

Pham 154735

1: Onika_36 + 2	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
2: Scumberland_38 + 2	130	130	141	53	71	89	113	121	147	160	182	197	205	210	222	250	255	278	278	278	278	294	300	307	310	334	347
3: RobsHeel_38	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
4: Yeti_37 + 6	23	34	34	51	51	62	62	88	110	119	127	149	175	186	197	217	250	255	278	278	278	312	316	319	340		
5: Antares_37	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
6: Piperis_37	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
7: Pulchra_38 + 3	26	34	49	59	68	87	102	106	112	128	138	168	182	205	210	222	250	255	278	278	278	300	307	310	334	347	
8: Ariadne_45 + 1	130	130	141	53	71	89	113	121	147	160	182	197	205	210	222	250	255	278	278	278	278	294	300	307	310	334	347
9: Fireman_37	26	34	49	59	68	87	102	106	112	128	138	168	182	205	210	222	250	255	278	278	278	300	307	310	334	347	
10: Megan_31	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
11: Kowalski_36 + 2	23	34	34	51	51	62	62	88	110	119	127	149	175	186	197	217	250	255	278	278	278	300	307	310	334	347	
12: PiperSansNom_37	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
13: EarickHC_37 + 1	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
14: Quhwah_40	107	117	34	41	51	53	65	88	106	112	128	149	182	205	210	222	250	255	278	278	278	307	310	323	347		
15: Tyrumbra_38	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
16: NoodlelyBoi_37	23	34	34	51	51	62	62	88	110	119	127	149	175	186	197	217	250	255	278	278	278	300	307	310	334	347	
17: Paschalis_36	12	15	21	28	43	52	58	76	100	115	128	136	168	182	205	210	222	250	255	278	278	300	307	310	334	347	
18: Jayden_38	23	34	49	59	68	87	102	106	112	128	138	168	182	205	210	222	250	255	278	278	278	300	307	310	334	347	
19: Teamoqi_38 + 1	130	130	141	53	71	89	113	121	147	160	182	197	205	210	222	250	255	278	278	278	278	294	300	307	310	334	347
20: Metamorphoo_37	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
21: Crisis_38	23	34	34	51	51	62	62	88	110	119	127	149	183	197	217	250	255	278	278	278	278	312	316	319	340		
22: PierreOrion_37	23	34	34	51	51	62	62	88	110	119	127	149	175	186	197	217	250	255	278	278	278	300	307	310	334	347	
23: Shotgun_36	26	34	49	59	68	87	98	109	137	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
24: Nicole72_32	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
25: OneinaGillian_36	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
26: Tempo_36 + 2	230	71	83	101	133	148	162	176	203	210	222	250	255	278	278	278	278	278	278	278	278	300	307	310	334	347	
27: Phinky_43	230	42	60	91	101	133	148	162	176	203	210	222	250	255	278	278	278	278	278	278	278	300	307	310	334	347	
28: BabyDotz_36	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
29: Romm_38 + 2	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
30: Marjie_41	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
31: Cinna_32	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
32: Matzah_33	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
33: Cressida_34	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
34: MementoMori_33	23	34	46	60	69	81	104	110	133	148	162	176	203	210	222	250	255	278	278	278	278	300	307	310	334	347	
35: Margaery_32	20	26	40	55	64	86	108	131	148	162	176	203	210	222	250	255	278	278	278	278	278	300	307	310	334	347	
36: Kozie_33	23	34	39	55	64	86	108	131	148	162	176	203	210	222	250	255	278	278	278	278	278	300	307	310	334	347	
37: Hendrix_71	23	34	39	55	64	86	108	131	148	162	176	203	210	222	250	255	278	278	278	278	278	300	307	310	334	347	
38: Rasputia_72	23	34	39	55	64	86	108	131	148	162	176	203	210	222	250	255	278	278	278	278	278	300	307	310	334	347	

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 154735 Report

This analysis was run 04/12/24 on database version 558.

Pham number 154735 has 60 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Onika_36, Cranjjs_38, CrazyRich_36
- Track 2 : Scumberland_38, Selwyn23_38, LittleFortune_38
- Track 3 : RobsFeet_38
- Track 4 : Yeti_37, Honeyfin_38, Phrancesco_37, Ganandorf_36, Jefe_37, Phorgeous_36, Busephilis_36
- Track 5 : Antares_37
- Track 6 : Piperis_37
- Track 7 : Pulchra_38, Jollipop_37, Hermeonysus_36, BrazzalePHS_36
- Track 8 : Ariadne_45, Smarties_45
- Track 9 : Fireman_37
- Track 10 : Megan_31
- Track 11 : Kowalski_36, Ramiel05_36, Savannah_36
- Track 12 : PiperSansNom_37
- Track 13 : EarickHC_37, KaiHaiDragon_37
- Track 14 : Quhwah_40
- Track 15 : Tyumbra_35
- Track 16 : NoodlelyBoi_37
- Track 17 : Paschalis_36
- Track 18 : Jayden_38
- Track 19 : Teamocil_38, Gina_38
- Track 20 : Metamorphoo_37
- Track 21 : Crisis_38
- Track 22 : PierreOrion_37
- Track 23 : Shotgun_36
- Track 24 : Nicole72_32
- Track 25 : OneinaGillian_36
- Track 26 : Tempo_36, Fregley_37, CandC_35
- Track 27 : Phinky_43
- Track 28 : BabyDotz_36
- Track 29 : Romm_38, Kelcole_35, RobinRose_38
- Track 30 : Marcie_41
- Track 31 : Cinna_32
- Track 32 : Matzah_33
- Track 33 : Cressida_34
- Track 34 : MementoMori_33
- Track 35 : Margaery_32
- Track 36 : Kozie_33

- Track 37 : Hendrix_71
- Track 38 : Rasputia_72

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

The start number called the most often in the published annotations is 23, it was called in 31 of the 54 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_37, BrazzalePHS_36, Busephilis_36, Cinna_32, Cranjjs_38, CrazyRich_36, Cressida_34, Crisis_38, EarickHC_37, Ganandorf_36, Hermeonysus_36, Honeyfin_38, Jefe_37, Jollipop_37, KaiHaiDragon_37, Kowalski_36, LittleFortune_38, Margaery_32, Matzah_33, MementoMori_33, NoodlelyBoi_37, Onika_36, Paschalis_36, Phorgeous_36, Phrancesco_37, PierreOrion_37, PiperSansNom_37, Piperis_37, Pulchra_38, Quhwah_40, Ramiel05_36, Savannah_36, Scumberland_38, Selwyn23_38, Shotgun_36, Yeti_37,

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

-

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

- Ariadne_45, BabyDotz_36, CandC_35, Fireman_37, Fregley_37, Gina_38, Hendrix_71, Jayden_38, Kelcole_35, Kozi_33, Marcie_41, Megan_31, Metamorphoo_37, Nicole72_32, OneinaGillian_36, Phinky_43, Rasputia_72, RobinRose_38, RobsFeet_38, Romm_38, Smarties_45, Teamocil_38, Tempo_36, Tyrumbra_35,

Summary by start number:

Start 1:

- Found in 5 of 60 (8.3%) of genes in pham
- Manual Annotations of this start: 5 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fireman_37 (EC), Jayden_38 (EC), Metamorphoo_37 (EC), RobsFeet_38 (EC), Tyrumbra_35 (EC),

Start 23:

- Found in 36 of 60 (60.0%) of genes in pham
- Manual Annotations of this start: 31 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_37 (EC), BrazzalePHS_36 (EC), Busephilis_36 (EC), Cinna_32 (EI), Cranjjs_38 (EC), CrazyRich_36 (EC), Cressida_34 (EI), Crisis_38 (EC), EarickHC_37 (EC), Ganandorf_36 (EC), Hermeonysus_36 (EC), Honeyfin_38 (EC), Jefe_37 (EC), Jollipop_37 (EC), KaiHaiDragon_37 (EC), Kowalski_36 (EC), LittleFortune_38 (EC), Margaery_32 (EI), Matzah_33 (EI), MementoMori_33 (EI), NoodlelyBoi_37 (EC), Onika_36 (EC), Paschalis_36 (EC), Phorgeous_36 (EC), Phrancesco_37 (EC), PierreOrion_37 (EC), PiperSansNom_37 (EC), Piperis_37 (EC), Pulchra_38 (EC), Quhwah_40 (EC), Ramiel05_36 (EC), Savannah_36 (EC), Scumberland_38 (EC), Selwyn23_38 (EC), Shotgun_36 (EC), Yeti_37 (EC),

Start 25:

- Found in 12 of 60 (20.0%) of genes in pham
- Manual Annotations of this start: 11 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyDotz_36 (EG), CandC_35 (EG), Fregley_37 (EG), Hendrix_71 (GC), Kelcole_35 (EG), Marcie_41 (EG), OneinaGillian_36 (EG), Phinky_43 (EG), Rasputia_72 (GC), RobinRose_38 (EG), Romm_38 (EG), Tempo_36 (EG),

Start 26:

- Found in 7 of 60 (11.7%) of genes in pham
- Manual Annotations of this start: 7 of 54
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariadne_45 (EC), Gina_38 (EC), Kozie_33 (EI), Megan_31 (EC), Nicole72_32 (EC), Smarties_45 (EC), Teamocil_38 (EC),

Summary by clusters:

There are 4 clusters represented in this pham: EI, EG, GC, EC,

Info for manual annotations of cluster EC:

- Start number 1 was manually annotated 5 times for cluster EC.
- Start number 23 was manually annotated 26 times for cluster EC.
- Start number 26 was manually annotated 6 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 25 was manually annotated 9 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 23 was manually annotated 5 times for cluster EI.
- Start number 26 was manually annotated 1 time for cluster EI.

Info for manual annotations of cluster GC:

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

Gene Information:

Gene: Antares_37 Start: 23711, Stop: 25657, Start Num: 23

Candidate Starts for Antares_37:

(Start: 23 @23711 has 31 MA's), (34, 23756), (36, 23780), (38, 23807), (41, 23828), (62, 23984), (69, 24020), (78, 24053), (80, 24059), (83, 24074), (110, 24218), (119, 24260), (127, 24305), (149, 24338), (175, 24446), (183, 24473), (185, 24476), (197, 24521), (198, 24548), (200, 24551), (217, 24641), (225, 24680), (226, 24689), (229, 24704), (250, 24851), (252, 24890), (253, 24902), (266, 24992), (267, 24995), (268, 25019), (269, 25028), (272, 25058), (279, 25133), (283, 25166), (288, 25196), (312, 25403), (316, 25442), (319, 25472), (340, 25589),

Gene: Ariadne_45 Start: 25427, Stop: 27295, Start Num: 26

Candidate Starts for Ariadne_45:

(Start: 26 @25427 has 7 MA's), (31, 25457), (32, 25463), (49, 25580), (50, 25595), (84, 25742), (86, 25754), (88, 25766), (89, 25769), (109, 25865), (114, 25883), (116, 25895), (129, 25949), (138, 25979), (168, 26075), (181, 26126), (182, 26132), (205, 26249), (222, 26312), (227, 26345), (228, 26351), (230, 26360), (256, 26570), (264, 26630), (268, 26666), (271, 26687), (272, 26705), (275, 26741), (282, 26801), (300, 26903), (301, 26924), (307, 26981), (336, 27209), (338, 27215),

Gene: BabyDotz_36 Start: 26482, Stop: 28446, Start Num: 25

Candidate Starts for BabyDotz_36:

(Start: 25 @26482 has 11 MA's), (30, 26506), (40, 26578), (42, 26593), (77, 26809), (80, 26824), (91, 26881), (101, 26932), (157, 27151), (162, 27166), (203, 27319), (211, 27361), (228, 27451), (230, 27460), (252, 27640), (254, 27661), (259, 27694), (261, 27703), (268, 27769), (273, 27817), (274, 27820), (279, 27883), (300, 28018), (311, 28147), (316, 28204), (319, 28252), (335, 28345), (337, 28354), (346, 28432),

Gene: BrazzalePHS_36 Start: 23506, Stop: 25452, Start Num: 23

Candidate Starts for BrazzalePHS_36:

(Start: 23 @23506 has 31 MA's), (34, 23551), (36, 23575), (38, 23602), (41, 23623), (62, 23779), (69, 23815), (78, 23848), (80, 23854), (83, 23869), (110, 24013), (119, 24055), (149, 24133), (183, 24268), (185, 24271), (197, 24316), (198, 24343), (200, 24346), (217, 24436), (225, 24475), (226, 24484), (229, 24499), (250, 24646), (252, 24685), (253, 24697), (266, 24787), (267, 24790), (268, 24814), (269, 24823), (279, 24928), (283, 24961), (288, 24991), (312, 25198), (316, 25237), (319, 25267), (340, 25384),

Gene: Busephilis_36 Start: 23441, Stop: 25393, Start Num: 23

Candidate Starts for Busephilis_36:

(Start: 23 @23441 has 31 MA's), (34, 23486), (36, 23510), (38, 23537), (41, 23558), (62, 23714), (69, 23750), (78, 23783), (80, 23789), (83, 23804), (110, 23948), (119, 23990), (120, 23993), (149, 24074), (185, 24212), (186, 24218), (197, 24257), (198, 24284), (203, 24305), (204, 24314), (215, 24368), (217, 24377), (221, 24392), (225, 24416), (226, 24425), (229, 24440), (248, 24566), (250, 24587), (252, 24626), (253, 24638), (266, 24728), (267, 24731), (268, 24755), (269, 24764), (272, 24794), (278, 24866), (279, 24869), (283, 24902), (288, 24932), (312, 25139), (316, 25178), (319, 25208), (340, 25325),

Gene: CandC_35 Start: 24614, Stop: 26587, Start Num: 25

Candidate Starts for CandC_35:

(Start: 25 @24614 has 11 MA's), (27, 24617), (46, 24752), (77, 24944), (80, 24959), (91, 25016), (102, 25070), (104, 25082), (110, 25115), (133, 25220), (203, 25454), (212, 25511), (228, 25586), (254, 25796), (256, 25811), (268, 25910), (269, 25919), (274, 25961), (285, 26063), (300, 26159), (311, 26288), (319, 26393), (335, 26486), (337, 26495), (346, 26573),

Gene: Cinna_32 Start: 22859, Stop: 25375, Start Num: 23

Candidate Starts for Cinna_32:

(5, 22466), (Start: 23 @22859 has 31 MA's), (38, 22952), (45, 22985), (47, 23009), (48, 23027), (59, 23111), (66, 23141), (68, 23150), (70, 23168), (74, 23177), (78, 23198), (80, 23204), (83, 23219), (90, 23252), (91, 23261), (105, 23336), (110, 23363), (134, 23570), (139, 23630), (141, 23663), (144, 23735), (145, 23738), (148, 23771), (149, 23774), (151, 23786), (158, 23825), (166, 23870), (169, 23876), (171, 23885), (173, 23942), (194, 24053), (201, 24101), (207, 24140), (214, 24194), (232, 24296), (237, 24407), (245, 24476), (249, 24512), (252, 24569), (257, 24608), (262, 24641), (265, 24665), (267, 24674), (269, 24707), (274, 24749), (278, 24809), (289, 24884), (305, 25019), (310, 25076), (338, 25289), (342, 25334),

Gene: Cranjis_38 Start: 23666, Stop: 25612, Start Num: 23

Candidate Starts for Cranjis_38:

(Start: 23 @23666 has 31 MA's), (34, 23711), (36, 23735), (38, 23762), (41, 23783), (62, 23939), (69, 23975), (78, 24008), (80, 24014), (83, 24029), (110, 24173), (119, 24215), (127, 24260), (149, 24293), (183, 24428), (185, 24431), (197, 24476), (198, 24503), (200, 24506), (217, 24596), (225, 24635), (226, 24644), (229, 24659), (250, 24806), (252, 24845), (253, 24857), (266, 24947), (267, 24950), (268, 24974), (269, 24983), (279, 25088), (283, 25121), (288, 25151), (312, 25358), (316, 25397), (319, 25427), (340, 25544),

Gene: CrazyRich_36 Start: 23475, Stop: 25421, Start Num: 23

Candidate Starts for CrazyRich_36:

(Start: 23 @23475 has 31 MA's), (34, 23520), (36, 23544), (38, 23571), (41, 23592), (62, 23748), (69, 23784), (78, 23817), (80, 23823), (83, 23838), (110, 23982), (119, 24024), (127, 24069), (149, 24102), (183, 24237), (185, 24240), (197, 24285), (198, 24312), (200, 24315), (217, 24405), (225, 24444), (226, 24453), (229, 24468), (250, 24615), (252, 24654), (253, 24666), (266, 24756), (267, 24759), (268, 24783), (269, 24792), (279, 24897), (283, 24930), (288, 24960), (312, 25167), (316, 25206), (319, 25236), (340, 25353),

Gene: Cressida_34 Start: 22922, Stop: 24850, Start Num: 23

Candidate Starts for Cressida_34:

(Start: 23 @22922 has 31 MA's), (45, 23048), (57, 23165), (66, 23204), (68, 23213), (70, 23231), (74, 23240), (80, 23267), (90, 23315), (105, 23399), (110, 23426), (124, 23495), (130, 23522), (147, 23558), (149, 23564), (161, 23615), (172, 23651), (178, 23678), (179, 23684), (196, 23738), (199, 23765), (214, 23816), (223, 23837), (228, 23867), (235, 23900), (249, 23990), (252, 24047), (257, 24086), (258, 24101), (260, 24107), (267, 24152), (268, 24176), (269, 24185), (271, 24197), (274, 24227), (290, 24362), (298, 24401), (302, 24473), (305, 24494), (307, 24512), (310, 24551), (312, 24569), (315, 24602), (317, 24617), (318, 24620), (328, 24704), (336, 24758), (338, 24764),

Gene: Crisis_38 Start: 23460, Stop: 25412, Start Num: 23

Candidate Starts for Crisis_38:

(Start: 23 @23460 has 31 MA's), (34, 23505), (36, 23529), (38, 23556), (41, 23577), (62, 23733), (69, 23769), (78, 23802), (80, 23808), (83, 23823), (110, 23967), (119, 24009), (120, 24012), (149, 24093), (185, 24231), (186, 24237), (197, 24276), (198, 24303), (203, 24324), (204, 24333), (215, 24387), (217, 24396), (221, 24411), (225, 24435), (226, 24444), (229, 24459), (248, 24585), (250, 24606), (252, 24645), (253, 24657), (266, 24747), (267, 24750), (268, 24774), (269, 24783), (272, 24813), (278, 24885), (279, 24888), (283, 24921), (288, 24951), (316, 25197), (319, 25227), (340, 25344),

Gene: EarickHC_37 Start: 23386, Stop: 25338, Start Num: 23

Candidate Starts for EarickHC_37:

(Start: 23 @23386 has 31 MA's), (34, 23431), (36, 23455), (38, 23482), (41, 23503), (69, 23695), (78, 23728), (80, 23734), (83, 23749), (110, 23893), (119, 23935), (120, 23938), (123, 23956), (149, 24019), (185, 24157), (186, 24163), (197, 24202), (198, 24229), (215, 24313), (217, 24322), (221, 24337), (225, 24361), (226, 24370), (229, 24385), (248, 24511), (250, 24532), (252, 24571), (253, 24583), (266, 24673), (267, 24676), (268, 24700), (269, 24709), (278, 24811), (279, 24814), (283, 24847), (288, 24877), (312, 25084), (316, 25123), (319, 25153), (340, 25270),

Gene: Fireman_37 Start: 24038, Stop: 26530, Start Num: 1

Candidate Starts for Fireman_37:

(Start: 1 @24038 has 5 MA's), (2, 24068), (4, 24131), (6, 24191), (13, 24401), (14, 24419), (16, 24437), (17, 24470), (22, 24548), (24, 24578), (33, 24620), (39, 24671), (42, 24689), (47, 24725), (54, 24794), (57, 24818), (85, 24932), (95, 24977), (98, 24989), (99, 24995), (106, 25043), (118, 25103), (122, 25112), (128, 25157), (182, 25352), (205, 25469), (210, 25493), (227, 25565), (230, 25580), (250, 25718), (255, 25784), (270, 25901), (272, 25925), (275, 25961), (302, 26186), (307, 26219), (310, 26258), (321, 26351), (326, 26381),

Gene: Fregley_37 Start: 25184, Stop: 27157, Start Num: 25

Candidate Starts for Fregley_37:

(Start: 25 @25184 has 11 MA's), (27, 25187), (46, 25322), (77, 25514), (80, 25529), (91, 25586), (102, 25640), (104, 25652), (110, 25685), (133, 25790), (203, 26024), (212, 26081), (228, 26156), (254, 26366), (256, 26381), (268, 26480), (269, 26489), (274, 26531), (285, 26633), (300, 26729), (311, 26858), (319, 26963), (335, 27056), (337, 27065), (346, 27143),

Gene: Ganandorf_36 Start: 23522, Stop: 25474, Start Num: 23

Candidate Starts for Ganandorf_36:

(Start: 23 @23522 has 31 MA's), (34, 23567), (36, 23591), (38, 23618), (41, 23639), (62, 23795), (69, 23831), (78, 23864), (80, 23870), (83, 23885), (110, 24029), (119, 24071), (120, 24074), (149, 24155), (185, 24293), (186, 24299), (197, 24338), (198, 24365), (203, 24386), (204, 24395), (215, 24449), (217, 24458), (221, 24473), (225, 24497), (226, 24506), (229, 24521), (248, 24647), (250, 24668), (252, 24707), (253, 24719), (266, 24809), (267, 24812), (268, 24836), (269, 24845), (272, 24875), (278, 24947), (279, 24950), (283, 24983), (288, 25013), (312, 25220), (316, 25259), (319, 25289), (340, 25406),

Gene: Gina_38 Start: 23314, Stop: 25212, Start Num: 26

Candidate Starts for Gina_38:

(Start: 26 @23314 has 7 MA's), (31, 23344), (32, 23350), (49, 23467), (71, 23590), (73, 23596), (79, 23614), (95, 23677), (97, 23683), (98, 23689), (108, 23752), (112, 23770), (126, 23848), (159, 23959), (163, 23971), (168, 23992), (177, 24028), (182, 24049), (184, 24052), (222, 24229), (227, 24262), (228, 24268), (230, 24277), (240, 24325), (263, 24541), (264, 24547), (268, 24583), (272, 24622), (275, 24658), (282, 24718), (284, 24733), (301, 24841), (307, 24898), (311, 24943), (320, 25030), (338, 25132), (347, 25204),

Gene: Hendrix_71 Start: 44066, Stop: 46000, Start Num: 25

Candidate Starts for Hendrix_71:

(Start: 25 @44066 has 11 MA's), (34, 44108), (38, 44156), (65, 44342), (78, 44402), (80, 44408), (90, 44456), (91, 44465), (92, 44471), (103, 44528), (107, 44555), (136, 44684), (148, 44690), (150, 44696), (154, 44726), (156, 44729), (180, 44792), (187, 44813), (190, 44825), (198, 44876), (213, 44951), (216, 44963), (231, 45026), (254, 45209), (256, 45224), (265, 45284), (267, 45293), (269, 45323), (273, 45362), (274, 45365), (279, 45428), (283, 45461), (299, 45554), (301, 45584), (302, 45614), (305, 45638), (307, 45656), (309, 45686), (327, 45848), (332, 45872), (335, 45899), (339, 45917), (345, 45983), (346, 45986), (347, 45992),

Gene: Hermeonysus_36 Start: 23395, Stop: 25341, Start Num: 23

Candidate Starts for Hermeonysus_36:

(Start: 23 @23395 has 31 MA's), (34, 23440), (36, 23464), (38, 23491), (41, 23512), (62, 23668), (69, 23704), (78, 23737), (80, 23743), (83, 23758), (110, 23902), (119, 23944), (149, 24022), (183, 24157), (185, 24160), (197, 24205), (198, 24232), (200, 24235), (217, 24325), (225, 24364), (226, 24373), (229, 24388), (250, 24535), (252, 24574), (253, 24586), (266, 24676), (267, 24679), (268, 24703), (269, 24712), (279, 24817), (283, 24850), (288, 24880), (312, 25087), (316, 25126), (319, 25156), (340, 25273),

Gene: Honeyfin_38 Start: 23710, Stop: 25662, Start Num: 23

Candidate Starts for Honeyfin_38:

(Start: 23 @23710 has 31 MA's), (34, 23755), (36, 23779), (38, 23806), (41, 23827), (62, 23983), (69, 24019), (78, 24052), (80, 24058), (83, 24073), (110, 24217), (119, 24259), (120, 24262), (149, 24343), (185, 24481), (186, 24487), (197, 24526), (198, 24553), (203, 24574), (204, 24583), (215, 24637), (217, 24646), (221, 24661), (225, 24685), (226, 24694), (229, 24709), (248, 24835), (250, 24856), (252, 24895), (253, 24907), (266, 24997), (267, 25000), (268, 25024), (269, 25033), (272, 25063), (278, 25135), (279, 25138), (283, 25171), (288, 25201), (312, 25408), (316, 25447), (319, 25477),

(340, 25594),

Gene: Jayden_38 Start: 23468, Stop: 25918, Start Num: 1

Candidate Starts for Jayden_38:

(Start: 1 @23468 has 5 MA's), (2, 23498), (3, 23504), (9, 23768), (12, 23834), (15, 23870), (21, 23972), (28, 24026), (43, 24125), (52, 24206), (56, 24233), (59, 24251), (61, 24260), (65, 24278), (67, 24287), (76, 24320), (100, 24425), (115, 24506), (128, 24569), (136, 24602), (168, 24698), (222, 24935), (227, 24968), (230, 24983), (256, 25193), (264, 25253), (271, 25310), (272, 25328), (275, 25364), (280, 25406), (282, 25424), (284, 25439), (294, 25472), (300, 25526), (301, 25547), (302, 25571), (303, 25583), (307, 25604), (308, 25619), (318, 25712), (320, 25736), (338, 25838), (347, 25910),

Gene: Jefe_37 Start: 23447, Stop: 25399, Start Num: 23

Candidate Starts for Jefe_37:

(Start: 23 @23447 has 31 MA's), (34, 23492), (36, 23516), (38, 23543), (41, 23564), (62, 23720), (69, 23756), (78, 23789), (80, 23795), (83, 23810), (110, 23954), (119, 23996), (120, 23999), (149, 24080), (185, 24218), (186, 24224), (197, 24263), (198, 24290), (203, 24311), (204, 24320), (215, 24374), (217, 24383), (221, 24398), (225, 24422), (226, 24431), (229, 24446), (248, 24572), (250, 24593), (252, 24632), (253, 24644), (266, 24734), (267, 24737), (268, 24761), (269, 24770), (272, 24800), (278, 24872), (279, 24875), (283, 24908), (288, 24938), (312, 25145), (316, 25184), (319, 25214), (340, 25331),

Gene: Jollipop_37 Start: 23792, Stop: 25738, Start Num: 23

Candidate Starts for Jollipop_37:

(Start: 23 @23792 has 31 MA's), (34, 23837), (36, 23861), (38, 23888), (41, 23909), (62, 24065), (69, 24101), (78, 24134), (80, 24140), (83, 24155), (110, 24299), (119, 24341), (149, 24419), (183, 24554), (185, 24557), (197, 24602), (198, 24629), (200, 24632), (217, 24722), (225, 24761), (226, 24770), (229, 24785), (250, 24932), (252, 24971), (253, 24983), (266, 25073), (267, 25076), (268, 25100), (269, 25109), (279, 25214), (283, 25247), (288, 25277), (312, 25484), (316, 25523), (319, 25553), (340, 25670),

Gene: KaiHaiDragon_37 Start: 23386, Stop: 25338, Start Num: 23

Candidate Starts for KaiHaiDragon_37:

(Start: 23 @23386 has 31 MA's), (34, 23431), (36, 23455), (38, 23482), (41, 23503), (69, 23695), (78, 23728), (80, 23734), (83, 23749), (110, 23893), (119, 23935), (120, 23938), (123, 23956), (149, 24019), (185, 24157), (186, 24163), (197, 24202), (198, 24229), (215, 24313), (217, 24322), (221, 24337), (225, 24361), (226, 24370), (229, 24385), (248, 24511), (250, 24532), (252, 24571), (253, 24583), (266, 24673), (267, 24676), (268, 24700), (269, 24709), (278, 24811), (279, 24814), (283, 24847), (288, 24877), (312, 25084), (316, 25123), (319, 25153), (340, 25270),

Gene: Kelcole_35 Start: 25066, Stop: 27039, Start Num: 25

Candidate Starts for Kelcole_35:

(Start: 25 @25066 has 11 MA's), (27, 25069), (46, 25204), (77, 25396), (80, 25411), (91, 25468), (102, 25522), (104, 25534), (133, 25672), (203, 25906), (212, 25963), (228, 26038), (254, 26248), (256, 26263), (268, 26362), (269, 26371), (274, 26413), (285, 26515), (300, 26611), (311, 26740), (319, 26845), (335, 26938), (337, 26947), (346, 27025),

Gene: Kowalski_36 Start: 23502, Stop: 25448, Start Num: 23

Candidate Starts for Kowalski_36:

(Start: 23 @23502 has 31 MA's), (34, 23547), (36, 23571), (38, 23598), (41, 23619), (62, 23775), (69, 23811), (78, 23844), (80, 23850), (83, 23865), (110, 24009), (119, 24051), (149, 24129), (183, 24264), (185, 24267), (197, 24312), (198, 24339), (200, 24342), (217, 24432), (225, 24471), (226, 24480), (229, 24495), (250, 24642), (252, 24681), (253, 24693), (266, 24783), (267, 24786), (268, 24810),

(269, 24819), (278, 24921), (279, 24924), (283, 24957), (288, 24987), (312, 25194), (316, 25233), (319, 25263), (340, 25380),

Gene: Kozie_33 Start: 23180, Stop: 25093, Start Num: 26

Candidate Starts for Kozie_33:

(20, 23129), (Start: 26 @23180 has 7 MA's), (49, 23333), (55, 23381), (64, 23432), (92, 23546), (98, 23570), (108, 23633), (131, 23741), (176, 23903), (205, 24047), (222, 24110), (227, 24143), (228, 24149), (230, 24158), (256, 24368), (264, 24428), (268, 24464), (272, 24503), (275, 24539), (282, 24599), (294, 24647), (301, 24722), (302, 24746), (307, 24779), (336, 25007), (338, 25013), (347, 25085),

Gene: LittleFortune_38 Start: 23752, Stop: 25704, Start Num: 23

Candidate Starts for LittleFortune_38:

(Start: 23 @23752 has 31 MA's), (34, 23797), (36, 23821), (38, 23848), (41, 23869), (62, 24025), (69, 24061), (78, 24094), (80, 24100), (83, 24115), (110, 24259), (119, 24301), (120, 24304), (149, 24385), (185, 24523), (186, 24529), (197, 24568), (198, 24595), (203, 24616), (204, 24625), (215, 24679), (217, 24688), (221, 24703), (225, 24727), (226, 24736), (229, 24751), (248, 24877), (250, 24898), (252, 24937), (253, 24949), (266, 25039), (267, 25042), (268, 25066), (269, 25075), (272, 25105), (278, 25177), (279, 25180), (283, 25213), (288, 25243), (312, 25450), (314, 25471), (316, 25489), (319, 25519), (340, 25636),

Gene: Marcie_41 Start: 25722, Stop: 27695, Start Num: 25

Candidate Starts for Marcie_41:

(Start: 25 @25722 has 11 MA's), (27, 25725), (46, 25860), (77, 26052), (80, 26067), (91, 26124), (102, 26178), (110, 26223), (136, 26340), (148, 26349), (189, 26484), (212, 26619), (254, 26904), (256, 26919), (259, 26940), (265, 26985), (268, 27018), (273, 27066), (274, 27069), (285, 27171), (311, 27396), (314, 27438), (316, 27456), (331, 27561), (332, 27567), (335, 27594), (346, 27681),

Gene: Margaery_32 Start: 22803, Stop: 24701, Start Num: 23

Candidate Starts for Margaery_32:

(5, 22407), (Start: 23 @22803 has 31 MA's), (38, 22899), (40, 22908), (51, 23007), (60, 23061), (63, 23079), (69, 23112), (78, 23145), (80, 23151), (83, 23166), (94, 23220), (103, 23271), (109, 23307), (110, 23310), (130, 23406), (153, 23466), (173, 23529), (174, 23535), (181, 23562), (198, 23625), (206, 23649), (209, 23673), (228, 23751), (242, 23820), (243, 23841), (246, 23859), (247, 23868), (255, 23976), (266, 24048), (267, 24051), (268, 24075), (271, 24096), (275, 24150), (278, 24186), (287, 24249), (288, 24252), (295, 24273), (300, 24315), (311, 24432), (314, 24468), (343, 24666), (346, 24687),

Gene: Matzah_33 Start: 22835, Stop: 25315, Start Num: 23

Candidate Starts for Matzah_33:

(Start: 23 @22835 has 31 MA's), (38, 22928), (45, 22961), (47, 22985), (48, 23003), (59, 23087), (66, 23117), (68, 23126), (70, 23144), (74, 23153), (78, 23174), (80, 23180), (83, 23195), (90, 23228), (91, 23237), (105, 23312), (110, 23339), (117, 23396), (125, 23495), (134, 23543), (135, 23558), (140, 23600), (142, 23645), (143, 23651), (155, 23747), (160, 23777), (188, 23963), (192, 23978), (195, 23993), (202, 24041), (208, 24080), (214, 24131), (220, 24188), (223, 24206), (224, 24212), (236, 24314), (238, 24362), (239, 24371), (244, 24419), (257, 24560), (262, 24593), (265, 24617), (267, 24626), (269, 24659), (274, 24701), (278, 24761), (291, 24839), (298, 24875), (310, 25025), (314, 25070), (324, 25154), (325, 25157),

Gene: Megan_31 Start: 24332, Stop: 26239, Start Num: 26

Candidate Starts for Megan_31:

(Start: 26 @24332 has 7 MA's), (44, 24440), (50, 24500), (58, 24557), (63, 24581), (71, 24617), (95, 24704), (98, 24716), (102, 24743), (132, 24896), (146, 24926), (172, 25034), (205, 25193), (210,

25217), (213, 25229), (227, 25289), (228, 25295), (230, 25304), (231, 25310), (233, 25322), (265, 25577), (268, 25610), (272, 25649), (275, 25685), (276, 25706), (301, 25868), (304, 25907), (307, 25925), (311, 25970), (338, 26159), (341, 26183), (342, 26198), (347, 26231),

Gene: MementoMori_33 Start: 22559, Stop: 25063, Start Num: 23

Candidate Starts for MementoMori_33:

(Start: 23 @22559 has 31 MA's), (38, 22652), (45, 22685), (47, 22709), (48, 22727), (59, 22811), (66, 22841), (68, 22850), (70, 22868), (74, 22877), (78, 22898), (80, 22904), (83, 22919), (90, 22952), (91, 22961), (110, 23063), (124, 23186), (134, 23270), (141, 23363), (145, 23438), (149, 23474), (158, 23525), (169, 23576), (171, 23585), (173, 23642), (194, 23753), (201, 23801), (207, 23840), (214, 23894), (237, 24107), (245, 24176), (249, 24212), (252, 24269), (257, 24308), (262, 24341), (265, 24365), (267, 24374), (269, 24407), (274, 24449), (278, 24509), (291, 24587), (298, 24623), (310, 24773), (314, 24818), (322, 24884), (324, 24902), (325, 24905),

Gene: Metamorphoo_37 Start: 23324, Stop: 25813, Start Num: 1

Candidate Starts for Metamorphoo_37:

(Start: 1 @23324 has 5 MA's), (6, 23477), (7, 23540), (8, 23552), (18, 23792), (19, 23813), (22, 23834), (31, 23897), (33, 23906), (35, 23924), (37, 23933), (42, 23975), (47, 24011), (51, 24059), (53, 24077), (72, 24167), (74, 24173), (75, 24176), (89, 24245), (113, 24365), (121, 24395), (165, 24569), (170, 24581), (182, 24635), (205, 24752), (210, 24776), (222, 24815), (227, 24848), (230, 24863), (240, 24911), (250, 25001), (255, 25067), (268, 25169), (270, 25184), (272, 25208), (275, 25244), (277, 25277), (281, 25289), (294, 25370), (300, 25424), (301, 25445), (302, 25469), (307, 25502), (310, 25541), (334, 25718), (347, 25805),

Gene: Nicole72_32 Start: 25270, Stop: 27153, Start Num: 26

Candidate Starts for Nicole72_32:

(Start: 26 @25270 has 7 MA's), (49, 25423), (68, 25537), (81, 25582), (82, 25588), (87, 25612), (96, 25648), (98, 25657), (109, 25711), (137, 25834), (148, 25852), (152, 25876), (176, 25963), (205, 26107), (210, 26131), (222, 26170), (227, 26203), (228, 26209), (230, 26218), (263, 26482), (265, 26491), (268, 26524), (275, 26599), (276, 26620), (282, 26659), (301, 26782), (307, 26839), (311, 26884), (320, 26971), (333, 27040), (338, 27073), (347, 27145),

Gene: NoodlelyBoi_37 Start: 23832, Stop: 25775, Start Num: 23

Candidate Starts for NoodlelyBoi_37:

(Start: 23 @23832 has 31 MA's), (34, 23877), (38, 23928), (41, 23949), (51, 24036), (60, 24090), (69, 24141), (78, 24174), (80, 24180), (83, 24195), (110, 24339), (111, 24348), (119, 24381), (149, 24459), (164, 24522), (167, 24537), (173, 24558), (185, 24597), (186, 24603), (198, 24669), (215, 24750), (219, 24765), (221, 24774), (224, 24792), (225, 24798), (226, 24807), (229, 24822), (241, 24882), (248, 24948), (250, 24969), (253, 25020), (254, 25029), (255, 25038), (265, 25104), (266, 25110), (267, 25113), (268, 25137), (278, 25248), (279, 25251), (283, 25284), (288, 25314), (312, 25521), (324, 25617), (330, 25647), (335, 25683), (336, 25689), (347, 25767),

Gene: OneinaGillian_36 Start: 24713, Stop: 26689, Start Num: 25

Candidate Starts for OneinaGillian_36:

(Start: 25 @24713 has 11 MA's), (27, 24716), (46, 24851), (77, 25043), (80, 25058), (91, 25115), (102, 25169), (104, 25181), (133, 25319), (203, 25553), (212, 25610), (228, 25685), (254, 25895), (256, 25910), (268, 26009), (269, 26018), (274, 26060), (285, 26162), (300, 26258), (311, 26387), (316, 26447), (319, 26495), (335, 26588), (337, 26597), (346, 26675),

Gene: Onika_36 Start: 23477, Stop: 25423, Start Num: 23

Candidate Starts for Onika_36:

(Start: 23 @23477 has 31 MA's), (34, 23522), (36, 23546), (38, 23573), (41, 23594), (62, 23750), (69, 23786), (78, 23819), (80, 23825), (83, 23840), (110, 23984), (119, 24026), (127, 24071), (149, 24104),

(183, 24239), (185, 24242), (197, 24287), (198, 24314), (200, 24317), (217, 24407), (225, 24446), (226, 24455), (229, 24470), (250, 24617), (252, 24656), (253, 24668), (266, 24758), (267, 24761), (268, 24785), (269, 24794), (279, 24899), (283, 24932), (288, 24962), (312, 25169), (316, 25208), (319, 25238), (340, 25355),

Gene: Paschalis_36 Start: 23490, Stop: 25430, Start Num: 23

Candidate Starts for Paschalis_36:

(Start: 23 @23490 has 31 MA's), (34, 23535), (36, 23559), (38, 23586), (41, 23607), (62, 23763), (69, 23799), (78, 23832), (80, 23838), (83, 23853), (110, 23997), (119, 24039), (127, 24084), (149, 24117), (175, 24225), (183, 24252), (185, 24255), (197, 24300), (198, 24327), (200, 24330), (217, 24420), (225, 24459), (226, 24468), (229, 24483), (250, 24630), (252, 24669), (253, 24681), (266, 24771), (267, 24774), (268, 24798), (269, 24807), (272, 24837), (279, 24912), (300, 25041), (306, 25110), (307, 25122), (313, 25191), (330, 25302), (335, 25338), (347, 25422),

Gene: Phinky_43 Start: 27523, Stop: 29499, Start Num: 25

Candidate Starts for Phinky_43:

(Start: 25 @27523 has 11 MA's), (30, 27547), (77, 27850), (87, 27901), (93, 27931), (101, 27973), (174, 28234), (189, 28285), (206, 28378), (211, 28405), (228, 28495), (246, 28597), (255, 28714), (268, 28813), (274, 28864), (286, 28984), (296, 29029), (304, 29128), (314, 29242), (316, 29260), (346, 29485),

Gene: Phorgeous_36 Start: 23344, Stop: 25296, Start Num: 23

Candidate Starts for Phorgeous_36:

(Start: 23 @23344 has 31 MA's), (34, 23389), (36, 23413), (38, 23440), (41, 23461), (62, 23617), (69, 23653), (78, 23686), (80, 23692), (83, 23707), (110, 23851), (119, 23893), (120, 23896), (149, 23977), (185, 24115), (186, 24121), (197, 24160), (198, 24187), (203, 24208), (204, 24217), (215, 24271), (217, 24280), (221, 24295), (225, 24319), (226, 24328), (229, 24343), (248, 24469), (250, 24490), (252, 24529), (253, 24541), (266, 24631), (267, 24634), (268, 24658), (269, 24667), (272, 24697), (278, 24769), (279, 24772), (283, 24805), (288, 24835), (312, 25042), (316, 25081), (319, 25111), (340, 25228),

Gene: Phrancesco_37 Start: 23622, Stop: 25574, Start Num: 23

Candidate Starts for Phrancesco_37:

(Start: 23 @23622 has 31 MA's), (34, 23667), (36, 23691), (38, 23718), (41, 23739), (62, 23895), (69, 23931), (78, 23964), (80, 23970), (83, 23985), (110, 24129), (119, 24171), (120, 24174), (149, 24255), (185, 24393), (186, 24399), (197, 24438), (198, 24465), (203, 24486), (204, 24495), (215, 24549), (217, 24558), (221, 24573), (225, 24597), (226, 24606), (229, 24621), (248, 24747), (250, 24768), (252, 24807), (253, 24819), (266, 24909), (267, 24912), (268, 24936), (269, 24945), (272, 24975), (278, 25047), (279, 25050), (283, 25083), (288, 25113), (312, 25320), (316, 25359), (319, 25389), (340, 25506),

Gene: PierreOrion_37 Start: 23645, Stop: 25597, Start Num: 23

Candidate Starts for PierreOrion_37:

(Start: 23 @23645 has 31 MA's), (34, 23690), (36, 23714), (38, 23741), (41, 23762), (62, 23918), (69, 23954), (78, 23987), (80, 23993), (83, 24008), (110, 24152), (119, 24194), (120, 24197), (149, 24278), (185, 24416), (186, 24422), (197, 24461), (203, 24509), (204, 24518), (215, 24572), (217, 24581), (221, 24596), (225, 24620), (226, 24629), (229, 24644), (248, 24770), (250, 24791), (252, 24830), (253, 24842), (266, 24932), (267, 24935), (268, 24959), (269, 24968), (272, 24998), (278, 25070), (279, 25073), (283, 25106), (288, 25136), (312, 25343), (316, 25382), (319, 25412), (340, 25529),

Gene: PiperSansNom_37 Start: 23797, Stop: 25737, Start Num: 23

Candidate Starts for PiperSansNom_37:

(Start: 23 @23797 has 31 MA's), (34, 23842), (36, 23866), (38, 23893), (41, 23914), (62, 24070), (69, 24106), (78, 24139), (80, 24145), (83, 24160), (110, 24304), (119, 24346), (127, 24391), (149, 24424), (175, 24532), (183, 24559), (185, 24562), (197, 24607), (198, 24634), (200, 24637), (217, 24727), (225, 24766), (226, 24775), (229, 24790), (252, 24976), (266, 25078), (267, 25081), (268, 25105), (269, 25114), (272, 25144), (279, 25219), (300, 25348), (306, 25417), (307, 25429), (313, 25498), (330, 25609), (335, 25645), (347, 25729),

Gene: Piperis_37 Start: 23467, Stop: 25419, Start Num: 23

Candidate Starts for Piperis_37:

(Start: 23 @23467 has 31 MA's), (34, 23512), (36, 23536), (38, 23563), (41, 23584), (62, 23740), (69, 23776), (78, 23809), (80, 23815), (83, 23830), (110, 23974), (119, 24016), (120, 24019), (149, 24100), (185, 24238), (186, 24244), (197, 24283), (198, 24310), (215, 24394), (217, 24403), (221, 24418), (225, 24442), (226, 24451), (229, 24466), (248, 24592), (250, 24613), (252, 24652), (253, 24664), (266, 24754), (267, 24757), (268, 24781), (269, 24790), (272, 24820), (278, 24892), (279, 24895), (283, 24928), (288, 24958), (297, 24994), (312, 25165), (314, 25186), (319, 25234), (340, 25351),

Gene: Pulchra_38 Start: 23867, Stop: 25813, Start Num: 23

Candidate Starts for Pulchra_38:

(Start: 23 @23867 has 31 MA's), (34, 23912), (36, 23936), (38, 23963), (41, 23984), (62, 24140), (69, 24176), (78, 24209), (80, 24215), (83, 24230), (110, 24374), (119, 24416), (149, 24494), (183, 24629), (185, 24632), (197, 24677), (198, 24704), (200, 24707), (217, 24797), (225, 24836), (226, 24845), (229, 24860), (250, 25007), (252, 25046), (253, 25058), (266, 25148), (267, 25151), (268, 25175), (269, 25184), (279, 25289), (283, 25322), (288, 25352), (312, 25559), (316, 25598), (319, 25628), (340, 25745),

Gene: Quhwah_40 Start: 24093, Stop: 26045, Start Num: 23

Candidate Starts for Quhwah_40:

(Start: 23 @24093 has 31 MA's), (34, 24138), (36, 24162), (38, 24189), (41, 24210), (62, 24366), (69, 24402), (78, 24435), (80, 24441), (83, 24456), (110, 24600), (119, 24642), (120, 24645), (123, 24663), (149, 24726), (185, 24864), (186, 24870), (197, 24909), (198, 24936), (203, 24957), (204, 24966), (215, 25020), (217, 25029), (221, 25044), (225, 25068), (226, 25077), (229, 25092), (248, 25218), (250, 25239), (252, 25278), (253, 25290), (266, 25380), (267, 25383), (268, 25407), (269, 25416), (272, 25446), (278, 25518), (279, 25521), (283, 25554), (316, 25830), (319, 25860), (340, 25977),

Gene: Ramiel05_36 Start: 23502, Stop: 25448, Start Num: 23

Candidate Starts for Ramiel05_36:

(Start: 23 @23502 has 31 MA's), (34, 23547), (36, 23571), (38, 23598), (41, 23619), (62, 23775), (69, 23811), (78, 23844), (80, 23850), (83, 23865), (110, 24009), (119, 24051), (149, 24129), (183, 24264), (185, 24267), (197, 24312), (198, 24339), (200, 24342), (217, 24432), (225, 24471), (226, 24480), (229, 24495), (250, 24642), (252, 24681), (253, 24693), (266, 24783), (267, 24786), (268, 24810), (269, 24819), (278, 24921), (279, 24924), (283, 24957), (288, 24987), (312, 25194), (316, 25233), (319, 25263), (340, 25380),

Gene: Rasputia_72 Start: 44029, Stop: 45960, Start Num: 25

Candidate Starts for Rasputia_72:

(Start: 25 @44029 has 11 MA's), (29, 44047), (34, 44071), (38, 44119), (65, 44305), (69, 44332), (78, 44365), (80, 44371), (90, 44419), (91, 44428), (92, 44434), (99, 44464), (103, 44491), (150, 44659), (154, 44692), (180, 44758), (189, 44785), (191, 44794), (192, 44797), (193, 44800), (198, 44842), (218, 44935), (234, 45007), (251, 45118), (254, 45175), (256, 45190), (265, 45250), (267, 45259), (273, 45328), (274, 45331), (291, 45469), (307, 45616), (309, 45646), (310, 45652), (311, 45658), (316, 45718), (319, 45766), (329, 45817), (332, 45832), (335, 45859), (339, 45877), (344, 45940), (346, 45946), (347, 45952),

Gene: RobinRose_38 Start: 25217, Stop: 27190, Start Num: 25

Candidate Starts for RobinRose_38:

(Start: 25 @25217 has 11 MA's), (27, 25220), (46, 25355), (77, 25547), (80, 25562), (91, 25619), (102, 25673), (104, 25685), (133, 25823), (203, 26057), (212, 26114), (228, 26189), (254, 26399), (256, 26414), (268, 26513), (269, 26522), (274, 26564), (285, 26666), (300, 26762), (311, 26891), (319, 26996), (335, 27089), (337, 27098), (346, 27176),

Gene: RobsFeet_38 Start: 23605, Stop: 26094, Start Num: 1

Candidate Starts for RobsFeet_38:

(Start: 1 @23605 has 5 MA's), (6, 23758), (7, 23821), (8, 23833), (18, 24073), (19, 24094), (22, 24115), (31, 24178), (33, 24187), (35, 24205), (37, 24214), (42, 24256), (47, 24292), (51, 24340), (53, 24358), (72, 24448), (74, 24454), (75, 24457), (89, 24526), (113, 24646), (121, 24676), (147, 24775), (165, 24850), (170, 24862), (182, 24916), (205, 25033), (210, 25057), (222, 25096), (227, 25129), (230, 25144), (240, 25192), (250, 25282), (255, 25348), (268, 25450), (270, 25465), (272, 25489), (275, 25525), (277, 25558), (281, 25570), (294, 25651), (300, 25705), (301, 25726), (302, 25750), (307, 25783), (310, 25822), (334, 25999), (347, 26086),

Gene: Romm_38 Start: 25217, Stop: 27190, Start Num: 25

Candidate Starts for Romm_38:

(Start: 25 @25217 has 11 MA's), (27, 25220), (46, 25355), (77, 25547), (80, 25562), (91, 25619), (102, 25673), (104, 25685), (133, 25823), (203, 26057), (212, 26114), (228, 26189), (254, 26399), (256, 26414), (268, 26513), (269, 26522), (274, 26564), (285, 26666), (300, 26762), (311, 26891), (319, 26996), (335, 27089), (337, 27098), (346, 27176),

Gene: Savannah_36 Start: 23529, Stop: 25475, Start Num: 23

Candidate Starts for Savannah_36:

(Start: 23 @23529 has 31 MA's), (34, 23574), (36, 23598), (38, 23625), (41, 23646), (62, 23802), (69, 23838), (78, 23871), (80, 23877), (83, 23892), (110, 24036), (119, 24078), (149, 24156), (183, 24291), (185, 24294), (197, 24339), (198, 24366), (200, 24369), (217, 24459), (225, 24498), (226, 24507), (229, 24522), (250, 24669), (252, 24708), (253, 24720), (266, 24810), (267, 24813), (268, 24837), (269, 24846), (278, 24948), (279, 24951), (283, 24984), (288, 25014), (312, 25221), (316, 25260), (319, 25290), (340, 25407),

Gene: Scumberland_38 Start: 23718, Stop: 25670, Start Num: 23

Candidate Starts for Scumberland_38:

(Start: 23 @23718 has 31 MA's), (34, 23763), (36, 23787), (38, 23814), (41, 23835), (62, 23991), (69, 24027), (78, 24060), (80, 24066), (83, 24081), (110, 24225), (119, 24267), (120, 24270), (149, 24351), (185, 24489), (186, 24495), (197, 24534), (198, 24561), (203, 24582), (204, 24591), (215, 24645), (217, 24654), (221, 24669), (225, 24693), (226, 24702), (229, 24717), (248, 24843), (250, 24864), (252, 24903), (253, 24915), (266, 25005), (267, 25008), (268, 25032), (269, 25041), (272, 25071), (278, 25143), (279, 25146), (283, 25179), (288, 25209), (312, 25416), (314, 25437), (316, 25455), (319, 25485), (340, 25602),

Gene: Selwyn23_38 Start: 23695, Stop: 25647, Start Num: 23

Candidate Starts for Selwyn23_38:

(Start: 23 @23695 has 31 MA's), (34, 23740), (36, 23764), (38, 23791), (41, 23812), (62, 23968), (69, 24004), (78, 24037), (80, 24043), (83, 24058), (110, 24202), (119, 24244), (120, 24247), (149, 24328), (185, 24466), (186, 24472), (197, 24511), (198, 24538), (203, 24559), (204, 24568), (215, 24622), (217, 24631), (221, 24646), (225, 24670), (226, 24679), (229, 24694), (248, 24820), (250, 24841), (252, 24880), (253, 24892), (266, 24982), (267, 24985), (268, 25009), (269, 25018), (272, 25048), (278, 25120), (279, 25123), (283, 25156), (288, 25186), (312, 25393), (314, 25414), (316, 25432), (319, 25462), (340, 25579),

Gene: Shotgun_36 Start: 23328, Stop: 25274, Start Num: 23

Candidate Starts for Shotgun_36:

(Start: 23 @23328 has 31 MA's), (34, 23373), (36, 23397), (38, 23424), (41, 23445), (62, 23601), (69, 23637), (78, 23670), (80, 23676), (83, 23691), (110, 23835), (119, 23877), (127, 23922), (149, 23955), (175, 24063), (183, 24090), (185, 24093), (197, 24138), (198, 24165), (200, 24168), (217, 24258), (225, 24297), (226, 24306), (229, 24321), (252, 24507), (266, 24609), (267, 24612), (268, 24636), (269, 24645), (272, 24675), (279, 24750), (283, 24783), (288, 24813), (312, 25020), (316, 25059), (319, 25089), (340, 25206),

Gene: Smarties_45 Start: 25427, Stop: 27295, Start Num: 26

Candidate Starts for Smarties_45:

(Start: 26 @25427 has 7 MA's), (31, 25457), (32, 25463), (49, 25580), (50, 25595), (84, 25742), (86, 25754), (88, 25766), (89, 25769), (109, 25865), (114, 25883), (116, 25895), (129, 25949), (138, 25979), (168, 26075), (181, 26126), (182, 26132), (205, 26249), (222, 26312), (227, 26345), (228, 26351), (230, 26360), (256, 26570), (264, 26630), (268, 26666), (271, 26687), (272, 26705), (275, 26741), (282, 26801), (300, 26903), (301, 26924), (307, 26981), (336, 27209), (338, 27215),

Gene: Teamocil_38 Start: 23413, Stop: 25311, Start Num: 26

Candidate Starts for Teamocil_38:

(Start: 26 @23413 has 7 MA's), (31, 23443), (32, 23449), (49, 23566), (71, 23689), (73, 23695), (79, 23713), (95, 23776), (97, 23782), (98, 23788), (108, 23851), (112, 23869), (126, 23947), (159, 24058), (163, 24070), (168, 24091), (177, 24127), (182, 24148), (184, 24151), (222, 24328), (227, 24361), (228, 24367), (230, 24376), (240, 24424), (263, 24640), (264, 24646), (268, 24682), (272, 24721), (275, 24757), (282, 24817), (284, 24832), (301, 24940), (307, 24997), (311, 25042), (320, 25129), (338, 25231), (347, 25303),

Gene: Tempo_36 Start: 25093, Stop: 27066, Start Num: 25

Candidate Starts for Tempo_36:

(Start: 25 @25093 has 11 MA's), (27, 25096), (46, 25231), (77, 25423), (80, 25438), (91, 25495), (102, 25549), (104, 25561), (110, 25594), (133, 25699), (203, 25933), (212, 25990), (228, 26065), (254, 26275), (256, 26290), (268, 26389), (269, 26398), (274, 26440), (285, 26542), (300, 26638), (311, 26767), (319, 26872), (335, 26965), (337, 26974), (346, 27052),

Gene: Tyrumbra_35 Start: 23381, Stop: 25870, Start Num: 1

Candidate Starts for Tyrumbra_35:

(Start: 1 @23381 has 5 MA's), (2, 23411), (4, 23474), (6, 23534), (10, 23681), (11, 23708), (17, 23813), (33, 23963), (39, 24011), (42, 24029), (47, 24065), (54, 24134), (57, 24158), (63, 24188), (85, 24272), (95, 24317), (98, 24329), (99, 24335), (106, 24383), (122, 24452), (128, 24497), (182, 24692), (205, 24809), (210, 24833), (227, 24905), (230, 24920), (250, 25058), (255, 25124), (268, 25226), (270, 25241), (272, 25265), (275, 25301), (292, 25418), (293, 25421), (307, 25559), (310, 25598), (311, 25604), (323, 25700),

Gene: Yeti_37 Start: 23497, Stop: 25449, Start Num: 23

Candidate Starts for Yeti_37:

(Start: 23 @23497 has 31 MA's), (34, 23542), (36, 23566), (38, 23593), (41, 23614), (62, 23770), (69, 23806), (78, 23839), (80, 23845), (83, 23860), (110, 24004), (119, 24046), (120, 24049), (149, 24130), (185, 24268), (186, 24274), (197, 24313), (198, 24340), (203, 24361), (204, 24370), (215, 24424), (217, 24433), (221, 24448), (225, 24472), (226, 24481), (229, 24496), (248, 24622), (250, 24643), (252, 24682), (253, 24694), (266, 24784), (267, 24787), (268, 24811), (269, 24820), (272, 24850), (278, 24922), (279, 24925), (283, 24958), (288, 24988), (312, 25195), (316, 25234), (319, 25264), (340, 25381),