

Pham 196423

51: PotPie_4	73	119	26	28	33	42	48	54	58	66	71	92	91	113	116	129	138	153	165	168	179	192	203	204	216						
52: Typhonomet	73	119	26	30	31	33	38	44	54	66	71	80	84	91	99	103	111	116	121	128	131	152	163	168	171	181	182	192	203	204	216
53: Toils_6	73	119	26	30	33	34	44	54	60	66	71	84	86	92	91	101	111	116	121	128	131	152	163	168	171	181	182	192	203	204	216
54: GINK_7	73	119	26	30	33	34	44	54	60	66	71	84	86	92	91	101	111	116	121	128	131	152	163	168	171	181	182	192	203	204	216
55: MAIOL_4	73	119	26	30	33	34	44	54	60	66	71	84	86	92	91	101	111	116	121	128	131	152	163	168	171	181	182	192	203	204	216
56: AikoCarsc	73	119	26	30	31	33	38	44	54	66	71	80	84	91	99	101	111	116	121	131	152	163	171	181	182	192	203	204	216		
57: ELLDGO_6	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
58: AeanC1	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
59: AeanC2	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
60: AeanC3	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
61: AeanC4	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
62: AeanC5	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
63: AeanC6	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
64: Comie_2	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		
65: Gattaca_34 + 18	73	119	26	30	33	34	36	44	54	61	73	79	81	86	91	99	102	101	113	121	132	136	153	168	169	172	180	181	216		

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 196423 Report

This analysis was run 12/09/24 on database version 580.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 196423 has 101 members, 19 are drafts.

Phages represented in each track:

- Track 1 : NoShow_2
- Track 2 : FF47_05, 8UZL_5
- Track 3 : Muddy_5
- Track 4 : JacoRen57_2
- Track 5 : Maco6_3
- Track 6 : VWB_2
- Track 7 : SPB78_2
- Track 8 : Triumph_8
- Track 9 : BroPlease_7
- Track 10 : GreenWeasel_8
- Track 11 : RGL3_1
- Track 12 : SteamedHams_6
- Track 13 : Survivors_6, MaVan_6, Nibbles_6
- Track 14 : Horseradish_5, MScarn_6, Yummy_5
- Track 15 : Fribs8_5
- Track 16 : Lauer_3
- Track 17 : Sopespian_4, PsychoKiller_4, Elliott_4
- Track 18 : Emalyn_3
- Track 19 : RanchParmCat_7
- Track 20 : BigChungus_3, Feastonyeet_3
- Track 21 : Elinal_5
- Track 22 : RedBaron_5, GoldHunter_5
- Track 23 : Zareef_7
- Track 24 : SweatNTears_6
- Track 25 : Nodigi_5
- Track 26 : KayGee_4
- Track 27 : Cleo_4, Gibbous_4, Dre3_4
- Track 28 : Amok_3
- Track 29 : Axym_4, Cozz_4, Burnsey_4
- Track 30 : Mayweather_5
- Track 31 : Nina_4, Quasar_4
- Track 32 : Yakult_5
- Track 33 : GTE2_02

- Track 34 : MunkgeeRoachy_4
- Track 35 : Button_5
- Track 36 : Carsonalex_5
- Track 37 : AndPeggy_3, Yarn_3
- Track 38 : Margaret_7
- Track 39 : Vine_5
- Track 40 : SummitAcademy_3
- Track 41 : SheckWes_3
- Track 42 : HippoPololi_6
- Track 43 : Biskit_5, Troje_4, SketchMex_3, Buttrmlkdreams_4
- Track 44 : Pons_4
- Track 45 : CherryonLim_5
- Track 46 : Azira_6
- Track 47 : Hexbug_5
- Track 48 : Agatha_4
- Track 49 : Jamzy_7
- Track 50 : Orla_5
- Track 51 : PotPie_4
- Track 52 : Typhonomachy_5
- Track 53 : Tolls_6
- Track 54 : GiKK_7
- Track 55 : MAnor_4
- Track 56 : AikoCarson_3
- Track 57 : BillDoor_6
- Track 58 : BearBQ_2
- Track 59 : MortyNRick_2
- Track 60 : Birdsong_2
- Track 61 : Crater_2
- Track 62 : Apricot_2
- Track 63 : Kuwabara_2
- Track 64 : Cornie_2
- Track 65 : Gattaca_34, RedRaider77_35, Corazon_33, Raela_35, Poise_35, Tesla_34, Huphlepuuff_37, Pringar_35, Lilbit_36, LittleLaf_35, JoieB_36, Marvin_33, VasuNzinga_35, MosMoris_33, FeliMaine_35, Caprice_32, Beelzebub_39, Clarkson_36, Blackbeetle_35

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

The start number called the most often in the published annotations is 13, it was called in 69 of the 82 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 8UZL_5, Agatha_4, AikoCarson_3, Amok_3, AndPeggy_3, Axym_4, Azira_6, BearBQ_2, Beelzebub_39, BigChungus_3, BillDoor_6, Birdsong_2, Biskit_5, Blackbeetle_35, Burnsey_4, Buttrmlkdreams_4, Caprice_32, Carsonalex_5, CherryonLim_5, Clarkson_36, Cleo_4, Corazon_33, Cornie_2, Cozz_4, Crater_2, Dre3_4, Elinal_5, Elliott_4, Emalyn_3, FF47_05, Feastonyeet_3, FeliMaine_35, Fribs8_5, GTE2_02, Gattaca_34, Gibbous_4, GoldHunter_5, HippoPololi_6, Horseradish_5, Huphlepuuff_37, JacoRen57_2, JoieB_36, KayGee_4, Kuwabara_2, Lauer_3, Lilbit_36, LittleLaf_35, MAnor_4, MScarn_6, MaVan_6, Maco6_3,

Marvin_33, Mayweather_5, MosMoris_33, Muddy_5, MunkgeeRoachy_4, Nibbles_6, Nina_4, NoShow_2, Poise_35, Pons_4, PotPie_4, Pringar_35, PsychoKiller_4, Quasar_4, Raela_35, RedBaron_5, RedRaider77_35, SketchMex_3, Sopespian_4, SteamedHams_6, SummitAcademy_3, Survivors_6, SweatNTears_6, Tesla_34, Tolls_6, Troje_4, Typhonmarchy_5, VasuNzinga_35, Vine_5, Yarn_3, Yummy_5,

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

- Apricot_2, MortyNRick_2, SheckWes_3, Zareef_7,

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

- BroPlease_7, Button_5, GiKK_7, GreenWeasel_8, Hexbug_5, Jamzy_7, Margaret_7, Nodigi_5, Orla_5, RGL3_1, RanchParmCat_7, SPB78_2, Triumph_8, VWB_2, Yakult_5,

Summary by start number:

Start 8:

- Found in 6 of 101 (5.9%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Apricot_2 (DN3), MortyNRick_2 (DN),

Start 12:

- Found in 11 of 101 (10.9%) of genes in pham
- Manual Annotations of this start: 8 of 82
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Button_5 (CT), GiKK_7 (CT), Hexbug_5 (CT), Jamzy_7 (CT), Margaret_7 (CT), Nodigi_5 (CT), Orla_5 (CT), RanchParmCat_7 (CT), SPB78_2 (BA), Yakult_5 (CT),

Start 13:

- Found in 86 of 101 (85.1%) of genes in pham
- Manual Annotations of this start: 69 of 82
- Called 95.3% of time when present
- Phage (with cluster) where this start called: 8UZL_5 (AB), Agatha_4 (CT), AikoCarson_3 (CT), Amok_3 (CT), AndPeggy_3 (CT), Axym_4 (CT), Azira_6 (CT), BearBQ_2 (DN), Beelzebub_39 (S), BigChungus_3 (CT), BillDoor_6 (CT), Birdsong_2 (DN), Biskit_5 (CT), Blackbeetle_35 (S), Burnsey_4 (CT), Buttrmlkdreams_4 (CT), Caprice_32 (S), Carsonalex_5 (CT), CherryonLim_5 (CT), Clarkson_36 (S), Cleo_4 (CT), Corazon_33 (S), Cornie_2 (F5), Cozz_4 (CT), Crater_2 (DN3), Dre3_4 (CT), Elinal_5 (CT), Elliott_4 (CT), Emalyn_3 (CT), FF47_05 (AB), Feastonyeet_3 (CT), FeliMaine_35 (S), Fribs8_5 (CT), GTE2_02 (CT), Gattaca_34 (S), Gibbous_4 (CT), GoldHunter_5 (CT), HippoPololi_6 (CT), Horseradish_5 (CT), Huphlepuuff_37 (S), JacoRen57_2 (AB), JoieB_36 (S), KayGee_4 (CT), Kuwabara_2 (DN4), Lauer_3 (CT), Lilbit_36 (S), LittleLaf_35 (S), MAnor_4 (CT), MScarn_6 (CT), MaVan_6 (CT), Maco6_3 (AB), Marvin_33 (S), Mayweather_5 (CT), MosMoris_33 (S), Muddy_5 (AB), MunkgeeRoachy_4 (CT), Nibbles_6 (CT), Nina_4 (CT), NoShow_2 (AB), Poise_35 (S), Pons_4 (CT), PotPie_4 (CT), Pringar_35 (S), PsychoKiller_4 (CT), Quasar_4 (CT), Raela_35 (S), RedBaron_5 (CT), RedRaider77_35 (S), SketchMex_3 (CT), Sopespian_4 (CT), SteamedHams_6 (CT), SummitAcademy_3 (CT), Survivors_6 (CT), SweatNTears_6 (CT), Tesla_34 (S), Tolls_6 (CT), Troje_4 (CT), Typhonmarchy_5 (CT), VasuNzinga_35 (S), Vine_5 (CT), Yarn_3 (CT), Yummy_5 (CT),

Start 15:

- Found in 10 of 101 (9.9%) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Zareef_7 (CT),

Start 17:

- Found in 61 of 101 (60.4%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 1.6% of time when present
- Phage (with cluster) where this start called: SheckWes_3 (CT),

Start 18:

- Found in 18 of 101 (17.8%) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: VWB_2 (BA),

Start 38:

- Found in 19 of 101 (18.8%) of genes in pham
- Manual Annotations of this start: 2 of 82
- Called 10.5% of time when present
- Phage (with cluster) where this start called: BroPlease_7 (BD4), Triumph_8 (BD2),

Start 43:

- Found in 39 of 101 (38.6%) of genes in pham
- No Manual Annotations of this start.
- Called 2.6% of time when present
- Phage (with cluster) where this start called: RGL3_1 (CA),

Start 79:

- Found in 11 of 101 (10.9%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 9.1% of time when present
- Phage (with cluster) where this start called: GreenWeasel_8 (BD4),

Summary by clusters:

There are 11 clusters represented in this pham: DN, AB, F5, DN4, CA, BA, BD4, S, DN3, BD2, CT,

Info for manual annotations of cluster AB:

- Start number 13 was manually annotated 4 times for cluster AB.

Info for manual annotations of cluster BD2:

- Start number 38 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD4:

- Start number 38 was manually annotated 1 time for cluster BD4.
- Start number 79 was manually annotated 1 time for cluster BD4.

Info for manual annotations of cluster CT:

- Start number 12 was manually annotated 8 times for cluster CT.
- Start number 13 was manually annotated 44 times for cluster CT.
- Start number 17 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster DN:

- Start number 13 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN3:

- Start number 8 was manually annotated 1 time for cluster DN3.
- Start number 13 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 13 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster F5:

- Start number 13 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster S:

- Start number 13 was manually annotated 16 times for cluster S.

Gene Information:

Gene: 8UZL_5 Start: 1795, Stop: 3459, Start Num: 13

Candidate Starts for 8UZL_5:

(Start: 13 @1795 has 69 MA's), (16, 1834), (18, 1858), (33, 1987), (49, 2119), (51, 2134), (54, 2149), (60, 2194), (66, 2242), (71, 2278), (76, 2335), (78, 2359), (81, 2395), (98, 2593), (99, 2608), (101, 2647), (117, 2794), (136, 2914), (156, 3019), (169, 3127), (172, 3157), (177, 3184), (180, 3196), (187, 3232), (188, 3235), (199, 3328), (204, 3385),

Gene: Agatha_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Agatha_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (158, 2358), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: AikoCarson_3 Start: 805, Stop: 2487, Start Num: 13

Candidate Starts for AikoCarson_3:

(Start: 13 @805 has 69 MA's), (Start: 17 @856 has 1 MA's), (19, 877), (20, 880), (33, 1003), (37, 1042), (Start: 38 @1048 has 2 MA's), (42, 1069), (54, 1165), (58, 1201), (60, 1210), (66, 1261), (69, 1279), (77, 1360), (78, 1381), (80, 1414), (84, 1450), (97, 1594), (99, 1630), (101, 1669), (103, 1702), (111, 1750), (114, 1783), (116, 1807), (121, 1840), (135, 1930), (136, 1933), (137, 1939), (152, 2023), (153, 2029), (160, 2068), (165, 2110), (196, 2329), (205, 2410), (215, 2473), (216, 2476),

Gene: Amok_3 Start: 806, Stop: 2488, Start Num: 13

Candidate Starts for Amok_3:

(Start: 13 @806 has 69 MA's), (Start: 17 @857 has 1 MA's), (19, 878), (20, 881), (Start: 38 @1049 has 2 MA's), (43, 1079), (51, 1151), (54, 1166), (58, 1202), (60, 1211), (61, 1214), (66, 1262), (73, 1331),

(77, 1361), (78, 1382), (81, 1418), (84, 1451), (95, 1556), (97, 1595), (99, 1631), (101, 1670), (103, 1703), (111, 1751), (114, 1784), (116, 1808), (121, 1841), (137, 1940), (138, 1946), (152, 2024), (160, 2069), (165, 2111), (177, 2207), (196, 2330), (205, 2411), (215, 2474), (216, 2477),

Gene: AndPeggy_3 Start: 1120, Stop: 2799, Start Num: 13

Candidate Starts for AndPeggy_3:

(Start: 13 @1120 has 69 MA's), (Start: 17 @1171 has 1 MA's), (19, 1192), (20, 1195), (25, 1237), (31, 1303), (Start: 38 @1363 has 2 MA's), (42, 1384), (43, 1393), (54, 1480), (58, 1516), (60, 1525), (66, 1576), (77, 1675), (78, 1696), (80, 1729), (84, 1765), (97, 1909), (99, 1945), (101, 1984), (117, 2131), (121, 2155), (137, 2254), (152, 2338), (165, 2425), (177, 2521), (187, 2569), (190, 2593), (196, 2644), (205, 2725), (215, 2785), (216, 2788),

Gene: Apricot_2 Start: 453, Stop: 2147, Start Num: 8

Candidate Starts for Apricot_2:

(1, 324), (2, 357), (3, 360), (5, 378), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (31, 666), (42, 747), (43, 756), (44, 759), (46, 792), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (65, 924), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (96, 1227), (97, 1263), (99, 1299), (101, 1338), (102, 1341), (103, 1371), (120, 1503), (121, 1509), (132, 1572), (135, 1599), (141, 1626), (142, 1629), (146, 1644), (153, 1701), (160, 1740), (169, 1821), (172, 1851), (185, 1914), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (207, 2088), (209, 2100), (216, 2136),

Gene: Axym_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Axym_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (158, 2358), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: Azira_6 Start: 1989, Stop: 3689, Start Num: 13

Candidate Starts for Azira_6:

(Start: 13 @1989 has 69 MA's), (15, 2019), (19, 2061), (33, 2199), (39, 2247), (44, 2277), (46, 2310), (54, 2361), (55, 2376), (60, 2406), (66, 2457), (77, 2556), (78, 2577), (84, 2646), (87, 2688), (89, 2718), (101, 2865), (106, 2916), (114, 2979), (116, 3003), (128, 3069), (132, 3102), (134, 3126), (135, 3129), (137, 3138), (142, 3159), (148, 3186), (153, 3231), (156, 3243), (157, 3249), (160, 3270), (164, 3309), (177, 3408), (185, 3444), (196, 3531), (205, 3612), (207, 3618), (215, 3675), (216, 3678),

Gene: BearBQ_2 Start: 486, Stop: 2147, Start Num: 13

Candidate Starts for BearBQ_2:

(1, 324), (2, 357), (3, 360), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (24, 597), (31, 666), (33, 681), (37, 720), (42, 747), (43, 756), (44, 759), (46, 792), (50, 825), (51, 828), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (96, 1227), (97, 1263), (99, 1299), (102, 1341), (107, 1395), (111, 1419), (113, 1443), (120, 1503), (121, 1509), (132, 1572), (141, 1626), (146, 1644), (153, 1701), (156, 1713), (160, 1740), (169, 1821), (172, 1851), (180, 1890), (185, 1914), (190, 1950), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (209, 2100), (213, 2121), (216, 2136),

Gene: Beelzebub_39 Start: 11419, Stop: 13161, Start Num: 13

Candidate Starts for Beelzebub_39:

(Start: 13 @11419 has 69 MA's), (24, 11536), (28, 11581), (32, 11647), (34, 11662), (36, 11695), (37, 11698), (40, 11713), (44, 11737), (45, 11740), (46, 11770), (49, 11791), (51, 11809), (53, 11818), (57,

11854), (60, 11869), (66, 11914), (72, 11956), (74, 11995), (77, 12007), (78, 12028), (82, 12079), (85, 12100), (101, 12322), (116, 12427), (117, 12436), (123, 12469), (129, 12490), (130, 12493), (132, 12520), (136, 12550), (138, 12562), (142, 12577), (145, 12586), (146, 12592), (149, 12634), (151, 12643), (154, 12658), (158, 12673), (165, 12733), (168, 12772), (171, 12805), (177, 12835), (178, 12838), (186, 12922), (192, 12976), (194, 12991), (197, 13018), (202, 13072), (214, 13144), (215, 13147),

Gene: BigChungus_3 Start: 928, Stop: 2604, Start Num: 13

Candidate Starts for BigChungus_3:

(Start: 13 @928 has 69 MA's), (Start: 17 @979 has 1 MA's), (19, 1000), (25, 1045), (28, 1087), (33, 1123), (42, 1189), (54, 1285), (58, 1321), (60, 1330), (61, 1333), (66, 1381), (68, 1393), (77, 1480), (92, 1660), (97, 1714), (113, 1894), (116, 1927), (129, 1993), (137, 2059), (138, 2065), (153, 2149), (165, 2230), (168, 2263), (179, 2332), (192, 2410), (197, 2452), (203, 2509), (205, 2530), (207, 2536), (215, 2590), (216, 2593),

Gene: BillDoor_6 Start: 1115, Stop: 2794, Start Num: 13

Candidate Starts for BillDoor_6:

(Start: 13 @1115 has 69 MA's), (Start: 17 @1166 has 1 MA's), (19, 1187), (20, 1190), (25, 1232), (31, 1298), (Start: 38 @1358 has 2 MA's), (42, 1379), (43, 1388), (54, 1475), (58, 1511), (60, 1520), (66, 1571), (77, 1670), (80, 1724), (84, 1760), (97, 1904), (99, 1940), (101, 1979), (117, 2126), (121, 2150), (137, 2249), (152, 2333), (165, 2420), (177, 2516), (187, 2564), (190, 2588), (196, 2639), (205, 2720), (215, 2780), (216, 2783),

Gene: Birdsong_2 Start: 486, Stop: 2147, Start Num: 13

Candidate Starts for Birdsong_2:

(1, 324), (2, 357), (3, 360), (5, 378), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (31, 666), (42, 747), (43, 756), (44, 759), (46, 792), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (65, 924), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (96, 1227), (97, 1263), (99, 1299), (101, 1338), (102, 1341), (103, 1371), (120, 1503), (121, 1509), (132, 1572), (141, 1626), (146, 1644), (153, 1701), (156, 1713), (160, 1740), (169, 1821), (172, 1851), (180, 1890), (185, 1914), (190, 1950), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (209, 2100), (213, 2121), (216, 2136),

Gene: Biskit_5 Start: 1110, Stop: 2789, Start Num: 13

Candidate Starts for Biskit_5:

(Start: 13 @1110 has 69 MA's), (Start: 17 @1161 has 1 MA's), (19, 1182), (23, 1221), (33, 1308), (Start: 38 @1353 has 2 MA's), (42, 1374), (43, 1383), (51, 1455), (58, 1506), (60, 1515), (66, 1566), (77, 1665), (78, 1686), (80, 1719), (84, 1755), (97, 1899), (99, 1935), (101, 1974), (103, 2007), (111, 2055), (116, 2112), (121, 2145), (129, 2178), (137, 2244), (138, 2250), (149, 2316), (152, 2328), (165, 2415), (177, 2511), (187, 2559), (196, 2634), (205, 2715), (215, 2775), (216, 2778),

Gene: Blackbeetle_35 Start: 10438, Stop: 12180, Start Num: 13

Candidate Starts for Blackbeetle_35:

(Start: 13 @10438 has 69 MA's), (24, 10555), (28, 10600), (32, 10666), (34, 10681), (36, 10714), (37, 10717), (40, 10732), (44, 10756), (45, 10759), (46, 10789), (49, 10810), (51, 10828), (53, 10837), (57, 10873), (60, 10888), (66, 10933), (72, 10975), (74, 11014), (77, 11026), (78, 11047), (82, 11098), (85, 11119), (101, 11341), (116, 11446), (117, 11455), (123, 11488), (129, 11509), (130, 11512), (132, 11539), (136, 11569), (138, 11581), (142, 11596), (145, 11605), (146, 11611), (149, 11653), (151, 11662), (154, 11677), (158, 11692), (165, 11752), (168, 11791), (171, 11824), (177, 11854), (178, 11857), (186, 11941), (192, 11995), (194, 12010), (197, 12037), (202, 12091), (214, 12163), (215, 12166),

Gene: BroPlease_7 Start: 2717, Stop: 4060, Start Num: 38

Candidate Starts for BroPlease_7:

(Start: 38 @2717 has 2 MA's), (40, 2726), (42, 2738), (51, 2810), (52, 2816), (54, 2825), (56, 2852), (61, 2873), (72, 2960), (76, 3008), (78, 3032), (Start: 79 @3056 has 1 MA's), (87, 3143), (88, 3155), (96, 3209), (109, 3332), (112, 3368), (130, 3476), (140, 3539), (144, 3551), (150, 3602), (156, 3629), (160, 3656), (169, 3737), (174, 3776), (179, 3803), (182, 3821), (200, 3956), (202, 3977), (212, 4055),

Gene: Burnsey_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Burnsey_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (158, 2358), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: Button_5 Start: 1178, Stop: 2878, Start Num: 12

Candidate Starts for Button_5:

(Start: 12 @1178 has 8 MA's), (Start: 17 @1232 has 1 MA's), (19, 1253), (22, 1280), (30, 1355), (33, 1391), (44, 1469), (54, 1553), (55, 1568), (60, 1598), (66, 1649), (77, 1748), (84, 1838), (92, 1928), (97, 1982), (101, 2057), (114, 2171), (116, 2195), (129, 2261), (135, 2318), (136, 2321), (137, 2327), (138, 2333), (149, 2399), (153, 2417), (165, 2498), (166, 2504), (169, 2537), (177, 2594), (187, 2642), (201, 2771), (202, 2774), (215, 2864), (216, 2867),

Gene: Buttrmlkdreams_4 Start: 1111, Stop: 2790, Start Num: 13

Candidate Starts for Buttrmlkdreams_4:

(Start: 13 @1111 has 69 MA's), (Start: 17 @1162 has 1 MA's), (19, 1183), (23, 1222), (33, 1309), (Start: 38 @1354 has 2 MA's), (42, 1375), (43, 1384), (51, 1456), (58, 1507), (60, 1516), (66, 1567), (77, 1666), (78, 1687), (80, 1720), (84, 1756), (97, 1900), (99, 1936), (101, 1975), (103, 2008), (111, 2056), (116, 2113), (121, 2146), (129, 2179), (137, 2245), (138, 2251), (149, 2317), (152, 2329), (165, 2416), (177, 2512), (187, 2560), (196, 2635), (205, 2716), (215, 2776), (216, 2779),

Gene: Caprice_32 Start: 10508, Stop: 12250, Start Num: 13

Candidate Starts for Caprice_32:

(Start: 13 @10508 has 69 MA's), (24, 10625), (28, 10670), (32, 10736), (34, 10751), (36, 10784), (37, 10787), (40, 10802), (44, 10826), (45, 10829), (46, 10859), (49, 10880), (51, 10898), (53, 10907), (57, 10943), (60, 10958), (66, 11003), (72, 11045), (74, 11084), (77, 11096), (78, 11117), (82, 11168), (85, 11189), (101, 11411), (116, 11516), (117, 11525), (123, 11558), (129, 11579), (130, 11582), (132, 11609), (136, 11639), (138, 11651), (142, 11666), (145, 11675), (146, 11681), (149, 11723), (151, 11732), (154, 11747), (158, 11762), (165, 11822), (168, 11861), (171, 11894), (177, 11924), (178, 11927), (186, 12011), (192, 12065), (194, 12080), (197, 12107), (202, 12161), (214, 12233), (215, 12236),

Gene: Carsonalex_5 Start: 1170, Stop: 2849, Start Num: 13

Candidate Starts for Carsonalex_5:

(Start: 13 @1170 has 69 MA's), (Start: 17 @1221 has 1 MA's), (19, 1242), (25, 1287), (33, 1368), (42, 1434), (43, 1443), (51, 1515), (54, 1530), (58, 1566), (60, 1575), (66, 1626), (77, 1725), (80, 1779), (84, 1815), (97, 1959), (99, 1995), (101, 2034), (103, 2067), (114, 2148), (116, 2172), (121, 2205), (129, 2238), (135, 2295), (137, 2304), (152, 2388), (165, 2475), (177, 2571), (190, 2643), (192, 2655), (205, 2775), (215, 2835), (216, 2838),

Gene: CherryonLim_5 Start: 1648, Stop: 3324, Start Num: 13

Candidate Starts for CherryonLim_5:

(Start: 13 @1648 has 69 MA's), (Start: 17 @1699 has 1 MA's), (19, 1720), (25, 1765), (33, 1843), (42, 1909), (48, 1972), (54, 2005), (58, 2041), (60, 2050), (61, 2053), (64, 2086), (66, 2101), (69, 2119),

(77, 2200), (78, 2221), (81, 2257), (83, 2278), (86, 2314), (92, 2380), (97, 2434), (113, 2614), (116, 2647), (129, 2713), (130, 2716), (137, 2779), (138, 2785), (165, 2950), (168, 2983), (179, 3052), (192, 3130), (193, 3133), (201, 3223), (203, 3229), (205, 3250), (215, 3310), (216, 3313),

Gene: Clarkson_36 Start: 11120, Stop: 12862, Start Num: 13

Candidate Starts for Clarkson_36:

(Start: 13 @11120 has 69 MA's), (24, 11237), (28, 11282), (32, 11348), (34, 11363), (36, 11396), (37, 11399), (40, 11414), (44, 11438), (45, 11441), (46, 11471), (49, 11492), (51, 11510), (53, 11519), (57, 11555), (60, 11570), (66, 11615), (72, 11657), (74, 11696), (77, 11708), (78, 11729), (82, 11780), (85, 11801), (101, 12023), (116, 12128), (117, 12137), (123, 12170), (129, 12191), (130, 12194), (132, 12221), (136, 12251), (138, 12263), (142, 12278), (145, 12287), (146, 12293), (149, 12335), (151, 12344), (154, 12359), (158, 12374), (165, 12434), (168, 12473), (171, 12506), (177, 12536), (178, 12539), (186, 12623), (192, 12677), (194, 12692), (197, 12719), (202, 12773), (214, 12845), (215, 12848),

Gene: Cleo_4 Start: 1285, Stop: 2979, Start Num: 13

Candidate Starts for Cleo_4:

(Start: 13 @1285 has 69 MA's), (15, 1315), (18, 1348), (19, 1357), (33, 1495), (54, 1657), (55, 1672), (60, 1702), (62, 1723), (66, 1753), (73, 1822), (74, 1840), (77, 1852), (78, 1873), (84, 1942), (87, 1984), (101, 2161), (106, 2212), (114, 2275), (116, 2299), (121, 2332), (128, 2365), (137, 2434), (149, 2509), (151, 2518), (153, 2527), (156, 2539), (157, 2545), (160, 2566), (177, 2704), (196, 2827), (205, 2908), (215, 2965), (216, 2968),

Gene: Corazon_33 Start: 11073, Stop: 12815, Start Num: 13

Candidate Starts for Corazon_33:

(Start: 13 @11073 has 69 MA's), (24, 11190), (28, 11235), (32, 11301), (34, 11316), (36, 11349), (37, 11352), (40, 11367), (44, 11391), (45, 11394), (46, 11424), (49, 11445), (51, 11463), (53, 11472), (57, 11508), (60, 11523), (66, 11568), (72, 11610), (74, 11649), (77, 11661), (78, 11682), (82, 11733), (85, 11754), (101, 11976), (116, 12081), (117, 12090), (123, 12123), (129, 12144), (130, 12147), (132, 12174), (136, 12204), (138, 12216), (142, 12231), (145, 12240), (146, 12246), (149, 12288), (151, 12297), (154, 12312), (158, 12327), (165, 12387), (168, 12426), (171, 12459), (177, 12489), (178, 12492), (186, 12576), (192, 12630), (194, 12645), (197, 12672), (202, 12726), (214, 12798), (215, 12801),

Gene: Cornie_2 Start: 553, Stop: 2274, Start Num: 13

Candidate Starts for Cornie_2:

(Start: 13 @553 has 69 MA's), (Start: 17 @604 has 1 MA's), (18, 616), (20, 628), (21, 643), (24, 664), (29, 718), (31, 733), (33, 748), (34, 751), (37, 787), (39, 796), (43, 823), (44, 826), (50, 892), (52, 901), (54, 910), (58, 946), (59, 949), (60, 955), (61, 958), (62, 970), (67, 1009), (68, 1012), (73, 1063), (78, 1114), (Start: 79 @1138 has 1 MA's), (87, 1225), (93, 1279), (97, 1330), (98, 1351), (99, 1366), (101, 1405), (102, 1408), (103, 1438), (104, 1444), (116, 1543), (126, 1609), (131, 1651), (135, 1687), (145, 1726), (147, 1741), (153, 1828), (155, 1837), (157, 1846), (161, 1870), (167, 1942), (169, 1954), (180, 2023), (181, 2032), (190, 2083), (192, 2095), (193, 2098), (202, 2191), (203, 2194), (204, 2212),

Gene: Cozz_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Cozz_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (158, 2358), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: Crater_2 Start: 486, Stop: 2147, Start Num: 13

Candidate Starts for Crater_2:

(1, 324), (2, 357), (3, 360), (5, 378), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (31, 666), (42, 747), (43, 756), (44, 759), (46, 792), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (65, 924), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (96, 1227), (97, 1263), (99, 1299), (101, 1338), (102, 1341), (103, 1371), (120, 1503), (121, 1509), (132, 1572), (135, 1599), (141, 1626), (142, 1629), (146, 1644), (153, 1701), (160, 1740), (169, 1821), (172, 1851), (185, 1914), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (207, 2088), (209, 2100), (216, 2136),

Gene: Dre3_4 Start: 1229, Stop: 2923, Start Num: 13

Candidate Starts for Dre3_4:

(Start: 13 @1229 has 69 MA's), (15, 1259), (18, 1292), (19, 1301), (33, 1439), (54, 1601), (55, 1616), (60, 1646), (62, 1667), (66, 1697), (73, 1766), (74, 1784), (77, 1796), (78, 1817), (84, 1886), (87, 1928), (101, 2105), (106, 2156), (114, 2219), (116, 2243), (121, 2276), (128, 2309), (137, 2378), (149, 2453), (151, 2462), (153, 2471), (156, 2483), (157, 2489), (160, 2510), (177, 2648), (196, 2771), (205, 2852), (215, 2909), (216, 2912),

Gene: Elinal_5 Start: 906, Stop: 2582, Start Num: 13

Candidate Starts for Elinal_5:

(Start: 13 @906 has 69 MA's), (Start: 17 @957 has 1 MA's), (19, 978), (25, 1023), (28, 1065), (33, 1101), (42, 1167), (54, 1263), (58, 1299), (60, 1308), (61, 1311), (66, 1359), (68, 1371), (77, 1458), (92, 1638), (97, 1692), (113, 1872), (116, 1905), (129, 1971), (137, 2037), (138, 2043), (153, 2127), (165, 2208), (168, 2241), (179, 2310), (192, 2388), (203, 2487), (205, 2508), (207, 2514), (215, 2568), (216, 2571),

Gene: Elliott_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Elliott_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (23, 1224), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: Emalyn_3 Start: 805, Stop: 2487, Start Num: 13

Candidate Starts for Emalyn_3:

(Start: 13 @805 has 69 MA's), (Start: 17 @856 has 1 MA's), (19, 877), (20, 880), (33, 1003), (Start: 38 @1048 has 2 MA's), (43, 1078), (51, 1150), (54, 1165), (58, 1201), (60, 1210), (61, 1213), (66, 1261), (73, 1330), (77, 1360), (78, 1381), (81, 1417), (84, 1450), (95, 1555), (97, 1594), (99, 1630), (101, 1669), (103, 1702), (111, 1750), (114, 1783), (116, 1807), (121, 1840), (137, 1939), (138, 1945), (152, 2023), (160, 2068), (165, 2110), (177, 2206), (187, 2254), (196, 2329), (205, 2410), (215, 2473), (216, 2476),

Gene: FF47_05 Start: 1775, Stop: 3439, Start Num: 13

Candidate Starts for FF47_05:

(Start: 13 @1775 has 69 MA's), (16, 1814), (18, 1838), (33, 1967), (49, 2099), (51, 2114), (54, 2129), (60, 2174), (66, 2222), (71, 2258), (76, 2315), (78, 2339), (81, 2375), (98, 2573), (99, 2588), (101, 2627), (117, 2774), (136, 2894), (156, 2999), (169, 3107), (172, 3137), (177, 3164), (180, 3176), (187, 3212), (188, 3215), (199, 3308), (204, 3365),

Gene: Feastonyeet_3 Start: 928, Stop: 2604, Start Num: 13

Candidate Starts for Feastonyeet_3:

(Start: 13 @928 has 69 MA's), (Start: 17 @979 has 1 MA's), (19, 1000), (25, 1045), (28, 1087), (33, 1123), (42, 1189), (54, 1285), (58, 1321), (60, 1330), (61, 1333), (66, 1381), (68, 1393), (77, 1480),

(92, 1660), (97, 1714), (113, 1894), (116, 1927), (129, 1993), (137, 2059), (138, 2065), (153, 2149), (165, 2230), (168, 2263), (179, 2332), (192, 2410), (197, 2452), (203, 2509), (205, 2530), (207, 2536), (215, 2590), (216, 2593),

Gene: FeliMaine_35 Start: 11121, Stop: 12863, Start Num: 13

Candidate Starts for FeliMaine_35:

(Start: 13 @11121 has 69 MA's), (24, 11238), (28, 11283), (32, 11349), (34, 11364), (36, 11397), (37, 11400), (40, 11415), (44, 11439), (45, 11442), (46, 11472), (49, 11493), (51, 11511), (53, 11520), (57, 11556), (60, 11571), (66, 11616), (72, 11658), (74, 11697), (77, 11709), (78, 11730), (82, 11781), (85, 11802), (101, 12024), (116, 12129), (117, 12138), (123, 12171), (129, 12192), (130, 12195), (132, 12222), (136, 12252), (138, 12264), (142, 12279), (145, 12288), (146, 12294), (149, 12336), (151, 12345), (154, 12360), (158, 12375), (165, 12435), (168, 12474), (171, 12507), (177, 12537), (178, 12540), (186, 12624), (192, 12678), (194, 12693), (197, 12720), (202, 12774), (214, 12846), (215, 12849),

Gene: Fribs8_5 Start: 1777, Stop: 3477, Start Num: 13

Candidate Starts for Fribs8_5:

(Start: 13 @1777 has 69 MA's), (15, 1807), (19, 1849), (33, 1987), (39, 2035), (44, 2065), (46, 2098), (51, 2134), (54, 2149), (55, 2164), (60, 2194), (66, 2245), (77, 2344), (78, 2365), (84, 2434), (87, 2476), (89, 2506), (101, 2653), (106, 2704), (114, 2767), (116, 2791), (128, 2857), (132, 2890), (134, 2914), (135, 2917), (137, 2926), (142, 2947), (148, 2974), (153, 3019), (156, 3031), (157, 3037), (160, 3058), (164, 3097), (177, 3196), (185, 3232), (196, 3319), (205, 3400), (207, 3406), (215, 3463), (216, 3466),

Gene: GTE2_02 Start: 803, Stop: 2482, Start Num: 13

Candidate Starts for GTE2_02:

(Start: 13 @803 has 69 MA's), (Start: 17 @854 has 1 MA's), (19, 875), (25, 920), (Start: 38 @1046 has 2 MA's), (40, 1055), (42, 1067), (43, 1076), (54, 1163), (58, 1199), (60, 1208), (66, 1259), (77, 1358), (80, 1412), (84, 1448), (97, 1592), (99, 1628), (101, 1667), (103, 1700), (117, 1814), (121, 1838), (137, 1937), (152, 2021), (165, 2108), (177, 2204), (187, 2252), (190, 2276), (196, 2327), (205, 2408), (215, 2468), (216, 2471),

Gene: Gattaca_34 Start: 10300, Stop: 12042, Start Num: 13

Candidate Starts for Gattaca_34:

(Start: 13 @10300 has 69 MA's), (24, 10417), (28, 10462), (32, 10528), (34, 10543), (36, 10576), (37, 10579), (40, 10594), (44, 10618), (45, 10621), (46, 10651), (49, 10672), (51, 10690), (53, 10699), (57, 10735), (60, 10750), (66, 10795), (72, 10837), (74, 10876), (77, 10888), (78, 10909), (82, 10960), (85, 10981), (101, 11203), (116, 11308), (117, 11317), (123, 11350), (129, 11371), (130, 11374), (132, 11401), (136, 11431), (138, 11443), (142, 11458), (145, 11467), (146, 11473), (149, 11515), (151, 11524), (154, 11539), (158, 11554), (165, 11614), (168, 11653), (171, 11686), (177, 11716), (178, 11719), (186, 11803), (192, 11857), (194, 11872), (197, 11899), (202, 11953), (214, 12025), (215, 12028),

Gene: GiKK_7 Start: 1487, Stop: 3187, Start Num: 12

Candidate Starts for GiKK_7:

(Start: 12 @1487 has 8 MA's), (Start: 17 @1541 has 1 MA's), (19, 1562), (22, 1589), (30, 1664), (33, 1700), (44, 1778), (52, 1853), (55, 1877), (60, 1907), (66, 1958), (77, 2057), (84, 2147), (92, 2237), (97, 2291), (101, 2366), (114, 2480), (116, 2504), (127, 2564), (129, 2570), (137, 2636), (138, 2642), (153, 2726), (158, 2747), (165, 2807), (166, 2813), (169, 2846), (189, 2969), (193, 2990), (201, 3080), (202, 3083), (207, 3113), (215, 3173), (216, 3176),

Gene: Gibbous_4 Start: 1229, Stop: 2923, Start Num: 13

Candidate Starts for Gibbous_4:

(Start: 13 @1229 has 69 MA's), (15, 1259), (18, 1292), (19, 1301), (33, 1439), (54, 1601), (55, 1616), (60, 1646), (62, 1667), (66, 1697), (73, 1766), (74, 1784), (77, 1796), (78, 1817), (84, 1886), (87, 1928), (101, 2105), (106, 2156), (114, 2219), (116, 2243), (121, 2276), (128, 2309), (137, 2378), (149, 2453), (151, 2462), (153, 2471), (156, 2483), (157, 2489), (160, 2510), (177, 2648), (196, 2771), (205, 2852), (215, 2909), (216, 2912),

Gene: GoldHunter_5 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for GoldHunter_5:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: GreenWeasel_8 Start: 3065, Stop: 4069, Start Num: 79

Candidate Starts for GreenWeasel_8:

(76, 3017), (78, 3041), (Start: 79 @3065 has 1 MA's), (87, 3152), (88, 3164), (96, 3218), (97, 3254), (100, 3278), (109, 3341), (112, 3377), (130, 3485), (138, 3539), (140, 3548), (144, 3560), (150, 3611), (156, 3638), (169, 3746), (174, 3785), (179, 3812), (182, 3830), (190, 3878), (200, 3965), (202, 3986), (212, 4064),

Gene: Hexbug_5 Start: 1093, Stop: 2790, Start Num: 12

Candidate Starts for Hexbug_5:

(9, 1066), (Start: 12 @1093 has 8 MA's), (Start: 17 @1147 has 1 MA's), (19, 1168), (22, 1195), (33, 1306), (44, 1384), (54, 1468), (58, 1504), (60, 1513), (61, 1516), (66, 1564), (68, 1576), (77, 1663), (84, 1753), (92, 1843), (97, 1897), (116, 2110), (118, 2125), (119, 2134), (129, 2176), (137, 2242), (138, 2248), (148, 2290), (151, 2323), (153, 2332), (169, 2452), (177, 2509), (181, 2530), (187, 2557), (195, 2617), (201, 2686), (202, 2689), (210, 2734), (215, 2776), (216, 2779),

Gene: HippoPololi_6 Start: 1863, Stop: 3563, Start Num: 13

Candidate Starts for HippoPololi_6:

(Start: 13 @1863 has 69 MA's), (15, 1893), (19, 1935), (33, 2073), (39, 2121), (44, 2151), (46, 2184), (54, 2235), (55, 2250), (60, 2280), (62, 2301), (66, 2331), (77, 2430), (78, 2451), (84, 2520), (87, 2562), (101, 2739), (106, 2790), (114, 2853), (116, 2877), (128, 2943), (134, 3000), (135, 3003), (137, 3012), (151, 3096), (153, 3105), (156, 3117), (157, 3123), (160, 3144), (164, 3183), (177, 3282), (185, 3318), (196, 3405), (202, 3462), (203, 3465), (205, 3486), (215, 3549), (216, 3552),

Gene: Horseradish_5 Start: 1017, Stop: 2696, Start Num: 13

Candidate Starts for Horseradish_5:

(Start: 13 @1017 has 69 MA's), (Start: 17 @1068 has 1 MA's), (19, 1089), (23, 1128), (33, 1215), (Start: 38 @1260 has 2 MA's), (42, 1281), (43, 1290), (51, 1362), (58, 1413), (60, 1422), (66, 1473), (77, 1572), (78, 1593), (80, 1626), (84, 1662), (97, 1806), (99, 1842), (101, 1881), (103, 1914), (111, 1962), (116, 2019), (121, 2052), (129, 2085), (137, 2151), (138, 2157), (149, 2223), (152, 2235), (153, 2241), (165, 2322), (177, 2418), (187, 2466), (196, 2541), (205, 2622), (215, 2682), (216, 2685),

Gene: Huphlebuff_37 Start: 10925, Stop: 12667, Start Num: 13

Candidate Starts for Huphlebuff_37:

(Start: 13 @10925 has 69 MA's), (24, 11042), (28, 11087), (32, 11153), (34, 11168), (36, 11201), (37, 11204), (40, 11219), (44, 11243), (45, 11246), (46, 11276), (49, 11297), (51, 11315), (53, 11324), (57, 11360), (60, 11375), (66, 11420), (72, 11462), (74, 11501), (77, 11513), (78, 11534), (82, 11585), (85, 11606), (101, 11828), (116, 11933), (117, 11942), (123, 11975), (129, 11996), (130, 11999), (132, 12026), (136, 12056), (138, 12068), (142, 12083), (145, 12092), (146, 12098), (149, 12140), (151, 12149), (154, 12164), (158, 12179), (165, 12239), (168, 12278), (171, 12311), (177, 12341), (178,

12344), (186, 12428), (192, 12482), (194, 12497), (197, 12524), (202, 12578), (214, 12650), (215, 12653),

Gene: JacoRen57_2 Start: 669, Stop: 2324, Start Num: 13

Candidate Starts for JacoRen57_2:

(Start: 13 @669 has 69 MA's), (18, 732), (20, 744), (33, 861), (41, 918), (58, 1059), (60, 1068), (66, 1116), (81, 1269), (138, 1797), (156, 1890), (169, 1998), (176, 2052), (177, 2055), (178, 2058), (187, 2103), (199, 2199), (203, 2238),

Gene: Jamzy_7 Start: 1492, Stop: 3192, Start Num: 12

Candidate Starts for Jamzy_7:

(Start: 12 @1492 has 8 MA's), (Start: 17 @1546 has 1 MA's), (19, 1567), (22, 1594), (30, 1669), (33, 1705), (44, 1783), (52, 1858), (55, 1882), (60, 1912), (66, 1963), (77, 2062), (84, 2152), (92, 2242), (97, 2296), (101, 2371), (114, 2485), (116, 2509), (118, 2524), (129, 2575), (137, 2641), (138, 2647), (151, 2722), (166, 2818), (169, 2851), (187, 2956), (201, 3085), (202, 3088), (215, 3178), (216, 3181),

Gene: JoieB_36 Start: 11144, Stop: 12886, Start Num: 13

Candidate Starts for JoieB_36:

(Start: 13 @11144 has 69 MA's), (24, 11261), (28, 11306), (32, 11372), (34, 11387), (36, 11420), (37, 11423), (40, 11438), (44, 11462), (45, 11465), (46, 11495), (49, 11516), (51, 11534), (53, 11543), (57, 11579), (60, 11594), (66, 11639), (72, 11681), (74, 11720), (77, 11732), (78, 11753), (82, 11804), (85, 11825), (101, 12047), (116, 12152), (117, 12161), (123, 12194), (129, 12215), (130, 12218), (132, 12245), (136, 12275), (138, 12287), (142, 12302), (145, 12311), (146, 12317), (149, 12359), (151, 12368), (154, 12383), (158, 12398), (165, 12458), (168, 12497), (171, 12530), (177, 12560), (178, 12563), (186, 12647), (192, 12701), (194, 12716), (197, 12743), (202, 12797), (214, 12869), (215, 12872),

Gene: KayGee_4 Start: 906, Stop: 2582, Start Num: 13

Candidate Starts for KayGee_4:

(Start: 13 @906 has 69 MA's), (Start: 17 @957 has 1 MA's), (19, 978), (25, 1023), (28, 1065), (33, 1101), (54, 1263), (58, 1299), (60, 1308), (61, 1311), (66, 1359), (68, 1371), (77, 1458), (92, 1638), (97, 1692), (113, 1872), (116, 1905), (129, 1971), (137, 2037), (138, 2043), (153, 2127), (165, 2208), (168, 2241), (179, 2310), (192, 2388), (203, 2487), (205, 2508), (207, 2514), (215, 2568), (216, 2571),

Gene: Kuwabara_2 Start: 486, Stop: 2147, Start Num: 13

Candidate Starts for Kuwabara_2:

(1, 324), (2, 357), (3, 360), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (31, 666), (33, 681), (37, 720), (42, 747), (43, 756), (44, 759), (46, 792), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (97, 1263), (99, 1299), (102, 1341), (107, 1395), (111, 1419), (113, 1443), (120, 1503), (121, 1509), (132, 1572), (141, 1626), (146, 1644), (153, 1701), (156, 1713), (160, 1740), (169, 1821), (172, 1851), (180, 1890), (185, 1914), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (207, 2088), (209, 2100), (216, 2136),

Gene: Lauer_3 Start: 958, Stop: 2634, Start Num: 13

Candidate Starts for Lauer_3:

(Start: 13 @958 has 69 MA's), (Start: 17 @1009 has 1 MA's), (19, 1030), (25, 1075), (33, 1153), (42, 1219), (54, 1315), (58, 1351), (60, 1360), (61, 1363), (66, 1411), (68, 1423), (77, 1510), (92, 1690), (97, 1744), (113, 1924), (116, 1957), (129, 2023), (137, 2089), (138, 2095), (153, 2179), (165, 2260), (168, 2293), (179, 2362), (192, 2440), (203, 2539), (205, 2560), (207, 2566), (215, 2620), (216, 2623),

Gene: Lilbit_36 Start: 11121, Stop: 12863, Start Num: 13

Candidate Starts for Lilbit_36:

(Start: 13 @11121 has 69 MA's), (24, 11238), (28, 11283), (32, 11349), (34, 11364), (36, 11397), (37, 11400), (40, 11415), (44, 11439), (45, 11442), (46, 11472), (49, 11493), (51, 11511), (53, 11520), (57, 11556), (60, 11571), (66, 11616), (72, 11658), (74, 11697), (77, 11709), (78, 11730), (82, 11781), (85, 11802), (101, 12024), (116, 12129), (117, 12138), (123, 12171), (129, 12192), (130, 12195), (132, 12222), (136, 12252), (138, 12264), (142, 12279), (145, 12288), (146, 12294), (149, 12336), (151, 12345), (154, 12360), (158, 12375), (165, 12435), (168, 12474), (171, 12507), (177, 12537), (178, 12540), (186, 12624), (192, 12678), (194, 12693), (197, 12720), (202, 12774), (214, 12846), (215, 12849),

Gene: LittleLaf_35 Start: 10850, Stop: 12592, Start Num: 13

Candidate Starts for LittleLaf_35:

(Start: 13 @10850 has 69 MA's), (24, 10967), (28, 11012), (32, 11078), (34, 11093), (36, 11126), (37, 11129), (40, 11144), (44, 11168), (45, 11171), (46, 11201), (49, 11222), (51, 11240), (53, 11249), (57, 11285), (60, 11300), (66, 11345), (72, 11387), (74, 11426), (77, 11438), (78, 11459), (82, 11510), (85, 11531), (101, 11753), (116, 11858), (117, 11867), (123, 11900), (129, 11921), (130, 11924), (132, 11951), (136, 11981), (138, 11993), (142, 12008), (145, 12017), (146, 12023), (149, 12065), (151, 12074), (154, 12089), (158, 12104), (165, 12164), (168, 12203), (171, 12236), (177, 12266), (178, 12269), (186, 12353), (192, 12407), (194, 12422), (197, 12449), (202, 12503), (214, 12575), (215, 12578),

Gene: MAnor_4 Start: 897, Stop: 2573, Start Num: 13

Candidate Starts for MAnor_4:

(Start: 13 @897 has 69 MA's), (Start: 17 @948 has 1 MA's), (19, 969), (25, 1014), (42, 1158), (48, 1221), (54, 1254), (58, 1290), (60, 1299), (61, 1302), (64, 1335), (66, 1350), (77, 1449), (78, 1470), (81, 1506), (83, 1527), (86, 1563), (92, 1629), (97, 1683), (113, 1863), (116, 1896), (129, 1962), (137, 2028), (138, 2034), (165, 2199), (168, 2232), (179, 2301), (192, 2379), (193, 2382), (201, 2472), (203, 2478), (205, 2499), (215, 2559), (216, 2562),

Gene: MScarn_6 Start: 1111, Stop: 2790, Start Num: 13

Candidate Starts for MScarn_6:

(Start: 13 @1111 has 69 MA's), (Start: 17 @1162 has 1 MA's), (19, 1183), (23, 1222), (33, 1309), (Start: 38 @1354 has 2 MA's), (42, 1375), (43, 1384), (51, 1456), (58, 1507), (60, 1516), (66, 1567), (77, 1666), (78, 1687), (80, 1720), (84, 1756), (97, 1900), (99, 1936), (101, 1975), (103, 2008), (111, 2056), (116, 2113), (121, 2146), (129, 2179), (137, 2245), (138, 2251), (149, 2317), (152, 2329), (153, 2335), (165, 2416), (177, 2512), (187, 2560), (196, 2635), (205, 2716), (215, 2776), (216, 2779),

Gene: MaVan_6 Start: 1989, Stop: 3689, Start Num: 13

Candidate Starts for MaVan_6:

(Start: 13 @1989 has 69 MA's), (15, 2019), (19, 2061), (33, 2199), (39, 2247), (44, 2277), (46, 2310), (51, 2346), (54, 2361), (55, 2376), (60, 2406), (66, 2457), (77, 2556), (78, 2577), (84, 2646), (87, 2688), (89, 2718), (101, 2865), (106, 2916), (114, 2979), (116, 3003), (128, 3069), (132, 3102), (134, 3126), (135, 3129), (137, 3138), (142, 3159), (148, 3186), (153, 3231), (156, 3243), (157, 3249), (160, 3270), (164, 3309), (177, 3408), (185, 3444), (196, 3531), (205, 3612), (207, 3618), (215, 3675), (216, 3678),

Gene: Maco6_3 Start: 1054, Stop: 2718, Start Num: 13

Candidate Starts for Maco6_3:

(Start: 13 @1054 has 69 MA's), (16, 1093), (18, 1117), (33, 1246), (51, 1393), (54, 1408), (60, 1453), (66, 1501), (71, 1537), (76, 1594), (78, 1618), (81, 1654), (98, 1852), (99, 1867), (101, 1906), (117, 2053), (132, 2143), (136, 2173), (156, 2278), (169, 2386), (172, 2416), (177, 2443), (180, 2455), (187, 2491), (188, 2494), (199, 2587), (204, 2644),

Gene: Margaret_7 Start: 1862, Stop: 3562, Start Num: 12

Candidate Starts for Margaret_7:

(Start: 12 @1862 has 8 MA's), (Start: 17 @1916 has 1 MA's), (19, 1937), (22, 1964), (30, 2039), (33, 2075), (44, 2153), (52, 2228), (54, 2237), (60, 2282), (66, 2333), (77, 2432), (84, 2522), (92, 2612), (97, 2666), (101, 2741), (116, 2879), (127, 2939), (129, 2945), (137, 3011), (138, 3017), (153, 3101), (158, 3122), (165, 3182), (166, 3188), (169, 3221), (187, 3326), (201, 3455), (202, 3458), (210, 3503), (215, 3548), (216, 3551),

Gene: Marvin_33 Start: 11120, Stop: 12862, Start Num: 13

Candidate Starts for Marvin_33:

(Start: 13 @11120 has 69 MA's), (24, 11237), (28, 11282), (32, 11348), (34, 11363), (36, 11396), (37, 11399), (40, 11414), (44, 11438), (45, 11441), (46, 11471), (49, 11492), (51, 11510), (53, 11519), (57, 11555), (60, 11570), (66, 11615), (72, 11657), (74, 11696), (77, 11708), (78, 11729), (82, 11780), (85, 11801), (101, 12023), (116, 12128), (117, 12137), (123, 12170), (129, 12191), (130, 12194), (132, 12221), (136, 12251), (138, 12263), (142, 12278), (145, 12287), (146, 12293), (149, 12335), (151, 12344), (154, 12359), (158, 12374), (165, 12434), (168, 12473), (171, 12506), (177, 12536), (178, 12539), (186, 12623), (192, 12677), (194, 12692), (197, 12719), (202, 12773), (214, 12845), (215, 12848),

Gene: Mayweather_5 Start: 1518, Stop: 3194, Start Num: 13

Candidate Starts for Mayweather_5:

(Start: 13 @1518 has 69 MA's), (Start: 17 @1569 has 1 MA's), (19, 1590), (25, 1635), (28, 1677), (33, 1713), (42, 1779), (48, 1842), (54, 1875), (58, 1911), (60, 1920), (61, 1923), (66, 1971), (77, 2070), (78, 2091), (81, 2127), (83, 2148), (86, 2184), (92, 2250), (97, 2304), (113, 2484), (116, 2517), (129, 2583), (130, 2586), (137, 2649), (138, 2655), (165, 2820), (168, 2853), (179, 2922), (192, 3000), (193, 3003), (201, 3093), (203, 3099), (205, 3120), (215, 3180), (216, 3183),

Gene: MortyNRick_2 Start: 453, Stop: 2147, Start Num: 8

Candidate Starts for MortyNRick_2:

(1, 324), (2, 357), (3, 360), (6, 411), (7, 420), (Start: 8 @453 has 1 MA's), (Start: 13 @486 has 69 MA's), (Start: 17 @537 has 1 MA's), (18, 549), (21, 576), (24, 597), (31, 666), (33, 681), (37, 720), (42, 747), (43, 756), (44, 759), (46, 792), (50, 825), (51, 828), (54, 843), (58, 879), (59, 882), (60, 888), (62, 903), (63, 906), (67, 942), (73, 996), (78, 1047), (Start: 79 @1071 has 1 MA's), (87, 1158), (94, 1218), (96, 1227), (97, 1263), (99, 1299), (102, 1341), (107, 1395), (111, 1419), (113, 1443), (120, 1503), (121, 1509), (132, 1572), (141, 1626), (146, 1644), (153, 1701), (156, 1713), (160, 1740), (169, 1821), (172, 1851), (180, 1890), (185, 1914), (190, 1950), (192, 1962), (193, 1965), (202, 2058), (203, 2061), (204, 2079), (209, 2100), (213, 2121), (216, 2136),

Gene: MosMoris_33 Start: 10300, Stop: 12042, Start Num: 13

Candidate Starts for MosMoris_33:

(Start: 13 @10300 has 69 MA's), (24, 10417), (28, 10462), (32, 10528), (34, 10543), (36, 10576), (37, 10579), (40, 10594), (44, 10618), (45, 10621), (46, 10651), (49, 10672), (51, 10690), (53, 10699), (57, 10735), (60, 10750), (66, 10795), (72, 10837), (74, 10876), (77, 10888), (78, 10909), (82, 10960), (85, 10981), (101, 11203), (116, 11308), (117, 11317), (123, 11350), (129, 11371), (130, 11374), (132, 11401), (136, 11431), (138, 11443), (142, 11458), (145, 11467), (146, 11473), (149, 11515), (151, 11524), (154, 11539), (158, 11554), (165, 11614), (168, 11653), (171, 11686), (177, 11716), (178, 11719), (186, 11803), (192, 11857), (194, 11872), (197, 11899), (202, 11953), (214, 12025), (215, 12028),

Gene: Muddy_5 Start: 2008, Stop: 3672, Start Num: 13

Candidate Starts for Muddy_5:

(Start: 13 @2008 has 69 MA's), (16, 2047), (18, 2071), (33, 2200), (51, 2347), (54, 2362), (60, 2407), (66, 2455), (71, 2491), (76, 2548), (78, 2572), (81, 2608), (95, 2746), (98, 2806), (99, 2821), (101, 2860), (117, 3007), (132, 3097), (136, 3127), (156, 3232), (169, 3340), (172, 3370), (177, 3397), (180,

3409), (187, 3445), (188, 3448), (199, 3541), (204, 3598),

Gene: MunkgeeRoachy_4 Start: 1161, Stop: 2840, Start Num: 13

Candidate Starts for MunkgeeRoachy_4:

(Start: 13 @1161 has 69 MA's), (Start: 17 @1212 has 1 MA's), (19, 1233), (20, 1236), (25, 1278), (33, 1359), (42, 1425), (43, 1434), (51, 1506), (54, 1521), (58, 1557), (60, 1566), (66, 1617), (77, 1716), (81, 1773), (84, 1806), (97, 1950), (99, 1986), (101, 2025), (103, 2058), (111, 2106), (114, 2139), (116, 2163), (121, 2196), (129, 2229), (135, 2286), (137, 2295), (152, 2379), (165, 2466), (177, 2562), (190, 2634), (192, 2646), (205, 2766), (215, 2826), (216, 2829),

Gene: Nibbles_6 Start: 1989, Stop: 3689, Start Num: 13

Candidate Starts for Nibbles_6:

(Start: 13 @1989 has 69 MA's), (15, 2019), (19, 2061), (33, 2199), (39, 2247), (44, 2277), (46, 2310), (51, 2346), (54, 2361), (55, 2376), (60, 2406), (66, 2457), (77, 2556), (78, 2577), (84, 2646), (87, 2688), (89, 2718), (101, 2865), (106, 2916), (114, 2979), (116, 3003), (128, 3069), (132, 3102), (134, 3126), (135, 3129), (137, 3138), (142, 3159), (148, 3186), (153, 3231), (156, 3243), (157, 3249), (160, 3270), (164, 3309), (177, 3408), (185, 3444), (196, 3531), (205, 3612), (207, 3618), (215, 3675), (216, 3678),

Gene: Nina_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Nina_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: NoShow_2 Start: 679, Stop: 2346, Start Num: 13

Candidate Starts for NoShow_2:

(Start: 13 @679 has 69 MA's), (14, 697), (18, 742), (28, 835), (33, 871), (54, 1033), (60, 1078), (62, 1099), (66, 1126), (78, 1243), (81, 1279), (87, 1354), (117, 1678), (124, 1714), (129, 1738), (139, 1813), (152, 1885), (159, 1915), (160, 1930), (163, 1963), (169, 2011), (172, 2041), (177, 2068), (183, 2095), (187, 2116), (199, 2218), (203, 2257),

Gene: Nodigi_5 Start: 1094, Stop: 2791, Start Num: 12

Candidate Starts for Nodigi_5:

(Start: 12 @1094 has 8 MA's), (Start: 17 @1148 has 1 MA's), (19, 1169), (22, 1196), (33, 1307), (44, 1385), (52, 1460), (54, 1469), (60, 1514), (61, 1517), (66, 1565), (68, 1577), (77, 1664), (84, 1754), (92, 1844), (97, 1898), (116, 2111), (118, 2126), (119, 2135), (129, 2177), (137, 2243), (138, 2249), (148, 2291), (151, 2324), (153, 2333), (169, 2453), (177, 2510), (181, 2531), (187, 2558), (195, 2618), (201, 2687), (202, 2690), (210, 2735), (215, 2777), (216, 2780),

Gene: Orla_5 Start: 1093, Stop: 2793, Start Num: 12

Candidate Starts for Orla_5:

(4, 985), (Start: 12 @1093 has 8 MA's), (Start: 17 @1147 has 1 MA's), (19, 1168), (22, 1195), (33, 1306), (44, 1384), (46, 1417), (52, 1459), (54, 1468), (60, 1513), (61, 1516), (66, 1564), (72, 1612), (73, 1633), (77, 1663), (84, 1753), (92, 1843), (97, 1897), (101, 1972), (116, 2110), (118, 2125), (119, 2134), (127, 2170), (129, 2176), (137, 2242), (138, 2248), (152, 2326), (153, 2332), (166, 2419), (169, 2452), (177, 2509), (181, 2530), (187, 2557), (195, 2617), (201, 2686), (202, 2689), (207, 2719), (210, 2734), (215, 2779), (216, 2782),

Gene: Poise_35 Start: 10438, Stop: 12180, Start Num: 13

Candidate Starts for Poise_35:

(Start: 13 @10438 has 69 MA's), (24, 10555), (28, 10600), (32, 10666), (34, 10681), (36, 10714), (37, 10717), (40, 10732), (44, 10756), (45, 10759), (46, 10789), (49, 10810), (51, 10828), (53, 10837), (57, 10873), (60, 10888), (66, 10933), (72, 10975), (74, 11014), (77, 11026), (78, 11047), (82, 11098), (85, 11119), (101, 11341), (116, 11446), (117, 11455), (123, 11488), (129, 11509), (130, 11512), (132, 11539), (136, 11569), (138, 11581), (142, 11596), (145, 11605), (146, 11611), (149, 11653), (151, 11662), (154, 11677), (158, 11692), (165, 11752), (168, 11791), (171, 11824), (177, 11854), (178, 11857), (186, 11941), (192, 11995), (194, 12010), (197, 12037), (202, 12091), (214, 12163), (215, 12166),

Gene: Pons_4 Start: 897, Stop: 2573, Start Num: 13

Candidate Starts for Pons_4:

(Start: 13 @897 has 69 MA's), (Start: 17 @948 has 1 MA's), (19, 969), (25, 1014), (42, 1158), (48, 1221), (54, 1254), (58, 1290), (60, 1299), (61, 1302), (64, 1335), (66, 1350), (77, 1449), (78, 1470), (81, 1506), (83, 1527), (86, 1563), (92, 1629), (97, 1683), (113, 1863), (116, 1896), (129, 1962), (130, 1965), (137, 2028), (138, 2034), (165, 2199), (168, 2232), (179, 2301), (180, 2307), (192, 2379), (193, 2382), (201, 2472), (203, 2478), (205, 2499), (215, 2559), (216, 2562),

Gene: PotPie_4 Start: 1762, Stop: 3438, Start Num: 13

Candidate Starts for PotPie_4:

(Start: 13 @1762 has 69 MA's), (Start: 17 @1813 has 1 MA's), (19, 1834), (25, 1879), (28, 1921), (33, 1957), (42, 2023), (48, 2086), (54, 2119), (58, 2155), (60, 2164), (61, 2167), (66, 2215), (68, 2227), (77, 2314), (92, 2494), (97, 2548), (113, 2728), (116, 2761), (129, 2827), (137, 2893), (138, 2899), (153, 2983), (165, 3064), (168, 3097), (179, 3166), (192, 3244), (203, 3343), (205, 3364), (207, 3370), (215, 3424), (216, 3427),

Gene: Pringar_35 Start: 10750, Stop: 12492, Start Num: 13

Candidate Starts for Pringar_35:

(Start: 13 @10750 has 69 MA's), (24, 10867), (28, 10912), (32, 10978), (34, 10993), (36, 11026), (37, 11029), (40, 11044), (44, 11068), (45, 11071), (46, 11101), (49, 11122), (51, 11140), (53, 11149), (57, 11185), (60, 11200), (66, 11245), (72, 11287), (74, 11326), (77, 11338), (78, 11359), (82, 11410), (85, 11431), (101, 11653), (116, 11758), (117, 11767), (123, 11800), (129, 11821), (130, 11824), (132, 11851), (136, 11881), (138, 11893), (142, 11908), (145, 11917), (146, 11923), (149, 11965), (151, 11974), (154, 11989), (158, 12004), (165, 12064), (168, 12103), (171, 12136), (177, 12166), (178, 12169), (186, 12253), (192, 12307), (194, 12322), (197, 12349), (202, 12403), (214, 12475), (215, 12478),

Gene: PsychoKiller_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for PsychoKiller_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (23, 1224), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: Quasar_4 Start: 1734, Stop: 3413, Start Num: 13

Candidate Starts for Quasar_4:

(Start: 13 @1734 has 69 MA's), (Start: 17 @1785 has 1 MA's), (19, 1806), (25, 1851), (33, 1932), (42, 1998), (43, 2007), (51, 2079), (54, 2094), (58, 2130), (60, 2139), (66, 2190), (77, 2289), (80, 2343), (84, 2379), (97, 2523), (99, 2559), (101, 2598), (103, 2631), (111, 2679), (114, 2712), (116, 2736), (121, 2769), (129, 2802), (135, 2859), (137, 2868), (152, 2952), (165, 3039), (177, 3135), (190, 3207), (192, 3219), (205, 3339), (215, 3399), (216, 3402),

Gene: RGL3_1 Start: 361, Stop: 1710, Start Num: 43

Candidate Starts for RGL3_1:

(10, 19), (11, 28), (33, 286), (35, 298), (43, 361), (62, 502), (70, 562), (75, 619), (76, 622), (Start: 79 @670 has 1 MA's), (90, 799), (108, 997), (110, 1006), (111, 1018), (122, 1111), (136, 1183), (153, 1273), (156, 1285), (160, 1312), (165, 1354), (174, 1429), (182, 1474), (192, 1534), (206, 1666), (211, 1696),

Gene: Raela_35 Start: 10993, Stop: 12735, Start Num: 13

Candidate Starts for Raela_35:

(Start: 13 @10993 has 69 MA's), (24, 11110), (28, 11155), (32, 11221), (34, 11236), (36, 11269), (37, 11272), (40, 11287), (44, 11311), (45, 11314), (46, 11344), (49, 11365), (51, 11383), (53, 11392), (57, 11428), (60, 11443), (66, 11488), (72, 11530), (74, 11569), (77, 11581), (78, 11602), (82, 11653), (85, 11674), (101, 11896), (116, 12001), (117, 12010), (123, 12043), (129, 12064), (130, 12067), (132, 12094), (136, 12124), (138, 12136), (142, 12151), (145, 12160), (146, 12166), (149, 12208), (151, 12217), (154, 12232), (158, 12247), (165, 12307), (168, 12346), (171, 12379), (177, 12409), (178, 12412), (186, 12496), (192, 12550), (194, 12565), (197, 12592), (202, 12646), (214, 12718), (215, 12721),

Gene: RanchParmCat_7 Start: 1862, Stop: 3562, Start Num: 12

Candidate Starts for RanchParmCat_7:

(Start: 12 @1862 has 8 MA's), (Start: 17 @1916 has 1 MA's), (19, 1937), (22, 1964), (30, 2039), (33, 2075), (44, 2153), (54, 2237), (55, 2252), (60, 2282), (66, 2333), (77, 2432), (84, 2522), (92, 2612), (97, 2666), (101, 2741), (116, 2879), (127, 2939), (129, 2945), (137, 3011), (138, 3017), (153, 3101), (158, 3122), (165, 3182), (166, 3188), (169, 3221), (187, 3326), (190, 3350), (201, 3455), (202, 3458), (210, 3503), (215, 3548), (216, 3551),

Gene: RedBaron_5 Start: 1158, Stop: 2837, Start Num: 13

Candidate Starts for RedBaron_5:

(Start: 13 @1158 has 69 MA's), (Start: 17 @1209 has 1 MA's), (19, 1230), (20, 1233), (25, 1275), (33, 1356), (42, 1422), (43, 1431), (51, 1503), (54, 1518), (58, 1554), (60, 1563), (66, 1614), (77, 1713), (80, 1767), (84, 1803), (97, 1947), (99, 1983), (101, 2022), (103, 2055), (111, 2103), (114, 2136), (116, 2160), (121, 2193), (129, 2226), (135, 2283), (137, 2292), (152, 2376), (165, 2463), (177, 2559), (190, 2631), (192, 2643), (205, 2763), (215, 2823), (216, 2826),

Gene: RedRaider77_35 Start: 10894, Stop: 12636, Start Num: 13

Candidate Starts for RedRaider77_35:

(Start: 13 @10894 has 69 MA's), (24, 11011), (28, 11056), (32, 11122), (34, 11137), (36, 11170), (37, 11173), (40, 11188), (44, 11212), (45, 11215), (46, 11245), (49, 11266), (51, 11284), (53, 11293), (57, 11329), (60, 11344), (66, 11389), (72, 11431), (74, 11470), (77, 11482), (78, 11503), (82, 11554), (85, 11575), (101, 11797), (116, 11902), (117, 11911), (123, 11944), (129, 11965), (130, 11968), (132, 11995), (136, 12025), (138, 12037), (142, 12052), (145, 12061), (146, 12067), (149, 12109), (151, 12118), (154, 12133), (158, 12148), (165, 12208), (168, 12247), (171, 12280), (177, 12310), (178, 12313), (186, 12397), (192, 12451), (194, 12466), (197, 12493), (202, 12547), (214, 12619), (215, 12622),

Gene: SPB78_2 Start: 441, Stop: 2099, Start Num: 12

Candidate Starts for SPB78_2:

(Start: 12 @441 has 8 MA's), (Start: 17 @495 has 1 MA's), (18, 507), (24, 555), (26, 570), (27, 582), (33, 639), (37, 678), (47, 756), (51, 786), (57, 831), (60, 846), (62, 864), (81, 1041), (97, 1218), (101, 1293), (113, 1398), (116, 1431), (118, 1446), (129, 1497), (142, 1584), (146, 1599), (150, 1641), (153, 1656), (156, 1668), (162, 1704), (169, 1776), (173, 1812), (175, 1830), (184, 1869), (187, 1884), (191, 1911), (213, 2079),

Gene: SheckWes_3 Start: 948, Stop: 2573, Start Num: 17

Candidate Starts for SheckWes_3:

(Start: 13 @897 has 69 MA's), (Start: 17 @948 has 1 MA's), (19, 969), (25, 1014), (48, 1221), (54, 1254), (58, 1290), (60, 1299), (61, 1302), (64, 1335), (66, 1350), (77, 1449), (78, 1470), (81, 1506), (83, 1527), (86, 1563), (92, 1629), (97, 1683), (113, 1863), (116, 1896), (129, 1962), (137, 2028), (138, 2034), (165, 2199), (168, 2232), (179, 2301), (192, 2379), (193, 2382), (201, 2472), (203, 2478), (205, 2499), (215, 2559), (216, 2562),

Gene: SketchMex_3 Start: 1110, Stop: 2789, Start Num: 13

Candidate Starts for SketchMex_3:

(Start: 13 @1110 has 69 MA's), (Start: 17 @1161 has 1 MA's), (19, 1182), (23, 1221), (33, 1308), (Start: 38 @1353 has 2 MA's), (42, 1374), (43, 1383), (51, 1455), (58, 1506), (60, 1515), (66, 1566), (77, 1665), (78, 1686), (80, 1719), (84, 1755), (97, 1899), (99, 1935), (101, 1974), (103, 2007), (111, 2055), (116, 2112), (121, 2145), (129, 2178), (137, 2244), (138, 2250), (149, 2316), (152, 2328), (165, 2415), (177, 2511), (187, 2559), (196, 2634), (205, 2715), (215, 2775), (216, 2778),

Gene: Sopespian_4 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Sopespian_4:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (23, 1224), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (101, 1977), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: SteamedHams_6 Start: 1120, Stop: 2799, Start Num: 13

Candidate Starts for SteamedHams_6:

(Start: 13 @1120 has 69 MA's), (Start: 17 @1171 has 1 MA's), (19, 1192), (20, 1195), (25, 1237), (31, 1303), (Start: 38 @1363 has 2 MA's), (42, 1384), (43, 1393), (54, 1480), (58, 1516), (60, 1525), (66, 1576), (77, 1675), (78, 1696), (80, 1729), (84, 1765), (97, 1909), (99, 1945), (101, 1984), (117, 2131), (121, 2155), (137, 2254), (152, 2338), (165, 2425), (177, 2521), (187, 2569), (190, 2593), (205, 2725), (215, 2785), (216, 2788),

Gene: SummitAcademy_3 Start: 977, Stop: 2653, Start Num: 13

Candidate Starts for SummitAcademy_3:

(Start: 13 @977 has 69 MA's), (Start: 17 @1028 has 1 MA's), (19, 1049), (25, 1094), (28, 1136), (33, 1172), (42, 1238), (54, 1334), (58, 1370), (60, 1379), (61, 1382), (66, 1430), (68, 1442), (77, 1529), (92, 1709), (97, 1763), (105, 1886), (113, 1943), (116, 1976), (129, 2042), (137, 2108), (138, 2114), (153, 2198), (165, 2279), (168, 2312), (179, 2381), (192, 2459), (193, 2462), (203, 2558), (205, 2579), (207, 2585), (215, 2639), (216, 2642),

Gene: Survivors_6 Start: 1843, Stop: 3543, Start Num: 13

Candidate Starts for Survivors_6:

(Start: 13 @1843 has 69 MA's), (15, 1873), (19, 1915), (33, 2053), (39, 2101), (44, 2131), (46, 2164), (51, 2200), (54, 2215), (55, 2230), (60, 2260), (66, 2311), (77, 2410), (78, 2431), (84, 2500), (87, 2542), (89, 2572), (101, 2719), (106, 2770), (114, 2833), (116, 2857), (128, 2923), (132, 2956), (134, 2980), (135, 2983), (137, 2992), (142, 3013), (148, 3040), (153, 3085), (156, 3097), (157, 3103), (160, 3124), (164, 3163), (177, 3262), (185, 3298), (196, 3385), (205, 3466), (207, 3472), (215, 3529), (216, 3532),

Gene: SweatNTears_6 Start: 1637, Stop: 3316, Start Num: 13

Candidate Starts for SweatNTears_6:

(Start: 13 @1637 has 69 MA's), (Start: 17 @1688 has 1 MA's), (19, 1709), (23, 1748), (33, 1835), (Start: 38 @1880 has 2 MA's), (42, 1901), (43, 1910), (51, 1982), (58, 2033), (60, 2042), (66, 2093), (77, 2192), (84, 2282), (97, 2426), (99, 2462), (101, 2501), (103, 2534), (111, 2582), (116, 2639), (121,

2672), (129, 2705), (137, 2771), (138, 2777), (149, 2843), (152, 2855), (165, 2942), (177, 3038), (187, 3086), (196, 3161), (205, 3242), (215, 3302), (216, 3305),

Gene: Tesla_34 Start: 10743, Stop: 12485, Start Num: 13

Candidate Starts for Tesla_34:

(Start: 13 @10743 has 69 MA's), (24, 10860), (28, 10905), (32, 10971), (34, 10986), (36, 11019), (37, 11022), (40, 11037), (44, 11061), (45, 11064), (46, 11094), (49, 11115), (51, 11133), (53, 11142), (57, 11178), (60, 11193), (66, 11238), (72, 11280), (74, 11319), (77, 11331), (78, 11352), (82, 11403), (85, 11424), (101, 11646), (116, 11751), (117, 11760), (123, 11793), (129, 11814), (130, 11817), (132, 11844), (136, 11874), (138, 11886), (142, 11901), (145, 11910), (146, 11916), (149, 11958), (151, 11967), (154, 11982), (158, 11997), (165, 12057), (168, 12096), (171, 12129), (177, 12159), (178, 12162), (186, 12246), (192, 12300), (194, 12315), (197, 12342), (202, 12396), (214, 12468), (215, 12471),

Gene: Tolls_6 Start: 1121, Stop: 2800, Start Num: 13

Candidate Starts for Tolls_6:

(Start: 13 @1121 has 69 MA's), (Start: 17 @1172 has 1 MA's), (19, 1193), (20, 1196), (25, 1238), (31, 1304), (Start: 38 @1364 has 2 MA's), (42, 1385), (43, 1394), (54, 1481), (58, 1517), (60, 1526), (66, 1577), (77, 1676), (78, 1697), (80, 1730), (84, 1766), (97, 1910), (99, 1946), (101, 1985), (117, 2132), (121, 2156), (137, 2255), (152, 2339), (165, 2426), (177, 2522), (187, 2570), (190, 2594), (196, 2645), (205, 2726), (215, 2786), (216, 2789),

Gene: Triumph_8 Start: 2519, Stop: 3862, Start Num: 38

Candidate Starts for Triumph_8:

(Start: 38 @2519 has 2 MA's), (51, 2612), (54, 2627), (56, 2654), (61, 2675), (78, 2834), (Start: 79 @2858 has 1 MA's), (83, 2891), (87, 2945), (90, 2978), (95, 3008), (96, 3011), (97, 3047), (100, 3071), (109, 3134), (110, 3140), (112, 3170), (115, 3188), (135, 3317), (136, 3320), (138, 3332), (140, 3341), (143, 3350), (156, 3431), (160, 3458), (174, 3578), (177, 3599), (182, 3623), (192, 3683), (202, 3779), (212, 3857),

Gene: Troje_4 Start: 1111, Stop: 2790, Start Num: 13

Candidate Starts for Troje_4:

(Start: 13 @1111 has 69 MA's), (Start: 17 @1162 has 1 MA's), (19, 1183), (23, 1222), (33, 1309), (Start: 38 @1354 has 2 MA's), (42, 1375), (43, 1384), (51, 1456), (58, 1507), (60, 1516), (66, 1567), (77, 1666), (78, 1687), (80, 1720), (84, 1756), (97, 1900), (99, 1936), (101, 1975), (103, 2008), (111, 2056), (116, 2113), (121, 2146), (129, 2179), (137, 2245), (138, 2251), (149, 2317), (152, 2329), (165, 2416), (177, 2512), (187, 2560), (196, 2635), (205, 2716), (215, 2776), (216, 2779),

Gene: Typhonomachy_5 Start: 1113, Stop: 2792, Start Num: 13

Candidate Starts for Typhonomachy_5:

(Start: 13 @1113 has 69 MA's), (Start: 17 @1164 has 1 MA's), (19, 1185), (20, 1188), (25, 1230), (33, 1311), (42, 1377), (43, 1386), (51, 1458), (54, 1473), (58, 1509), (60, 1518), (66, 1569), (77, 1668), (80, 1722), (84, 1758), (97, 1902), (99, 1938), (103, 2010), (111, 2058), (114, 2091), (116, 2115), (121, 2148), (129, 2181), (135, 2238), (137, 2247), (152, 2331), (158, 2358), (165, 2418), (177, 2514), (190, 2586), (192, 2598), (205, 2718), (215, 2778), (216, 2781),

Gene: VWB_2 Start: 559, Stop: 2169, Start Num: 18

Candidate Starts for VWB_2:

(Start: 12 @493 has 8 MA's), (18, 559), (29, 661), (31, 676), (43, 766), (49, 823), (51, 838), (54, 853), (60, 898), (81, 1093), (97, 1270), (101, 1345), (118, 1498), (123, 1525), (125, 1528), (129, 1549), (133, 1588), (146, 1651), (150, 1711), (153, 1726), (161, 1768), (162, 1774), (169, 1846), (170, 1852), (173, 1882), (176, 1903), (191, 1981), (198, 2035), (213, 2149),

Gene: VasuNzinga_35 Start: 10327, Stop: 12069, Start Num: 13

Candidate Starts for VasuNzinga_35:

(Start: 13 @10327 has 69 MA's), (24, 10444), (28, 10489), (32, 10555), (34, 10570), (36, 10603), (37, 10606), (40, 10621), (44, 10645), (45, 10648), (46, 10678), (49, 10699), (51, 10717), (53, 10726), (57, 10762), (60, 10777), (66, 10822), (72, 10864), (74, 10903), (77, 10915), (78, 10936), (82, 10987), (85, 11008), (101, 11230), (116, 11335), (117, 11344), (123, 11377), (129, 11398), (130, 11401), (132, 11428), (136, 11458), (138, 11470), (142, 11485), (145, 11494), (146, 11500), (149, 11542), (151, 11551), (154, 11566), (158, 11581), (165, 11641), (168, 11680), (171, 11713), (177, 11743), (178, 11746), (186, 11830), (192, 11884), (194, 11899), (197, 11926), (202, 11980), (214, 12052), (215, 12055),

Gene: Vine_5 Start: 1901, Stop: 3577, Start Num: 13

Candidate Starts for Vine_5:

(Start: 13 @1901 has 69 MA's), (Start: 17 @1952 has 1 MA's), (19, 1973), (25, 2018), (28, 2060), (33, 2096), (42, 2162), (54, 2258), (58, 2294), (60, 2303), (61, 2306), (66, 2354), (68, 2366), (77, 2453), (81, 2510), (92, 2633), (97, 2687), (113, 2867), (116, 2900), (129, 2966), (137, 3032), (138, 3038), (153, 3122), (165, 3203), (168, 3236), (179, 3305), (192, 3383), (203, 3482), (205, 3503), (207, 3509), (215, 3563), (216, 3566),

Gene: Yakult_5 Start: 1064, Stop: 2764, Start Num: 12

Candidate Starts for Yakult_5:

(Start: 12 @1064 has 8 MA's), (Start: 17 @1118 has 1 MA's), (19, 1139), (22, 1166), (52, 1430), (54, 1439), (55, 1454), (58, 1475), (60, 1484), (66, 1535), (68, 1547), (77, 1634), (84, 1724), (91, 1802), (97, 1868), (99, 1904), (116, 2081), (137, 2213), (161, 2342), (165, 2381), (166, 2387), (202, 2657), (208, 2699), (215, 2750), (216, 2753),

Gene: Yarn_3 Start: 1114, Stop: 2793, Start Num: 13

Candidate Starts for Yarn_3:

(Start: 13 @1114 has 69 MA's), (Start: 17 @1165 has 1 MA's), (19, 1186), (20, 1189), (25, 1231), (31, 1297), (Start: 38 @1357 has 2 MA's), (42, 1378), (43, 1387), (54, 1474), (58, 1510), (60, 1519), (66, 1570), (77, 1669), (78, 1690), (80, 1723), (84, 1759), (97, 1903), (99, 1939), (101, 1978), (117, 2125), (121, 2149), (137, 2248), (152, 2332), (165, 2419), (177, 2515), (187, 2563), (190, 2587), (196, 2638), (205, 2719), (215, 2779), (216, 2782),

Gene: Yummy_5 Start: 1017, Stop: 2696, Start Num: 13

Candidate Starts for Yummy_5:

(Start: 13 @1017 has 69 MA's), (Start: 17 @1068 has 1 MA's), (19, 1089), (23, 1128), (33, 1215), (Start: 38 @1260 has 2 MA's), (42, 1281), (43, 1290), (51, 1362), (58, 1413), (60, 1422), (66, 1473), (77, 1572), (78, 1593), (80, 1626), (84, 1662), (97, 1806), (99, 1842), (101, 1881), (103, 1914), (111, 1962), (116, 2019), (121, 2052), (129, 2085), (137, 2151), (138, 2157), (149, 2223), (152, 2235), (153, 2241), (165, 2322), (177, 2418), (187, 2466), (196, 2541), (205, 2622), (215, 2682), (216, 2685),

Gene: Zareef_7 Start: 2020, Stop: 3690, Start Num: 15

Candidate Starts for Zareef_7:

(Start: 13 @1990 has 69 MA's), (15, 2020), (19, 2062), (33, 2200), (39, 2248), (44, 2278), (46, 2311), (51, 2347), (54, 2362), (55, 2377), (60, 2407), (66, 2458), (77, 2557), (78, 2578), (84, 2647), (87, 2689), (89, 2719), (101, 2866), (106, 2917), (114, 2980), (116, 3004), (128, 3070), (132, 3103), (134, 3127), (135, 3130), (137, 3139), (142, 3160), (148, 3187), (153, 3232), (156, 3244), (157, 3250), (160, 3271), (164, 3310), (177, 3409), (185, 3445), (196, 3532), (205, 3613), (207, 3619), (215, 3676), (216, 3679),