

Zoomed Pham 280483

1: Ohgees_17	23	5	1	11	16	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
2: Bunnybear_16	13	5	1	13	14	19	2	19	30	48	40	135	16	53	59	64	72	16	130	48	90	101	102	105	109	111	112	114	117	124	128	133	134	138	143	145
3: Hyzer_17	2	5	1	12	136	219	30	48	40	135	16	53	57	581	66	73	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145			
4: Antonio_17 + 10	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
5: Bosnia_17 + 4	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
6: Hugley_17 + 1	1	5	1	1	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	95	101	102	105	111	112	117	124	128	133	134	138	143	145			
7: Madavie_17	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
8: Bialota_17 + 1	13	5	1	13	136	219	30	48	40	135	16	53	59	66	73	16	130	48	90	101	102	105	109	111	112	117	124	128	133	134	138	143	145			
9: WelcomeAyanna_16	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	95	101	102	105	111	112	117	124	128	133	134	138	143	145			
10: Agueyhana_17	13	5	1	1	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
11: Madeline_17	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
12: AlumE_17 + 1	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
13: PantheRoc_17	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
14: BaxterFox_16	13	5	1	13	136	219	30	48	40	135	16	53	581	60	2	16	130	48	90	101	102	105	111	112	117	124	128	133	134	138	143	145				
15: Yeezy_18	1	5	1	13	136	219	30	48	40	135	16	53	580	65	69	73	16	130	48	90	96	102	105	106	108	111	114	117	124	128	133	134	138	140	145	
16: PhriskyACE_17 + 1	13	5	1	13	136	219	30	48	40	135	16	53	59	65	69	73	16	130	48	90	93	102	105	106	108	111	114	117	124	128	133	134	138	140	145	
17: Samman_18 + 2	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
18: Beenie_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
19: Sekhma_18 + 1	13	5	1	9	13	18	219	30	48	42	47	18	30	36	580	65	69	73	16	130	48	90	96	102	105	106	108	111	114	117	124	128	132	138	140	145
20: Clark_18 + 1	13	5	1	13	136	219	30	48	40	135	16	53	59	65	69	73	16	130	48	90	93	102	105	111	114	117	124	128	132	138	140	145				
21: Thimann_18	13	5	1	13	136	219	30	48	40	135	16	53	59	65	69	73	16	130	48	90	93	102	105	111	114	117	124	128	132	138	140	145				
22: DobbysSock_17	13	5	1	13	136	219	30	48	40	135	16	53	59	65	69	73	16	130	48	90	93	102	105	111	114	117	124	128	132	138	140	145				
23: Suerte_16	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
24: Howe_18 + 1	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
25: Mcklov_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
26: Oregon_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
27: Invectra_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
28: Tuti_22	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
29: Adora_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
30: Twinkle_18	13	5	1	13	136	219	30	48	40	135	16	53	59	65	69	73	16	130	48	90	93	102	105	111	114	117	124	128	132	138	140	145				
31: Easley_18	13	5	1	9	13	18	219	30	48	42	47	18	30	36	582	65	68	1	16	130	48	90	96	94	99	102	105	107	110	118	120	124	132	138	140	145
32: Hortense_18	13	5	1	13	136	219	30	48	40	135	16	53	57	59	65	69	73	16	130	48	90	102	105	106	108	114	117	124	128	132	138	140	145			
33: Powerball_17	13	5	1	13	136	219	30	48	40	135	16	53	59	66	72	16	130	48	90	96	94	98	103	105	112	115	117	124	128	132	138	142	145			
34: Sidious_17	13	5	1	13	136	219	30	48	40	135	16	53	59	66	72	16	130	48	90	96	94	98	103	105	112	115	117	124	128	132	138	142	145			

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 280483 Report

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

Pham number 280483 has 58 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Ohgeesy_17
- Track 2 : Bunnybear_16
- Track 3 : Hyzer_17
- Track 4 : Antonio_17, Tayonia_17, Neobush_17, Kita_17, Manasvini_17, Zameen_17, Suscepit_17, Polly_17, Maridalia_16, Eudoria_17, Trumpet_17
- Track 5 : Bosnia_17, Eviarto_17, TimTam_17, BatStarr_17, Nymphadora_17
- Track 6 : Hugley_17, Herod_17
- Track 7 : Madavieve_17
- Track 8 : Bialota_17, Zirinka_17
- Track 9 : WelcomeAyanna_16, ThankyouJordi_16
- Track 10 : Agueybana_17
- Track 11 : Madeline_17
- Track 12 : AlumE_17, BoyNamedSue_17
- Track 13 : PantheRoc_17
- Track 14 : BaxterFox_16
- Track 15 : Yeezy_18
- Track 16 : PhriskyACE_17, Dorito_17
- Track 17 : Samman98_18, WinkNick_18, Dolores_18
- Track 18 : Beenie_18
- Track 19 : Sekhmet_18, MichaelScott_18
- Track 20 : Clark_18, Annalisa_18
- Track 21 : Thimann_18
- Track 22 : DobbysSock_17
- Track 23 : Suerte_16
- Track 24 : Howe_18, Shlim410_18
- Track 25 : Mcklovin_18
- Track 26 : Oregano_18
- Track 27 : Invectra_18
- Track 28 : Tuti_22
- Track 29 : Adora_18
- Track 30 : Twinkle_18
- Track 31 : Easley_18
- Track 32 : Hortense_18
- Track 33 : Powerball_17
- Track 34 : Sidious_17

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

The start number called the most often in the published annotations is 2, it was called in 46 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Agueybana_17, AlumE_17, Annalisa_18, Antonio_17, BatStarr_17, BaxterFox_16, Bialota_17, Bosnia_17, BoyNamedSue_17, Bunnybear_16, Clark_18, DobbysSock_17, Dolores_18, Dorito_17, Easley_18, Eudoria_17, Eviarto_17, Herod_17, Hortense_18, Hugley_17, Hyzer_17, Invectra_18, Kita_17, Madavieve_17, Madeline_17, Manasvini_17, Maridalia_16, Mcklovin_18, MichaelScott_18, Neobush_17, Nymphadora_17, Ohgeesy_17, PantheRoc_17, PhriskyACE_17, Polly_17, Powerball_17, Samman98_18, Sekhmet_18, Sidious_17, Suerte_16, Suscepit_17, Tayonia_17, ThankyouJordi_16, Thimann_18, TimTam_17, Trumpet_17, WelcomeAyanna_16, WinkNick_18, Zameen_17, Zirinka_17,

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

• Adora_18, Beenie_18, Howe_18, Oregano_18, Shlim410_18, Tuti_22, Twinkle_18, Yeezy_18,

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

•

Summary by start number:

Start 1:

• Found in 15 of 58 (25.9%) of genes in pham
• Manual Annotations of this start: 5 of 53
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Adora_18 (CZ4), Howe_18 (CZ4), Oregano_18 (CZ4), Shlim410_18 (CZ4), Twinkle_18 (CZ4),

Start 2:

• Found in 58 of 58 (100.0%) of genes in pham
• Manual Annotations of this start: 46 of 53
• Called 86.2% of time when present
• Phage (with cluster) where this start called: Agueybana_17 (CZ1), AlumE_17 (CZ1), Annalisa_18 (CZ4), Antonio_17 (CZ1), BatStarr_17 (CZ1), BaxterFox_16 (CZ3), Bialota_17 (CZ1), Bosnia_17 (CZ1), BoyNamedSue_17 (CZ1), Bunnybear_16 (CZ), Clark_18 (CZ4), DobbysSock_17 (CZ4), Dolores_18 (CZ4), Dorito_17 (CZ4), Easley_18 (CZ4), Eudoria_17 (CZ1), Eviarto_17 (CZ1), Herod_17 (CZ1), Hortense_18 (CZ4), Hugley_17 (CZ1), Hyzer_17 (CZ1), Invectra_18 (CZ4), Kita_17 (CZ1), Madavieve_17 (CZ1), Madeline_17 (CZ1), Manasvini_17 (CZ1), Maridalia_16 (CZ1), Mcklovin_18 (CZ4), MichaelScott_18 (CZ4), Neobush_17 (CZ1), Nymphadora_17 (CZ1), Ohgeesy_17 (CZ), PantheRoc_17 (CZ3), PhriskyACE_17 (CZ4), Polly_17 (CZ1), Powerball_17 (CZ4), Samman98_18 (CZ4), Sekhmet_18 (CZ4), Sidious_17 (CZ7), Suerte_16 (CZ4), Suscepit_17 (CZ1), Tayonia_17 (CZ1), ThankyouJordi_16 (CZ1), Thimann_18 (CZ4), TimTam_17 (CZ1), Trumpet_17 (CZ1), WelcomeAyanna_16 (CZ1), WinkNick_18 (CZ4), Zameen_17 (CZ1), Zirinka_17 (CZ1),

Start 5:

- Found in 56 of 58 (96.6%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Yeezy_18 (CZ3),

Start 9:

- Found in 12 of 58 (20.7%) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Tuti_22 (CZ4),

Start 13:

- Found in 42 of 58 (72.4%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Beenie_18 (CZ4),

Summary by clusters:

There are 5 clusters represented in this pham: CZ, CZ1, CZ7, CZ4, CZ3,

Info for manual annotations of cluster CZ:

- Start number 2 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 2 was manually annotated 25 times for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 2 was manually annotated 2 times for cluster CZ3.
- Start number 5 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 1 was manually annotated 5 times for cluster CZ4.
- Start number 2 was manually annotated 16 times for cluster CZ4.
- Start number 13 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ7:

- Start number 2 was manually annotated 1 time for cluster CZ7.

Gene Information:

Gene: Adora_18 Start: 10473, Stop: 17021, Start Num: 1

Candidate Starts for Adora_18:

(Start: 1 @10473 has 5 MA's), (Start: 2 @10485 has 46 MA's), (4, 10524), (Start: 5 @10581 has 1 MA's), (7, 10623), (9, 10683), (11, 10743), (Start: 13 @10761 has 1 MA's), (18, 10887), (23, 10926), (25, 10947), (26, 10956), (28, 10968), (29, 10980), (30, 11025), (32, 11052), (38, 11127), (41, 11190), (42, 11211), (47, 11304), (48, 11340), (50, 11376), (51, 11394), (52, 11403), (55, 11436), (56, 11469), (59, 11538), (61, 11568), (62, 11583), (65, 11640), (67, 11691), (68, 11706), (71, 11739), (74, 11844), (75, 11853), (76, 11874), (77, 11910), (78, 11916), (81, 11958), (85, 12000), (88, 12060), (91, 12207), (92, 12246), (94, 12273), (99, 12366), (102, 12504), (103, 12510), (104, 12546), (105, 12558), (107, 12630), (110, 12729), (118, 13023), (120, 13065), (123, 13098), (124, 13104), (130, 13188), (132,

13215), (138, 13302), (140, 13347), (141, 13353), (145, 13509), (147, 13539), (148, 13542), (149, 13557), (151, 13581), (153, 13659), (154, 13689), (155, 13698), (158, 13746), (159, 13773), (161, 13836), (163, 13905), (167, 13953), (170, 13971), (172, 13998), (173, 14004), (174, 14049), (175, 14061), (176, 14070), (178, 14106), (181, 14205), (182, 14250), (183, 14262), (184, 14289), (185, 14325), (187, 14355), (189, 14415), (191, 14457), (192, 14466), (193, 14475), (195, 14502), (196, 14535), (198, 14601), (199, 14613), (202, 14691), (204, 14724), (224, 14886), (225, 14895), (227, 14919), (228, 14925), (231, 14964), (233, 15021), (235, 15048), (237, 15069), (238, 15081), (239, 15093), (241, 15129), (242, 15159), (243, 15177), (244, 15237), (247, 15282), (248, 15291), (256, 15411), (259, 15465), (260, 15531), (264, 15627), (266, 15681), (267, 15690), (270, 15717), (274, 15756), (275, 15768), (276, 15804), (280, 15930), (283, 16005), (293, 16227), (294, 16236), (297, 16314), (301, 16494), (308, 16584), (310, 16698), (312, 16755), (313, 16764), (314, 16785), (317, 16821), (321, 16956), (322, 16962), (323, 17004), (324, 17010), (325, 17016),

Gene: Agueybana_17 Start: 10513, Stop: 16953, Start Num: 2

Candidate Starts for Agueybana_17:

(Start: 2 @10513 has 46 MA's), (Start: 5 @10609 has 1 MA's), (7, 10651), (11, 10771), (12, 10777), (15, 10861), (16, 10873), (27, 11029), (29, 11050), (30, 11095), (35, 11155), (36, 11161), (40, 11254), (43, 11299), (45, 11326), (46, 11359), (53, 11482), (54, 11485), (59, 11605), (61, 11635), (68, 11764), (70, 11785), (72, 11797), (73, 11815), (76, 11860), (79, 11902), (80, 11911), (82, 11923), (83, 11944), (84, 11950), (85, 11953), (86, 11977), (87, 11986), (90, 12157), (95, 12208), (101, 12373), (103, 12415), (104, 12451), (105, 12463), (111, 12769), (113, 12832), (114, 12850), (117, 12925), (124, 13009), (128, 13066), (131, 13108), (132, 13120), (134, 13153), (138, 13207), (143, 13318), (145, 13414), (147, 13444), (148, 13447), (149, 13462), (151, 13486), (154, 13597), (155, 13606), (159, 13681), (161, 13744), (162, 13798), (163, 13813), (166, 13855), (170, 13879), (173, 13912), (174, 13957), (178, 14014), (180, 14089), (181, 14113), (182, 14158), (184, 14197), (186, 14236), (187, 14263), (189, 14323), (192, 14374), (195, 14410), (196, 14443), (197, 14467), (198, 14509), (199, 14521), (201, 14545), (202, 14599), (204, 14632), (223, 14782), (224, 14794), (225, 14803), (227, 14827), (228, 14833), (229, 14863), (231, 14875), (233, 14932), (234, 14944), (235, 14959), (236, 14968), (237, 14980), (238, 14992), (239, 15004), (241, 15040), (242, 15073), (243, 15091), (244, 15151), (247, 15196), (256, 15325), (259, 15379), (260, 15445), (261, 15454), (263, 15511), (265, 15547), (267, 15601), (272, 15646), (278, 15778), (280, 15847), (294, 16168), (295, 16189), (297, 16246), (298, 16261), (299, 16336), (301, 16426), (303, 16444), (304, 16459), (305, 16471), (306, 16483), (308, 16516), (309, 16540), (310, 16630), (312, 16687), (313, 16696), (314, 16717), (318, 16810), (320, 16882), (322, 16894), (323, 16936), (324, 16942),

Gene: AlumE_17 Start: 10512, Stop: 16952, Start Num: 2

Candidate Starts for AlumE_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (190, 14325), (192, 14373), (194, 14400), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (261, 15453), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15777), (280, 15846),

(294, 16167), (295, 16188), (297, 16245), (298, 16260), (301, 16425), (303, 16443), (304, 16458),
(305, 16470), (306, 16482), (308, 16515), (310, 16629), (311, 16668), (312, 16686), (313, 16695),
(314, 16716), (318, 16809), (320, 16881), (322, 16893), (323, 16935), (324, 16941),

Gene: Annalisa_18 Start: 10090, Stop: 16512, Start Num: 2

Candidate Starts for Annalisa_18:

(Start: 2 @10090 has 46 MA's), (Start: 5 @10186 has 1 MA's), (7, 10228), (8, 10282), (12, 10354),
(Start: 13 @10366 has 1 MA's), (25, 10594), (29, 10627), (30, 10672), (35, 10732), (36, 10738), (40,
10831), (43, 10876), (44, 10897), (45, 10903), (46, 10936), (47, 10951), (53, 11059), (54, 11062), (58,
11179), (59, 11182), (60, 11209), (65, 11275), (69, 11347), (72, 11374), (73, 11392), (76, 11437), (83,
11521), (84, 11527), (85, 11530), (86, 11554), (90, 11734), (96, 11821), (102, 11986), (103, 11992),
(104, 12028), (105, 12040), (106, 12103), (108, 12181), (111, 12346), (114, 12427), (117, 12502),
(120, 12547), (123, 12580), (124, 12586), (125, 12619), (132, 12697), (138, 12784), (140, 12829),
(141, 12835), (145, 12991), (147, 13021), (148, 13024), (149, 13039), (151, 13063), (152, 13105),
(153, 13141), (155, 13180), (158, 13228), (159, 13255), (161, 13318), (163, 13387), (166, 13429),
(167, 13435), (170, 13453), (172, 13480), (173, 13486), (174, 13531), (175, 13543), (176, 13552),
(177, 13576), (178, 13588), (180, 13663), (181, 13687), (182, 13732), (184, 13771), (185, 13807),
(187, 13837), (188, 13870), (189, 13897), (191, 13939), (192, 13948), (195, 13984), (196, 14017),
(198, 14083), (199, 14095), (202, 14173), (204, 14206), (223, 14356), (224, 14368), (225, 14377),
(227, 14401), (228, 14407), (231, 14446), (233, 14503), (237, 14551), (238, 14563), (239, 14575),
(241, 14611), (242, 14641), (243, 14659), (244, 14719), (245, 14722), (247, 14764), (256, 14893),
(259, 14947), (260, 15013), (264, 15109), (265, 15115), (266, 15172), (267, 15181), (270, 15208),
(271, 15223), (275, 15259), (276, 15295), (279, 15367), (280, 15421), (284, 15514), (285, 15526),
(289, 15574), (293, 15718), (297, 15805), (301, 15985), (308, 16075), (310, 16189), (312, 16246),
(313, 16255), (314, 16276), (317, 16312), (321, 16447), (322, 16453), (323, 16495), (324, 16501),
(325, 16507),

Gene: Antonio_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Antonio_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776),
(14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160),
(40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604),
(61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901),
(82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372),
(102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849),
(117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155),
(138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596),
(155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878),
(171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112),
(182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409),
(196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781),
(224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),
(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: BatStarr_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for BatStarr_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: BaxterFox_16 Start: 9860, Stop: 16279, Start Num: 2

Candidate Starts for BaxterFox_16:

(Start: 2 @9860 has 46 MA's), (Start: 5 @9956 has 1 MA's), (7, 9998), (11, 10118), (Start: 13 @10136 has 1 MA's), (14, 10187), (15, 10208), (16, 10220), (27, 10376), (29, 10397), (30, 10442), (35, 10502), (36, 10508), (40, 10601), (43, 10646), (45, 10673), (46, 10706), (53, 10829), (54, 10832), (59, 10952), (61, 10982), (68, 11111), (70, 11132), (72, 11144), (76, 11207), (79, 11249), (82, 11270), (83, 11291), (84, 11297), (85, 11300), (86, 11324), (87, 11333), (90, 11504), (101, 11720), (102, 11756), (103, 11762), (104, 11798), (105, 11810), (111, 12116), (113, 12179), (114, 12197), (117, 12272), (124, 12356), (128, 12413), (131, 12455), (132, 12467), (134, 12500), (138, 12554), (143, 12665), (145, 12761), (147, 12791), (148, 12794), (149, 12809), (151, 12833), (154, 12944), (155, 12953), (159, 13028), (161, 13091), (162, 13145), (163, 13160), (166, 13202), (170, 13226), (173, 13259), (174, 13304), (178, 13361), (180, 13436), (181, 13460), (182, 13505), (184, 13544), (186, 13583), (187, 13610), (189, 13670), (192, 13721), (195, 13757), (196, 13790), (197, 13814), (198, 13856), (199, 13868), (201, 13892), (202, 13946), (204, 13979), (223, 14129), (224, 14141), (225, 14150), (226, 14171), (227, 14174), (228, 14180), (229, 14210), (231, 14222), (233, 14279), (234, 14291), (235, 14306), (236, 14315), (237, 14327), (238, 14339), (239, 14351), (241, 14387), (242, 14420), (243, 14438), (244, 14498), (247, 14543), (249, 14561), (256, 14672), (259, 14726), (260, 14792), (263, 14858), (265, 14894), (269, 14966), (271, 14984), (273, 14996), (275, 15017), (276, 15053), (280, 15179), (281, 15182), (294, 15494), (295, 15515), (296, 15533), (297, 15572), (299, 15662), (301, 15752), (303, 15770), (304, 15785), (305, 15797), (308, 15842), (310, 15956), (312, 16013), (313, 16022), (314, 16043), (315, 16046), (317, 16079), (318, 16136), (319, 16178), (320, 16208), (322, 16220), (323, 16262), (324, 16268),

Gene: Beenie_18 Start: 10603, Stop: 16863, Start Num: 13

Candidate Starts for Beenie_18:

(Start: 1 @10315 has 5 MA's), (Start: 2 @10327 has 46 MA's), (4, 10366), (Start: 5 @10423 has 1 MA's), (7, 10465), (9, 10525), (11, 10585), (Start: 13 @10603 has 1 MA's), (18, 10729), (23, 10768), (25, 10789), (26, 10798), (28, 10810), (29, 10822), (30, 10867), (32, 10894), (38, 10969), (41, 11032), (42, 11053), (47, 11146), (48, 11182), (50, 11218), (51, 11236), (52, 11245), (55, 11278), (56, 11311), (59, 11380), (61, 11410), (62, 11425), (65, 11482), (67, 11533), (68, 11548), (71, 11581), (74, 11686), (75, 11695), (76, 11716), (77, 11752), (78, 11758), (81, 11800), (85, 11842), (88, 11902), (91, 12049), (92, 12088), (94, 12115), (99, 12208), (102, 12346), (103, 12352), (104, 12388), (105, 12400), (107, 12472), (110, 12571), (118, 12865), (120, 12907), (123, 12940), (124, 12946), (130, 13030), (132,

13057), (138, 13144), (140, 13189), (141, 13195), (145, 13351), (147, 13381), (148, 13384), (149, 13399), (151, 13423), (153, 13501), (154, 13531), (155, 13540), (158, 13588), (159, 13615), (161, 13678), (163, 13747), (167, 13795), (170, 13813), (172, 13840), (173, 13846), (174, 13891), (175, 13903), (176, 13912), (178, 13948), (181, 14047), (182, 14092), (183, 14104), (184, 14131), (185, 14167), (187, 14197), (189, 14257), (191, 14299), (192, 14308), (193, 14317), (195, 14344), (196, 14377), (198, 14443), (199, 14455), (202, 14533), (204, 14566), (224, 14728), (225, 14737), (227, 14761), (228, 14767), (231, 14806), (233, 14863), (235, 14890), (237, 14911), (238, 14923), (239, 14935), (241, 14971), (242, 15001), (243, 15019), (244, 15079), (247, 15124), (248, 15133), (256, 15253), (259, 15307), (260, 15373), (264, 15469), (266, 15523), (267, 15532), (270, 15559), (275, 15610), (276, 15646), (279, 15718), (280, 15772), (283, 15847), (293, 16069), (294, 16078), (297, 16156), (301, 16336), (308, 16426), (310, 16540), (312, 16597), (313, 16606), (314, 16627), (317, 16663), (319, 16762), (321, 16798), (322, 16804), (323, 16846), (324, 16852), (325, 16858),

Gene: Bialota_17 Start: 10512, Stop: 16952, Start Num: 2

Candidate Starts for Bialota_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (156, 13611), (157, 13644), (159, 13680), (161, 13743), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (179, 14079), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (267, 15600), (272, 15645), (278, 15777), (280, 15846), (294, 16167), (295, 16188), (296, 16206), (297, 16245), (298, 16260), (301, 16425), (303, 16443), (304, 16458), (305, 16470), (306, 16482), (308, 16515), (309, 16539), (310, 16629), (312, 16686), (313, 16695), (314, 16716), (318, 16809), (320, 16881), (322, 16893), (323, 16935), (324, 16941),

Gene: Bosnia_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for Bosnia_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (294, 16155), (295, 16176), (296, 16194), (297, 16233),

(299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617),
(312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839),
(320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: BoyNamedSue_17 Start: 10512, Stop: 16952, Start Num: 2

Candidate Starts for BoyNamedSue_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13
@10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35,
11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59,
11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83,
11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408),
(103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924),
(124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317),
(145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605),
(159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911),
(174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235),
(187, 14262), (189, 14322), (190, 14325), (192, 14373), (194, 14400), (196, 14442), (197, 14466),
(198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802),
(226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943),
(235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072),
(243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (261, 15453),
(263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15777), (280, 15846),
(294, 16167), (295, 16188), (297, 16245), (298, 16260), (301, 16425), (303, 16443), (304, 16458),
(305, 16470), (306, 16482), (308, 16515), (310, 16629), (311, 16668), (312, 16686), (313, 16695),
(314, 16716), (318, 16809), (320, 16881), (322, 16893), (323, 16935), (324, 16941),

Gene: Bunnybear_16 Start: 10529, Stop: 16957, Start Num: 2

Candidate Starts for Bunnybear_16:

(Start: 2 @10529 has 46 MA's), (Start: 5 @10625 has 1 MA's), (7, 10667), (11, 10787), (Start: 13
@10805 has 1 MA's), (15, 10877), (16, 10889), (17, 10895), (19, 10964), (22, 11006), (29, 11066), (30,
11111), (35, 11171), (36, 11177), (40, 11270), (43, 11315), (45, 11342), (46, 11375), (53, 11498), (54,
11501), (59, 11621), (64, 11708), (68, 11780), (70, 11801), (72, 11813), (76, 11876), (79, 11918), (82,
11939), (83, 11960), (84, 11966), (85, 11969), (86, 11993), (90, 12173), (101, 12389), (102, 12425),
(103, 12431), (104, 12467), (105, 12479), (111, 12785), (113, 12848), (114, 12866), (117, 12941),
(124, 13025), (128, 13082), (131, 13124), (132, 13136), (134, 13169), (135, 13172), (138, 13223),
(143, 13334), (145, 13430), (147, 13460), (148, 13463), (151, 13502), (154, 13613), (155, 13622),
(159, 13697), (161, 13760), (162, 13814), (163, 13829), (166, 13871), (170, 13895), (171, 13913),
(173, 13928), (174, 13973), (177, 14018), (178, 14030), (180, 14105), (181, 14129), (182, 14174),
(184, 14213), (186, 14252), (187, 14279), (189, 14339), (192, 14390), (195, 14426), (196, 14459),
(198, 14525), (201, 14561), (202, 14615), (204, 14648), (223, 14798), (224, 14810), (225, 14819),
(227, 14843), (228, 14849), (229, 14879), (231, 14891), (233, 14948), (234, 14960), (235, 14975),
(237, 14996), (238, 15008), (239, 15020), (241, 15056), (243, 15107), (244, 15167), (247, 15212),
(256, 15341), (259, 15395), (260, 15461), (263, 15527), (271, 15656), (275, 15689), (276, 15725),
(280, 15851), (281, 15854), (296, 16205), (297, 16244), (301, 16430), (304, 16463), (305, 16475),
(307, 16505), (308, 16520), (310, 16634), (313, 16700), (314, 16721), (318, 16814), (320, 16886),
(322, 16898), (323, 16940), (324, 16946),

Gene: Clark_18 Start: 10090, Stop: 16512, Start Num: 2

Candidate Starts for Clark_18:

(Start: 2 @10090 has 46 MA's), (Start: 5 @10186 has 1 MA's), (7, 10228), (8, 10282), (12, 10354),
(Start: 13 @10366 has 1 MA's), (25, 10594), (29, 10627), (30, 10672), (35, 10732), (36, 10738), (40,
10831), (43, 10876), (44, 10897), (45, 10903), (46, 10936), (47, 10951), (53, 11059), (54, 11062), (58,
11179), (59, 11182), (60, 11209), (65, 11275), (69, 11347), (72, 11374), (73, 11392), (76, 11437), (83,

11521), (84, 11527), (85, 11530), (86, 11554), (90, 11734), (96, 11821), (102, 11986), (103, 11992), (104, 12028), (105, 12040), (106, 12103), (108, 12181), (111, 12346), (114, 12427), (117, 12502), (120, 12547), (123, 12580), (124, 12586), (125, 12619), (132, 12697), (138, 12784), (140, 12829), (141, 12835), (145, 12991), (147, 13021), (148, 13024), (149, 13039), (151, 13063), (152, 13105), (153, 13141), (155, 13180), (158, 13228), (159, 13255), (161, 13318), (163, 13387), (166, 13429), (167, 13435), (170, 13453), (172, 13480), (173, 13486), (174, 13531), (175, 13543), (176, 13552), (177, 13576), (178, 13588), (180, 13663), (181, 13687), (182, 13732), (184, 13771), (185, 13807), (187, 13837), (188, 13870), (189, 13897), (191, 13939), (192, 13948), (195, 13984), (196, 14017), (198, 14083), (199, 14095), (202, 14173), (204, 14206), (223, 14356), (224, 14368), (225, 14377), (227, 14401), (228, 14407), (231, 14446), (233, 14503), (237, 14551), (238, 14563), (239, 14575), (241, 14611), (242, 14641), (243, 14659), (244, 14719), (245, 14722), (247, 14764), (256, 14893), (259, 14947), (260, 15013), (264, 15109), (265, 15115), (266, 15172), (267, 15181), (270, 15208), (271, 15223), (275, 15259), (276, 15295), (279, 15367), (280, 15421), (284, 15514), (285, 15526), (289, 15574), (293, 15718), (297, 15805), (301, 15985), (308, 16075), (310, 16189), (312, 16246), (313, 16255), (314, 16276), (317, 16312), (321, 16447), (322, 16453), (323, 16495), (324, 16501), (325, 16507),

Gene: DobbysSock_17 Start: 9573, Stop: 15986, Start Num: 2

Candidate Starts for DobbysSock_17:

(Start: 2 @9573 has 46 MA's), (Start: 5 @9669 has 1 MA's), (7, 9711), (12, 9837), (Start: 13 @9849 has 1 MA's), (25, 10077), (29, 10110), (30, 10155), (35, 10215), (36, 10221), (40, 10314), (43, 10359), (44, 10380), (45, 10386), (46, 10419), (47, 10434), (53, 10542), (54, 10545), (58, 10662), (59, 10665), (65, 10758), (69, 10830), (72, 10857), (73, 10875), (76, 10920), (83, 11004), (84, 11010), (85, 11013), (86, 11037), (90, 11217), (93, 11250), (102, 11469), (103, 11475), (104, 11511), (105, 11523), (111, 11829), (114, 11910), (117, 11985), (124, 12069), (130, 12153), (132, 12180), (138, 12267), (140, 12312), (141, 12318), (145, 12474), (147, 12504), (148, 12507), (149, 12522), (151, 12546), (152, 12588), (153, 12624), (154, 12654), (155, 12663), (158, 12711), (159, 12738), (161, 12801), (163, 12870), (167, 12918), (170, 12936), (172, 12963), (173, 12969), (174, 13014), (175, 13026), (176, 13035), (178, 13071), (181, 13170), (182, 13215), (183, 13227), (184, 13254), (185, 13290), (187, 13320), (189, 13380), (191, 13422), (192, 13431), (193, 13440), (195, 13467), (196, 13500), (198, 13566), (199, 13578), (202, 13656), (204, 13689), (224, 13851), (225, 13860), (227, 13884), (228, 13890), (231, 13929), (233, 13986), (235, 14013), (237, 14034), (238, 14046), (239, 14058), (241, 14094), (242, 14124), (243, 14142), (244, 14202), (247, 14247), (248, 14256), (256, 14376), (259, 14430), (260, 14496), (264, 14592), (266, 14646), (267, 14655), (270, 14682), (271, 14697), (275, 14733), (276, 14769), (279, 14841), (280, 14895), (283, 14970), (285, 15000), (293, 15192), (294, 15201), (297, 15279), (301, 15459), (308, 15549), (310, 15663), (312, 15720), (313, 15729), (314, 15750), (317, 15786), (321, 15921), (322, 15927), (323, 15969), (324, 15975), (325, 15981),

Gene: Dolores_18 Start: 10075, Stop: 16488, Start Num: 2

Candidate Starts for Dolores_18:

(Start: 2 @10075 has 46 MA's), (Start: 5 @10171 has 1 MA's), (7, 10213), (12, 10339), (Start: 13 @10351 has 1 MA's), (25, 10579), (29, 10612), (30, 10657), (35, 10717), (36, 10723), (40, 10816), (43, 10861), (44, 10882), (45, 10888), (46, 10921), (47, 10936), (53, 11044), (54, 11047), (58, 11164), (59, 11167), (65, 11260), (69, 11332), (72, 11359), (73, 11377), (76, 11422), (83, 11506), (84, 11512), (85, 11515), (86, 11539), (90, 11719), (93, 11752), (102, 11971), (103, 11977), (104, 12013), (105, 12025), (108, 12166), (111, 12331), (114, 12412), (117, 12487), (120, 12532), (123, 12565), (124, 12571), (125, 12604), (132, 12682), (138, 12769), (140, 12814), (141, 12820), (145, 12976), (147, 13006), (148, 13009), (149, 13024), (151, 13048), (152, 13090), (153, 13126), (154, 13156), (155, 13165), (158, 13213), (159, 13240), (161, 13303), (163, 13372), (167, 13420), (170, 13438), (172, 13465), (173, 13471), (174, 13516), (175, 13528), (176, 13537), (178, 13573), (181, 13672), (182, 13717), (183, 13729), (184, 13756), (185, 13792), (187, 13822), (189, 13882), (191, 13924), (192, 13933), (193, 13942), (195, 13969), (196, 14002), (198, 14068), (199, 14080), (202, 14158), (204, 14191), (224, 14353), (225, 14362), (227, 14386), (228, 14392), (231, 14431), (233, 14488), (235, 14515),

(237, 14536), (238, 14548), (239, 14560), (241, 14596), (242, 14626), (243, 14644), (244, 14704), (247, 14749), (248, 14758), (256, 14878), (259, 14932), (260, 14998), (264, 15094), (266, 15148), (267, 15157), (270, 15184), (275, 15235), (276, 15271), (280, 15397), (283, 15472), (285, 15502), (293, 15694), (294, 15703), (297, 15781), (301, 15961), (308, 16051), (310, 16165), (312, 16222), (313, 16231), (314, 16252), (317, 16288), (321, 16423), (322, 16429), (323, 16471), (324, 16477), (325, 16483),

Gene: Dorito_17 Start: 9572, Stop: 15988, Start Num: 2

Candidate Starts for Dorito_17:

(Start: 2 @9572 has 46 MA's), (7, 9710), (8, 9764), (12, 9836), (Start: 13 @9848 has 1 MA's), (25, 10076), (29, 10109), (30, 10154), (35, 10214), (36, 10220), (40, 10313), (43, 10358), (44, 10379), (45, 10385), (46, 10418), (47, 10433), (53, 10541), (54, 10544), (58, 10661), (59, 10664), (60, 10691), (65, 10757), (69, 10829), (72, 10856), (73, 10874), (76, 10919), (83, 11003), (84, 11009), (85, 11012), (86, 11036), (90, 11216), (96, 11303), (102, 11468), (103, 11474), (104, 11510), (105, 11522), (106, 11585), (108, 11663), (111, 11828), (114, 11909), (117, 11984), (120, 12029), (123, 12062), (124, 12068), (125, 12101), (132, 12179), (138, 12266), (140, 12311), (141, 12317), (147, 12503), (148, 12506), (150, 12536), (151, 12545), (153, 12626), (155, 12665), (158, 12713), (159, 12740), (161, 12803), (163, 12872), (166, 12914), (167, 12920), (170, 12938), (172, 12965), (173, 12971), (174, 13016), (175, 13028), (176, 13037), (177, 13061), (178, 13073), (181, 13172), (182, 13217), (184, 13256), (185, 13292), (187, 13322), (189, 13382), (191, 13424), (192, 13433), (195, 13469), (196, 13502), (198, 13568), (199, 13580), (202, 13658), (204, 13691), (223, 13841), (224, 13853), (225, 13862), (227, 13886), (228, 13892), (231, 13931), (233, 13988), (237, 14036), (238, 14048), (239, 14060), (241, 14096), (243, 14144), (244, 14204), (247, 14249), (256, 14378), (259, 14432), (260, 14498), (264, 14594), (265, 14600), (266, 14648), (267, 14657), (270, 14684), (275, 14735), (276, 14771), (279, 14843), (280, 14897), (282, 14945), (284, 14990), (285, 15002), (288, 15011), (289, 15050), (293, 15194), (297, 15281), (301, 15461), (308, 15551), (310, 15665), (312, 15722), (313, 15731), (314, 15752), (317, 15788), (321, 15923), (322, 15929), (323, 15971), (324, 15977), (325, 15983),

Gene: Easley_18 Start: 10079, Stop: 16498, Start Num: 2

Candidate Starts for Easley_18:

(Start: 2 @10079 has 46 MA's), (Start: 5 @10175 has 1 MA's), (7, 10217), (Start: 13 @10355 has 1 MA's), (25, 10583), (29, 10616), (30, 10661), (35, 10721), (36, 10727), (40, 10820), (43, 10865), (44, 10886), (45, 10892), (46, 10925), (47, 10940), (53, 11048), (54, 11051), (58, 11168), (59, 11171), (65, 11264), (69, 11336), (72, 11363), (73, 11381), (76, 11426), (83, 11510), (84, 11516), (85, 11519), (86, 11543), (90, 11723), (93, 11756), (102, 11975), (103, 11981), (104, 12017), (105, 12029), (111, 12335), (114, 12416), (117, 12491), (124, 12575), (130, 12659), (132, 12686), (138, 12773), (140, 12818), (141, 12824), (145, 12980), (147, 13010), (148, 13013), (149, 13028), (151, 13052), (152, 13094), (153, 13130), (154, 13160), (155, 13169), (158, 13217), (159, 13244), (161, 13307), (163, 13376), (167, 13424), (170, 13442), (172, 13469), (173, 13475), (174, 13520), (175, 13532), (176, 13541), (178, 13577), (181, 13676), (182, 13721), (183, 13733), (184, 13760), (185, 13796), (187, 13826), (189, 13886), (191, 13928), (192, 13937), (193, 13946), (195, 13973), (196, 14006), (198, 14072), (199, 14084), (202, 14162), (204, 14195), (224, 14357), (225, 14366), (227, 14390), (228, 14396), (231, 14435), (233, 14492), (235, 14519), (237, 14540), (238, 14552), (239, 14564), (241, 14600), (242, 14630), (243, 14648), (244, 14708), (247, 14753), (248, 14762), (254, 14849), (256, 14882), (259, 14936), (260, 15002), (264, 15098), (266, 15152), (267, 15161), (270, 15188), (275, 15239), (276, 15275), (280, 15401), (283, 15476), (285, 15506), (286, 15515), (294, 15713), (295, 15734), (296, 15752), (297, 15791), (301, 15971), (308, 16061), (310, 16175), (312, 16232), (313, 16241), (314, 16262), (317, 16298), (321, 16433), (322, 16439), (323, 16481), (324, 16487), (325, 16493),

Gene: Eudoria_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Eudoria_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774), (280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428), (303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626), (311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878), (322, 16890), (323, 16932), (324, 16938),

Gene: Eviarto_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for Eviarto_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: Herod_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for Herod_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605),

(159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (287, 15951), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: Hortense_18 Start: 10532, Stop: 17068, Start Num: 2

Candidate Starts for Hortense_18:

(Start: 1 @10520 has 5 MA's), (Start: 2 @10532 has 46 MA's), (4, 10571), (Start: 5 @10628 has 1 MA's), (7, 10670), (9, 10730), (11, 10790), (Start: 13 @10808 has 1 MA's), (18, 10934), (23, 10973), (25, 10994), (26, 11003), (28, 11015), (29, 11027), (30, 11072), (32, 11099), (38, 11174), (41, 11237), (42, 11258), (47, 11351), (48, 11387), (50, 11423), (51, 11441), (52, 11450), (55, 11483), (56, 11516), (59, 11585), (61, 11615), (62, 11630), (65, 11687), (67, 11738), (68, 11753), (71, 11786), (74, 11891), (75, 11900), (76, 11921), (77, 11957), (78, 11963), (81, 12005), (85, 12047), (88, 12107), (91, 12254), (92, 12293), (94, 12320), (99, 12413), (102, 12551), (103, 12557), (104, 12593), (105, 12605), (107, 12677), (110, 12776), (118, 13070), (120, 13112), (123, 13145), (124, 13151), (130, 13235), (132, 13262), (138, 13349), (140, 13394), (141, 13400), (145, 13556), (147, 13586), (148, 13589), (149, 13604), (151, 13628), (153, 13706), (154, 13736), (155, 13745), (158, 13793), (159, 13820), (161, 13883), (163, 13952), (167, 14000), (170, 14018), (172, 14045), (173, 14051), (174, 14096), (175, 14108), (176, 14117), (178, 14153), (181, 14252), (182, 14297), (183, 14309), (184, 14336), (185, 14372), (187, 14402), (189, 14462), (191, 14504), (192, 14513), (193, 14522), (195, 14549), (196, 14582), (198, 14648), (199, 14660), (202, 14738), (204, 14771), (224, 14933), (225, 14942), (227, 14966), (228, 14972), (231, 15011), (233, 15068), (235, 15095), (237, 15116), (238, 15128), (239, 15140), (241, 15176), (242, 15206), (243, 15224), (244, 15284), (247, 15329), (248, 15338), (256, 15458), (259, 15512), (260, 15578), (264, 15674), (266, 15728), (267, 15737), (270, 15764), (275, 15815), (276, 15851), (280, 15977), (283, 16052), (285, 16082), (293, 16274), (294, 16283), (297, 16361), (301, 16541), (308, 16631), (310, 16745), (312, 16802), (313, 16811), (314, 16832), (317, 16868), (321, 17003), (322, 17009), (323, 17051), (324, 17057), (325, 17063),

Gene: Howe_18 Start: 10520, Stop: 17068, Start Num: 1

Candidate Starts for Howe_18:

(Start: 1 @10520 has 5 MA's), (Start: 2 @10532 has 46 MA's), (4, 10571), (Start: 5 @10628 has 1 MA's), (7, 10670), (9, 10730), (11, 10790), (Start: 13 @10808 has 1 MA's), (18, 10934), (23, 10973), (25, 10994), (26, 11003), (28, 11015), (29, 11027), (30, 11072), (32, 11099), (38, 11174), (41, 11237), (42, 11258), (47, 11351), (48, 11387), (50, 11423), (51, 11441), (52, 11450), (55, 11483), (56, 11516), (59, 11585), (61, 11615), (62, 11630), (65, 11687), (67, 11738), (68, 11753), (71, 11786), (74, 11891), (75, 11900), (76, 11921), (77, 11957), (78, 11963), (81, 12005), (85, 12047), (88, 12107), (91, 12254), (92, 12293), (94, 12320), (99, 12413), (102, 12551), (103, 12557), (104, 12593), (105, 12605), (107, 12677), (110, 12776), (118, 13070), (120, 13112), (123, 13145), (124, 13151), (130, 13235), (132, 13262), (138, 13349), (140, 13394), (141, 13400), (145, 13556), (147, 13586), (148, 13589), (149, 13604), (151, 13628), (153, 13706), (154, 13736), (155, 13745), (158, 13793), (159, 13820), (161, 13883), (163, 13952), (167, 14000), (170, 14018), (172, 14045), (173, 14051), (174, 14096), (175, 14108), (176, 14117), (178, 14153), (181, 14252), (182, 14297), (183, 14309), (184, 14336), (185, 14372), (187, 14402), (189, 14462), (191, 14504), (192, 14513), (193, 14522), (195, 14549), (196, 14582), (198, 14648), (199, 14660), (202, 14738), (204, 14771), (224, 14933), (225, 14942), (227, 14966), (228, 14972), (231, 15011), (233, 15068), (235, 15095), (237, 15116), (238, 15128), (239, 15140), (241, 15176), (242, 15206), (243, 15224), (244, 15284), (247, 15329), (248, 15338), (256,

15458), (259, 15512), (260, 15578), (264, 15674), (266, 15728), (267, 15737), (270, 15764), (275, 15815), (276, 15851), (280, 15977), (283, 16052), (285, 16082), (293, 16274), (294, 16283), (297, 16361), (301, 16541), (308, 16631), (310, 16745), (312, 16802), (313, 16811), (314, 16832), (317, 16868), (321, 17003), (322, 17009), (323, 17051), (324, 17057), (325, 17063),

Gene: Hugley_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for Hugley_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (287, 15951), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: Hyzer_17 Start: 10553, Stop: 17011, Start Num: 2

Candidate Starts for Hyzer_17:

(Start: 2 @10553 has 46 MA's), (3, 10586), (Start: 5 @10649 has 1 MA's), (6, 10679), (7, 10691), (10, 10808), (11, 10811), (12, 10817), (14, 10880), (20, 10997), (21, 11006), (24, 11039), (27, 11069), (29, 11090), (31, 11138), (34, 11177), (35, 11195), (36, 11201), (37, 11231), (40, 11294), (45, 11366), (46, 11399), (49, 11462), (53, 11522), (54, 11525), (55, 11543), (59, 11645), (63, 11711), (72, 11837), (76, 11900), (79, 11942), (83, 11984), (84, 11990), (85, 11993), (86, 12017), (88, 12053), (89, 12068), (91, 12200), (92, 12239), (94, 12266), (97, 12338), (98, 12350), (99, 12359), (100, 12398), (102, 12497), (103, 12503), (104, 12539), (105, 12551), (109, 12698), (112, 12890), (114, 12941), (117, 13016), (119, 13058), (120, 13061), (122, 13076), (123, 13094), (124, 13100), (127, 13139), (134, 13244), (139, 13301), (143, 13406), (144, 13424), (145, 13502), (146, 13508), (147, 13532), (148, 13535), (151, 13574), (154, 13685), (155, 13694), (159, 13769), (161, 13832), (163, 13901), (170, 13967), (171, 13985), (173, 14000), (174, 14045), (175, 14057), (176, 14066), (177, 14090), (178, 14102), (179, 14168), (181, 14201), (182, 14246), (184, 14285), (186, 14324), (187, 14351), (189, 14411), (192, 14462), (196, 14531), (197, 14555), (198, 14597), (199, 14609), (201, 14633), (202, 14687), (204, 14720), (223, 14870), (224, 14882), (225, 14891), (227, 14915), (228, 14921), (231, 14963), (233, 15020), (235, 15047), (237, 15068), (238, 15080), (239, 15092), (241, 15128), (242, 15161), (243, 15179), (244, 15239), (247, 15284), (249, 15302), (250, 15332), (252, 15341), (256, 15413), (259, 15467), (260, 15533), (263, 15599), (265, 15635), (273, 15740), (275, 15761), (276, 15797), (280, 15923), (290, 16079), (292, 16208), (297, 16301), (301, 16484), (302, 16490), (303, 16502), (304, 16517), (305, 16529), (308, 16574), (310, 16688), (312, 16745), (314, 16775), (316, 16793), (321, 16946), (322, 16952), (323, 16994), (324, 17000),

Gene: Invectra_18 Start: 10327, Stop: 16869, Start Num: 2

Candidate Starts for Invectra_18:

(Start: 1 @10315 has 5 MA's), (Start: 2 @10327 has 46 MA's), (4, 10366), (Start: 5 @10423 has 1 MA's), (7, 10465), (9, 10525), (11, 10585), (Start: 13 @10603 has 1 MA's), (18, 10729), (23, 10768), (25, 10789), (26, 10798), (28, 10810), (29, 10822), (30, 10867), (32, 10894), (38, 10969), (41, 11032), (42, 11053), (47, 11146), (48, 11182), (50, 11218), (51, 11236), (52, 11245), (55, 11278), (56, 11311), (59, 11380), (61, 11410), (62, 11425), (65, 11482), (67, 11533), (68, 11548), (71, 11581), (74, 11686), (75, 11695), (76, 11716), (77, 11752), (78, 11758), (81, 11800), (85, 11842), (88, 11902), (91, 12049), (92, 12088), (94, 12115), (99, 12208), (102, 12346), (103, 12352), (104, 12388), (105, 12400), (107, 12472), (110, 12571), (118, 12865), (120, 12907), (123, 12940), (124, 12946), (130, 13030), (132, 13057), (138, 13144), (140, 13189), (141, 13195), (145, 13351), (147, 13381), (148, 13384), (149, 13399), (151, 13423), (153, 13501), (154, 13531), (155, 13540), (158, 13588), (159, 13615), (161, 13678), (163, 13747), (167, 13795), (170, 13813), (172, 13840), (173, 13846), (174, 13891), (175, 13903), (176, 13912), (178, 13948), (181, 14047), (182, 14092), (183, 14104), (184, 14131), (185, 14167), (187, 14197), (189, 14257), (191, 14299), (192, 14308), (193, 14317), (195, 14344), (196, 14377), (198, 14443), (199, 14455), (202, 14533), (204, 14566), (224, 14728), (225, 14737), (227, 14761), (228, 14767), (231, 14806), (233, 14863), (235, 14890), (237, 14911), (238, 14923), (239, 14935), (241, 14971), (242, 15001), (243, 15019), (244, 15079), (247, 15124), (248, 15133), (256, 15253), (259, 15307), (260, 15373), (264, 15469), (265, 15475), (266, 15523), (267, 15532), (270, 15559), (275, 15610), (276, 15646), (279, 15718), (280, 15772), (293, 16075), (297, 16162), (301, 16342), (308, 16432), (310, 16546), (312, 16603), (313, 16612), (314, 16633), (317, 16669), (321, 16804), (322, 16810), (323, 16852), (324, 16858), (325, 16864),

Gene: Kita_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Kita_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774), (280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428), (303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626), (311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878), (322, 16890), (323, 16932), (324, 16938),

Gene: Madavieve_17 Start: 10798, Stop: 17220, Start Num: 2

Candidate Starts for Madavieve_17:

(Start: 1 @10789 has 5 MA's), (Start: 2 @10798 has 46 MA's), (3, 10831), (Start: 5 @10894 has 1 MA's), (7, 10936), (11, 11056), (14, 11125), (15, 11146), (16, 11158), (27, 11314), (29, 11335), (30, 11380), (35, 11440), (36, 11446), (40, 11539), (43, 11584), (45, 11611), (46, 11644), (53, 11767), (54, 11770), (59, 11890), (61, 11920), (68, 12049), (70, 12070), (72, 12082), (73, 12100), (76, 12145), (79, 12187), (80, 12196), (82, 12208), (83, 12229), (84, 12235), (85, 12238), (86, 12262), (87, 12271), (90, 12442), (95, 12493), (101, 12658), (102, 12694), (103, 12700), (104, 12736), (105, 12748), (111, 13054), (113, 13117), (114, 13135), (117, 13210), (124, 13294), (128, 13351), (131, 13393), (132,

13405), (134, 13438), (138, 13492), (143, 13603), (145, 13699), (147, 13729), (148, 13732), (149, 13747), (151, 13771), (154, 13882), (155, 13891), (157, 13930), (158, 13939), (159, 13966), (161, 14029), (162, 14083), (166, 14140), (170, 14164), (173, 14197), (174, 14242), (177, 14287), (178, 14299), (180, 14374), (181, 14398), (182, 14443), (184, 14482), (186, 14521), (187, 14548), (189, 14608), (192, 14659), (195, 14695), (196, 14728), (197, 14752), (198, 14794), (199, 14806), (201, 14830), (202, 14884), (204, 14917), (223, 15067), (224, 15079), (225, 15088), (226, 15109), (227, 15112), (228, 15118), (229, 15148), (231, 15160), (233, 15217), (234, 15229), (235, 15244), (236, 15253), (237, 15265), (238, 15277), (239, 15289), (241, 15325), (242, 15358), (243, 15376), (244, 15436), (247, 15481), (256, 15610), (259, 15664), (260, 15730), (263, 15796), (265, 15832), (269, 15904), (273, 15934), (275, 15955), (276, 15991), (280, 16117), (281, 16120), (294, 16435), (295, 16456), (296, 16474), (297, 16513), (298, 16528), (301, 16693), (303, 16711), (304, 16726), (305, 16738), (308, 16783), (309, 16807), (310, 16897), (311, 16936), (312, 16954), (313, 16963), (314, 16984), (315, 16987), (317, 17020), (318, 17077), (319, 17119), (320, 17149), (322, 17161), (323, 17203), (324, 17209),

Gene: Madeline_17 Start: 10798, Stop: 17238, Start Num: 2

Candidate Starts for Madeline_17:

(Start: 1 @10789 has 5 MA's), (Start: 2 @10798 has 46 MA's), (3, 10831), (Start: 5 @10894 has 1 MA's), (7, 10936), (11, 11056), (15, 11146), (16, 11158), (27, 11314), (29, 11335), (30, 11380), (35, 11440), (36, 11446), (40, 11539), (43, 11584), (45, 11611), (46, 11644), (53, 11767), (54, 11770), (59, 11890), (61, 11920), (68, 12049), (70, 12070), (72, 12082), (73, 12100), (76, 12145), (79, 12187), (80, 12196), (82, 12208), (83, 12229), (84, 12235), (85, 12238), (86, 12262), (87, 12271), (90, 12442), (101, 12658), (102, 12694), (103, 12700), (104, 12736), (105, 12748), (111, 13054), (113, 13117), (114, 13135), (117, 13210), (124, 13294), (128, 13351), (131, 13393), (132, 13405), (134, 13438), (137, 13468), (138, 13492), (143, 13603), (145, 13699), (147, 13729), (148, 13732), (149, 13747), (151, 13771), (154, 13882), (155, 13891), (159, 13966), (161, 14029), (162, 14083), (163, 14098), (166, 14140), (170, 14164), (173, 14197), (174, 14242), (178, 14299), (180, 14374), (181, 14398), (182, 14443), (184, 14482), (186, 14521), (187, 14548), (189, 14608), (192, 14659), (195, 14695), (196, 14728), (197, 14752), (198, 14794), (199, 14806), (201, 14830), (202, 14884), (204, 14917), (223, 15067), (224, 15079), (225, 15088), (226, 15109), (227, 15112), (228, 15118), (229, 15148), (231, 15160), (233, 15217), (234, 15229), (235, 15244), (236, 15253), (237, 15265), (238, 15277), (239, 15289), (241, 15325), (242, 15358), (243, 15376), (244, 15436), (247, 15481), (256, 15610), (259, 15664), (260, 15730), (261, 15739), (263, 15796), (265, 15832), (267, 15886), (272, 15931), (278, 16063), (280, 16132), (294, 16453), (295, 16474), (296, 16492), (297, 16531), (298, 16546), (301, 16711), (303, 16729), (304, 16744), (305, 16756), (306, 16768), (308, 16801), (309, 16825), (310, 16915), (312, 16972), (313, 16981), (314, 17002), (318, 17095), (320, 17167), (322, 17179), (323, 17221), (324, 17227),

Gene: Manasvini_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Manasvini_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),

(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: Maridalia_16 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Maridalia_16:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776),
(14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160),
(40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604),
(61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901),
(82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372),
(102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849),
(117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155),
(138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596),
(155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878),
(171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112),
(182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409),
(196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781),
(224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),
(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: Mcklovin_18 Start: 11645, Stop: 19237, Start Num: 2

Candidate Starts for Mcklovin_18:

(Start: 1 @11633 has 5 MA's), (Start: 2 @11645 has 46 MA's), (4, 11684), (Start: 5 @11741 has 1
MA's), (7, 11783), (9, 11843), (11, 11903), (Start: 13 @11921 has 1 MA's), (18, 12047), (23, 12086),
(25, 12107), (26, 12116), (28, 12128), (29, 12140), (30, 12185), (32, 12212), (38, 12287), (41, 12350),
(42, 12371), (47, 12464), (48, 12500), (50, 12536), (51, 12554), (52, 12563), (55, 12596), (56, 12629),
(59, 12698), (61, 12728), (62, 12743), (65, 12800), (67, 12851), (68, 12866), (71, 12899), (74, 13004),
(75, 13013), (76, 13034), (77, 13070), (78, 13076), (81, 13118), (85, 13160), (88, 13220), (91, 13367),
(92, 13406), (94, 13433), (99, 13526), (102, 13664), (103, 13670), (104, 13706), (105, 13718), (107,
13790), (110, 13889), (118, 14183), (120, 14225), (124, 14264), (126, 14300), (128, 14321), (131,
14363), (138, 14462), (140, 14507), (141, 14513), (145, 14669), (147, 14699), (148, 14702), (149,
14717), (151, 14741), (152, 14783), (153, 14819), (155, 14858), (158, 14906), (159, 14933), (161,
14996), (163, 15065), (166, 15107), (167, 15113), (170, 15131), (172, 15158), (173, 15164), (174,
15209), (175, 15221), (176, 15230), (177, 15254), (178, 15266), (180, 15341), (181, 15365), (182,
15410), (184, 15449), (185, 15485), (187, 15515), (188, 15548), (189, 15575), (191, 15617), (192,
15626), (195, 15662), (196, 15695), (198, 15761), (199, 15773), (202, 15851), (204, 15884), (205,
16028), (206, 16172), (207, 16178), (208, 16307), (209, 16322), (210, 16379), (211, 16511), (212,
16550), (213, 16574), (214, 16664), (215, 16730), (216, 16754), (217, 16880), (218, 16949), (219,
16994), (220, 17003), (221, 17030), (222, 17063), (224, 17102), (225, 17111), (227, 17135), (228,
17141), (231, 17180), (233, 17237), (235, 17264), (237, 17285), (238, 17297), (239, 17309), (241,
17345), (242, 17375), (243, 17393), (244, 17453), (247, 17498), (256, 17627), (259, 17681), (260,
17747), (264, 17843), (266, 17897), (267, 17906), (270, 17933), (271, 17948), (275, 17984), (276,

18020), (280, 18146), (283, 18221), (284, 18239), (285, 18251), (289, 18299), (293, 18443), (294, 18452), (297, 18530), (301, 18710), (308, 18800), (310, 18914), (312, 18971), (313, 18980), (314, 19001), (317, 19037), (319, 19136), (321, 19172), (322, 19178), (323, 19220), (324, 19226), (325, 19232),

Gene: MichaelScott_18 Start: 10327, Stop: 16863, Start Num: 2

Candidate Starts for MichaelScott_18:

(Start: 1 @10315 has 5 MA's), (Start: 2 @10327 has 46 MA's), (4, 10366), (Start: 5 @10423 has 1 MA's), (7, 10465), (9, 10525), (11, 10585), (Start: 13 @10603 has 1 MA's), (18, 10729), (23, 10768), (25, 10789), (26, 10798), (28, 10810), (29, 10822), (30, 10867), (32, 10894), (38, 10969), (41, 11032), (42, 11053), (47, 11146), (48, 11182), (50, 11218), (51, 11236), (52, 11245), (55, 11278), (56, 11311), (59, 11380), (61, 11410), (62, 11425), (65, 11482), (67, 11533), (68, 11548), (71, 11581), (74, 11686), (75, 11695), (76, 11716), (77, 11752), (78, 11758), (81, 11800), (85, 11842), (88, 11902), (91, 12049), (92, 12088), (94, 12115), (99, 12208), (102, 12346), (103, 12352), (104, 12388), (105, 12400), (107, 12472), (110, 12571), (118, 12865), (120, 12907), (123, 12940), (124, 12946), (130, 13030), (132, 13057), (138, 13144), (140, 13189), (141, 13195), (145, 13351), (147, 13381), (148, 13384), (149, 13399), (151, 13423), (153, 13501), (154, 13531), (155, 13540), (158, 13588), (159, 13615), (161, 13678), (163, 13747), (167, 13795), (170, 13813), (172, 13840), (173, 13846), (174, 13891), (175, 13903), (176, 13912), (178, 13948), (181, 14047), (182, 14092), (183, 14104), (184, 14131), (185, 14167), (187, 14197), (189, 14257), (191, 14299), (192, 14308), (193, 14317), (195, 14344), (196, 14377), (198, 14443), (199, 14455), (202, 14533), (204, 14566), (224, 14728), (225, 14737), (227, 14761), (228, 14767), (231, 14806), (233, 14863), (235, 14890), (237, 14911), (238, 14923), (239, 14935), (241, 14971), (242, 15001), (243, 15019), (244, 15079), (247, 15124), (248, 15133), (256, 15253), (259, 15307), (260, 15373), (264, 15469), (266, 15523), (267, 15532), (270, 15559), (275, 15610), (276, 15646), (279, 15718), (280, 15772), (283, 15847), (293, 16069), (294, 16078), (297, 16156), (301, 16336), (308, 16426), (310, 16540), (312, 16597), (313, 16606), (314, 16627), (317, 16663), (319, 16762), (321, 16798), (322, 16804), (323, 16846), (324, 16852), (325, 16858),

Gene: Neobush_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Neobush_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774), (280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428), (303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626), (311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878), (322, 16890), (323, 16932), (324, 16938),

Gene: Nymphadora_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for Nymphadora_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: Ohgeesy_17 Start: 10144, Stop: 16563, Start Num: 2

Candidate Starts for Ohgeesy_17:

(Start: 1 @10135 has 5 MA's), (Start: 2 @10144 has 46 MA's), (3, 10177), (Start: 5 @10240 has 1 MA's), (7, 10282), (11, 10402), (15, 10492), (16, 10504), (27, 10660), (29, 10681), (30, 10726), (35, 10786), (36, 10792), (40, 10885), (43, 10930), (45, 10957), (46, 10990), (53, 11113), (54, 11116), (59, 11236), (61, 11266), (68, 11395), (70, 11416), (72, 11428), (76, 11491), (79, 11533), (82, 11554), (83, 11575), (84, 11581), (85, 11584), (86, 11608), (87, 11617), (90, 11788), (101, 12004), (102, 12040), (103, 12046), (104, 12082), (105, 12094), (111, 12400), (113, 12463), (114, 12481), (117, 12556), (124, 12640), (128, 12697), (131, 12739), (132, 12751), (134, 12784), (138, 12838), (143, 12949), (145, 13045), (147, 13075), (148, 13078), (151, 13117), (154, 13228), (155, 13237), (156, 13243), (157, 13276), (159, 13312), (161, 13375), (162, 13429), (163, 13444), (164, 13474), (165, 13480), (166, 13486), (170, 13510), (171, 13528), (173, 13543), (174, 13588), (178, 13645), (180, 13720), (181, 13744), (182, 13789), (184, 13828), (186, 13867), (187, 13894), (189, 13954), (192, 14005), (195, 14041), (196, 14074), (197, 14098), (198, 14140), (199, 14152), (201, 14176), (202, 14230), (204, 14263), (223, 14413), (224, 14425), (225, 14434), (226, 14455), (227, 14458), (228, 14464), (229, 14494), (231, 14506), (233, 14563), (234, 14575), (235, 14590), (236, 14599), (237, 14611), (238, 14623), (239, 14635), (240, 14641), (241, 14671), (242, 14704), (243, 14722), (244, 14782), (247, 14827), (252, 14884), (256, 14956), (259, 15010), (260, 15076), (263, 15142), (265, 15178), (269, 15250), (273, 15280), (275, 15301), (276, 15337), (280, 15463), (281, 15466), (294, 15778), (295, 15799), (296, 15817), (297, 15856), (298, 15871), (299, 15946), (301, 16036), (303, 16054), (304, 16069), (305, 16081), (308, 16126), (310, 16240), (312, 16297), (313, 16306), (314, 16327), (315, 16330), (317, 16363), (318, 16420), (319, 16462), (320, 16492), (322, 16504), (323, 16546), (324, 16552),

Gene: Oregano_18 Start: 9986, Stop: 16534, Start Num: 1

Candidate Starts for Oregano_18:

(Start: 1 @9986 has 5 MA's), (Start: 2 @9998 has 46 MA's), (4, 10037), (Start: 5 @10094 has 1 MA's), (7, 10136), (9, 10196), (11, 10256), (Start: 13 @10274 has 1 MA's), (18, 10400), (23, 10439), (25, 10460), (26, 10469), (28, 10481), (29, 10493), (30, 10538), (32, 10565), (38, 10640), (41, 10703), (42, 10724), (47, 10817), (48, 10853), (50, 10889), (51, 10907), (52, 10916), (55, 10949), (56, 10982), (59, 11051), (61, 11081), (62, 11096), (65, 11153), (67, 11204), (68, 11219), (71, 11252), (74, 11357), (75, 11366), (76, 11387), (77, 11423), (78, 11429), (81, 11471), (85, 11513), (88, 11573), (91, 11720), (92, 11759), (94, 11786), (99, 11879), (102, 12017), (103, 12023), (104, 12059), (105, 12071), (107,

12143), (110, 12242), (118, 12536), (120, 12578), (123, 12611), (124, 12617), (130, 12701), (132, 12728), (138, 12815), (140, 12860), (141, 12866), (145, 13022), (147, 13052), (148, 13055), (149, 13070), (151, 13094), (153, 13172), (154, 13202), (155, 13211), (158, 13259), (159, 13286), (161, 13349), (163, 13418), (167, 13466), (170, 13484), (172, 13511), (173, 13517), (174, 13562), (175, 13574), (176, 13583), (178, 13619), (181, 13718), (182, 13763), (183, 13775), (184, 13802), (185, 13838), (187, 13868), (189, 13928), (191, 13970), (192, 13979), (193, 13988), (195, 14015), (196, 14048), (198, 14114), (199, 14126), (202, 14204), (204, 14237), (224, 14399), (225, 14408), (227, 14432), (228, 14438), (231, 14477), (233, 14534), (235, 14561), (237, 14582), (238, 14594), (239, 14606), (241, 14642), (242, 14672), (243, 14690), (244, 14750), (247, 14795), (248, 14804), (256, 14924), (259, 14978), (260, 15044), (264, 15140), (266, 15194), (267, 15203), (270, 15230), (271, 15245), (275, 15281), (276, 15317), (279, 15389), (280, 15443), (283, 15518), (285, 15548), (293, 15740), (294, 15749), (297, 15827), (301, 16007), (308, 16097), (310, 16211), (312, 16268), (313, 16277), (314, 16298), (317, 16334), (321, 16469), (322, 16475), (323, 16517), (324, 16523), (325, 16529),

Gene: PantheRoc_17 Start: 9846, Stop: 16271, Start Num: 2

Candidate Starts for PantheRoc_17:

(Start: 2 @9846 has 46 MA's), (Start: 5 @9942 has 1 MA's), (7, 9984), (11, 10104), (Start: 13 @10122 has 1 MA's), (14, 10173), (15, 10194), (16, 10206), (27, 10362), (29, 10383), (30, 10428), (35, 10488), (36, 10494), (40, 10587), (43, 10632), (45, 10659), (46, 10692), (53, 10815), (54, 10818), (59, 10938), (61, 10968), (68, 11097), (70, 11118), (72, 11130), (76, 11193), (79, 11235), (82, 11256), (83, 11277), (84, 11283), (85, 11286), (86, 11310), (87, 11319), (90, 11490), (101, 11706), (102, 11742), (103, 11748), (104, 11784), (105, 11796), (111, 12102), (113, 12165), (114, 12183), (117, 12258), (124, 12342), (128, 12399), (131, 12441), (132, 12453), (134, 12486), (135, 12489), (138, 12540), (143, 12651), (145, 12747), (147, 12777), (148, 12780), (149, 12795), (151, 12819), (154, 12930), (155, 12939), (156, 12945), (159, 13014), (161, 13077), (162, 13131), (163, 13146), (166, 13188), (170, 13212), (171, 13230), (173, 13245), (174, 13290), (178, 13347), (179, 13413), (181, 13446), (182, 13491), (184, 13530), (186, 13569), (187, 13596), (189, 13656), (192, 13707), (195, 13743), (196, 13776), (198, 13842), (199, 13854), (201, 13878), (202, 13932), (204, 13965), (223, 14115), (224, 14127), (225, 14136), (226, 14157), (227, 14160), (228, 14166), (229, 14196), (231, 14208), (233, 14265), (235, 14292), (236, 14301), (237, 14313), (238, 14325), (239, 14337), (241, 14373), (242, 14406), (243, 14424), (244, 14484), (247, 14529), (249, 14547), (256, 14658), (259, 14712), (260, 14778), (261, 14787), (263, 14844), (265, 14880), (275, 15006), (276, 15042), (280, 15168), (281, 15171), (294, 15486), (295, 15507), (296, 15525), (297, 15564), (298, 15579), (301, 15744), (303, 15762), (304, 15777), (305, 15789), (308, 15834), (309, 15858), (310, 15948), (311, 15987), (312, 16005), (313, 16014), (314, 16035), (315, 16038), (317, 16071), (318, 16128), (320, 16200), (322, 16212), (323, 16254), (324, 16260),

Gene: PhriskyACE_17 Start: 9572, Stop: 15988, Start Num: 2

Candidate Starts for PhriskyACE_17:

(Start: 2 @9572 has 46 MA's), (7, 9710), (8, 9764), (12, 9836), (Start: 13 @9848 has 1 MA's), (25, 10076), (29, 10109), (30, 10154), (35, 10214), (36, 10220), (40, 10313), (43, 10358), (44, 10379), (45, 10385), (46, 10418), (47, 10433), (53, 10541), (54, 10544), (58, 10661), (59, 10664), (60, 10691), (65, 10757), (69, 10829), (72, 10856), (73, 10874), (76, 10919), (83, 11003), (84, 11009), (85, 11012), (86, 11036), (90, 11216), (96, 11303), (102, 11468), (103, 11474), (104, 11510), (105, 11522), (106, 11585), (108, 11663), (111, 11828), (114, 11909), (117, 11984), (120, 12029), (123, 12062), (124, 12068), (125, 12101), (132, 12179), (138, 12266), (140, 12311), (141, 12317), (147, 12503), (148, 12506), (150, 12536), (151, 12545), (153, 12626), (155, 12665), (158, 12713), (159, 12740), (161, 12803), (163, 12872), (166, 12914), (167, 12920), (170, 12938), (172, 12965), (173, 12971), (174, 13016), (175, 13028), (176, 13037), (177, 13061), (178, 13073), (181, 13172), (182, 13217), (184, 13256), (185, 13292), (187, 13322), (189, 13382), (191, 13424), (192, 13433), (195, 13469), (196, 13502), (198, 13568), (199, 13580), (202, 13658), (204, 13691), (223, 13841), (224, 13853), (225, 13862), (227, 13886), (228, 13892), (231, 13931), (233, 13988), (237, 14036), (238, 14048), (239,

14060), (241, 14096), (243, 14144), (244, 14204), (247, 14249), (256, 14378), (259, 14432), (260, 14498), (264, 14594), (265, 14600), (266, 14648), (267, 14657), (270, 14684), (275, 14735), (276, 14771), (279, 14843), (280, 14897), (282, 14945), (284, 14990), (285, 15002), (288, 15011), (289, 15050), (293, 15194), (297, 15281), (301, 15461), (308, 15551), (310, 15665), (312, 15722), (313, 15731), (314, 15752), (317, 15788), (321, 15923), (322, 15929), (323, 15971), (324, 15977), (325, 15983),

Gene: Polly_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Polly_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774), (280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428), (303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626), (311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878), (322, 16890), (323, 16932), (324, 16938),

Gene: Powerball_17 Start: 9581, Stop: 15994, Start Num: 2

Candidate Starts for Powerball_17:

(Start: 2 @9581 has 46 MA's), (Start: 5 @9677 has 1 MA's), (7, 9719), (12, 9845), (Start: 13 @9857 has 1 MA's), (25, 10085), (29, 10118), (30, 10163), (35, 10223), (36, 10229), (40, 10322), (43, 10367), (44, 10388), (45, 10394), (46, 10427), (47, 10442), (51, 10529), (54, 10553), (57, 10616), (58, 10670), (59, 10673), (65, 10766), (69, 10838), (72, 10865), (73, 10883), (76, 10928), (83, 11012), (84, 11018), (86, 11045), (90, 11225), (102, 11477), (103, 11483), (104, 11519), (105, 11531), (106, 11594), (108, 11672), (114, 11918), (117, 11993), (120, 12038), (121, 12044), (123, 12071), (124, 12077), (125, 12110), (130, 12161), (138, 12275), (140, 12320), (141, 12326), (145, 12482), (147, 12512), (148, 12515), (149, 12530), (151, 12554), (153, 12632), (154, 12662), (155, 12671), (159, 12746), (160, 12782), (161, 12809), (163, 12878), (166, 12920), (167, 12926), (170, 12944), (172, 12971), (173, 12977), (174, 13022), (175, 13034), (176, 13043), (178, 13079), (181, 13178), (182, 13223), (184, 13262), (185, 13298), (187, 13328), (189, 13388), (192, 13439), (196, 13508), (198, 13574), (199, 13586), (200, 13607), (201, 13610), (202, 13664), (203, 13685), (204, 13697), (223, 13847), (224, 13859), (225, 13868), (227, 13892), (228, 13898), (231, 13937), (233, 13994), (237, 14042), (238, 14054), (239, 14066), (242, 14132), (243, 14150), (244, 14210), (247, 14255), (250, 14303), (256, 14384), (259, 14438), (260, 14504), (264, 14600), (265, 14606), (266, 14666), (267, 14675), (276, 14777), (279, 14849), (280, 14903), (284, 14996), (285, 15008), (289, 15056), (293, 15200), (297, 15287), (301, 15467), (308, 15557), (310, 15671), (313, 15737), (314, 15758), (317, 15794), (321, 15929), (322, 15935), (323, 15977), (324, 15983), (325, 15989),

Gene: Samman98_18 Start: 10090, Stop: 16503, Start Num: 2

Candidate Starts for Samman98_18:

(Start: 2 @10090 has 46 MA's), (Start: 5 @10186 has 1 MA's), (7, 10228), (12, 10354), (Start: 13 @10366 has 1 MA's), (25, 10594), (29, 10627), (30, 10672), (35, 10732), (36, 10738), (40, 10831), (43, 10876), (44, 10897), (45, 10903), (46, 10936), (47, 10951), (53, 11059), (54, 11062), (58, 11179), (59, 11182), (65, 11275), (69, 11347), (72, 11374), (73, 11392), (76, 11437), (83, 11521), (84, 11527), (85, 11530), (86, 11554), (90, 11734), (93, 11767), (102, 11986), (103, 11992), (104, 12028), (105, 12040), (108, 12181), (111, 12346), (114, 12427), (117, 12502), (120, 12547), (123, 12580), (124, 12586), (125, 12619), (132, 12697), (138, 12784), (140, 12829), (141, 12835), (145, 12991), (147, 13021), (148, 13024), (149, 13039), (151, 13063), (152, 13105), (153, 13141), (154, 13171), (155, 13180), (158, 13228), (159, 13255), (161, 13318), (163, 13387), (167, 13435), (170, 13453), (172, 13480), (173, 13486), (174, 13531), (175, 13543), (176, 13552), (178, 13588), (181, 13687), (182, 13732), (183, 13744), (184, 13771), (185, 13807), (187, 13837), (189, 13897), (191, 13939), (192, 13948), (193, 13957), (195, 13984), (196, 14017), (198, 14083), (199, 14095), (202, 14173), (204, 14206), (224, 14368), (225, 14377), (227, 14401), (228, 14407), (231, 14446), (233, 14503), (235, 14530), (237, 14551), (238, 14563), (239, 14575), (241, 14611), (242, 14641), (243, 14659), (244, 14719), (247, 14764), (248, 14773), (256, 14893), (259, 14947), (260, 15013), (264, 15109), (266, 15163), (267, 15172), (270, 15199), (275, 15250), (276, 15286), (280, 15412), (283, 15487), (285, 15517), (293, 15709), (294, 15718), (297, 15796), (301, 15976), (308, 16066), (310, 16180), (312, 16237), (313, 16246), (314, 16267), (317, 16303), (321, 16438), (322, 16444), (323, 16486), (324, 16492), (325, 16498),

Gene: Sekhmet_18 Start: 10327, Stop: 16863, Start Num: 2

Candidate Starts for Sekhmet_18:

(Start: 1 @10315 has 5 MA's), (Start: 2 @10327 has 46 MA's), (4, 10366), (Start: 5 @10423 has 1 MA's), (7, 10465), (9, 10525), (11, 10585), (Start: 13 @10603 has 1 MA's), (18, 10729), (23, 10768), (25, 10789), (26, 10798), (28, 10810), (29, 10822), (30, 10867), (32, 10894), (38, 10969), (41, 11032), (42, 11053), (47, 11146), (48, 11182), (50, 11218), (51, 11236), (52, 11245), (55, 11278), (56, 11311), (59, 11380), (61, 11410), (62, 11425), (65, 11482), (67, 11533), (68, 11548), (71, 11581), (74, 11686), (75, 11695), (76, 11716), (77, 11752), (78, 11758), (81, 11800), (85, 11842), (88, 11902), (91, 12049), (92, 12088), (94, 12115), (99, 12208), (102, 12346), (103, 12352), (104, 12388), (105, 12400), (107, 12472), (110, 12571), (118, 12865), (120, 12907), (123, 12940), (124, 12946), (130, 13030), (132, 13057), (138, 13144), (140, 13189), (141, 13195), (145, 13351), (147, 13381), (148, 13384), (149, 13399), (151, 13423), (153, 13501), (154, 13531), (155, 13540), (158, 13588), (159, 13615), (161, 13678), (163, 13747), (167, 13795), (170, 13813), (172, 13840), (173, 13846), (174, 13891), (175, 13903), (176, 13912), (178, 13948), (181, 14047), (182, 14092), (183, 14104), (184, 14131), (185, 14167), (187, 14197), (189, 14257), (191, 14299), (192, 14308), (193, 14317), (195, 14344), (196, 14377), (198, 14443), (199, 14455), (202, 14533), (204, 14566), (224, 14728), (225, 14737), (227, 14761), (228, 14767), (231, 14806), (233, 14863), (235, 14890), (237, 14911), (238, 14923), (239, 14935), (241, 14971), (242, 15001), (243, 15019), (244, 15079), (247, 15124), (248, 15133), (256, 15253), (259, 15307), (260, 15373), (264, 15469), (266, 15523), (267, 15532), (270, 15559), (275, 15610), (276, 15646), (279, 15718), (280, 15772), (283, 15847), (293, 16069), (294, 16078), (297, 16156), (301, 16336), (308, 16426), (310, 16540), (312, 16597), (313, 16606), (314, 16627), (317, 16663), (319, 16762), (321, 16798), (322, 16804), (323, 16846), (324, 16852), (325, 16858),

Gene: Shlim410_18 Start: 10520, Stop: 17068, Start Num: 1

Candidate Starts for Shlim410_18:

(Start: 1 @10520 has 5 MA's), (Start: 2 @10532 has 46 MA's), (4, 10571), (Start: 5 @10628 has 1 MA's), (7, 10670), (9, 10730), (11, 10790), (Start: 13 @10808 has 1 MA's), (18, 10934), (23, 10973), (25, 10994), (26, 11003), (28, 11015), (29, 11027), (30, 11072), (32, 11099), (38, 11174), (41, 11237), (42, 11258), (47, 11351), (48, 11387), (50, 11423), (51, 11441), (52, 11450), (55, 11483), (56, 11516), (59, 11585), (61, 11615), (62, 11630), (65, 11687), (67, 11738), (68, 11753), (71, 11786), (74, 11891), (75, 11900), (76, 11921), (77, 11957), (78, 11963), (81, 12005), (85, 12047), (88, 12107), (91, 12254), (92, 12293), (94, 12320), (99, 12413), (102, 12551), (103, 12557), (104, 12593), (105, 12605), (107, 12677), (110, 12776), (118, 13070), (120, 13112), (123, 13145), (124, 13151), (130, 13235), (132,

13262), (138, 13349), (140, 13394), (141, 13400), (145, 13556), (147, 13586), (148, 13589), (149, 13604), (151, 13628), (153, 13706), (154, 13736), (155, 13745), (158, 13793), (159, 13820), (161, 13883), (163, 13952), (167, 14000), (170, 14018), (172, 14045), (173, 14051), (174, 14096), (175, 14108), (176, 14117), (178, 14153), (181, 14252), (182, 14297), (183, 14309), (184, 14336), (185, 14372), (187, 14402), (189, 14462), (191, 14504), (192, 14513), (193, 14522), (195, 14549), (196, 14582), (198, 14648), (199, 14660), (202, 14738), (204, 14771), (224, 14933), (225, 14942), (227, 14966), (228, 14972), (231, 15011), (233, 15068), (235, 15095), (237, 15116), (238, 15128), (239, 15140), (241, 15176), (242, 15206), (243, 15224), (244, 15284), (247, 15329), (248, 15338), (256, 15458), (259, 15512), (260, 15578), (264, 15674), (266, 15728), (267, 15737), (270, 15764), (275, 15815), (276, 15851), (280, 15977), (283, 16052), (285, 16082), (293, 16274), (294, 16283), (297, 16361), (301, 16541), (308, 16631), (310, 16745), (312, 16802), (313, 16811), (314, 16832), (317, 16868), (321, 17003), (322, 17009), (323, 17051), (324, 17057), (325, 17063),

Gene: Sidious_17 Start: 9992, Stop: 16465, Start Num: 2

Candidate Starts for Sidious_17:

(Start: 2 @9992 has 46 MA's), (3, 10025), (Start: 5 @10088 has 1 MA's), (7, 10130), (10, 10247), (11, 10250), (12, 10256), (Start: 13 @10268 has 1 MA's), (19, 10427), (20, 10436), (21, 10445), (24, 10478), (27, 10508), (29, 10529), (31, 10577), (33, 10604), (34, 10616), (35, 10634), (36, 10640), (37, 10670), (39, 10718), (40, 10733), (45, 10805), (46, 10838), (49, 10901), (53, 10961), (54, 10964), (55, 10982), (59, 11084), (63, 11150), (65, 11177), (72, 11276), (76, 11339), (79, 11381), (82, 11402), (83, 11423), (84, 11429), (85, 11432), (86, 11456), (88, 11492), (89, 11507), (91, 11639), (92, 11678), (94, 11705), (96, 11750), (97, 11777), (99, 11798), (103, 11942), (104, 11978), (105, 11990), (112, 12329), (114, 12380), (115, 12404), (117, 12455), (119, 12497), (120, 12500), (122, 12515), (124, 12539), (125, 12572), (129, 12620), (133, 12662), (134, 12683), (136, 12707), (138, 12737), (139, 12740), (142, 12812), (143, 12845), (147, 12971), (148, 12974), (151, 13013), (154, 13124), (155, 13133), (159, 13208), (161, 13271), (163, 13340), (166, 13382), (169, 13400), (170, 13406), (171, 13424), (173, 13439), (174, 13484), (175, 13496), (176, 13505), (177, 13529), (178, 13541), (180, 13616), (182, 13685), (184, 13724), (186, 13763), (187, 13790), (189, 13850), (192, 13901), (196, 13970), (198, 14036), (199, 14048), (202, 14126), (204, 14159), (223, 14309), (224, 14321), (225, 14330), (227, 14354), (228, 14360), (229, 14390), (231, 14402), (233, 14459), (235, 14486), (237, 14507), (238, 14519), (239, 14531), (246, 14702), (251, 14783), (258, 14873), (260, 14981), (263, 15047), (268, 15152), (276, 15245), (280, 15371), (296, 15716), (297, 15755), (301, 15938), (302, 15944), (304, 15971), (305, 15983), (308, 16028), (310, 16142), (312, 16199), (313, 16208), (314, 16229), (316, 16247), (322, 16406), (323, 16448), (324, 16454),

Gene: Suerte_16 Start: 9573, Stop: 15986, Start Num: 2

Candidate Starts for Suerte_16:

(Start: 2 @9573 has 46 MA's), (Start: 5 @9669 has 1 MA's), (7, 9711), (8, 9765), (12, 9837), (Start: 13 @9849 has 1 MA's), (25, 10077), (29, 10110), (30, 10155), (35, 10215), (36, 10221), (40, 10314), (43, 10359), (44, 10380), (45, 10386), (46, 10419), (47, 10434), (53, 10542), (54, 10545), (58, 10662), (59, 10665), (65, 10758), (69, 10830), (72, 10857), (73, 10875), (76, 10920), (83, 11004), (84, 11010), (85, 11013), (86, 11037), (90, 11217), (93, 11250), (102, 11469), (103, 11475), (104, 11511), (105, 11523), (108, 11664), (111, 11829), (114, 11910), (117, 11985), (124, 12069), (130, 12153), (132, 12180), (138, 12267), (140, 12312), (141, 12318), (145, 12474), (147, 12504), (148, 12507), (149, 12522), (151, 12546), (152, 12588), (153, 12624), (154, 12654), (155, 12663), (158, 12711), (159, 12738), (161, 12801), (163, 12870), (167, 12918), (170, 12936), (172, 12963), (173, 12969), (174, 13014), (175, 13026), (176, 13035), (178, 13071), (181, 13170), (182, 13215), (184, 13254), (185, 13290), (187, 13320), (189, 13380), (191, 13422), (192, 13431), (195, 13467), (196, 13500), (198, 13566), (199, 13578), (202, 13656), (204, 13689), (224, 13851), (225, 13860), (227, 13884), (228, 13890), (231, 13929), (233, 13986), (237, 14034), (238, 14046), (239, 14058), (241, 14094), (242, 14124), (243, 14142), (244, 14202), (247, 14247), (248, 14256), (256, 14376), (260, 14496), (264, 14592), (265, 14598), (266, 14646), (267, 14655), (270, 14682), (275, 14733), (276, 14769), (279, 14841), (280, 14895), (284, 14988), (285, 15000), (289, 15048), (291, 15153), (293, 15192), (297, 15279),

(301, 15459), (308, 15549), (310, 15663), (312, 15720), (313, 15729), (314, 15750), (317, 15786),
(321, 15921), (322, 15927), (323, 15969), (324, 15975), (325, 15981),

Gene: Suscepit_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Suscepit_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776),
(14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160),
(40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604),
(61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901),
(82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372),
(102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849),
(117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155),
(138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596),
(155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878),
(171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112),
(182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409),
(196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781),
(224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),
(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: Tayonia_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Tayonia_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776),
(14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160),
(40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604),
(61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901),
(82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372),
(102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849),
(117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155),
(138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596),
(155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878),
(171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112),
(182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409),
(196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781),
(224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),
(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: ThankyouJordi_16 Start: 10539, Stop: 16982, Start Num: 2

Candidate Starts for ThankyouJordi_16:

(Start: 2 @10539 has 46 MA's), (Start: 5 @10635 has 1 MA's), (7, 10677), (11, 10797), (Start: 13
@10815 has 1 MA's), (14, 10866), (15, 10887), (16, 10899), (27, 11055), (29, 11076), (30, 11121), (35,

11181), (36, 11187), (40, 11280), (43, 11325), (44, 11346), (45, 11352), (46, 11385), (53, 11508), (54, 11511), (59, 11631), (65, 11724), (66, 11727), (68, 11790), (72, 11823), (73, 11841), (76, 11886), (79, 11928), (82, 11949), (83, 11970), (84, 11976), (85, 11979), (86, 12003), (87, 12012), (90, 12183), (101, 12399), (102, 12435), (103, 12441), (104, 12477), (105, 12489), (109, 12636), (111, 12795), (113, 12858), (116, 12936), (117, 12951), (124, 13035), (128, 13092), (131, 13134), (134, 13179), (135, 13182), (143, 13344), (145, 13440), (147, 13470), (148, 13473), (151, 13512), (154, 13623), (155, 13632), (159, 13707), (161, 13770), (163, 13839), (166, 13881), (170, 13905), (173, 13938), (174, 13983), (176, 14004), (177, 14028), (178, 14040), (181, 14139), (182, 14184), (184, 14223), (186, 14262), (187, 14289), (189, 14349), (192, 14400), (196, 14469), (197, 14493), (198, 14535), (199, 14547), (202, 14625), (204, 14658), (223, 14808), (224, 14820), (225, 14829), (227, 14853), (228, 14859), (231, 14901), (233, 14958), (235, 14985), (237, 15006), (239, 15030), (241, 15066), (242, 15102), (243, 15120), (244, 15180), (247, 15225), (252, 15282), (256, 15354), (259, 15408), (260, 15474), (263, 15540), (264, 15570), (265, 15576), (272, 15669), (278, 15801), (280, 15870), (282, 15918), (294, 16194), (295, 16215), (297, 16272), (298, 16287), (301, 16455), (302, 16461), (303, 16473), (304, 16488), (305, 16500), (308, 16545), (310, 16659), (312, 16716), (314, 16746), (316, 16764), (320, 16911), (321, 16917), (322, 16923), (323, 16965), (324, 16971),

Gene: Thimann_18 Start: 10060, Stop: 16470, Start Num: 2

Candidate Starts for Thimann_18:

(Start: 2 @10060 has 46 MA's), (Start: 5 @10156 has 1 MA's), (7, 10198), (Start: 13 @10336 has 1 MA's), (25, 10564), (29, 10597), (30, 10642), (35, 10702), (36, 10708), (40, 10801), (43, 10846), (44, 10867), (45, 10873), (46, 10906), (47, 10921), (53, 11029), (54, 11032), (58, 11149), (59, 11152), (65, 11245), (69, 11317), (72, 11344), (73, 11362), (76, 11407), (83, 11491), (84, 11497), (85, 11500), (86, 11524), (90, 11704), (93, 11737), (102, 11956), (103, 11962), (104, 11998), (105, 12010), (111, 12316), (114, 12397), (117, 12472), (124, 12556), (130, 12640), (132, 12667), (138, 12754), (140, 12799), (141, 12805), (145, 12961), (147, 12991), (148, 12994), (149, 13009), (151, 13033), (152, 13075), (153, 13111), (154, 13141), (155, 13150), (158, 13198), (159, 13225), (161, 13288), (163, 13357), (167, 13405), (170, 13423), (172, 13450), (173, 13456), (174, 13501), (175, 13513), (176, 13522), (178, 13558), (181, 13657), (182, 13702), (183, 13714), (184, 13741), (185, 13777), (187, 13807), (189, 13867), (191, 13909), (192, 13918), (193, 13927), (195, 13954), (196, 13987), (198, 14053), (199, 14065), (202, 14143), (204, 14176), (224, 14338), (225, 14347), (227, 14371), (228, 14377), (231, 14416), (233, 14473), (235, 14500), (237, 14521), (238, 14533), (239, 14545), (241, 14581), (242, 14611), (243, 14629), (244, 14689), (247, 14734), (248, 14743), (256, 14863), (259, 14917), (260, 14983), (264, 15079), (266, 15133), (267, 15142), (270, 15169), (275, 15220), (276, 15256), (280, 15382), (283, 15457), (285, 15487), (294, 15685), (295, 15706), (296, 15724), (297, 15763), (300, 15874), (301, 15943), (308, 16033), (310, 16147), (312, 16204), (313, 16213), (314, 16234), (317, 16270), (319, 16369), (321, 16405), (322, 16411), (323, 16453), (324, 16459), (325, 16465),

Gene: TimTam_17 Start: 10512, Stop: 16940, Start Num: 2

Candidate Starts for TimTam_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13 @10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59, 11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (173, 13911), (174, 13956), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (198, 14508), (199, 14520), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (227, 14826),

(228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (243, 15087), (252, 15252), (255, 15321), (257, 15333), (258, 15336), (260, 15444), (261, 15453), (263, 15510), (265, 15546), (273, 15651), (275, 15672), (280, 15834), (281, 15837), (294, 16155), (295, 16176), (296, 16194), (297, 16233), (299, 16323), (301, 16413), (303, 16431), (304, 16446), (305, 16458), (308, 16503), (310, 16617), (312, 16674), (313, 16683), (314, 16704), (315, 16707), (317, 16740), (318, 16797), (319, 16839), (320, 16869), (322, 16881), (323, 16923), (324, 16929),

Gene: Trumpet_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Trumpet_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112), (182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781), (224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774), (280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428), (303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626), (311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878), (322, 16890), (323, 16932), (324, 16938),

Gene: Tuti_22 Start: 10528, Stop: 16875, Start Num: 9

Candidate Starts for Tuti_22:

(Start: 1 @10318 has 5 MA's), (Start: 2 @10330 has 46 MA's), (4, 10369), (Start: 5 @10426 has 1 MA's), (7, 10468), (9, 10528), (11, 10588), (Start: 13 @10606 has 1 MA's), (18, 10732), (23, 10771), (25, 10792), (26, 10801), (28, 10813), (29, 10825), (30, 10870), (32, 10897), (38, 10972), (41, 11035), (42, 11056), (47, 11149), (48, 11185), (50, 11221), (51, 11239), (52, 11248), (55, 11281), (56, 11314), (59, 11383), (61, 11413), (62, 11428), (65, 11485), (67, 11536), (68, 11551), (71, 11584), (74, 11689), (75, 11698), (76, 11719), (77, 11755), (78, 11761), (81, 11803), (85, 11845), (88, 11905), (91, 12052), (92, 12091), (94, 12118), (99, 12211), (102, 12349), (103, 12355), (104, 12391), (105, 12403), (107, 12475), (110, 12574), (118, 12868), (120, 12910), (123, 12943), (124, 12949), (130, 13033), (132, 13060), (138, 13147), (140, 13192), (141, 13198), (145, 13354), (147, 13384), (148, 13387), (149, 13402), (151, 13426), (153, 13504), (154, 13534), (155, 13543), (158, 13591), (159, 13618), (161, 13681), (163, 13750), (166, 13792), (167, 13798), (168, 13807), (170, 13816), (172, 13843), (173, 13849), (174, 13894), (175, 13906), (176, 13915), (177, 13939), (178, 13951), (181, 14050), (182, 14095), (183, 14107), (184, 14134), (185, 14170), (187, 14200), (189, 14260), (192, 14311), (195, 14347), (196, 14380), (198, 14446), (199, 14458), (202, 14536), (203, 14557), (204, 14569), (223, 14719), (224, 14731), (225, 14740), (227, 14764), (228, 14770), (229, 14797), (230, 14800), (231, 14809), (232, 14854), (235, 14893), (237, 14914), (238, 14926), (239, 14938), (241, 14974), (242, 15004), (243, 15022), (244, 15082), (246, 15097), (247, 15127), (253, 15187), (256, 15256), (260, 15376), (261, 15385), (262, 15406), (263, 15442), (264, 15472), (265, 15478), (267, 15535), (270, 15562), (275, 15625), (277, 15694), (279, 15733), (280, 15787), (294, 16090), (295, 16111), (297, 16168), (301, 16348), (303, 16366), (304, 16381), (305, 16393), (308, 16438), (310, 16552), (311,

16591), (312, 16609), (313, 16618), (314, 16639), (317, 16675), (319, 16774), (322, 16816), (323, 16858), (324, 16864),

Gene: Twinkle_18 Start: 10520, Stop: 18127, Start Num: 1

Candidate Starts for Twinkle_18:

(Start: 1 @10520 has 5 MA's), (Start: 2 @10532 has 46 MA's), (4, 10571), (Start: 5 @10628 has 1 MA's), (7, 10670), (9, 10730), (11, 10790), (Start: 13 @10808 has 1 MA's), (18, 10934), (23, 10973), (25, 10994), (26, 11003), (28, 11015), (29, 11027), (30, 11072), (32, 11099), (38, 11174), (41, 11237), (42, 11258), (47, 11351), (48, 11387), (50, 11423), (51, 11441), (52, 11450), (55, 11483), (56, 11516), (59, 11585), (61, 11615), (62, 11630), (65, 11687), (67, 11738), (68, 11753), (71, 11786), (74, 11891), (75, 11900), (76, 11921), (77, 11957), (78, 11963), (81, 12005), (85, 12047), (88, 12107), (91, 12254), (92, 12293), (94, 12320), (99, 12413), (102, 12551), (103, 12557), (104, 12593), (105, 12605), (107, 12677), (110, 12776), (118, 13070), (120, 13112), (123, 13145), (124, 13151), (130, 13235), (132, 13262), (138, 13349), (140, 13394), (145, 13556), (147, 13586), (148, 13589), (151, 13628), (153, 13709), (154, 13739), (155, 13748), (158, 13796), (159, 13823), (161, 13886), (163, 13955), (167, 14003), (170, 14021), (173, 14054), (174, 14099), (175, 14111), (176, 14120), (178, 14156), (181, 14255), (182, 14300), (184, 14339), (185, 14375), (187, 14405), (189, 14465), (191, 14507), (192, 14516), (195, 14552), (196, 14585), (198, 14651), (199, 14663), (202, 14741), (204, 14774), (205, 14918), (206, 15062), (207, 15068), (208, 15197), (209, 15212), (210, 15269), (211, 15401), (212, 15440), (213, 15464), (214, 15554), (215, 15620), (216, 15644), (217, 15770), (218, 15839), (219, 15884), (220, 15893), (221, 15920), (222, 15953), (223, 15980), (224, 15992), (225, 16001), (227, 16025), (228, 16031), (231, 16070), (233, 16127), (235, 16154), (237, 16175), (238, 16187), (239, 16199), (241, 16235), (242, 16265), (243, 16283), (244, 16343), (247, 16388), (248, 16397), (256, 16517), (259, 16571), (260, 16637), (264, 16733), (266, 16787), (267, 16796), (270, 16823), (275, 16874), (276, 16910), (280, 17036), (283, 17111), (285, 17141), (293, 17333), (294, 17342), (297, 17420), (301, 17600), (308, 17690), (310, 17804), (312, 17861), (313, 17870), (314, 17891), (317, 17927), (321, 18062), (322, 18068), (323, 18110), (324, 18116), (325, 18122),

Gene: WelcomeAyanna_16 Start: 10539, Stop: 16982, Start Num: 2

Candidate Starts for WelcomeAyanna_16:

(Start: 2 @10539 has 46 MA's), (Start: 5 @10635 has 1 MA's), (7, 10677), (11, 10797), (Start: 13 @10815 has 1 MA's), (14, 10866), (15, 10887), (16, 10899), (27, 11055), (29, 11076), (30, 11121), (35, 11181), (36, 11187), (40, 11280), (43, 11325), (44, 11346), (45, 11352), (46, 11385), (53, 11508), (54, 11511), (59, 11631), (65, 11724), (66, 11727), (68, 11790), (72, 11823), (73, 11841), (76, 11886), (79, 11928), (82, 11949), (83, 11970), (84, 11976), (85, 11979), (86, 12003), (87, 12012), (90, 12183), (101, 12399), (102, 12435), (103, 12441), (104, 12477), (105, 12489), (109, 12636), (111, 12795), (113, 12858), (116, 12936), (117, 12951), (124, 13035), (128, 13092), (131, 13134), (134, 13179), (135, 13182), (143, 13344), (145, 13440), (147, 13470), (148, 13473), (151, 13512), (154, 13623), (155, 13632), (159, 13707), (161, 13770), (163, 13839), (166, 13881), (170, 13905), (173, 13938), (174, 13983), (176, 14004), (177, 14028), (178, 14040), (181, 14139), (182, 14184), (184, 14223), (186, 14262), (187, 14289), (189, 14349), (192, 14400), (196, 14469), (197, 14493), (198, 14535), (199, 14547), (202, 14625), (204, 14658), (223, 14808), (224, 14820), (225, 14829), (227, 14853), (228, 14859), (231, 14901), (233, 14958), (235, 14985), (237, 15006), (239, 15030), (241, 15066), (242, 15102), (243, 15120), (244, 15180), (247, 15225), (252, 15282), (256, 15354), (259, 15408), (260, 15474), (263, 15540), (264, 15570), (265, 15576), (272, 15669), (278, 15801), (280, 15870), (282, 15918), (294, 16194), (295, 16215), (297, 16272), (298, 16287), (301, 16455), (302, 16461), (303, 16473), (304, 16488), (305, 16500), (308, 16545), (310, 16659), (312, 16716), (314, 16746), (316, 16764), (320, 16911), (321, 16917), (322, 16923), (323, 16965), (324, 16971),

Gene: WinkNick_18 Start: 10075, Stop: 16488, Start Num: 2

Candidate Starts for WinkNick_18:

(Start: 2 @10075 has 46 MA's), (Start: 5 @10171 has 1 MA's), (7, 10213), (12, 10339), (Start: 13 @10351 has 1 MA's), (25, 10579), (29, 10612), (30, 10657), (35, 10717), (36, 10723), (40, 10816), (43,

10861), (44, 10882), (45, 10888), (46, 10921), (47, 10936), (53, 11044), (54, 11047), (58, 11164), (59, 11167), (65, 11260), (69, 11332), (72, 11359), (73, 11377), (76, 11422), (83, 11506), (84, 11512), (85, 11515), (86, 11539), (90, 11719), (93, 11752), (102, 11971), (103, 11977), (104, 12013), (105, 12025), (108, 12166), (111, 12331), (114, 12412), (117, 12487), (120, 12532), (123, 12565), (124, 12571), (125, 12604), (132, 12682), (138, 12769), (140, 12814), (141, 12820), (145, 12976), (147, 13006), (148, 13009), (149, 13024), (151, 13048), (152, 13090), (153, 13126), (154, 13156), (155, 13165), (158, 13213), (159, 13240), (161, 13303), (163, 13372), (167, 13420), (170, 13438), (172, 13465), (173, 13471), (174, 13516), (175, 13528), (176, 13537), (178, 13573), (181, 13672), (182, 13717), (183, 13729), (184, 13756), (185, 13792), (187, 13822), (189, 13882), (191, 13924), (192, 13933), (193, 13942), (195, 13969), (196, 14002), (198, 14068), (199, 14080), (202, 14158), (204, 14191), (224, 14353), (225, 14362), (227, 14386), (228, 14392), (231, 14431), (233, 14488), (235, 14515), (237, 14536), (238, 14548), (239, 14560), (241, 14596), (242, 14626), (243, 14644), (244, 14704), (247, 14749), (248, 14758), (256, 14878), (259, 14932), (260, 14998), (264, 15094), (266, 15148), (267, 15157), (270, 15184), (275, 15235), (276, 15271), (280, 15397), (283, 15472), (285, 15502), (293, 15694), (294, 15703), (297, 15781), (301, 15961), (308, 16051), (310, 16165), (312, 16222), (313, 16231), (314, 16252), (317, 16288), (321, 16423), (322, 16429), (323, 16471), (324, 16477), (325, 16483),

Gene: Yeezy_18 Start: 9966, Stop: 16295, Start Num: 5

Candidate Starts for Yeezy_18:

(Start: 2 @9870 has 46 MA's), (Start: 5 @9966 has 1 MA's), (7, 10008), (11, 10128), (Start: 13 @10146 has 1 MA's), (14, 10197), (15, 10218), (16, 10230), (27, 10386), (29, 10407), (30, 10452), (35, 10512), (36, 10518), (40, 10611), (43, 10656), (45, 10683), (46, 10716), (53, 10839), (54, 10842), (59, 10962), (61, 10992), (68, 11121), (70, 11142), (72, 11154), (76, 11217), (79, 11259), (82, 11280), (83, 11301), (84, 11307), (85, 11310), (86, 11334), (87, 11343), (90, 11514), (101, 11730), (102, 11766), (103, 11772), (104, 11808), (105, 11820), (111, 12126), (113, 12189), (114, 12207), (117, 12282), (124, 12366), (128, 12423), (131, 12465), (132, 12477), (134, 12510), (135, 12513), (138, 12564), (143, 12675), (145, 12771), (147, 12801), (148, 12804), (149, 12819), (151, 12843), (154, 12954), (155, 12963), (156, 12969), (159, 13038), (161, 13101), (162, 13155), (163, 13170), (166, 13212), (170, 13236), (173, 13269), (174, 13314), (178, 13371), (180, 13446), (181, 13470), (182, 13515), (184, 13554), (186, 13593), (187, 13620), (189, 13680), (192, 13731), (195, 13767), (196, 13800), (198, 13866), (199, 13878), (201, 13902), (202, 13956), (204, 13989), (223, 14139), (224, 14151), (225, 14160), (226, 14181), (227, 14184), (228, 14190), (229, 14220), (231, 14232), (233, 14289), (235, 14316), (236, 14325), (237, 14337), (238, 14349), (239, 14361), (241, 14397), (242, 14430), (243, 14448), (244, 14508), (247, 14553), (249, 14571), (256, 14682), (259, 14736), (260, 14802), (261, 14811), (263, 14868), (265, 14904), (275, 15030), (276, 15066), (280, 15192), (281, 15195), (294, 15510), (295, 15531), (296, 15549), (297, 15588), (298, 15603), (301, 15768), (303, 15786), (304, 15801), (305, 15813), (308, 15858), (309, 15882), (310, 15972), (311, 16011), (312, 16029), (313, 16038), (314, 16059), (315, 16062), (317, 16095), (318, 16152), (320, 16224), (322, 16236), (323, 16278), (324, 16284),

Gene: Zameen_17 Start: 10512, Stop: 16949, Start Num: 2

Candidate Starts for Zameen_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (12, 10776), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35, 11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (57, 11547), (59, 11604), (61, 11634), (66, 11700), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82, 11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372), (102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849), (117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (135, 13155), (138, 13206), (143, 13317), (145, 13413), (147, 13443), (148, 13446), (151, 13485), (154, 13596), (155, 13605), (159, 13680), (161, 13743), (162, 13797), (163, 13812), (166, 13854), (170, 13878), (171, 13896), (173, 13911), (174, 13956), (177, 14001), (178, 14013), (180, 14088), (181, 14112),

(182, 14157), (184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409),
(196, 14442), (197, 14466), (198, 14508), (199, 14520), (202, 14598), (204, 14631), (223, 14781),
(224, 14793), (225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874),
(233, 14931), (234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003),
(241, 15039), (242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378),
(260, 15444), (263, 15510), (264, 15540), (265, 15546), (267, 15600), (272, 15645), (278, 15774),
(280, 15843), (294, 16164), (295, 16185), (297, 16242), (298, 16257), (301, 16422), (302, 16428),
(303, 16440), (304, 16455), (305, 16467), (306, 16479), (308, 16512), (309, 16536), (310, 16626),
(311, 16665), (312, 16683), (313, 16692), (314, 16713), (315, 16716), (318, 16806), (320, 16878),
(322, 16890), (323, 16932), (324, 16938),

Gene: Zirinka_17 Start: 10512, Stop: 16952, Start Num: 2

Candidate Starts for Zirinka_17:

(Start: 2 @10512 has 46 MA's), (Start: 5 @10608 has 1 MA's), (7, 10650), (11, 10770), (Start: 13
@10788 has 1 MA's), (14, 10839), (15, 10860), (16, 10872), (27, 11028), (29, 11049), (30, 11094), (35,
11154), (36, 11160), (40, 11253), (43, 11298), (45, 11325), (46, 11358), (53, 11481), (54, 11484), (59,
11604), (61, 11634), (68, 11763), (70, 11784), (72, 11796), (73, 11814), (76, 11859), (79, 11901), (82,
11922), (83, 11943), (84, 11949), (85, 11952), (86, 11976), (87, 11985), (90, 12156), (101, 12372),
(102, 12408), (103, 12414), (104, 12450), (105, 12462), (111, 12768), (113, 12831), (114, 12849),
(117, 12924), (124, 13008), (128, 13065), (131, 13107), (132, 13119), (134, 13152), (138, 13206),
(143, 13317), (145, 13413), (147, 13443), (148, 13446), (149, 13461), (151, 13485), (154, 13596),
(155, 13605), (156, 13611), (157, 13644), (159, 13680), (161, 13743), (166, 13854), (170, 13878),
(173, 13911), (174, 13956), (177, 14001), (178, 14013), (179, 14079), (181, 14112), (182, 14157),
(184, 14196), (186, 14235), (187, 14262), (189, 14322), (192, 14373), (195, 14409), (196, 14442),
(197, 14466), (198, 14508), (201, 14544), (202, 14598), (204, 14631), (223, 14781), (224, 14793),
(225, 14802), (226, 14823), (227, 14826), (228, 14832), (229, 14862), (231, 14874), (233, 14931),
(234, 14943), (235, 14958), (236, 14967), (237, 14979), (238, 14991), (239, 15003), (241, 15039),
(242, 15072), (243, 15090), (244, 15150), (247, 15195), (256, 15324), (259, 15378), (260, 15444),
(261, 15453), (263, 15510), (265, 15546), (267, 15600), (272, 15645), (278, 15777), (280, 15846),
(294, 16167), (295, 16188), (296, 16206), (297, 16245), (298, 16260), (301, 16425), (303, 16443),
(304, 16458), (305, 16470), (306, 16482), (308, 16515), (309, 16539), (310, 16629), (312, 16686),
(313, 16695), (314, 16716), (318, 16809), (320, 16881), (322, 16893), (323, 16935), (324, 16941),