 55384), (374, 55393), (376, 55420), (398, 55555), (399, 55573), (403, 55642), (408, 55666), (409, 55678), (410, 55687), (413, 55696), (423, 55786), (424, 55795), (432, 55870), (433, 55876),

Gene: Mova_70 Start: 42582, Stop: 44489, Start Num: 57

Candidate Starts for Mova_70:

(20, 42405), (27, 42420), (29, 42429), (46, 42525), (Start: 57 @42582 has 4 MA's), (64, 42639), (70, 42708), (Start: 97 @42909 has 17 MA's), (103, 42942), (144, 43119), (151, 43143), (161, 43206), (171, 43251), (199, 43410), (238, 43464), (251, 43491), (298, 43611), (319, 43668), (336, 43776), (342, 43806), (345, 43842), (360, 43920), (362, 43926), (401, 44184), (412, 44283), (413, 44286), (416, 44298), (417, 44307), (419, 44328), (435, 44481),

Gene: MoyaNatalis_81 Start: 53851, Stop: 55773, Start Num: 97

Candidate Starts for MoyaNatalis_81:

(Start: 97 @53851 has 17 MA's), (109, 53923), (Start: 132 @54055 has 3 MA's), (149, 54127), (156, 54163), (159, 54187), (162, 54205), (174, 54262), (177, 54298), (182, 54328), (184, 54340), (208, 54532), (214, 54601), (218, 54628), (234, 54709), (237, 54724), (240, 54739), (252, 54790), (254, 54808), (259, 54841), (305, 54925), (327, 54991), (329, 54997), (334, 55051), (335, 55072), (336, 55075), (337, 55078), (340, 55093), (345, 55141), (347, 55162), (361, 55225), (369, 55249), (372, 55267), (374, 55276), (376, 55303), (398, 55438), (399, 55456), (403, 55525), (408, 55549), (409, 55561), (410, 55570), (413, 55579), (423, 55669), (424, 55678), (432, 55753), (433, 55759),

Gene: Nazo_56 Start: 38421, Stop: 39956, Start Num: 152

Candidate Starts for Nazo_56:

(96, 38139), (131, 38340), (142, 38382), (Start: 152 @38421 has 3 MA's), (156, 38448), (158, 38454), (160, 38478), (167, 38514), (168, 38517), (174, 38547), (182, 38613), (201, 38763), (216, 38886), (240, 39024), (254, 39096), (336, 39342), (340, 39360), (367, 39450), (371, 39459), (379, 39501), (401, 39666), (406, 39711), (416, 39765), (419, 39795), (429, 39900),

Gene: Okabe_69 Start: 41882, Stop: 43765, Start Num: 56

Candidate Starts for Okabe_69:

(19, 41699), (22, 41711), (37, 41777), (40, 41783), (Start: 56 @41882 has 8 MA's), (Start: 61 @41912 has 1 MA's), (64, 41942), (67, 41978), (70, 42011), (Start: 97 @42212 has 17 MA's), (103, 42245), (144, 42422), (151, 42446), (161, 42509), (167, 42533), (168, 42536), (297, 42659), (308, 42719), (316, 42761), (336, 42884), (341, 42905), (342, 42914), (343, 42926), (376, 43109), (377, 43112), (401, 43298), (415, 43406), (421, 43484), (436, 43604), (437, 43655), (440, 43736), (442, 43748),

Gene: OwlsT2W_66 Start: 42373, Stop: 44289, Start Num: 56

Candidate Starts for OwlsT2W_66:

(20, 42196), (24, 42202), (27, 42211), (29, 42220), (33, 42259), (46, 42316), (Start: 56 @42373 has 8 MA's), (64, 42430), (66, 42442), (70, 42499), (74, 42553), (102, 42766), (104, 42769), (107, 42790), (Start: 128 @42910 has 1 MA's), (138, 42952), (145, 42988), (176, 43132), (178, 43144), (200, 43276), (221, 43396), (243, 43519), (260, 43606), (336, 43741), (342, 43771), (345, 43807), (365, 43909), (380, 43990), (401, 44146), (405, 44206), (410, 44239), (414, 44248), (415, 44251),

Gene: PHappiness_62 Start: 41626, Stop: 43140, Start Num: 125

Candidate Starts for PHappiness_62:

(87, 41449), (Start: 125 @41626 has 8 MA's), (141, 41683), (150, 41719), (156, 41752), (190, 41974), (197, 42016), (210, 42142), (213, 42160), (224, 42220), (233, 42262), (235, 42274), (257, 42367), (261, 42391), (302, 42451), (336, 42574), (341, 42595), (342, 42604), (350, 42697), (387, 42877), (401, 42997), (405, 43057), (410, 43090), (414, 43099), (415, 43102),

Gene: PatoPoderoso_67 Start: 44592, Stop: 46790, Start Num: 35

Candidate Starts for PatoPoderoso_67:

(9, 44409), (10, 44421), (Start: 13 @44493 has 1 MA's), (35, 44592), (44, 44622), (49, 44652), (Start: 54 @44688 has 1 MA's), (60, 44721), (68, 44811), (69, 44838), (76, 44901), (77, 44907), (79, 44928), (95, 45048), (103, 45090), (112, 45147), (167, 45417), (195, 45621), (203, 45684), (215, 45816), (217, 45837), (225, 45873), (228, 45879), (232, 45918), (239, 45954), (244, 45987), (248, 46008), (256, 46050), (263, 46092), (285, 46128), (336, 46251), (339, 46269), (343, 46293), (383, 46530), (397, 46593), (401, 46647), (405, 46707), (410, 46740), (414, 46749), (415, 46752),

Gene: Phalconet_70 Start: 43833, Stop: 45551, Start Num: 56

Candidate Starts for Phalconet_70:

(Start: 41 @43743 has 1 MA's), (42, 43752), (47, 43779), (Start: 56 @43833 has 8 MA's), (Start: 61 @43863 has 1 MA's), (64, 43893), (67, 43929), (70, 43962), (Start: 97 @44163 has 17 MA's), (103, 44196), (144, 44373), (151, 44397), (161, 44460), (167, 44484), (168, 44487), (322, 44721), (336, 44823), (341, 44844), (342, 44853), (345, 44889), (365, 44991), (401, 45243), (413, 45345), (416, 45357), (419, 45387), (430, 45501),

Gene: Phalm_53 Start: 36390, Stop: 38582, Start Num: 39

Candidate Starts for Phalm_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (78, 36705), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (175, 37251), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244, 37782), (248, 37803), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (348, 38145), (349, 38151), (359, 38181), (361, 38187), (377, 38253), (401, 38439), (405, 38499), (410, 38532), (414, 38541), (415, 38544),

Gene: Phegasus_63 Start: 39164, Stop: 40642, Start Num: 81

Candidate Starts for Phegasus_63:

(75, 39113), (78, 39128), (Start: 81 @39164 has 3 MA's), (99, 39257), (100, 39275), (108, 39311), (114, 39335), (121, 39371), (129, 39404), (153, 39494), (166, 39563), (167, 39569), (168, 39572), (171, 39590), (173, 39593), (329, 39836), (330, 39839), (336, 39923), (342, 39953), (343, 39965), (355, 40052), (376, 40154), (377, 40157), (384, 40220), (401, 40334), (413, 40436), (416, 40448), (418, 40475), (430, 40592),

Gene: Philus_70 Start: 44236, Stop: 46782, Start Num: 17

Candidate Starts for Philus_70:

(2, 44059), (3, 44065), (4, 44074), (5, 44083), (12, 44179), (Start: 17 @44236 has 7 MA's), (30, 44293), (36, 44329), (42, 44353), (44, 44362), (71, 44593), (77, 44644), (78, 44647), (95, 44785), (103, 44827), (112, 44884), (167, 45154), (175, 45193), (195, 45358), (203, 45421), (215, 45553), (217, 45574), (225, 45610), (228, 45616), (232, 45655), (239, 45691), (244, 45724), (248, 45745), (289, 45937), (294, 45985), (302, 46021), (312, 46111), (318, 46129), (336, 46252), (339, 46270), (342, 46282), (343, 46294), (346, 46339), (351, 46387), (395, 46582), (401, 46639), (405, 46699), (410, 46732), (414, 46741), (415, 46744),

Gene: Polka14_65 Start: 42690, Stop: 44204, Start Num: 125

Candidate Starts for Polka14_65:

(87, 42513), (Start: 125 @42690 has 8 MA's), (141, 42747), (150, 42783), (156, 42816), (190, 43038), (197, 43080), (210, 43206), (213, 43224), (224, 43284), (233, 43326), (235, 43338), (257, 43431), (261, 43455), (302, 43515), (336, 43638), (341, 43659), (342, 43668), (350, 43761), (387, 43941), (401, 44061), (405, 44121), (410, 44154), (414, 44163), (415, 44166),

Gene: Pollywog_67 Start: 43356, Stop: 45239, Start Num: 56

Candidate Starts for Pollywog_67:

(33, 43242), (Start: 56 @43356 has 8 MA's), (64, 43413), (67, 43449), (70, 43482), (73, 43527), (79, 43569), (80, 43572), (83, 43611), (130, 43734), (176, 43899), (178, 43911), (200, 44043), (221, 44163), (243, 44286), (260, 44373), (336, 44508), (342, 44538), (345, 44574), (357, 44652), (364, 44679), (366, 44685), (376, 44745), (377, 44748), (389, 44826), (401, 44934), (409, 45018), (413, 45036), (416, 45048), (418, 45075),

Gene: PrincessTrina_83 Start: 54273, Stop: 56075, Start Num: 97

Candidate Starts for PrincessTrina_83:

(Start: 97 @54273 has 17 MA's), (109, 54345), (Start: 132 @54477 has 3 MA's), (149, 54549), (156, 54585), (159, 54609), (162, 54627), (174, 54684), (177, 54720), (182, 54750), (184, 54762), (208, 54954), (214, 55023), (218, 55050), (234, 55131), (237, 55146), (240, 55161), (252, 55212), (254, 55230), (259, 55263), (305, 55347), (314, 55374), (327, 55413), (329, 55419), (334, 55473), (335, 55494), (336, 55497), (337, 55500), (340, 55515), (345, 55563), (347, 55584), (361, 55647), (369, 55671), (372, 55689), (374, 55698), (376, 55725), (409, 55863), (413, 55881), (423, 55971), (424, 55980), (432, 56055), (433, 56061),

Gene: RedBird_75 Start: 45596, Stop: 48277, Start Num: 14

Candidate Starts for RedBird_75:

(Start: 14 @45596 has 2 MA's), (21, 45635), (30, 45665), (36, 45701), (44, 45734), (71, 45965), (76, 46010), (77, 46016), (78, 46019), (79, 46037), (80, 46040), (90, 46139), (Start: 97 @46160 has 17 MA's), (120, 46292), (136, 46373), (154, 46454), (175, 46568), (183, 46625), (191, 46697), (203, 46781), (207, 46820), (211, 46889), (219, 46940), (241, 47054), (242, 47060), (244, 47078), (248, 47099), (269, 47246), (283, 47282), (299, 47351), (310, 47399), (321, 47432), (328, 47459), (336, 47552), (341, 47573), (342, 47582), (345, 47618), (365, 47720), (376, 47783), (377, 47786), (389, 47864), (401, 47972), (413, 48074), (416, 48086), (417, 48095), (418, 48113), (430, 48230),

Gene: RitaG_62 Start: 41971, Stop: 43485, Start Num: 125

Candidate Starts for RitaG_62:

(87, 41794), (Start: 125 @41971 has 8 MA's), (141, 42028), (150, 42064), (156, 42097), (190, 42319), (197, 42361), (210, 42487), (213, 42505), (224, 42565), (233, 42607), (235, 42619), (257, 42712), (261, 42736), (302, 42796), (336, 42919), (341, 42940), (342, 42949), (350, 43042), (387, 43222), (401, 43342), (405, 43402), (410, 43435), (414, 43444), (415, 43447),

Gene: RosiePosie_82 Start: 54057, Stop: 55946, Start Num: 97

Candidate Starts for RosiePosie_82:

(Start: 97 @54057 has 17 MA's), (109, 54129), (Start: 132 @54261 has 3 MA's), (149, 54300), (156, 54336), (159, 54360), (162, 54378), (174, 54435), (177, 54471), (182, 54501), (184, 54513), (208, 54705), (214, 54774), (218, 54801), (234, 54882), (237, 54897), (240, 54912), (252, 54963), (254, 54981), (259, 55014), (305, 55098), (327, 55164), (329, 55170), (334, 55224), (335, 55245), (336, 55248), (337, 55251), (340, 55266), (345, 55314), (347, 55335), (361, 55398), (369, 55422), (372, 55440), (374, 55449), (376, 55476), (398, 55611), (399, 55629), (403, 55698), (408, 55722), (409, 55734), (410, 55743), (413, 55752), (423, 55842), (424, 55851), (432, 55926), (433, 55932),

Gene: SG4_70 Start: 43702, Stop: 45480, Start Num: 53

Candidate Starts for SG4_70:

(Start: 53 @43702 has 2 MA's), (Start: 61 @43741 has 1 MA's), (64, 43771), (67, 43807), (70, 43840), (73, 43885), (163, 44110), (193, 44260), (206, 44338), (226, 44443), (227, 44446), (246, 44548), (249, 44557), (336, 44764), (341, 44785), (342, 44794), (345, 44830), (365, 44932), (376, 44995), (377, 44998), (380, 45013), (401, 45172), (413, 45274), (416, 45286), (417, 45295), (418, 45313), (430, 45430),

Gene: Scavito_83 Start: 54017, Stop: 55939, Start Num: 97

Candidate Starts for Scavito_83:

(Start: 97 @54017 has 17 MA's), (109, 54089), (Start: 132 @54221 has 3 MA's), (149, 54293), (156, 54329), (159, 54353), (162, 54371), (174, 54428), (177, 54464), (182, 54494), (184, 54506), (208, 54698), (214, 54767), (218, 54794), (234, 54875), (237, 54890), (240, 54905), (252, 54956), (254, 54974), (259, 55007), (305, 55091), (314, 55118), (327, 55157), (329, 55163), (334, 55217), (335, 55238), (336, 55241), (337, 55244), (340, 55259), (345, 55307), (347, 55328), (361, 55391), (369, 55415), (372, 55433), (374, 55442), (376, 55469), (398, 55604), (399, 55622), (403, 55691), (408, 55715), (409, 55727), (410, 55736), (413, 55745), (423, 55835), (424, 55844), (432, 55919), (433, 55925),

Gene: ShiLan_65 Start: 42785, Stop: 45667, Start Num: 17

Candidate Starts for ShiLan_65:

(Start: 17 @42785 has 7 MA's), (30, 42842), (32, 42854), (Start: 38 @42881 has 1 MA's), (44, 42911), (71, 43142), (76, 43187), (77, 43193), (78, 43196), (79, 43214), (80, 43217), (90, 43316), (Start: 97 @43337 has 17 MA's), (120, 43469), (136, 43550), (154, 43631), (175, 43745), (183, 43802), (191, 43874), (203, 43958), (207, 43997), (211, 44066), (219, 44117), (241, 44231), (242, 44237), (244, 44255), (248, 44276), (255, 44312), (271, 44360), (301, 44411), (335, 44513), (338, 44525), (358, 44657), (382, 44777), (400, 44900), (408, 44987), (425, 45122), (428, 45164), (438, 45299), (439, 45329), (441, 45365), (443, 45467), (444, 45524), (445, 45584), (446, 45617), (447, 45626), (448, 45629),

Gene: ShroomBoi_67 Start: 43105, Stop: 44667, Start Num: 125

Candidate Starts for ShroomBoi_67:

(87, 42928), (89, 42934), (92, 42943), (94, 42952), (105, 42991), (Start: 125 @43105 has 8 MA's), (141, 43162), (150, 43198), (156, 43231), (190, 43453), (197, 43495), (241, 43789), (250, 43837), (257, 43873), (282, 43942), (302, 43963), (307, 43981), (336, 44104), (341, 44125), (342, 44134), (343, 44146), (365, 44272), (376, 44335), (387, 44404), (401, 44524), (405, 44584), (410, 44617), (414, 44626), (415, 44629),

Gene: StAnnes_70 Start: 44611, Stop: 46869, Start Num: 59

Candidate Starts for StAnnes_70:

(52, 44581), (58, 44605), (Start: 59 @44611 has 1 MA's), (65, 44665), (67, 44701), (70, 44734), (72, 44779), (95, 44941), (103, 44983), (112, 45040), (167, 45310), (195, 45514), (203, 45577), (215, 45709), (217, 45730), (225, 45766), (228, 45772), (232, 45811), (239, 45847), (244, 45880), (248, 45901), (263, 45985), (270, 45997), (304, 46042), (336, 46162), (342, 46192), (345, 46228), (376, 46387), (377, 46390), (389, 46468), (401, 46576), (413, 46663), (416, 46675), (417, 46684), (419, 46705),

Gene: Starcevich_66 Start: 42297, Stop: 45341, Start Num: 17

Candidate Starts for Starcevich_66:

(8, 42183), (Start: 17 @42297 has 7 MA's), (30, 42354), (32, 42366), (Start: 38 @42393 has 1 MA's), (44, 42423), (71, 42654), (76, 42699), (77, 42705), (78, 42708), (79, 42726), (80, 42729), (95, 42846), (103, 42888), (112, 42945), (167, 43215), (175, 43254), (195, 43419), (203, 43482), (215, 43614), (217, 43635), (225, 43671), (228, 43677), (232, 43716), (239, 43752), (244, 43785), (248, 43806), (263, 43890), (266, 43935), (267, 43947), (277, 44049), (278, 44061), (285, 44193), (293, 44313), (309, 44436), (331, 44517), (332, 44523), (333, 44556), (336, 44655), (342, 44685), (345, 44721), (376, 44862), (377, 44865), (401, 45051), (413, 45138), (416, 45150),

Gene: StressBall_53 Start: 36390, Stop: 38582, Start Num: 39

Candidate Starts for StressBall_53:

(1, 35955), (26, 36327), (Start: 39 @36390 has 8 MA's), (44, 36417), (45, 36423), (49, 36447), (Start: 54 @36483 has 1 MA's), (60, 36516), (68, 36606), (69, 36633), (76, 36696), (77, 36702), (78, 36705), (79, 36723), (95, 36843), (103, 36885), (112, 36942), (167, 37212), (175, 37251), (195, 37416), (203, 37479), (215, 37611), (217, 37632), (225, 37668), (228, 37674), (232, 37713), (239, 37749), (244,

37782), (248, 37803), (263, 37887), (285, 37923), (336, 38046), (339, 38064), (343, 38088), (348, 38145), (349, 38151), (359, 38181), (361, 38187), (377, 38253), (401, 38439), (405, 38499), (410, 38532), (414, 38541), (415, 38544),

Gene: Taj_79 Start: 46662, Stop: 48335, Start Num: 56

Candidate Starts for Taj_79:

(Start: 41 @46572 has 1 MA's), (42, 46581), (Start: 56 @46662 has 8 MA's), (Start: 61 @46692 has 1 MA's), (64, 46722), (66, 46734), (70, 46791), (Start: 97 @46992 has 17 MA's), (103, 47025), (144, 47202), (151, 47226), (161, 47289), (167, 47313), (168, 47316), (300, 47457), (308, 47499), (320, 47544), (323, 47556), (336, 47661), (341, 47682), (342, 47691), (343, 47703), (349, 47769), (376, 47865), (377, 47868), (392, 47970), (401, 48027), (413, 48129), (416, 48141), (417, 48150), (419, 48171), (430, 48285),

Gene: Thespis_55 Start: 36748, Stop: 38346, Start Num: 164

Candidate Starts for Thespis_55:

(Start: 164 @36748 has 1 MA's), (165, 36757), (170, 36784), (Start: 179 @36850 has 1 MA's), (187, 36910), (192, 36949), (196, 36979), (205, 37036), (212, 37123), (229, 37201), (236, 37246), (272, 37408), (286, 37483), (297, 37555), (336, 37801), (339, 37819), (343, 37843), (365, 37978), (373, 38008), (377, 38044), (395, 38146), (401, 38203), (405, 38263), (410, 38296), (414, 38305), (415, 38308),

Gene: TootsiePop_75 Start: 46524, Stop: 48974, Start Num: 16

Candidate Starts for TootsiePop_75:

(6, 46422), (7, 46431), (11, 46458), (Start: 16 @46524 has 3 MA's), (25, 46560), (30, 46584), (36, 46620), (44, 46653), (71, 46884), (77, 46935), (78, 46938), (95, 47076), (103, 47118), (112, 47175), (167, 47445), (175, 47484), (195, 47649), (203, 47712), (215, 47844), (217, 47865), (225, 47901), (228, 47907), (232, 47946), (239, 47982), (244, 48015), (248, 48036), (310, 48171), (336, 48273), (337, 48276), (343, 48315), (349, 48396), (376, 48507), (377, 48510), (395, 48612), (401, 48669), (413, 48771), (416, 48783), (417, 48792), (419, 48813),

Gene: Tophat_83 Start: 54206, Stop: 56128, Start Num: 97

Candidate Starts for Tophat_83:

(Start: 97 @54206 has 17 MA's), (109, 54278), (Start: 132 @54410 has 3 MA's), (149, 54482), (156, 54518), (159, 54542), (162, 54560), (174, 54617), (177, 54653), (182, 54683), (184, 54695), (208, 54887), (214, 54956), (218, 54983), (234, 55064), (237, 55079), (240, 55094), (252, 55145), (254, 55163), (259, 55196), (305, 55280), (314, 55307), (327, 55346), (329, 55352), (334, 55406), (335, 55427), (336, 55430), (337, 55433), (340, 55448), (345, 55496), (347, 55517), (361, 55580), (369, 55604), (372, 55622), (374, 55631), (376, 55658), (398, 55793), (399, 55811), (403, 55880), (408, 55904), (409, 55916), (410, 55925), (413, 55934), (423, 56024), (424, 56033), (432, 56108), (433, 56114),

Gene: Totinger_66 Start: 41872, Stop: 44196, Start Num: 57

Candidate Starts for Totinger_66:

(20, 41695), (27, 41710), (29, 41719), (46, 41815), (Start: 57 @41872 has 4 MA's), (64, 41929), (70, 41998), (Start: 97 @42199 has 17 MA's), (103, 42232), (144, 42409), (151, 42433), (161, 42496), (166, 42514), (167, 42520), (171, 42541), (187, 42664), (231, 42868), (274, 43162), (298, 43258), (313, 43339), (315, 43345), (326, 43378), (336, 43477), (339, 43495), (343, 43519), (365, 43645), (376, 43708), (377, 43711), (401, 43891), (412, 43990), (413, 43993), (416, 44005), (417, 44014), (419, 44035), (435, 44188),

Gene: Wee_78 Start: 46738, Stop: 48411, Start Num: 56

Candidate Starts for Wee_78:

(Start: 41 @46648 has 1 MA's), (42, 46657), (Start: 56 @46738 has 8 MA's), (Start: 61 @46768 has 1 MA's), (64, 46798), (66, 46810), (70, 46867), (Start: 97 @47068 has 17 MA's), (103, 47101), (144, 47278), (151, 47302), (161, 47365), (167, 47389), (168, 47392), (300, 47533), (308, 47575), (320, 47620), (323, 47632), (336, 47737), (341, 47758), (342, 47767), (343, 47779), (349, 47845), (376, 47941), (377, 47944), (392, 48046), (401, 48103), (413, 48205), (416, 48217), (417, 48226), (419, 48247), (430, 48361),

Gene: Willsammy_52 Start: 35873, Stop: 38053, Start Num: 39

Candidate Starts for Willsammy_52:

(1, 35438), (26, 35810), (Start: 39 @35873 has 8 MA's), (44, 35900), (45, 35906), (49, 35930), (Start: 54 @35966 has 1 MA's), (60, 35999), (68, 36089), (69, 36116), (76, 36179), (77, 36185), (79, 36206), (95, 36326), (103, 36368), (112, 36425), (167, 36695), (195, 36899), (203, 36962), (215, 37094), (217, 37115), (225, 37151), (228, 37157), (232, 37196), (239, 37232), (244, 37265), (248, 37286), (256, 37328), (336, 37535), (342, 37565), (343, 37577), (377, 37751), (394, 37853), (401, 37910), (404, 37955), (405, 37970), (410, 38003), (414, 38012), (415, 38015),

Gene: Wocket_66 Start: 42075, Stop: 43580, Start Num: 152

Candidate Starts for Wocket_66:

(105, 41838), (106, 41850), (116, 41898), (122, 41946), (Start: 152 @42075 has 3 MA's), (156, 42102), (160, 42132), (162, 42144), (167, 42168), (174, 42201), (180, 42258), (184, 42282), (218, 42576), (240, 42687), (245, 42717), (254, 42759), (259, 42789), (262, 42801), (306, 42858), (325, 42903), (371, 43185), (381, 43248), (409, 43359), (413, 43377), (424, 43476), (429, 43524),