

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 193820 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193820 has 132 members, 14 are drafts.

Phages represented in each track:

- Track 1 : KingCyrus_33
- Track 2 : EvilGenius_33
- Track 3 : ChipMunk_33
- Track 4 : Vanisoa_30
- Track 5 : Arissanae_31
- Track 6 : MalagasyRose_27
- Track 7 : Imvubu_24
- Track 8 : Indlovu_28
- Track 9 : Hashim76_34
- Track 10 : Zenteno07_34
- Track 11 : Saguaro_31
- Track 12 : Thonko_29
- Track 13 : PenguinLover67_32
- Track 14 : CRB2_33
- Track 15 : Knocker_32
- Track 16 : Quesadilla_31
- Track 17 : Squirty_19
- Track 18 : Mdavu_23, Enkosi_23, Biglebops_23, Amelie_23, Nutello_23, SgtBeansprout_23, LilPharaoh_23, Torres_23
- Track 19 : McMater_27, Peanam_27, Niklas_27, Richo_27, Dartin_27
- Track 20 : TingHuaYa_27
- Track 21 : Validus_27
- Track 22 : Curiosium_28
- Track 23 : Shaobing_27
- Track 24 : Nikao_23
- Track 25 : LastHope_27
- Track 26 : ZoeJ_23
- Track 27 : Findley_23
- Track 28 : Strobilo_23
- Track 29 : DismalStressor_23, DismalFunk_23, Marcoliusprime_23
- Track 30 : Mufasa_23, BoostSeason_23
- Track 31 : Milly_23
- Track 32 : TM4_23
- Track 33 : MacnCheese_27
- Track 34 : TBond007_26, Pixie_26
- Track 35 : Pharb_26
- Track 36 : Keshu_26

- Track 37 : TribbleTrouble_25
- Track 38 : Hurricane_26
- Track 39 : ShedlockHolmes_26
- Track 40 : MissDaisy_28
- Track 41 : Slarp_28, Chancellor_28, Cheetobro_28
- Track 42 : Wintermute_28, Fionnbharth_28, JF1_28, Y2_28, Malthus_29, Y10_28
- Track 43 : Mitti_28
- Track 44 : Patt_28
- Track 45 : OmniCritical_28
- Track 46 : Reptar3000_28
- Track 47 : Phrank_26, Bryler_26, Cain_26
- Track 48 : Ekdilam_24
- Track 49 : Krueger_26
- Track 50 : Syra333_26
- Track 51 : DARTH_26
- Track 52 : Sunflower1121_25
- Track 53 : TClif_26
- Track 54 : Ximenita_27
- Track 55 : Yuna_28
- Track 56 : Amgine_25
- Track 57 : Tierra_26
- Track 58 : PhelpsODU_26, Unicorn_26
- Track 59 : Shadow1_25
- Track 60 : Hammy_26
- Track 61 : Ellie_24
- Track 62 : Fefferhead_26
- Track 63 : Amohnition_26
- Track 64 : MiniLon_21, MiniMac_21, Lolly9_21
- Track 65 : Samty_21, Bellis_21, Finnry_21, Moostard_21
- Track 66 : KirDoubleO7_19
- Track 67 : Lumos_21, Nicholas_21, Snenia_21, Jubie_21, Jobypre_21, Kingsolomon_21, Clautastrophe_21, MsGreen_21
- Track 68 : DuncansLeg_21
- Track 69 : LiyuLake_21, BourbonZero_20
- Track 70 : Whirlwind_22, Krypton555_21
- Track 71 : Ellson_21
- Track 72 : Panchino_20, SkinnyPete_20
- Track 73 : Phloss_20
- Track 74 : Shweta_20
- Track 75 : Andies_20
- Track 76 : Scitech_20
- Track 77 : Xeno_20
- Track 78 : Fulbright_20
- Track 79 : StressBall_21, Glaske_21, KilKor_21, Phalm_21, Megiddo_21, CactusJack_21
- Track 80 : Dynamo_21, Willsammy_21
- Track 81 : Phineas_21
- Track 82 : Bipper_27, Cracklewink_27
- Track 83 : AuntGwenStacy_27, Typha_27
- Track 84 : Hilltopfarm_27

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

The start number called the most often in the published annotations is 24, it was called in 51 of the 118 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amelie_23, Amgine_25, Amohnition_26, Binglebops_23, BoostSeason_23, Bryler_26, Cain_26, Curiosium_28, DarthP_26, Dartin_27, DismalFunk_23, DismalStressor_23, Ekdilam_24, Ellie_24, Enkosi_23, Fefferhead_26, Findley_23, Hammy_26, Hurricane_26, Keshu_26, Krueger_26, LilPharaoh_23, MacnCheese_27, Marcoliusprime_23, McMater_27, Mdavu_23, Milly_23, Mufasa_23, Nikao_23, Niklas_27, Nutello_23, Peanam_27, Pharb_26, PhelpsODU_26, Phrank_26, Pixie_26, Richo_27, SgtBeansprout_23, Shadow1_25, Shaobing_27, ShedlockHolmes_26, Strobilo_23, Sunflower1121_25, Syra333_26, TBond007_26, TClif_26, TM4_23, Tierra_26, Torres_23, TribbleTrouble_25, Unicorn_26, Validus_27, Ximenita_27, Yuna_28, ZoeJ_23,

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

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

- Andies_20, Arissanae_31, AuntGwenStacy_27, Bellis_21, Bipper_27, BourbonZero_20, CRB2_33, CactusJack_21, Chancellor_28, Cheetobro_28, ChipMunk_33, Clautastrophe_21, Cracklewink_27, DuncansLeg_21, Dynamo_21, Ellson_21, EvilGenius_33, Finnry_21, Fionnbharth_28, Fulbright_20, Glaske_21, Hashim76_34, Hilltopfarm_27, Imvubu_24, Indlovu_28, JF1_28, Jobypre_21, Jubie_21, KilKor_21, KingCyrus_33, Kingsolomon_21, KirDoubleO7_19, Knocker_32, Krypton555_21, LastHope_27, LiyuLake_21, Lolly9_21, Lumos_21, MalagasyRose_27, Malthus_29, Megiddo_21, MiniLon_21, MiniMac_21, MissDaisy_28, Mitti_28, Moostard_21, MsGreen_21, Nicholas_21, OmniCritical_28, Panchino_20, Patt_28, PenguinLover67_32, Phalm_21, Phineas_21, Phloss_20, Quesadilla_31, Reptar3000_28, Saguaro_31, Samty_21, Scitech_20, Shweta_20, SkinnyPete_20, Slarp_28, Snenia_21, Squirty_19, StressBall_21, Thonko_29, TingHuaYa_27, Typha_27, Vanisoa_30, Whirlwind_22, Willsammy_21, Wintermute_28, Xen0_20, Y10_28, Y2_28, Zenteno07_34,

Summary by start number:

Start 1:

- Found in 9 of 132 (6.8%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Squirty_19 (F3),

Start 2:

- Found in 7 of 132 (5.3%) of genes in pham
- Manual Annotations of this start: 7 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CactusJack_21 (P1), Glaske_21 (P1), KilKor_21 (P1), Megiddo_21 (P1), Phalm_21 (P1), Phineas_21 (P1), StressBall_21 (P1),

Start 3:

- Found in 10 of 132 (7.6%) of genes in pham
- Manual Annotations of this start: 9 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Andies_20 (N), Dynamo_21 (P1), Fulbright_20 (N), Panchino_20 (N), Phloss_20 (N), Scitech_20 (N), Shweta_20 (N), SkinnyPete_20 (N), Willsammy_21 (P1), Xeno_20 (N),

Start 10:

- Found in 5 of 132 (3.8%) of genes in pham
- Manual Annotations of this start: 4 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_27 (Y), Bipper_27 (Y), Cracklewink_27 (Y), Hilltopfarm_27 (Y), Typha_27 (Y),

Start 14:

- Found in 3 of 132 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChipMunk_33 (A2), EvilGenius_33 (A2), KingCyrus_33 (A2),

Start 18:

- Found in 22 of 132 (16.7%) of genes in pham
- Manual Annotations of this start: 16 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bellis_21 (L3), BourbonZero_20 (L3), Clautastrophe_21 (L3), DuncansLeg_21 (L3), Ellson_21 (L3), Finnry_21 (L3), Jobypre_21 (L3), Jubie_21 (L3), Kingsolomon_21 (L3), KirDoubleO7_19 (L3), Krypton555_21 (L3), LiyuLake_21 (L3), Lolly9_21 (L3), Lumos_21 (L3), MiniLon_21 (L3), MiniMac_21 (L3), Moostard_21 (L3), MsGreen_21 (L3), Nicholas_21 (L3), Samty_21 (L3), Snenia_21 (L3), Whirlwind_22 (L3),

Start 19:

- Found in 10 of 132 (7.6%) of genes in pham
- Manual Annotations of this start: 1 of 118
- Called 10.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_27 (AG),

Start 23:

- Found in 2 of 132 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CRB2_33 (B9), PenguinLover67_32 (B9),

Start 24:

- Found in 55 of 132 (41.7%) of genes in pham
- Manual Annotations of this start: 51 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amelie_23 (K1), Amgine_25 (K6), Amohnition_26 (K6), Biglebops_23 (K1), BoostSeason_23 (K2), Bryler_26 (K6), Cain_26 (K6), Curiosium_28 (K1), DarthP_26 (K6), Dartin_27 (K1), DismalFunk_23

(K2), DismalStressor_23 (K2), Ekdilam_24 (K6), Ellie_24 (K6), Enkosi_23 (K1), Fefferhead_26 (K6), Findley_23 (K2), Hammy_26 (K6), Hurricane_26 (K3), Keshu_26 (K3), Krueger_26 (K6), LilPharaoh_23 (K1), MacnCheese_27 (K3), Marcoliusprime_23 (K2), McMater_27 (K1), Mdavu_23 (K1), Milly_23 (K2), Mufasa_23 (K2), Nikao_23 (K1), Niklas_27 (K1), Nutello_23 (K1), Peanam_27 (K1), Pharb_26 (K3), PhelpsODU_26 (K6), Phrank_26 (K6), Pixie_26 (K3), Richo_27 (K1), SgtBeansprout_23 (K1), Shadow1_25 (K6), Shaobing_27 (K1), ShedlockHolmes_26 (K3), Strobilo_23 (K2), Sunflower1121_25 (K6), Syra333_26 (K6), TBond007_26 (K3), TClif_26 (K6), TM4_23 (K2), Tierra_26 (K6), Torres_23 (K1), TribbleTrouble_25 (K3), Unicorn_26 (K6), Validus_27 (K1), Ximenita_27 (K6), Yuna_28 (K6), ZoeJ_23 (K2),

Start 25:

- Found in 3 of 132 (2.3%) of genes in pham
- Manual Annotations of this start: 3 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlovu_28 (B11), Quesadilla_31 (B9), Saguaro_31 (B7),

Start 27:

- Found in 5 of 132 (3.8%) of genes in pham
- Manual Annotations of this start: 4 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hashim76_34 (B13), Imvubu_24 (B10), Knocker_32 (B9), Thonko_29 (B8), Zenteno07_34 (B13),

Start 47:

- Found in 16 of 132 (12.1%) of genes in pham
- Manual Annotations of this start: 15 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chancellor_28 (K4), Cheetobro_28 (K4), Fionnbharth_28 (K4), JF1_28 (K4), LastHope_27 (K1), Malthus_29 (K4), MissDaisy_28 (K4), Mitti_28 (K4), OmniCritical_28 (K4), Patt_28 (K4), Reptar3000_28 (K4), Slarp_28 (K4), TingHuaYa_27 (K1), Wintermute_28 (K4), Y10_28 (K4), Y2_28 (K4),

Start 57:

- Found in 2 of 132 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 118
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arissanæ_31 (A9), Vanisoa_30 (A9),

Summary by clusters:

There are 19 clusters represented in this pham: P1, AG, B7, B11, F3, N, K3, K2, K1, A9, B13, L3, B10, K4, Y, A2, B8, B9, K6,

Info for manual annotations of cluster A2:

- Start number 14 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A9:

- Start number 57 was manually annotated 2 times for cluster A9.

Info for manual annotations of cluster AG:

- Start number 19 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster B10:

- Start number 27 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 25 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:

- Start number 27 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B7:

- Start number 25 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 27 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 23 was manually annotated 2 times for cluster B9.
- Start number 25 was manually annotated 1 time for cluster B9.
- Start number 27 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster F3:

- Start number 1 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster K1:

- Start number 24 was manually annotated 13 times for cluster K1.
- Start number 47 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:

- Start number 24 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 24 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 47 was manually annotated 14 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 24 was manually annotated 20 times for cluster K6.

Info for manual annotations of cluster L3:

- Start number 18 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster N:

- Start number 3 was manually annotated 7 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 2 was manually annotated 7 times for cluster P1.
- Start number 3 was manually annotated 2 times for cluster P1.

Info for manual annotations of cluster Y:

- Start number 10 was manually annotated 4 times for cluster Y.

Gene Information:

Gene: Amelie_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Amelie_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: Amgine_25 Start: 20975, Stop: 23359, Start Num: 24

Candidate Starts for Amgine_25:

(Start: 24 @20975 has 51 MA's), (32, 21005), (35, 21023), (59, 21107), (110, 21281), (140, 21413), (159, 21503), (169, 21545), (180, 21596), (196, 21638), (197, 21641), (208, 21698), (216, 21722), (219, 21728), (227, 21767), (239, 21824), (261, 21920), (285, 22037), (304, 22106), (315, 22145), (318, 22163), (321, 22175), (346, 22319), (375, 22454), (376, 22457), (377, 22460), (387, 22499), (400, 22553), (428, 22694), (429, 22700), (433, 22715), (434, 22727), (439, 22757), (450, 22844), (453, 22850), (484, 23000), (493, 23063), (501, 23090), (504, 23099), (541, 23201), (548, 23222), (549, 23225), (577, 23333),

Gene: Amohnition_26 Start: 21373, Stop: 23781, Start Num: 24

Candidate Starts for Amohnition_26:

(Start: 24 @21373 has 51 MA's), (28, 21382), (35, 21421), (66, 21544), (91, 21601), (94, 21613), (110, 21679), (113, 21688), (126, 21733), (140, 21811), (159, 21901), (161, 21907), (169, 21943), (180, 21994), (196, 22036), (197, 22039), (199, 22060), (216, 22120), (219, 22126), (261, 22318), (285, 22435), (304, 22504), (315, 22543), (318, 22561), (321, 22573), (346, 22717), (375, 22852), (377, 22858), (387, 22897), (400, 22951), (408, 23005), (428, 23092), (429, 23098), (433, 23113), (434, 23125), (439, 23155), (450, 23242), (453, 23248), (484, 23398), (491, 23452), (546, 23611), (548, 23626), (549, 23629), (577, 23755),

Gene: Andies_20 Start: 17553, Stop: 20192, Start Num: 3

Candidate Starts for Andies_20:

(Start: 1 @17541 has 1 MA's), (Start: 3 @17553 has 9 MA's), (6, 17565), (8, 17577), (12, 17631), (Start: 19 @17700 has 1 MA's), (20, 17703), (21, 17712), (26, 17727), (69, 17904), (103, 17985), (105, 17994), (122, 18051), (125, 18066), (135, 18117), (148, 18189), (156, 18219), (164, 18255), (175, 18318), (180, 18333), (186, 18360), (188, 18366), (208, 18441), (216, 18465), (219, 18471), (228, 18525), (229, 18531), (250, 18618), (277, 18750), (280, 18768), (286, 18801), (297, 18828), (303, 18879), (337, 19089), (350, 19155), (358, 19191), (378, 19290), (380, 19302), (396, 19365), (429, 19527), (433, 19542), (441, 19593), (460, 19710), (468, 19755), (480, 19797), (485, 19833), (492, 19887), (509, 19935), (554, 20079), (568, 20136), (576, 20175), (579, 20184),

Gene: Arissanae_31 Start: 22459, Stop: 24807, Start Num: 57

Candidate Starts for Arissanae_31:

(55, 22453), (Start: 57 @22459 has 2 MA's), (81, 22558), (83, 22591), (95, 22666), (107, 22726), (131, 22816), (152, 22918), (157, 22945), (165, 22981), (181, 23050), (230, 23266), (241, 23308), (263, 23398), (269, 23425), (304, 23572), (307, 23590), (329, 23674), (330, 23683), (332, 23689), (362,

23869), (378, 23929), (392, 23977), (395, 23989), (431, 24169), (434, 24187), (441, 24226), (444, 24256), (452, 24301), (460, 24337), (461, 24340), (473, 24403), (504, 24547), (528, 24613), (562, 24727), (574, 24772), (576, 24784),

Gene: AuntGwenStacy_27 Start: 23429, Stop: 26023, Start Num: 10

Candidate Starts for AuntGwenStacy_27:

(Start: 10 @23429 has 4 MA's), (13, 23468), (21, 23543), (46, 23645), (49, 23654), (68, 23732), (103, 23813), (105, 23822), (118, 23867), (120, 23870), (122, 23879), (124, 23891), (125, 23894), (130, 23918), (135, 23945), (137, 23954), (148, 24017), (164, 24083), (172, 24119), (173, 24122), (188, 24194), (191, 24200), (208, 24269), (228, 24353), (247, 24434), (252, 24455), (286, 24629), (297, 24656), (303, 24707), (309, 24752), (320, 24803), (322, 24812), (334, 24890), (355, 25013), (357, 25016), (358, 25019), (380, 25130), (396, 25193), (405, 25241), (425, 25328), (429, 25355), (431, 25364), (433, 25370), (441, 25421), (460, 25538), (461, 25541), (480, 25625), (485, 25661), (490, 25691), (492, 25715), (509, 25766), (512, 25772), (515, 25778), (548, 25880), (555, 25916), (576, 26006), (579, 26015),

Gene: Bellis_21 Start: 19726, Stop: 22239, Start Num: 18

Candidate Starts for Bellis_21:

(Start: 18 @19726 has 16 MA's), (33, 19789), (51, 19861), (74, 19951), (75, 19957), (84, 20029), (127, 20221), (129, 20233), (133, 20251), (139, 20290), (145, 20320), (159, 20377), (166, 20407), (168, 20413), (179, 20467), (181, 20473), (215, 20620), (217, 20623), (221, 20632), (225, 20650), (236, 20710), (239, 20719), (241, 20731), (253, 20782), (255, 20785), (293, 20950), (304, 21007), (326, 21091), (329, 21109), (330, 21118), (338, 21181), (362, 21301), (373, 21346), (378, 21361), (382, 21379), (392, 21409), (407, 21499), (426, 21568), (431, 21601), (435, 21622), (441, 21658), (446, 21694), (456, 21739), (459, 21763), (460, 21769), (463, 21784), (466, 21802), (473, 21835), (485, 21889), (488, 21913), (494, 21949), (497, 21955), (504, 21979), (557, 22144), (560, 22153), (562, 22159),

Gene: Biglebops_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Biglebops_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: Bipper_27 Start: 23567, Stop: 26155, Start Num: 10

Candidate Starts for Bipper_27:

(Start: 10 @23567 has 4 MA's), (44, 23756), (52, 23777), (60, 23807), (78, 23870), (105, 23936), (106, 23939), (118, 23981), (130, 24032), (137, 24068), (144, 24107), (173, 24242), (187, 24320), (188, 24323), (208, 24404), (219, 24434), (226, 24470), (233, 24509), (237, 24521), (244, 24551), (245, 24557), (247, 24569), (249, 24578), (252, 24590), (259, 24614), (263, 24638), (280, 24731), (286, 24764), (291, 24767), (303, 24842), (305, 24854), (320, 24938), (363, 25184), (368, 25190), (376, 25247), (396, 25328), (405, 25376), (429, 25490), (441, 25556), (456, 25643), (460, 25673), (470, 25724), (485, 25796), (488, 25820), (490, 25826), (491, 25847), (496, 25865), (521, 25934), (547, 26009), (555, 26048), (558, 26054), (559, 26060), (576, 26138), (579, 26147),

Gene: BoostSeason_23 Start: 18687, Stop: 21026, Start Num: 24

Candidate Starts for BoostSeason_23:

(Start: 24 @18687 has 51 MA's), (91, 18927), (121, 19035), (123, 19044), (128, 19065), (132, 19089), (162, 19218), (164, 19230), (179, 19299), (216, 19434), (223, 19452), (227, 19479), (259, 19581), (273, 19653), (282, 19695), (283, 19701), (285, 19710), (288, 19716), (303, 19797), (307, 19818), (320, 19860), (325, 19881), (330, 19911), (343, 19998), (346, 20007), (353, 20043), (364, 20097), (378, 20151), (380, 20163), (397, 20223), (407, 20283), (411, 20301), (420, 20328), (431, 20385), (464, 20574), (469, 20604), (487, 20682), (490, 20703), (499, 20745), (510, 20778), (514, 20787), (520, 20808), (531, 20835), (554, 20916), (561, 20940),

Gene: BourbonZero_20 Start: 19707, Stop: 22217, Start Num: 18

Candidate Starts for BourbonZero_20:

(Start: 18 @19707 has 16 MA's), (33, 19770), (63, 19890), (96, 20076), (127, 20202), (129, 20214), (133, 20232), (139, 20271), (145, 20301), (166, 20388), (179, 20448), (181, 20454), (214, 20595), (217, 20601), (221, 20610), (225, 20628), (236, 20688), (241, 20709), (253, 20760), (255, 20763), (270, 20832), (304, 20985), (326, 21069), (329, 21087), (330, 21096), (349, 21207), (351, 21225), (362, 21279), (373, 21324), (378, 21339), (392, 21387), (407, 21477), (411, 21495), (426, 21546), (431, 21579), (434, 21597), (435, 21600), (441, 21636), (444, 21666), (446, 21672), (456, 21717), (459, 21741), (460, 21747), (463, 21762), (466, 21780), (473, 21813), (475, 21816), (485, 21867), (497, 21933), (504, 21957), (532, 22032), (545, 22068), (562, 22137),

Gene: Bryler_26 Start: 20070, Stop: 22406, Start Num: 24

Candidate Starts for Bryler_26:

(Start: 24 @20070 has 51 MA's), (35, 20118), (39, 20127), (66, 20241), (71, 20259), (94, 20310), (121, 20406), (123, 20415), (140, 20505), (142, 20517), (164, 20616), (166, 20625), (186, 20718), (208, 20799), (219, 20829), (223, 20841), (227, 20868), (228, 20883), (241, 20907), (259, 20967), (267, 21012), (273, 21039), (281, 21078), (285, 21096), (290, 21105), (303, 21174), (304, 21177), (307, 21195), (320, 21237), (325, 21258), (330, 21288), (343, 21375), (356, 21438), (362, 21471), (369, 21480), (380, 21543), (395, 21591), (397, 21603), (408, 21672), (419, 21696), (424, 21726), (431, 21765), (464, 21954), (481, 22029), (490, 22083), (514, 22167), (519, 22185), (550, 22272), (554, 22296), (567, 22338), (581, 22398),

Gene: CRB2_33 Start: 31730, Stop: 34225, Start Num: 23

Candidate Starts for CRB2_33:

(Start: 23 @31730 has 2 MA's), (48, 31832), (51, 31838), (53, 31850), (66, 31907), (73, 31937), (77, 31952), (87, 32057), (114, 32171), (146, 32324), (166, 32405), (167, 32408), (179, 32468), (184, 32495), (213, 32603), (226, 32651), (227, 32654), (229, 32675), (255, 32774), (260, 32789), (287, 32915), (295, 32939), (302, 32960), (320, 33047), (324, 33065), (350, 33224), (367, 33290), (373, 33326), (374, 33329), (378, 33341), (384, 33371), (395, 33407), (397, 33419), (424, 33542), (425, 33545), (426, 33548), (427, 33554), (442, 33656), (451, 33707), (457, 33722), (460, 33746), (469, 33797), (476, 33818), (490, 33899), (494, 33923), (514, 33977), (537, 34049), (550, 34091), (558, 34127), (564, 34145), (571, 34172), (576, 34202),

Gene: CactusJack_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for CactusJack_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286, 20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: Cain_26 Start: 20058, Stop: 22394, Start Num: 24

Candidate Starts for Cain_26:

(Start: 24 @20058 has 51 MA's), (35, 20106), (39, 20115), (66, 20229), (71, 20247), (94, 20298), (121, 20394), (123, 20403), (140, 20493), (142, 20505), (164, 20604), (166, 20613), (186, 20706), (208, 20787), (219, 20817), (223, 20829), (227, 20856), (228, 20871), (241, 20895), (259, 20955), (267, 21000), (273, 21027), (281, 21066), (285, 21084), (290, 21093), (303, 21162), (304, 21165), (307, 21183), (320, 21225), (325, 21246), (330, 21276), (343, 21363), (356, 21426), (362, 21459), (369, 21468), (380, 21531), (395, 21579), (397, 21591), (408, 21660), (419, 21684), (424, 21714), (431, 21753), (464, 21942), (481, 22017), (490, 22071), (514, 22155), (519, 22173), (550, 22260), (554, 22284), (567, 22326), (581, 22386),

Gene: Chancellor_28 Start: 22283, Stop: 24592, Start Num: 47

Candidate Starts for Chancellor_28:

(Start: 47 @22283 has 15 MA's), (79, 22394), (92, 22418), (123, 22535), (147, 22664), (159, 22715), (162, 22724), (169, 22757), (176, 22796), (179, 22805), (196, 22862), (198, 22871), (208, 22922), (212, 22934), (219, 22949), (221, 22955), (227, 22988), (237, 23036), (255, 23090), (273, 23162), (281, 23201), (284, 23213), (292, 23228), (301, 23273), (313, 23342), (331, 23423), (356, 23576), (377, 23675), (379, 23687), (400, 23792), (411, 23858), (416, 23873), (435, 23969), (460, 24122), (463, 24137), (464, 24143), (467, 24167), (476, 24206), (480, 24218), (493, 24314), (514, 24368), (520, 24389), (550, 24476), (555, 24506), (579, 24584),

Gene: Cheetobro_28 Start: 22280, Stop: 24589, Start Num: 47

Candidate Starts for Cheetobro_28:

(Start: 47 @22280 has 15 MA's), (79, 22391), (92, 22415), (123, 22532), (147, 22661), (159, 22712), (162, 22721), (169, 22754), (176, 22793), (179, 22802), (196, 22859), (198, 22868), (208, 22919), (212, 22931), (219, 22946), (221, 22952), (227, 22985), (237, 23033), (255, 23087), (273, 23159), (281, 23198), (284, 23210), (292, 23225), (301, 23270), (313, 23339), (331, 23420), (356, 23573), (377, 23672), (379, 23684), (400, 23789), (411, 23855), (416, 23870), (435, 23966), (460, 24119), (463, 24134), (464, 24140), (467, 24164), (476, 24203), (480, 24215), (493, 24311), (514, 24365), (520, 24386), (550, 24473), (555, 24503), (579, 24581),

Gene: ChipMunk_33 Start: 23177, Stop: 25654, Start Num: 14

Candidate Starts for ChipMunk_33:

(Start: 14 @23177 has 3 MA's), (16, 23198), (36, 23288), (64, 23387), (73, 23435), (93, 23567), (149, 23813), (155, 23840), (160, 23855), (174, 23930), (222, 24071), (235, 24143), (263, 24245), (272, 24287), (316, 24455), (325, 24497), (329, 24518), (347, 24629), (348, 24632), (359, 24689), (373, 24755), (374, 24758), (378, 24770), (388, 24812), (390, 24821), (397, 24854), (406, 24911), (431, 25016), (435, 25037), (441, 25076), (467, 25226), (469, 25232), (473, 25247), (476, 25253), (483, 25286), (484, 25298), (486, 25307), (488, 25328), (508, 25397), (543, 25496), (549, 25523), (550, 25526), (564, 25580), (571, 25607),

Gene: Clautastrophe_21 Start: 19724, Stop: 22237, Start Num: 18

Candidate Starts for Clautastrophe_21:

(Start: 18 @19724 has 16 MA's), (33, 19787), (51, 19859), (74, 19949), (75, 19955), (84, 20027), (100, 20114), (127, 20219), (129, 20231), (133, 20249), (139, 20288), (145, 20318), (159, 20375), (166, 20405), (168, 20411), (179, 20465), (181, 20471), (215, 20618), (217, 20621), (221, 20630), (225, 20648), (236, 20708), (239, 20717), (241, 20729), (253, 20780), (255, 20783), (293, 20948), (304, 21005), (326, 21089), (329, 21107), (330, 21116), (338, 21179), (362, 21299), (372, 21323), (373, 21344), (378, 21359), (382, 21377), (392, 21407), (407, 21497), (426, 21566), (431, 21599), (435, 21620), (441, 21656), (446, 21692), (456, 21737), (459, 21761), (460, 21767), (463, 21782), (466, 21800), (485, 21887), (488, 21911), (494, 21947), (497, 21953), (504, 21977), (532, 22052), (533, 22055), (557, 22142), (560, 22151), (562, 22157),

Gene: Cracklewink_27 Start: 23567, Stop: 26155, Start Num: 10

Candidate Starts for Cracklewink_27:

(Start: 10 @23567 has 4 MA's), (44, 23756), (52, 23777), (60, 23807), (78, 23870), (105, 23936), (106, 23939), (118, 23981), (130, 24032), (137, 24068), (144, 24107), (173, 24242), (187, 24320), (188, 24323), (208, 24404), (219, 24434), (226, 24470), (233, 24509), (237, 24521), (244, 24551), (245, 24557), (247, 24569), (249, 24578), (252, 24590), (259, 24614), (263, 24638), (280, 24731), (286, 24764), (291, 24767), (303, 24842), (305, 24854), (320, 24938), (363, 25184), (368, 25190), (376, 25247), (396, 25328), (405, 25376), (429, 25490), (441, 25556), (456, 25643), (460, 25673), (470, 25724), (485, 25796), (488, 25820), (490, 25826), (491, 25847), (496, 25865), (521, 25934), (547, 26009), (555, 26048), (558, 26054), (559, 26060), (576, 26138), (579, 26147),

Gene: Curiosium_28 Start: 20582, Stop: 23062, Start Num: 24

Candidate Starts for Curiosium_28:

(Start: 24 @20582 has 51 MA's), (69, 20753), (94, 20810), (108, 20861), (129, 20945), (142, 21017), (156, 21077), (161, 21098), (167, 21125), (172, 21149), (177, 21185), (191, 21230), (193, 21233), (219, 21332), (220, 21335), (227, 21371), (238, 21422), (248, 21476), (256, 21509), (278, 21635), (279, 21644), (303, 21767), (305, 21779), (323, 21878), (334, 21947), (339, 21980), (365, 22109), (370, 22115), (377, 22172), (381, 22190), (404, 22304), (408, 22331), (412, 22343), (415, 22358), (421, 22385), (425, 22400), (431, 22436), (432, 22439), (448, 22556), (451, 22571), (477, 22712), (493, 22820), (517, 22859), (518, 22862), (526, 22886), (553, 22964), (566, 23009), (572, 23027),

Gene: DarthP_26 Start: 21319, Stop: 23703, Start Num: 24

Candidate Starts for DarthP_26:

(Start: 24 @21319 has 51 MA's), (28, 21328), (35, 21367), (66, 21490), (91, 21547), (94, 21559), (110, 21625), (126, 21679), (140, 21757), (159, 21847), (169, 21889), (180, 21940), (196, 21982), (197, 21985), (199, 22006), (216, 22066), (219, 22072), (261, 22264), (285, 22381), (304, 22450), (315, 22489), (321, 22519), (346, 22663), (375, 22798), (376, 22801), (377, 22804), (387, 22843), (400, 22897), (428, 23038), (429, 23044), (433, 23059), (450, 23188), (453, 23194), (473, 23290), (476, 23299), (481, 23323), (484, 23344), (546, 23551), (548, 23566), (549, 23569), (577, 23677),

Gene: Dartin_27 Start: 20230, Stop: 22731, Start Num: 24

Candidate Starts for Dartin_27:

(Start: 24 @20230 has 51 MA's), (35, 20278), (50, 20329), (66, 20401), (90, 20452), (94, 20470), (102, 20503), (108, 20524), (110, 20536), (126, 20590), (140, 20668), (147, 20707), (161, 20764), (169, 20800), (180, 20851), (189, 20881), (197, 20896), (200, 20920), (208, 20953), (216, 20974), (219, 20980), (227, 21019), (261, 21172), (267, 21205), (270, 21217), (283, 21280), (303, 21364), (334, 21547), (342, 21601), (351, 21643), (393, 21835), (395, 21841), (400, 21865), (410, 21928), (420, 21967), (433, 22030), (441, 22087), (445, 22120), (447, 22138), (455, 22177), (462, 22216), (463, 22222), (474, 22279), (493, 22393), (515, 22447), (519, 22462), (529, 22492), (532, 22504), (548, 22561), (552, 22579), (556, 22609), (563, 22627), (578, 22708),

Gene: DismalFunk_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for DismalFunk_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (76, 18874), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (283, 19675), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (411, 20275), (420, 20302), (431, 20359), (441, 20416), (464, 20548), (469, 20578), (482, 20629), (485, 20647), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: DismalStressor_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for DismalStressor_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (76, 18874), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (283, 19675), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (411, 20275), (420, 20302), (431, 20359), (441, 20416), (464, 20548), (469, 20578), (482, 20629), (485, 20647), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: DuncansLeg_21 Start: 19709, Stop: 22222, Start Num: 18

Candidate Starts for DuncansLeg_21:

(Start: 18 @19709 has 16 MA's), (33, 19772), (50, 19841), (51, 19844), (84, 20012), (127, 20204), (133, 20234), (139, 20273), (145, 20303), (159, 20360), (166, 20390), (168, 20396), (179, 20450), (181, 20456), (215, 20603), (217, 20606), (221, 20615), (225, 20633), (236, 20693), (241, 20714), (253, 20765), (255, 20768), (262, 20795), (293, 20933), (304, 20990), (326, 21074), (329, 21092), (330, 21101), (338, 21164), (351, 21230), (362, 21284), (373, 21329), (378, 21344), (392, 21392), (407, 21482), (411, 21500), (424, 21545), (426, 21551), (431, 21584), (434, 21602), (441, 21641), (446, 21677), (456, 21722), (459, 21746), (463, 21767), (466, 21785), (473, 21818), (488, 21896), (494, 21932), (504, 21962), (532, 22037), (545, 22073), (560, 22136), (562, 22142),

Gene: Dynamo_21 Start: 19047, Stop: 21686, Start Num: 3

Candidate Starts for Dynamo_21:

(Start: 3 @19047 has 9 MA's), (5, 19056), (20, 19200), (103, 19473), (105, 19482), (106, 19485), (111, 19506), (115, 19518), (118, 19527), (124, 19551), (135, 19605), (148, 19683), (156, 19713), (164, 19749), (169, 19770), (172, 19785), (180, 19827), (188, 19860), (208, 19935), (216, 19959), (219, 19965), (223, 19977), (228, 20019), (229, 20025), (250, 20112), (277, 20244), (280, 20262), (286, 20295), (297, 20322), (303, 20373), (337, 20583), (350, 20649), (358, 20685), (378, 20784), (380, 20796), (396, 20859), (429, 21021), (433, 21036), (441, 21087), (460, 21204), (468, 21249), (480, 21291), (485, 21327), (492, 21381), (509, 21429), (554, 21573), (568, 21630), (576, 21669), (579, 21678),

Gene: Ekdilam_24 Start: 21084, Stop: 23462, Start Num: 24

Candidate Starts for Ekdilam_24:

(Start: 24 @21084 has 51 MA's), (28, 21093), (35, 21132), (66, 21255), (94, 21324), (126, 21444), (159, 21612), (169, 21654), (180, 21705), (196, 21747), (197, 21750), (199, 21771), (219, 21837), (239, 21933), (261, 22029), (271, 22077), (285, 22146), (304, 22215), (315, 22254), (321, 22284), (346, 22428), (375, 22563), (376, 22566), (377, 22569), (387, 22608), (400, 22662), (411, 22725), (428, 22803), (429, 22809), (433, 22824), (434, 22836), (439, 22866), (450, 22953), (453, 22959), (476, 23064), (481, 23088), (484, 23109), (491, 23163), (500, 23193), (515, 23223), (541, 23304), (548, 23325), (549, 23328), (577, 23436),

Gene: Ellie_24 Start: 21059, Stop: 23461, Start Num: 24

Candidate Starts for Ellie_24:

(Start: 24 @21059 has 51 MA's), (32, 21089), (35, 21107), (59, 21191), (110, 21365), (140, 21497), (159, 21587), (169, 21629), (180, 21680), (196, 21722), (197, 21725), (208, 21782), (216, 21806), (219, 21812), (227, 21851), (239, 21908), (261, 22004), (285, 22121), (304, 22190), (315, 22229), (321, 22259), (330, 22301), (346, 22403), (375, 22538), (376, 22541), (377, 22544), (387, 22583), (400, 22637), (428, 22775), (429, 22781), (433, 22796), (434, 22808), (439, 22838), (450, 22925), (453, 22931), (462, 22973), (484, 23081), (491, 23135), (520, 23231), (521, 23237), (528, 23255), (538, 23291), (540, 23294), (544, 23303), (548, 23327), (553, 23354),

Gene: Ellson_21 Start: 19717, Stop: 22227, Start Num: 18

Candidate Starts for Ellson_21:

(Start: 18 @19717 has 16 MA's), (33, 19780), (63, 19900), (96, 20086), (127, 20212), (129, 20224), (133, 20242), (139, 20281), (145, 20311), (166, 20398), (179, 20458), (181, 20464), (214, 20605), (217, 20611), (221, 20620), (225, 20638), (236, 20698), (241, 20719), (253, 20770), (255, 20773), (270, 20842), (304, 20995), (326, 21079), (329, 21097), (330, 21106), (349, 21217), (351, 21235), (362, 21289), (373, 21334), (378, 21349), (392, 21397), (407, 21487), (411, 21505), (426, 21556), (431, 21589), (434, 21607), (441, 21646), (446, 21682), (456, 21727), (459, 21751), (463, 21772), (466, 21790), (473, 21823), (475, 21826), (485, 21877), (497, 21943), (504, 21967), (532, 22042), (545, 22078), (562, 22147),

Gene: Enkosi_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Enkosi_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: EvilGenius_33 Start: 23186, Stop: 25663, Start Num: 14

Candidate Starts for EvilGenius_33:

(Start: 14 @23186 has 3 MA's), (16, 23207), (36, 23297), (64, 23396), (73, 23444), (80, 23465), (93, 23576), (149, 23822), (155, 23849), (160, 23864), (174, 23939), (222, 24080), (235, 24152), (263, 24254), (316, 24464), (329, 24527), (347, 24638), (348, 24641), (359, 24698), (373, 24764), (374, 24767), (378, 24779), (388, 24821), (397, 24863), (406, 24920), (431, 25025), (435, 25046), (441, 25085), (467, 25235), (469, 25241), (483, 25295), (484, 25307), (486, 25316), (488, 25337), (508, 25406), (543, 25505), (549, 25532), (550, 25535), (564, 25589), (571, 25616),

Gene: Fefferhead_26 Start: 21226, Stop: 23613, Start Num: 24

Candidate Starts for Fefferhead_26:

(Start: 24 @21226 has 51 MA's), (32, 21256), (35, 21274), (59, 21358), (110, 21532), (140, 21664), (159, 21754), (169, 21796), (180, 21847), (196, 21889), (197, 21892), (208, 21949), (216, 21973), (219, 21979), (227, 22018), (239, 22075), (261, 22171), (285, 22288), (304, 22357), (315, 22396), (317, 22405), (321, 22426), (330, 22468), (346, 22570), (375, 22705), (376, 22708), (377, 22711), (387, 22750), (400, 22804), (434, 22978), (450, 23095), (453, 23101), (475, 23203), (492, 23308), (493, 23314), (509, 23362), (541, 23455), (548, 23479), (554, 23509), (577, 23587),

Gene: Findley_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for Findley_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (91, 18901), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (283, 19675), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981), (353, 20017), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (407, 20257), (411, 20275), (420, 20302), (431, 20359), (441, 20416), (464, 20548), (469, 20578), (482, 20629), (485, 20647), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: Finny_21 Start: 19728, Stop: 22241, Start Num: 18

Candidate Starts for Finny_21:

(Start: 18 @19728 has 16 MA's), (33, 19791), (51, 19863), (74, 19953), (75, 19959), (84, 20031), (127, 20223), (129, 20235), (133, 20253), (139, 20292), (145, 20322), (159, 20379), (166, 20409), (168, 20415), (179, 20469), (181, 20475), (215, 20622), (217, 20625), (221, 20634), (225, 20652), (236,

20712), (239, 20721), (241, 20733), (253, 20784), (255, 20787), (293, 20952), (304, 21009), (326, 21093), (329, 21111), (330, 21120), (338, 21183), (362, 21303), (373, 21348), (378, 21363), (382, 21381), (392, 21411), (407, 21501), (426, 21570), (431, 21603), (435, 21624), (441, 21660), (446, 21696), (456, 21741), (459, 21765), (460, 21771), (463, 21786), (466, 21804), (473, 21837), (485, 21891), (488, 21915), (494, 21951), (497, 21957), (504, 21981), (557, 22146), (560, 22155), (562, 22161),

Gene: Fionnbharth_28 Start: 22273, Stop: 24582, Start Num: 47

Candidate Starts for Fionnbharth_28:

(Start: 47 @22273 has 15 MA's), (70, 22363), (79, 22384), (92, 22408), (123, 22525), (147, 22654), (162, 22714), (176, 22786), (179, 22795), (192, 22846), (196, 22852), (198, 22861), (208, 22912), (212, 22924), (219, 22939), (221, 22945), (227, 22978), (237, 23026), (255, 23080), (273, 23152), (281, 23191), (284, 23203), (292, 23218), (301, 23263), (313, 23332), (331, 23413), (356, 23566), (370, 23608), (393, 23737), (400, 23782), (411, 23848), (416, 23863), (435, 23959), (460, 24112), (463, 24127), (464, 24133), (467, 24157), (469, 24163), (471, 24169), (472, 24172), (476, 24196), (480, 24208), (493, 24304), (513, 24355), (514, 24358), (536, 24427), (549, 24463), (555, 24496), (573, 24550), (575, 24559), (579, 24574),

Gene: Fulbright_20 Start: 17553, Stop: 20198, Start Num: 3

Candidate Starts for Fulbright_20:

(Start: 1 @17541 has 1 MA's), (Start: 3 @17553 has 9 MA's), (6, 17565), (8, 17577), (12, 17631), (Start: 19 @17700 has 1 MA's), (20, 17703), (21, 17712), (26, 17727), (69, 17904), (103, 17985), (105, 17994), (150, 18198), (161, 18246), (164, 18261), (169, 18282), (173, 18300), (175, 18324), (180, 18339), (183, 18348), (188, 18375), (191, 18381), (208, 18450), (216, 18471), (219, 18477), (222, 18486), (226, 18513), (228, 18531), (250, 18624), (257, 18645), (277, 18756), (280, 18774), (286, 18807), (303, 18885), (322, 18990), (330, 19032), (371, 19251), (376, 19290), (377, 19293), (380, 19308), (396, 19371), (405, 19419), (429, 19533), (435, 19563), (439, 19590), (441, 19599), (460, 19716), (468, 19761), (480, 19803), (490, 19869), (492, 19893), (509, 19941), (512, 19947), (515, 19953), (519, 19968), (547, 20052), (555, 20091), (576, 20181), (579, 20190),

Gene: Glaske_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for Glaske_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286, 20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: Hammy_26 Start: 21316, Stop: 23694, Start Num: 24

Candidate Starts for Hammy_26:

(Start: 24 @21316 has 51 MA's), (28, 21325), (35, 21364), (66, 21487), (91, 21544), (94, 21556), (110, 21622), (126, 21676), (140, 21754), (159, 21844), (169, 21886), (180, 21937), (196, 21979), (197, 21982), (199, 22003), (216, 22063), (219, 22069), (261, 22261), (285, 22378), (315, 22486), (318, 22504), (321, 22516), (346, 22660), (375, 22795), (376, 22798), (377, 22801), (385, 22834), (387, 22840), (400, 22894), (422, 23002), (428, 23035), (429, 23041), (433, 23056), (439, 23098), (450, 23185), (453, 23191), (481, 23320), (484, 23341), (541, 23536), (548, 23557), (549, 23560), (556, 23599), (577, 23668),

Gene: Hashim76_34 Start: 28773, Stop: 31235, Start Num: 27

Candidate Starts for Hashim76_34:

(Start: 27 @28773 has 4 MA's), (29, 28782), (53, 28887), (62, 28920), (67, 28947), (77, 28989), (94, 29103), (109, 29166), (117, 29193), (128, 29235), (171, 29442), (177, 29478), (184, 29511), (204, 29577), (227, 29664), (229, 29685), (239, 29718), (270, 29847), (283, 29913), (320, 30060), (324, 30078), (346, 30210), (350, 30237), (359, 30273), (374, 30342), (378, 30354), (384, 30384), (390, 30399), (395, 30420), (406, 30489), (408, 30501), (424, 30555), (426, 30561), (430, 30591), (434, 30612), (460, 30759), (467, 30804), (476, 30831), (549, 31101), (564, 31158), (570, 31179),

Gene: Hilltopfarm_27 Start: 23459, Stop: 26053, Start Num: 10

Candidate Starts for Hilltopfarm_27:

(Start: 10 @23459 has 4 MA's), (13, 23498), (21, 23573), (46, 23675), (49, 23684), (68, 23762), (103, 23843), (105, 23852), (118, 23897), (120, 23900), (122, 23909), (124, 23921), (125, 23924), (130, 23948), (135, 23975), (137, 23984), (148, 24047), (164, 24113), (172, 24149), (173, 24152), (188, 24224), (191, 24230), (208, 24299), (228, 24383), (247, 24464), (252, 24485), (277, 24608), (286, 24659), (297, 24686), (303, 24737), (309, 24782), (320, 24833), (322, 24842), (329, 24875), (334, 24920), (355, 25043), (357, 25046), (358, 25049), (380, 25160), (396, 25223), (405, 25271), (425, 25358), (429, 25385), (431, 25394), (433, 25400), (439, 25442), (441, 25451), (460, 25568), (461, 25571), (480, 25655), (485, 25691), (492, 25745), (509, 25796), (512, 25802), (515, 25808), (528, 25850), (548, 25910), (555, 25946), (576, 26036), (579, 26045),

Gene: Hurricane_26 Start: 21315, Stop: 23663, Start Num: 24

Candidate Starts for Hurricane_26:

(Start: 24 @21315 has 51 MA's), (31, 21342), (41, 21375), (51, 21420), (65, 21480), (112, 21636), (126, 21681), (133, 21717), (136, 21735), (154, 21813), (164, 21861), (198, 21993), (208, 22047), (213, 22062), (246, 22170), (273, 22287), (282, 22329), (283, 22335), (285, 22344), (290, 22353), (304, 22434), (307, 22452), (310, 22455), (320, 22494), (325, 22515), (329, 22536), (330, 22545), (343, 22632), (361, 22725), (362, 22728), (380, 22800), (411, 22938), (424, 22983), (431, 23022), (434, 23040), (449, 23139), (454, 23157), (464, 23211), (469, 23241), (475, 23259), (481, 23286), (482, 23292), (490, 23340), (510, 23415), (514, 23424), (520, 23445), (522, 23454), (554, 23553), (567, 23595),

Gene: Imvubu_24 Start: 26459, Stop: 28915, Start Num: 27

Candidate Starts for Imvubu_24:

(Start: 27 @26459 has 4 MA's), (51, 26561), (53, 26573), (66, 26630), (88, 26753), (94, 26783), (117, 26873), (146, 27020), (159, 27071), (166, 27101), (171, 27122), (177, 27158), (178, 27161), (179, 27164), (184, 27191), (202, 27251), (204, 27257), (211, 27284), (227, 27344), (234, 27383), (260, 27479), (270, 27527), (283, 27593), (302, 27653), (312, 27707), (320, 27740), (324, 27758), (350, 27917), (356, 27944), (359, 27953), (360, 27956), (367, 27983), (373, 28019), (374, 28022), (378, 28034), (384, 28064), (392, 28088), (397, 28112), (406, 28169), (426, 28241), (430, 28271), (431, 28274), (434, 28292), (435, 28295), (438, 28316), (442, 28349), (458, 28418), (467, 28484), (476, 28511), (481, 28535), (484, 28556), (490, 28592), (494, 28616), (514, 28670), (519, 28688), (537, 28742), (539, 28745), (550, 28784), (555, 28814), (564, 28838),

Gene: Indlovu_28 Start: 28755, Stop: 31250, Start Num: 25

Candidate Starts for Indlovu_28:

(Start: 25 @28755 has 3 MA's), (41, 28815), (86, 29073), (87, 29079), (94, 29112), (114, 29193), (144, 29331), (161, 29403), (167, 29430), (177, 29484), (184, 29517), (187, 29532), (204, 29592), (213, 29628), (218, 29637), (221, 29646), (226, 29676), (229, 29700), (239, 29733), (255, 29799), (260, 29814), (266, 29844), (268, 29853), (283, 29928), (295, 29964), (298, 29970), (302, 29985), (319, 30069), (320, 30072), (324, 30090), (344, 30213), (350, 30249), (367, 30315), (374, 30354), (378, 30366), (390, 30411), (395, 30432), (397, 30444), (424, 30567), (425, 30570), (426, 30573), (430, 30603), (431, 30606), (440, 30663), (442, 30681), (449, 30720), (458, 30750), (476, 30843), (488, 30918), (490, 30924), (537, 31074), (550, 31116), (558, 31152), (564, 31170), (571, 31197), (576, 31227),

Gene: JF1_28 Start: 22272, Stop: 24581, Start Num: 47

Candidate Starts for JF1_28:

(Start: 47 @22272 has 15 MA's), (70, 22362), (79, 22383), (92, 22407), (123, 22524), (147, 22653), (162, 22713), (176, 22785), (179, 22794), (192, 22845), (196, 22851), (198, 22860), (208, 22911), (212, 22923), (219, 22938), (221, 22944), (227, 22977), (237, 23025), (255, 23079), (273, 23151), (281, 23190), (284, 23202), (292, 23217), (301, 23262), (313, 23331), (331, 23412), (356, 23565), (370, 23607), (393, 23736), (400, 23781), (411, 23847), (416, 23862), (435, 23958), (460, 24111), (463, 24126), (464, 24132), (467, 24156), (469, 24162), (471, 24168), (472, 24171), (476, 24195), (480, 24207), (493, 24303), (513, 24354), (514, 24357), (536, 24426), (549, 24462), (555, 24495), (573, 24549), (575, 24558), (579, 24573),

Gene: Jobypre_21 Start: 19724, Stop: 22237, Start Num: 18

Candidate Starts for Jobypre_21:

(Start: 18 @19724 has 16 MA's), (33, 19787), (51, 19859), (74, 19949), (75, 19955), (84, 20027), (100, 20114), (127, 20219), (129, 20231), (133, 20249), (139, 20288), (145, 20318), (159, 20375), (166, 20405), (168, 20411), (179, 20465), (181, 20471), (215, 20618), (217, 20621), (221, 20630), (225, 20648), (236, 20708), (239, 20717), (241, 20729), (253, 20780), (255, 20783), (293, 20948), (304, 21005), (326, 21089), (329, 21107), (330, 21116), (338, 21179), (362, 21299), (372, 21323), (373, 21344), (378, 21359), (382, 21377), (392, 21407), (407, 21497), (426, 21566), (431, 21599), (435, 21620), (441, 21656), (446, 21692), (456, 21737), (459, 21761), (460, 21767), (463, 21782), (466, 21800), (485, 21887), (488, 21911), (494, 21947), (497, 21953), (504, 21977), (532, 22052), (533, 22055), (557, 22142), (560, 22151), (562, 22157),

Gene: Jubie_21 Start: 19725, Stop: 22238, Start Num: 18

Candidate Starts for Jubie_21:

(Start: 18 @19725 has 16 MA's), (33, 19788), (51, 19860), (74, 19950), (75, 19956), (84, 20028), (100, 20115), (127, 20220), (129, 20232), (133, 20250), (139, 20289), (145, 20319), (159, 20376), (166, 20406), (168, 20412), (179, 20466), (181, 20472), (215, 20619), (217, 20622), (221, 20631), (225, 20649), (236, 20709), (239, 20718), (241, 20730), (253, 20781), (255, 20784), (293, 20949), (304, 21006), (326, 21090), (329, 21108), (330, 21117), (338, 21180), (362, 21300), (372, 21324), (373, 21345), (378, 21360), (382, 21378), (392, 21408), (407, 21498), (426, 21567), (431, 21600), (435, 21621), (441, 21657), (446, 21693), (456, 21738), (459, 21762), (460, 21768), (463, 21783), (466, 21801), (485, 21888), (488, 21912), (494, 21948), (497, 21954), (504, 21978), (532, 22053), (533, 22056), (557, 22143), (560, 22152), (562, 22158),

Gene: Keshu_26 Start: 21307, Stop: 23655, Start Num: 24

Candidate Starts for Keshu_26:

(Start: 24 @21307 has 51 MA's), (31, 21334), (41, 21367), (51, 21412), (126, 21676), (127, 21682), (129, 21694), (164, 21856), (195, 21976), (198, 21988), (208, 22042), (213, 22057), (216, 22063), (227, 22108), (228, 22123), (241, 22150), (246, 22165), (273, 22282), (283, 22330), (285, 22339), (296, 22372), (298, 22384), (303, 22417), (304, 22420), (309, 22444), (320, 22486), (325, 22507), (329, 22528), (330, 22537), (362, 22723), (380, 22792), (397, 22852), (405, 22900), (426, 22981), (431, 23014), (451, 23143), (457, 23158), (464, 23203), (465, 23212), (469, 23233), (481, 23278), (482, 23284), (487, 23311), (490, 23332), (499, 23374), (514, 23416), (522, 23446), (554, 23545), (555, 23551), (567, 23587),

Gene: KilKor_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for KilKor_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286,

20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: KingCyrus_33 Start: 23177, Stop: 25654, Start Num: 14

Candidate Starts for KingCyrus_33:

(Start: 14 @23177 has 3 MA's), (16, 23198), (36, 23288), (40, 23297), (64, 23387), (73, 23435), (93, 23567), (143, 23786), (149, 23813), (160, 23855), (174, 23930), (222, 24071), (225, 24086), (233, 24137), (235, 24143), (263, 24245), (272, 24287), (316, 24455), (325, 24497), (329, 24518), (347, 24629), (348, 24632), (359, 24689), (373, 24755), (374, 24758), (378, 24770), (388, 24812), (390, 24821), (397, 24854), (406, 24911), (435, 25037), (440, 25073), (441, 25076), (467, 25226), (469, 25232), (483, 25286), (484, 25298), (486, 25307), (488, 25328), (502, 25382), (543, 25496), (549, 25523), (550, 25526), (564, 25580), (571, 25607),

Gene: Kingsolomon_21 Start: 19724, Stop: 22237, Start Num: 18

Candidate Starts for Kingsolomon_21:

(Start: 18 @19724 has 16 MA's), (33, 19787), (51, 19859), (74, 19949), (75, 19955), (84, 20027), (100, 20114), (127, 20219), (129, 20231), (133, 20249), (139, 20288), (145, 20318), (159, 20375), (166, 20405), (168, 20411), (179, 20465), (181, 20471), (215, 20618), (217, 20621), (221, 20630), (225, 20648), (236, 20708), (239, 20717), (241, 20729), (253, 20780), (255, 20783), (293, 20948), (304, 21005), (326, 21089), (329, 21107), (330, 21116), (338, 21179), (362, 21299), (372, 21323), (373, 21344), (378, 21359), (382, 21377), (392, 21407), (407, 21497), (426, 21566), (431, 21599), (435, 21620), (441, 21656), (446, 21692), (456, 21737), (459, 21761), (460, 21767), (463, 21782), (466, 21800), (485, 21887), (488, 21911), (494, 21947), (497, 21953), (504, 21977), (532, 22052), (533, 22055), (557, 22142), (560, 22151), (562, 22157),

Gene: KirDoubleO7_19 Start: 19718, Stop: 22231, Start Num: 18

Candidate Starts for KirDoubleO7_19:

(Start: 18 @19718 has 16 MA's), (33, 19781), (51, 19853), (75, 19949), (84, 20021), (100, 20108), (127, 20213), (133, 20243), (139, 20282), (145, 20312), (159, 20369), (166, 20399), (168, 20405), (179, 20459), (181, 20465), (215, 20612), (217, 20615), (221, 20624), (225, 20642), (236, 20702), (241, 20723), (253, 20774), (255, 20777), (262, 20804), (293, 20942), (304, 20999), (326, 21083), (329, 21101), (330, 21110), (338, 21173), (351, 21239), (362, 21293), (373, 21338), (378, 21353), (392, 21401), (407, 21491), (411, 21509), (424, 21554), (426, 21560), (431, 21593), (434, 21611), (441, 21650), (446, 21686), (456, 21731), (459, 21755), (463, 21776), (466, 21794), (473, 21827), (488, 21905), (494, 21941), (504, 21971), (532, 22046), (545, 22082), (560, 22145), (562, 22151),

Gene: Knocker_32 Start: 31412, Stop: 33868, Start Num: 27

Candidate Starts for Knocker_32:

(Start: 27 @31412 has 4 MA's), (29, 31421), (43, 31490), (53, 31526), (77, 31628), (89, 31715), (94, 31736), (101, 31763), (103, 31772), (116, 31823), (117, 31826), (121, 31838), (123, 31847), (171, 32075), (175, 32105), (177, 32111), (184, 32144), (204, 32210), (211, 32237), (221, 32264), (223, 32270), (227, 32297), (260, 32432), (265, 32450), (270, 32480), (276, 32519), (283, 32546), (300, 32603), (302, 32606), (320, 32693), (324, 32711), (329, 32735), (330, 32744), (359, 32906), (360, 32909), (373, 32972), (374, 32975), (378, 32987), (384, 33017), (390, 33032), (395, 33053), (397, 33065), (406, 33122), (410, 33140), (426, 33194), (430, 33224), (431, 33227), (434, 33245), (435, 33248), (438, 33269), (442, 33302), (444, 33317), (458, 33371), (460, 33392), (461, 33395), (466, 33425), (467, 33437), (476, 33464), (478, 33467), (481, 33488), (490, 33545), (494, 33569), (519, 33641), (543, 33707), (549, 33734), (550, 33737), (551, 33743), (564, 33791), (570, 33812), (576, 33848),

Gene: Krueger_26 Start: 20014, Stop: 22350, Start Num: 24

Candidate Starts for Krueger_26:

(17, 19981), (Start: 24 @20014 has 51 MA's), (28, 20023), (39, 20071), (41, 20074), (71, 20203), (94, 20254), (121, 20350), (123, 20359), (140, 20449), (147, 20488), (164, 20560), (166, 20569), (186, 20662), (208, 20743), (219, 20773), (227, 20812), (228, 20827), (241, 20851), (259, 20911), (267, 20956), (273, 20983), (281, 21022), (285, 21040), (290, 21049), (303, 21118), (304, 21121), (307, 21139), (320, 21181), (325, 21202), (328, 21217), (330, 21232), (343, 21319), (361, 21412), (362, 21415), (380, 21487), (395, 21535), (408, 21616), (419, 21640), (423, 21664), (424, 21670), (431, 21709), (464, 21898), (481, 21973), (490, 22027), (514, 22111), (519, 22129), (550, 22216), (554, 22240), (567, 22282), (581, 22342),

Gene: Krypton555_21 Start: 19647, Stop: 22160, Start Num: 18

Candidate Starts for Krypton555_21:

(Start: 18 @19647 has 16 MA's), (33, 19710), (51, 19782), (87, 19980), (123, 20124), (127, 20142), (129, 20154), (133, 20172), (139, 20211), (142, 20226), (145, 20241), (159, 20298), (166, 20328), (168, 20334), (179, 20388), (181, 20394), (193, 20451), (215, 20541), (217, 20544), (221, 20553), (225, 20571), (236, 20631), (253, 20703), (255, 20706), (286, 20850), (293, 20871), (304, 20928), (326, 21012), (329, 21030), (330, 21039), (362, 21222), (373, 21267), (378, 21282), (382, 21300), (392, 21330), (402, 21390), (407, 21420), (426, 21489), (431, 21522), (435, 21543), (441, 21579), (444, 21609), (459, 21684), (460, 21690), (463, 21705), (466, 21723), (473, 21756), (484, 21807), (485, 21810), (489, 21837), (494, 21870), (504, 21900), (532, 21975), (545, 22011), (560, 22074), (562, 22080), (580, 22152),

Gene: LastHope_27 Start: 20175, Stop: 22487, Start Num: 47

Candidate Starts for LastHope_27:

(Start: 47 @20175 has 15 MA's), (97, 20325), (103, 20346), (119, 20403), (122, 20415), (134, 20469), (141, 20514), (151, 20556), (153, 20568), (163, 20613), (185, 20724), (196, 20745), (205, 20796), (210, 20811), (216, 20826), (234, 20907), (242, 20937), (255, 20976), (262, 20991), (272, 21051), (297, 21135), (308, 21207), (364, 21510), (370, 21516), (376, 21570), (377, 21573), (379, 21585), (386, 21612), (391, 21630), (392, 21636), (411, 21753), (416, 21768), (460, 22017), (463, 22032), (467, 22062), (476, 22101), (480, 22113), (493, 22209), (503, 22239), (519, 22281), (525, 22302), (542, 22344), (549, 22368), (550, 22371), (554, 22395), (555, 22401), (575, 22464), (579, 22479),

Gene: LilPharaoh_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for LilPharaoh_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: LiyuLake_21 Start: 19709, Stop: 22219, Start Num: 18

Candidate Starts for LiyuLake_21:

(Start: 18 @19709 has 16 MA's), (33, 19772), (63, 19892), (96, 20078), (127, 20204), (129, 20216), (133, 20234), (139, 20273), (145, 20303), (166, 20390), (179, 20450), (181, 20456), (214, 20597), (217, 20603), (221, 20612), (225, 20630), (236, 20690), (241, 20711), (253, 20762), (255, 20765), (270, 20834), (304, 20987), (326, 21071), (329, 21089), (330, 21098), (349, 21209), (351, 21227), (362, 21281), (373, 21326), (378, 21341), (392, 21389), (407, 21479), (411, 21497), (426, 21548), (431, 21581), (434, 21599), (435, 21602), (441, 21638), (444, 21668), (446, 21674), (456, 21719), (459, 21743), (460, 21749), (463, 21764), (466, 21782), (473, 21815), (475, 21818), (485, 21869), (497, 21935), (504, 21959), (532, 22034), (545, 22070), (562, 22139),

Gene: Lolly9_21 Start: 19528, Stop: 22035, Start Num: 18

Candidate Starts for Lolly9_21:

(Start: 18 @19528 has 16 MA's), (33, 19591), (51, 19663), (63, 19711), (96, 19897), (127, 20023), (133, 20053), (139, 20092), (145, 20122), (166, 20209), (172, 20236), (179, 20269), (181, 20275), (193, 20326), (214, 20413), (217, 20419), (221, 20428), (225, 20446), (236, 20506), (241, 20527), (253, 20578), (255, 20581), (270, 20650), (304, 20803), (326, 20887), (329, 20905), (330, 20914), (362, 21097), (372, 21121), (373, 21142), (378, 21157), (392, 21205), (407, 21295), (408, 21304), (431, 21397), (434, 21415), (435, 21418), (446, 21490), (459, 21559), (460, 21565), (463, 21580), (466, 21598), (473, 21631), (475, 21634), (485, 21685), (488, 21709), (497, 21751), (504, 21775), (532, 21850), (533, 21853), (562, 21955),

Gene: Lumos_21 Start: 19721, Stop: 22234, Start Num: 18

Candidate Starts for Lumos_21:

(Start: 18 @19721 has 16 MA's), (33, 19784), (51, 19856), (74, 19946), (75, 19952), (84, 20024), (100, 20111), (127, 20216), (129, 20228), (133, 20246), (139, 20285), (145, 20315), (159, 20372), (166, 20402), (168, 20408), (179, 20462), (181, 20468), (215, 20615), (217, 20618), (221, 20627), (225, 20645), (236, 20705), (239, 20714), (241, 20726), (253, 20777), (255, 20780), (293, 20945), (304, 21002), (326, 21086), (329, 21104), (330, 21113), (338, 21176), (362, 21296), (372, 21320), (373, 21341), (378, 21356), (382, 21374), (392, 21404), (407, 21494), (426, 21563), (431, 21596), (435, 21617), (441, 21653), (446, 21689), (456, 21734), (459, 21758), (460, 21764), (463, 21779), (466, 21797), (485, 21884), (488, 21908), (494, 21944), (497, 21950), (504, 21974), (532, 22049), (533, 22052), (557, 22139), (560, 22148), (562, 22154),

Gene: MacnCheese_27 Start: 21549, Stop: 24002, Start Num: 24

Candidate Starts for MacnCheese_27:

(Start: 24 @21549 has 51 MA's), (31, 21576), (41, 21609), (42, 21621), (65, 21714), (113, 21978), (126, 22023), (129, 22041), (133, 22059), (136, 22077), (150, 22137), (154, 22155), (162, 22191), (173, 22242), (208, 22389), (246, 22512), (273, 22629), (282, 22671), (283, 22677), (285, 22686), (293, 22710), (304, 22776), (307, 22794), (320, 22836), (325, 22857), (329, 22878), (330, 22887), (343, 22974), (361, 23067), (362, 23070), (380, 23142), (408, 23271), (411, 23280), (424, 23325), (426, 23331), (431, 23364), (434, 23382), (449, 23481), (454, 23499), (464, 23553), (473, 23598), (482, 23634), (490, 23682), (514, 23766), (554, 23895), (567, 23934),

Gene: MalagasyRose_27 Start: 20187, Stop: 22691, Start Num: 19

Candidate Starts for MalagasyRose_27:

(Start: 19 @20187 has 1 MA's), (72, 20397), (79, 20412), (94, 20445), (108, 20496), (155, 20712), (156, 20715), (161, 20736), (191, 20868), (193, 20871), (201, 20913), (202, 20916), (219, 20970), (220, 20973), (221, 20976), (223, 20982), (227, 21009), (232, 21039), (243, 21084), (248, 21114), (264, 21189), (278, 21270), (279, 21279), (285, 21315), (297, 21351), (303, 21402), (305, 21414), (320, 21501), (322, 21510), (329, 21543), (334, 21582), (345, 21642), (370, 21750), (380, 21822), (394, 21876), (404, 21939), (406, 21954), (412, 21978), (417, 21996), (420, 22014), (421, 22020), (425, 22035), (431, 22071), (435, 22092), (436, 22101), (448, 22191), (476, 22335), (480, 22347), (481, 22359), (488, 22407), (489, 22410), (490, 22413), (498, 22455), (511, 22476), (519, 22497), (520, 22500), (522, 22512), (553, 22596), (579, 22683),

Gene: Malthus_29 Start: 22196, Stop: 24505, Start Num: 47

Candidate Starts for Malthus_29:

(Start: 47 @22196 has 15 MA's), (70, 22286), (79, 22307), (92, 22331), (123, 22448), (147, 22577), (162, 22637), (176, 22709), (179, 22718), (192, 22769), (196, 22775), (198, 22784), (208, 22835), (212, 22847), (219, 22862), (221, 22868), (227, 22901), (237, 22949), (255, 23003), (273, 23075), (281, 23114), (284, 23126), (292, 23141), (301, 23186), (313, 23255), (331, 23336), (356, 23489), (370, 23531), (393, 23660), (400, 23705), (411, 23771), (416, 23786), (435, 23882), (460, 24035),

(463, 24050), (464, 24056), (467, 24080), (469, 24086), (471, 24092), (472, 24095), (476, 24119), (480, 24131), (493, 24227), (513, 24278), (514, 24281), (536, 24350), (549, 24386), (555, 24419), (573, 24473), (575, 24482), (579, 24497),

Gene: Marcoliusprime_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for Marcoliusprime_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (76, 18874), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (283, 19675), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (411, 20275), (420, 20302), (431, 20359), (441, 20416), (464, 20548), (469, 20578), (482, 20629), (485, 20647), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: McMater_27 Start: 20230, Stop: 22731, Start Num: 24

Candidate Starts for McMater_27:

(Start: 24 @20230 has 51 MA's), (35, 20278), (50, 20329), (66, 20401), (90, 20452), (94, 20470), (102, 20503), (108, 20524), (110, 20536), (126, 20590), (140, 20668), (147, 20707), (161, 20764), (169, 20800), (180, 20851), (189, 20881), (197, 20896), (200, 20920), (208, 20953), (216, 20974), (219, 20980), (227, 21019), (261, 21172), (267, 21205), (270, 21217), (283, 21280), (303, 21364), (334, 21547), (342, 21601), (351, 21643), (393, 21835), (395, 21841), (400, 21865), (410, 21928), (420, 21967), (433, 22030), (441, 22087), (445, 22120), (447, 22138), (455, 22177), (462, 22216), (463, 22222), (474, 22279), (493, 22393), (515, 22447), (519, 22462), (529, 22492), (532, 22504), (548, 22561), (552, 22579), (556, 22609), (563, 22627), (578, 22708),

Gene: Mdavu_23 Start: 20402, Stop: 22888, Start Num: 24

Candidate Starts for Mdavu_23:

(Start: 24 @20402 has 51 MA's), (35, 20450), (91, 20630), (92, 20633), (108, 20696), (110, 20708), (140, 20840), (147, 20879), (161, 20936), (166, 20960), (169, 20972), (179, 21020), (180, 21023), (190, 21056), (200, 21095), (208, 21128), (212, 21140), (216, 21149), (219, 21155), (231, 21221), (234, 21236), (261, 21347), (267, 21380), (285, 21464), (294, 21479), (303, 21539), (314, 21608), (335, 21728), (351, 21821), (374, 21935), (393, 22013), (395, 22019), (400, 22043), (410, 22106), (411, 22109), (414, 22121), (428, 22187), (429, 22193), (437, 22235), (439, 22256), (441, 22265), (445, 22298), (447, 22316), (460, 22385), (481, 22484), (482, 22490), (485, 22508), (491, 22562), (495, 22577), (505, 22604), (527, 22661),

Gene: Megiddo_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for Megiddo_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286, 20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: Milly_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for Milly_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (76, 18874), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (283, 19675), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981),

(353, 20017), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (411, 20275), (420, 20302), (431, 20359), (464, 20548), (469, 20578), (482, 20629), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: MiniLon_21 Start: 19528, Stop: 22035, Start Num: 18

Candidate Starts for MiniLon_21:

(Start: 18 @19528 has 16 MA's), (33, 19591), (51, 19663), (63, 19711), (96, 19897), (127, 20023), (133, 20053), (139, 20092), (145, 20122), (166, 20209), (172, 20236), (179, 20269), (181, 20275), (193, 20326), (214, 20413), (217, 20419), (221, 20428), (225, 20446), (236, 20506), (241, 20527), (253, 20578), (255, 20581), (270, 20650), (304, 20803), (326, 20887), (329, 20905), (330, 20914), (362, 21097), (372, 21121), (373, 21142), (378, 21157), (392, 21205), (407, 21295), (408, 21304), (431, 21397), (434, 21415), (435, 21418), (446, 21490), (459, 21559), (460, 21565), (463, 21580), (466, 21598), (473, 21631), (475, 21634), (485, 21685), (488, 21709), (497, 21751), (504, 21775), (532, 21850), (533, 21853), (562, 21955),

Gene: MiniMac_21 Start: 19529, Stop: 22036, Start Num: 18

Candidate Starts for MiniMac_21:

(Start: 18 @19529 has 16 MA's), (33, 19592), (51, 19664), (63, 19712), (96, 19898), (127, 20024), (133, 20054), (139, 20093), (145, 20123), (166, 20210), (172, 20237), (179, 20270), (181, 20276), (193, 20327), (214, 20414), (217, 20420), (221, 20429), (225, 20447), (236, 20507), (241, 20528), (253, 20579), (255, 20582), (270, 20651), (304, 20804), (326, 20888), (329, 20906), (330, 20915), (362, 21098), (372, 21122), (373, 21143), (378, 21158), (392, 21206), (407, 21296), (408, 21305), (431, 21398), (434, 21416), (435, 21419), (446, 21491), (459, 21560), (460, 21566), (463, 21581), (466, 21599), (473, 21632), (475, 21635), (485, 21686), (488, 21710), (497, 21752), (504, 21776), (532, 21851), (533, 21854), (562, 21956),

Gene: MissDaisy_28 Start: 22035, Stop: 24344, Start Num: 47

Candidate Starts for MissDaisy_28:

(Start: 47 @22035 has 15 MA's), (61, 22083), (63, 22092), (79, 22146), (94, 22179), (123, 22287), (136, 22353), (147, 22416), (159, 22467), (162, 22476), (169, 22509), (179, 22557), (196, 22614), (208, 22674), (212, 22686), (219, 22701), (221, 22707), (227, 22740), (237, 22788), (255, 22842), (273, 22914), (313, 23094), (331, 23175), (356, 23328), (370, 23370), (379, 23439), (398, 23526), (400, 23544), (403, 23571), (411, 23610), (416, 23625), (435, 23721), (460, 23874), (463, 23889), (464, 23895), (469, 23925), (471, 23931), (476, 23958), (480, 23970), (493, 24066), (514, 24120), (520, 24141), (550, 24228), (555, 24258), (579, 24336),

Gene: Mitti_28 Start: 22196, Stop: 24505, Start Num: 47

Candidate Starts for Mitti_28:

(Start: 47 @22196 has 15 MA's), (79, 22307), (92, 22331), (123, 22448), (147, 22577), (162, 22637), (176, 22709), (179, 22718), (196, 22775), (198, 22784), (208, 22835), (212, 22847), (219, 22862), (221, 22868), (227, 22901), (237, 22949), (255, 23003), (273, 23075), (281, 23114), (284, 23126), (292, 23141), (301, 23186), (313, 23255), (331, 23336), (356, 23489), (370, 23531), (377, 23588), (379, 23600), (386, 23630), (400, 23705), (403, 23732), (411, 23771), (416, 23786), (435, 23882), (460, 24035), (463, 24050), (464, 24056), (469, 24086), (471, 24092), (476, 24119), (480, 24131), (493, 24227), (514, 24281), (520, 24302), (550, 24389), (555, 24419), (579, 24497),

Gene: Moostard_21 Start: 19727, Stop: 22240, Start Num: 18

Candidate Starts for Moostard_21:

(Start: 18 @19727 has 16 MA's), (33, 19790), (51, 19862), (74, 19952), (75, 19958), (84, 20030), (127, 20222), (129, 20234), (133, 20252), (139, 20291), (145, 20321), (159, 20378), (166, 20408), (168, 20414), (179, 20468), (181, 20474), (215, 20621), (217, 20624), (221, 20633), (225, 20651), (236, 20711), (239, 20720), (241, 20732), (253, 20783), (255, 20786), (293, 20951), (304, 21008), (326, 21092), (329, 21110), (330, 21119), (338, 21182), (362, 21302), (373, 21347), (378, 21362), (382,

21380), (392, 21410), (407, 21500), (426, 21569), (431, 21602), (435, 21623), (441, 21659), (446, 21695), (456, 21740), (459, 21764), (460, 21770), (463, 21785), (466, 21803), (473, 21836), (485, 21890), (488, 21914), (494, 21950), (497, 21956), (504, 21980), (557, 22145), (560, 22154), (562, 22160),

Gene: MsGreen_21 Start: 19724, Stop: 22237, Start Num: 18

Candidate Starts for MsGreen_21:

(Start: 18 @19724 has 16 MA's), (33, 19787), (51, 19859), (74, 19949), (75, 19955), (84, 20027), (100, 20114), (127, 20219), (129, 20231), (133, 20249), (139, 20288), (145, 20318), (159, 20375), (166, 20405), (168, 20411), (179, 20465), (181, 20471), (215, 20618), (217, 20621), (221, 20630), (225, 20648), (236, 20708), (239, 20717), (241, 20729), (253, 20780), (255, 20783), (293, 20948), (304, 21005), (326, 21089), (329, 21107), (330, 21116), (338, 21179), (362, 21299), (372, 21323), (373, 21344), (378, 21359), (382, 21377), (392, 21407), (407, 21497), (426, 21566), (431, 21599), (435, 21620), (441, 21656), (446, 21692), (456, 21737), (459, 21761), (460, 21767), (463, 21782), (466, 21800), (485, 21887), (488, 21911), (494, 21947), (497, 21953), (504, 21977), (532, 22052), (533, 22055), (557, 22142), (560, 22151), (562, 22157),

Gene: Mufasa_23 Start: 18681, Stop: 21020, Start Num: 24

Candidate Starts for Mufasa_23:

(Start: 24 @18681 has 51 MA's), (91, 18921), (121, 19029), (123, 19038), (128, 19059), (132, 19083), (162, 19212), (164, 19224), (179, 19293), (216, 19428), (223, 19446), (227, 19473), (259, 19575), (273, 19647), (282, 19689), (283, 19695), (285, 19704), (288, 19710), (303, 19791), (307, 19812), (320, 19854), (325, 19875), (330, 19905), (343, 19992), (346, 20001), (353, 20037), (364, 20091), (378, 20145), (380, 20157), (397, 20217), (407, 20277), (411, 20295), (420, 20322), (431, 20379), (464, 20568), (469, 20598), (487, 20676), (490, 20697), (499, 20739), (510, 20772), (514, 20781), (520, 20802), (531, 20829), (554, 20910), (561, 20934),

Gene: Nicholas_21 Start: 19724, Stop: 22237, Start Num: 18

Candidate Starts for Nicholas_21:

(Start: 18 @19724 has 16 MA's), (33, 19787), (51, 19859), (74, 19949), (75, 19955), (84, 20027), (100, 20114), (127, 20219), (129, 20231), (133, 20249), (139, 20288), (145, 20318), (159, 20375), (166, 20405), (168, 20411), (179, 20465), (181, 20471), (215, 20618), (217, 20621), (221, 20630), (225, 20648), (236, 20708), (239, 20717), (241, 20729), (253, 20780), (255, 20783), (293, 20948), (304, 21005), (326, 21089), (329, 21107), (330, 21116), (338, 21179), (362, 21299), (372, 21323), (373, 21344), (378, 21359), (382, 21377), (392, 21407), (407, 21497), (426, 21566), (431, 21599), (435, 21620), (441, 21656), (446, 21692), (456, 21737), (459, 21761), (460, 21767), (463, 21782), (466, 21800), (485, 21887), (488, 21911), (494, 21947), (497, 21953), (504, 21977), (532, 22052), (533, 22055), (557, 22142), (560, 22151), (562, 22157),

Gene: Nikao_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Nikao_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673), (536, 22703),

Gene: Niklas_27 Start: 20233, Stop: 22734, Start Num: 24

Candidate Starts for Niklas_27:

(Start: 24 @20233 has 51 MA's), (35, 20281), (50, 20332), (66, 20404), (90, 20455), (94, 20473), (102, 20506), (108, 20527), (110, 20539), (126, 20593), (140, 20671), (147, 20710), (161, 20767), (169, 20803), (180, 20854), (189, 20884), (197, 20899), (200, 20923), (208, 20956), (216, 20977), (219, 20983), (227, 21022), (261, 21175), (267, 21208), (270, 21220), (283, 21283), (303, 21367), (334, 21550), (342, 21604), (351, 21646), (393, 21838), (395, 21844), (400, 21868), (410, 21931), (420, 21970), (433, 22033), (441, 22090), (445, 22123), (447, 22141), (455, 22180), (462, 22219), (463, 22225), (474, 22282), (493, 22396), (515, 22450), (519, 22465), (529, 22495), (532, 22507), (548, 22564), (552, 22582), (556, 22612), (563, 22630), (578, 22711),

Gene: Nutello_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Nutello_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: OmniCritical_28 Start: 22181, Stop: 24490, Start Num: 47

Candidate Starts for OmniCritical_28:

(Start: 47 @22181 has 15 MA's), (79, 22292), (92, 22316), (123, 22433), (147, 22562), (159, 22613), (162, 22622), (176, 22694), (179, 22703), (196, 22760), (198, 22769), (208, 22820), (212, 22832), (219, 22847), (221, 22853), (227, 22886), (237, 22934), (255, 22988), (273, 23060), (281, 23099), (284, 23111), (292, 23126), (301, 23171), (313, 23240), (331, 23321), (356, 23474), (377, 23573), (379, 23585), (400, 23690), (411, 23756), (416, 23771), (435, 23867), (460, 24020), (463, 24035), (464, 24041), (467, 24065), (476, 24104), (493, 24212), (513, 24263), (514, 24266), (550, 24374), (555, 24404), (579, 24482),

Gene: Panchino_20 Start: 17533, Stop: 20178, Start Num: 3

Candidate Starts for Panchino_20:

(Start: 1 @17521 has 1 MA's), (Start: 3 @17533 has 9 MA's), (6, 17545), (15, 17656), (Start: 19 @17680 has 1 MA's), (20, 17683), (21, 17692), (34, 17740), (103, 17965), (106, 17977), (111, 17998), (124, 18043), (135, 18097), (148, 18175), (156, 18205), (164, 18241), (169, 18262), (172, 18277), (180, 18319), (188, 18352), (208, 18427), (216, 18451), (219, 18457), (223, 18469), (228, 18511), (229, 18517), (254, 18616), (277, 18736), (280, 18754), (286, 18787), (297, 18814), (303, 18865), (337, 19075), (350, 19141), (358, 19177), (380, 19288), (396, 19351), (429, 19513), (433, 19528), (441, 19579), (460, 19696), (468, 19741), (480, 19783), (485, 19819), (492, 19873), (509, 19921), (554, 20065), (568, 20122), (576, 20161), (579, 20170),

Gene: Patt_28 Start: 22014, Stop: 24320, Start Num: 47

Candidate Starts for Patt_28:

(Start: 47 @22014 has 15 MA's), (56, 22044), (61, 22062), (79, 22125), (123, 22266), (136, 22332), (147, 22395), (159, 22446), (162, 22455), (169, 22488), (179, 22536), (196, 22593), (208, 22653), (212, 22665), (219, 22680), (221, 22686), (227, 22719), (237, 22767), (255, 22821), (273, 22893), (313, 23073), (331, 23154), (356, 23307), (370, 23349), (377, 23406), (379, 23418), (398, 23505), (400, 23523), (411, 23589), (416, 23604), (460, 23853), (463, 23868), (464, 23874), (467, 23898), (476, 23937), (480, 23949), (493, 24045), (506, 24081), (513, 24096), (514, 24099), (520, 24120), (524, 24135), (550, 24204), (555, 24234), (579, 24312),

Gene: Peanam_27 Start: 20230, Stop: 22731, Start Num: 24

Candidate Starts for Peanam_27:

(Start: 24 @20230 has 51 MA's), (35, 20278), (50, 20329), (66, 20401), (90, 20452), (94, 20470), (102, 20503), (108, 20524), (110, 20536), (126, 20590), (140, 20668), (147, 20707), (161, 20764), (169, 20800), (180, 20851), (189, 20881), (197, 20896), (200, 20920), (208, 20953), (216, 20974), (219, 20980), (227, 21019), (261, 21172), (267, 21205), (270, 21217), (283, 21280), (303, 21364), (334, 21547), (342, 21601), (351, 21643), (393, 21835), (395, 21841), (400, 21865), (410, 21928), (420, 21967), (433, 22030), (441, 22087), (445, 22120), (447, 22138), (455, 22177), (462, 22216), (463, 22222), (474, 22279), (493, 22393), (515, 22447), (519, 22462), (529, 22492), (532, 22504), (548, 22561), (552, 22579), (556, 22609), (563, 22627), (578, 22708),

Gene: PenguinLover67_32 Start: 30945, Stop: 33434, Start Num: 23

Candidate Starts for PenguinLover67_32:

(7, 30792), (Start: 23 @30945 has 2 MA's), (48, 31044), (51, 31050), (53, 31062), (66, 31119), (87, 31266), (98, 31317), (101, 31326), (114, 31380), (146, 31533), (166, 31614), (167, 31617), (179, 31677), (184, 31704), (226, 31860), (227, 31863), (229, 31884), (260, 31998), (270, 32046), (287, 32124), (295, 32148), (302, 32169), (319, 32253), (320, 32256), (324, 32274), (352, 32439), (359, 32469), (367, 32499), (374, 32538), (378, 32550), (384, 32580), (395, 32616), (397, 32628), (424, 32751), (425, 32754), (426, 32757), (427, 32763), (430, 32787), (440, 32847), (442, 32865), (457, 32931), (458, 32934), (460, 32955), (469, 33006), (476, 33027), (494, 33132), (537, 33258), (550, 33300), (558, 33336), (564, 33354), (571, 33381),

Gene: Phalm_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for Phalm_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286, 20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: Pharb_26 Start: 21154, Stop: 23529, Start Num: 24

Candidate Starts for Pharb_26:

(Start: 24 @21154 has 51 MA's), (31, 21181), (41, 21214), (54, 21274), (59, 21289), (90, 21379), (94, 21397), (126, 21523), (127, 21529), (130, 21544), (136, 21577), (146, 21634), (147, 21637), (154, 21655), (164, 21703), (179, 21772), (192, 21823), (216, 21910), (227, 21955), (239, 22012), (258, 22057), (267, 22102), (273, 22129), (282, 22171), (283, 22177), (285, 22186), (321, 22324), (336, 22414), (377, 22609), (428, 22840), (429, 22846), (431, 22855), (433, 22861), (439, 22903), (443, 22933), (450, 22990), (453, 22996), (476, 23101), (484, 23146), (491, 23200), (493, 23209), (503, 23239), (552, 23389), (563, 23431), (570, 23464), (579, 23509),

Gene: PhelpsODU_26 Start: 20093, Stop: 22432, Start Num: 24

Candidate Starts for PhelpsODU_26:

(Start: 24 @20093 has 51 MA's), (39, 20150), (66, 20264), (71, 20282), (94, 20333), (99, 20354), (121, 20432), (140, 20531), (142, 20543), (164, 20642), (166, 20651), (186, 20744), (208, 20825), (219, 20855), (223, 20867), (224, 20876), (227, 20894), (228, 20909), (241, 20933), (259, 20993), (267, 21038), (273, 21065), (285, 21122), (290, 21131), (303, 21200), (304, 21203), (307, 21221), (320, 21263), (325, 21284), (330, 21314), (343, 21401), (356, 21464), (362, 21497), (380, 21569), (395, 21617), (397, 21629), (408, 21698), (419, 21722), (431, 21791), (464, 21980), (481, 22055), (485, 22079), (510, 22184), (514, 22193), (519, 22211), (550, 22298), (554, 22322), (567, 22364), (581, 22424),

Gene: Phineas_21 Start: 19035, Stop: 21668, Start Num: 2

Candidate Starts for Phineas_21:

(Start: 2 @19035 has 7 MA's), (4, 19044), (20, 19188), (103, 19461), (106, 19473), (111, 19494), (120, 19518), (135, 19593), (148, 19665), (156, 19695), (164, 19731), (175, 19794), (180, 19809), (188, 19842), (208, 19917), (216, 19941), (219, 19947), (223, 19959), (228, 20001), (229, 20007), (250, 20094), (257, 20115), (261, 20139), (274, 20205), (277, 20226), (280, 20244), (286, 20277), (296, 20301), (297, 20304), (303, 20355), (322, 20460), (330, 20502), (358, 20667), (377, 20763), (396, 20841), (399, 20853), (418, 20943), (429, 21003), (431, 21012), (439, 21060), (441, 21069), (460, 21186), (468, 21231), (480, 21273), (490, 21339), (492, 21363), (509, 21411), (512, 21417), (515, 21423), (547, 21522), (550, 21531), (555, 21561), (576, 21651), (579, 21660),

Gene: Phloss_20 Start: 17556, Stop: 20201, Start Num: 3

Candidate Starts for Phloss_20:

(Start: 1 @17544 has 1 MA's), (Start: 3 @17556 has 9 MA's), (6, 17568), (8, 17580), (12, 17634), (Start: 19 @17703 has 1 MA's), (20, 17706), (21, 17715), (26, 17730), (69, 17907), (103, 17988), (105, 17997), (122, 18054), (125, 18069), (150, 18201), (161, 18249), (164, 18264), (169, 18285), (175, 18327), (180, 18342), (183, 18351), (188, 18378), (191, 18384), (208, 18453), (216, 18474), (219, 18480), (222, 18489), (226, 18516), (240, 18582), (243, 18594), (250, 18627), (254, 18639), (277, 18759), (280, 18777), (286, 18810), (303, 18888), (322, 18993), (330, 19035), (371, 19254), (376, 19293), (377, 19296), (380, 19311), (396, 19374), (405, 19422), (429, 19536), (435, 19566), (439, 19593), (441, 19602), (460, 19719), (468, 19764), (480, 19806), (490, 19872), (492, 19896), (509, 19944), (512, 19950), (515, 19956), (519, 19971), (547, 20055), (555, 20094), (576, 20184), (579, 20193),

Gene: Phrank_26 Start: 20046, Stop: 22382, Start Num: 24

Candidate Starts for Phrank_26:

(Start: 24 @20046 has 51 MA's), (35, 20094), (39, 20103), (66, 20217), (71, 20235), (94, 20286), (121, 20382), (123, 20391), (140, 20481), (142, 20493), (164, 20592), (166, 20601), (186, 20694), (208, 20775), (219, 20805), (223, 20817), (227, 20844), (228, 20859), (241, 20883), (259, 20943), (267, 20988), (273, 21015), (281, 21054), (285, 21072), (290, 21081), (303, 21150), (304, 21153), (307, 21171), (320, 21213), (325, 21234), (330, 21264), (343, 21351), (356, 21414), (362, 21447), (369, 21456), (380, 21519), (395, 21567), (397, 21579), (408, 21648), (419, 21672), (424, 21702), (431, 21741), (464, 21930), (481, 22005), (490, 22059), (514, 22143), (519, 22161), (550, 22248), (554, 22272), (567, 22314), (581, 22374),

Gene: Pixie_26 Start: 21086, Stop: 23437, Start Num: 24

Candidate Starts for Pixie_26:

(Start: 24 @21086 has 51 MA's), (31, 21113), (41, 21146), (65, 21251), (113, 21410), (126, 21455), (133, 21491), (136, 21509), (154, 21587), (164, 21635), (198, 21767), (208, 21821), (213, 21836), (246, 21944), (273, 22061), (282, 22103), (283, 22109), (285, 22118), (290, 22127), (304, 22208), (307, 22226), (320, 22268), (325, 22289), (329, 22310), (330, 22319), (343, 22406), (361, 22499), (362, 22502), (380, 22574), (410, 22709), (411, 22712), (424, 22757), (431, 22796), (434, 22814), (449, 22913), (454, 22931), (464, 22985), (469, 23015), (475, 23033), (481, 23060), (482, 23066), (490, 23114), (510, 23189), (514, 23198), (520, 23219), (522, 23228), (554, 23327), (567, 23369),

Gene: Quesadilla_31 Start: 30831, Stop: 33335, Start Num: 25

Candidate Starts for Quesadilla_31:

(Start: 25 @30831 has 3 MA's), (37, 30882), (48, 30930), (53, 30948), (66, 31005), (82, 31116), (85, 31143), (94, 31185), (146, 31419), (166, 31500), (167, 31503), (179, 31563), (184, 31590), (223, 31725), (227, 31752), (229, 31773), (255, 31872), (260, 31887), (265, 31905), (270, 31935), (283, 32001), (289, 32016), (295, 32037), (311, 32109), (316, 32124), (319, 32142), (320, 32145), (324, 32163), (330, 32196), (333, 32223), (352, 32328), (359, 32358), (367, 32388), (374, 32427), (378, 32439), (384, 32469), (395, 32505), (397, 32517), (424, 32640), (425, 32643), (426, 32646), (427, 32652), (430, 32676), (457, 32820), (460, 32844), (467, 32889), (475, 32913), (530, 33126), (539,

33162), (564, 33255),

Gene: Reptar3000_28 Start: 22013, Stop: 24316, Start Num: 47

Candidate Starts for Reptar3000_28:

(Start: 47 @22013 has 15 MA's), (61, 22061), (63, 22070), (79, 22124), (94, 22157), (123, 22265), (147, 22394), (159, 22445), (162, 22454), (179, 22535), (196, 22592), (208, 22652), (212, 22664), (219, 22679), (221, 22685), (227, 22718), (237, 22766), (255, 22820), (273, 22892), (313, 23072), (331, 23153), (356, 23303), (370, 23345), (377, 23402), (379, 23414), (400, 23519), (411, 23585), (416, 23600), (435, 23696), (460, 23849), (463, 23864), (464, 23870), (467, 23894), (476, 23933), (480, 23945), (493, 24041), (506, 24077), (513, 24092), (514, 24095), (520, 24116), (524, 24131), (550, 24200), (555, 24230), (579, 24308),

Gene: Richo_27 Start: 20230, Stop: 22731, Start Num: 24

Candidate Starts for Richo_27:

(Start: 24 @20230 has 51 MA's), (35, 20278), (50, 20329), (66, 20401), (90, 20452), (94, 20470), (102, 20503), (108, 20524), (110, 20536), (126, 20590), (140, 20668), (147, 20707), (161, 20764), (169, 20800), (180, 20851), (189, 20881), (197, 20896), (200, 20920), (208, 20953), (216, 20974), (219, 20980), (227, 21019), (261, 21172), (267, 21205), (270, 21217), (283, 21280), (303, 21364), (334, 21547), (342, 21601), (351, 21643), (393, 21835), (395, 21841), (400, 21865), (410, 21928), (420, 21967), (433, 22030), (441, 22087), (445, 22120), (447, 22138), (455, 22177), (462, 22216), (463, 22222), (474, 22279), (493, 22393), (515, 22447), (519, 22462), (529, 22492), (532, 22504), (548, 22561), (552, 22579), (556, 22609), (563, 22627), (578, 22708),

Gene: Saguaro_31 Start: 30959, Stop: 33436, Start Num: 25

Candidate Starts for Saguaro_31:

(Start: 25 @30959 has 3 MA's), (30, 30971), (48, 31055), (51, 31061), (53, 31073), (66, 31130), (80, 31181), (94, 31301), (104, 31346), (114, 31382), (122, 31406), (144, 31520), (146, 31535), (167, 31619), (177, 31673), (184, 31706), (187, 31721), (204, 31781), (207, 31793), (209, 31799), (223, 31838), (227, 31865), (229, 31886), (234, 31904), (239, 31919), (255, 31985), (260, 32000), (270, 32048), (283, 32114), (295, 32153), (306, 32207), (320, 32261), (324, 32279), (330, 32312), (350, 32438), (359, 32474), (374, 32543), (378, 32555), (384, 32585), (392, 32609), (397, 32633), (406, 32690), (423, 32750), (424, 32756), (426, 32762), (427, 32768), (428, 32780), (430, 32792), (431, 32795), (434, 32813), (441, 32855), (457, 32936), (458, 32939), (460, 32960), (473, 33026), (476, 33032), (490, 33113), (494, 33137), (537, 33263), (549, 33302), (550, 33305), (551, 33311), (554, 33329), (564, 33359), (570, 33380), (576, 33416),

Gene: Samty_21 Start: 19727, Stop: 22240, Start Num: 18

Candidate Starts for Samty_21:

(Start: 18 @19727 has 16 MA's), (33, 19790), (51, 19862), (74, 19952), (75, 19958), (84, 20030), (127, 20222), (129, 20234), (133, 20252), (139, 20291), (145, 20321), (159, 20378), (166, 20408), (168, 20414), (179, 20468), (181, 20474), (215, 20621), (217, 20624), (221, 20633), (225, 20651), (236, 20711), (239, 20720), (241, 20732), (253, 20783), (255, 20786), (293, 20951), (304, 21008), (326, 21092), (329, 21110), (330, 21119), (338, 21182), (362, 21302), (373, 21347), (378, 21362), (382, 21380), (392, 21410), (407, 21500), (426, 21569), (431, 21602), (435, 21623), (441, 21659), (446, 21695), (456, 21740), (459, 21764), (460, 21770), (463, 21785), (466, 21803), (473, 21836), (485, 21890), (488, 21914), (494, 21950), (497, 21956), (504, 21980), (557, 22145), (560, 22154), (562, 22160),

Gene: Scitech_20 Start: 17553, Stop: 20192, Start Num: 3

Candidate Starts for Scitech_20:

(Start: 1 @17541 has 1 MA's), (Start: 3 @17553 has 9 MA's), (6, 17565), (15, 17676), (Start: 19 @17700 has 1 MA's), (20, 17703), (21, 17712), (58, 17850), (66, 17892), (67, 17895), (103, 17985), (105, 17994), (106, 17997), (111, 18018), (115, 18030), (124, 18063), (135, 18117), (148, 18189),

(156, 18219), (164, 18255), (175, 18318), (180, 18333), (186, 18360), (188, 18366), (208, 18441), (216, 18465), (219, 18471), (223, 18483), (228, 18525), (229, 18531), (250, 18618), (277, 18750), (280, 18768), (286, 18801), (297, 18828), (303, 18879), (337, 19089), (350, 19155), (358, 19191), (378, 19290), (380, 19302), (396, 19365), (429, 19527), (433, 19542), (441, 19593), (460, 19710), (468, 19755), (480, 19797), (485, 19833), (492, 19887), (509, 19935), (554, 20079), (568, 20136), (576, 20175), (579, 20184),

Gene: SgtBeansprout_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for SgtBeansprout_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: Shadow1_25 Start: 19919, Stop: 22255, Start Num: 24

Candidate Starts for Shadow1_25:

(17, 19886), (Start: 24 @19919 has 51 MA's), (28, 19928), (39, 19976), (41, 19979), (76, 20120), (94, 20159), (121, 20255), (123, 20264), (140, 20354), (164, 20465), (186, 20567), (208, 20648), (219, 20678), (223, 20690), (227, 20717), (228, 20732), (241, 20756), (259, 20816), (273, 20888), (290, 20954), (307, 21044), (320, 21086), (325, 21107), (327, 21119), (330, 21137), (343, 21224), (356, 21287), (362, 21320), (380, 21392), (408, 21521), (431, 21614), (434, 21632), (481, 21878), (487, 21911), (514, 22016), (519, 22034), (550, 22121), (554, 22145), (567, 22187), (581, 22247),

Gene: Shaobing_27 Start: 20230, Stop: 22731, Start Num: 24

Candidate Starts for Shaobing_27:

(Start: 24 @20230 has 51 MA's), (35, 20278), (50, 20329), (66, 20401), (90, 20452), (94, 20470), (102, 20503), (108, 20524), (110, 20536), (126, 20590), (140, 20668), (147, 20707), (161, 20764), (169, 20800), (180, 20851), (189, 20881), (197, 20896), (200, 20920), (208, 20953), (216, 20974), (219, 20980), (227, 21019), (261, 21172), (267, 21205), (270, 21217), (283, 21280), (303, 21364), (334, 21547), (342, 21601), (351, 21643), (393, 21835), (395, 21841), (400, 21865), (410, 21928), (411, 21931), (420, 21967), (433, 22030), (441, 22087), (445, 22120), (447, 22138), (455, 22177), (462, 22216), (463, 22222), (474, 22279), (493, 22393), (515, 22447), (519, 22462), (529, 22492), (532, 22504), (548, 22561), (552, 22579), (556, 22609), (563, 22627), (578, 22708),

Gene: ShedlockHolmes_26 Start: 21295, Stop: 23643, Start Num: 24

Candidate Starts for ShedlockHolmes_26:

(Start: 24 @21295 has 51 MA's), (31, 21322), (41, 21355), (51, 21400), (113, 21619), (126, 21664), (133, 21700), (136, 21718), (154, 21796), (164, 21844), (198, 21976), (208, 22030), (213, 22045), (246, 22153), (273, 22270), (282, 22312), (283, 22318), (285, 22327), (290, 22336), (298, 22381), (304, 22417), (307, 22435), (320, 22477), (325, 22498), (329, 22519), (330, 22528), (343, 22615), (361, 22708), (362, 22711), (380, 22783), (424, 22966), (434, 23023), (449, 23122), (454, 23140), (464, 23194), (469, 23224), (473, 23239), (475, 23242), (479, 23251), (481, 23269), (482, 23275), (487, 23302), (490, 23323), (494, 23353), (510, 23398), (514, 23407), (554, 23536), (567, 23575), (569, 23578),

Gene: Shweta_20 Start: 17560, Stop: 20199, Start Num: 3

Candidate Starts for Shweta_20:

(Start: 1 @17548 has 1 MA's), (Start: 3 @17560 has 9 MA's), (6, 17572), (15, 17683), (Start: 19 @17707 has 1 MA's), (20, 17710), (21, 17719), (58, 17857), (66, 17899), (67, 17902), (103, 17992),

(105, 18001), (106, 18004), (111, 18025), (115, 18037), (124, 18070), (135, 18124), (148, 18196), (156, 18226), (164, 18262), (175, 18325), (180, 18340), (186, 18367), (188, 18373), (208, 18448), (216, 18472), (219, 18478), (223, 18490), (228, 18532), (229, 18538), (254, 18637), (277, 18757), (280, 18775), (286, 18808), (297, 18835), (303, 18886), (337, 19096), (350, 19162), (358, 19198), (378, 19297), (380, 19309), (396, 19372), (429, 19534), (433, 19549), (441, 19600), (460, 19717), (468, 19762), (480, 19804), (485, 19840), (492, 19894), (509, 19942), (554, 20086), (568, 20143), (576, 20182), (579, 20191),

Gene: SkinnyPete_20 Start: 17557, Stop: 20202, Start Num: 3

Candidate Starts for SkinnyPete_20:

(Start: 1 @17545 has 1 MA's), (Start: 3 @17557 has 9 MA's), (6, 17569), (15, 17680), (Start: 19 @17704 has 1 MA's), (20, 17707), (21, 17716), (34, 17764), (103, 17989), (106, 18001), (111, 18022), (124, 18067), (135, 18121), (148, 18199), (156, 18229), (164, 18265), (169, 18286), (172, 18301), (180, 18343), (188, 18376), (208, 18451), (216, 18475), (219, 18481), (223, 18493), (228, 18535), (229, 18541), (254, 18640), (277, 18760), (280, 18778), (286, 18811), (297, 18838), (303, 18889), (337, 19099), (350, 19165), (358, 19201), (380, 19312), (396, 19375), (429, 19537), (433, 19552), (441, 19603), (460, 19720), (468, 19765), (480, 19807), (485, 19843), (492, 19897), (509, 19945), (554, 20089), (568, 20146), (576, 20185), (579, 20194),

Gene: Slarp_28 Start: 22283, Stop: 24592, Start Num: 47

Candidate Starts for Slarp_28:

(Start: 47 @22283 has 15 MA's), (79, 22394), (92, 22418), (123, 22535), (147, 22664), (159, 22715), (162, 22724), (169, 22757), (176, 22796), (179, 22805), (196, 22862), (198, 22871), (208, 22922), (212, 22934), (219, 22949), (221, 22955), (227, 22988), (237, 23036), (255, 23090), (273, 23162), (281, 23201), (284, 23213), (292, 23228), (301, 23273), (313, 23342), (331, 23423), (356, 23576), (377, 23675), (379, 23687), (400, 23792), (411, 23858), (416, 23873), (435, 23969), (460, 24122), (463, 24137), (464, 24143), (467, 24167), (476, 24206), (480, 24218), (493, 24314), (514, 24368), (520, 24389), (550, 24476), (555, 24506), (579, 24584),

Gene: Snenia_21 Start: 19725, Stop: 22238, Start Num: 18

Candidate Starts for Snenia_21:

(Start: 18 @19725 has 16 MA's), (33, 19788), (51, 19860), (74, 19950), (75, 19956), (84, 20028), (100, 20115), (127, 20220), (129, 20232), (133, 20250), (139, 20289), (145, 20319), (159, 20376), (166, 20406), (168, 20412), (179, 20466), (181, 20472), (215, 20619), (217, 20622), (221, 20631), (225, 20649), (236, 20709), (239, 20718), (241, 20730), (253, 20781), (255, 20784), (293, 20949), (304, 21006), (326, 21090), (329, 21108), (330, 21117), (338, 21180), (362, 21300), (372, 21324), (373, 21345), (378, 21360), (382, 21378), (392, 21408), (407, 21498), (426, 21567), (431, 21600), (435, 21621), (441, 21657), (446, 21693), (456, 21738), (459, 21762), (460, 21768), (463, 21783), (466, 21801), (485, 21888), (488, 21912), (494, 21948), (497, 21954), (504, 21978), (532, 22053), (533, 22056), (557, 22143), (560, 22152), (562, 22158),

Gene: Squirty_19 Start: 17305, Stop: 19920, Start Num: 1

Candidate Starts for Squirty_19:

(Start: 1 @17305 has 1 MA's), (6, 17326), (9, 17347), (11, 17386), (17, 17455), (Start: 19 @17464 has 1 MA's), (20, 17467), (22, 17485), (34, 17518), (38, 17533), (72, 17635), (98, 17692), (105, 17716), (122, 17773), (137, 17848), (150, 17920), (164, 17983), (168, 17998), (173, 18022), (175, 18046), (180, 18061), (183, 18070), (188, 18097), (191, 18103), (203, 18148), (208, 18172), (216, 18193), (219, 18199), (222, 18208), (226, 18235), (240, 18301), (243, 18313), (250, 18346), (254, 18358), (277, 18478), (280, 18496), (286, 18529), (303, 18607), (322, 18712), (330, 18754), (371, 18973), (376, 19012), (377, 19015), (380, 19030), (396, 19093), (405, 19141), (429, 19255), (435, 19285), (439, 19312), (441, 19321), (460, 19438), (468, 19483), (480, 19525), (490, 19591), (492, 19615), (509, 19663), (512, 19669), (515, 19675), (519, 19690), (547, 19774), (555, 19813), (576, 19903), (579, 19912),

Gene: StressBall_21 Start: 18926, Stop: 21559, Start Num: 2

Candidate Starts for StressBall_21:

(Start: 2 @18926 has 7 MA's), (4, 18935), (20, 19079), (103, 19352), (106, 19364), (111, 19385), (120, 19409), (135, 19484), (148, 19556), (156, 19586), (164, 19622), (175, 19685), (180, 19700), (186, 19727), (188, 19733), (208, 19808), (216, 19832), (219, 19838), (223, 19850), (228, 19892), (229, 19898), (250, 19985), (257, 20006), (261, 20030), (274, 20096), (277, 20117), (280, 20135), (286, 20168), (296, 20192), (297, 20195), (303, 20246), (322, 20351), (330, 20393), (358, 20558), (377, 20654), (396, 20732), (399, 20744), (418, 20834), (429, 20894), (431, 20903), (439, 20951), (441, 20960), (460, 21077), (468, 21122), (480, 21164), (490, 21230), (492, 21254), (509, 21302), (512, 21308), (515, 21314), (547, 21413), (550, 21422), (555, 21452), (576, 21542), (579, 21551),

Gene: Strobilo_23 Start: 18661, Stop: 21000, Start Num: 24

Candidate Starts for Strobilo_23:

(Start: 24 @18661 has 51 MA's), (66, 18832), (71, 18850), (91, 18901), (123, 19018), (130, 19051), (158, 19180), (161, 19189), (164, 19204), (167, 19216), (169, 19225), (179, 19273), (204, 19369), (208, 19387), (216, 19408), (227, 19453), (259, 19555), (273, 19627), (282, 19669), (285, 19684), (303, 19771), (307, 19792), (320, 19834), (325, 19855), (343, 19972), (346, 19981), (353, 20017), (362, 20068), (364, 20071), (378, 20125), (380, 20137), (389, 20161), (407, 20257), (411, 20275), (420, 20302), (431, 20359), (464, 20548), (469, 20578), (482, 20629), (485, 20647), (490, 20677), (502, 20731), (514, 20761), (520, 20782), (561, 20914),

Gene: Sunflower1121_25 Start: 19931, Stop: 22267, Start Num: 24

Candidate Starts for Sunflower1121_25:

(17, 19898), (Start: 24 @19931 has 51 MA's), (28, 19940), (39, 19988), (41, 19991), (76, 20132), (94, 20171), (121, 20267), (140, 20366), (164, 20477), (186, 20579), (208, 20660), (219, 20690), (223, 20702), (227, 20729), (228, 20744), (241, 20768), (259, 20828), (273, 20900), (290, 20966), (307, 21056), (320, 21098), (325, 21119), (330, 21149), (343, 21236), (356, 21299), (362, 21332), (380, 21404), (408, 21533), (431, 21626), (434, 21644), (481, 21890), (487, 21923), (514, 22028), (519, 22046), (550, 22133), (554, 22157), (567, 22199), (581, 22259),

Gene: Syra333_26 Start: 20027, Stop: 22357, Start Num: 24

Candidate Starts for Syra333_26:

(Start: 24 @20027 has 51 MA's), (41, 20087), (71, 20216), (76, 20228), (94, 20267), (121, 20363), (123, 20372), (140, 20462), (147, 20501), (158, 20549), (164, 20573), (166, 20582), (186, 20675), (193, 20690), (208, 20756), (219, 20786), (223, 20798), (227, 20825), (228, 20840), (241, 20864), (259, 20924), (267, 20969), (273, 20996), (281, 21035), (285, 21053), (290, 21062), (303, 21131), (304, 21134), (307, 21152), (320, 21194), (325, 21215), (329, 21236), (330, 21245), (334, 21281), (343, 21332), (362, 21428), (380, 21497), (397, 21557), (408, 21626), (411, 21635), (424, 21680), (431, 21719), (434, 21737), (439, 21767), (464, 21908), (473, 21953), (481, 21983), (485, 22007), (487, 22016), (490, 22037), (494, 22067), (554, 22250), (565, 22277), (567, 22289), (581, 22349),

Gene: TBond007_26 Start: 21085, Stop: 23436, Start Num: 24

Candidate Starts for TBond007_26:

(Start: 24 @21085 has 51 MA's), (31, 21112), (41, 21145), (65, 21250), (113, 21409), (126, 21454), (133, 21490), (136, 21508), (154, 21586), (164, 21634), (198, 21766), (208, 21820), (213, 21835), (246, 21943), (273, 22060), (282, 22102), (283, 22108), (285, 22117), (290, 22126), (304, 22207), (307, 22225), (320, 22267), (325, 22288), (329, 22309), (330, 22318), (343, 22405), (361, 22498), (362, 22501), (380, 22573), (410, 22708), (411, 22711), (424, 22756), (431, 22795), (434, 22813), (449, 22912), (454, 22930), (464, 22984), (469, 23014), (475, 23032), (481, 23059), (482, 23065), (490, 23113), (510, 23188), (514, 23197), (520, 23218), (522, 23227), (554, 23326), (567, 23368),

Gene: TClif_26 Start: 20078, Stop: 22420, Start Num: 24

Candidate Starts for TClif_26:

(Start: 24 @20078 has 51 MA's), (35, 20126), (50, 20177), (66, 20249), (72, 20270), (121, 20417), (123, 20426), (132, 20471), (164, 20627), (166, 20636), (186, 20729), (193, 20744), (204, 20792), (208, 20810), (212, 20825), (219, 20840), (227, 20879), (228, 20894), (241, 20918), (259, 20978), (270, 21035), (273, 21050), (285, 21107), (303, 21188), (307, 21209), (320, 21251), (325, 21272), (329, 21293), (340, 21377), (343, 21389), (356, 21452), (362, 21485), (372, 21509), (374, 21533), (380, 21557), (397, 21617), (405, 21665), (424, 21740), (431, 21779), (434, 21797), (454, 21914), (464, 21968), (481, 22043), (490, 22097), (510, 22172), (520, 22202), (535, 22247), (581, 22412),

Gene: TM4_23 Start: 18727, Stop: 21081, Start Num: 24

Candidate Starts for TM4_23:

(Start: 24 @18727 has 51 MA's), (59, 18859), (123, 19084), (132, 19129), (164, 19270), (169, 19291), (179, 19339), (216, 19474), (223, 19492), (227, 19519), (228, 19534), (259, 19621), (273, 19693), (282, 19735), (283, 19741), (288, 19756), (290, 19759), (298, 19795), (325, 19912), (329, 19933), (360, 20104), (362, 20125), (383, 20221), (392, 20242), (398, 20275), (411, 20350), (413, 20356), (424, 20395), (427, 20407), (431, 20434), (434, 20452), (452, 20566), (459, 20596), (460, 20602), (467, 20647), (473, 20668), (484, 20719), (493, 20782), (516, 20848), (523, 20869), (532, 20890), (545, 20926), (581, 21073),

Gene: Thonko_29 Start: 27164, Stop: 29614, Start Num: 27

Candidate Starts for Thonko_29:

(Start: 27 @27164 has 4 MA's), (42, 27230), (48, 27257), (54, 27278), (103, 27530), (128, 27626), (129, 27635), (144, 27713), (146, 27728), (161, 27785), (167, 27812), (175, 27857), (177, 27863), (184, 27896), (204, 27956), (209, 27977), (218, 28001), (229, 28064), (251, 28151), (260, 28178), (283, 28292), (320, 28439), (324, 28457), (354, 28640), (359, 28652), (374, 28721), (378, 28733), (390, 28778), (425, 28937), (426, 28940), (430, 28970), (458, 29117), (460, 29138), (467, 29183), (476, 29210), (514, 29369), (519, 29387), (539, 29444), (550, 29483), (559, 29525), (564, 29537), (570, 29558), (575, 29588), (576, 29594),

Gene: Tierra_26 Start: 20767, Stop: 23103, Start Num: 24

Candidate Starts for Tierra_26:

(Start: 24 @20767 has 51 MA's), (35, 20815), (39, 20824), (66, 20938), (71, 20956), (94, 21007), (121, 21103), (123, 21112), (140, 21202), (142, 21214), (164, 21313), (166, 21322), (186, 21415), (208, 21496), (219, 21526), (223, 21538), (227, 21565), (228, 21580), (241, 21604), (259, 21664), (267, 21709), (273, 21736), (281, 21775), (285, 21793), (290, 21802), (303, 21871), (304, 21874), (307, 21892), (320, 21934), (325, 21955), (330, 21985), (356, 22135), (362, 22168), (369, 22177), (380, 22240), (395, 22288), (397, 22300), (408, 22369), (419, 22393), (424, 22423), (431, 22462), (464, 22651), (481, 22726), (490, 22780), (514, 22864), (519, 22882), (550, 22969), (554, 22993), (567, 23035), (581, 23095),

Gene: TingHuaYa_27 Start: 20178, Stop: 22490, Start Num: 47

Candidate Starts for TingHuaYa_27:

(Start: 47 @20178 has 15 MA's), (97, 20328), (103, 20349), (119, 20406), (134, 20472), (141, 20517), (151, 20559), (153, 20571), (163, 20616), (185, 20727), (196, 20748), (210, 20814), (216, 20829), (234, 20910), (242, 20940), (255, 20979), (262, 20994), (272, 21054), (297, 21138), (308, 21210), (370, 21519), (376, 21573), (377, 21576), (379, 21588), (386, 21615), (391, 21633), (392, 21639), (416, 21771), (460, 22020), (463, 22035), (467, 22065), (476, 22104), (493, 22212), (503, 22242), (519, 22284), (525, 22305), (542, 22347), (549, 22371), (550, 22374), (554, 22398), (555, 22404), (575, 22467), (579, 22482),

Gene: Torres_23 Start: 20414, Stop: 22900, Start Num: 24

Candidate Starts for Torres_23:

(Start: 24 @20414 has 51 MA's), (35, 20462), (91, 20642), (92, 20645), (108, 20708), (110, 20720), (140, 20852), (147, 20891), (161, 20948), (166, 20972), (169, 20984), (179, 21032), (180, 21035), (190, 21068), (200, 21107), (208, 21140), (212, 21152), (216, 21161), (219, 21167), (231, 21233), (234, 21248), (261, 21359), (267, 21392), (285, 21476), (294, 21491), (303, 21551), (314, 21620), (335, 21740), (351, 21833), (374, 21947), (393, 22025), (395, 22031), (400, 22055), (410, 22118), (411, 22121), (414, 22133), (428, 22199), (429, 22205), (437, 22247), (439, 22268), (441, 22277), (445, 22310), (447, 22328), (460, 22397), (481, 22496), (482, 22502), (485, 22520), (491, 22574), (495, 22589), (505, 22616), (527, 22673),

Gene: TribelTrouble_25 Start: 21122, Stop: 23572, Start Num: 24

Candidate Starts for TribelTrouble_25:

(Start: 24 @21122 has 51 MA's), (31, 21149), (35, 21170), (41, 21182), (51, 21227), (59, 21257), (65, 21287), (89, 21449), (94, 21470), (113, 21548), (126, 21593), (133, 21629), (136, 21647), (154, 21725), (162, 21761), (208, 21959), (213, 21974), (227, 22025), (246, 22082), (273, 22199), (282, 22241), (285, 22256), (290, 22265), (304, 22346), (307, 22364), (320, 22406), (325, 22427), (329, 22448), (330, 22457), (343, 22544), (362, 22640), (378, 22700), (380, 22712), (393, 22754), (408, 22841), (424, 22895), (431, 22934), (434, 22952), (449, 23051), (454, 23069), (464, 23123), (473, 23168), (479, 23180), (482, 23204), (487, 23231), (510, 23327), (514, 23336), (554, 23465), (563, 23492), (567, 23504),

Gene: Typha_27 Start: 23429, Stop: 26023, Start Num: 10

Candidate Starts for Typha_27:

(Start: 10 @23429 has 4 MA's), (13, 23468), (21, 23543), (46, 23645), (49, 23654), (68, 23732), (103, 23813), (105, 23822), (118, 23867), (120, 23870), (122, 23879), (124, 23891), (125, 23894), (130, 23918), (135, 23945), (137, 23954), (148, 24017), (164, 24083), (172, 24119), (173, 24122), (188, 24194), (191, 24200), (208, 24269), (228, 24353), (247, 24434), (252, 24455), (286, 24629), (297, 24656), (303, 24707), (309, 24752), (320, 24803), (322, 24812), (334, 24890), (355, 25013), (357, 25016), (358, 25019), (380, 25130), (396, 25193), (405, 25241), (425, 25328), (429, 25355), (431, 25364), (433, 25370), (441, 25421), (460, 25538), (461, 25541), (480, 25625), (485, 25661), (490, 25691), (492, 25715), (509, 25766), (512, 25772), (515, 25778), (548, 25880), (555, 25916), (576, 26006), (579, 26015),

Gene: Unicorn_26 Start: 20093, Stop: 22432, Start Num: 24

Candidate Starts for Unicorn_26:

(Start: 24 @20093 has 51 MA's), (39, 20150), (66, 20264), (71, 20282), (94, 20333), (99, 20354), (121, 20432), (140, 20531), (142, 20543), (164, 20642), (166, 20651), (186, 20744), (208, 20825), (219, 20855), (223, 20867), (224, 20876), (227, 20894), (228, 20909), (241, 20933), (259, 20993), (267, 21038), (273, 21065), (285, 21122), (290, 21131), (303, 21200), (304, 21203), (307, 21221), (320, 21263), (325, 21284), (330, 21314), (343, 21401), (356, 21464), (362, 21497), (380, 21569), (395, 21617), (397, 21629), (408, 21698), (419, 21722), (431, 21791), (464, 21980), (481, 22055), (485, 22079), (510, 22184), (514, 22193), (519, 22211), (550, 22298), (554, 22322), (567, 22364), (581, 22424),

Gene: Validus_27 Start: 20168, Stop: 22669, Start Num: 24

Candidate Starts for Validus_27:

(Start: 24 @20168 has 51 MA's), (50, 20267), (54, 20285), (66, 20339), (90, 20390), (94, 20408), (110, 20474), (126, 20528), (140, 20606), (147, 20645), (161, 20702), (169, 20738), (180, 20789), (197, 20834), (207, 20888), (208, 20891), (216, 20912), (219, 20918), (227, 20957), (261, 21110), (270, 21155), (285, 21227), (300, 21281), (303, 21302), (305, 21314), (322, 21407), (326, 21422), (334, 21485), (351, 21581), (393, 21773), (395, 21779), (400, 21803), (410, 21866), (429, 21953), (441, 22025), (445, 22058), (447, 22076), (455, 22115), (493, 22331), (532, 22442), (548, 22499), (552, 22517), (556, 22547),

Gene: Vanisoa_30 Start: 22263, Stop: 24611, Start Num: 57

Candidate Starts for Vanisoa_30:

(55, 22257), (Start: 57 @22263 has 2 MA's), (81, 22362), (83, 22395), (107, 22530), (131, 22620), (152, 22722), (157, 22749), (165, 22785), (181, 22854), (182, 22860), (230, 23070), (241, 23112), (263, 23202), (269, 23229), (299, 23343), (304, 23376), (325, 23457), (330, 23487), (332, 23493), (349, 23595), (362, 23673), (378, 23733), (392, 23781), (395, 23793), (427, 23946), (431, 23973), (434, 23991), (441, 24030), (444, 24060), (460, 24141), (461, 24144), (488, 24285), (504, 24351), (520, 24396), (528, 24417), (532, 24426), (562, 24531), (574, 24576), (576, 24588),

Gene: Whirlwind_22 Start: 19481, Stop: 21994, Start Num: 18

Candidate Starts for Whirlwind_22:

(Start: 18 @19481 has 16 MA's), (33, 19544), (51, 19616), (87, 19814), (123, 19958), (127, 19976), (129, 19988), (133, 20006), (139, 20045), (142, 20060), (145, 20075), (159, 20132), (166, 20162), (168, 20168), (179, 20222), (181, 20228), (193, 20285), (215, 20375), (217, 20378), (221, 20387), (225, 20405), (236, 20465), (253, 20537), (255, 20540), (286, 20684), (293, 20705), (304, 20762), (326, 20846), (329, 20864), (330, 20873), (362, 21056), (373, 21101), (378, 21116), (382, 21134), (392, 21164), (402, 21224), (407, 21254), (426, 21323), (431, 21356), (435, 21377), (441, 21413), (444, 21443), (459, 21518), (460, 21524), (463, 21539), (466, 21557), (473, 21590), (484, 21641), (485, 21644), (489, 21671), (494, 21704), (504, 21734), (532, 21809), (545, 21845), (560, 21908), (562, 21914), (580, 21986),

Gene: Willsammy_21 Start: 18930, Stop: 21569, Start Num: 3

Candidate Starts for Willsammy_21:

(Start: 3 @18930 has 9 MA's), (5, 18939), (20, 19083), (103, 19356), (105, 19365), (106, 19368), (111, 19389), (115, 19401), (118, 19410), (124, 19434), (135, 19488), (148, 19566), (156, 19596), (164, 19632), (169, 19653), (172, 19668), (180, 19710), (188, 19743), (208, 19818), (216, 19842), (219, 19848), (223, 19860), (228, 19902), (229, 19908), (250, 19995), (277, 20127), (280, 20145), (286, 20178), (297, 20205), (303, 20256), (337, 20466), (350, 20532), (358, 20568), (378, 20667), (380, 20679), (396, 20742), (429, 20904), (433, 20919), (441, 20970), (460, 21087), (468, 21132), (480, 21174), (485, 21210), (492, 21264), (509, 21312), (554, 21456), (568, 21513), (576, 21552), (579, 21561),

Gene: Wintermute_28 Start: 22272, Stop: 24581, Start Num: 47

Candidate Starts for Wintermute_28:

(Start: 47 @22272 has 15 MA's), (70, 22362), (79, 22383), (92, 22407), (123, 22524), (147, 22653), (162, 22713), (176, 22785), (179, 22794), (192, 22845), (196, 22851), (198, 22860), (208, 22911), (212, 22923), (219, 22938), (221, 22944), (227, 22977), (237, 23025), (255, 23079), (273, 23151), (281, 23190), (284, 23202), (292, 23217), (301, 23262), (313, 23331), (331, 23412), (356, 23565), (370, 23607), (393, 23736), (400, 23781), (411, 23847), (416, 23862), (435, 23958), (460, 24111), (463, 24126), (464, 24132), (467, 24156), (469, 24162), (471, 24168), (472, 24171), (476, 24195), (480, 24207), (493, 24303), (513, 24354), (514, 24357), (536, 24426), (549, 24462), (555, 24495), (573, 24549), (575, 24558), (579, 24573),

Gene: Xeno_20 Start: 17553, Stop: 20198, Start Num: 3

Candidate Starts for Xeno_20:

(Start: 1 @17541 has 1 MA's), (Start: 3 @17553 has 9 MA's), (6, 17565), (8, 17577), (12, 17631), (Start: 19 @17700 has 1 MA's), (20, 17703), (21, 17712), (26, 17727), (69, 17904), (103, 17985), (105, 17994), (122, 18051), (125, 18066), (150, 18198), (161, 18246), (164, 18261), (169, 18282), (175, 18324), (180, 18339), (183, 18348), (188, 18375), (191, 18381), (208, 18450), (216, 18471), (219, 18477), (222, 18486), (226, 18513), (250, 18624), (257, 18645), (261, 18669), (274, 18735), (277, 18756), (280, 18774), (286, 18807), (296, 18831), (297, 18834), (303, 18885), (322, 18990), (330, 19032), (358, 19197), (377, 19293), (396, 19371), (399, 19383), (418, 19473), (429, 19533), (431, 19542), (439, 19590), (441, 19599), (460, 19716), (468, 19761), (480, 19803), (490, 19869), (492,

19893), (509, 19941), (512, 19947), (515, 19953), (547, 20052), (550, 20061), (555, 20091), (576, 20181), (579, 20190),

Gene: Ximenita_27 Start: 20205, Stop: 22535, Start Num: 24

Candidate Starts for Ximenita_27:

(Start: 24 @20205 has 51 MA's), (41, 20265), (71, 20394), (76, 20406), (94, 20445), (121, 20541), (123, 20550), (140, 20640), (147, 20679), (158, 20727), (164, 20751), (166, 20760), (186, 20853), (193, 20868), (208, 20934), (219, 20964), (223, 20976), (227, 21003), (228, 21018), (241, 21042), (259, 21102), (267, 21147), (273, 21174), (281, 21213), (285, 21231), (290, 21240), (303, 21309), (304, 21312), (307, 21330), (320, 21372), (325, 21393), (329, 21414), (330, 21423), (334, 21459), (343, 21510), (380, 21675), (401, 21765), (408, 21804), (411, 21813), (424, 21858), (428, 21882), (431, 21897), (434, 21915), (439, 21945), (464, 22086), (473, 22131), (481, 22161), (485, 22185), (487, 22194), (490, 22215), (494, 22245), (554, 22428), (565, 22455), (567, 22467), (581, 22527),

Gene: Y10_28 Start: 22272, Stop: 24581, Start Num: 47

Candidate Starts for Y10_28:

(Start: 47 @22272 has 15 MA's), (70, 22362), (79, 22383), (92, 22407), (123, 22524), (147, 22653), (162, 22713), (176, 22785), (179, 22794), (192, 22845), (196, 22851), (198, 22860), (208, 22911), (212, 22923), (219, 22938), (221, 22944), (227, 22977), (237, 23025), (255, 23079), (273, 23151), (281, 23190), (284, 23202), (292, 23217), (301, 23262), (313, 23331), (331, 23412), (356, 23565), (370, 23607), (393, 23736), (400, 23781), (411, 23847), (416, 23862), (435, 23958), (460, 24111), (463, 24126), (464, 24132), (467, 24156), (469, 24162), (471, 24168), (472, 24171), (476, 24195), (480, 24207), (493, 24303), (513, 24354), (514, 24357), (536, 24426), (549, 24462), (555, 24495), (573, 24549), (575, 24558), (579, 24573),

Gene: Y2_28 Start: 22272, Stop: 24581, Start Num: 47

Candidate Starts for Y2_28:

(Start: 47 @22272 has 15 MA's), (70, 22362), (79, 22383), (92, 22407), (123, 22524), (147, 22653), (162, 22713), (176, 22785), (179, 22794), (192, 22845), (196, 22851), (198, 22860), (208, 22911), (212, 22923), (219, 22938), (221, 22944), (227, 22977), (237, 23025), (255, 23079), (273, 23151), (281, 23190), (284, 23202), (292, 23217), (301, 23262), (313, 23331), (331, 23412), (356, 23565), (370, 23607), (393, 23736), (400, 23781), (411, 23847), (416, 23862), (435, 23958), (460, 24111), (463, 24126), (464, 24132), (467, 24156), (469, 24162), (471, 24168), (472, 24171), (476, 24195), (480, 24207), (493, 24303), (513, 24354), (514, 24357), (536, 24426), (549, 24462), (555, 24495), (573, 24549), (575, 24558), (579, 24573),

Gene: Yuna_28 Start: 20819, Stop: 23209, Start Num: 24

Candidate Starts for Yuna_28:

(Start: 24 @20819 has 51 MA's), (35, 20867), (45, 20906), (50, 20918), (94, 21059), (108, 21113), (110, 21125), (126, 21179), (130, 21200), (138, 21251), (140, 21257), (159, 21347), (161, 21353), (180, 21440), (196, 21482), (197, 21485), (206, 21533), (208, 21542), (219, 21569), (222, 21578), (227, 21608), (239, 21665), (261, 21761), (263, 21773), (285, 21878), (304, 21947), (315, 21986), (321, 22016), (341, 22139), (346, 22160), (366, 22244), (375, 22295), (376, 22298), (377, 22301), (387, 22340), (400, 22394), (409, 22451), (433, 22553), (434, 22565), (450, 22682), (453, 22688), (462, 22730), (484, 22838), (493, 22901), (548, 23054), (549, 23057), (577, 23183),

Gene: Zenteno07_34 Start: 28705, Stop: 31170, Start Num: 27

Candidate Starts for Zenteno07_34:

(Start: 27 @28705 has 4 MA's), (48, 28801), (53, 28819), (62, 28852), (67, 28879), (128, 29170), (144, 29257), (167, 29356), (177, 29410), (184, 29443), (194, 29473), (202, 29503), (204, 29509), (218, 29554), (223, 29569), (227, 29596), (229, 29617), (239, 29650), (241, 29662), (270, 29779), (275, 29809), (283, 29845), (295, 29884), (320, 29992), (324, 30010), (350, 30169), (359, 30205), (374, 30274), (378, 30286), (395, 30352), (406, 30421), (408, 30433), (424, 30487), (426, 30493), (427,

30499), (430, 30523), (434, 30544), (460, 30691), (467, 30736), (476, 30763), (519, 30940), (534, 30979), (537, 30994), (539, 30997), (555, 31066), (564, 31090), (570, 31111),

Gene: ZoeJ_23 Start: 18602, Stop: 20941, Start Num: 24

Candidate Starts for ZoeJ_23:

(Start: 24 @18602 has 51 MA's), (121, 18953), (123, 18962), (132, 19007), (164, 19151), (170, 19175), (208, 19334), (216, 19358), (219, 19364), (223, 19376), (227, 19403), (259, 19502), (273, 19574), (282, 19616), (283, 19622), (285, 19631), (303, 19712), (307, 19733), (320, 19775), (330, 19826), (343, 19913), (346, 19922), (364, 20012), (378, 20066), (380, 20078), (397, 20138), (407, 20198), (411, 20216), (431, 20300), (439, 20348), (449, 20417), (452, 20432), (464, 20489), (467, 20513), (475, 20537), (479, 20546), (485, 20588), (487, 20597), (507, 20684), (514, 20702), (550, 20807), (554, 20831),