

Pham 311616

1: Nike_36	12	13	30	32	39	46	53	61	71	79	88	95	105	113	117	125	135	143	148	155	168	176	183	190	202	208	219	221	230	238						
2: EverythinBagel_31 + 1	12	13	30	32	39	46	53	61	71	79	88	95	105	113	117	125	135	143	148	155	168	176	183	190	202	208	219	221	230	238						
3: Mashley_36	12	13	30	32	39	46	52	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
4: DonaldDuck_35	12	13	30	32	39	46	50	61	71	79	88	95	105	111	120	130	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
5: KillerQueen_36 + 1	12	13	30	32	39	46	53	61	71	79	88	95	105	112	117	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
6: MorillMayham_36	12	13	30	32	39	46	50	61	71	79	88	95	105	111	120	130	134	141	145	157	166	176	182	192	202	208	219	221	231	238						
7: BirdInFrensh_35	12	13	30	32	39	46	47	61	71	79	88	97	105	110	116	125	136	143	149	155	168	176	183	190	202	211	219	221	234	246						
8: Phinky_42	12	13	30	32	39	46	53	61	71	79	88	95	105	113	118	125	135	143	150	155	168	176	183	190	202	208	219	221	230	238						
9: SlySloth_36	12	13	30	32	39	46	53	61	71	79	88	95	105	113	118	125	135	143	151	155	168	176	183	190	202	208	219	221	231	238						
10: Tissue_36	12	13	30	32	39	46	53	61	71	79	84	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
11: Quammi_34 + 4	12	13	30	32	39	46	53	61	71	79	84	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
12: Hyperion_35	12	13	30	32	39	46	50	61	71	79	88	95	105	111	116	120	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
13: OneinaGitan_36	12	13	30	32	39	46	53	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
14: BabyDotz_35	12	13	30	32	39	46	53	61	71	79	83	95	105	112	118	125	135	143	150	155	168	176	183	190	202	208	219	221	230	238						
15: Altheas_36	12	13	30	32	39	46	50	61	71	79	88	95	105	111	116	120	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
16: Kelcole_36	12	13	30	32	39	46	53	61	71	79	88	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
17: Namago_35 + 2	12	13	30	32	39	46	53	61	71	79	84	95	105	111	116	120	134	141	145	157	166	176	182	192	202	208	219	221	230	238						
18: Zagie_35	12	13	30	32	39	46	53	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	205	219	221	230	238						
19: Fizzles_36	12	13	30	32	39	46	53	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
20: SallyK_37	12	13	30	32	39	46	53	61	71	79	88	95	105	109	120	130	132	144	145	165	176	180	192	202	209	216	222	227	230	238						
21: RubyRalp_38 + 2	12	13	30	32	39	46	50	61	71	79	88	95	105	111	116	120	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
22: Fregley_36	12	13	30	32	39	46	52	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
23: Wayne3_37 + 4	12	13	30	32	39	46	50	61	71	79	88	95	105	111	120	130	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
24: CandC_37 + 1	12	13	30	32	39	46	53	61	71	79	88	95	105	112	118	125	135	143	150	157	167	176	183	190	202	208	219	221	230	238						
25: WheelerS_35 41	12	13	30	32	39	46	52	61	71	79	88	95	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
26: Wheelie_35	12	13	30	32	39	46	53	61	71	79	84	95	105	111	118	121	131	137	145	152	157	168	176	183	190	202	208	219	221	230	238					
27: Blab_34	12	13	30	32	39	46	50	61	71	79	87	95	105	111	120	130	134	141	145	157	166	176	182	192	202	208	219	221	231	234						
28: Marcie_40	12	13	30	32	39	46	53	61	71	79	88	98	105	112	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
29: Squash_36	12	13	30	32	39	46	53	61	71	79	84	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
30: Mila11_36	12	13	30	32	39	46	53	61	71	79	84	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
31: AluminumJesus134	12	13	30	32	39	46	53	61	71	79	88	95	105	113	117	125	135	143	149	155	168	176	183	190	202	208	219	221	230	238						
32: Statler_37	12	13	30	32	39	46	53	61	71	79	84	95	105	113	118	121	130	137	145	152	157	168	176	183	190	202	208	219	221	230	238					
33: Gazebo_36	12	13	30	32	39	46	53	61	71	79	88	95	105	113	118	125	135	143	149	155	168	176	183	190	202	208	219	221	231	238						
34: Judebell_38	12	13	30	32	39	46	53	61	71	79	84	94	96	104	108	119	133	142	162	171	178	185	194	206	210	212	214	216	218	219	220	228	248	250	251	254
35: Sunfish_44	12	13	30	32	39	46	53	61	71	79	84	94	96	104	114	124	133	147	163	171	178	185	194	206	210	212	214	216	218	219	220	228	248	250	251	254
36: Kithara_36	12	13	30	32	39	46	53	61	71	79	84	94	96	104	114	124	133	147	163	171	178	185	194	206	210	212	214	216	218	219	220	228	248	250	251	254

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 311616 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311616 has 60 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Nike_36
- Track 2 : EverythinBagel_35, FrankDeliGuy_33
- Track 3 : Mashley_34
- Track 4 : DonaldDuck_35, Jehoshaphat_38, Zhafia_38, Sillytadpoles_36, Llemily_35
- Track 5 : KillerQueen_36, Romm_37, RobinRose_37
- Track 6 : MorillMayhem_36, BaconCheese_39
- Track 7 : BirdInFrench_35, Wilca_35, Pepe25_34
- Track 8 : Phinky_42
- Track 9 : SlySloth_38
- Track 10 : Tissue_36
- Track 11 : Quammi_34, Rudy_34, Mentos_40, Viceroy_34, Rowlf_32
- Track 12 : Hyperion_35
- Track 13 : OneinaGillian_35
- Track 14 : BabyDotz_35
- Track 15 : Altheas_37
- Track 16 : Kelcole_34
- Track 17 : Namago_36, Kyva_38, Grassboy_37
- Track 18 : Zagie_35, StrawberryJamm_38
- Track 19 : Fizzles_36
- Track 20 : SallyK_37
- Track 21 : RubyRalph_38, SadLad_40, Fransoyer_38
- Track 22 : Fregley_36
- Track 23 : Wayne3_37, Lonelysoil_35, Casend_37, Phabia_36, Teehee_37
- Track 24 : CandC_34, Tempo_35
- Track 25 : WheelerS25_41
- Track 26 : Wheelie_35
- Track 27 : Blab_34
- Track 28 : Marcie_40
- Track 29 : Squash_38
- Track 30 : Mila11_38
- Track 31 : AluminumJesus_34
- Track 32 : Statler_37
- Track 33 : Gazebo_34
- Track 34 : Judebell_38
- Track 35 : Sunfish_44
- Track 36 : Kithara_36

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

The start number called the most often in the published annotations is 12, it was called in 40 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Altheas_37, AluminumJesus_34, BabyDotz_35, BaconCheese_39, Blab_34, Casend_37, DonaldDuck_35, EverythinBagel_35, Fizzles_36, FrankDeliGuy_33, Fransoyer_38, Gazebo_34, Grassboy_37, Hyperion_35, Jehoshaphat_38, Judebell_38, Kyva_38, Llemily_35, Lonelysoil_35, Mashley_34, Mentos_40, Mila11_38, MorillMayhem_36, Namago_36, Nike_36, Phabia_36, Phinky_42, Quammi_34, Rowlf_32, RubyRalph_38, Rudy_34, SadLad_40, SallyK_37, Sillytadpoles_36, SlySloth_38, Squash_38, Statler_37, StrawberryJamm_38, Teehee_37, Tissue_36, Viceroy_34, Wayne3_37, WheelerS25_41, Wheelie_35, Zagie_35, Zhafia_38,

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

-

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

- BirdInFrench_35, CandC_34, Fregley_36, Kelcole_34, KillerQueen_36, Kithara_36, Marcie_40, OneinaGillian_35, Pepe25_34, RobinRose_37, Romm_37, Sunfish_44, Tempo_35, Wilca_35,

Summary by start number:

Start 1:

- Found in 1 of 60 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunfish_44 (singleton),

Start 2:

- Found in 1 of 60 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara_36 (singleton),

Start 11:

- Found in 12 of 60 (20.0%) of genes in pham
- Manual Annotations of this start: 11 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdInFrench_35 (EG), CandC_34 (EG), Fregley_36 (EG), Kelcole_34 (EG), KillerQueen_36 (EG), Marcie_40 (EG), OneinaGillian_35 (EG), Pepe25_34 (EG), RobinRose_37 (EG), Romm_37 (EG), Tempo_35 (EG), Wilca_35 (EG),

Start 12:

- Found in 46 of 60 (76.7%) of genes in pham
- Manual Annotations of this start: 40 of 53

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altheas_37 (EG), AluminumJesus_34 (EG), BabyDotz_35 (EG), BaconCheese_39 (EG), Blab_34 (EG), Casend_37 (EG), DonaldDuck_35 (EG), EverythinBagel_35 (EG), Fizzles_36 (EG), FrankDeliGuy_33 (EG), Fransoyer_38 (EG), Gazebo_34 (EG), Grassboy_37 (EG), Hyperion_35 (EG), Jehoshaphat_38 (EG), Judebell_38 (EG), Kyva_38 (EG), Llemily_35 (EG), Lonelysoil_35 (EG), Mashley_34 (EG), Mentos_40 (EG), Mila11_38 (EG), MorillMayhem_36 (EG), Namago_36 (EG), Nike_36 (EG), Phabia_36 (EG), Phinky_42 (EG), Quammi_34 (EG), Rowlf_32 (EG), RubyRalph_38 (EG), Rudy_34 (EG), SadLad_40 (EG), SallyK_37 (EG), Sillytadpoles_36 (EG), SlySloth_38 (EG), Squash_38 (EG), Statler_37 (EG), StrawberryJamm_38 (EG), Teehee_37 (EG), Tissue_36 (EG), Viceroy_34 (EG), Wayne3_37 (EG), WheelerS25_41 (EG), Wheelie_35 (EG), Zagie_35 (EG), Zhafia_38 (EG),

Summary by clusters:

There are 2 clusters represented in this pham: EG, singleton,

Info for manual annotations of cluster EG:

- Start number 11 was manually annotated 11 times for cluster EG.
- Start number 12 was manually annotated 40 times for cluster EG.

Gene Information:

Gene: Altheas_37 Start: 23551, Stop: 26730, Start Num: 12

Candidate Starts for Altheas_37:

(Start: 12 @23551 has 40 MA's), (17, 23707), (20, 23740), (30, 23836), (39, 23905), (41, 23929), (46, 24016), (56, 24199), (57, 24208), (67, 24319), (73, 24400), (77, 24442), (78, 24475), (83, 24526), (88, 24589), (103, 24880), (105, 24901), (112, 25012), (115, 25051), (118, 25111), (125, 25177), (130, 25204), (143, 25381), (158, 25537), (164, 25570), (169, 25702), (176, 25762), (183, 25876), (184, 25888), (187, 25897), (189, 25915), (193, 25939), (196, 26014), (213, 26341), (215, 26365), (227, 26539), (231, 26587), (232, 26602), (238, 26653), (243, 26695), (245, 26704),

Gene: AluminumJesus_34 Start: 23043, Stop: 26336, Start Num: 12

Candidate Starts for AluminumJesus_34:

(Start: 12 @23043 has 40 MA's), (17, 23199), (26, 23301), (27, 23313), (28, 23322), (42, 23559), (56, 23784), (57, 23793), (62, 23868), (66, 23895), (77, 24027), (78, 24060), (84, 24123), (89, 24243), (90, 24270), (93, 24294), (95, 24366), (105, 24486), (107, 24513), (118, 24696), (121, 24738), (125, 24762), (131, 24801), (137, 24882), (145, 25008), (152, 25080), (155, 25113), (157, 25134), (168, 25281), (170, 25320), (175, 25359), (176, 25371), (182, 25476), (187, 25506), (188, 25509), (189, 25524), (193, 25548), (208, 25887), (209, 25896), (211, 25908), (219, 26019), (227, 26148), (231, 26193), (232, 26208), (238, 26259), (243, 26301), (245, 26310),

Gene: BabyDotz_35 Start: 23297, Stop: 26473, Start Num: 12

Candidate Starts for BabyDotz_35:

(Start: 12 @23297 has 40 MA's), (17, 23453), (20, 23486), (24, 23516), (30, 23582), (32, 23615), (39, 23651), (46, 23762), (57, 23954), (58, 23969), (65, 24050), (67, 24065), (77, 24188), (79, 24239), (88, 24335), (100, 24605), (101, 24608), (103, 24626), (105, 24647), (112, 24758), (125, 24923), (135, 25004), (149, 25172), (150, 25181), (169, 25448), (176, 25508), (184, 25634), (187, 25643), (189, 25661), (193, 25685), (208, 26024), (209, 26033), (211, 26045), (219, 26156), (227, 26285), (231, 26330), (232, 26345), (238, 26396), (239, 26399), (243, 26438), (245, 26447),

Gene: BaconCheese_39 Start: 24546, Stop: 27722, Start Num: 12

Candidate Starts for BaconCheese_39:

(Start: 12 @24546 has 40 MA's), (17, 24702), (20, 24735), (24, 24765), (30, 24831), (32, 24864), (39, 24900), (43, 24993), (44, 24999), (46, 25011), (57, 25203), (58, 25218), (65, 25299), (66, 25305), (67, 25314), (77, 25437), (88, 25584), (100, 25854), (101, 25857), (103, 25875), (105, 25896), (112, 26007), (117, 26103), (125, 26172), (130, 26199), (135, 26253), (143, 26376), (149, 26421), (155, 26499), (169, 26697), (176, 26757), (184, 26883), (187, 26892), (189, 26910), (193, 26934), (208, 27273), (209, 27282), (211, 27294), (219, 27405), (227, 27534), (231, 27579), (232, 27594), (238, 27645), (243, 27687), (245, 27696),

Gene: BirdInFrench_35 Start: 21893, Stop: 24904, Start Num: 11

Candidate Starts for BirdInFrench_35:

(Start: 11 @21893 has 11 MA's), (17, 22052), (22, 22082), (38, 22193), (50, 22259), (55, 22373), (57, 22385), (62, 22460), (67, 22496), (70, 22532), (75, 22592), (77, 22619), (85, 22727), (87, 22757), (89, 22835), (91, 22865), (92, 22874), (101, 23039), (105, 23078), (111, 23171), (120, 23306), (130, 23381), (132, 23414), (139, 23483), (141, 23537), (156, 23702), (157, 23705), (163, 23750), (166, 23792), (172, 23900), (175, 23930), (176, 23945), (182, 24050), (201, 24305), (202, 24332), (207, 24455), (208, 24461), (211, 24482), (213, 24524), (219, 24593), (225, 24683), (227, 24722), (231, 24767), (238, 24827), (243, 24869), (245, 24878),

Gene: Blab_34 Start: 22968, Stop: 26261, Start Num: 12

Candidate Starts for Blab_34:

(Start: 12 @22968 has 40 MA's), (17, 23124), (26, 23226), (27, 23238), (28, 23247), (42, 23484), (56, 23709), (57, 23718), (62, 23793), (66, 23820), (77, 23952), (78, 23985), (84, 24048), (89, 24168), (90, 24195), (93, 24219), (95, 24291), (105, 24411), (107, 24438), (118, 24621), (121, 24663), (131, 24726), (137, 24807), (145, 24933), (152, 25005), (155, 25038), (157, 25059), (168, 25206), (170, 25245), (175, 25284), (176, 25296), (182, 25401), (187, 25431), (188, 25434), (189, 25449), (193, 25473), (208, 25812), (209, 25821), (211, 25833), (219, 25944), (227, 26073), (231, 26118), (232, 26133), (238, 26184), (243, 26226), (245, 26235),

Gene: CandC_34 Start: 21593, Stop: 24604, Start Num: 11

Candidate Starts for CandC_34:

(Start: 11 @21593 has 11 MA's), (17, 21752), (22, 21782), (38, 21893), (50, 21959), (55, 22073), (57, 22085), (62, 22160), (67, 22196), (69, 22211), (70, 22232), (75, 22292), (77, 22319), (86, 22433), (87, 22457), (89, 22535), (91, 22565), (92, 22574), (93, 22586), (101, 22739), (105, 22778), (111, 22871), (120, 23006), (121, 23030), (130, 23081), (132, 23114), (134, 23129), (141, 23237), (157, 23405), (163, 23450), (166, 23492), (172, 23600), (174, 23624), (175, 23630), (176, 23645), (182, 23750), (201, 24005), (202, 24032), (208, 24161), (209, 24170), (211, 24182), (213, 24224), (215, 24248), (227, 24422), (231, 24467), (239, 24530), (244, 24572),

Gene: Casend_37 Start: 23706, Stop: 26882, Start Num: 12

Candidate Starts for Casend_37:

(Start: 12 @23706 has 40 MA's), (17, 23862), (20, 23895), (23, 23913), (24, 23925), (30, 23991), (32, 24024), (39, 24060), (46, 24171), (52, 24288), (57, 24363), (58, 24378), (66, 24465), (67, 24474), (77, 24597), (79, 24648), (88, 24744), (100, 25014), (101, 25017), (103, 25035), (105, 25056), (112, 25167), (125, 25332), (135, 25413), (143, 25536), (155, 25659), (169, 25857), (176, 25917), (184, 26043), (187, 26052), (189, 26070), (193, 26094), (208, 26433), (209, 26442), (219, 26565), (227, 26694), (231, 26739), (232, 26754), (238, 26805), (243, 26847), (245, 26856),

Gene: DonaldDuck_35 Start: 23052, Stop: 26228, Start Num: 12

Candidate Starts for DonaldDuck_35:

(Start: 12 @23052 has 40 MA's), (17, 23208), (20, 23241), (23, 23259), (24, 23271), (30, 23337), (32, 23370), (39, 23406), (46, 23517), (52, 23634), (57, 23709), (58, 23724), (66, 23811), (67, 23820), (77, 23943), (79, 23994), (88, 24090), (100, 24360), (101, 24363), (103, 24381), (105, 24402), (112, 24513), (125, 24678), (135, 24759), (143, 24882), (155, 25005), (169, 25203), (176, 25263), (184, 25389), (187, 25398), (189, 25416), (193, 25440), (208, 25779), (209, 25788), (211, 25800), (219, 25911), (227, 26040), (231, 26085), (232, 26100), (238, 26151), (243, 26193), (245, 26202),

Gene: EverythinBagel_35 Start: 23440, Stop: 26616, Start Num: 12

Candidate Starts for EverythinBagel_35:

(Start: 12 @23440 has 40 MA's), (17, 23596), (20, 23629), (24, 23659), (30, 23725), (32, 23758), (39, 23794), (46, 23905), (57, 24097), (58, 24112), (67, 24208), (77, 24331), (79, 24382), (88, 24478), (100, 24748), (101, 24751), (103, 24769), (105, 24790), (112, 24901), (113, 24910), (125, 25066), (135, 25147), (143, 25270), (149, 25315), (155, 25393), (169, 25591), (176, 25651), (181, 25732), (184, 25777), (187, 25786), (189, 25804), (193, 25828), (208, 26167), (209, 26176), (211, 26188), (219, 26299), (227, 26428), (231, 26473), (232, 26488), (238, 26539), (243, 26581), (245, 26590),

Gene: Fizzles_36 Start: 22770, Stop: 25841, Start Num: 12

Candidate Starts for Fizzles_36:

(Start: 12 @22770 has 40 MA's), (17, 22926), (20, 22959), (30, 23055), (32, 23088), (55, 23307), (57, 23319), (58, 23334), (67, 23430), (77, 23553), (78, 23586), (88, 23700), (101, 23973), (103, 23991), (105, 24012), (112, 24123), (118, 24222), (121, 24264), (125, 24288), (130, 24315), (143, 24492), (154, 24606), (155, 24615), (157, 24636), (169, 24813), (176, 24873), (177, 24894), (186, 25005), (193, 25050), (205, 25332), (213, 25452), (215, 25476), (218, 25506), (231, 25695), (238, 25764), (239, 25767), (243, 25806), (245, 25815),

Gene: FrankDeliGuy_33 Start: 23012, Stop: 26188, Start Num: 12

Candidate Starts for FrankDeliGuy_33:

(Start: 12 @23012 has 40 MA's), (17, 23168), (20, 23201), (24, 23231), (30, 23297), (32, 23330), (39, 23366), (46, 23477), (57, 23669), (58, 23684), (67, 23780), (77, 23903), (79, 23954), (88, 24050), (100, 24320), (101, 24323), (103, 24341), (105, 24362), (112, 24473), (113, 24482), (125, 24638), (135, 24719), (143, 24842), (149, 24887), (155, 24965), (169, 25163), (176, 25223), (181, 25304), (184, 25349), (187, 25358), (189, 25376), (193, 25400), (208, 25739), (209, 25748), (211, 25760), (219, 25871), (227, 26000), (231, 26045), (232, 26060), (238, 26111), (243, 26153), (245, 26162),

Gene: Fransoyer_38 Start: 22891, Stop: 25899, Start Num: 12

Candidate Starts for Fransoyer_38:

(Start: 12 @22891 has 40 MA's), (17, 23047), (24, 23110), (29, 23161), (31, 23176), (55, 23377), (57, 23389), (58, 23404), (61, 23434), (62, 23464), (67, 23500), (77, 23623), (78, 23656), (95, 23962), (101, 24043), (105, 24082), (107, 24109), (109, 24166), (120, 24310), (122, 24337), (126, 24361), (130, 24385), (131, 24397), (132, 24418), (138, 24478), (144, 24571), (145, 24583), (165, 24757), (173, 24919), (175, 24928), (176, 24940), (180, 25012), (192, 25108), (203, 25357), (204, 25390), (209, 25465), (216, 25570), (222, 25633), (227, 25723), (236, 25807), (238, 25822), (239, 25825),

Gene: Fregley_36 Start: 22163, Stop: 25174, Start Num: 11

Candidate Starts for Fregley_36:

(Start: 11 @22163 has 11 MA's), (17, 22322), (22, 22352), (38, 22463), (50, 22529), (55, 22643), (57, 22655), (62, 22730), (67, 22766), (69, 22781), (70, 22802), (75, 22862), (77, 22889), (86, 23003), (87, 23027), (89, 23105), (91, 23135), (92, 23144), (93, 23156), (101, 23309), (105, 23348), (111, 23441), (116, 23534), (120, 23576), (121, 23600), (132, 23684), (134, 23699), (141, 23807), (157, 23975), (163, 24020), (166, 24062), (172, 24170), (174, 24194), (175, 24200), (176, 24215), (182, 24320), (201, 24575), (202, 24602), (208, 24731), (209, 24740), (211, 24752), (213, 24794), (215, 24818), (227, 24992), (231, 25037), (239, 25100), (244, 25142),

Gene: Gazebo_34 Start: 23506, Stop: 26799, Start Num: 12

Candidate Starts for Gazebo_34:

(Start: 12 @23506 has 40 MA's), (17, 23662), (26, 23764), (27, 23776), (28, 23785), (33, 23869), (42, 24022), (56, 24247), (57, 24256), (62, 24331), (66, 24358), (77, 24490), (78, 24523), (84, 24586), (89, 24706), (90, 24733), (93, 24757), (95, 24829), (105, 24949), (107, 24976), (118, 25159), (121, 25201), (130, 25252), (131, 25264), (145, 25471), (152, 25543), (155, 25576), (157, 25597), (168, 25744), (170, 25783), (175, 25822), (176, 25834), (182, 25939), (187, 25969), (188, 25972), (189, 25987), (193, 26011), (208, 26350), (209, 26359), (211, 26371), (219, 26482), (227, 26611), (231, 26656), (232, 26671), (238, 26722), (243, 26764), (245, 26773),

Gene: Grassboy_37 Start: 23681, Stop: 26857, Start Num: 12

Candidate Starts for Grassboy_37:

(Start: 12 @23681 has 40 MA's), (17, 23837), (20, 23870), (23, 23888), (24, 23900), (30, 23966), (32, 23999), (39, 24035), (46, 24146), (57, 24338), (58, 24353), (67, 24449), (77, 24572), (79, 24623), (88, 24719), (100, 24989), (101, 24992), (103, 25010), (105, 25031), (112, 25142), (113, 25151), (125, 25307), (135, 25388), (143, 25511), (149, 25556), (155, 25634), (169, 25832), (176, 25892), (181, 25973), (184, 26018), (187, 26027), (189, 26045), (193, 26069), (208, 26408), (209, 26417), (211, 26429), (219, 26540), (227, 26669), (231, 26714), (232, 26729), (238, 26780), (243, 26822), (245, 26831),

Gene: Hyperion_35 Start: 23462, Stop: 26755, Start Num: 12

Candidate Starts for Hyperion_35:

(Start: 12 @23462 has 40 MA's), (17, 23618), (26, 23720), (27, 23732), (28, 23741), (42, 23978), (56, 24203), (57, 24212), (62, 24287), (66, 24314), (77, 24446), (78, 24479), (82, 24527), (84, 24542), (89, 24662), (90, 24689), (93, 24713), (95, 24785), (105, 24905), (107, 24932), (118, 25115), (121, 25157), (125, 25181), (131, 25220), (137, 25301), (145, 25427), (152, 25499), (155, 25532), (157, 25553), (168, 25700), (170, 25739), (175, 25778), (176, 25790), (182, 25895), (187, 25925), (188, 25928), (189, 25943), (193, 25967), (208, 26306), (209, 26315), (211, 26327), (219, 26438), (227, 26567), (229, 26597), (231, 26612), (232, 26627), (234, 26654), (238, 26678), (243, 26720), (245, 26729),

Gene: Jehoshaphat_38 Start: 23971, Stop: 27147, Start Num: 12

Candidate Starts for Jehoshaphat_38:

(Start: 12 @23971 has 40 MA's), (17, 24127), (20, 24160), (23, 24178), (24, 24190), (30, 24256), (32, 24289), (39, 24325), (46, 24436), (52, 24553), (57, 24628), (58, 24643), (66, 24730), (67, 24739), (77, 24862), (79, 24913), (88, 25009), (100, 25279), (101, 25282), (103, 25300), (105, 25321), (112, 25432), (125, 25597), (135, 25678), (143, 25801), (155, 25924), (169, 26122), (176, 26182), (184, 26308), (187, 26317), (189, 26335), (193, 26359), (208, 26698), (209, 26707), (211, 26719), (219, 26830), (227, 26959), (231, 27004), (232, 27019), (238, 27070), (243, 27112), (245, 27121),

Gene: Judebell_38 Start: 23477, Stop: 26653, Start Num: 12

Candidate Starts for Judebell_38:

(Start: 12 @23477 has 40 MA's), (17, 23633), (20, 23666), (24, 23696), (30, 23762), (32, 23795), (39, 23831), (46, 23942), (57, 24134), (58, 24149), (67, 24245), (77, 24368), (79, 24419), (88, 24515), (100, 24785), (101, 24788), (103, 24806), (105, 24827), (112, 24938), (113, 24947), (125, 25103), (135, 25184), (149, 25352), (150, 25361), (169, 25628), (176, 25688), (184, 25814), (187, 25823), (189, 25841), (193, 25865), (208, 26204), (209, 26213), (211, 26225), (219, 26336), (225, 26426), (227, 26465), (231, 26510), (232, 26525), (238, 26576), (243, 26618), (245, 26627),

Gene: Kelcole_34 Start: 22045, Stop: 25056, Start Num: 11

Candidate Starts for Kelcole_34:

(Start: 11 @22045 has 11 MA's), (17, 22204), (22, 22234), (25, 22267), (38, 22345), (50, 22411), (55, 22525), (57, 22537), (62, 22612), (67, 22648), (69, 22663), (70, 22684), (75, 22744), (77, 22771), (86, 22885), (87, 22909), (89, 22987), (91, 23017), (92, 23026), (93, 23038), (101, 23191), (105, 23230),

(111, 23323), (120, 23458), (121, 23482), (130, 23533), (132, 23566), (134, 23581), (157, 23857), (163, 23902), (172, 24052), (174, 24076), (175, 24082), (176, 24097), (182, 24202), (201, 24457), (202, 24484), (208, 24613), (213, 24676), (215, 24700), (227, 24874), (231, 24919), (239, 24982), (244, 25024),

Gene: KillerQueen_36 Start: 21840, Stop: 24851, Start Num: 11

Candidate Starts for KillerQueen_36:

(Start: 11 @21840 has 11 MA's), (17, 21999), (22, 22029), (38, 22140), (50, 22206), (55, 22320), (57, 22332), (62, 22407), (67, 22443), (69, 22458), (70, 22479), (75, 22539), (77, 22566), (86, 22680), (87, 22704), (89, 22782), (91, 22812), (92, 22821), (93, 22833), (101, 22986), (105, 23025), (111, 23118), (120, 23253), (121, 23277), (130, 23328), (132, 23361), (134, 23376), (141, 23484), (157, 23652), (163, 23697), (166, 23739), (172, 23847), (174, 23871), (175, 23877), (176, 23892), (182, 23997), (201, 24252), (202, 24279), (208, 24408), (213, 24471), (215, 24495), (227, 24669), (231, 24714), (239, 24777), (244, 24819),

Gene: Kithara_36 Start: 24732, Stop: 28406, Start Num: 2

Candidate Starts for Kithara_36:

(Start: 2 @24732 has 1 MA's), (5, 24933), (6, 24945), (7, 24978), (13, 25167), (15, 25209), (16, 25236), (18, 25281), (19, 25284), (34, 25494), (37, 25527), (40, 25554), (45, 25665), (48, 25728), (51, 25791), (53, 25833), (68, 26001), (72, 26064), (76, 26109), (96, 26481), (99, 26523), (100, 26550), (102, 26559), (104, 26580), (114, 26727), (124, 26874), (128, 26904), (146, 27138), (147, 27150), (159, 27276), (163, 27309), (171, 27450), (178, 27519), (185, 27609), (195, 27705), (197, 27729), (198, 27738), (199, 27786), (200, 27819), (205, 27924), (206, 27945), (210, 27996), (212, 28026), (214, 28059), (220, 28119), (221, 28143), (224, 28161), (225, 28197), (226, 28224), (227, 28236), (233, 28308), (237, 28335),

Gene: Kyva_38 Start: 23716, Stop: 26892, Start Num: 12

Candidate Starts for Kyva_38:

(Start: 12 @23716 has 40 MA's), (17, 23872), (20, 23905), (23, 23923), (24, 23935), (30, 24001), (32, 24034), (39, 24070), (46, 24181), (57, 24373), (58, 24388), (67, 24484), (77, 24607), (79, 24658), (88, 24754), (100, 25024), (101, 25027), (103, 25045), (105, 25066), (112, 25177), (113, 25186), (125, 25342), (135, 25423), (143, 25546), (149, 25591), (155, 25669), (169, 25867), (176, 25927), (181, 26008), (184, 26053), (187, 26062), (189, 26080), (193, 26104), (208, 26443), (209, 26452), (211, 26464), (219, 26575), (227, 26704), (231, 26749), (232, 26764), (238, 26815), (243, 26857), (245, 26866),

Gene: Llemily_35 Start: 22747, Stop: 25923, Start Num: 12

Candidate Starts for Llemily_35:

(Start: 12 @22747 has 40 MA's), (17, 22903), (20, 22936), (23, 22954), (24, 22966), (30, 23032), (32, 23065), (39, 23101), (46, 23212), (52, 23329), (57, 23404), (58, 23419), (66, 23506), (67, 23515), (77, 23638), (79, 23689), (88, 23785), (100, 24055), (101, 24058), (103, 24076), (105, 24097), (112, 24208), (125, 24373), (135, 24454), (143, 24577), (155, 24700), (169, 24898), (176, 24958), (184, 25084), (187, 25093), (189, 25111), (193, 25135), (208, 25474), (209, 25483), (211, 25495), (219, 25606), (227, 25735), (231, 25780), (232, 25795), (238, 25846), (243, 25888), (245, 25897),

Gene: Lonelysoil_35 Start: 22992, Stop: 26168, Start Num: 12

Candidate Starts for Lonelysoil_35:

(Start: 12 @22992 has 40 MA's), (17, 23148), (20, 23181), (23, 23199), (24, 23211), (30, 23277), (32, 23310), (39, 23346), (46, 23457), (52, 23574), (57, 23649), (58, 23664), (66, 23751), (67, 23760), (77, 23883), (79, 23934), (88, 24030), (100, 24300), (101, 24303), (103, 24321), (105, 24342), (112, 24453), (125, 24618), (135, 24699), (143, 24822), (155, 24945), (169, 25143), (176, 25203), (184, 25329), (187, 25338), (189, 25356), (193, 25380), (208, 25719), (209, 25728), (219, 25851), (227, 25980), (231, 26025), (232, 26040), (238, 26091), (243, 26133), (245, 26142),

Gene: Marcie_40 Start: 22701, Stop: 25712, Start Num: 11

Candidate Starts for Marcie_40:

(Start: 11 @22701 has 11 MA's), (17, 22860), (22, 22890), (38, 23001), (50, 23067), (55, 23181), (57, 23193), (62, 23268), (67, 23304), (69, 23319), (70, 23340), (75, 23400), (77, 23427), (87, 23565), (89, 23643), (91, 23673), (92, 23682), (93, 23694), (101, 23847), (105, 23886), (111, 23979), (120, 24114), (121, 24138), (127, 24171), (130, 24189), (132, 24222), (134, 24237), (141, 24345), (156, 24510), (157, 24513), (163, 24558), (166, 24600), (172, 24708), (174, 24732), (175, 24738), (176, 24753), (182, 24858), (201, 25113), (202, 25140), (208, 25269), (209, 25278), (213, 25332), (215, 25356), (227, 25530), (230, 25566), (231, 25575), (235, 25614), (239, 25638), (244, 25680),

Gene: Mashley_34 Start: 23278, Stop: 26571, Start Num: 12

Candidate Starts for Mashley_34:

(Start: 12 @23278 has 40 MA's), (17, 23434), (26, 23536), (27, 23548), (28, 23557), (42, 23794), (56, 24019), (57, 24028), (62, 24103), (66, 24130), (77, 24262), (78, 24295), (84, 24358), (89, 24478), (90, 24505), (93, 24529), (95, 24601), (105, 24721), (107, 24748), (118, 24931), (121, 24973), (125, 24997), (131, 25036), (145, 25243), (152, 25315), (155, 25348), (157, 25369), (168, 25516), (170, 25555), (175, 25594), (176, 25606), (182, 25711), (187, 25741), (188, 25744), (189, 25759), (190, 25762), (193, 25783), (208, 26122), (209, 26131), (211, 26143), (219, 26254), (227, 26383), (231, 26428), (232, 26443), (238, 26494), (243, 26536), (245, 26545),

Gene: Mentos_40 Start: 24365, Stop: 27658, Start Num: 12

Candidate Starts for Mentos_40:

(Start: 12 @24365 has 40 MA's), (17, 24521), (26, 24623), (27, 24635), (28, 24644), (33, 24728), (42, 24881), (56, 25106), (57, 25115), (62, 25190), (66, 25217), (77, 25349), (78, 25382), (84, 25445), (89, 25565), (90, 25592), (93, 25616), (95, 25688), (105, 25808), (107, 25835), (118, 26018), (121, 26060), (130, 26111), (131, 26123), (145, 26330), (152, 26402), (155, 26435), (157, 26456), (168, 26603), (170, 26642), (175, 26681), (176, 26693), (182, 26798), (187, 26828), (188, 26831), (189, 26846), (191, 26852), (193, 26870), (208, 27209), (209, 27218), (211, 27230), (219, 27341), (227, 27470), (231, 27515), (232, 27530), (238, 27581), (243, 27623), (245, 27632),

Gene: Mila11_38 Start: 24250, Stop: 27543, Start Num: 12

Candidate Starts for Mila11_38:

(Start: 12 @24250 has 40 MA's), (17, 24406), (26, 24508), (27, 24520), (28, 24529), (33, 24613), (42, 24766), (56, 24991), (57, 25000), (62, 25075), (66, 25102), (77, 25234), (78, 25267), (81, 25294), (84, 25330), (89, 25450), (90, 25477), (93, 25501), (95, 25573), (105, 25693), (107, 25720), (118, 25903), (121, 25945), (125, 25969), (131, 26008), (137, 26089), (145, 26215), (152, 26287), (155, 26320), (157, 26341), (168, 26488), (170, 26527), (175, 26566), (176, 26578), (182, 26683), (187, 26713), (188, 26716), (189, 26731), (193, 26755), (208, 27094), (209, 27103), (211, 27115), (219, 27226), (227, 27355), (231, 27400), (232, 27415), (238, 27466), (243, 27508), (245, 27517),

Gene: MorillMayhem_36 Start: 23262, Stop: 26438, Start Num: 12

Candidate Starts for MorillMayhem_36:

(Start: 12 @23262 has 40 MA's), (17, 23418), (20, 23451), (24, 23481), (30, 23547), (32, 23580), (39, 23616), (43, 23709), (44, 23715), (46, 23727), (57, 23919), (58, 23934), (65, 24015), (66, 24021), (67, 24030), (77, 24153), (88, 24300), (100, 24570), (101, 24573), (103, 24591), (105, 24612), (112, 24723), (117, 24819), (125, 24888), (130, 24915), (135, 24969), (143, 25092), (149, 25137), (155, 25215), (169, 25413), (176, 25473), (184, 25599), (187, 25608), (189, 25626), (193, 25650), (208, 25989), (209, 25998), (211, 26010), (219, 26121), (227, 26250), (231, 26295), (232, 26310), (238, 26361), (243, 26403), (245, 26412),

Gene: Namago_36 Start: 22846, Stop: 26022, Start Num: 12

Candidate Starts for Namago_36:

(Start: 12 @22846 has 40 MA's), (17, 23002), (20, 23035), (23, 23053), (24, 23065), (30, 23131), (32, 23164), (39, 23200), (46, 23311), (57, 23503), (58, 23518), (67, 23614), (77, 23737), (79, 23788), (88, 23884), (100, 24154), (101, 24157), (103, 24175), (105, 24196), (112, 24307), (113, 24316), (125, 24472), (135, 24553), (143, 24676), (149, 24721), (155, 24799), (169, 24997), (176, 25057), (181, 25138), (184, 25183), (187, 25192), (189, 25210), (193, 25234), (208, 25573), (209, 25582), (211, 25594), (219, 25705), (227, 25834), (231, 25879), (232, 25894), (238, 25945), (243, 25987), (245, 25996),

Gene: Nike_36 Start: 23798, Stop: 26974, Start Num: 12

Candidate Starts for Nike_36:

(Start: 12 @23798 has 40 MA's), (17, 23954), (20, 23987), (23, 24005), (24, 24017), (30, 24083), (32, 24116), (39, 24152), (46, 24263), (57, 24455), (58, 24470), (65, 24551), (66, 24557), (67, 24566), (77, 24689), (79, 24740), (88, 24836), (100, 25106), (101, 25109), (103, 25127), (105, 25148), (112, 25259), (113, 25268), (117, 25355), (125, 25424), (130, 25451), (135, 25505), (143, 25628), (148, 25664), (155, 25751), (160, 25793), (169, 25949), (176, 26009), (184, 26135), (187, 26144), (189, 26162), (193, 26186), (208, 26525), (209, 26534), (211, 26546), (219, 26657), (227, 26786), (231, 26831), (232, 26846), (238, 26897), (243, 26939), (245, 26948),

Gene: OneinaGillian_35 Start: 21692, Stop: 24703, Start Num: 11

Candidate Starts for OneinaGillian_35:

(Start: 11 @21692 has 11 MA's), (17, 21851), (22, 21881), (38, 21992), (50, 22058), (55, 22172), (57, 22184), (62, 22259), (67, 22295), (69, 22310), (70, 22331), (75, 22391), (77, 22418), (86, 22532), (87, 22556), (89, 22634), (91, 22664), (92, 22673), (93, 22685), (101, 22838), (105, 22877), (111, 22970), (116, 23063), (120, 23105), (121, 23129), (132, 23213), (134, 23228), (141, 23336), (157, 23504), (163, 23549), (166, 23591), (172, 23699), (174, 23723), (175, 23729), (176, 23744), (182, 23849), (201, 24104), (202, 24131), (208, 24260), (213, 24323), (215, 24347), (227, 24521), (231, 24566), (239, 24629), (244, 24671),

Gene: Pepe25_34 Start: 21910, Stop: 24921, Start Num: 11

Candidate Starts for Pepe25_34:

(Start: 11 @21910 has 11 MA's), (17, 22069), (22, 22099), (38, 22210), (50, 22276), (55, 22390), (57, 22402), (62, 22477), (67, 22513), (70, 22549), (75, 22609), (77, 22636), (85, 22744), (87, 22774), (89, 22852), (91, 22882), (92, 22891), (101, 23056), (105, 23095), (111, 23188), (120, 23323), (130, 23398), (132, 23431), (139, 23500), (141, 23554), (156, 23719), (157, 23722), (163, 23767), (166, 23809), (172, 23917), (175, 23947), (176, 23962), (182, 24067), (201, 24322), (202, 24349), (207, 24472), (208, 24478), (211, 24499), (213, 24541), (219, 24610), (225, 24700), (227, 24739), (231, 24784), (238, 24844), (243, 24886), (245, 24895),

Gene: Phabia_36 Start: 23165, Stop: 26341, Start Num: 12

Candidate Starts for Phabia_36:

(Start: 12 @23165 has 40 MA's), (17, 23321), (20, 23354), (23, 23372), (24, 23384), (30, 23450), (32, 23483), (39, 23519), (46, 23630), (52, 23747), (57, 23822), (58, 23837), (66, 23924), (67, 23933), (77, 24056), (79, 24107), (88, 24203), (100, 24473), (101, 24476), (103, 24494), (105, 24515), (112, 24626), (125, 24791), (135, 24872), (143, 24995), (155, 25118), (169, 25316), (176, 25376), (184, 25502), (187, 25511), (189, 25529), (193, 25553), (208, 25892), (209, 25901), (219, 26024), (227, 26153), (231, 26198), (232, 26213), (238, 26264), (243, 26306), (245, 26315),

Gene: Phinky_42 Start: 24346, Stop: 27513, Start Num: 12

Candidate Starts for Phinky_42:

(Start: 12 @24346 has 40 MA's), (17, 24502), (21, 24547), (30, 24631), (39, 24700), (47, 24844), (56, 24994), (57, 25003), (58, 25018), (67, 25114), (77, 25237), (78, 25270), (86, 25351), (88, 25384), (97, 25591), (101, 25657), (103, 25675), (105, 25696), (106, 25714), (110, 25786), (115, 25846), (125, 25972), (129, 25996), (136, 26062), (143, 26176), (153, 26272), (155, 26299), (169, 26497), (176,

26557), (184, 26683), (187, 26692), (189, 26710), (193, 26734), (211, 27094), (227, 27328), (230, 27367), (231, 27376), (246, 27490),

Gene: Quammi_34 Start: 22751, Stop: 26044, Start Num: 12

Candidate Starts for Quammi_34:

(Start: 12 @22751 has 40 MA's), (17, 22907), (26, 23009), (27, 23021), (28, 23030), (33, 23114), (42, 23267), (56, 23492), (57, 23501), (62, 23576), (66, 23603), (77, 23735), (78, 23768), (84, 23831), (89, 23951), (90, 23978), (93, 24002), (95, 24074), (105, 24194), (107, 24221), (118, 24404), (121, 24446), (130, 24497), (131, 24509), (145, 24716), (152, 24788), (155, 24821), (157, 24842), (168, 24989), (170, 25028), (175, 25067), (176, 25079), (182, 25184), (187, 25214), (188, 25217), (189, 25232), (191, 25238), (193, 25256), (208, 25595), (209, 25604), (211, 25616), (219, 25727), (227, 25856), (231, 25901), (232, 25916), (238, 25967), (243, 26009), (245, 26018),

Gene: RobinRose_37 Start: 22196, Stop: 25207, Start Num: 11

Candidate Starts for RobinRose_37:

(Start: 11 @22196 has 11 MA's), (17, 22355), (22, 22385), (38, 22496), (50, 22562), (55, 22676), (57, 22688), (62, 22763), (67, 22799), (69, 22814), (70, 22835), (75, 22895), (77, 22922), (86, 23036), (87, 23060), (89, 23138), (91, 23168), (92, 23177), (93, 23189), (101, 23342), (105, 23381), (111, 23474), (120, 23609), (121, 23633), (130, 23684), (132, 23717), (134, 23732), (141, 23840), (157, 24008), (163, 24053), (166, 24095), (172, 24203), (174, 24227), (175, 24233), (176, 24248), (182, 24353), (201, 24608), (202, 24635), (208, 24764), (213, 24827), (215, 24851), (227, 25025), (231, 25070), (239, 25133), (244, 25175),

Gene: Romm_37 Start: 22196, Stop: 25207, Start Num: 11

Candidate Starts for Romm_37:

(Start: 11 @22196 has 11 MA's), (17, 22355), (22, 22385), (38, 22496), (50, 22562), (55, 22676), (57, 22688), (62, 22763), (67, 22799), (69, 22814), (70, 22835), (75, 22895), (77, 22922), (86, 23036), (87, 23060), (89, 23138), (91, 23168), (92, 23177), (93, 23189), (101, 23342), (105, 23381), (111, 23474), (120, 23609), (121, 23633), (130, 23684), (132, 23717), (134, 23732), (141, 23840), (157, 24008), (163, 24053), (166, 24095), (172, 24203), (174, 24227), (175, 24233), (176, 24248), (182, 24353), (201, 24608), (202, 24635), (208, 24764), (213, 24827), (215, 24851), (227, 25025), (231, 25070), (239, 25133), (244, 25175),

Gene: Rowlf_32 Start: 22926, Stop: 26219, Start Num: 12

Candidate Starts for Rowlf_32:

(Start: 12 @22926 has 40 MA's), (17, 23082), (26, 23184), (27, 23196), (28, 23205), (33, 23289), (42, 23442), (56, 23667), (57, 23676), (62, 23751), (66, 23778), (77, 23910), (78, 23943), (84, 24006), (89, 24126), (90, 24153), (93, 24177), (95, 24249), (105, 24369), (107, 24396), (118, 24579), (121, 24621), (130, 24672), (131, 24684), (145, 24891), (152, 24963), (155, 24996), (157, 25017), (168, 25164), (170, 25203), (175, 25242), (176, 25254), (182, 25359), (187, 25389), (188, 25392), (189, 25407), (191, 25413), (193, 25431), (208, 25770), (209, 25779), (211, 25791), (219, 25902), (227, 26031), (231, 26076), (232, 26091), (238, 26142), (243, 26184), (245, 26193),

Gene: RubyRalph_38 Start: 22819, Stop: 25827, Start Num: 12

Candidate Starts for RubyRalph_38:

(Start: 12 @22819 has 40 MA's), (17, 22975), (24, 23038), (29, 23089), (31, 23104), (55, 23305), (57, 23317), (58, 23332), (61, 23362), (62, 23392), (67, 23428), (77, 23551), (78, 23584), (95, 23890), (101, 23971), (105, 24010), (107, 24037), (109, 24094), (120, 24238), (122, 24265), (126, 24289), (130, 24313), (131, 24325), (132, 24346), (138, 24406), (144, 24499), (145, 24511), (165, 24685), (173, 24847), (175, 24856), (176, 24868), (180, 24940), (192, 25036), (203, 25285), (204, 25318), (209, 25393), (216, 25498), (222, 25561), (227, 25651), (236, 25735), (238, 25750), (239, 25753),

Gene: Rudy_34 Start: 22784, Stop: 26077, Start Num: 12

Candidate Starts for Rudy_34:

(Start: 12 @22784 has 40 MA's), (17, 22940), (26, 23042), (27, 23054), (28, 23063), (33, 23147), (42, 23300), (56, 23525), (57, 23534), (62, 23609), (66, 23636), (77, 23768), (78, 23801), (84, 23864), (89, 23984), (90, 24011), (93, 24035), (95, 24107), (105, 24227), (107, 24254), (118, 24437), (121, 24479), (130, 24530), (131, 24542), (145, 24749), (152, 24821), (155, 24854), (157, 24875), (168, 25022), (170, 25061), (175, 25100), (176, 25112), (182, 25217), (187, 25247), (188, 25250), (189, 25265), (191, 25271), (193, 25289), (208, 25628), (209, 25637), (211, 25649), (219, 25760), (227, 25889), (231, 25934), (232, 25949), (238, 26000), (243, 26042), (245, 26051),

Gene: SadLad_40 Start: 23762, Stop: 26770, Start Num: 12

Candidate Starts for SadLad_40:

(Start: 12 @23762 has 40 MA's), (17, 23918), (24, 23981), (29, 24032), (31, 24047), (55, 24248), (57, 24260), (58, 24275), (61, 24305), (62, 24335), (67, 24371), (77, 24494), (78, 24527), (95, 24833), (101, 24914), (105, 24953), (107, 24980), (109, 25037), (120, 25181), (122, 25208), (126, 25232), (130, 25256), (131, 25268), (132, 25289), (138, 25349), (144, 25442), (145, 25454), (165, 25628), (173, 25790), (175, 25799), (176, 25811), (180, 25883), (192, 25979), (203, 26228), (204, 26261), (209, 26336), (216, 26441), (222, 26504), (227, 26594), (236, 26678), (238, 26693), (239, 26696),

Gene: SallyK_37 Start: 23845, Stop: 27021, Start Num: 12

Candidate Starts for SallyK_37:

(Start: 12 @23845 has 40 MA's), (17, 24001), (20, 24034), (24, 24064), (30, 24130), (32, 24163), (39, 24199), (46, 24310), (57, 24502), (58, 24517), (67, 24613), (77, 24736), (79, 24787), (88, 24883), (100, 25153), (101, 25156), (103, 25174), (105, 25195), (112, 25306), (125, 25471), (135, 25552), (143, 25675), (155, 25798), (169, 25996), (176, 26056), (184, 26182), (187, 26191), (189, 26209), (193, 26233), (208, 26572), (209, 26581), (211, 26593), (219, 26704), (227, 26833), (231, 26878), (232, 26893), (238, 26944), (243, 26986), (245, 26995),

Gene: Sillytadpoles_36 Start: 22735, Stop: 25911, Start Num: 12

Candidate Starts for Sillytadpoles_36:

(Start: 12 @22735 has 40 MA's), (17, 22891), (20, 22924), (23, 22942), (24, 22954), (30, 23020), (32, 23053), (39, 23089), (46, 23200), (52, 23317), (57, 23392), (58, 23407), (66, 23494), (67, 23503), (77, 23626), (79, 23677), (88, 23773), (100, 24043), (101, 24046), (103, 24064), (105, 24085), (112, 24196), (125, 24361), (135, 24442), (143, 24565), (155, 24688), (169, 24886), (176, 24946), (184, 25072), (187, 25081), (189, 25099), (193, 25123), (208, 25462), (209, 25471), (211, 25483), (219, 25594), (227, 25723), (231, 25768), (232, 25783), (238, 25834), (243, 25876), (245, 25885),

Gene: SlySloth_38 Start: 23740, Stop: 26916, Start Num: 12

Candidate Starts for SlySloth_38:

(Start: 12 @23740 has 40 MA's), (17, 23896), (20, 23929), (24, 23959), (30, 24025), (32, 24058), (39, 24094), (46, 24205), (57, 24397), (58, 24412), (67, 24508), (77, 24631), (88, 24778), (100, 25048), (101, 25051), (103, 25069), (105, 25090), (112, 25201), (113, 25210), (125, 25366), (130, 25393), (135, 25447), (143, 25570), (150, 25624), (155, 25693), (169, 25891), (176, 25951), (184, 26077), (187, 26086), (189, 26104), (193, 26128), (208, 26467), (209, 26476), (211, 26488), (219, 26599), (227, 26728), (231, 26773), (232, 26788), (238, 26839), (243, 26881), (245, 26890),

Gene: Squash_38 Start: 23809, Stop: 26985, Start Num: 12

Candidate Starts for Squash_38:

(Start: 12 @23809 has 40 MA's), (17, 23965), (20, 23998), (24, 24028), (30, 24094), (32, 24127), (39, 24163), (46, 24274), (57, 24466), (58, 24481), (67, 24577), (77, 24700), (79, 24751), (88, 24847), (98, 25066), (100, 25117), (101, 25120), (103, 25138), (105, 25159), (112, 25270), (125, 25435), (130, 25462), (135, 25516), (149, 25684), (155, 25762), (169, 25960), (176, 26020), (184, 26146), (187, 26155), (189, 26173), (193, 26197), (208, 26536), (209, 26545), (211, 26557), (219, 26668), (227, 26797), (231, 26842), (232, 26857), (238, 26908), (243, 26950), (245, 26959),

Gene: Statler_37 Start: 23654, Stop: 26830, Start Num: 12

Candidate Starts for Statler_37:

(Start: 12 @23654 has 40 MA's), (17, 23810), (20, 23843), (23, 23861), (24, 23873), (30, 23939), (32, 23972), (39, 24008), (46, 24119), (57, 24311), (58, 24326), (67, 24422), (77, 24545), (79, 24596), (88, 24692), (100, 24962), (101, 24965), (103, 24983), (105, 25004), (112, 25115), (113, 25124), (117, 25211), (123, 25265), (125, 25280), (135, 25361), (143, 25484), (149, 25529), (155, 25607), (169, 25805), (176, 25865), (184, 25991), (187, 26000), (189, 26018), (193, 26042), (208, 26381), (209, 26390), (211, 26402), (219, 26513), (227, 26642), (231, 26687), (232, 26702), (238, 26753), (243, 26795), (245, 26804),

Gene: StrawberryJamm_38 Start: 22988, Stop: 26281, Start Num: 12

Candidate Starts for StrawberryJamm_38:

(Start: 12 @22988 has 40 MA's), (17, 23144), (26, 23246), (27, 23258), (28, 23267), (33, 23351), (42, 23504), (54, 23711), (56, 23729), (57, 23738), (62, 23813), (66, 23840), (77, 23972), (78, 24005), (84, 24068), (89, 24188), (90, 24215), (93, 24239), (95, 24311), (105, 24431), (107, 24458), (118, 24641), (121, 24683), (130, 24734), (131, 24746), (145, 24953), (152, 25025), (155, 25058), (157, 25079), (168, 25226), (170, 25265), (175, 25304), (176, 25316), (182, 25421), (187, 25451), (188, 25454), (189, 25469), (191, 25475), (193, 25493), (208, 25832), (209, 25841), (211, 25853), (219, 25964), (227, 26093), (231, 26138), (232, 26153), (238, 26204), (243, 26246), (245, 26255),

Gene: Sunfish_44 Start: 24223, Stop: 28365, Start Num: 1

Candidate Starts for Sunfish_44:

(Start: 1 @24223 has 1 MA's), (3, 24337), (4, 24394), (8, 24475), (9, 24544), (10, 24571), (14, 24673), (18, 24757), (35, 24931), (36, 24940), (49, 25096), (58, 25219), (59, 25231), (60, 25246), (63, 25288), (64, 25297), (68, 25318), (71, 25372), (74, 25402), (76, 25426), (80, 25495), (84, 25537), (94, 25738), (96, 25798), (102, 25876), (104, 25897), (108, 25981), (119, 26131), (133, 26284), (140, 26401), (142, 26440), (162, 26635), (179, 26917), (194, 27073), (217, 27514), (221, 27568), (222, 27571), (223, 27580), (228, 27685), (240, 27784), (241, 27799), (242, 27808), (247, 27880), (248, 27889), (249, 27982), (250, 28015), (251, 28159), (252, 28237),

Gene: Teehee_37 Start: 23971, Stop: 27147, Start Num: 12

Candidate Starts for Teehee_37:

(Start: 12 @23971 has 40 MA's), (17, 24127), (20, 24160), (23, 24178), (24, 24190), (30, 24256), (32, 24289), (39, 24325), (46, 24436), (52, 24553), (57, 24628), (58, 24643), (66, 24730), (67, 24739), (77, 24862), (79, 24913), (88, 25009), (100, 25279), (101, 25282), (103, 25300), (105, 25321), (112, 25432), (125, 25597), (135, 25678), (143, 25801), (155, 25924), (169, 26122), (176, 26182), (184, 26308), (187, 26317), (189, 26335), (193, 26359), (208, 26698), (209, 26707), (219, 26830), (227, 26959), (231, 27004), (232, 27019), (238, 27070), (243, 27112), (245, 27121),

Gene: Tempo_35 Start: 22072, Stop: 25083, Start Num: 11

Candidate Starts for Tempo_35:

(Start: 11 @22072 has 11 MA's), (17, 22231), (22, 22261), (38, 22372), (50, 22438), (55, 22552), (57, 22564), (62, 22639), (67, 22675), (69, 22690), (70, 22711), (75, 22771), (77, 22798), (86, 22912), (87, 22936), (89, 23014), (91, 23044), (92, 23053), (93, 23065), (101, 23218), (105, 23257), (111, 23350), (120, 23485), (121, 23509), (130, 23560), (132, 23593), (134, 23608), (141, 23716), (157, 23884), (163, 23929), (166, 23971), (172, 24079), (174, 24103), (175, 24109), (176, 24124), (182, 24229), (201, 24484), (202, 24511), (208, 24640), (209, 24649), (211, 24661), (213, 24703), (215, 24727), (227, 24901), (231, 24946), (239, 25009), (244, 25051),

Gene: Tissue_36 Start: 23488, Stop: 26664, Start Num: 12

Candidate Starts for Tissue_36:

(Start: 12 @23488 has 40 MA's), (17, 23644), (20, 23677), (24, 23707), (30, 23773), (32, 23806), (39, 23842), (46, 23953), (57, 24145), (58, 24160), (67, 24256), (77, 24379), (79, 24430), (88, 24526), (100, 24796), (101, 24799), (103, 24817), (105, 24838), (112, 24949), (113, 24958), (125, 25114), (135, 25195), (143, 25318), (151, 25384), (155, 25441), (169, 25639), (176, 25699), (184, 25825), (187, 25834), (189, 25852), (193, 25876), (208, 26215), (209, 26224), (211, 26236), (219, 26347), (227, 26476), (231, 26521), (238, 26587), (243, 26629), (245, 26638),

Gene: Viceroy_34 Start: 22751, Stop: 26044, Start Num: 12

Candidate Starts for Viceroy_34:

(Start: 12 @22751 has 40 MA's), (17, 22907), (26, 23009), (27, 23021), (28, 23030), (33, 23114), (42, 23267), (56, 23492), (57, 23501), (62, 23576), (66, 23603), (77, 23735), (78, 23768), (84, 23831), (89, 23951), (90, 23978), (93, 24002), (95, 24074), (105, 24194), (107, 24221), (118, 24404), (121, 24446), (130, 24497), (131, 24509), (145, 24716), (152, 24788), (155, 24821), (157, 24842), (168, 24989), (170, 25028), (175, 25067), (176, 25079), (182, 25184), (187, 25214), (188, 25217), (189, 25232), (191, 25238), (193, 25256), (208, 25595), (209, 25604), (211, 25616), (219, 25727), (227, 25856), (231, 25901), (232, 25916), (238, 25967), (243, 26009), (245, 26018),

Gene: Wayne3_37 Start: 23734, Stop: 26910, Start Num: 12

Candidate Starts for Wayne3_37:

(Start: 12 @23734 has 40 MA's), (17, 23890), (20, 23923), (23, 23941), (24, 23953), (30, 24019), (32, 24052), (39, 24088), (46, 24199), (52, 24316), (57, 24391), (58, 24406), (66, 24493), (67, 24502), (77, 24625), (79, 24676), (88, 24772), (100, 25042), (101, 25045), (103, 25063), (105, 25084), (112, 25195), (125, 25360), (135, 25441), (143, 25564), (155, 25687), (169, 25885), (176, 25945), (184, 26071), (187, 26080), (189, 26098), (193, 26122), (208, 26461), (209, 26470), (219, 26593), (227, 26722), (231, 26767), (232, 26782), (238, 26833), (243, 26875), (245, 26884),

Gene: WheelerS25_41 Start: 24494, Stop: 27670, Start Num: 12

Candidate Starts for WheelerS25_41:

(Start: 12 @24494 has 40 MA's), (17, 24650), (20, 24683), (24, 24713), (30, 24779), (32, 24812), (39, 24848), (46, 24959), (57, 25151), (58, 25166), (67, 25262), (77, 25385), (79, 25436), (88, 25532), (100, 25802), (101, 25805), (103, 25823), (105, 25844), (112, 25955), (125, 26120), (135, 26201), (143, 26324), (158, 26480), (161, 26501), (167, 26573), (169, 26645), (176, 26705), (184, 26831), (187, 26840), (189, 26858), (193, 26882), (208, 27221), (209, 27230), (211, 27242), (219, 27353), (227, 27482), (231, 27527), (232, 27542), (238, 27593), (243, 27635), (245, 27644),

Gene: Wheelie_35 Start: 23052, Stop: 26228, Start Num: 12

Candidate Starts for Wheelie_35:

(Start: 12 @23052 has 40 MA's), (17, 23208), (20, 23241), (23, 23259), (24, 23271), (30, 23337), (32, 23370), (39, 23406), (46, 23517), (52, 23634), (57, 23709), (66, 23811), (67, 23820), (77, 23943), (79, 23994), (88, 24090), (100, 24360), (101, 24363), (103, 24381), (105, 24402), (112, 24513), (125, 24678), (135, 24759), (143, 24882), (155, 25005), (169, 25203), (176, 25263), (184, 25389), (187, 25398), (189, 25416), (193, 25440), (208, 25779), (209, 25788), (211, 25800), (219, 25911), (227, 26040), (231, 26085), (232, 26100), (238, 26151), (243, 26193), (245, 26202),

Gene: Wilca_35 Start: 21893, Stop: 24904, Start Num: 11

Candidate Starts for Wilca_35:

(Start: 11 @21893 has 11 MA's), (17, 22052), (22, 22082), (38, 22193), (50, 22259), (55, 22373), (57, 22385), (62, 22460), (67, 22496), (70, 22532), (75, 22592), (77, 22619), (85, 22727), (87, 22757), (89, 22835), (91, 22865), (92, 22874), (101, 23039), (105, 23078), (111, 23171), (120, 23306), (130, 23381), (132, 23414), (139, 23483), (141, 23537), (156, 23702), (157, 23705), (163, 23750), (166, 23792), (172, 23900), (175, 23930), (176, 23945), (182, 24050), (201, 24305), (202, 24332), (207, 24455), (208, 24461), (211, 24482), (213, 24524), (219, 24593), (225, 24683), (227, 24722), (231, 24767), (238, 24827), (243, 24869), (245, 24878),

Gene: Zagie_35 Start: 23189, Stop: 26482, Start Num: 12

Candidate Starts for Zagie_35:

(Start: 12 @23189 has 40 MA's), (17, 23345), (26, 23447), (27, 23459), (28, 23468), (33, 23552), (42, 23705), (54, 23912), (56, 23930), (57, 23939), (62, 24014), (66, 24041), (77, 24173), (78, 24206), (84, 24269), (89, 24389), (90, 24416), (93, 24440), (95, 24512), (105, 24632), (107, 24659), (118, 24842), (121, 24884), (130, 24935), (131, 24947), (145, 25154), (152, 25226), (155, 25259), (157, 25280), (168, 25427), (170, 25466), (175, 25505), (176, 25517), (182, 25622), (187, 25652), (188, 25655), (189, 25670), (191, 25676), (193, 25694), (208, 26033), (209, 26042), (211, 26054), (219, 26165), (227, 26294), (231, 26339), (232, 26354), (238, 26405), (243, 26447), (245, 26456),

Gene: Zhafia_38 Start: 23530, Stop: 26706, Start Num: 12

Candidate Starts for Zhafia_38:

(Start: 12 @23530 has 40 MA's), (17, 23686), (20, 23719), (23, 23737), (24, 23749), (30, 23815), (32, 23848), (39, 23884), (46, 23995), (52, 24112), (57, 24187), (58, 24202), (66, 24289), (67, 24298), (77, 24421), (79, 24472), (88, 24568), (100, 24838), (101, 24841), (103, 24859), (105, 24880), (112, 24991), (125, 25156), (135, 25237), (143, 25360), (155, 25483), (169, 25681), (176, 25741), (184, 25867), (187, 25876), (189, 25894), (193, 25918), (208, 26257), (209, 26266), (211, 26278), (219, 26389), (227, 26518), (231, 26563), (232, 26578), (238, 26629), (243, 26671), (245, 26680),