

Pham 294755

1: Kowalski_36 + 2	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
2: Onika_36 + 4	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
3: Scumberland_38 + 2	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
4: Yeti_37 + 6	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
5: Antares_37	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
6: Piperis_37	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
7: Lucretia_37 + 1	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
8: SirFrank_36	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
9: BeagleBug_36 + 4	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
10: Glorp_38	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
11: PiperSansNom_37	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
12: EarickHC_37 + 1	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
13: Quhwah_40	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
14: NoodlelyBoi_37	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
15: Paschalis_36	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
16: Crisis_38	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
17: Shotgun_36	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
18: Tempo_36 + 2	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
19: Phinky_43	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
20: OneinaGillian_36	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
21: BabyDotz_36	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
22: Romm_38 + 3	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
23: Marcie_41	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
24: RubyRalph_39 + 2	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
25: Matzah_33	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
26: Cressida_34	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
27: MementoMori_33	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
28: Margaery_32	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
29: Cinna_32	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
30: Hendrix_71	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
31: Rasputia_72	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280
32: MisoSoup_29	15	21	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280

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 294755 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294755 has 59 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Kowalski_36, Ramiel05_36, Savannah_36
- Track 2 : Onika_36, Cranjjs_38, PhedwardCullen_35, CrazyRich_36, Rockwell_36
- Track 3 : Scumberland_38, Selwyn23_38, LittleFortune_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 : Lucretia_37, PierreOrion_37
- Track 8 : SirFrank_36
- Track 9 : BeagleBug_36, Jollipop_37, Pulchra_38, Hermeonysus_36, BrazzalePHS_36
- Track 10 : Glorp_38
- Track 11 : PiperSansNom_37
- Track 12 : EarickHC_37, KaiHaiDragon_37
- Track 13 : Quhwah_40
- Track 14 : NoodlelyBoi_37
- Track 15 : Paschalis_36
- Track 16 : Crisis_38
- Track 17 : Shotgun_36
- Track 18 : Tempo_36, Fregley_37, CandC_35
- Track 19 : Phinky_43
- Track 20 : OneinaGillian_36
- Track 21 : BabyDotz_36
- Track 22 : Romm_38, Kelcole_35, KillerQueen_37, RobinRose_38
- Track 23 : Marcie_41
- Track 24 : RubyRalph_39, SadLad_41, Fransoyer_39
- Track 25 : Matzah_33
- Track 26 : Cressida_34
- Track 27 : MementoMori_33
- Track 28 : Margaery_32
- Track 29 : Cinna_32
- Track 30 : Hendrix_71
- Track 31 : Rasputia_72
- Track 32 : MisoSoup_29

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

The start number called the most often in the published annotations is 15, it was called in 49 of the 52 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_37, BabyDotz_36, BeagleBug_36, BrazzalePHS_36, Busephilis_36, CandC_35, Cinna_32, Cranjjs_38, CrazyRich_36, Cressida_34, Crisis_38, EarickHC_37, Fregley_37, Ganandorf_36, Glorp_38, Hendrix_71, Hermeonysus_36, Honeyfin_38, Jefe_37, Jollipop_37, KaiHaiDragon_37, Kelcole_35, KillerQueen_37, Kowalski_36, LittleFortune_38, Lucretia_37, Marcie_41, Margaery_32, Matzah_33, MementoMori_33, NoodlelyBoi_37, OneinaGillian_36, Onika_36, Paschalis_36, PhedwardCullen_35, Phinky_43, Phorgeous_36, Phrancesco_37, PierreOrion_37, PiperSansNom_37, Piperis_37, Pulchra_38, Quhwah_40, Ramiel05_36, Rasputia_72, RobinRose_38, Rockwell_36, Romm_38, Savannah_36, Scumberland_38, Selwyn23_38, Shotgun_36, SirFrank_36, Tempo_36, Yeti_37,

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

-

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

- Fransoyer_39, MisoSoup_29, RubyRalph_39, SadLad_41,

Summary by start number:

Start 1:

- Found in 3 of 59 (5.1%) of genes in pham
- Manual Annotations of this start: 3 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fransoyer_39 (EG), RubyRalph_39 (EG), SadLad_41 (EG),

Start 15:

- Found in 55 of 59 (93.2%) of genes in pham
- Manual Annotations of this start: 49 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_37 (EC), BabyDotz_36 (EG), BeagleBug_36 (EC), BrazzalePHS_36 (EC), Busephilis_36 (EC), CandC_35 (EG), Cinna_32 (EI), Cranjjs_38 (EC), CrazyRich_36 (EC), Cressida_34 (EI), Crisis_38 (EC), EarickHC_37 (EC), Fregley_37 (EG), Ganandorf_36 (EC), Glorp_38 (EC), Hendrix_71 (GC), Hermeonysus_36 (EC), Honeyfin_38 (EC), Jefe_37 (EC), Jollipop_37 (EC), KaiHaiDragon_37 (EC), Kelcole_35 (EG), KillerQueen_37 (EG), Kowalski_36 (EC), LittleFortune_38 (EC), Lucretia_37 (EC), Marcie_41 (EG), Margaery_32 (EI), Matzah_33 (EI), MementoMori_33 (EI), NoodlelyBoi_37 (EC), OneinaGillian_36 (EG), Onika_36 (EC), Paschalis_36 (EC), PhedwardCullen_35 (EC), Phinky_43 (EG), Phorgeous_36 (EC), Phrancesco_37 (EC), PierreOrion_37 (EC), PiperSansNom_37 (EC), Piperis_37 (EC), Pulchra_38 (EC), Quhwah_40 (EC), Ramiel05_36 (EC), Rasputia_72 (GC), RobinRose_38 (EG), Rockwell_36 (EC), Romm_38 (EG), Savannah_36 (EC), Scumberland_38 (EC), Selwyn23_38 (EC), Shotgun_36 (EC), SirFrank_36 (EC), Tempo_36 (EG), Yeti_37 (EC),

Start 16:

- Found in 1 of 59 (1.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MisoSoup_29 (GM),

Summary by clusters:

There are 5 clusters represented in this pham: EI, EG, GC, GM, EC,

Info for manual annotations of cluster EC:

- Start number 15 was manually annotated 32 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 1 was manually annotated 3 times for cluster EG.
- Start number 15 was manually annotated 10 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 15 was manually annotated 5 times for cluster EI.

Info for manual annotations of cluster GC:

- Start number 15 was manually annotated 2 times for cluster GC.

Gene Information:

Gene: Antares_37 Start: 23711, Stop: 25657, Start Num: 15

Candidate Starts for Antares_37:

(Start: 15 @23711 has 49 MA's), (22, 23756), (24, 23780), (26, 23807), (28, 23828), (44, 23984), (49, 24020), (54, 24053), (55, 24059), (57, 24074), (73, 24218), (78, 24260), (86, 24305), (100, 24338), (126, 24446), (131, 24473), (132, 24476), (141, 24521), (146, 24548), (147, 24551), (168, 24641), (174, 24680), (175, 24689), (178, 24704), (201, 24851), (203, 24890), (204, 24902), (217, 24992), (218, 24995), (219, 25019), (220, 25028), (222, 25058), (227, 25133), (228, 25166), (232, 25196), (255, 25403), (260, 25442), (263, 25472), (280, 25589),

Gene: BabyDotz_36 Start: 26482, Stop: 28446, Start Num: 15

Candidate Starts for BabyDotz_36:

(Start: 15 @26482 has 49 MA's), (20, 26506), (27, 26578), (29, 26593), (53, 26809), (55, 26824), (60, 26881), (66, 26932), (109, 27151), (111, 27166), (148, 27319), (158, 27361), (177, 27451), (179, 27460), (203, 27640), (205, 27661), (210, 27694), (212, 27703), (219, 27769), (223, 27817), (224, 27820), (227, 27883), (243, 28018), (253, 28147), (260, 28204), (265, 28252), (277, 28345), (279, 28354), (286, 28432),

Gene: BeagleBug_36 Start: 23492, Stop: 25438, Start Num: 15

Candidate Starts for BeagleBug_36:

(Start: 15 @23492 has 49 MA's), (22, 23537), (24, 23561), (26, 23588), (28, 23609), (44, 23765), (49, 23801), (54, 23834), (55, 23840), (57, 23855), (73, 23999), (78, 24041), (100, 24119), (131, 24254), (132, 24257), (141, 24302), (146, 24329), (147, 24332), (168, 24422), (174, 24461), (175, 24470), (178, 24485), (201, 24632), (203, 24671), (204, 24683), (217, 24773), (218, 24776), (219, 24800), (220, 24809), (227, 24914), (228, 24947), (232, 24977), (255, 25184), (260, 25223), (263, 25253), (280, 25370),

Gene: BrazzalePHS_36 Start: 23506, Stop: 25452, Start Num: 15

Candidate Starts for BrazzalePHS_36:

(Start: 15 @23506 has 49 MA's), (22, 23551), (24, 23575), (26, 23602), (28, 23623), (44, 23779), (49, 23815), (54, 23848), (55, 23854), (57, 23869), (73, 24013), (78, 24055), (100, 24133), (131, 24268), (132, 24271), (141, 24316), (146, 24343), (147, 24346), (168, 24436), (174, 24475), (175, 24484), (178, 24499), (201, 24646), (203, 24685), (204, 24697), (217, 24787), (218, 24790), (219, 24814), (220, 24823), (227, 24928), (228, 24961), (232, 24991), (255, 25198), (260, 25237), (263, 25267), (280, 25384),

Gene: Busephilis_36 Start: 23441, Stop: 25393, Start Num: 15

Candidate Starts for Busephilis_36:

(Start: 15 @23441 has 49 MA's), (22, 23486), (24, 23510), (26, 23537), (28, 23558), (44, 23714), (49, 23750), (54, 23783), (55, 23789), (57, 23804), (73, 23948), (78, 23990), (79, 23993), (100, 24074), (132, 24212), (134, 24218), (141, 24257), (146, 24284), (150, 24305), (153, 24314), (165, 24368), (168, 24377), (171, 24392), (174, 24416), (175, 24425), (178, 24440), (198, 24566), (201, 24587), (203, 24626), (204, 24638), (217, 24728), (218, 24731), (219, 24755), (220, 24764), (222, 24794), (226, 24866), (227, 24869), (228, 24902), (232, 24932), (255, 25139), (260, 25178), (263, 25208), (280, 25325),

Gene: CandC_35 Start: 24614, Stop: 26587, Start Num: 15

Candidate Starts for CandC_35:

(Start: 15 @24614 has 49 MA's), (17, 24617), (34, 24752), (53, 24944), (55, 24959), (60, 25016), (67, 25070), (69, 25082), (73, 25115), (88, 25220), (148, 25454), (163, 25511), (177, 25586), (205, 25796), (207, 25811), (219, 25910), (220, 25919), (224, 25961), (229, 26063), (243, 26159), (253, 26288), (265, 26393), (277, 26486), (279, 26495), (286, 26573),

Gene: Cinna_32 Start: 22859, Stop: 25375, Start Num: 15

Candidate Starts for Cinna_32:

(11, 22466), (Start: 15 @22859 has 49 MA's), (26, 22952), (32, 22985), (35, 23009), (36, 23027), (41, 23111), (47, 23141), (48, 23150), (50, 23168), (52, 23177), (54, 23198), (55, 23204), (57, 23219), (59, 23252), (60, 23261), (70, 23336), (73, 23363), (89, 23570), (92, 23630), (94, 23663), (97, 23735), (98, 23738), (103, 23771), (104, 23774), (105, 23786), (115, 23825), (118, 23870), (119, 23876), (121, 23885), (125, 23942), (142, 24053), (152, 24101), (161, 24140), (170, 24194), (183, 24296), (187, 24407), (194, 24476), (199, 24512), (203, 24569), (208, 24608), (214, 24641), (216, 24665), (218, 24674), (220, 24707), (224, 24749), (226, 24809), (233, 24884), (248, 25019), (252, 25076), (278, 25289), (282, 25334),

Gene: Cranjis_38 Start: 23666, Stop: 25612, Start Num: 15

Candidate Starts for Cranjis_38:

(Start: 15 @23666 has 49 MA's), (22, 23711), (24, 23735), (26, 23762), (28, 23783), (44, 23939), (49, 23975), (54, 24008), (55, 24014), (57, 24029), (73, 24173), (78, 24215), (86, 24260), (100, 24293), (131, 24428), (132, 24431), (141, 24476), (146, 24503), (147, 24506), (168, 24596), (174, 24635), (175, 24644), (178, 24659), (201, 24806), (203, 24845), (204, 24857), (217, 24947), (218, 24950), (219, 24974), (220, 24983), (227, 25088), (228, 25121), (232, 25151), (255, 25358), (260, 25397), (263, 25427), (280, 25544),

Gene: CrazyRich_36 Start: 23475, Stop: 25421, Start Num: 15

Candidate Starts for CrazyRich_36:

(Start: 15 @23475 has 49 MA's), (22, 23520), (24, 23544), (26, 23571), (28, 23592), (44, 23748), (49, 23784), (54, 23817), (55, 23823), (57, 23838), (73, 23982), (78, 24024), (86, 24069), (100, 24102), (131, 24237), (132, 24240), (141, 24285), (146, 24312), (147, 24315), (168, 24405), (174, 24444), (175, 24453), (178, 24468), (201, 24615), (203, 24654), (204, 24666), (217, 24756), (218, 24759), (219, 24783), (220, 24792), (227, 24897), (228, 24930), (232, 24960), (255, 25167), (260, 25206),

(263, 25236), (280, 25353),

Gene: Cressida_34 Start: 22922, Stop: 24850, Start Num: 15

Candidate Starts for Cressida_34:

(Start: 15 @22922 has 49 MA's), (32, 23048), (40, 23165), (47, 23204), (48, 23213), (50, 23231), (52, 23240), (55, 23267), (59, 23315), (70, 23399), (73, 23426), (83, 23495), (87, 23522), (102, 23558), (104, 23564), (117, 23615), (124, 23651), (129, 23678), (131, 23684), (145, 23738), (149, 23765), (170, 23816), (173, 23837), (178, 23867), (185, 23900), (199, 23990), (203, 24047), (208, 24086), (209, 24101), (211, 24107), (218, 24152), (219, 24176), (220, 24185), (221, 24197), (224, 24227), (234, 24362), (240, 24401), (245, 24473), (248, 24494), (250, 24512), (252, 24551), (254, 24569), (259, 24602), (261, 24617), (262, 24620), (270, 24704), (277, 24758), (278, 24764),

Gene: Crisis_38 Start: 23460, Stop: 25412, Start Num: 15

Candidate Starts for Crisis_38:

(Start: 15 @23460 has 49 MA's), (22, 23505), (24, 23529), (26, 23556), (28, 23577), (44, 23733), (49, 23769), (54, 23802), (55, 23808), (57, 23823), (73, 23967), (78, 24009), (79, 24012), (100, 24093), (132, 24231), (134, 24237), (141, 24276), (146, 24303), (150, 24324), (153, 24333), (165, 24387), (168, 24396), (171, 24411), (174, 24435), (175, 24444), (178, 24459), (198, 24585), (201, 24606), (203, 24645), (204, 24657), (217, 24747), (218, 24750), (219, 24774), (220, 24783), (222, 24813), (226, 24885), (227, 24888), (228, 24921), (232, 24951), (260, 25197), (263, 25227), (280, 25344),

Gene: EarickHC_37 Start: 23386, Stop: 25338, Start Num: 15

Candidate Starts for EarickHC_37:

(Start: 15 @23386 has 49 MA's), (22, 23431), (24, 23455), (26, 23482), (28, 23503), (49, 23695), (54, 23728), (55, 23734), (57, 23749), (73, 23893), (78, 23935), (79, 23938), (81, 23956), (100, 24019), (132, 24157), (134, 24163), (141, 24202), (146, 24229), (165, 24313), (168, 24322), (171, 24337), (174, 24361), (175, 24370), (178, 24385), (198, 24511), (201, 24532), (203, 24571), (204, 24583), (217, 24673), (218, 24676), (219, 24700), (220, 24709), (226, 24811), (227, 24814), (228, 24847), (232, 24877), (255, 25084), (260, 25123), (263, 25153), (280, 25270),

Gene: Fransoyer_39 Start: 25911, Stop: 28880, Start Num: 1

Candidate Starts for Fransoyer_39:

(Start: 1 @25911 has 3 MA's), (2, 25941), (3, 26073), (4, 26112), (5, 26157), (6, 26235), (7, 26337), (8, 26361), (9, 26367), (10, 26463), (12, 26559), (13, 26643), (14, 26841), (19, 26916), (23, 26943), (30, 27033), (31, 27036), (33, 27045), (34, 27057), (37, 27090), (39, 27117), (43, 27183), (45, 27189), (51, 27234), (53, 27255), (65, 27384), (71, 27429), (75, 27471), (77, 27486), (80, 27495), (84, 27528), (120, 27660), (136, 27720), (157, 27816), (160, 27834), (168, 27858), (169, 27861), (198, 28047), (203, 28107), (205, 28128), (207, 28143), (213, 28176), (215, 28194), (216, 28209), (221, 28263), (224, 28293), (226, 28353), (227, 28356), (230, 28413), (237, 28443), (241, 28461), (249, 28545), (253, 28602), (260, 28656), (276, 28788), (281, 28836), (282, 28839),

Gene: Fregley_37 Start: 25184, Stop: 27157, Start Num: 15

Candidate Starts for Fregley_37:

(Start: 15 @25184 has 49 MA's), (17, 25187), (34, 25322), (53, 25514), (55, 25529), (60, 25586), (67, 25640), (69, 25652), (73, 25685), (88, 25790), (148, 26024), (163, 26081), (177, 26156), (205, 26366), (207, 26381), (219, 26480), (220, 26489), (224, 26531), (229, 26633), (243, 26729), (253, 26858), (265, 26963), (277, 27056), (279, 27065), (286, 27143),

Gene: Ganandorf_36 Start: 23522, Stop: 25474, Start Num: 15

Candidate Starts for Ganandorf_36:

(Start: 15 @23522 has 49 MA's), (22, 23567), (24, 23591), (26, 23618), (28, 23639), (44, 23795), (49, 23831), (54, 23864), (55, 23870), (57, 23885), (73, 24029), (78, 24071), (79, 24074), (100, 24155), (132, 24293), (134, 24299), (141, 24338), (146, 24365), (150, 24386), (153, 24395), (165, 24449),

(168, 24458), (171, 24473), (174, 24497), (175, 24506), (178, 24521), (198, 24647), (201, 24668), (203, 24707), (204, 24719), (217, 24809), (218, 24812), (219, 24836), (220, 24845), (222, 24875), (226, 24947), (227, 24950), (228, 24983), (232, 25013), (255, 25220), (260, 25259), (263, 25289), (280, 25406),

Gene: Glorp_38 Start: 23523, Stop: 25475, Start Num: 15

Candidate Starts for Glorp_38:

(Start: 15 @23523 has 49 MA's), (22, 23568), (24, 23592), (26, 23619), (28, 23640), (44, 23796), (49, 23832), (54, 23865), (55, 23871), (57, 23886), (73, 24030), (78, 24072), (79, 24075), (100, 24156), (132, 24294), (134, 24300), (141, 24339), (146, 24366), (150, 24387), (153, 24396), (165, 24450), (168, 24459), (171, 24474), (174, 24498), (175, 24507), (178, 24522), (198, 24648), (201, 24669), (203, 24708), (204, 24720), (217, 24810), (218, 24813), (219, 24837), (220, 24846), (222, 24876), (226, 24948), (227, 24951), (228, 24984), (232, 25014), (239, 25050), (255, 25221), (258, 25242), (263, 25290), (280, 25407),

Gene: Hendrix_71 Start: 44066, Stop: 46000, Start Num: 15

Candidate Starts for Hendrix_71:

(Start: 15 @44066 has 49 MA's), (22, 44108), (26, 44156), (46, 44342), (54, 44402), (55, 44408), (59, 44456), (60, 44465), (61, 44471), (68, 44528), (71, 44555), (91, 44684), (99, 44690), (101, 44696), (107, 44726), (108, 44729), (126, 44792), (129, 44813), (133, 44825), (143, 44876), (164, 44951), (166, 44963), (181, 45026), (205, 45209), (207, 45224), (216, 45284), (218, 45293), (220, 45323), (223, 45362), (224, 45365), (227, 45428), (228, 45461), (242, 45554), (244, 45584), (246, 45614), (248, 45638), (250, 45656), (251, 45686), (271, 45848), (275, 45872), (277, 45899), (280, 45917), (285, 45983), (286, 45986), (287, 45992),

Gene: Hermeonysus_36 Start: 23395, Stop: 25341, Start Num: 15

Candidate Starts for Hermeonysus_36:

(Start: 15 @23395 has 49 MA's), (22, 23440), (24, 23464), (26, 23491), (28, 23512), (44, 23668), (49, 23704), (54, 23737), (55, 23743), (57, 23758), (73, 23902), (78, 23944), (100, 24022), (131, 24157), (132, 24160), (141, 24205), (146, 24232), (147, 24235), (168, 24325), (174, 24364), (175, 24373), (178, 24388), (201, 24535), (203, 24574), (204, 24586), (217, 24676), (218, 24679), (219, 24703), (220, 24712), (227, 24817), (228, 24850), (232, 24880), (255, 25087), (260, 25126), (263, 25156), (280, 25273),

Gene: Honeyfin_38 Start: 23710, Stop: 25662, Start Num: 15

Candidate Starts for Honeyfin_38:

(Start: 15 @23710 has 49 MA's), (22, 23755), (24, 23779), (26, 23806), (28, 23827), (44, 23983), (49, 24019), (54, 24052), (55, 24058), (57, 24073), (73, 24217), (78, 24259), (79, 24262), (100, 24343), (132, 24481), (134, 24487), (141, 24526), (146, 24553), (150, 24574), (153, 24583), (165, 24637), (168, 24646), (171, 24661), (174, 24685), (175, 24694), (178, 24709), (198, 24835), (201, 24856), (203, 24895), (204, 24907), (217, 24997), (218, 25000), (219, 25024), (220, 25033), (222, 25063), (226, 25135), (227, 25138), (228, 25171), (232, 25201), (255, 25408), (260, 25447), (263, 25477), (280, 25594),

Gene: Jefe_37 Start: 23447, Stop: 25399, Start Num: 15

Candidate Starts for Jefe_37:

(Start: 15 @23447 has 49 MA's), (22, 23492), (24, 23516), (26, 23543), (28, 23564), (44, 23720), (49, 23756), (54, 23789), (55, 23795), (57, 23810), (73, 23954), (78, 23996), (79, 23999), (100, 24080), (132, 24218), (134, 24224), (141, 24263), (146, 24290), (150, 24311), (153, 24320), (165, 24374), (168, 24383), (171, 24398), (174, 24422), (175, 24431), (178, 24446), (198, 24572), (201, 24593), (203, 24632), (204, 24644), (217, 24734), (218, 24737), (219, 24761), (220, 24770), (222, 24800), (226, 24872), (227, 24875), (228, 24908), (232, 24938), (255, 25145), (260, 25184), (263, 25214), (280, 25331),

Gene: Jollipop_37 Start: 23792, Stop: 25738, Start Num: 15

Candidate Starts for Jollipop_37:

(Start: 15 @23792 has 49 MA's), (22, 23837), (24, 23861), (26, 23888), (28, 23909), (44, 24065), (49, 24101), (54, 24134), (55, 24140), (57, 24155), (73, 24299), (78, 24341), (100, 24419), (131, 24554), (132, 24557), (141, 24602), (146, 24629), (147, 24632), (168, 24722), (174, 24761), (175, 24770), (178, 24785), (201, 24932), (203, 24971), (204, 24983), (217, 25073), (218, 25076), (219, 25100), (220, 25109), (227, 25214), (228, 25247), (232, 25277), (255, 25484), (260, 25523), (263, 25553), (280, 25670),

Gene: KaiHaiDragon_37 Start: 23386, Stop: 25338, Start Num: 15

Candidate Starts for KaiHaiDragon_37:

(Start: 15 @23386 has 49 MA's), (22, 23431), (24, 23455), (26, 23482), (28, 23503), (49, 23695), (54, 23728), (55, 23734), (57, 23749), (73, 23893), (78, 23935), (79, 23938), (81, 23956), (100, 24019), (132, 24157), (134, 24163), (141, 24202), (146, 24229), (165, 24313), (168, 24322), (171, 24337), (174, 24361), (175, 24370), (178, 24385), (198, 24511), (201, 24532), (203, 24571), (204, 24583), (217, 24673), (218, 24676), (219, 24700), (220, 24709), (226, 24811), (227, 24814), (228, 24847), (232, 24877), (255, 25084), (260, 25123), (263, 25153), (280, 25270),

Gene: Kelcole_35 Start: 25066, Stop: 27039, Start Num: 15

Candidate Starts for Kelcole_35:

(Start: 15 @25066 has 49 MA's), (17, 25069), (34, 25204), (53, 25396), (55, 25411), (60, 25468), (67, 25522), (69, 25534), (88, 25672), (148, 25906), (163, 25963), (177, 26038), (205, 26248), (207, 26263), (219, 26362), (220, 26371), (224, 26413), (229, 26515), (243, 26611), (253, 26740), (265, 26845), (277, 26938), (279, 26947), (286, 27025),

Gene: KillerQueen_37 Start: 24861, Stop: 26834, Start Num: 15

Candidate Starts for KillerQueen_37:

(Start: 15 @24861 has 49 MA's), (17, 24864), (34, 24999), (53, 25191), (55, 25206), (60, 25263), (67, 25317), (69, 25329), (88, 25467), (148, 25701), (163, 25758), (177, 25833), (205, 26043), (207, 26058), (219, 26157), (220, 26166), (224, 26208), (229, 26310), (243, 26406), (253, 26535), (265, 26640), (277, 26733), (279, 26742), (286, 26820),

Gene: Kowalski_36 Start: 23502, Stop: 25448, Start Num: 15

Candidate Starts for Kowalski_36:

(Start: 15 @23502 has 49 MA's), (22, 23547), (24, 23571), (26, 23598), (28, 23619), (44, 23775), (49, 23811), (54, 23844), (55, 23850), (57, 23865), (73, 24009), (78, 24051), (100, 24129), (131, 24264), (132, 24267), (141, 24312), (146, 24339), (147, 24342), (168, 24432), (174, 24471), (175, 24480), (178, 24495), (201, 24642), (203, 24681), (204, 24693), (217, 24783), (218, 24786), (219, 24810), (220, 24819), (226, 24921), (227, 24924), (228, 24957), (232, 24987), (255, 25194), (260, 25233), (263, 25263), (280, 25380),

Gene: LittleFortune_38 Start: 23752, Stop: 25704, Start Num: 15

Candidate Starts for LittleFortune_38:

(Start: 15 @23752 has 49 MA's), (22, 23797), (24, 23821), (26, 23848), (28, 23869), (44, 24025), (49, 24061), (54, 24094), (55, 24100), (57, 24115), (73, 24259), (78, 24301), (79, 24304), (100, 24385), (132, 24523), (134, 24529), (141, 24568), (146, 24595), (150, 24616), (153, 24625), (165, 24679), (168, 24688), (171, 24703), (174, 24727), (175, 24736), (178, 24751), (198, 24877), (201, 24898), (203, 24937), (204, 24949), (217, 25039), (218, 25042), (219, 25066), (220, 25075), (222, 25105), (226, 25177), (227, 25180), (228, 25213), (232, 25243), (255, 25450), (258, 25471), (260, 25489), (263, 25519), (280, 25636),

Gene: Lucretia_37 Start: 23439, Stop: 25391, Start Num: 15

Candidate Starts for Lucretia_37:

(Start: 15 @23439 has 49 MA's), (22, 23484), (24, 23508), (26, 23535), (28, 23556), (44, 23712), (49, 23748), (54, 23781), (55, 23787), (57, 23802), (73, 23946), (78, 23988), (79, 23991), (100, 24072), (132, 24210), (134, 24216), (141, 24255), (150, 24303), (153, 24312), (165, 24366), (168, 24375), (171, 24390), (174, 24414), (175, 24423), (178, 24438), (198, 24564), (201, 24585), (203, 24624), (204, 24636), (217, 24726), (218, 24729), (219, 24753), (220, 24762), (222, 24792), (226, 24864), (227, 24867), (228, 24900), (232, 24930), (255, 25137), (260, 25176), (263, 25206), (280, 25323),

Gene: Marcie_41 Start: 25722, Stop: 27695, Start Num: 15

Candidate Starts for Marcie_41:

(Start: 15 @25722 has 49 MA's), (17, 25725), (34, 25860), (53, 26052), (55, 26067), (60, 26124), (67, 26178), (73, 26223), (91, 26340), (99, 26349), (131, 26484), (163, 26619), (205, 26904), (207, 26919), (210, 26940), (216, 26985), (219, 27018), (223, 27066), (224, 27069), (229, 27171), (253, 27396), (258, 27438), (260, 27456), (273, 27561), (275, 27567), (277, 27594), (286, 27681),

Gene: Margaery_32 Start: 22803, Stop: 24701, Start Num: 15

Candidate Starts for Margaery_32:

(11, 22407), (Start: 15 @22803 has 49 MA's), (26, 22899), (27, 22908), (39, 23007), (42, 23061), (45, 23079), (49, 23112), (54, 23145), (55, 23151), (57, 23166), (63, 23220), (68, 23271), (72, 23307), (73, 23310), (87, 23406), (106, 23466), (122, 23529), (124, 23535), (130, 23562), (146, 23625), (156, 23649), (159, 23673), (177, 23751), (191, 23820), (192, 23841), (195, 23859), (197, 23868), (206, 23976), (217, 24048), (218, 24051), (219, 24075), (221, 24096), (225, 24150), (226, 24186), (231, 24249), (232, 24252), (236, 24273), (243, 24315), (253, 24432), (258, 24468), (283, 24666), (286, 24687),

Gene: Matzah_33 Start: 22835, Stop: 25315, Start Num: 15

Candidate Starts for Matzah_33:

(Start: 15 @22835 has 49 MA's), (26, 22928), (32, 22961), (35, 22985), (36, 23003), (41, 23087), (47, 23117), (48, 23126), (50, 23144), (52, 23153), (54, 23174), (55, 23180), (57, 23195), (59, 23228), (60, 23237), (70, 23312), (73, 23339), (76, 23396), (85, 23495), (89, 23543), (90, 23558), (93, 23600), (95, 23645), (96, 23651), (110, 23747), (116, 23777), (139, 23963), (141, 23978), (144, 23993), (154, 24041), (162, 24080), (170, 24131), (172, 24188), (173, 24206), (174, 24212), (186, 24314), (188, 24362), (189, 24371), (193, 24419), (208, 24560), (214, 24593), (216, 24617), (218, 24626), (220, 24659), (224, 24701), (226, 24761), (235, 24839), (240, 24875), (252, 25025), (258, 25070), (268, 25154), (269, 25157),

Gene: MementoMori_33 Start: 22559, Stop: 25063, Start Num: 15

Candidate Starts for MementoMori_33:

(Start: 15 @22559 has 49 MA's), (26, 22652), (32, 22685), (35, 22709), (36, 22727), (41, 22811), (47, 22841), (48, 22850), (50, 22868), (52, 22877), (54, 22898), (55, 22904), (57, 22919), (59, 22952), (60, 22961), (73, 23063), (83, 23186), (89, 23270), (94, 23363), (98, 23438), (104, 23474), (115, 23525), (119, 23576), (121, 23585), (125, 23642), (142, 23753), (152, 23801), (161, 23840), (170, 23894), (187, 24107), (194, 24176), (199, 24212), (203, 24269), (208, 24308), (214, 24341), (216, 24365), (218, 24374), (220, 24407), (224, 24449), (226, 24509), (235, 24587), (240, 24623), (252, 24773), (258, 24818), (266, 24884), (268, 24902), (269, 24905),

Gene: MisoSoup_29 Start: 19901, Stop: 21790, Start Num: 16

Candidate Starts for MisoSoup_29:

(16, 19901), (21, 19940), (25, 19991), (38, 20096), (54, 20237), (56, 20252), (82, 20465), (113, 20573), (127, 20630), (128, 20636), (136, 20660), (140, 20681), (168, 20786), (170, 20792), (176, 20834), (193, 20918), (200, 20969), (207, 21056), (213, 21086), (225, 21224), (237, 21356), (251, 21506), (255, 21533), (256, 21539), (258, 21554), (260, 21572), (264, 21608), (274, 21674), (276, 21698),

Gene: NoodlelyBoi_37 Start: 23832, Stop: 25775, Start Num: 15

Candidate Starts for NoodlelyBoi_37:

(Start: 15 @23832 has 49 MA's), (22, 23877), (26, 23928), (28, 23949), (39, 24036), (42, 24090), (49, 24141), (54, 24174), (55, 24180), (57, 24195), (73, 24339), (74, 24348), (78, 24381), (100, 24459), (114, 24522), (118, 24537), (123, 24558), (132, 24597), (134, 24603), (146, 24669), (165, 24750), (170, 24765), (171, 24774), (173, 24792), (174, 24798), (175, 24807), (178, 24822), (190, 24882), (198, 24948), (201, 24969), (204, 25020), (205, 25029), (206, 25038), (216, 25104), (217, 25110), (218, 25113), (219, 25137), (226, 25248), (227, 25251), (228, 25284), (232, 25314), (255, 25521), (267, 25617), (272, 25647), (276, 25683), (277, 25689), (287, 25767),

Gene: OneinaGillian_36 Start: 24713, Stop: 26689, Start Num: 15

Candidate Starts for OneinaGillian_36:

(Start: 15 @24713 has 49 MA's), (17, 24716), (34, 24851), (53, 25043), (55, 25058), (60, 25115), (67, 25169), (69, 25181), (88, 25319), (148, 25553), (163, 25610), (177, 25685), (205, 25895), (207, 25910), (219, 26009), (220, 26018), (224, 26060), (229, 26162), (243, 26258), (253, 26387), (260, 26447), (265, 26495), (277, 26588), (279, 26597), (286, 26675),

Gene: Onika_36 Start: 23477, Stop: 25423, Start Num: 15

Candidate Starts for Onika_36:

(Start: 15 @23477 has 49 MA's), (22, 23522), (24, 23546), (26, 23573), (28, 23594), (44, 23750), (49, 23786), (54, 23819), (55, 23825), (57, 23840), (73, 23984), (78, 24026), (86, 24071), (100, 24104), (131, 24239), (132, 24242), (141, 24287), (146, 24314), (147, 24317), (168, 24407), (174, 24446), (175, 24455), (178, 24470), (201, 24617), (203, 24656), (204, 24668), (217, 24758), (218, 24761), (219, 24785), (220, 24794), (227, 24899), (228, 24932), (232, 24962), (255, 25169), (260, 25208), (263, 25238), (280, 25355),

Gene: Paschalis_36 Start: 23490, Stop: 25430, Start Num: 15

Candidate Starts for Paschalis_36:

(Start: 15 @23490 has 49 MA's), (22, 23535), (24, 23559), (26, 23586), (28, 23607), (44, 23763), (49, 23799), (54, 23832), (55, 23838), (57, 23853), (73, 23997), (78, 24039), (86, 24084), (100, 24117), (126, 24225), (131, 24252), (132, 24255), (141, 24300), (146, 24327), (147, 24330), (168, 24420), (174, 24459), (175, 24468), (178, 24483), (201, 24630), (203, 24669), (204, 24681), (217, 24771), (218, 24774), (219, 24798), (220, 24807), (222, 24837), (227, 24912), (243, 25041), (249, 25110), (250, 25122), (257, 25191), (272, 25302), (276, 25338), (287, 25422),

Gene: PhedwardCullen_35 Start: 23235, Stop: 25181, Start Num: 15

Candidate Starts for PhedwardCullen_35:

(Start: 15 @23235 has 49 MA's), (22, 23280), (24, 23304), (26, 23331), (28, 23352), (44, 23508), (49, 23544), (54, 23577), (55, 23583), (57, 23598), (73, 23742), (78, 23784), (86, 23829), (100, 23862), (131, 23997), (132, 24000), (141, 24045), (146, 24072), (147, 24075), (168, 24165), (174, 24204), (175, 24213), (178, 24228), (201, 24375), (203, 24414), (204, 24426), (217, 24516), (218, 24519), (219, 24543), (220, 24552), (227, 24657), (228, 24690), (232, 24720), (255, 24927), (260, 24966), (263, 24996), (280, 25113),

Gene: Phinky_43 Start: 27523, Stop: 29499, Start Num: 15

Candidate Starts for Phinky_43:

(Start: 15 @27523 has 49 MA's), (20, 27547), (53, 27850), (58, 27901), (62, 27931), (66, 27973), (119, 28234), (131, 28285), (151, 28378), (158, 28405), (177, 28495), (195, 28597), (206, 28714), (219, 28813), (224, 28864), (230, 28984), (238, 29029), (247, 29128), (258, 29242), (260, 29260), (286, 29485),

Gene: Phorgeous_36 Start: 23344, Stop: 25296, Start Num: 15

Candidate Starts for Phorgeous_36:

(Start: 15 @23344 has 49 MA's), (22, 23389), (24, 23413), (26, 23440), (28, 23461), (44, 23617), (49, 23653), (54, 23686), (55, 23692), (57, 23707), (73, 23851), (78, 23893), (79, 23896), (100, 23977), (132, 24115), (134, 24121), (141, 24160), (146, 24187), (150, 24208), (153, 24217), (165, 24271), (168, 24280), (171, 24295), (174, 24319), (175, 24328), (178, 24343), (198, 24469), (201, 24490), (203, 24529), (204, 24541), (217, 24631), (218, 24634), (219, 24658), (220, 24667), (222, 24697), (226, 24769), (227, 24772), (228, 24805), (232, 24835), (255, 25042), (260, 25081), (263, 25111), (280, 25228),

Gene: Phrancesco_37 Start: 23622, Stop: 25574, Start Num: 15

Candidate Starts for Phrancesco_37:

(Start: 15 @23622 has 49 MA's), (22, 23667), (24, 23691), (26, 23718), (28, 23739), (44, 23895), (49, 23931), (54, 23964), (55, 23970), (57, 23985), (73, 24129), (78, 24171), (79, 24174), (100, 24255), (132, 24393), (134, 24399), (141, 24438), (146, 24465), (150, 24486), (153, 24495), (165, 24549), (168, 24558), (171, 24573), (174, 24597), (175, 24606), (178, 24621), (198, 24747), (201, 24768), (203, 24807), (204, 24819), (217, 24909), (218, 24912), (219, 24936), (220, 24945), (222, 24975), (226, 25047), (227, 25050), (228, 25083), (232, 25113), (255, 25320), (260, 25359), (263, 25389), (280, 25506),

Gene: PierreOrion_37 Start: 23645, Stop: 25597, Start Num: 15

Candidate Starts for PierreOrion_37:

(Start: 15 @23645 has 49 MA's), (22, 23690), (24, 23714), (26, 23741), (28, 23762), (44, 23918), (49, 23954), (54, 23987), (55, 23993), (57, 24008), (73, 24152), (78, 24194), (79, 24197), (100, 24278), (132, 24416), (134, 24422), (141, 24461), (150, 24509), (153, 24518), (165, 24572), (168, 24581), (171, 24596), (174, 24620), (175, 24629), (178, 24644), (198, 24770), (201, 24791), (203, 24830), (204, 24842), (217, 24932), (218, 24935), (219, 24959), (220, 24968), (222, 24998), (226, 25070), (227, 25073), (228, 25106), (232, 25136), (255, 25343), (260, 25382), (263, 25412), (280, 25529),

Gene: PiperSansNom_37 Start: 23797, Stop: 25737, Start Num: 15

Candidate Starts for PiperSansNom_37:

(Start: 15 @23797 has 49 MA's), (22, 23842), (24, 23866), (26, 23893), (28, 23914), (44, 24070), (49, 24106), (54, 24139), (55, 24145), (57, 24160), (73, 24304), (78, 24346), (86, 24391), (100, 24424), (126, 24532), (131, 24559), (132, 24562), (141, 24607), (146, 24634), (147, 24637), (168, 24727), (174, 24766), (175, 24775), (178, 24790), (203, 24976), (217, 25078), (218, 25081), (219, 25105), (220, 25114), (222, 25144), (227, 25219), (243, 25348), (249, 25417), (250, 25429), (257, 25498), (272, 25609), (276, 25645), (287, 25729),

Gene: Piperis_37 Start: 23467, Stop: 25419, Start Num: 15

Candidate Starts for Piperis_37:

(Start: 15 @23467 has 49 MA's), (22, 23512), (24, 23536), (26, 23563), (28, 23584), (44, 23740), (49, 23776), (54, 23809), (55, 23815), (57, 23830), (73, 23974), (78, 24016), (79, 24019), (100, 24100), (132, 24238), (134, 24244), (141, 24283), (146, 24310), (165, 24394), (168, 24403), (171, 24418), (174, 24442), (175, 24451), (178, 24466), (198, 24592), (201, 24613), (203, 24652), (204, 24664), (217, 24754), (218, 24757), (219, 24781), (220, 24790), (222, 24820), (226, 24892), (227, 24895), (228, 24928), (232, 24958), (239, 24994), (255, 25165), (258, 25186), (263, 25234), (280, 25351),

Gene: Pulchra_38 Start: 23867, Stop: 25813, Start Num: 15

Candidate Starts for Pulchra_38:

(Start: 15 @23867 has 49 MA's), (22, 23912), (24, 23936), (26, 23963), (28, 23984), (44, 24140), (49, 24176), (54, 24209), (55, 24215), (57, 24230), (73, 24374), (78, 24416), (100, 24494), (131, 24629), (132, 24632), (141, 24677), (146, 24704), (147, 24707), (168, 24797), (174, 24836), (175, 24845), (178, 24860), (201, 25007), (203, 25046), (204, 25058), (217, 25148), (218, 25151), (219, 25175), (220, 25184), (227, 25289), (228, 25322), (232, 25352), (255, 25559), (260, 25598), (263, 25628), (280, 25745),

Gene: Quhwah_40 Start: 24093, Stop: 26045, Start Num: 15

Candidate Starts for Quhwah_40:

(Start: 15 @24093 has 49 MA's), (22, 24138), (24, 24162), (26, 24189), (28, 24210), (44, 24366), (49, 24402), (54, 24435), (55, 24441), (57, 24456), (73, 24600), (78, 24642), (79, 24645), (81, 24663), (100, 24726), (132, 24864), (134, 24870), (141, 24909), (146, 24936), (150, 24957), (153, 24966), (165, 25020), (168, 25029), (171, 25044), (174, 25068), (175, 25077), (178, 25092), (198, 25218), (201, 25239), (203, 25278), (204, 25290), (217, 25380), (218, 25383), (219, 25407), (220, 25416), (222, 25446), (226, 25518), (227, 25521), (228, 25554), (260, 25830), (263, 25860), (280, 25977),

Gene: Ramiel05_36 Start: 23502, Stop: 25448, Start Num: 15

Candidate Starts for Ramiel05_36:

(Start: 15 @23502 has 49 MA's), (22, 23547), (24, 23571), (26, 23598), (28, 23619), (44, 23775), (49, 23811), (54, 23844), (55, 23850), (57, 23865), (73, 24009), (78, 24051), (100, 24129), (131, 24264), (132, 24267), (141, 24312), (146, 24339), (147, 24342), (168, 24432), (174, 24471), (175, 24480), (178, 24495), (201, 24642), (203, 24681), (204, 24693), (217, 24783), (218, 24786), (219, 24810), (220, 24819), (226, 24921), (227, 24924), (228, 24957), (232, 24987), (255, 25194), (260, 25233), (263, 25263), (280, 25380),

Gene: Rasputia_72 Start: 44029, Stop: 45960, Start Num: 15

Candidate Starts for Rasputia_72:

(Start: 15 @44029 has 49 MA's), (18, 44047), (22, 44071), (26, 44119), (46, 44305), (49, 44332), (54, 44365), (55, 44371), (59, 44419), (60, 44428), (61, 44434), (64, 44464), (68, 44491), (101, 44659), (107, 44692), (126, 44758), (131, 44785), (134, 44794), (135, 44797), (136, 44800), (143, 44842), (167, 44935), (184, 45007), (202, 45118), (205, 45175), (207, 45190), (216, 45250), (218, 45259), (223, 45328), (224, 45331), (235, 45469), (250, 45616), (251, 45646), (252, 45652), (253, 45658), (260, 45718), (265, 45766), (272, 45817), (275, 45832), (277, 45859), (280, 45877), (284, 45940), (286, 45946), (287, 45952),

Gene: RobinRose_38 Start: 25217, Stop: 27190, Start Num: 15

Candidate Starts for RobinRose_38:

(Start: 15 @25217 has 49 MA's), (17, 25220), (34, 25355), (53, 25547), (55, 25562), (60, 25619), (67, 25673), (69, 25685), (88, 25823), (148, 26057), (163, 26114), (177, 26189), (205, 26399), (207, 26414), (219, 26513), (220, 26522), (224, 26564), (229, 26666), (243, 26762), (253, 26891), (265, 26996), (277, 27089), (279, 27098), (286, 27176),

Gene: Rockwell_36 Start: 23502, Stop: 25448, Start Num: 15

Candidate Starts for Rockwell_36:

(Start: 15 @23502 has 49 MA's), (22, 23547), (24, 23571), (26, 23598), (28, 23619), (44, 23775), (49, 23811), (54, 23844), (55, 23850), (57, 23865), (73, 24009), (78, 24051), (86, 24096), (100, 24129), (131, 24264), (132, 24267), (141, 24312), (146, 24339), (147, 24342), (168, 24432), (174, 24471), (175, 24480), (178, 24495), (201, 24642), (203, 24681), (204, 24693), (217, 24783), (218, 24786), (219, 24810), (220, 24819), (227, 24924), (228, 24957), (232, 24987), (255, 25194), (260, 25233), (263, 25263), (280, 25380),

Gene: Romm_38 Start: 25217, Stop: 27190, Start Num: 15

Candidate Starts for Romm_38:

(Start: 15 @25217 has 49 MA's), (17, 25220), (34, 25355), (53, 25547), (55, 25562), (60, 25619), (67, 25673), (69, 25685), (88, 25823), (148, 26057), (163, 26114), (177, 26189), (205, 26399), (207, 26414), (219, 26513), (220, 26522), (224, 26564), (229, 26666), (243, 26762), (253, 26891), (265, 26996), (277, 27089), (279, 27098), (286, 27176),

Gene: RubyRalph_39 Start: 25839, Stop: 28808, Start Num: 1

Candidate Starts for RubyRalph_39:

(Start: 1 @25839 has 3 MA's), (2, 25869), (3, 26001), (4, 26040), (5, 26085), (6, 26163), (7, 26265), (8, 26289), (9, 26295), (10, 26391), (12, 26487), (13, 26571), (14, 26769), (19, 26844), (23, 26871), (30, 26961), (31, 26964), (33, 26973), (34, 26985), (37, 27018), (39, 27045), (43, 27111), (45, 27117), (51, 27162), (53, 27183), (65, 27312), (71, 27357), (75, 27399), (77, 27414), (80, 27423), (84, 27456), (120, 27588), (136, 27648), (157, 27744), (160, 27762), (168, 27786), (169, 27789), (198, 27975), (203, 28035), (205, 28056), (207, 28071), (213, 28104), (215, 28122), (216, 28137), (221, 28191), (224, 28221), (226, 28281), (227, 28284), (230, 28341), (237, 28371), (241, 28389), (249, 28473), (253, 28530), (260, 28584), (276, 28716), (281, 28764), (282, 28767),

Gene: SadLad_41 Start: 26782, Stop: 29751, Start Num: 1

Candidate Starts for SadLad_41:

(Start: 1 @26782 has 3 MA's), (2, 26812), (3, 26944), (4, 26983), (5, 27028), (6, 27106), (7, 27208), (8, 27232), (9, 27238), (10, 27334), (12, 27430), (13, 27514), (14, 27712), (19, 27787), (23, 27814), (30, 27904), (31, 27907), (33, 27916), (34, 27928), (37, 27961), (39, 27988), (43, 28054), (45, 28060), (51, 28105), (53, 28126), (65, 28255), (71, 28300), (75, 28342), (77, 28357), (80, 28366), (84, 28399), (120, 28531), (136, 28591), (157, 28687), (160, 28705), (168, 28729), (169, 28732), (198, 28918), (203, 28978), (205, 28999), (207, 29014), (213, 29047), (215, 29065), (216, 29080), (221, 29134), (224, 29164), (226, 29224), (227, 29227), (230, 29284), (237, 29314), (241, 29332), (249, 29416), (253, 29473), (260, 29527), (276, 29659), (281, 29707), (282, 29710),

Gene: Savannah_36 Start: 23529, Stop: 25475, Start Num: 15

Candidate Starts for Savannah_36:

(Start: 15 @23529 has 49 MA's), (22, 23574), (24, 23598), (26, 23625), (28, 23646), (44, 23802), (49, 23838), (54, 23871), (55, 23877), (57, 23892), (73, 24036), (78, 24078), (100, 24156), (131, 24291), (132, 24294), (141, 24339), (146, 24366), (147, 24369), (168, 24459), (174, 24498), (175, 24507), (178, 24522), (201, 24669), (203, 24708), (204, 24720), (217, 24810), (218, 24813), (219, 24837), (220, 24846), (226, 24948), (227, 24951), (228, 24984), (232, 25014), (255, 25221), (260, 25260), (263, 25290), (280, 25407),

Gene: Scumberland_38 Start: 23718, Stop: 25670, Start Num: 15

Candidate Starts for Scumberland_38:

(Start: 15 @23718 has 49 MA's), (22, 23763), (24, 23787), (26, 23814), (28, 23835), (44, 23991), (49, 24027), (54, 24060), (55, 24066), (57, 24081), (73, 24225), (78, 24267), (79, 24270), (100, 24351), (132, 24489), (134, 24495), (141, 24534), (146, 24561), (150, 24582), (153, 24591), (165, 24645), (168, 24654), (171, 24669), (174, 24693), (175, 24702), (178, 24717), (198, 24843), (201, 24864), (203, 24903), (204, 24915), (217, 25005), (218, 25008), (219, 25032), (220, 25041), (222, 25071), (226, 25143), (227, 25146), (228, 25179), (232, 25209), (255, 25416), (258, 25437), (260, 25455), (263, 25485), (280, 25602),

Gene: Selwyn23_38 Start: 23695, Stop: 25647, Start Num: 15

Candidate Starts for Selwyn23_38:

(Start: 15 @23695 has 49 MA's), (22, 23740), (24, 23764), (26, 23791), (28, 23812), (44, 23968), (49, 24004), (54, 24037), (55, 24043), (57, 24058), (73, 24202), (78, 24244), (79, 24247), (100, 24328), (132, 24466), (134, 24472), (141, 24511), (146, 24538), (150, 24559), (153, 24568), (165, 24622), (168, 24631), (171, 24646), (174, 24670), (175, 24679), (178, 24694), (198, 24820), (201, 24841), (203, 24880), (204, 24892), (217, 24982), (218, 24985), (219, 25009), (220, 25018), (222, 25048), (226, 25120), (227, 25123), (228, 25156), (232, 25186), (255, 25393), (258, 25414), (260, 25432), (263, 25462), (280, 25579),

Gene: Shotgun_36 Start: 23328, Stop: 25274, Start Num: 15

Candidate Starts for Shotgun_36:

(Start: 15 @23328 has 49 MA's), (22, 23373), (24, 23397), (26, 23424), (28, 23445), (44, 23601), (49, 23637), (54, 23670), (55, 23676), (57, 23691), (73, 23835), (78, 23877), (86, 23922), (100, 23955), (126, 24063), (131, 24090), (132, 24093), (141, 24138), (146, 24165), (147, 24168), (168, 24258), (174, 24297), (175, 24306), (178, 24321), (203, 24507), (217, 24609), (218, 24612), (219, 24636), (220, 24645), (222, 24675), (227, 24750), (228, 24783), (232, 24813), (255, 25020), (260, 25059), (263, 25089), (280, 25206),

Gene: SirFrank_36 Start: 23432, Stop: 25330, Start Num: 15

Candidate Starts for SirFrank_36:

(Start: 15 @23432 has 49 MA's), (22, 23477), (26, 23528), (28, 23549), (39, 23636), (42, 23690), (49, 23741), (54, 23774), (55, 23780), (57, 23795), (73, 23939), (112, 24089), (132, 24164), (134, 24170), (137, 24182), (138, 24188), (139, 24194), (146, 24233), (155, 24257), (175, 24365), (178, 24380), (180, 24386), (182, 24395), (196, 24482), (204, 24575), (205, 24584), (206, 24593), (217, 24665), (218, 24668), (219, 24692), (226, 24803), (227, 24806), (228, 24839), (232, 24869), (255, 25076), (272, 25202), (276, 25238), (277, 25244), (287, 25322),

Gene: Tempo_36 Start: 25093, Stop: 27066, Start Num: 15

Candidate Starts for Tempo_36:

(Start: 15 @25093 has 49 MA's), (17, 25096), (34, 25231), (53, 25423), (55, 25438), (60, 25495), (67, 25549), (69, 25561), (73, 25594), (88, 25699), (148, 25933), (163, 25990), (177, 26065), (205, 26275), (207, 26290), (219, 26389), (220, 26398), (224, 26440), (229, 26542), (243, 26638), (253, 26767), (265, 26872), (277, 26965), (279, 26974), (286, 27052),

Gene: Yeti_37 Start: 23497, Stop: 25449, Start Num: 15

Candidate Starts for Yeti_37:

(Start: 15 @23497 has 49 MA's), (22, 23542), (24, 23566), (26, 23593), (28, 23614), (44, 23770), (49, 23806), (54, 23839), (55, 23845), (57, 23860), (73, 24004), (78, 24046), (79, 24049), (100, 24130), (132, 24268), (134, 24274), (141, 24313), (146, 24340), (150, 24361), (153, 24370), (165, 24424), (168, 24433), (171, 24448), (174, 24472), (175, 24481), (178, 24496), (198, 24622), (201, 24643), (203, 24682), (204, 24694), (217, 24784), (218, 24787), (219, 24811), (220, 24820), (222, 24850), (226, 24922), (227, 24925), (228, 24958), (232, 24988), (255, 25195), (260, 25234), (263, 25264), (280, 25381),