

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 206719 Report

This analysis was run 02/22/25 on database version 588.

Pham number 206719 has 108 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Babsiella_16
- Track 2 : QueenHazel_16
- Track 3 : Xula_15
- Track 4 : Brujita_16, Island3_16
- Track 5 : HC_16
- Track 6 : Sbash_15
- Track 7 : Che9c_15
- Track 8 : Stuck_15
- Track 9 : Panchino_16, SkinnyPete_16, Rebel_16
- Track 10 : Hanako_16, Purgamenstris_16, ShrimpFriedEgg_16, Nenae_16, BabeRuth_16, Redi_16
- Track 11 : PhancyPhin_16
- Track 12 : Journey_16, Xerxes_16, Andies_16, Smurph_16, Silvafighter_16, Duplicity_16, Tapioca_16, Gex_16, Aggie_16, Bosection6_16, Tortoise12_16, Chewbacca_16, Pipsqueaks_16, Philonius_16, Carcharodon_16, Fulbright_16, Charlie_16, Silvy_16, EGUnicorn_17, Xeno_16, Schnauzer_16, Phloss_16, Melville_16, Magsby_16, Scitech_16, Parmesanjohn_16
- Track 13 : Kevin1_16, Butters_16, Rubeelu_16
- Track 14 : Snekmaggedon_16, Shweta_16, Raymond7_16, Jamie19_16, SpongeBob_16
- Track 15 : Phrann_16
- Track 16 : MichelleMyBell_16
- Track 17 : Jebeks_17, HUHilltop_17, Etoile_17, Langerak_17, Fishburne_17, Zilizebeth_17, Necropolis_17, Bartholomew_17, Dynamo_17, Vidya_17, Venti_17, Phineas_17, StevieRay_17, Kari_17, FirstPlacePfu_17
- Track 18 : Bogie_16
- Track 19 : KilKor_17, Phalm_17, StressBall_17, Megiddo_17, Gavriela_17, CactusJack_17, Malithi_17, Glaske_17
- Track 20 : Mangethe_17, Majeke_17, Arib1_17, Phegasus_17
- Track 21 : Sonah_17, Donovan_17, Techage_17
- Track 22 : Shipwreck_16
- Track 23 : Polkaroo_17
- Track 24 : Ksquared_17, Bunnies_17, Bhagsy_17, Juniormint_17
- Track 25 : Camster_17
- Track 26 : Thespis_17, Brusacoram_17
- Track 27 : Pygmy_16
- Track 28 : GreaseLightnin_17

- Track 29 : Jung_17
- Track 30 : Willsammy_17
- Track 31 : Atcoo_17
- Track 32 : Tortellini_16
- Track 33 : Xavia_17
- Track 34 : BigNuz_16
- Track 35 : Nazo_16
- Track 36 : Phayonce_16
- Track 37 : ThulaThula_16
- Track 38 : Purky_16
- Track 39 : MooMoo_14

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

The start number called the most often in the published annotations is 2, it was called in 44 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1_17, Atcoo_17, Bartholomew_17, Bhagsy_17, BigNuz_16, Bogie_16, Brusacoram_17, Bunnies_17, CactusJack_17, Donovan_17, Dynamo_17, Etoile_17, FirstPlacePfu_17, Fishburne_17, Gavriela_17, Glaske_17, GreaseLightnin_17, HUHilltop_17, Jebeks_17, Jung_17, Juniormint_17, Kari_17, KilKor_17, Ksquared_17, Langerak_17, Majeke_17, Malithi_17, Mangethe_17, Megiddo_17, Nazo_16, Necropolis_17, Phalm_17, Phayonce_16, Phegasus_17, Phineas_17, Polkaroo_17, Purky_16, Shipwreck_16, Sonah_17, StevieRay_17, StressBall_17, Techage_17, Thespis_17, ThulaThula_16, Tortellini_16, Venti_17, Vidya_17, Willsammy_17, Xavia_17, Zilizebeth_17,

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

- Camster_17, Pygmy_16,

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

- Aggie_16, Andies_16, BabeRuth_16, Babsiella_16, Bosection6_16, Brujita_16, Butters_16, Carcharodon_16, Charlie_16, Che9c_15, Chewbacca_16, Duplicity_16, EGUnicorn_17, Fulbright_16, Gex_16, HC_16, Hanako_16, Island3_16, Jamie19_16, Journey_16, Kevin1_16, Magsby_16, Melville_16, MichelleMyBell_16, MooMoo_14, Nенаe_16, Panchino_16, Parmesanjohn_16, PhancyPhin_16, Philonius_16, Phloss_16, Phrann_16, Pipsqueaks_16, Purgamenstris_16, QueenHazel_16, Raymond7_16, Rebel_16, Redi_16, Rubeelu_16, Sbash_15, Schnauzer_16, Scitech_16, ShrimpFriedEgg_16, Shweta_16, Silvafighter_16, Silvy_16, SkinnyPete_16, Smurph_16, Snekmaggedon_16, SpongeBob_16, Stuck_15, Tapioca_16, Tortoise12_16, Xeno_16, Xerxes_16, Xula_15,

Summary by start number:

Start 1:

- Found in 10 of 108 (9.3%) of genes in pham
- Manual Annotations of this start: 9 of 97
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Babsiella_16 (I1), Brujita_16 (I1), Che9c_15 (I2), HC_16 (I1), Island3_16 (I1), MooMoo_14 (singleton), QueenHazel_16 (I1), Sbash_15 (I2), Stuck_15 (I2), Xula_15 (I1),

Start 2:

- Found in 52 of 108 (48.1%) of genes in pham
- Manual Annotations of this start: 44 of 97
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Arib1_17 (P1), Atcoo_17 (P1), Bartholomew_17 (P1), Bhagsy_17 (P1), BigNuz_16 (P4), Bogie_16 (P1), Brusacoram_17 (P1), Bunnies_17 (P1), CactusJack_17 (P1), Donovan_17 (P1), Dynamo_17 (P1), Etoile_17 (P1), FirstPlacePfu_17 (P1), Fishburne_17 (P1), Gavriela_17 (P1), Glaske_17 (P1), GreaseLightnin_17 (P1), HUHilltop_17 (P1), Jebeks_17 (P1), Jung_17 (P1), Juniormint_17 (P1), Kari_17 (P1), KillKor_17 (P1), Ksquared_17 (P1), Langerak_17 (P1), Majeke_17 (P1), Malithi_17 (P1), Mangethe_17 (P1), Megiddo_17 (P1), Nazo_16 (P4), Necropolis_17 (P1), Phalm_17 (P1), Phayonce_16 (P5), Phegasus_17 (P1), Phineas_17 (P1), Polkaroo_17 (P1), Purky_16 (P6), Shipwreck_16 (P1), Sonah_17 (P1), StevieRay_17 (P1), StressBall_17 (P1), Techage_17 (P1), Thespis_17 (P1), ThulaThula_16 (P5), Tortellini_16 (P2), Venti_17 (P1), Vidya_17 (P1), Willsammy_17 (P1), Xavia_17 (P3), Zilizebeth_17 (P1),

Start 3:

- Found in 43 of 108 (39.8%) of genes in pham
- Manual Annotations of this start: 2 of 97
- Called 4.7% of time when present
- Phage (with cluster) where this start called: Camster_17 (P1), Pygmy_16 (P1),

Start 9:

- Found in 46 of 108 (42.6%) of genes in pham
- Manual Annotations of this start: 42 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie_16 (N), Andies_16 (N), BabeRuth_16 (N), Bosection6_16 (N), Butters_16 (N), Carcharodon_16 (N), Charlie_16 (N), Chewbacca_16 (N), Duplicity_16 (N), EGUnicorn_17 (N), Fulbright_16 (N), Gex_16 (N), Hanako_16 (N), Jamie19_16 (N), Journey_16 (N), Kevin1_16 (N), Magsby_16 (N), Melville_16 (N), MichelleMyBell_16 (N), Nenae_16 (N), Panchino_16 (N), Parmesanjohn_16 (N), PhancyPhin_16 (N), Philonius_16 (N), Phloss_16 (N), Phrann_16 (N), Pipsqueaks_16 (N), Purgamenstris_16 (N), Raymond7_16 (N), Rebel_16 (N), Redi_16 (N), Rubeelu_16 (N), Schnauzer_16 (N), Scitech_16 (N), ShrimpFriedEgg_16 (N), Shweta_16 (N), Silvafighter_16 (N), Silvy_16 (N), SkinnyPete_16 (N), Smurph_16 (N), Snekmaggedon_16 (N), SpongeBob_16 (N), Tapioca_16 (N), Tortoise12_16 (N), Xeno_16 (N), Xerxes_16 (N),

Summary by clusters:

There are 10 clusters represented in this pham: P2, P3, singleton, P1, P6, P4, P5, I1, I2, N,

Info for manual annotations of cluster I1:

- Start number 1 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 1 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster N:

- Start number 9 was manually annotated 42 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 2 was manually annotated 37 times for cluster P1.
- Start number 3 was manually annotated 2 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 2 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 2 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 2 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 2 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 2 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Aggie_16 Start: 10124, Stop: 13267, Start Num: 9

Candidate Starts for Aggie_16:

(Start: 9 @10124 has 42 MA's), (10, 10133), (13, 10154), (14, 10175), (16, 10208), (30, 10472), (33, 10487), (34, 10496), (38, 10541), (39, 10550), (50, 10715), (56, 10748), (58, 10772), (61, 10817), (62, 10826), (64, 10859), (66, 10880), (91, 11381), (92, 11384), (102, 11453), (112, 11543), (113, 11552), (115, 11585), (124, 11645), (128, 11663), (131, 11684), (134, 11726), (137, 11765), (140, 11807), (145, 11849), (148, 11903), (149, 11906), (151, 11987), (159, 12104), (172, 12257), (191, 12479), (206, 12617), (208, 12635), (212, 12656), (235, 12719), (238, 12764), (242, 12833), (244, 12854), (246, 12863), (256, 12998), (258, 13016), (260, 13058), (262, 13166),

Gene: Andies_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Andies_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Arib1_17 Start: 10864, Stop: 14649, Start Num: 2

Candidate Starts for Arib1_17:

(Start: 2 @10864 has 44 MA's), (Start: 3 @10867 has 2 MA's), (4, 10873), (6, 10960), (7, 10975), (12, 11092), (19, 11221), (21, 11263), (37, 11473), (40, 11530), (46, 11626), (65, 11842), (73, 11992), (75,

12046), (77, 12079), (79, 12130), (82, 12187), (87, 12358), (89, 12382), (95, 12436), (98, 12442), (106, 12508), (126, 12751), (128, 12778), (132, 12820), (136, 12862), (139, 12895), (145, 12967), (147, 12982), (148, 13021), (150, 13054), (156, 13162), (160, 13228), (165, 13324), (180, 13474), (183, 13495), (192, 13636), (195, 13687), (196, 13693), (198, 13717), (199, 13720), (219, 13867), (222, 13897), (234, 14074), (245, 14233), (248, 14278), (251, 14335), (257, 14392), (259, 14404), (263, 14551), (264, 14584),

Gene: Atcoo_17 Start: 10877, Stop: 14518, Start Num: 2

Candidate Starts for Atcoo_17:

(Start: 2 @10877 has 44 MA's), (Start: 3 @10880 has 2 MA's), (4, 10886), (6, 10973), (7, 10988), (12, 11105), (19, 11234), (21, 11276), (37, 11486), (46, 11639), (65, 11855), (73, 12005), (75, 12059), (79, 12143), (82, 12200), (87, 12371), (89, 12395), (95, 12449), (98, 12455), (126, 12767), (128, 12791), (132, 12833), (136, 12875), (139, 12908), (147, 12995), (148, 13034), (150, 13067), (151, 13118), (156, 13175), (160, 13241), (164, 13325), (165, 13328), (173, 13376), (174, 13379), (176, 13409), (178, 13436), (191, 13583), (194, 13607), (195, 13637), (197, 13661), (224, 13844), (230, 13913), (234, 13943), (242, 14075), (245, 14102), (248, 14147), (257, 14261), (259, 14273), (263, 14420), (264, 14453),

Gene: BabeRuth_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for BabeRuth_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Babsiella_16 Start: 10772, Stop: 14539, Start Num: 1

Candidate Starts for Babsiella_16:

(Start: 1 @10772 has 9 MA's), (5, 10847), (18, 11105), (26, 11327), (27, 11330), (28, 11342), (32, 11384), (35, 11408), (40, 11486), (48, 11600), (49, 11636), (67, 11819), (70, 11885), (73, 11948), (75, 12002), (77, 12035), (81, 12134), (90, 12341), (104, 12473), (110, 12512), (111, 12524), (114, 12605), (117, 12719), (126, 12758), (132, 12812), (133, 12833), (135, 12836), (137, 12875), (142, 12923), (143, 12938), (144, 12944), (147, 12974), (148, 13013), (150, 13046), (154, 13121), (159, 13214), (161, 13238), (162, 13256), (169, 13331), (175, 13355), (185, 13484), (187, 13505), (200, 13646), (204, 13670), (206, 13688), (207, 13697), (229, 13937), (236, 14012), (241, 14111), (242, 14123), (247, 14180), (250, 14240), (252, 14252), (261, 14375), (265, 14495), (268, 14531),

Gene: Bartholomew_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Bartholomew_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Bhagsy_17 Start: 10880, Stop: 14650, Start Num: 2

Candidate Starts for Bhagsy_17:

(Start: 2 @10880 has 44 MA's), (Start: 3 @10883 has 2 MA's), (4, 10889), (6, 10976), (7, 10991), (12, 11108), (19, 11237), (21, 11279), (37, 11489), (46, 11642), (65, 11858), (73, 12008), (75, 12062), (79, 12146), (82, 12203), (89, 12398), (95, 12452), (98, 12458), (126, 12770), (128, 12797), (132, 12839), (136, 12881), (139, 12914), (145, 12986), (147, 13001), (148, 13040), (150, 13073), (151, 13124), (156, 13181), (160, 13247), (180, 13493), (183, 13514), (192, 13655), (195, 13706), (196, 13712), (198, 13736), (199, 13739), (219, 13886), (222, 13916), (234, 14075), (245, 14234), (248, 14279), (257, 14393), (259, 14405), (263, 14552), (264, 14585),

Gene: BigNuz_16 Start: 10599, Stop: 14387, Start Num: 2

Candidate Starts for BigNuz_16:

(Start: 2 @10599 has 44 MA's), (Start: 3 @10602 has 2 MA's), (4, 10608), (7, 10710), (19, 10956), (21, 10998), (37, 11208), (47, 11370), (65, 11577), (73, 11727), (126, 12480), (132, 12543), (136, 12585), (139, 12618), (148, 12744), (150, 12777), (166, 13071), (176, 13143), (187, 13287), (190, 13329), (201, 13464), (209, 13518), (231, 13755), (234, 13815), (242, 13947), (251, 14076), (253, 14088), (259, 14145), (263, 14289), (264, 14322),

Gene: Bogie_16 Start: 10596, Stop: 14366, Start Num: 2

Candidate Starts for Bogie_16:

(Start: 2 @10596 has 44 MA's), (Start: 3 @10599 has 2 MA's), (4, 10605), (6, 10692), (7, 10707), (12, 10824), (19, 10953), (21, 10995), (37, 11205), (46, 11358), (73, 11724), (75, 11778), (79, 11862), (82, 11919), (87, 12090), (89, 12114), (95, 12168), (98, 12174), (106, 12243), (126, 12486), (128, 12513), (132, 12555), (136, 12597), (139, 12630), (145, 12702), (147, 12717), (148, 12756), (150, 12789), (156, 12897), (160, 12963), (165, 13059), (180, 13209), (183, 13230), (192, 13371), (195, 13422), (196, 13428), (198, 13452), (199, 13455), (219, 13602), (222, 13632), (234, 13791), (245, 13950), (248, 13995), (257, 14109), (259, 14121), (263, 14268), (264, 14301),

Gene: Bosection6_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Bosection6_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Brujita_16 Start: 10774, Stop: 14604, Start Num: 1

Candidate Starts for Brujita_16:

(Start: 1 @10774 has 9 MA's), (5, 10849), (18, 11107), (26, 11329), (27, 11332), (28, 11344), (32, 11386), (35, 11410), (37, 11431), (40, 11488), (48, 11602), (49, 11638), (67, 11821), (70, 11887), (73, 11950), (75, 12004), (77, 12037), (81, 12136), (90, 12343), (104, 12475), (110, 12514), (111, 12526), (114, 12607), (117, 12721), (120, 12742), (126, 12766), (132, 12820), (133, 12841), (135, 12844), (137, 12883), (142, 12931), (143, 12946), (144, 12952), (147, 12982), (148, 13021), (150, 13054), (154, 13129), (159, 13222), (161, 13246), (187, 13537), (191, 13582), (207, 13741), (213, 13780), (214, 13804), (215, 13810), (216, 13816), (220, 13849), (225, 13927), (226, 13930), (227, 13945), (228, 13960), (236, 14077), (241, 14176), (242, 14188), (245, 14212), (246, 14215), (247, 14245), (250, 14305), (252, 14317), (261, 14440), (265, 14560), (268, 14596),

Gene: Brusacoram_17 Start: 10876, Stop: 14643, Start Num: 2

Candidate Starts for Brusacoram_17:

(Start: 2 @10876 has 44 MA's), (Start: 3 @10879 has 2 MA's), (4, 10885), (6, 10972), (7, 10987), (12, 11104), (19, 11233), (21, 11275), (37, 11485), (46, 11638), (65, 11854), (73, 12004), (75, 12058), (79, 12142), (82, 12199), (87, 12370), (89, 12394), (95, 12448), (98, 12454), (126, 12766), (128, 12790),

(132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Bunnies_17 Start: 10889, Stop: 14665, Start Num: 2

Candidate Starts for Bunnies_17:

(Start: 2 @10889 has 44 MA's), (Start: 3 @10892 has 2 MA's), (4, 10898), (6, 10985), (7, 11000), (12, 11117), (19, 11246), (21, 11288), (37, 11498), (46, 11651), (65, 11867), (73, 12017), (75, 12071), (79, 12155), (82, 12212), (89, 12407), (95, 12461), (98, 12467), (126, 12788), (128, 12812), (132, 12854), (136, 12896), (139, 12929), (145, 13001), (147, 13016), (148, 13055), (150, 13088), (151, 13139), (156, 13196), (160, 13262), (180, 13508), (183, 13529), (192, 13670), (195, 13721), (196, 13727), (198, 13751), (199, 13754), (219, 13901), (222, 13931), (234, 14090), (245, 14249), (248, 14294), (257, 14408), (259, 14420), (263, 14567), (264, 14600),

Gene: Butters_16 Start: 10144, Stop: 13233, Start Num: 9

Candidate Starts for Butters_16:

(Start: 9 @10144 has 42 MA's), (10, 10153), (13, 10174), (16, 10228), (31, 10495), (34, 10516), (36, 10528), (51, 10738), (54, 10756), (56, 10768), (58, 10792), (62, 10846), (64, 10879), (66, 10900), (71, 11008), (72, 11011), (76, 11086), (84, 11236), (85, 11296), (88, 11365), (91, 11401), (92, 11404), (94, 11419), (99, 11452), (113, 11548), (115, 11581), (123, 11641), (124, 11644), (134, 11725), (137, 11764), (141, 11809), (145, 11848), (147, 11863), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (163, 12187), (172, 12253), (182, 12376), (191, 12475), (193, 12487), (238, 12727), (242, 12799), (254, 12943), (256, 12964), (258, 12982), (260, 13024), (262, 13132),

Gene: CactusJack_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for CactusJack_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: Camster_17 Start: 10877, Stop: 14644, Start Num: 3

Candidate Starts for Camster_17:

(Start: 2 @10874 has 44 MA's), (Start: 3 @10877 has 2 MA's), (4, 10883), (6, 10970), (7, 10985), (12, 11102), (19, 11231), (21, 11273), (37, 11483), (46, 11636), (47, 11645), (65, 11852), (73, 12002), (75, 12056), (77, 12089), (79, 12140), (82, 12197), (87, 12368), (89, 12392), (95, 12446), (98, 12452), (126, 12764), (128, 12791), (132, 12833), (136, 12875), (139, 12908), (145, 12980), (147, 12995), (148, 13034), (150, 13067), (156, 13175), (160, 13241), (165, 13337), (180, 13487), (183, 13508), (192, 13649), (195, 13700), (196, 13706), (198, 13730), (199, 13733), (219, 13880), (222, 13910), (234, 14069), (245, 14228), (248, 14273), (257, 14387), (259, 14399), (263, 14546), (264, 14579),

Gene: Carcharodon_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Carcharodon_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853),

(246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Charlie_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Charlie_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Che9c_15 Start: 10303, Stop: 13944, Start Num: 1

Candidate Starts for Che9c_15:

(Start: 1 @10303 has 9 MA's), (17, 10627), (24, 10843), (25, 10858), (26, 10873), (27, 10876), (28, 10888), (32, 10930), (35, 10954), (37, 10975), (48, 11146), (52, 11194), (55, 11209), (57, 11242), (70, 11431), (75, 11548), (77, 11581), (81, 11680), (114, 12118), (126, 12265), (127, 12271), (132, 12322), (133, 12343), (137, 12385), (144, 12454), (147, 12484), (148, 12523), (150, 12556), (154, 12631), (189, 13057), (191, 13078), (212, 13255), (234, 13408), (237, 13456), (240, 13504), (241, 13519), (242, 13531), (246, 13558), (252, 13660),

Gene: Chewbacca_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Chewbacca_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Donovan_17 Start: 10865, Stop: 14632, Start Num: 2

Candidate Starts for Donovan_17:

(Start: 2 @10865 has 44 MA's), (Start: 3 @10868 has 2 MA's), (4, 10874), (6, 10961), (7, 10976), (12, 11093), (19, 11222), (21, 11264), (26, 11372), (37, 11474), (40, 11531), (46, 11627), (65, 11843), (73, 11993), (75, 12047), (77, 12080), (79, 12131), (87, 12359), (95, 12437), (98, 12443), (106, 12509), (126, 12752), (128, 12779), (132, 12821), (136, 12863), (139, 12896), (145, 12968), (147, 12983), (148, 13022), (150, 13055), (156, 13163), (160, 13229), (165, 13325), (180, 13475), (183, 13496), (192, 13637), (195, 13688), (196, 13694), (198, 13718), (199, 13721), (219, 13868), (222, 13898), (234, 14057), (245, 14216), (248, 14261), (257, 14375), (259, 14387), (263, 14534), (264, 14567),

Gene: Duplicity_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Duplicity_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Dynamo_17 Start: 10873, Stop: 14652, Start Num: 2

Candidate Starts for Dynamo_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12529), (126, 12772), (128, 12799), (132, 12841), (136, 12883), (139, 12916), (145, 12988), (147, 13003), (148, 13042), (150, 13075), (156, 13183), (160, 13249), (165, 13345), (180, 13495), (183, 13516), (192, 13657), (195, 13708), (196, 13714), (198, 13738), (199, 13741), (219, 13888), (222, 13918), (234, 14077), (245, 14236), (248, 14281), (257, 14395), (259, 14407), (263, 14554), (264, 14587),

Gene: EGUunicorn_17 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for EGUunicorn_17:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Etoile_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Etoile_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: FirstPlacePfu_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for FirstPlacePfu_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Fishburne_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Fishburne_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Fulbright_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Fulbright_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551),

(115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Gavriela_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for Gavriela_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: Gex_16 Start: 10122, Stop: 13262, Start Num: 9

Candidate Starts for Gex_16:

(Start: 9 @10122 has 42 MA's), (10, 10131), (13, 10152), (14, 10173), (16, 10206), (30, 10470), (33, 10485), (34, 10494), (38, 10539), (39, 10548), (50, 10713), (56, 10746), (58, 10770), (61, 10815), (62, 10824), (64, 10857), (66, 10878), (91, 11379), (92, 11382), (102, 11451), (112, 11541), (113, 11550), (115, 11583), (124, 11643), (128, 11661), (131, 11682), (134, 11724), (137, 11763), (140, 11805), (145, 11847), (148, 11901), (149, 11904), (151, 11985), (159, 12102), (172, 12252), (191, 12474), (206, 12612), (208, 12630), (212, 12651), (235, 12714), (238, 12759), (242, 12828), (244, 12849), (246, 12858), (256, 12993), (258, 13011), (260, 13053), (262, 13161),

Gene: Glaske_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for Glaske_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: GreaseLightnin_17 Start: 10873, Stop: 14649, Start Num: 2

Candidate Starts for GreaseLightnin_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (126, 12772), (128, 12796), (132, 12838), (136, 12880), (139, 12913), (145, 12985), (147, 13000), (148, 13039), (150, 13072), (156, 13180), (160, 13246), (165, 13342), (180, 13492), (183, 13513), (192, 13654), (195, 13705), (196, 13711), (198, 13735), (199, 13738), (219, 13885), (222, 13915), (234, 14074), (242, 14206), (245, 14233), (248, 14278), (257, 14392), (259, 14404), (263, 14551), (264, 14584),

Gene: HC_16 Start: 10774, Stop: 14595, Start Num: 1

Candidate Starts for HC_16:

(Start: 1 @10774 has 9 MA's), (5, 10849), (18, 11107), (26, 11329), (27, 11332), (28, 11344), (32, 11386), (35, 11410), (37, 11431), (40, 11488), (48, 11602), (49, 11638), (67, 11821), (70, 11887), (73, 11950), (77, 12037), (81, 12136), (90, 12343), (104, 12475), (110, 12514), (111, 12526), (114, 12607), (117, 12721), (126, 12760), (132, 12814), (133, 12835), (135, 12838), (137, 12877), (142, 12925), (143, 12940), (144, 12946), (147, 12976), (148, 13015), (150, 13048), (154, 13123), (159, 13216), (161, 13240), (187, 13531), (191, 13576), (207, 13735), (213, 13774), (214, 13798), (215, 13804),

(216, 13810), (220, 13840), (225, 13918), (226, 13921), (227, 13936), (228, 13951), (236, 14068), (241, 14167), (242, 14179), (247, 14236), (250, 14296), (252, 14308), (261, 14431), (265, 14551), (268, 14587),

Gene: HUHilltop_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for HUHilltop_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Hanako_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Hanako_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Island3_16 Start: 10774, Stop: 14604, Start Num: 1

Candidate Starts for Island3_16:

(Start: 1 @10774 has 9 MA's), (5, 10849), (18, 11107), (26, 11329), (27, 11332), (28, 11344), (32, 11386), (35, 11410), (37, 11431), (40, 11488), (48, 11602), (49, 11638), (67, 11821), (70, 11887), (73, 11950), (75, 12004), (77, 12037), (81, 12136), (90, 12343), (104, 12475), (110, 12514), (111, 12526), (114, 12607), (117, 12721), (120, 12742), (126, 12766), (132, 12820), (133, 12841), (135, 12844), (137, 12883), (142, 12931), (143, 12946), (144, 12952), (147, 12982), (148, 13021), (150, 13054), (154, 13129), (159, 13222), (161, 13246), (187, 13537), (191, 13582), (207, 13741), (213, 13780), (214, 13804), (215, 13810), (216, 13816), (220, 13849), (225, 13927), (226, 13930), (227, 13945), (228, 13960), (236, 14077), (241, 14176), (242, 14188), (245, 14212), (246, 14215), (247, 14245), (250, 14305), (252, 14317), (261, 14440), (265, 14560), (268, 14596),

Gene: Jamie19_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Jamie19_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: Jebeks_17 Start: 10858, Stop: 14628, Start Num: 2

Candidate Starts for Jebeks_17:

(Start: 2 @10858 has 44 MA's), (Start: 3 @10861 has 2 MA's), (4, 10867), (6, 10954), (7, 10969), (12, 11086), (19, 11215), (21, 11257), (37, 11467), (46, 11620), (65, 11836), (73, 11986), (75, 12040), (79, 12124), (82, 12181), (86, 12319), (87, 12352), (89, 12376), (95, 12430), (98, 12436), (106, 12505),

(126, 12748), (128, 12775), (132, 12817), (136, 12859), (139, 12892), (145, 12964), (147, 12979), (148, 13018), (150, 13051), (156, 13159), (160, 13225), (165, 13321), (180, 13471), (183, 13492), (192, 13633), (195, 13684), (196, 13690), (198, 13714), (199, 13717), (219, 13864), (222, 13894), (234, 14053), (245, 14212), (248, 14257), (257, 14371), (259, 14383), (263, 14530), (264, 14563),

Gene: Journey_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Journey_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Jung_17 Start: 10919, Stop: 14569, Start Num: 2

Candidate Starts for Jung_17:

(Start: 2 @10919 has 44 MA's), (4, 10928), (6, 11015), (7, 11030), (12, 11147), (19, 11276), (21, 11318), (37, 11528), (46, 11681), (65, 11897), (73, 12047), (75, 12101), (79, 12185), (82, 12242), (87, 12413), (89, 12437), (95, 12491), (98, 12497), (126, 12809), (128, 12833), (132, 12875), (136, 12917), (139, 12950), (147, 13037), (148, 13076), (150, 13109), (151, 13160), (156, 13217), (160, 13283), (165, 13370), (168, 13397), (173, 13424), (174, 13427), (176, 13457), (178, 13484), (191, 13631), (194, 13655), (195, 13685), (197, 13709), (224, 13892), (230, 13961), (234, 13994), (245, 14153), (248, 14198), (257, 14312), (259, 14324), (263, 14471), (264, 14504),

Gene: Juniormint_17 Start: 10893, Stop: 14669, Start Num: 2

Candidate Starts for Juniormint_17:

(Start: 2 @10893 has 44 MA's), (Start: 3 @10896 has 2 MA's), (4, 10902), (6, 10989), (7, 11004), (12, 11121), (19, 11250), (21, 11292), (37, 11502), (46, 11655), (65, 11871), (73, 12021), (75, 12075), (79, 12159), (82, 12216), (89, 12411), (95, 12465), (98, 12471), (126, 12792), (128, 12816), (132, 12858), (136, 12900), (139, 12933), (145, 13005), (147, 13020), (148, 13059), (150, 13092), (151, 13143), (156, 13200), (160, 13266), (180, 13512), (183, 13533), (192, 13674), (195, 13725), (196, 13731), (198, 13755), (199, 13758), (219, 13905), (222, 13935), (234, 14094), (245, 14253), (248, 14298), (257, 14412), (259, 14424), (263, 14571), (264, 14604),

Gene: Kari_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Kari_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Kevin1_16 Start: 10145, Stop: 13234, Start Num: 9

Candidate Starts for Kevin1_16:

(Start: 9 @10145 has 42 MA's), (10, 10154), (13, 10175), (16, 10229), (31, 10496), (34, 10517), (36, 10529), (51, 10739), (54, 10757), (56, 10769), (58, 10793), (62, 10847), (64, 10880), (66, 10901), (71, 11009), (72, 11012), (76, 11087), (84, 11237), (85, 11297), (88, 11366), (91, 11402), (92, 11405), (94, 11420), (99, 11453), (113, 11549), (115, 11582), (123, 11642), (124, 11645), (134, 11726), (137, 11765), (141, 11810), (145, 11849), (147, 11864), (148, 11903), (149, 11906), (151, 11987), (159, 12104), (163, 12188), (172, 12254), (182, 12377), (191, 12476), (193, 12488), (238, 12728), (242,

12800), (254, 12944), (256, 12965), (258, 12983), (260, 13025), (262, 13133),

Gene: KilKor_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for KilKor_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: Ksquared_17 Start: 10889, Stop: 14665, Start Num: 2

Candidate Starts for Ksquared_17:

(Start: 2 @10889 has 44 MA's), (Start: 3 @10892 has 2 MA's), (4, 10898), (6, 10985), (7, 11000), (12, 11117), (19, 11246), (21, 11288), (37, 11498), (46, 11651), (65, 11867), (73, 12017), (75, 12071), (79, 12155), (82, 12212), (89, 12407), (95, 12461), (98, 12467), (126, 12788), (128, 12812), (132, 12854), (136, 12896), (139, 12929), (145, 13001), (147, 13016), (148, 13055), (150, 13088), (151, 13139), (156, 13196), (160, 13262), (180, 13508), (183, 13529), (192, 13670), (195, 13721), (196, 13727), (198, 13751), (199, 13754), (219, 13901), (222, 13931), (234, 14090), (245, 14249), (248, 14294), (257, 14408), (259, 14420), (263, 14567), (264, 14600),

Gene: Langerak_17 Start: 10857, Stop: 14627, Start Num: 2

Candidate Starts for Langerak_17:

(Start: 2 @10857 has 44 MA's), (Start: 3 @10860 has 2 MA's), (4, 10866), (6, 10953), (7, 10968), (12, 11085), (19, 11214), (21, 11256), (37, 11466), (46, 11619), (65, 11835), (73, 11985), (75, 12039), (79, 12123), (82, 12180), (86, 12318), (87, 12351), (89, 12375), (95, 12429), (98, 12435), (106, 12504), (126, 12747), (128, 12774), (132, 12816), (136, 12858), (139, 12891), (145, 12963), (147, 12978), (148, 13017), (150, 13050), (156, 13158), (160, 13224), (165, 13320), (180, 13470), (183, 13491), (192, 13632), (195, 13683), (196, 13689), (198, 13713), (199, 13716), (219, 13863), (222, 13893), (234, 14052), (245, 14211), (248, 14256), (257, 14370), (259, 14382), (263, 14529), (264, 14562),

Gene: Magsby_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Magsby_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Majeke_17 Start: 10864, Stop: 14649, Start Num: 2

Candidate Starts for Majeke_17:

(Start: 2 @10864 has 44 MA's), (Start: 3 @10867 has 2 MA's), (4, 10873), (6, 10960), (7, 10975), (12, 11092), (19, 11221), (21, 11263), (37, 11473), (40, 11530), (46, 11626), (65, 11842), (73, 11992), (75, 12046), (77, 12079), (79, 12130), (82, 12187), (87, 12358), (89, 12382), (95, 12436), (98, 12442), (106, 12508), (126, 12751), (128, 12778), (132, 12820), (136, 12862), (139, 12895), (145, 12967), (147, 12982), (148, 13021), (150, 13054), (156, 13162), (160, 13228), (165, 13324), (180, 13474), (183, 13495), (192, 13636), (195, 13687), (196, 13693), (198, 13717), (199, 13720), (219, 13867), (222, 13897), (234, 14074), (245, 14233), (248, 14278), (251, 14335), (257, 14392), (259, 14404), (263, 14551), (264, 14584),

Gene: Malithi_17 Start: 10918, Stop: 14568, Start Num: 2

Candidate Starts for Malithi_17:

(Start: 2 @10918 has 44 MA's), (4, 10927), (6, 11014), (7, 11029), (12, 11146), (19, 11275), (21, 11317), (37, 11527), (46, 11680), (65, 11896), (73, 12046), (75, 12100), (77, 12133), (79, 12184), (82, 12241), (87, 12412), (89, 12436), (95, 12490), (98, 12496), (126, 12808), (128, 12832), (132, 12874), (136, 12916), (139, 12949), (147, 13036), (148, 13075), (150, 13108), (151, 13159), (156, 13216), (160, 13282), (165, 13369), (168, 13396), (173, 13423), (174, 13426), (176, 13456), (178, 13483), (191, 13630), (194, 13654), (195, 13684), (197, 13708), (224, 13891), (230, 13960), (234, 13993), (245, 14152), (248, 14197), (257, 14311), (259, 14323), (263, 14470), (264, 14503),

Gene: Mangethe_17 Start: 10864, Stop: 14649, Start Num: 2

Candidate Starts for Mangethe_17:

(Start: 2 @10864 has 44 MA's), (Start: 3 @10867 has 2 MA's), (4, 10873), (6, 10960), (7, 10975), (12, 11092), (19, 11221), (21, 11263), (37, 11473), (40, 11530), (46, 11626), (65, 11842), (73, 11992), (75, 12046), (77, 12079), (79, 12130), (82, 12187), (87, 12358), (89, 12382), (95, 12436), (98, 12442), (106, 12508), (126, 12751), (128, 12778), (132, 12820), (136, 12862), (139, 12895), (145, 12967), (147, 12982), (148, 13021), (150, 13054), (156, 13162), (160, 13228), (165, 13324), (180, 13474), (183, 13495), (192, 13636), (195, 13687), (196, 13693), (198, 13717), (199, 13720), (219, 13867), (222, 13897), (234, 14074), (245, 14233), (248, 14278), (251, 14335), (257, 14392), (259, 14404), (263, 14551), (264, 14584),

Gene: Megiddo_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for Megiddo_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: Melville_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Melville_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: MichelleMyBell_16 Start: 10163, Stop: 13264, Start Num: 9

Candidate Starts for MichelleMyBell_16:

(Start: 9 @10163 has 42 MA's), (10, 10172), (13, 10193), (16, 10247), (21, 10361), (31, 10514), (34, 10535), (36, 10547), (51, 10757), (54, 10775), (56, 10787), (58, 10811), (62, 10865), (64, 10898), (66, 10919), (71, 11027), (72, 11030), (76, 11105), (84, 11255), (85, 11315), (88, 11384), (91, 11420), (92, 11423), (94, 11438), (99, 11471), (113, 11567), (115, 11600), (123, 11660), (124, 11663), (137, 11783), (141, 11828), (145, 11867), (147, 11882), (148, 11921), (149, 11924), (159, 12122), (172, 12269), (177, 12320), (179, 12362), (182, 12392), (191, 12491), (193, 12503), (203, 12617), (210, 12644), (233, 12710), (235, 12719), (238, 12758), (242, 12830), (249, 12914), (254, 12974), (256, 12995), (260, 13055), (262, 13163),

Gene: MooMoo_14 Start: 9011, Stop: 12727, Start Num: 1

Candidate Starts for MooMoo_14:

(Start: 1 @9011 has 9 MA's), (11, 9260), (18, 9344), (20, 9452), (24, 9551), (26, 9581), (27, 9584), (29, 9623), (32, 9638), (35, 9662), (37, 9683), (42, 9773), (43, 9785), (46, 9836), (47, 9845), (52, 9902), (59, 9971), (63, 10037), (67, 10073), (68, 10103), (69, 10118), (70, 10139), (73, 10202), (77, 10289), (80, 10361), (81, 10388), (83, 10430), (114, 10835), (124, 10985), (129, 11018), (132, 11057), (133, 11078), (135, 11081), (137, 11120), (140, 11162), (143, 11183), (144, 11189), (146, 11207), (148, 11258), (150, 11291), (152, 11351), (153, 11363), (154, 11366), (155, 11384), (157, 11402), (158, 11411), (167, 11582), (170, 11591), (171, 11594), (178, 11681), (186, 11792), (188, 11816), (191, 11846), (202, 11969), (211, 12020), (218, 12068), (221, 12086), (223, 12116), (241, 12296), (242, 12308), (243, 12311), (246, 12335), (251, 12434), (252, 12437), (260, 12533),

Gene: Nazo_16 Start: 10599, Stop: 14387, Start Num: 2

Candidate Starts for Nazo_16:

(Start: 2 @10599 has 44 MA's), (Start: 3 @10602 has 2 MA's), (4, 10608), (7, 10710), (19, 10956), (21, 10998), (37, 11208), (47, 11370), (65, 11577), (73, 11727), (75, 11781), (126, 12480), (132, 12543), (136, 12585), (139, 12618), (148, 12744), (150, 12777), (166, 13071), (176, 13143), (187, 13287), (190, 13329), (201, 13464), (209, 13518), (231, 13755), (234, 13815), (242, 13947), (251, 14076), (253, 14088), (259, 14145), (263, 14289), (264, 14322),

Gene: Necropolis_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Necropolis_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Nenae_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Nenae_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Panchino_16 Start: 10145, Stop: 13243, Start Num: 9

Candidate Starts for Panchino_16:

(Start: 9 @10145 has 42 MA's), (10, 10154), (13, 10175), (14, 10196), (16, 10229), (21, 10343), (23, 10385), (34, 10517), (36, 10529), (39, 10571), (50, 10736), (51, 10739), (54, 10757), (56, 10769), (58, 10793), (62, 10847), (64, 10880), (66, 10901), (71, 11009), (72, 11012), (74, 11042), (76, 11087), (85, 11297), (87, 11363), (88, 11366), (91, 11402), (92, 11405), (94, 11420), (99, 11453), (113, 11549), (115, 11582), (118, 11627), (123, 11642), (124, 11645), (131, 11684), (134, 11726), (137, 11765), (141, 11810), (147, 11864), (148, 11903), (149, 11906), (159, 12104), (172, 12254), (182, 12377), (191, 12476), (210, 12626), (233, 12692), (235, 12701), (238, 12740), (242, 12809), (249, 12893), (254, 12953), (256, 12974), (260, 13034), (262, 13142), (266, 13208), (267, 13223),

Gene: Parmesanjohn_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Parmesanjohn_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Phalm_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for Phalm_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: PhancyPhin_16 Start: 10169, Stop: 13267, Start Num: 9

Candidate Starts for PhancyPhin_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (193, 12512), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12833), (254, 12977), (256, 12998), (258, 13016), (260, 13058), (262, 13166), (266, 13232), (267, 13247),

Gene: Phayonce_16 Start: 10531, Stop: 14337, Start Num: 2

Candidate Starts for Phayonce_16:

(Start: 2 @10531 has 44 MA's), (Start: 3 @10534 has 2 MA's), (7, 10642), (8, 10696), (19, 10888), (21, 10930), (24, 11008), (26, 11038), (37, 11140), (40, 11197), (53, 11359), (56, 11383), (60, 11434), (65, 11509), (73, 11659), (75, 11713), (78, 11758), (82, 11854), (85, 11953), (86, 11992), (87, 12025), (93, 12073), (116, 12355), (121, 12388), (126, 12409), (132, 12478), (136, 12520), (138, 12550), (139, 12553), (148, 12679), (150, 12712), (156, 12820), (180, 13135), (192, 13297), (198, 13381), (222, 13561), (232, 13738), (234, 13768), (251, 14029), (253, 14041), (259, 14098),

Gene: Phegasus_17 Start: 10864, Stop: 14649, Start Num: 2

Candidate Starts for Phegasus_17:

(Start: 2 @10864 has 44 MA's), (Start: 3 @10867 has 2 MA's), (4, 10873), (6, 10960), (7, 10975), (12, 11092), (19, 11221), (21, 11263), (37, 11473), (40, 11530), (46, 11626), (65, 11842), (73, 11992), (75, 12046), (77, 12079), (79, 12130), (82, 12187), (87, 12358), (89, 12382), (95, 12436), (98, 12442), (106, 12508), (126, 12751), (128, 12778), (132, 12820), (136, 12862), (139, 12895), (145, 12967), (147, 12982), (148, 13021), (150, 13054), (156, 13162), (160, 13228), (165, 13324), (180, 13474), (183, 13495), (192, 13636), (195, 13687), (196, 13693), (198, 13717), (199, 13720), (219, 13867), (222, 13897), (234, 14074), (245, 14233), (248, 14278), (251, 14335), (257, 14392), (259, 14404), (263, 14551), (264, 14584),

Gene: Philonius_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Philonius_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62,

10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Phineas_17 Start: 10861, Stop: 14640, Start Num: 2

Candidate Starts for Phineas_17:

(Start: 2 @10861 has 44 MA's), (Start: 3 @10864 has 2 MA's), (4, 10870), (6, 10957), (7, 10972), (12, 11089), (19, 11218), (21, 11260), (37, 11470), (46, 11623), (65, 11839), (73, 11989), (75, 12043), (79, 12127), (82, 12184), (86, 12322), (87, 12355), (89, 12379), (95, 12433), (98, 12439), (106, 12517), (126, 12760), (128, 12787), (132, 12829), (136, 12871), (139, 12904), (145, 12976), (147, 12991), (148, 13030), (150, 13063), (156, 13171), (160, 13237), (165, 13333), (180, 13483), (183, 13504), (192, 13645), (195, 13696), (196, 13702), (198, 13726), (199, 13729), (219, 13876), (222, 13906), (234, 14065), (245, 14224), (248, 14269), (257, 14383), (259, 14395), (263, 14542), (264, 14575),

Gene: Phloss_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Phloss_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Phrann_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Phrann_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: Pipsqueaks_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Pipsqueaks_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Polkaroo_17 Start: 10889, Stop: 14659, Start Num: 2

Candidate Starts for Polkaroo_17:

(Start: 2 @10889 has 44 MA's), (Start: 3 @10892 has 2 MA's), (4, 10898), (6, 10985), (7, 11000), (12, 11117), (19, 11246), (21, 11288), (37, 11498), (40, 11555), (46, 11651), (65, 11867), (73, 12017), (75, 12071), (77, 12104), (79, 12155), (82, 12212), (87, 12383), (89, 12407), (95, 12461), (98, 12467), (106, 12536), (126, 12779), (128, 12806), (132, 12848), (136, 12890), (139, 12923), (145, 12995), (147,

13010), (148, 13049), (150, 13082), (156, 13190), (160, 13256), (165, 13352), (180, 13502), (183, 13523), (192, 13664), (195, 13715), (196, 13721), (198, 13745), (199, 13748), (219, 13895), (222, 13925), (234, 14084), (245, 14243), (248, 14288), (257, 14402), (259, 14414), (263, 14561), (264, 14594),

Gene: Purgamenstris_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Purgamenstris_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Purky_16 Start: 10549, Stop: 14229, Start Num: 2

Candidate Starts for Purky_16:

(Start: 2 @10549 has 44 MA's), (Start: 3 @10552 has 2 MA's), (4, 10558), (7, 10660), (8, 10714), (21, 10945), (22, 10987), (26, 11053), (37, 11155), (41, 11233), (44, 11284), (48, 11326), (49, 11362), (70, 11611), (75, 11728), (77, 11761), (96, 12115), (100, 12145), (101, 12151), (107, 12211), (114, 12301), (116, 12403), (125, 12463), (128, 12493), (132, 12535), (136, 12577), (139, 12610), (147, 12697), (148, 12736), (150, 12769), (156, 12877), (163, 13027), (168, 13054), (173, 13081), (174, 13084), (176, 13114), (191, 13288), (194, 13312), (195, 13342), (197, 13366), (224, 13549), (230, 13618), (242, 13786), (245, 13813), (248, 13858), (251, 13915), (253, 13927), (259, 13984), (264, 14164),

Gene: Pygmy_16 Start: 10599, Stop: 14366, Start Num: 3

Candidate Starts for Pygmy_16:

(Start: 2 @10596 has 44 MA's), (Start: 3 @10599 has 2 MA's), (4, 10605), (6, 10692), (7, 10707), (12, 10824), (19, 10953), (21, 10995), (37, 11205), (46, 11358), (73, 11724), (75, 11778), (79, 11862), (82, 11919), (87, 12090), (89, 12114), (95, 12168), (98, 12174), (106, 12243), (126, 12486), (128, 12513), (132, 12555), (136, 12597), (139, 12630), (145, 12702), (147, 12717), (148, 12756), (150, 12789), (156, 12897), (160, 12963), (165, 13059), (180, 13209), (183, 13230), (192, 13371), (195, 13422), (196, 13428), (198, 13452), (199, 13455), (219, 13602), (222, 13632), (234, 13791), (245, 13950), (248, 13995), (257, 14109), (259, 14121), (263, 14268), (264, 14301),

Gene: QueenHazel_16 Start: 10779, Stop: 14600, Start Num: 1

Candidate Starts for QueenHazel_16:

(Start: 1 @10779 has 9 MA's), (5, 10854), (18, 11112), (26, 11334), (27, 11337), (28, 11349), (32, 11391), (35, 11415), (40, 11493), (48, 11607), (49, 11643), (67, 11826), (70, 11892), (73, 11955), (75, 12009), (77, 12042), (81, 12141), (90, 12348), (104, 12480), (110, 12519), (111, 12531), (114, 12612), (117, 12726), (126, 12765), (132, 12819), (133, 12840), (135, 12843), (137, 12882), (142, 12930), (143, 12945), (144, 12951), (147, 12981), (148, 13020), (150, 13053), (154, 13128), (159, 13221), (161, 13245), (177, 13410), (182, 13482), (184, 13509), (187, 13536), (191, 13581), (207, 13740), (213, 13779), (214, 13803), (215, 13809), (216, 13815), (220, 13845), (225, 13923), (226, 13926), (227, 13941), (228, 13956), (236, 14073), (241, 14172), (242, 14184), (247, 14241), (250, 14301), (252, 14313), (261, 14436), (265, 14556), (268, 14592),

Gene: Raymond7_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Raymond7_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91,

11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: Rebel_16 Start: 10169, Stop: 13267, Start Num: 9

Candidate Starts for Rebel_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (21, 10367), (23, 10409), (34, 10541), (36, 10553), (39, 10595), (50, 10760), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (85, 11321), (87, 11387), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12833), (249, 12917), (254, 12977), (256, 12998), (260, 13058), (262, 13166), (266, 13232), (267, 13247),

Gene: Redi_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Redi_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Rubeelu_16 Start: 10144, Stop: 13233, Start Num: 9

Candidate Starts for Rubeelu_16:

(Start: 9 @10144 has 42 MA's), (10, 10153), (13, 10174), (16, 10228), (31, 10495), (34, 10516), (36, 10528), (51, 10738), (54, 10756), (56, 10768), (58, 10792), (62, 10846), (64, 10879), (66, 10900), (71, 11008), (72, 11011), (76, 11086), (84, 11236), (85, 11296), (88, 11365), (91, 11401), (92, 11404), (94, 11419), (99, 11452), (113, 11548), (115, 11581), (123, 11641), (124, 11644), (134, 11725), (137, 11764), (141, 11809), (145, 11848), (147, 11863), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (163, 12187), (172, 12253), (182, 12376), (191, 12475), (193, 12487), (238, 12727), (242, 12799), (254, 12943), (256, 12964), (258, 12982), (260, 13024), (262, 13132),

Gene: Sbash_15 Start: 10276, Stop: 13941, Start Num: 1

Candidate Starts for Sbash_15:

(Start: 1 @10276 has 9 MA's), (5, 10351), (17, 10600), (24, 10816), (25, 10831), (26, 10846), (27, 10849), (28, 10861), (32, 10903), (35, 10927), (37, 10948), (48, 11119), (52, 11167), (55, 11182), (57, 11215), (70, 11404), (71, 11446), (75, 11521), (77, 11554), (81, 11653), (97, 11908), (100, 11938), (101, 11944), (103, 11962), (108, 12001), (109, 12004), (114, 12094), (119, 12214), (122, 12223), (126, 12241), (127, 12247), (130, 12268), (132, 12298), (133, 12319), (135, 12322), (137, 12361), (144, 12430), (147, 12460), (148, 12499), (150, 12532), (154, 12607), (186, 13006), (191, 13060), (205, 13198), (234, 13405), (240, 13501), (241, 13516), (242, 13528), (246, 13555), (252, 13657), (260, 13753),

Gene: Schnauzer_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Schnauzer_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62,

10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Scitech_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Scitech_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Shipwreck_16 Start: 10574, Stop: 14344, Start Num: 2

Candidate Starts for Shipwreck_16:

(Start: 2 @10574 has 44 MA's), (Start: 3 @10577 has 2 MA's), (4, 10583), (6, 10670), (7, 10685), (12, 10802), (19, 10931), (21, 10973), (37, 11183), (46, 11336), (65, 11552), (73, 11702), (75, 11756), (79, 11840), (82, 11897), (87, 12068), (89, 12092), (95, 12146), (98, 12152), (126, 12464), (128, 12491), (132, 12533), (136, 12575), (139, 12608), (145, 12680), (147, 12695), (148, 12734), (150, 12767), (156, 12875), (160, 12941), (165, 13037), (180, 13187), (183, 13208), (192, 13349), (195, 13400), (196, 13406), (198, 13430), (199, 13433), (219, 13580), (222, 13610), (234, 13769), (245, 13928), (248, 13973), (257, 14087), (259, 14099), (263, 14246), (264, 14279),

Gene: ShrimpFriedEgg_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for ShrimpFriedEgg_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (203, 12626), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (239, 12779), (242, 12836), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235),

Gene: Shweta_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Shweta_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: Silvafighter_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Silvafighter_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551),

(115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Silvy_16 Start: 10124, Stop: 13267, Start Num: 9

Candidate Starts for Silvy_16:

(Start: 9 @10124 has 42 MA's), (10, 10133), (13, 10154), (14, 10175), (16, 10208), (30, 10472), (33, 10487), (34, 10496), (38, 10541), (39, 10550), (50, 10715), (56, 10748), (58, 10772), (61, 10817), (62, 10826), (64, 10859), (66, 10880), (91, 11381), (92, 11384), (102, 11453), (112, 11543), (113, 11552), (115, 11585), (124, 11645), (128, 11663), (131, 11684), (134, 11726), (137, 11765), (140, 11807), (145, 11849), (148, 11903), (149, 11906), (151, 11987), (159, 12104), (172, 12257), (191, 12479), (206, 12617), (208, 12635), (212, 12656), (235, 12719), (238, 12764), (242, 12833), (244, 12854), (246, 12863), (256, 12998), (258, 13016), (260, 13058), (262, 13166),

Gene: SkinnyPete_16 Start: 10169, Stop: 13267, Start Num: 9

Candidate Starts for SkinnyPete_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (21, 10367), (23, 10409), (34, 10541), (36, 10553), (39, 10595), (50, 10760), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (85, 11321), (87, 11387), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12833), (249, 12917), (254, 12977), (256, 12998), (260, 13058), (262, 13166), (266, 13232), (267, 13247),

Gene: Smurph_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Smurph_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Snekmaggedon_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for Snekmaggedon_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: Sonah_17 Start: 10866, Stop: 14633, Start Num: 2

Candidate Starts for Sonah_17:

(Start: 2 @10866 has 44 MA's), (Start: 3 @10869 has 2 MA's), (4, 10875), (6, 10962), (7, 10977), (12, 11094), (19, 11223), (21, 11265), (26, 11373), (37, 11475), (40, 11532), (46, 11628), (65, 11844), (73, 11994), (75, 12048), (77, 12081), (79, 12132), (87, 12360), (95, 12438), (98, 12444), (106, 12510), (126, 12753), (128, 12780), (132, 12822), (136, 12864), (139, 12897), (145, 12969), (147, 12984),

(148, 13023), (150, 13056), (156, 13164), (160, 13230), (165, 13326), (180, 13476), (183, 13497), (192, 13638), (195, 13689), (196, 13695), (198, 13719), (199, 13722), (219, 13869), (222, 13899), (234, 14058), (245, 14217), (248, 14262), (257, 14376), (259, 14388), (263, 14535), (264, 14568),

Gene: SpongeBob_16 Start: 10169, Stop: 13270, Start Num: 9

Candidate Starts for SpongeBob_16:

(Start: 9 @10169 has 42 MA's), (10, 10178), (13, 10199), (14, 10220), (16, 10253), (23, 10409), (34, 10541), (36, 10553), (51, 10763), (54, 10781), (56, 10793), (58, 10817), (62, 10871), (64, 10904), (66, 10925), (71, 11033), (72, 11036), (74, 11066), (76, 11111), (84, 11261), (85, 11321), (88, 11390), (91, 11426), (92, 11429), (94, 11444), (99, 11477), (113, 11573), (115, 11606), (118, 11651), (123, 11666), (124, 11669), (131, 11708), (134, 11750), (137, 11789), (141, 11834), (147, 11888), (148, 11927), (149, 11930), (159, 12128), (172, 12278), (182, 12401), (191, 12500), (210, 12650), (233, 12716), (235, 12725), (238, 12764), (242, 12836), (249, 12920), (254, 12980), (256, 13001), (260, 13061), (262, 13169), (266, 13235), (267, 13250),

Gene: StevieRay_17 Start: 10864, Stop: 14634, Start Num: 2

Candidate Starts for StevieRay_17:

(Start: 2 @10864 has 44 MA's), (Start: 3 @10867 has 2 MA's), (4, 10873), (6, 10960), (7, 10975), (12, 11092), (19, 11221), (21, 11263), (37, 11473), (46, 11626), (65, 11842), (73, 11992), (75, 12046), (79, 12130), (82, 12187), (86, 12325), (87, 12358), (89, 12382), (95, 12436), (98, 12442), (106, 12511), (126, 12754), (128, 12781), (132, 12823), (136, 12865), (139, 12898), (145, 12970), (147, 12985), (148, 13024), (150, 13057), (156, 13165), (160, 13231), (165, 13327), (180, 13477), (183, 13498), (192, 13639), (195, 13690), (196, 13696), (198, 13720), (199, 13723), (219, 13870), (222, 13900), (234, 14059), (245, 14218), (248, 14263), (257, 14377), (259, 14389), (263, 14536), (264, 14569),

Gene: StressBall_17 Start: 10881, Stop: 14531, Start Num: 2

Candidate Starts for StressBall_17:

(Start: 2 @10881 has 44 MA's), (4, 10890), (6, 10977), (7, 10992), (12, 11109), (19, 11238), (21, 11280), (37, 11490), (46, 11643), (65, 11859), (73, 12009), (75, 12063), (77, 12096), (79, 12147), (82, 12204), (87, 12375), (89, 12399), (95, 12453), (98, 12459), (126, 12771), (128, 12795), (132, 12837), (136, 12879), (139, 12912), (147, 12999), (148, 13038), (150, 13071), (151, 13122), (156, 13179), (160, 13245), (165, 13332), (168, 13359), (173, 13386), (174, 13389), (176, 13419), (178, 13446), (191, 13593), (194, 13617), (195, 13647), (197, 13671), (224, 13854), (230, 13923), (234, 13956), (245, 14115), (248, 14160), (257, 14274), (259, 14286), (263, 14433), (264, 14466),

Gene: Stuck_15 Start: 10294, Stop: 13941, Start Num: 1

Candidate Starts for Stuck_15:

(Start: 1 @10294 has 9 MA's), (17, 10618), (24, 10834), (25, 10849), (26, 10864), (27, 10867), (28, 10879), (32, 10921), (35, 10945), (37, 10966), (48, 11137), (52, 11185), (55, 11200), (57, 11233), (70, 11422), (71, 11464), (75, 11539), (77, 11572), (81, 11671), (97, 11926), (101, 11962), (103, 11980), (108, 12019), (109, 12022), (114, 12112), (119, 12232), (122, 12241), (127, 12265), (130, 12286), (132, 12316), (133, 12337), (135, 12340), (137, 12379), (144, 12448), (147, 12478), (148, 12517), (150, 12550), (154, 12625), (155, 12643), (189, 13051), (191, 13072), (212, 13249), (217, 13285), (234, 13402), (237, 13450), (240, 13498), (241, 13513), (242, 13525), (246, 13552), (252, 13654),

Gene: Tapioca_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Tapioca_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853),

(246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Techage_17 Start: 10867, Stop: 14634, Start Num: 2

Candidate Starts for Techage_17:

(Start: 2 @10867 has 44 MA's), (Start: 3 @10870 has 2 MA's), (4, 10876), (6, 10963), (7, 10978), (12, 11095), (19, 11224), (21, 11266), (26, 11374), (37, 11476), (40, 11533), (46, 11629), (65, 11845), (73, 11995), (75, 12049), (77, 12082), (79, 12133), (87, 12361), (95, 12439), (98, 12445), (106, 12511), (126, 12754), (128, 12781), (132, 12823), (136, 12865), (139, 12898), (145, 12970), (147, 12985), (148, 13024), (150, 13057), (156, 13165), (160, 13231), (165, 13327), (180, 13477), (183, 13498), (192, 13639), (195, 13690), (196, 13696), (198, 13720), (199, 13723), (219, 13870), (222, 13900), (234, 14059), (245, 14218), (248, 14263), (257, 14377), (259, 14389), (263, 14536), (264, 14569),

Gene: Thespis_17 Start: 10876, Stop: 14643, Start Num: 2

Candidate Starts for Thespis_17:

(Start: 2 @10876 has 44 MA's), (Start: 3 @10879 has 2 MA's), (4, 10885), (6, 10972), (7, 10987), (12, 11104), (19, 11233), (21, 11275), (37, 11485), (46, 11638), (65, 11854), (73, 12004), (75, 12058), (79, 12142), (82, 12199), (87, 12370), (89, 12394), (95, 12448), (98, 12454), (126, 12766), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: ThulaThula_16 Start: 10537, Stop: 14343, Start Num: 2

Candidate Starts for ThulaThula_16:

(Start: 2 @10537 has 44 MA's), (Start: 3 @10540 has 2 MA's), (7, 10648), (8, 10702), (19, 10894), (21, 10936), (24, 11014), (26, 11044), (37, 11146), (40, 11203), (53, 11365), (56, 11389), (60, 11440), (65, 11515), (73, 11665), (75, 11719), (82, 11860), (85, 11959), (86, 11998), (87, 12031), (93, 12079), (116, 12361), (121, 12394), (126, 12415), (132, 12484), (136, 12526), (138, 12556), (139, 12559), (148, 12685), (150, 12718), (156, 12826), (180, 13141), (192, 13303), (198, 13387), (222, 13567), (232, 13744), (234, 13774), (251, 14035), (253, 14047), (259, 14104),

Gene: Tortellini_16 Start: 10557, Stop: 14246, Start Num: 2

Candidate Starts for Tortellini_16:

(Start: 2 @10557 has 44 MA's), (Start: 3 @10560 has 2 MA's), (4, 10566), (7, 10668), (15, 10818), (21, 10956), (24, 11034), (37, 11166), (45, 11310), (46, 11319), (49, 11373), (75, 11739), (77, 11772), (83, 11913), (96, 12126), (100, 12156), (103, 12180), (105, 12204), (107, 12222), (114, 12312), (116, 12414), (125, 12474), (128, 12507), (132, 12549), (135, 12573), (136, 12591), (139, 12624), (147, 12711), (148, 12750), (150, 12783), (156, 12891), (163, 13041), (168, 13077), (173, 13104), (178, 13164), (181, 13206), (182, 13212), (191, 13311), (194, 13335), (195, 13365), (197, 13389), (219, 13506), (224, 13563), (230, 13632), (234, 13668), (237, 13716), (245, 13827), (248, 13872), (251, 13929), (255, 13965), (259, 13998), (264, 14181),

Gene: Tortoise12_16 Start: 10123, Stop: 13266, Start Num: 9

Candidate Starts for Tortoise12_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12256), (191, 12478), (206, 12616), (208, 12634), (212, 12655), (235, 12718), (238, 12763), (242, 12832), (244, 12853), (246, 12862), (256, 12997), (258, 13015), (260, 13057), (262, 13165),

Gene: Venti_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Venti_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Vidya_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Vidya_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),

Gene: Willsammy_17 Start: 10879, Stop: 14535, Start Num: 2

Candidate Starts for Willsammy_17:

(Start: 2 @10879 has 44 MA's), (Start: 3 @10882 has 2 MA's), (4, 10888), (6, 10975), (7, 10990), (12, 11107), (19, 11236), (21, 11278), (37, 11488), (46, 11641), (65, 11857), (73, 12007), (75, 12061), (77, 12094), (79, 12145), (82, 12202), (87, 12373), (89, 12397), (95, 12451), (98, 12457), (126, 12778), (128, 12802), (132, 12844), (136, 12886), (139, 12919), (147, 13006), (148, 13045), (150, 13078), (151, 13129), (156, 13186), (160, 13252), (165, 13339), (168, 13366), (173, 13393), (174, 13396), (176, 13426), (178, 13453), (191, 13600), (194, 13624), (195, 13654), (197, 13678), (224, 13861), (230, 13930), (234, 13960), (245, 14119), (248, 14164), (257, 14278), (259, 14290), (263, 14437), (264, 14470),

Gene: Xavia_17 Start: 10877, Stop: 14647, Start Num: 2

Candidate Starts for Xavia_17:

(Start: 2 @10877 has 44 MA's), (Start: 3 @10880 has 2 MA's), (4, 10886), (6, 10973), (7, 10988), (12, 11105), (19, 11234), (21, 11276), (37, 11486), (46, 11639), (65, 11855), (73, 12005), (75, 12059), (77, 12092), (79, 12143), (82, 12200), (87, 12371), (89, 12395), (95, 12449), (98, 12455), (126, 12767), (128, 12794), (132, 12836), (136, 12878), (139, 12911), (145, 12983), (147, 12998), (148, 13037), (150, 13070), (156, 13178), (160, 13244), (180, 13490), (183, 13511), (192, 13652), (195, 13703), (196, 13709), (198, 13733), (199, 13736), (219, 13883), (222, 13913), (234, 14072), (242, 14204), (245, 14231), (248, 14276), (257, 14390), (259, 14402), (263, 14549), (264, 14582),

Gene: Xeno_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Xeno_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Xerxes_16 Start: 10123, Stop: 13263, Start Num: 9

Candidate Starts for Xerxes_16:

(Start: 9 @10123 has 42 MA's), (10, 10132), (13, 10153), (14, 10174), (16, 10207), (30, 10471), (33, 10486), (34, 10495), (38, 10540), (39, 10549), (50, 10714), (56, 10747), (58, 10771), (61, 10816), (62, 10825), (64, 10858), (66, 10879), (91, 11380), (92, 11383), (102, 11452), (112, 11542), (113, 11551), (115, 11584), (124, 11644), (128, 11662), (131, 11683), (134, 11725), (137, 11764), (140, 11806), (145, 11848), (148, 11902), (149, 11905), (151, 11986), (159, 12103), (172, 12253), (191, 12475), (206, 12613), (208, 12631), (212, 12652), (235, 12715), (238, 12760), (242, 12829), (244, 12850), (246, 12859), (256, 12994), (258, 13012), (260, 13054), (262, 13162),

Gene: Xula_15 Start: 10408, Stop: 14232, Start Num: 1

Candidate Starts for Xula_15:

(Start: 1 @10408 has 9 MA's), (5, 10483), (18, 10741), (26, 10963), (27, 10966), (28, 10978), (32, 11020), (35, 11044), (40, 11122), (48, 11236), (49, 11272), (67, 11455), (70, 11521), (73, 11584), (75, 11638), (77, 11671), (81, 11770), (90, 11977), (104, 12109), (110, 12148), (111, 12160), (114, 12241), (117, 12355), (126, 12394), (132, 12448), (133, 12469), (135, 12472), (137, 12511), (142, 12559), (143, 12574), (144, 12580), (147, 12610), (148, 12649), (150, 12682), (154, 12757), (159, 12850), (161, 12874), (177, 13039), (182, 13111), (184, 13138), (191, 13210), (207, 13369), (213, 13408), (214, 13432), (215, 13438), (216, 13444), (220, 13477), (225, 13555), (226, 13558), (227, 13573), (228, 13588), (236, 13705), (241, 13804), (242, 13816), (247, 13873), (250, 13933), (252, 13945), (261, 14068), (265, 14188), (268, 14224),

Gene: Zilizebeth_17 Start: 10873, Stop: 14643, Start Num: 2

Candidate Starts for Zilizebeth_17:

(Start: 2 @10873 has 44 MA's), (Start: 3 @10876 has 2 MA's), (4, 10882), (6, 10969), (7, 10984), (12, 11101), (19, 11230), (21, 11272), (37, 11482), (46, 11635), (65, 11851), (73, 12001), (75, 12055), (79, 12139), (82, 12196), (86, 12334), (87, 12367), (89, 12391), (95, 12445), (98, 12451), (106, 12520), (126, 12763), (128, 12790), (132, 12832), (136, 12874), (139, 12907), (145, 12979), (147, 12994), (148, 13033), (150, 13066), (156, 13174), (160, 13240), (165, 13336), (180, 13486), (183, 13507), (192, 13648), (195, 13699), (196, 13705), (198, 13729), (199, 13732), (219, 13879), (222, 13909), (234, 14068), (245, 14227), (248, 14272), (257, 14386), (259, 14398), (263, 14545), (264, 14578),