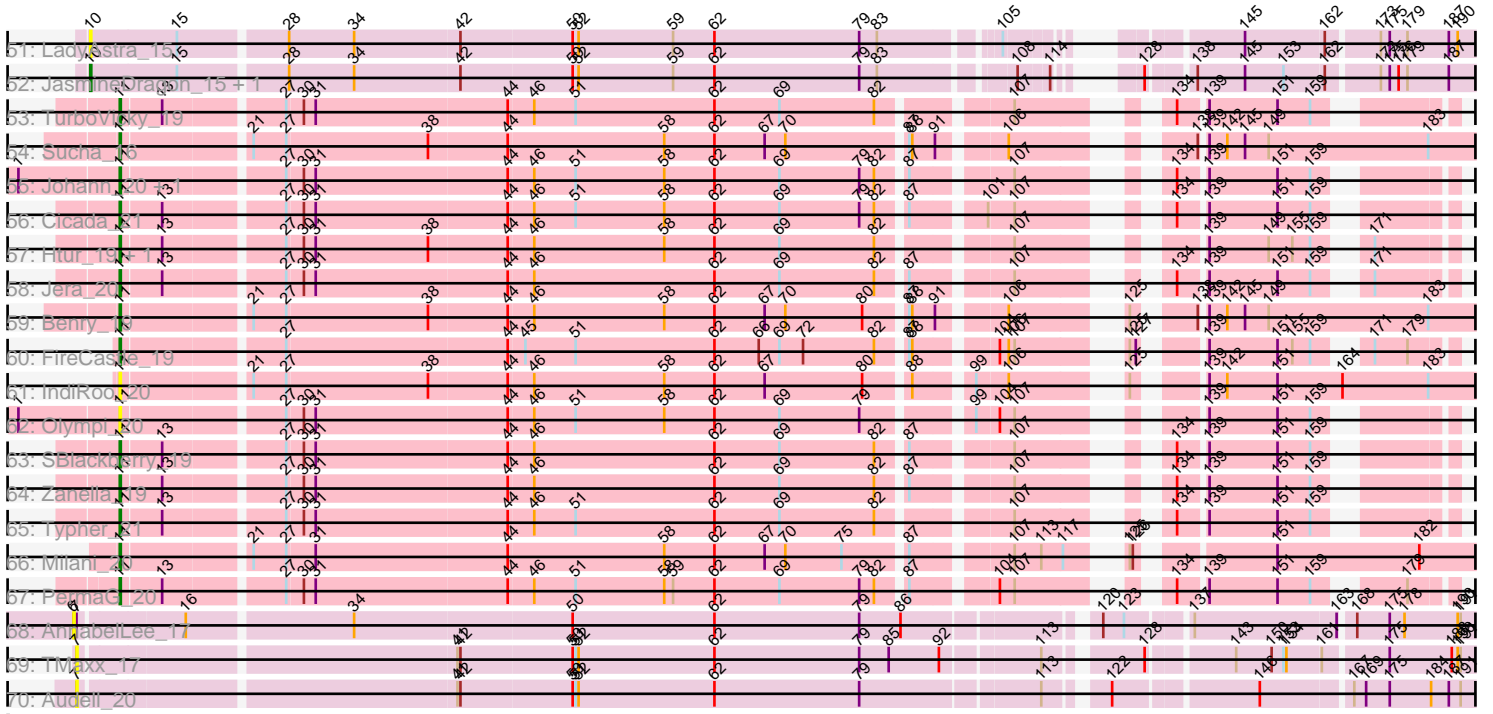


Zoomed Pham 202846



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 202846 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202846 has 91 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Laroye_67
- Track 2 : Waltz_64
- Track 3 : Wheelbite_63
- Track 4 : Salgado_67
- Track 5 : Shrooms_65
- Track 6 : Edmundo_67
- Track 7 : LiSara_64
- Track 8 : AinMach_15
- Track 9 : Joemato_16, Simpson_18, Kaylissa_16
- Track 10 : Cassia_16
- Track 11 : Nitro_16
- Track 12 : Iter_16, Ascela_16
- Track 13 : AGrandiflora_16, YesChef_16, Powerpuff_16
- Track 14 : TforTroy_16
- Track 15 : Crewmate_17, ObiToo_16
- Track 16 : JohnDoe_16, Cyan_16
- Track 17 : Turab_16, Adumb2043_16, AEgle_16
- Track 18 : MissSwiss_16
- Track 19 : Shaffner_17
- Track 20 : IttyBittyPiggy_16
- Track 21 : Adolin_16
- Track 22 : DrManhattan_16
- Track 23 : Lego_16
- Track 24 : Berrie_16
- Track 25 : Lizalica_16
- Track 26 : Elezi_16
- Track 27 : Pumpkins_16
- Track 28 : Pixelle_16
- Track 29 : Jstan_16, London_16, Niobe_16, Asa16_16
- Track 30 : KeAlii_16
- Track 31 : Tian_16, Amyev_16
- Track 32 : Eraser_16
- Track 33 : Wildwest_17
- Track 34 : Warda_16, Tbone_16, Mudpuppy_16
- Track 35 : JuneStar_16
- Track 36 : Tallboi_16
- Track 37 : Sue2_16

- Track 38 : Tuck_17, Community_16
- Track 39 : Tutumahutu_16
- Track 40 : Reedo_16
- Track 41 : Yang_16
- Track 42 : DrSierra_16
- Track 43 : Janeemi_17
- Track 44 : Phives_17
- Track 45 : Maureen_15, Liebe_15
- Track 46 : MaGuCo_15
- Track 47 : Tweety19_16, Snek_16
- Track 48 : Emotion_15
- Track 49 : MiniMommy_15
- Track 50 : VroomVroom_15
- Track 51 : LadyAstra_15
- Track 52 : JasmineDragon_15, ShakeltOph_16
- Track 53 : TurboVicky_19
- Track 54 : Sucha_16
- Track 55 : Johann_20, Goodman_20
- Track 56 : Cicada_21
- Track 57 : Htur_19, Rasovi_19
- Track 58 : Jera_20
- Track 59 : Benry_19
- Track 60 : FireCastle_19
- Track 61 : IndiRoo_20
- Track 62 : Olympi_20
- Track 63 : SBlackberry_19
- Track 64 : Zanella_19
- Track 65 : Typher_21
- Track 66 : Milani_20
- Track 67 : PermaG_20
- Track 68 : AnnabelLee_17
- Track 69 : TMaxx_17
- Track 70 : Audell_20

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

The start number called the most often in the published annotations is 10, it was called in 51 of the 73 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AEgle_16, AGrandiflora_16, Adolin_16, Adumb2043_16, AinMach_15, Amyev_16, Asa16_16, Ascela_16, Berrie_16, Cassia_16, Community_16, Crewmate_17, Cyan_16, DrManhattan_16, DrSierra_16, Elezi_16, Emotion_15, Eraser_16, Iter_16, IttyBittyPiggy_16, Janeemi_17, JasmineDragon_15, Joemato_16, JohnDoe_16, Jstan_16, JuneStar_16, Kaylissa_16, KeAlii_16, LadyAstra_15, Lego_16, Liebe_15, Lizalica_16, London_16, MaGuCo_15, Maureen_15, MiniMommy_15, MissSwiss_16, Mudpuppy_16, Niobe_16, Nitro_16, ObiToo_16, Phives_17, Pixelle_16, Powerpuff_16, Pumpkins_16, Reedo_16, Shaffner_17, ShakeltOph_16, Simpson_18, Snek_16, Sue2_16, Tallboi_16, Tbone_16, TforTroy_16, Tian_16, Tuck_17, Turab_16, Tutumahutu_16, Tweety19_16, VroomVroom_15, Warda_16,

Wildwest_17, Yang_16, YesChef_16,

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

-

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

- AnnabelLee_17, Audell_20, Benry_19, Cicada_21, Edmundo_67, FireCastle_19, Goodman_20, Htur_19, IndiRoo_20, Jera_20, Johann_20, Laroye_67, LiSara_64, Milani_20, Olympi_20, PermaG_20, Rasovi_19, SBlackberry_19, Salgado_67, Shrooms_65, Sucha_16, TMaxx_17, TurboVicky_19, Typher_21, Waltz_64, Wheelbite_63, Zanella_19,

Summary by start number:

Start 3:

- Found in 7 of 91 (7.7%) of genes in pham
- Manual Annotations of this start: 7 of 73
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo_67 (AL), Laroye_67 (AL), LiSara_64 (AL), Salgado_67 (AL), Shrooms_65 (AL), Waltz_64 (AL), Wheelbite_63 (AL),

Start 6:

- Found in 1 of 91 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_17 (FR),

Start 7:

- Found in 3 of 91 (3.3%) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Audell_20 (FR), TMaxx_17 (FR),

Start 10:

- Found in 64 of 91 (70.3%) of genes in pham
- Manual Annotations of this start: 51 of 73
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_16 (AZ1), AGrandiflora_16 (AZ1), Adolin_16 (AZ1), Adumb2043_16 (AZ1), AinMach_15 (AZ), Amyev_16 (AZ1), Asa16_16 (AZ1), Ascela_16 (AZ1), Berrie_16 (AZ1), Cassia_16 (AZ1), Community_16 (AZ1), Crewmate_17 (AZ1), Cyan_16 (AZ1), DrManhattan_16 (AZ1), DrSierra_16 (AZ1), Elezi_16 (AZ1), Emotion_15 (AZ4), Eraser_16 (AZ1), Iter_16 (AZ1), IttyBittyPiggy_16 (AZ1), Janeemi_17 (AZ1), JasmineDragon_15 (AZ4), Joemato_16 (AZ1), JohnDoe_16 (AZ1), Jstan_16 (AZ1), JuneStar_16 (AZ1), Kaylissa_16 (AZ1), KeAlii_16 (AZ1), LadyAstra_15 (AZ4), Lego_16 (AZ1), Liebe_15 (AZ2), Lizalica_16 (AZ1), London_16 (AZ1), MaGuCo_15 (AZ2), Maureen_15 (AZ2), MiniMommy_15 (AZ4), MissSwiss_16 (AZ1), Mudpuppy_16 (AZ1), Niobe_16 (AZ1), Nitro_16 (AZ1), ObiToo_16 (AZ1), Phives_17 (AZ1), Pixelle_16 (AZ1), Powerpuff_16 (AZ1), Pumpkins_16 (AZ1), Reedo_16 (AZ1), Shaffner_17 (AZ1), ShakeltOph_16 (AZ4), Simpson_18 (AZ1), Sneak_16 (AZ3), Sue2_16 (AZ1), Tallboi_16 (AZ1), Tbone_16 (AZ1), TforTroy_16 (AZ1), Tian_16 (AZ1), Tuck_17 (AZ1), Turab_16 (AZ1), Tutumahutu_16 (AZ1), Tweety19_16 (AZ3), VroomVroom_15 (AZ4), Warda_16

(AZ1), Wildwest_17 (AZ1), Yang_16 (AZ1), YesChef_16 (AZ1),

Start 11:

- Found in 17 of 91 (18.7%) of genes in pham
- Manual Annotations of this start: 15 of 73
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Benry_19 (EJ), Cicada_21 (EJ), FireCastle_19 (EJ), Goodman_20 (EJ), Htur_19 (EJ), IndiRoo_20 (EJ), Jera_20 (EJ), Johann_20 (EJ), Milani_20 (EJ), Olympi_20 (EJ), PermaG_20 (EJ), Rasovi_19 (EJ), SBlackberry_19 (EJ), Sucha_16 (EJ), TurboVicky_19 (EJ), Typher_21 (EJ), Zarella_19 (EJ),

Summary by clusters:

There are 8 clusters represented in this pham: FR, AZ, EJ, AL, AZ1, AZ2, AZ3, AZ4,

Info for manual annotations of cluster AL:

- Start number 3 was manually annotated 7 times for cluster AL.

Info for manual annotations of cluster AZ1:

- Start number 10 was manually annotated 43 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 10 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 10 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 10 was manually annotated 3 times for cluster AZ4.

Info for manual annotations of cluster EJ:

- Start number 11 was manually annotated 15 times for cluster EJ.

Gene Information:

Gene: AEgle_16 Start: 10734, Stop: 13058, Start Num: 10

Candidate Starts for AEgle_16:

(Start: 10 @10734 has 51 MA's), (20, 10890), (21, 10899), (24, 10914), (32, 10980), (35, 11040), (39, 11085), (44, 11157), (53, 11238), (54, 11241), (56, 11271), (60, 11325), (61, 11355), (68, 11412), (71, 11436), (77, 11496), (78, 11502), (135, 11721), (165, 11817), (172, 11850), (192, 11937), (203, 11991), (214, 12033), (223, 12072), (236, 12132), (263, 12273), (300, 12402), (302, 12411), (316, 12522), (343, 12654), (344, 12657), (351, 12690), (363, 12768), (369, 12807), (381, 12867), (394, 12957),

Gene: AGrandiflora_16 Start: 10727, Stop: 13042, Start Num: 10

Candidate Starts for AGrandiflora_16:

(Start: 10 @10727 has 51 MA's), (20, 10883), (21, 10892), (32, 10973), (33, 10985), (35, 11033), (36, 11036), (39, 11078), (44, 11150), (53, 11231), (54, 11234), (56, 11264), (60, 11318), (61, 11348), (68,

11405), (71, 11429), (77, 11489), (135, 11714), (165, 11810), (179, 11873), (181, 11882), (192, 11930), (193, 11939), (196, 11951), (203, 11984), (214, 12026), (223, 12065), (236, 12125), (263, 12266), (280, 12341), (285, 12353), (300, 12395), (302, 12404), (305, 12428), (314, 12497), (316, 12515), (340, 12626), (343, 12647), (344, 12650), (351, 12683), (363, 12761), (369, 12800), (381, 12860), (386, 12890), (394, 12941), (398, 12986), (403, 13031),

Gene: Adolin_16 Start: 10723, Stop: 12957, Start Num: 10

Candidate Starts for Adolin_16:

(Start: 10 @10723 has 51 MA's), (14, 10798), (20, 10879), (21, 10888), (26, 10915), (32, 10969), (33, 10981), (35, 11029), (37, 11041), (40, 11083), (44, 11146), (53, 11227), (54, 11230), (56, 11260), (61, 11344), (68, 11401), (71, 11425), (74, 11467), (77, 11485), (84, 11515), (90, 11554), (94, 11572), (126, 11644), (127, 11647), (133, 11665), (160, 11710), (170, 11767), (179, 11806), (181, 11815), (192, 11863), (193, 11872), (214, 11959), (217, 11971), (223, 11998), (228, 12016), (236, 12058), (256, 12160), (268, 12220), (286, 12292), (297, 12319), (300, 12328), (312, 12418), (315, 12439), (326, 12472), (336, 12526), (338, 12547), (361, 12679), (366, 12709), (396, 12892),

Gene: Adumb2043_16 Start: 10733, Stop: 13057, Start Num: 10

Candidate Starts for Adumb2043_16:

(Start: 10 @10733 has 51 MA's), (20, 10889), (21, 10898), (24, 10913), (32, 10979), (35, 11039), (39, 11084), (44, 11156), (53, 11237), (54, 11240), (56, 11270), (60, 11324), (61, 11354), (68, 11411), (71, 11435), (77, 11495), (78, 11501), (135, 11720), (165, 11816), (172, 11849), (192, 11936), (203, 11990), (214, 12032), (223, 12071), (236, 12131), (263, 12272), (300, 12401), (302, 12410), (316, 12521), (343, 12653), (344, 12656), (351, 12689), (363, 12767), (369, 12806), (381, 12866), (394, 12956),

Gene: AinMach_15 Start: 9852, Stop: 12212, Start Num: 10

Candidate Starts for AinMach_15:

(Start: 10 @9852 has 51 MA's), (20, 10008), (24, 10032), (32, 10098), (35, 10158), (44, 10275), (49, 10338), (53, 10356), (54, 10359), (56, 10389), (60, 10443), (61, 10473), (68, 10530), (71, 10554), (73, 10584), (74, 10596), (76, 10608), (77, 10614), (81, 10635), (192, 10980), (193, 10989), (236, 11175), (271, 11346), (276, 11391), (277, 11400), (280, 11424), (281, 11436), (283, 11460), (284, 11469), (285, 11478), (305, 11610), (310, 11655), (315, 11688), (318, 11709), (319, 11712), (338, 11796), (345, 11838), (361, 11928), (366, 11958),

Gene: Amyev_16 Start: 10746, Stop: 13070, Start Num: 10

Candidate Starts for Amyev_16:

(Start: 10 @10746 has 51 MA's), (20, 10902), (21, 10911), (32, 10992), (35, 11052), (39, 11097), (44, 11169), (48, 11229), (53, 11250), (54, 11253), (56, 11283), (60, 11337), (61, 11367), (68, 11424), (71, 11448), (77, 11508), (78, 11514), (103, 11634), (135, 11733), (165, 11829), (181, 11901), (192, 11949), (196, 11970), (203, 12003), (214, 12045), (223, 12084), (236, 12144), (239, 12159), (251, 12225), (274, 12348), (279, 12357), (300, 12414), (302, 12423), (308, 12480), (309, 12483), (316, 12534), (343, 12666), (344, 12669), (363, 12780), (369, 12819), (374, 12843), (394, 12969),

Gene: AnnabelLee_17 Start: 9567, Stop: 11855, Start Num: 6

Candidate Starts for AnnabelLee_17:

(6, 9567), (7, 9570), (16, 9669), (34, 9828), (50, 10044), (62, 10188), (79, 10335), (86, 10377), (120, 10545), (123, 10566), (137, 10620), (163, 10761), (168, 10773), (175, 10806), (178, 10821), (190, 10875), (191, 10878), (196, 10902), (204, 10938), (206, 10947), (210, 10968), (214, 10977), (215, 10983), (217, 10989), (220, 11001), (221, 11004), (228, 11034), (230, 11043), (253, 11112), (259, 11139), (260, 11142), (273, 11208), (278, 11229), (296, 11253), (304, 11277), (307, 11316), (318, 11385), (320, 11394), (332, 11421), (343, 11505), (344, 11508), (359, 11601), (361, 11607), (369, 11658), (374, 11682), (375, 11691), (384, 11736), (401, 11850),

Gene: Asa16_16 Start: 10703, Stop: 13027, Start Num: 10

Candidate Starts for Asa16_16:

(Start: 10 @10703 has 51 MA's), (19, 10856), (20, 10859), (21, 10868), (32, 10949), (35, 11009), (39, 11054), (44, 11126), (53, 11207), (54, 11210), (56, 11240), (60, 11294), (61, 11324), (68, 11381), (71, 11405), (77, 11465), (78, 11471), (84, 11495), (103, 11591), (135, 11690), (165, 11786), (172, 11819), (181, 11858), (192, 11906), (203, 11960), (214, 12002), (223, 12041), (228, 12059), (236, 12101), (253, 12194), (298, 12365), (302, 12380), (316, 12491), (343, 12623), (344, 12626), (351, 12659), (363, 12737), (369, 12776), (381, 12836), (394, 12926),

Gene: Ascela_16 Start: 10739, Stop: 13054, Start Num: 10

Candidate Starts for Ascela_16:

(Start: 10 @10739 has 51 MA's), (20, 10895), (23, 10913), (27, 10937), (32, 10985), (35, 11045), (39, 11090), (44, 11162), (54, 11246), (56, 11276), (60, 11330), (61, 11360), (68, 11417), (71, 11441), (77, 11501), (78, 11507), (135, 11726), (181, 11894), (192, 11942), (214, 12038), (223, 12077), (228, 12095), (236, 12137), (240, 12161), (251, 12218), (253, 12230), (274, 12341), (298, 12401), (302, 12416), (316, 12527), (340, 12638), (343, 12659), (344, 12662), (351, 12695), (363, 12773), (369, 12812), (386, 12902), (389, 12914), (398, 12998),

Gene: Audell_20 Start: 12894, Stop: 15182, Start Num: 7

Candidate Starts for Audell_20:

(7, 12894), (41, 13254), (42, 13257), (50, 13368), (51, 13371), (52, 13374), (62, 13512), (79, 13659), (113, 13830), (122, 13878), (146, 14010), (167, 14094), (169, 14106), (175, 14130), (184, 14172), (187, 14190), (191, 14202), (207, 14280), (208, 14283), (216, 14310), (221, 14328), (222, 14337), (229, 14361), (232, 14376), (233, 14382), (235, 14394), (236, 14400), (253, 14436), (260, 14466), (273, 14532), (315, 14688), (318, 14709), (319, 14712), (343, 14829), (344, 14832), (351, 14865), (369, 14982), (374, 15006), (393, 15123),

Gene: Benry_19 Start: 11509, Stop: 13800, Start Num: 11

Candidate Starts for Benry_19:

(Start: 11 @11509 has 15 MA's), (21, 11626), (27, 11659), (38, 11800), (44, 11878), (46, 11902), (58, 12034), (62, 12085), (67, 12136), (70, 12157), (80, 12235), (87, 12271), (88, 12274), (91, 12295), (106, 12352), (125, 12436), (138, 12481), (139, 12484), (142, 12502), (145, 12520), (149, 12544), (183, 12706), (198, 12772), (205, 12805), (209, 12826), (219, 12859), (220, 12862), (253, 13030), (257, 13048), (260, 13069), (274, 13147), (296, 13180), (313, 13279), (319, 13315), (320, 13321), (332, 13348), (337, 13387), (343, 13432), (346, 13444), (348, 13456), (350, 13465), (351, 13468), (369, 13582), (378, 13633), (380, 13639), (382, 13648),

Gene: Berrie_16 Start: 10711, Stop: 13188, Start Num: 10

Candidate Starts for Berrie_16:

(Start: 10 @10711 has 51 MA's), (20, 10867), (21, 10876), (32, 10957), (35, 11017), (39, 11062), (44, 11134), (54, 11218), (56, 11248), (60, 11302), (61, 11332), (68, 11389), (71, 11413), (77, 11473), (78, 11479), (84, 11503), (97, 11581), (119, 11713), (124, 11749), (135, 11791), (152, 11890), (166, 11962), (175, 12001), (181, 12028), (192, 12076), (203, 12130), (214, 12172), (222, 12208), (228, 12229), (236, 12271), (253, 12364), (274, 12475), (280, 12487), (298, 12535), (302, 12550), (343, 12793), (344, 12796), (363, 12907), (369, 12946), (383, 13021), (386, 13036), (398, 13132),

Gene: Cassia_16 Start: 10826, Stop: 13150, Start Num: 10

Candidate Starts for Cassia_16:

(Start: 10 @10826 has 51 MA's), (20, 10982), (21, 10991), (22, 10994), (32, 11072), (35, 11132), (44, 11249), (53, 11330), (54, 11333), (56, 11363), (61, 11447), (68, 11504), (71, 11528), (77, 11588), (78, 11594), (135, 11813), (181, 11981), (192, 12029), (203, 12083), (214, 12125), (223, 12164), (236, 12224), (253, 12317), (293, 12470), (296, 12482), (308, 12560), (309, 12563), (316, 12614), (343, 12746), (344, 12749), (363, 12860), (369, 12899),

Gene: Cicada_21 Start: 13577, Stop: 15565, Start Num: 11

Candidate Starts for Cicada_21:

(Start: 11 @13577 has 15 MA's), (13, 13616), (27, 13727), (30, 13742), (31, 13754), (44, 13946), (46, 13970), (51, 14012), (58, 14102), (62, 14153), (69, 14219), (79, 14300), (82, 14315), (87, 14339), (101, 14402), (107, 14426), (134, 14528), (139, 14552), (151, 14621), (159, 14654), (228, 14852), (253, 14879), (257, 14897), (273, 14951), (297, 14999), (301, 15011), (302, 15017), (311, 15083), (313, 15095), (356, 15272), (359, 15308), (365, 15338), (375, 15398), (398, 15539),

Gene: Community_16 Start: 11793, Stop: 14270, Start Num: 10

Candidate Starts for Community_16:

(Start: 10 @11793 has 51 MA's), (20, 11949), (21, 11958), (32, 12039), (35, 12099), (39, 12144), (44, 12216), (54, 12300), (56, 12330), (60, 12384), (61, 12414), (68, 12471), (71, 12495), (77, 12555), (78, 12561), (84, 12585), (97, 12663), (102, 12696), (124, 12831), (135, 12873), (152, 12972), (166, 13044), (175, 13083), (181, 13110), (192, 13158), (199, 13191), (214, 13254), (228, 13311), (236, 13353), (239, 13368), (253, 13446), (280, 13569), (298, 13617), (302, 13632), (314, 13725), (316, 13743), (318, 13755), (343, 13875), (344, 13878), (363, 13989), (369, 14028), (386, 14118),

Gene: Crewmate_17 Start: 11180, Stop: 13486, Start Num: 10

Candidate Starts for Crewmate_17:

(Start: 10 @11180 has 51 MA's), (19, 11333), (20, 11336), (21, 11345), (35, 11486), (44, 11603), (54, 11687), (56, 11717), (60, 11771), (68, 11858), (71, 11882), (77, 11942), (78, 11948), (89, 12014), (134, 12164), (135, 12167), (179, 12326), (181, 12335), (192, 12383), (203, 12437), (214, 12479), (223, 12518), (236, 12578), (239, 12593), (253, 12671), (263, 12719), (280, 12794), (285, 12806), (300, 12848), (302, 12857), (316, 12968), (343, 13100), (344, 13103), (363, 13214), (369, 13253), (379, 13307), (383, 13328), (386, 13343), (396, 13421),

Gene: Cyan_16 Start: 10730, Stop: 13045, Start Num: 10

Candidate Starts for Cyan_16:

(Start: 10 @10730 has 51 MA's), (20, 10886), (21, 10895), (32, 10976), (33, 10988), (35, 11036), (44, 11153), (53, 11234), (54, 11237), (56, 11267), (60, 11321), (61, 11351), (68, 11408), (71, 11432), (77, 11492), (135, 11717), (165, 11813), (181, 11885), (192, 11933), (203, 11987), (214, 12029), (223, 12068), (236, 12128), (302, 12407), (305, 12431), (308, 12464), (309, 12467), (316, 12518), (340, 12629), (343, 12650), (344, 12653), (351, 12686), (363, 12764), (369, 12803), (381, 12863), (386, 12893), (394, 12944), (398, 12989), (403, 13034),

Gene: DrManhattan_16 Start: 10713, Stop: 12947, Start Num: 10

Candidate Starts for DrManhattan_16:

(Start: 10 @10713 has 51 MA's), (14, 10788), (20, 10869), (21, 10878), (26, 10905), (32, 10959), (33, 10971), (35, 11019), (37, 11031), (44, 11136), (53, 11217), (54, 11220), (56, 11250), (61, 11334), (68, 11391), (71, 11415), (74, 11457), (77, 11475), (84, 11505), (90, 11544), (94, 11562), (126, 11634), (127, 11637), (133, 11655), (160, 11700), (170, 11757), (179, 11796), (181, 11805), (192, 11853), (193, 11862), (214, 11949), (217, 11961), (223, 11988), (228, 12006), (236, 12048), (256, 12150), (268, 12210), (280, 12264), (286, 12282), (297, 12309), (300, 12318), (312, 12408), (315, 12429), (326, 12462), (336, 12516), (338, 12537), (361, 12669), (366, 12699), (391, 12828), (396, 12882),

Gene: DrSierra_16 Start: 10741, Stop: 13035, Start Num: 10

Candidate Starts for DrSierra_16:

(Start: 10 @10741 has 51 MA's), (20, 10897), (21, 10906), (23, 10915), (26, 10933), (32, 10987), (33, 10999), (35, 11047), (44, 11164), (53, 11245), (54, 11248), (56, 11278), (60, 11332), (61, 11362), (64, 11404), (68, 11419), (71, 11443), (74, 11485), (77, 11503), (96, 11608), (135, 11728), (170, 11848), (175, 11869), (179, 11887), (181, 11896), (192, 11944), (193, 11953), (203, 11998), (214, 12040), (223, 12079), (228, 12097), (236, 12139), (256, 12241), (264, 12286), (268, 12301), (280, 12355),

(286, 12373), (297, 12400), (300, 12409), (312, 12499), (326, 12553), (336, 12607), (338, 12628), (361, 12760), (366, 12790), (396, 12970),

Gene: Edmundo_67 Start: 37140, Stop: 40157, Start Num: 3

Candidate Starts for Edmundo_67:

(Start: 3 @37140 has 7 MA's), (5, 37161), (8, 37191), (9, 37194), (17, 37299), (29, 37392), (34, 37452), (48, 37662), (50, 37668), (51, 37671), (52, 37674), (55, 37701), (58, 37761), (62, 37812), (65, 37854), (66, 37857), (70, 37884), (75, 37941), (79, 37959), (109, 38109), (118, 38169), (135, 38202), (136, 38211), (147, 38277), (154, 38301), (173, 38397), (183, 38445), (184, 38448), (186, 38460), (192, 38481), (194, 38493), (205, 38544), (229, 38637), (232, 38652), (245, 38727), (251, 38760), (253, 38772), (256, 38781), (260, 38811), (263, 38826), (265, 38835), (269, 38850), (280, 38904), (302, 38943), (319, 39069), (352, 39219), (357, 39240), (360, 39273), (362, 39276), (364, 39294), (368, 39318), (371, 39330), (373, 39351), (395, 39486), (397, 39507), (400, 39528), (404, 39570), (405, 39573), (408, 39681), (409, 39705), (410, 39714), (412, 39768), (413, 39777), (415, 39840), (417, 39870), (418, 39879), (420, 39978), (421, 39984), (423, 40014), (424, 40053), (426, 40140),

Gene: Elezi_16 Start: 10704, Stop: 13028, Start Num: 10

Candidate Starts for Elezi_16:

(Start: 10 @10704 has 51 MA's), (19, 10857), (20, 10860), (21, 10869), (32, 10950), (35, 11010), (39, 11055), (44, 11127), (53, 11208), (54, 11211), (56, 11241), (60, 11295), (61, 11325), (68, 11382), (71, 11406), (77, 11466), (78, 11472), (84, 11496), (103, 11592), (135, 11691), (165, 11787), (181, 11859), (192, 11907), (203, 11961), (214, 12003), (223, 12042), (228, 12060), (236, 12102), (253, 12195), (298, 12366), (302, 12381), (316, 12492), (343, 12624), (344, 12627), (351, 12660), (363, 12738), (369, 12777), (381, 12837), (394, 12927),

Gene: Emotion_15 Start: 9044, Stop: 11284, Start Num: 10

Candidate Starts for Emotion_15:

(Start: 10 @9044 has 51 MA's), (15, 9131), (28, 9233), (34, 9299), (42, 9404), (50, 9515), (52, 9521), (62, 9659), (66, 9704), (79, 9806), (83, 9824), (108, 9938), (138, 10034), (153, 10121), (162, 10160), (168, 10184), (173, 10208), (175, 10217), (179, 10235), (185, 10262), (196, 10313), (199, 10325), (211, 10382), (225, 10436), (234, 10478), (272, 10607), (296, 10664), (318, 10796), (319, 10799), (343, 10916), (359, 11012), (361, 11018), (366, 11048),

Gene: Eraser_16 Start: 10704, Stop: 13028, Start Num: 10

Candidate Starts for Eraser_16:

(Start: 10 @10704 has 51 MA's), (19, 10857), (20, 10860), (21, 10869), (32, 10950), (35, 11010), (39, 11055), (44, 11127), (53, 11208), (54, 11211), (56, 11241), (60, 11295), (61, 11325), (68, 11382), (71, 11406), (77, 11466), (78, 11472), (84, 11496), (103, 11592), (135, 11691), (165, 11787), (172, 11820), (181, 11859), (192, 11907), (203, 11961), (214, 12003), (223, 12042), (228, 12060), (236, 12102), (253, 12195), (298, 12366), (302, 12381), (316, 12492), (343, 12624), (344, 12627), (351, 12660), (363, 12738), (369, 12777), (381, 12837),

Gene: FireCastle_19 Start: 13235, Stop: 15373, Start Num: 11

Candidate Starts for FireCastle_19:

(Start: 11 @13235 has 15 MA's), (27, 13385), (44, 13604), (45, 13619), (51, 13670), (62, 13811), (66, 13856), (69, 13877), (72, 13901), (82, 13973), (87, 13997), (88, 14000), (104, 14069), (106, 14078), (107, 14084), (125, 14162), (127, 14168), (139, 14210), (151, 14279), (155, 14294), (159, 14312), (171, 14345), (179, 14378), (213, 14477), (220, 14501), (228, 14534), (275, 14756), (300, 14798), (302, 14807), (311, 14873), (346, 15017), (356, 15062), (358, 15083), (359, 15098), (365, 15128), (375, 15188), (380, 15212),

Gene: Goodman_20 Start: 13490, Stop: 15478, Start Num: 11

Candidate Starts for Goodman_20:

(1, 13391), (Start: 11 @13490 has 15 MA's), (27, 13640), (30, 13655), (31, 13667), (44, 13859), (46, 13883), (51, 13925), (58, 14015), (62, 14066), (69, 14132), (79, 14213), (82, 14228), (87, 14252), (107, 14339), (134, 14441), (139, 14465), (151, 14534), (159, 14567), (228, 14765), (253, 14792), (257, 14810), (273, 14864), (297, 14912), (301, 14924), (302, 14930), (311, 14996), (313, 15008), (314, 15011), (356, 15185), (359, 15221), (365, 15251), (375, 15311), (398, 15452),

Gene: Htur_19 Start: 13514, Stop: 15508, Start Num: 11

Candidate Starts for Htur_19:

(Start: 11 @13514 has 15 MA's), (13, 13553), (27, 13664), (30, 13679), (31, 13691), (38, 13805), (44, 13883), (46, 13907), (58, 14039), (62, 14090), (69, 14156), (82, 14252), (107, 14363), (139, 14489), (149, 14549), (155, 14573), (159, 14591), (171, 14624), (218, 14771), (228, 14789), (255, 14822), (258, 14837), (275, 14903), (330, 15062), (332, 15068), (333, 15074), (343, 15152), (347, 15167), (356, 15209), (365, 15275), (377, 15344), (398, 15482),

Gene: IndiRoo_20 Start: 11519, Stop: 13810, Start Num: 11

Candidate Starts for IndiRoo_20:

(Start: 11 @11519 has 15 MA's), (21, 11636), (27, 11669), (38, 11810), (44, 11888), (46, 11912), (58, 12044), (62, 12095), (67, 12146), (80, 12245), (88, 12284), (99, 12332), (106, 12362), (125, 12446), (139, 12494), (142, 12512), (151, 12563), (164, 12629), (183, 12716), (198, 12782), (201, 12797), (205, 12815), (209, 12836), (219, 12869), (257, 13058), (260, 13079), (262, 13091), (264, 13100), (274, 13157), (296, 13190), (302, 13211), (313, 13289), (315, 13301), (320, 13331), (332, 13358), (343, 13442), (346, 13454), (350, 13475), (351, 13478), (369, 13592), (378, 13643), (382, 13658),

Gene: Iter_16 Start: 10739, Stop: 13054, Start Num: 10

Candidate Starts for Iter_16:

(Start: 10 @10739 has 51 MA's), (20, 10895), (23, 10913), (27, 10937), (32, 10985), (35, 11045), (39, 11090), (44, 11162), (54, 11246), (56, 11276), (60, 11330), (61, 11360), (68, 11417), (71, 11441), (77, 11501), (78, 11507), (135, 11726), (181, 11894), (192, 11942), (214, 12038), (223, 12077), (228, 12095), (236, 12137), (240, 12161), (251, 12218), (253, 12230), (274, 12341), (298, 12401), (302, 12416), (316, 12527), (340, 12638), (343, 12659), (344, 12662), (351, 12695), (363, 12773), (369, 12812), (386, 12902), (389, 12914), (398, 12998),

Gene: IttyBittyPiggy_16 Start: 10723, Stop: 13035, Start Num: 10

Candidate Starts for IttyBittyPiggy_16:

(Start: 10 @10723 has 51 MA's), (20, 10879), (24, 10903), (32, 10969), (33, 10981), (35, 11029), (44, 11146), (53, 11227), (54, 11230), (56, 11260), (61, 11344), (68, 11401), (71, 11425), (77, 11485), (78, 11491), (172, 11839), (181, 11878), (192, 11926), (203, 11980), (214, 12022), (223, 12061), (236, 12121), (253, 12214), (294, 12370), (297, 12382), (300, 12391), (316, 12511), (343, 12643), (344, 12646), (363, 12757), (369, 12796), (374, 12820), (381, 12856), (383, 12871), (396, 12970),

Gene: Janeemi_17 Start: 11821, Stop: 14298, Start Num: 10

Candidate Starts for Janeemi_17:

(Start: 10 @11821 has 51 MA's), (20, 11977), (21, 11986), (44, 12244), (56, 12358), (57, 12367), (60, 12412), (68, 12499), (71, 12523), (77, 12583), (78, 12589), (84, 12613), (97, 12691), (102, 12724), (124, 12859), (135, 12901), (166, 13072), (175, 13111), (181, 13138), (192, 13186), (214, 13282), (223, 13321), (228, 13339), (231, 13351), (236, 13381), (251, 13462), (280, 13597), (298, 13645), (302, 13660), (314, 13753), (316, 13771), (318, 13783), (343, 13903), (344, 13906), (363, 14017), (369, 14056), (383, 14131), (386, 14146),

Gene: JasmineDragon_15 Start: 8971, Stop: 11214, Start Num: 10

Candidate Starts for JasmineDragon_15:

(Start: 10 @8971 has 51 MA's), (15, 9058), (28, 9160), (34, 9226), (42, 9331), (50, 9442), (52, 9448), (59, 9544), (62, 9586), (79, 9733), (83, 9751), (108, 9868), (114, 9895), (128, 9928), (138, 9964), (145,

10012), (153, 10051), (162, 10090), (173, 10138), (175, 10147), (176, 10156), (179, 10165), (187, 10207), (196, 10243), (199, 10255), (208, 10300), (209, 10306), (217, 10330), (225, 10366), (230, 10384), (234, 10408), (236, 10417), (238, 10429), (252, 10450), (253, 10453), (260, 10483), (319, 10729), (343, 10846), (359, 10942), (361, 10948), (366, 10978),

Gene: Jera_20 Start: 12587, Stop: 14575, Start Num: 11

Candidate Starts for Jera_20:

(Start: 11 @12587 has 15 MA's), (13, 12626), (27, 12737), (30, 12752), (31, 12764), (44, 12956), (46, 12980), (62, 13163), (69, 13229), (82, 13325), (87, 13349), (107, 13436), (134, 13538), (139, 13562), (151, 13631), (159, 13664), (171, 13697), (213, 13829), (253, 13889), (271, 13940), (297, 14009), (301, 14021), (302, 14027), (356, 14282), (365, 14348), (375, 14408), (398, 14549),

Gene: Joemato_16 Start: 10730, Stop: 13045, Start Num: 10

Candidate Starts for Joemato_16:

(Start: 10 @10730 has 51 MA's), (20, 10886), (21, 10895), (32, 10976), (33, 10988), (35, 11036), (44, 11153), (53, 11234), (54, 11237), (56, 11267), (60, 11321), (61, 11351), (68, 11408), (71, 11432), (77, 11492), (135, 11717), (165, 11813), (181, 11885), (192, 11933), (203, 11987), (214, 12029), (223, 12068), (236, 12128), (302, 12407), (305, 12431), (308, 12464), (309, 12467), (316, 12518), (340, 12629), (343, 12650), (344, 12653), (351, 12686), (363, 12764), (367, 12785), (369, 12803), (381, 12863), (386, 12893), (394, 12944), (398, 12989), (403, 13034),

Gene: Johann_20 Start: 13490, Stop: 15478, Start Num: 11

Candidate Starts for Johann_20:

(1, 13391), (Start: 11 @13490 has 15 MA's), (27, 13640), (30, 13655), (31, 13667), (44, 13859), (46, 13883), (51, 13925), (58, 14015), (62, 14066), (69, 14132), (79, 14213), (82, 14228), (87, 14252), (107, 14339), (134, 14441), (139, 14465), (151, 14534), (159, 14567), (228, 14765), (253, 14792), (257, 14810), (273, 14864), (297, 14912), (301, 14924), (302, 14930), (311, 14996), (313, 15008), (314, 15011), (356, 15185), (359, 15221), (365, 15251), (375, 15311), (398, 15452),

Gene: JohnDoe_16 Start: 10725, Stop: 13040, Start Num: 10

Candidate Starts for JohnDoe_16:

(Start: 10 @10725 has 51 MA's), (20, 10881), (21, 10890), (32, 10971), (33, 10983), (35, 11031), (44, 11148), (53, 11229), (54, 11232), (56, 11262), (60, 11316), (61, 11346), (68, 11403), (71, 11427), (77, 11487), (135, 11712), (165, 11808), (181, 11880), (192, 11928), (203, 11982), (214, 12024), (223, 12063), (236, 12123), (302, 12402), (305, 12426), (308, 12459), (309, 12462), (316, 12513), (340, 12624), (343, 12645), (344, 12648), (351, 12681), (363, 12759), (369, 12798), (381, 12858), (386, 12888), (394, 12939), (398, 12984), (403, 13029),

Gene: Jstan_16 Start: 10704, Stop: 13028, Start Num: 10

Candidate Starts for Jstan_16:

(Start: 10 @10704 has 51 MA's), (19, 10857), (20, 10860), (21, 10869), (32, 10950), (35, 11010), (39, 11055), (44, 11127), (53, 11208), (54, 11211), (56, 11241), (60, 11295), (61, 11325), (68, 11382), (71, 11406), (77, 11466), (78, 11472), (84, 11496), (103, 11592), (135, 11691), (165, 11787), (172, 11820), (181, 11859), (192, 11907), (203, 11961), (214, 12003), (223, 12042), (228, 12060), (236, 12102), (253, 12195), (298, 12366), (302, 12381), (316, 12492), (343, 12624), (344, 12627), (351, 12660), (363, 12738), (369, 12777), (381, 12837), (394, 12927),

Gene: JuneStar_16 Start: 10824, Stop: 13148, Start Num: 10

Candidate Starts for JuneStar_16:

(Start: 10 @10824 has 51 MA's), (23, 10998), (27, 11022), (32, 11070), (35, 11130), (43, 11235), (44, 11247), (53, 11328), (54, 11331), (56, 11361), (60, 11415), (61, 11445), (64, 11487), (68, 11502), (71, 11526), (73, 11556), (77, 11586), (78, 11592), (135, 11811), (172, 11940), (181, 11979), (192, 12027), (196, 12048), (203, 12081), (214, 12123), (223, 12162), (236, 12222), (253, 12315), (268, 12384),

(316, 12612), (340, 12723), (343, 12744), (344, 12747), (363, 12858), (369, 12897),

Gene: Kaylissa_16 Start: 10731, Stop: 13046, Start Num: 10

Candidate Starts for Kaylissa_16:

(Start: 10 @10731 has 51 MA's), (20, 10887), (21, 10896), (32, 10977), (33, 10989), (35, 11037), (44, 11154), (53, 11235), (54, 11238), (56, 11268), (60, 11322), (61, 11352), (68, 11409), (71, 11433), (77, 11493), (135, 11718), (165, 11814), (181, 11886), (192, 11934), (203, 11988), (214, 12030), (223, 12069), (236, 12129), (302, 12408), (305, 12432), (308, 12465), (309, 12468), (316, 12519), (340, 12630), (343, 12651), (344, 12654), (351, 12687), (363, 12765), (367, 12786), (369, 12804), (381, 12864), (386, 12894), (394, 12945), (398, 12990), (403, 13035),

Gene: KeAlii_16 Start: 10771, Stop: 13071, Start Num: 10

Candidate Starts for KeAlii_16:

(Start: 10 @10771 has 51 MA's), (20, 10927), (21, 10936), (32, 11017), (35, 11077), (44, 11194), (47, 11245), (53, 11275), (54, 11278), (56, 11308), (60, 11362), (61, 11392), (63, 11425), (68, 11449), (71, 11473), (73, 11503), (77, 11533), (78, 11539), (84, 11563), (138, 11776), (165, 11857), (175, 11902), (181, 11929), (192, 11977), (214, 12073), (223, 12112), (225, 12121), (238, 12184), (239, 12187), (256, 12274), (262, 12310), (268, 12334), (302, 12451), (304, 12466), (312, 12532), (331, 12607), (345, 12703), (361, 12793), (366, 12823), (376, 12877), (381, 12898), (396, 13006),

Gene: LadyAstra_15 Start: 8974, Stop: 11217, Start Num: 10

Candidate Starts for LadyAstra_15:

(Start: 10 @8974 has 51 MA's), (15, 9061), (28, 9163), (34, 9229), (42, 9334), (50, 9445), (52, 9451), (59, 9547), (62, 9589), (79, 9736), (83, 9754), (105, 9856), (145, 10012), (162, 10090), (173, 10138), (175, 10147), (179, 10165), (187, 10207), (190, 10216), (196, 10243), (202, 10273), (209, 10306), (234, 10408), (236, 10417), (238, 10429), (252, 10450), (253, 10453), (260, 10483), (295, 10591), (343, 10846), (346, 10858), (359, 10942), (361, 10948), (366, 10978),

Gene: Laroye_67 Start: 36530, Stop: 39547, Start Num: 3

Candidate Starts for Laroye_67:

(Start: 3 @36530 has 7 MA's), (5, 36551), (8, 36581), (9, 36584), (17, 36689), (27, 36773), (29, 36782), (34, 36842), (48, 37052), (50, 37058), (51, 37061), (52, 37064), (58, 37151), (62, 37202), (65, 37244), (66, 37247), (75, 37331), (79, 37349), (109, 37499), (135, 37592), (136, 37601), (154, 37691), (173, 37787), (176, 37805), (180, 37817), (183, 37835), (184, 37838), (186, 37850), (192, 37871), (194, 37883), (205, 37934), (229, 38027), (244, 38114), (251, 38150), (253, 38162), (256, 38171), (260, 38201), (263, 38216), (265, 38225), (280, 38294), (302, 38333), (319, 38459), (339, 38534), (352, 38609), (357, 38630), (360, 38663), (362, 38666), (368, 38708), (371, 38720), (373, 38741), (383, 38795), (397, 38897), (404, 38960), (408, 39071), (410, 39104), (412, 39158), (413, 39167), (417, 39260), (418, 39269), (420, 39368), (421, 39374), (423, 39404), (424, 39443), (426, 39530),

Gene: Lego_16 Start: 10730, Stop: 13045, Start Num: 10

Candidate Starts for Lego_16:

(Start: 10 @10730 has 51 MA's), (20, 10886), (21, 10895), (32, 10976), (33, 10988), (35, 11036), (36, 11039), (39, 11081), (44, 11153), (53, 11234), (54, 11237), (56, 11267), (60, 11321), (61, 11351), (68, 11408), (71, 11432), (77, 11492), (135, 11717), (165, 11813), (179, 11876), (181, 11885), (192, 11933), (193, 11942), (196, 11954), (203, 11987), (214, 12029), (223, 12068), (236, 12128), (263, 12269), (280, 12344), (285, 12356), (300, 12398), (302, 12407), (305, 12431), (316, 12518), (340, 12629), (343, 12650), (344, 12653), (351, 12686), (363, 12764), (369, 12803), (381, 12863), (386, 12893), (394, 12944), (398, 12989), (403, 13034),

Gene: LiSara_64 Start: 36692, Stop: 39709, Start Num: 3

Candidate Starts for LiSara_64:

(Start: 3 @36692 has 7 MA's), (5, 36713), (8, 36743), (9, 36746), (17, 36851), (27, 36935), (29, 36944), (34, 37004), (48, 37214), (50, 37220), (51, 37223), (52, 37226), (58, 37313), (62, 37364), (65, 37406), (66, 37409), (75, 37493), (79, 37511), (109, 37661), (135, 37754), (136, 37763), (154, 37853), (173, 37949), (180, 37979), (183, 37997), (184, 38000), (186, 38012), (192, 38033), (194, 38045), (205, 38096), (229, 38189), (244, 38276), (251, 38312), (253, 38324), (256, 38333), (260, 38363), (263, 38378), (265, 38387), (280, 38456), (302, 38495), (319, 38621), (339, 38696), (352, 38771), (357, 38792), (360, 38825), (362, 38828), (368, 38870), (371, 38882), (373, 38903), (383, 38957), (397, 39059), (404, 39122), (408, 39233), (410, 39266), (412, 39320), (413, 39329), (416, 39398), (417, 39422), (418, 39431), (420, 39530), (421, 39536), (423, 39566), (424, 39605), (426, 39692),

Gene: Liebe_15 Start: 9206, Stop: 11569, Start Num: 10

Candidate Starts for Liebe_15:

(Start: 10 @9206 has 51 MA's), (28, 9395), (34, 9461), (38, 9536), (43, 9602), (50, 9677), (51, 9680), (52, 9683), (58, 9770), (59, 9779), (62, 9821), (79, 9968), (83, 9986), (95, 10061), (102, 10094), (110, 10127), (132, 10268), (157, 10391), (158, 10400), (168, 10439), (171, 10457), (175, 10472), (187, 10532), (189, 10538), (191, 10544), (193, 10556), (194, 10559), (206, 10613), (208, 10625), (211, 10637), (216, 10652), (233, 10724), (236, 10742), (237, 10751), (251, 10766), (253, 10778), (257, 10796), (260, 10808), (315, 11030), (343, 11171), (344, 11174), (351, 11207), (354, 11222), (355, 11228), (359, 11267), (369, 11324), (377, 11366), (386, 11414),

Gene: Lizalica_16 Start: 10715, Stop: 13030, Start Num: 10

Candidate Starts for Lizalica_16:

(Start: 10 @10715 has 51 MA's), (20, 10871), (21, 10880), (32, 10961), (33, 10973), (35, 11021), (36, 11024), (39, 11066), (44, 11138), (53, 11219), (54, 11222), (56, 11252), (60, 11306), (61, 11336), (68, 11393), (71, 11417), (77, 11477), (135, 11702), (165, 11798), (181, 11870), (192, 11918), (203, 11972), (214, 12014), (223, 12053), (236, 12113), (263, 12254), (300, 12383), (302, 12392), (305, 12416), (314, 12485), (316, 12503), (340, 12614), (343, 12635), (344, 12638), (351, 12671), (363, 12749), (369, 12788), (381, 12848), (386, 12878), (394, 12929), (398, 12974), (403, 13019),

Gene: London_16 Start: 10704, Stop: 13028, Start Num: 10

Candidate Starts for London_16:

(Start: 10 @10704 has 51 MA's), (19, 10857), (20, 10860), (21, 10869), (32, 10950), (35, 11010), (39, 11055), (44, 11127), (53, 11208), (54, 11211), (56, 11241), (60, 11295), (61, 11325), (68, 11382), (71, 11406), (77, 11466), (78, 11472), (84, 11496), (103, 11592), (135, 11691), (165, 11787), (172, 11820), (181, 11859), (192, 11907), (203, 11961), (214, 12003), (223, 12042), (228, 12060), (236, 12102), (253, 12195), (298, 12366), (302, 12381), (316, 12492), (343, 12624), (344, 12627), (351, 12660), (363, 12738), (369, 12777), (381, 12837), (394, 12927),

Gene: MaGuCo_15 Start: 9140, Stop: 11503, Start Num: 10

Candidate Starts for MaGuCo_15:

(Start: 10 @9140 has 51 MA's), (28, 9329), (34, 9395), (38, 9470), (50, 9611), (51, 9614), (52, 9617), (58, 9704), (59, 9713), (62, 9755), (66, 9800), (79, 9902), (83, 9920), (102, 10028), (110, 10061), (132, 10202), (151, 10304), (157, 10325), (158, 10334), (168, 10373), (171, 10391), (174, 10403), (175, 10406), (187, 10466), (189, 10472), (191, 10478), (193, 10490), (194, 10493), (199, 10514), (206, 10547), (208, 10559), (211, 10571), (216, 10586), (233, 10658), (235, 10670), (236, 10676), (237, 10685), (251, 10700), (253, 10712), (257, 10730), (260, 10742), (315, 10964), (343, 11105), (344, 11108), (351, 11141), (355, 11162), (359, 11201), (369, 11258), (377, 11300), (386, 11348),

Gene: Maureen_15 Start: 9206, Stop: 11569, Start Num: 10

Candidate Starts for Maureen_15:

(Start: 10 @9206 has 51 MA's), (28, 9395), (34, 9461), (38, 9536), (43, 9602), (50, 9677), (51, 9680), (52, 9683), (58, 9770), (59, 9779), (62, 9821), (79, 9968), (83, 9986), (95, 10061), (102, 10094), (110, 10127), (132, 10268), (157, 10391), (158, 10400), (168, 10439), (171, 10457), (175, 10472), (187,

10532), (189, 10538), (191, 10544), (193, 10556), (194, 10559), (206, 10613), (208, 10625), (211, 10637), (216, 10652), (233, 10724), (236, 10742), (237, 10751), (251, 10766), (253, 10778), (257, 10796), (260, 10808), (315, 11030), (343, 11171), (344, 11174), (351, 11207), (354, 11222), (355, 11228), (359, 11267), (369, 11324), (377, 11366), (386, 11414),

Gene: Milani_20 Start: 12168, Stop: 14459, Start Num: 11

Candidate Starts for Milani_20:

(Start: 11 @12168 has 15 MA's), (21, 12285), (27, 12318), (31, 12345), (44, 12537), (58, 12693), (62, 12744), (67, 12795), (70, 12816), (75, 12873), (87, 12930), (107, 13017), (113, 13044), (117, 13065), (125, 13095), (126, 13098), (151, 13212), (182, 13356), (205, 13464), (219, 13518), (242, 13629), (257, 13707), (260, 13728), (262, 13740), (267, 13761), (274, 13806), (305, 13872), (313, 13938), (319, 13974), (320, 13980), (332, 14007), (337, 14046), (343, 14091), (344, 14094), (346, 14103), (348, 14115), (350, 14124), (351, 14127), (369, 14241), (378, 14292), (380, 14298),

Gene: MiniMommy_15 Start: 8972, Stop: 11215, Start Num: 10

Candidate Starts for MiniMommy_15:

(Start: 10 @8972 has 51 MA's), (15, 9059), (28, 9161), (34, 9227), (42, 9332), (50, 9443), (52, 9449), (59, 9545), (62, 9587), (79, 9734), (83, 9752), (108, 9869), (114, 9896), (128, 9929), (138, 9965), (145, 10013), (153, 10052), (162, 10091), (168, 10115), (173, 10139), (175, 10148), (176, 10157), (179, 10166), (187, 10208), (196, 10244), (199, 10256), (208, 10301), (209, 10307), (217, 10331), (225, 10367), (230, 10385), (234, 10409), (236, 10418), (238, 10430), (252, 10451), (253, 10454), (260, 10484), (319, 10730), (343, 10847), (359, 10943), (361, 10949), (366, 10979),

Gene: MissSwiss_16 Start: 10713, Stop: 12947, Start Num: 10

Candidate Starts for MissSwiss_16:

(Start: 10 @10713 has 51 MA's), (20, 10869), (21, 10878), (26, 10905), (32, 10959), (33, 10971), (35, 11019), (44, 11136), (53, 11217), (54, 11220), (56, 11250), (61, 11334), (68, 11391), (71, 11415), (77, 11475), (90, 11544), (94, 11562), (115, 11613), (126, 11634), (133, 11655), (160, 11700), (179, 11796), (181, 11805), (192, 11853), (193, 11862), (214, 11949), (239, 12063), (256, 12150), (264, 12195), (268, 12210), (303, 12330), (304, 12342), (312, 12408), (318, 12450), (326, 12462), (332, 12486), (335, 12507), (336, 12516), (338, 12537), (345, 12579), (361, 12669), (366, 12699), (376, 12753), (396, 12882),

Gene: Mudpuppy_16 Start: 10729, Stop: 13044, Start Num: 10

Candidate Starts for Mudpuppy_16:

(Start: 10 @10729 has 51 MA's), (20, 10885), (21, 10894), (32, 10975), (33, 10987), (35, 11035), (36, 11038), (39, 11080), (44, 11152), (53, 11233), (54, 11236), (56, 11266), (60, 11320), (61, 11350), (68, 11407), (71, 11431), (77, 11491), (135, 11716), (165, 11812), (179, 11875), (181, 11884), (192, 11932), (196, 11953), (203, 11986), (214, 12028), (223, 12067), (236, 12127), (263, 12268), (300, 12397), (302, 12406), (305, 12430), (308, 12463), (314, 12499), (316, 12517), (340, 12628), (343, 12649), (344, 12652), (351, 12685), (363, 12763), (369, 12802), (381, 12862), (386, 12892), (394, 12943), (398, 12988), (403, 13033),

Gene: Niobe_16 Start: 10704, Stop: 13028, Start Num: 10

Candidate Starts for Niobe_16:

(Start: 10 @10704 has 51 MA's), (19, 10857), (20, 10860), (21, 10869), (32, 10950), (35, 11010), (39, 11055), (44, 11127), (53, 11208), (54, 11211), (56, 11241), (60, 11295), (61, 11325), (68, 11382), (71, 11406), (77, 11466), (78, 11472), (84, 11496), (103, 11592), (135, 11691), (165, 11787), (172, 11820), (181, 11859), (192, 11907), (203, 11961), (214, 12003), (223, 12042), (228, 12060), (236, 12102), (253, 12195), (298, 12366), (302, 12381), (316, 12492), (343, 12624), (344, 12627), (351, 12660), (363, 12738), (369, 12777), (381, 12837), (394, 12927),

Gene: Nitro_16 Start: 10728, Stop: 13052, Start Num: 10

Candidate Starts for Nitro_16:

(Start: 10 @10728 has 51 MA's), (18, 10875), (20, 10884), (27, 10926), (32, 10974), (35, 11034), (39, 11079), (44, 11151), (48, 11211), (54, 11235), (56, 11265), (60, 11319), (61, 11349), (68, 11406), (71, 11430), (77, 11490), (78, 11496), (96, 11595), (134, 11712), (165, 11811), (181, 11883), (192, 11931), (214, 12027), (223, 12066), (228, 12084), (236, 12126), (239, 12141), (253, 12219), (298, 12390), (302, 12405), (308, 12462), (314, 12498), (316, 12516), (343, 12648), (344, 12651), (351, 12684), (363, 12762), (369, 12801), (381, 12861), (394, 12951), (398, 12996), (403, 13041),

Gene: ObiToo_16 Start: 10917, Stop: 13223, Start Num: 10

Candidate Starts for ObiToo_16:

(Start: 10 @10917 has 51 MA's), (19, 11070), (20, 11073), (21, 11082), (35, 11223), (44, 11340), (54, 11424), (56, 11454), (60, 11508), (68, 11595), (71, 11619), (77, 11679), (78, 11685), (89, 11751), (134, 11901), (135, 11904), (179, 12063), (181, 12072), (192, 12120), (203, 12174), (214, 12216), (223, 12255), (236, 12315), (239, 12330), (253, 12408), (263, 12456), (280, 12531), (285, 12543), (300, 12585), (302, 12594), (316, 12705), (343, 12837), (344, 12840), (363, 12951), (369, 12990), (379, 13044), (383, 13065), (386, 13080), (396, 13158),

Gene: Olympi_20 Start: 13480, Stop: 15465, Start Num: 11

Candidate Starts for Olympi_20:

(1, 13381), (Start: 11 @13480 has 15 MA's), (27, 13630), (30, 13645), (31, 13657), (44, 13849), (46, 13873), (51, 13915), (58, 14005), (62, 14056), (69, 14122), (79, 14203), (99, 14293), (104, 14314), (107, 14329), (139, 14455), (151, 14524), (159, 14557), (228, 14755), (253, 14782), (257, 14800), (273, 14854), (297, 14902), (301, 14914), (302, 14920), (311, 14986), (313, 14998), (314, 15001), (356, 15175), (359, 15211), (365, 15241), (375, 15301), (398, 15439),

Gene: PermaG_20 Start: 13551, Stop: 15539, Start Num: 11

Candidate Starts for PermaG_20:

(Start: 11 @13551 has 15 MA's), (13, 13590), (27, 13701), (30, 13716), (31, 13728), (44, 13920), (46, 13944), (51, 13986), (58, 14076), (59, 14085), (62, 14127), (69, 14193), (79, 14274), (82, 14289), (87, 14313), (104, 14385), (107, 14400), (134, 14502), (139, 14526), (151, 14595), (159, 14628), (179, 14694), (228, 14826), (253, 14853), (273, 14925), (293, 14958), (301, 14985), (302, 14991), (306, 15024), (356, 15246), (359, 15282), (365, 15312), (375, 15372), (398, 15513),

Gene: Phives_17 Start: 11806, Stop: 14130, Start Num: 10

Candidate Starts for Phives_17:

(Start: 10 @11806 has 51 MA's), (20, 11962), (21, 11971), (32, 12052), (35, 12112), (39, 12157), (44, 12229), (48, 12289), (53, 12310), (54, 12313), (56, 12343), (60, 12397), (61, 12427), (68, 12484), (71, 12508), (77, 12568), (78, 12574), (135, 12793), (172, 12922), (179, 12952), (181, 12961), (192, 13009), (196, 13030), (203, 13063), (214, 13105), (223, 13144), (236, 13204), (239, 13219), (253, 13297), (265, 13354), (294, 13453), (297, 13465), (300, 13474), (305, 13507), (308, 13540), (309, 13543), (316, 13594), (343, 13726), (344, 13729), (363, 13840), (369, 13879), (381, 13939), (390, 13990), (394, 14029),

Gene: Pixelle_16 Start: 10749, Stop: 13073, Start Num: 10

Candidate Starts for Pixelle_16:

(Start: 10 @10749 has 51 MA's), (20, 10905), (21, 10914), (32, 10995), (35, 11055), (39, 11100), (44, 11172), (53, 11253), (54, 11256), (56, 11286), (60, 11340), (61, 11370), (68, 11427), (71, 11451), (76, 11505), (77, 11511), (78, 11517), (135, 11736), (181, 11904), (192, 11952), (196, 11973), (203, 12006), (214, 12048), (223, 12087), (236, 12147), (239, 12162), (251, 12228), (274, 12351), (300, 12417), (302, 12426), (308, 12483), (309, 12486), (316, 12537), (343, 12669), (344, 12672), (363, 12783), (369, 12822), (374, 12846), (394, 12972),

Gene: Powerpuff_16 Start: 10781, Stop: 13096, Start Num: 10

Candidate Starts for Powerpuff_16:

(Start: 10 @10781 has 51 MA's), (20, 10937), (21, 10946), (32, 11027), (33, 11039), (35, 11087), (36, 11090), (39, 11132), (44, 11204), (53, 11285), (54, 11288), (56, 11318), (60, 11372), (61, 11402), (68, 11459), (71, 11483), (77, 11543), (135, 11768), (165, 11864), (179, 11927), (181, 11936), (192, 11984), (193, 11993), (196, 12005), (203, 12038), (214, 12080), (223, 12119), (236, 12179), (263, 12320), (280, 12395), (285, 12407), (300, 12449), (302, 12458), (305, 12482), (314, 12551), (316, 12569), (340, 12680), (343, 12701), (344, 12704), (351, 12737), (363, 12815), (369, 12854), (381, 12914), (386, 12944), (394, 12995), (398, 13040), (403, 13085),

Gene: Pumpkins_16 Start: 10836, Stop: 13160, Start Num: 10

Candidate Starts for Pumpkins_16:

(Start: 10 @10836 has 51 MA's), (20, 10992), (21, 11001), (22, 11004), (23, 11010), (32, 11082), (35, 11142), (44, 11259), (53, 11340), (54, 11343), (56, 11373), (61, 11457), (68, 11514), (71, 11538), (77, 11598), (78, 11604), (135, 11823), (181, 11991), (192, 12039), (203, 12093), (214, 12135), (223, 12174), (253, 12327), (293, 12480), (296, 12492), (308, 12570), (309, 12573), (316, 12624), (343, 12756), (344, 12759), (351, 12792), (363, 12870), (369, 12909),

Gene: Rasovi_19 Start: 13514, Stop: 15508, Start Num: 11

Candidate Starts for Rasovi_19:

(Start: 11 @13514 has 15 MA's), (13, 13553), (27, 13664), (30, 13679), (31, 13691), (38, 13805), (44, 13883), (46, 13907), (58, 14039), (62, 14090), (69, 14156), (82, 14252), (107, 14363), (139, 14489), (149, 14549), (155, 14573), (159, 14591), (171, 14624), (218, 14771), (228, 14789), (255, 14822), (258, 14837), (275, 14903), (330, 15062), (332, 15068), (333, 15074), (343, 15152), (347, 15167), (356, 15209), (365, 15275), (377, 15344), (398, 15482),

Gene: Reedo_16 Start: 10781, Stop: 13090, Start Num: 10

Candidate Starts for Reedo_16:

(Start: 10 @10781 has 51 MA's), (20, 10937), (21, 10946), (27, 10979), (32, 11027), (35, 11087), (44, 11204), (53, 11285), (54, 11288), (56, 11318), (60, 11372), (61, 11402), (68, 11459), (71, 11483), (73, 11513), (77, 11543), (78, 11549), (84, 11573), (93, 11636), (103, 11669), (130, 11747), (165, 11864), (208, 12062), (214, 12080), (223, 12119), (229, 12140), (236, 12179), (239, 12194), (246, 12233), (254, 12275), (268, 12341), (304, 12473), (310, 12527), (312, 12539), (331, 12614), (334, 12626), (345, 12710), (353, 12746), (361, 12800), (366, 12830), (387, 12944), (396, 13022),

Gene: SBlackberry_19 Start: 13346, Stop: 15334, Start Num: 11

Candidate Starts for SBlackberry_19:

(Start: 11 @13346 has 15 MA's), (13, 13385), (27, 13496), (30, 13511), (31, 13523), (44, 13715), (46, 13739), (62, 13922), (69, 13988), (82, 14084), (87, 14108), (107, 14195), (134, 14297), (139, 14321), (151, 14390), (159, 14423), (213, 14588), (228, 14621), (253, 14648), (257, 14666), (297, 14768), (301, 14780), (302, 14786), (314, 14867), (356, 15041), (365, 15107), (375, 15167), (377, 15176), (398, 15308),

Gene: Salgado_67 Start: 36346, Stop: 39363, Start Num: 3

Candidate Starts for Salgado_67:

(Start: 3 @36346 has 7 MA's), (5, 36367), (8, 36397), (9, 36400), (17, 36505), (27, 36589), (29, 36598), (34, 36658), (48, 36868), (50, 36874), (51, 36877), (52, 36880), (58, 36967), (62, 37018), (65, 37060), (66, 37063), (75, 37147), (79, 37165), (109, 37315), (116, 37354), (135, 37408), (136, 37417), (154, 37507), (173, 37603), (180, 37633), (183, 37651), (184, 37654), (186, 37666), (192, 37687), (194, 37699), (205, 37750), (229, 37843), (244, 37930), (251, 37966), (253, 37978), (256, 37987), (260, 38017), (263, 38032), (265, 38041), (280, 38110), (302, 38149), (319, 38275), (339, 38350), (352, 38425), (357, 38446), (360, 38479), (362, 38482), (368, 38524), (371, 38536), (373, 38557), (383, 38611), (397, 38713), (404, 38776), (408, 38887), (410, 38920), (412, 38974), (413, 38983), (417, 39076), (418, 39085), (420, 39184), (421, 39190), (423, 39220), (424, 39259), (426, 39346),

Gene: Shaffner_17 Start: 10823, Stop: 13147, Start Num: 10

Candidate Starts for Shaffner_17:

(Start: 10 @10823 has 51 MA's), (23, 10997), (27, 11021), (32, 11069), (35, 11129), (43, 11234), (44, 11246), (53, 11327), (54, 11330), (56, 11360), (60, 11414), (61, 11444), (64, 11486), (68, 11501), (71, 11525), (73, 11555), (77, 11585), (78, 11591), (135, 11810), (172, 11939), (181, 11978), (192, 12026), (196, 12047), (203, 12080), (214, 12122), (223, 12161), (236, 12221), (253, 12314), (293, 12467), (296, 12479), (308, 12557), (309, 12560), (316, 12611), (343, 12743), (344, 12746), (351, 12779), (363, 12857), (369, 12896),

Gene: ShakeltOph_16 Start: 8971, Stop: 11214, Start Num: 10

Candidate Starts for ShakeltOph_16:

(Start: 10 @8971 has 51 MA's), (15, 9058), (28, 9160), (34, 9226), (42, 9331), (50, 9442), (52, 9448), (59, 9544), (62, 9586), (79, 9733), (83, 9751), (108, 9868), (114, 9895), (128, 9928), (138, 9964), (145, 10012), (153, 10051), (162, 10090), (173, 10138), (175, 10147), (176, 10156), (179, 10165), (187, 10207), (196, 10243), (199, 10255), (208, 10300), (209, 10306), (217, 10330), (225, 10366), (230, 10384), (234, 10408), (236, 10417), (238, 10429), (252, 10450), (253, 10453), (260, 10483), (319, 10729), (343, 10846), (359, 10942), (361, 10948), (366, 10978),

Gene: Shrooms_65 Start: 34492, Stop: 37881, Start Num: 3

Candidate Starts for Shrooms_65:

(2, 34486), (Start: 3 @34492 has 7 MA's), (4, 34510), (5, 34513), (8, 34543), (9, 34546), (13, 34621), (25, 34723), (27, 34735), (34, 34804), (50, 35020), (51, 35023), (52, 35026), (58, 35113), (62, 35164), (66, 35209), (70, 35236), (79, 35311), (83, 35329), (87, 35362), (100, 35431), (112, 35491), (113, 35494), (121, 35560), (122, 35566), (126, 35587), (129, 35602), (136, 35644), (144, 35698), (148, 35722), (150, 35728), (154, 35743), (156, 35752), (171, 35833), (179, 35866), (186, 35902), (194, 35935), (205, 35986), (212, 36016), (228, 36076), (229, 36079), (244, 36166), (248, 36178), (249, 36187), (256, 36223), (258, 36235), (260, 36253), (266, 36280), (274, 36331), (282, 36364), (287, 36409), (288, 36427), (289, 36433), (290, 36445), (291, 36463), (292, 36472), (302, 36517), (310, 36586), (317, 36631), (320, 36649), (321, 36673), (322, 36676), (323, 36685), (324, 36697), (325, 36709), (328, 36751), (329, 36817), (342, 36907), (349, 36940), (352, 36958), (360, 37012), (362, 37015), (370, 37066), (371, 37069), (373, 37090), (375, 37102), (380, 37126), (382, 37135), (385, 37156), (397, 37246), (400, 37267), (404, 37309), (406, 37327), (407, 37399), (408, 37420), (409, 37444), (410, 37453), (411, 37474), (412, 37507), (417, 37609), (419, 37654), (422, 37720), (424, 37777),

Gene: Simpson_18 Start: 10730, Stop: 13045, Start Num: 10

Candidate Starts for Simpson_18:

(Start: 10 @10730 has 51 MA's), (20, 10886), (21, 10895), (32, 10976), (33, 10988), (35, 11036), (44, 11153), (53, 11234), (54, 11237), (56, 11267), (60, 11321), (61, 11351), (68, 11408), (71, 11432), (77, 11492), (135, 11717), (165, 11813), (181, 11885), (192, 11933), (203, 11987), (214, 12029), (223, 12068), (236, 12128), (302, 12407), (305, 12431), (308, 12464), (309, 12467), (316, 12518), (340, 12629), (343, 12650), (344, 12653), (351, 12686), (363, 12764), (367, 12785), (369, 12803), (381, 12863), (386, 12893), (394, 12944), (398, 12989), (403, 13034),

Gene: Snek_16 Start: 9838, Stop: 12117, Start Num: 10

Candidate Starts for Snek_16:

(Start: 10 @9838 has 51 MA's), (30, 10042), (34, 10093), (41, 10195), (45, 10261), (50, 10309), (52, 10315), (58, 10402), (59, 10411), (62, 10453), (66, 10498), (79, 10600), (83, 10618), (108, 10747), (111, 10762), (126, 10804), (131, 10825), (135, 10840), (157, 10951), (173, 11023), (175, 11032), (176, 11041), (180, 11053), (189, 11098), (191, 11104), (194, 11119), (199, 11140), (208, 11185), (229, 11263), (253, 11338), (257, 11356), (304, 11503), (319, 11614), (336, 11677), (338, 11698), (342, 11725), (345, 11740), (361, 11830), (366, 11860), (378, 11926), (399, 12052), (402, 12091),

Gene: Sucha_16 Start: 10506, Stop: 12797, Start Num: 11

Candidate Starts for Sucha_16:

(Start: 11 @10506 has 15 MA's), (21, 10623), (27, 10656), (38, 10797), (44, 10875), (58, 11031), (62, 11082), (67, 11133), (70, 11154), (87, 11268), (88, 11271), (91, 11292), (106, 11349), (138, 11478), (139, 11481), (142, 11499), (145, 11517), (149, 11541), (183, 11703), (201, 11784), (205, 11802), (209, 11823), (219, 11856), (220, 11859), (243, 11964), (247, 11988), (260, 12066), (261, 12069), (267, 12099), (274, 12144), (296, 12177), (313, 12276), (319, 12312), (320, 12318), (332, 12345), (337, 12384), (343, 12429), (346, 12441), (348, 12453), (350, 12462), (351, 12465), (369, 12579), (378, 12630), (382, 12645),

Gene: Sue2_16 Start: 10752, Stop: 13142, Start Num: 10

Candidate Starts for Sue2_16:

(Start: 10 @10752 has 51 MA's), (12, 10785), (21, 10905), (28, 10941), (34, 11007), (41, 11109), (50, 11223), (52, 11229), (58, 11316), (59, 11325), (62, 11367), (79, 11514), (126, 11790), (140, 11874), (162, 11985), (177, 12063), (179, 12069), (181, 12078), (186, 12105), (208, 12204), (233, 12303), (235, 12315), (250, 12342), (253, 12357), (256, 12366), (257, 12375), (267, 12420), (299, 12507), (306, 12552), (334, 12675), (341, 12732), (343, 12750), (344, 12753), (354, 12801), (363, 12864), (369, 12903), (399, 13077),

Gene: TMaxx_17 Start: 9424, Stop: 11712, Start Num: 7

Candidate Starts for TMaxx_17:

(7, 9424), (41, 9784), (42, 9787), (50, 9898), (51, 9901), (52, 9904), (62, 10042), (79, 10189), (85, 10219), (92, 10270), (113, 10360), (128, 10441), (143, 10516), (150, 10552), (153, 10564), (154, 10567), (161, 10600), (175, 10660), (188, 10723), (190, 10729), (191, 10732), (195, 10753), (197, 10759), (200, 10774), (206, 10801), (208, 10813), (210, 10822), (216, 10840), (220, 10855), (221, 10858), (222, 10867), (224, 10873), (227, 10885), (233, 10912), (236, 10930), (250, 10951), (253, 10966), (315, 11218), (318, 11239), (319, 11242), (343, 11359), (344, 11362), (359, 11455), (369, 11512), (374, 11536), (375, 11545), (378, 11563), (388, 11614), (392, 11629), (393, 11653),

Gene: Tallboi_16 Start: 10731, Stop: 13055, Start Num: 10

Candidate Starts for Tallboi_16:

(Start: 10 @10731 has 51 MA's), (18, 10878), (20, 10887), (32, 10977), (35, 11037), (39, 11082), (44, 11154), (48, 11214), (54, 11238), (56, 11268), (60, 11322), (61, 11352), (68, 11409), (71, 11433), (77, 11493), (78, 11499), (135, 11718), (181, 11886), (192, 11934), (203, 11988), (214, 12030), (223, 12069), (236, 12129), (253, 12222), (300, 12399), (302, 12408), (316, 12519), (343, 12651), (344, 12654), (351, 12687), (363, 12765), (369, 12804), (381, 12864), (386, 12894), (394, 12954),

Gene: Tbone_16 Start: 10734, Stop: 13049, Start Num: 10

Candidate Starts for Tbone_16:

(Start: 10 @10734 has 51 MA's), (20, 10890), (21, 10899), (32, 10980), (33, 10992), (35, 11040), (36, 11043), (39, 11085), (44, 11157), (53, 11238), (54, 11241), (56, 11271), (60, 11325), (61, 11355), (68, 11412), (71, 11436), (77, 11496), (135, 11721), (165, 11817), (179, 11880), (181, 11889), (192, 11937), (196, 11958), (203, 11991), (214, 12033), (223, 12072), (236, 12132), (263, 12273), (300, 12402), (302, 12411), (305, 12435), (308, 12468), (314, 12504), (316, 12522), (340, 12633), (343, 12654), (344, 12657), (351, 12690), (363, 12768), (369, 12807), (381, 12867), (386, 12897), (394, 12948), (398, 12993), (403, 13038),

Gene: TforTroy_16 Start: 10854, Stop: 13178, Start Num: 10

Candidate Starts for TforTroy_16:

(Start: 10 @10854 has 51 MA's), (20, 11010), (21, 11019), (22, 11022), (23, 11028), (32, 11100), (35, 11160), (44, 11277), (53, 11358), (54, 11361), (56, 11391), (60, 11445), (61, 11475), (68, 11532), (71, 11556), (77, 11616), (78, 11622), (104, 11745), (135, 11841), (181, 12009), (192, 12057), (203,

12111), (214, 12153), (223, 12192), (236, 12252), (253, 12345), (285, 12480), (297, 12513), (300, 12522), (316, 12642), (343, 12774), (344, 12777), (363, 12888), (369, 12927),

Gene: Tian_16 Start: 10746, Stop: 13070, Start Num: 10

Candidate Starts for Tian_16:

(Start: 10 @10746 has 51 MA's), (20, 10902), (21, 10911), (32, 10992), (35, 11052), (39, 11097), (44, 11169), (48, 11229), (53, 11250), (54, 11253), (56, 11283), (60, 11337), (61, 11367), (68, 11424), (71, 11448), (77, 11508), (78, 11514), (103, 11634), (135, 11733), (165, 11829), (181, 11901), (192, 11949), (196, 11970), (203, 12003), (214, 12045), (223, 12084), (236, 12144), (239, 12159), (251, 12225), (274, 12348), (279, 12357), (300, 12414), (302, 12423), (308, 12480), (309, 12483), (316, 12534), (343, 12666), (344, 12669), (363, 12780), (369, 12819), (374, 12843), (394, 12969),

Gene: Tuck_17 Start: 11773, Stop: 14250, Start Num: 10

Candidate Starts for Tuck_17:

(Start: 10 @11773 has 51 MA's), (20, 11929), (21, 11938), (32, 12019), (35, 12079), (39, 12124), (44, 12196), (54, 12280), (56, 12310), (60, 12364), (61, 12394), (68, 12451), (71, 12475), (77, 12535), (78, 12541), (84, 12565), (97, 12643), (102, 12676), (124, 12811), (135, 12853), (152, 12952), (166, 13024), (175, 13063), (181, 13090), (192, 13138), (199, 13171), (214, 13234), (228, 13291), (236, 13333), (239, 13348), (253, 13426), (280, 13549), (298, 13597), (302, 13612), (314, 13705), (316, 13723), (318, 13735), (343, 13855), (344, 13858), (363, 13969), (369, 14008), (386, 14098),

Gene: Turab_16 Start: 10733, Stop: 13057, Start Num: 10

Candidate Starts for Turab_16:

(Start: 10 @10733 has 51 MA's), (20, 10889), (21, 10898), (24, 10913), (32, 10979), (35, 11039), (39, 11084), (44, 11156), (53, 11237), (54, 11240), (56, 11270), (60, 11324), (61, 11354), (68, 11411), (71, 11435), (77, 11495), (78, 11501), (135, 11720), (165, 11816), (172, 11849), (192, 11936), (203, 11990), (214, 12032), (223, 12071), (236, 12131), (263, 12272), (300, 12401), (302, 12410), (316, 12521), (343, 12653), (344, 12656), (351, 12689), (363, 12767), (369, 12806), (381, 12866), (394, 12956),

Gene: TurboVicky_19 Start: 13340, Stop: 15328, Start Num: 11

Candidate Starts for TurboVicky_19:

(Start: 11 @13340 has 15 MA's), (13, 13379), (27, 13490), (30, 13505), (31, 13517), (44, 13709), (46, 13733), (51, 13775), (62, 13916), (69, 13982), (82, 14078), (107, 14189), (134, 14291), (139, 14315), (151, 14384), (159, 14417), (213, 14582), (251, 14630), (253, 14642), (257, 14660), (297, 14762), (301, 14774), (302, 14780), (356, 15035), (365, 15101), (375, 15161), (398, 15302),

Gene: Tutumahutu_16 Start: 10781, Stop: 13096, Start Num: 10

Candidate Starts for Tutumahutu_16:

(Start: 10 @10781 has 51 MA's), (20, 10937), (21, 10946), (32, 11027), (33, 11039), (35, 11087), (36, 11090), (39, 11132), (44, 11204), (53, 11285), (54, 11288), (56, 11318), (60, 11372), (61, 11402), (68, 11459), (71, 11483), (77, 11543), (135, 11768), (165, 11864), (179, 11927), (181, 11936), (192, 11984), (193, 11993), (196, 12005), (203, 12038), (214, 12080), (223, 12119), (236, 12179), (263, 12320), (280, 12395), (285, 12407), (300, 12449), (302, 12458), (305, 12482), (314, 12551), (316, 12569), (318, 12581), (340, 12680), (343, 12701), (344, 12704), (351, 12737), (363, 12815), (369, 12854), (381, 12914), (386, 12944), (394, 12995), (398, 13040), (403, 13085),

Gene: Tweety19_16 Start: 9837, Stop: 12116, Start Num: 10

Candidate Starts for Tweety19_16:

(Start: 10 @9837 has 51 MA's), (30, 10041), (34, 10092), (41, 10194), (45, 10260), (50, 10308), (52, 10314), (58, 10401), (59, 10410), (62, 10452), (66, 10497), (79, 10599), (83, 10617), (108, 10746), (111, 10761), (126, 10803), (131, 10824), (135, 10839), (157, 10950), (173, 11022), (175, 11031), (176, 11040), (180, 11052), (189, 11097), (191, 11103), (194, 11118), (199, 11139), (208, 11184),

(229, 11262), (253, 11337), (257, 11355), (304, 11502), (319, 11613), (336, 11676), (338, 11697), (342, 11724), (345, 11739), (361, 11829), (366, 11859), (378, 11925), (399, 12051), (402, 12090),

Gene: Typher_21 Start: 13470, Stop: 15458, Start Num: 11

Candidate Starts for Typher_21:

(Start: 11 @13470 has 15 MA's), (13, 13509), (27, 13620), (30, 13635), (31, 13647), (44, 13839), (46, 13863), (51, 13905), (62, 14046), (69, 14112), (82, 14208), (107, 14319), (134, 14421), (139, 14445), (151, 14514), (159, 14547), (213, 14712), (228, 14745), (251, 14760), (253, 14772), (257, 14790), (301, 14904), (302, 14910), (356, 15165), (365, 15231), (375, 15291), (398, 15432),

Gene: VroomVroom_15 Start: 8983, Stop: 11226, Start Num: 10

Candidate Starts for VroomVroom_15:

(Start: 10 @8983 has 51 MA's), (15, 9070), (24, 9151), (28, 9172), (34, 9238), (42, 9343), (50, 9454), (52, 9460), (59, 9556), (62, 9598), (79, 9745), (108, 9880), (114, 9907), (128, 9940), (145, 10024), (153, 10063), (162, 10102), (168, 10126), (173, 10150), (175, 10159), (179, 10177), (185, 10204), (187, 10219), (196, 10255), (199, 10267), (208, 10312), (209, 10318), (225, 10378), (230, 10396), (234, 10420), (252, 10462), (253, 10465), (260, 10495), (295, 10603), (343, 10858), (346, 10870), (359, 10954), (361, 10960), (366, 10990),

Gene: Waltz_64 Start: 34787, Stop: 37879, Start Num: 3

Candidate Starts for Waltz_64:

(2, 34781), (Start: 3 @34787 has 7 MA's), (4, 34805), (5, 34808), (8, 34838), (13, 34916), (25, 35018), (27, 35030), (34, 35099), (50, 35315), (51, 35318), (52, 35321), (58, 35408), (62, 35459), (66, 35504), (70, 35531), (79, 35606), (83, 35624), (87, 35657), (96, 35702), (98, 35720), (112, 35786), (113, 35789), (118, 35828), (122, 35861), (126, 35882), (129, 35897), (136, 35939), (141, 35969), (144, 35993), (148, 36017), (150, 36023), (154, 36038), (156, 36047), (174, 36140), (179, 36161), (186, 36197), (194, 36230), (205, 36281), (212, 36311), (229, 36374), (237, 36422), (241, 36443), (244, 36461), (248, 36473), (249, 36482), (251, 36497), (256, 36518), (263, 36563), (265, 36572), (270, 36590), (280, 36641), (300, 36671), (302, 36680), (310, 36749), (319, 36806), (349, 36938), (352, 36956), (360, 37010), (362, 37013), (370, 37064), (371, 37067), (382, 37133), (384, 37145), (397, 37244), (400, 37265), (404, 37307), (407, 37397), (408, 37418), (409, 37442), (410, 37451), (411, 37472), (412, 37505), (413, 37514), (417, 37607), (419, 37652), (422, 37718), (424, 37775), (425, 37841),

Gene: Warda_16 Start: 10726, Stop: 13041, Start Num: 10

Candidate Starts for Warda_16:

(Start: 10 @10726 has 51 MA's), (20, 10882), (21, 10891), (32, 10972), (33, 10984), (35, 11032), (36, 11035), (39, 11077), (44, 11149), (53, 11230), (54, 11233), (56, 11263), (60, 11317), (61, 11347), (68, 11404), (71, 11428), (77, 11488), (135, 11713), (165, 11809), (179, 11872), (181, 11881), (192, 11929), (196, 11950), (203, 11983), (214, 12025), (223, 12064), (236, 12124), (263, 12265), (300, 12394), (302, 12403), (305, 12427), (308, 12460), (314, 12496), (316, 12514), (340, 12625), (343, 12646), (344, 12649), (351, 12682), (363, 12760), (369, 12799), (381, 12859), (386, 12889), (394, 12940), (398, 12985), (403, 13030),

Gene: Wheelbite_63 Start: 36504, Stop: 39521, Start Num: 3

Candidate Starts for Wheelbite_63:

(Start: 3 @36504 has 7 MA's), (5, 36525), (8, 36555), (9, 36558), (17, 36663), (29, 36756), (34, 36816), (48, 37026), (50, 37032), (51, 37035), (52, 37038), (58, 37125), (62, 37176), (65, 37218), (66, 37221), (75, 37305), (79, 37323), (109, 37473), (135, 37566), (154, 37665), (173, 37761), (183, 37809), (184, 37812), (186, 37824), (192, 37845), (194, 37857), (205, 37908), (229, 38001), (232, 38016), (251, 38124), (253, 38136), (256, 38145), (260, 38175), (265, 38199), (269, 38214), (280, 38268), (302, 38307), (319, 38433), (343, 38538), (357, 38604), (362, 38640), (364, 38658), (368, 38682), (371, 38694), (372, 38703), (373, 38715), (383, 38769), (395, 38850), (397, 38871), (400, 38892), (404,

38934), (405, 38937), (408, 39045), (410, 39078), (411, 39099), (413, 39141), (414, 39147), (415, 39204), (417, 39234), (418, 39243), (420, 39342), (421, 39348), (424, 39417), (426, 39504),

Gene: Wildwest_17 Start: 11664, Stop: 13910, Start Num: 10

Candidate Starts for Wildwest_17:

(Start: 10 @11664 has 51 MA's), (20, 11820), (21, 11829), (26, 11856), (32, 11910), (35, 11970), (44, 12087), (53, 12168), (54, 12171), (56, 12201), (60, 12255), (61, 12285), (68, 12342), (71, 12366), (74, 12408), (77, 12426), (135, 12651), (170, 12771), (181, 12819), (192, 12867), (193, 12876), (214, 12963), (223, 13002), (228, 13020), (236, 13062), (256, 13164), (264, 13209), (268, 13224), (275, 13269), (297, 13323), (300, 13332), (304, 13356), (314, 13380), (327, 13419), (340, 13497), (343, 13518), (344, 13521), (354, 13569), (363, 13632), (366, 13650), (369, 13671), (396, 13845),

Gene: Yang_16 Start: 10824, Stop: 13148, Start Num: 10

Candidate Starts for Yang_16:

(Start: 10 @10824 has 51 MA's), (23, 10998), (27, 11022), (32, 11070), (35, 11130), (44, 11247), (53, 11328), (54, 11331), (56, 11361), (61, 11445), (68, 11502), (71, 11526), (77, 11586), (78, 11592), (134, 11808), (135, 11811), (181, 11979), (192, 12027), (196, 12048), (203, 12081), (214, 12123), (223, 12162), (226, 12174), (236, 12222), (253, 12315), (268, 12384), (296, 12480), (302, 12501), (314, 12594), (316, 12612), (343, 12744), (344, 12747), (363, 12858), (369, 12897),

Gene: YesChef_16 Start: 10781, Stop: 13096, Start Num: 10

Candidate Starts for YesChef_16:

(Start: 10 @10781 has 51 MA's), (20, 10937), (21, 10946), (32, 11027), (33, 11039), (35, 11087), (36, 11090), (39, 11132), (44, 11204), (53, 11285), (54, 11288), (56, 11318), (60, 11372), (61, 11402), (68, 11459), (71, 11483), (77, 11543), (135, 11768), (165, 11864), (179, 11927), (181, 11936), (192, 11984), (193, 11993), (196, 12005), (203, 12038), (214, 12080), (223, 12119), (236, 12179), (263, 12320), (280, 12395), (285, 12407), (300, 12449), (302, 12458), (305, 12482), (314, 12551), (316, 12569), (340, 12680), (343, 12701), (344, 12704), (351, 12737), (363, 12815), (369, 12854), (381, 12914), (386, 12944), (394, 12995), (398, 13040), (403, 13085),

Gene: Zanella_19 Start: 13343, Stop: 15331, Start Num: 11

Candidate Starts for Zanella_19:

(Start: 11 @13343 has 15 MA's), (13, 13382), (27, 13493), (30, 13508), (31, 13520), (44, 13712), (46, 13736), (62, 13919), (69, 13985), (82, 14081), (87, 14105), (107, 14192), (134, 14294), (139, 14318), (151, 14387), (159, 14420), (213, 14585), (251, 14633), (253, 14645), (257, 14663), (297, 14765), (301, 14777), (302, 14783), (356, 15038), (365, 15104), (375, 15164), (398, 15305),