



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 311549 Report

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

Pham number 311549 has 71 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop_44
- Track 2 : Turuncu_43
- Track 3 : Flapper_43
- Track 4 : GTE5_30
- Track 5 : GRU1_29
- Track 6 : MerCougar_40
- Track 7 : Buggaboo_40, SuperSulley_40
- Track 8 : NatB6_39, Kurt_39, Phomeo_38, Emianna_39
- Track 9 : NovumRegina_39, GrootJr_41, Arti_39
- Track 10 : KidneyBean_39
- Track 11 : Foxboro_40, Tracker_39
- Track 12 : NosilaM_42
- Track 13 : Outis_40, StarStruck_40
- Track 14 : Bonum_42
- Track 15 : GTE8_28
- Track 16 : Jifall16_38
- Track 17 : Commandaria_41
- Track 18 : Kabluna_42
- Track 19 : Wheezy_39
- Track 20 : Lollipop1437_44
- Track 21 : Float294_41, Skysand_41
- Track 22 : Patio_42
- Track 23 : RedRaider_46
- Track 24 : Ennea_45
- Track 25 : IDyn_40
- Track 26 : HubbaBubba_37
- Track 27 : Marietta_41, WhoseManz_41
- Track 28 : Yndexa_41, BiPauneto_42, Sukkupi_41
- Track 29 : NadineRae_39
- Track 30 : Pemberton_43
- Track 31 : Pleakley_48, Fury_48
- Track 32 : HomeFry_45
- Track 33 : Scuba_48
- Track 34 : Gagieri_43
- Track 35 : Braxoaddie_43, Polyyuki_43, Apiary_43
- Track 36 : CoffeeBean_43, Maselop_43
- Track 37 : MacGully_48

- Track 38 : GodonK_87
- Track 39 : Phendrix_85
- Track 40 : BlueNGold_98, Boopy_99, Forza_99, Mareelih_97
- Track 41 : Sixama_97
- Track 42 : Poushou_17, Arianna_17, TouchMeNot_17, Colleen_17
- Track 43 : PhaoMing_15
- Track 44 : REQ2_18
- Track 45 : ChewyVIII_54
- Track 46 : Samy_20
- Track 47 : Whack_16
- Track 48 : GAL1_18
- Track 49 : GMA4_16

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

The start number called the most often in the published annotations is 10, it was called in 49 of the 62 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Apiary_43, Arti_39, BiPauneto_42, Bonum_42, Braxoaddie_43, Buggaboo_40, ChewyVIII_54, CoffeeBean_43, Commandaria_41, Dalilpop_44, Emianna_39, Ennea_45, Flapper_43, Float294_41, Foxboro_40, Fury_48, GRU1_29, GTE5_30, GTE8_28, Gagieri_43, GrootJr_41, HomeFry_45, HubbaBubba_37, IDyn_40, Jifall16_38, Kabluna_42, KidneyBean_39, Kurt_39, Lollipop1437_44, MacGully_48, Marietta_41, Maselop_43, MerCougar_40, NadineRae_39, NatB6_39, NosilaM_42, NovumRegina_39, Outis_40, Patio_42, Pemberton_43, Phomeo_38, Pleakley_48, Polyuyuki_43, RedRaider_46, Scuba_48, Skysand_41, StarStruck_40, Sukkupi_41, SuperSulley_40, Tracker_39, Turuncu_43, Wheezy_39, WhoseManz_41, Yndexa_41,

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

- GAL1_18, PhaoMing_15,

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

- Arianna_17, BlueNGold_98, Boopy_99, Colleen_17, Forza_99, GMA4_16, GodonK_87, Mareelih_97, Phendrix_85, Poushou_17, REQ2_18, Samy_20, Sixama_97, TouchMeNot_17, Whack_16,

Summary by start number:

Start 1:

- Found in 2 of 71 (2.8%) of genes in pham
- Manual Annotations of this start: 2 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GodonK_87 (DK), Phendrix_85 (DK),

Start 2:

- Found in 2 of 71 (2.8%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present

- Phage (with cluster) where this start called: REQ2_18 (singleton), Whack_16 (singleton),

Start 4:

- Found in 5 of 71 (7.0%) of genes in pham
- Manual Annotations of this start: 5 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_98 (DS), Boopy_99 (DS), Forza_99 (DS), Mareelih_97 (DS), Sixama_97 (DS),

Start 10:

- Found in 56 of 71 (78.9%) of genes in pham
- Manual Annotations of this start: 49 of 62
- Called 96.4% of time when present
- Phage (with cluster) where this start called: Apiary_43 (CR6), Arti_39 (CR2), BiPauneto_42 (CR4), Bonum_42 (CR2), Braxoaddie_43 (CR6), Buggaboo_40 (CR2), ChewyVIII_54 (singleton), CoffeeBean_43 (CR6), Commandaria_41 (CR2), Dalilpop_44 (CR1), Emianna_39 (CR2), Ennea_45 (CR3), Flapper_43 (CR1), Float294_41 (CR3), Foxboro_40 (CR2), Fury_48 (CR5), GRU1_29 (CR1), GTE5_30 (CR1), GTE8_28 (CR2), Gagieri_43 (CR6), GrootJr_41 (CR2), HomeFry_45 (CR5), HubbaBubba_37 (CR4), IDyn_40 (CR4), Jifall16_38 (CR2), Kabluna_42 (CR2), KidneyBean_39 (CR2), Kurt_39 (CR2), Lollipop1437_44 (CR3), MacGully_48 (CR7), Marietta_41 (CR4), Maselop_43 (CR6), MerCougar_40 (CR2), NadineRae_39 (CR4), NatB6_39 (CR2), NosilaM_42 (CR2), NovumRegina_39 (CR2), Outis_40 (CR2), Patio_42 (CR3), Pemberton_43 (CR4), Phomeo_38 (CR2), Pleakley_48 (CR5), Polyuyki_43 (CR6), RedRaider_46 (CR3), Scuba_48 (CR5), Skysand_41 (CR3), StarStruck_40 (CR2), Sukkupi_41 (CR4), SuperSulley_40 (CR2), Tracker_39 (CR2), Turuncu_43 (CR1), Wheezy_39 (CR2), WhoseManz_41 (CR4), Yndexa_41 (CR4),

Start 13:

- Found in 1 of 71 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 62
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samy_20 (singleton),

Start 14:

- Found in 1 of 71 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4_16 (singleton),

Start 15:

- Found in 2 of 71 (2.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GAL1_18 (singleton), PhaoMing_15 (UNK),

Start 19:

- Found in 4 of 71 (5.6%) of genes in pham
- Manual Annotations of this start: 4 of 62
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Arianna_17 (EO), Colleen_17 (EO), Poushou_17 (EO), TouchMeNot_17 (EO),

Summary by clusters:

There are 12 clusters represented in this pham: CR2, CR3, EO, CR1, CR6, DK, CR4, CR5, singleton, UNK, DS, CR7,

Info for manual annotations of cluster CR1:

- Start number 10 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 10 was manually annotated 21 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 10 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 10 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 10 was manually annotated 3 times for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 10 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 10 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster DK:

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

Info for manual annotations of cluster DS:

- Start number 4 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EO:

- Start number 19 was manually annotated 4 times for cluster EO.

Gene Information:

Gene: Apiary_43 Start: 25209, Stop: 30419, Start Num: 10

Candidate Starts for Apiary_43:

(Start: 10 @25209 has 49 MA's), (32, 25401), (52, 25557), (62, 25611), (63, 25614), (74, 25692), (77, 25707), (126, 25998), (140, 26118), (142, 26145), (161, 26343), (176, 26520), (179, 26562), (186, 26640), (188, 26646), (198, 26718), (201, 26730), (202, 26736), (206, 26757), (215, 26796), (227, 26853), (235, 26895), (237, 26904), (245, 26937), (247, 26955), (249, 26985), (270, 27111), (274, 27144), (278, 27177), (285, 27207), (294, 27255), (295, 27264), (310, 27318), (327, 27390), (330, 27411), (332, 27420), (364, 27576), (377, 27627), (391, 27675), (398, 27708), (407, 27747), (408, 27750), (419, 27801), (420, 27804), (429, 27837), (444, 27879), (448, 27891), (449, 27894), (452, 27903), (463, 27945), (464, 27948), (466, 27954), (469, 27966), (478, 28020), (480, 28032), (511,

28209), (513, 28218), (515, 28221), (528, 28266), (544, 28356), (549, 28374), (583, 28539), (588, 28569), (592, 28584), (621, 28740), (630, 28752), (636, 28776), (647, 28830), (654, 28863), (663, 28908), (684, 29001), (686, 29010), (689, 29022), (692, 29031), (696, 29052), (697, 29055), (707, 29127), (708, 29130), (712, 29151), (718, 29193), (743, 29343), (747, 29376), (748, 29385), (790, 29622), (796, 29667), (813, 29733), (815, 29739), (818, 29760), (820, 29769), (822, 29790), (833, 29811), (840, 29856), (857, 29997), (885, 30186), (887, 30219), (902, 30321), (904, 30333), (909, 30360),

Gene: Arianna_17 Start: 11629, Stop: 16536, Start Num: 19

Candidate Starts for Arianna_17:

(Start: 19 @11629 has 4 MA's), (64, 11956), (87, 12085), (91, 12124), (99, 12172), (124, 12325), (127, 12370), (142, 12538), (147, 12565), (154, 12649), (157, 12688), (171, 12898), (176, 12961), (179, 13003), (189, 13090), (191, 13099), (193, 13111), (203, 13180), (206, 13198), (209, 13207), (210, 13216), (222, 13270), (225, 13285), (243, 13369), (250, 13429), (253, 13447), (263, 13525), (266, 13534), (268, 13543), (269, 13546), (276, 13606), (278, 13618), (280, 13630), (282, 13639), (312, 13771), (350, 13918), (357, 13936), (366, 13966), (375, 14002), (377, 14008), (385, 14038), (393, 14062), (394, 14065), (411, 14140), (413, 14149), (418, 14170), (420, 14173), (422, 14179), (428, 14203), (429, 14206), (439, 14221), (441, 14233), (447, 14254), (451, 14266), (454, 14278), (456, 14287), (478, 14386), (480, 14398), (491, 14419), (499, 14485), (516, 14575), (524, 14596), (540, 14701), (601, 14980), (625, 15115), (633, 15151), (653, 15253), (659, 15283), (666, 15325), (682, 15403), (711, 15565), (728, 15661), (753, 15802), (759, 15844), (762, 15865), (798, 16063), (799, 16087), (811, 16135), (851, 16384), (856, 16417), (863, 16480), (867, 16513), (870, 16522),

Gene: Arti_39 Start: 23467, Stop: 28866, Start Num: 10

Candidate Starts for Arti_39:

(Start: 10 @23467 has 49 MA's), (32, 23659), (49, 23794), (52, 23815), (56, 23830), (83, 23959), (89, 24010), (95, 24043), (146, 24412), (152, 24469), (171, 24706), (174, 24736), (176, 24769), (186, 24889), (193, 24919), (208, 25009), (215, 25045), (225, 25093), (226, 25099), (233, 25123), (235, 25144), (237, 25153), (247, 25204), (249, 25234), (302, 25534), (311, 25576), (312, 25579), (327, 25639), (332, 25669), (369, 25807), (374, 25825), (379, 25852), (387, 25873), (389, 25879), (398, 25918), (399, 25921), (414, 25981), (417, 25993), (420, 26002), (439, 26053), (442, 26068), (475, 26206), (478, 26218), (494, 26293), (507, 26380), (527, 26485), (529, 26497), (545, 26590), (551, 26614), (559, 26662), (562, 26677), (566, 26698), (567, 26722), (569, 26731), (573, 26740), (575, 26746), (582, 26782), (587, 26809), (606, 26902), (623, 27010), (635, 27061), (638, 27085), (643, 27112), (650, 27145), (657, 27178), (669, 27235), (676, 27262), (680, 27277), (689, 27334), (701, 27400), (713, 27484), (729, 27592), (730, 27595), (733, 27625), (852, 28399), (859, 28438), (869, 28525), (885, 28633), (893, 28720), (896, 28744), (902, 28768), (907, 28798), (909, 28807),

Gene: BiPauneto_42 Start: 23233, Stop: 28638, Start Num: 10

Candidate Starts for BiPauneto_42:

(Start: 10 @23233 has 49 MA's), (21, 23344), (24, 23362), (26, 23392), (34, 23431), (50, 23566), (52, 23581), (79, 23719), (89, 23779), (94, 23806), (95, 23812), (132, 24058), (135, 24100), (142, 24163), (144, 24175), (146, 24181), (170, 24463), (176, 24538), (185, 24646), (193, 24688), (205, 24769), (215, 24814), (225, 24862), (233, 24892), (237, 24922), (247, 24973), (249, 25003), (276, 25183), (277, 25189), (278, 25195), (302, 25303), (312, 25348), (313, 25354), (333, 25444), (352, 25519), (374, 25594), (379, 25621), (387, 25642), (393, 25660), (398, 25687), (429, 25804), (433, 25816), (445, 25849), (447, 25855), (453, 25876), (457, 25891), (461, 25909), (469, 25933), (470, 25942), (487, 26020), (493, 26053), (502, 26122), (511, 26188), (545, 26359), (559, 26431), (562, 26446), (567, 26491), (569, 26500), (573, 26509), (598, 26632), (606, 26671), (613, 26707), (623, 26779), (624, 26782), (635, 26830), (638, 26854), (642, 26878), (643, 26881), (650, 26914), (657, 26947), (668, 27004), (669, 27007), (680, 27049), (689, 27106), (693, 27118), (701, 27172), (705, 27187), (710, 27238), (713, 27256), (716, 27280), (723, 27316), (729, 27376), (730, 27379), (733, 27409), (736, 27430), (768, 27640), (785, 27751), (859, 28210), (863, 28252), (893, 28492), (904, 28552),

(907, 28570), (909, 28579),

Gene: BlueNGold_98 Start: 53078, Stop: 59074, Start Num: 4

Candidate Starts for BlueNGold_98:

(Start: 4 @53078 has 5 MA's), (8, 53168), (88, 53714), (106, 53825), (108, 53837), (113, 53855), (153, 54215), (165, 54389), (167, 54431), (171, 54485), (176, 54527), (180, 54578), (185, 54635), (192, 54671), (199, 54731), (200, 54734), (210, 54782), (211, 54785), (219, 54827), (226, 54857), (236, 54908), (244, 54938), (262, 55067), (280, 55181), (288, 55211), (304, 55286), (307, 55298), (335, 55436), (358, 55532), (375, 55595), (384, 55625), (389, 55634), (397, 55667), (418, 55763), (420, 55769), (434, 55817), (435, 55823), (436, 55829), (489, 56036), (497, 56090), (528, 56270), (535, 56324), (541, 56357), (547, 56402), (548, 56405), (553, 56426), (554, 56432), (572, 56543), (577, 56558), (596, 56675), (597, 56678), (628, 56852), (650, 56984), (672, 57110), (674, 57131), (721, 57425), (731, 57497), (746, 57641), (752, 57674), (760, 57734), (771, 57800), (775, 57833), (824, 58148), (837, 58220), (841, 58259), (843, 58289), (846, 58355), (850, 58373), (861, 58457), (862, 58460), (879, 58589), (882, 58613), (898, 58754), (903, 58781), (912, 58976), (913, 58991),

Gene: Bonum_42 Start: 23809, Stop: 29223, Start Num: 10

Candidate Starts for Bonum_42:

(Start: 10 @23809 has 49 MA's), (24, 23938), (52, 24157), (95, 24370), (135, 24658), (142, 24721), (144, 24733), (146, 24739), (163, 24940), (171, 25033), (174, 25063), (176, 25096), (186, 25216), (193, 25246), (194, 25249), (208, 25336), (215, 25372), (225, 25420), (233, 25450), (234, 25459), (235, 25471), (237, 25480), (247, 25531), (249, 25561), (289, 25804), (294, 25831), (295, 25840), (302, 25861), (312, 25906), (327, 25966), (331, 25990), (333, 26002), (379, 26179), (393, 26218), (397, 26239), (402, 26263), (414, 26308), (420, 26329), (422, 26335), (433, 26374), (439, 26380), (443, 26401), (448, 26416), (454, 26437), (465, 26476), (469, 26491), (470, 26500), (472, 26509), (474, 26521), (479, 26551), (480, 26557), (481, 26560), (493, 26611), (496, 26635), (502, 26677), (504, 26689), (527, 26809), (529, 26821), (539, 26881), (545, 26914), (550, 26932), (551, 26938), (559, 26986), (562, 27001), (563, 27010), (564, 27013), (567, 27046), (569, 27055), (573, 27064), (574, 27067), (575, 27070), (606, 27226), (623, 27334), (624, 27337), (635, 27385), (638, 27409), (643, 27436), (650, 27469), (657, 27502), (669, 27559), (680, 27601), (689, 27658), (703, 27736), (713, 27808), (716, 27832), (723, 27865), (724, 27874), (729, 27916), (730, 27919), (733, 27949), (734, 27961), (744, 28021), (795, 28375), (838, 28609), (853, 28762), (859, 28795), (863, 28837), (870, 28888), (893, 29077), (902, 29125), (907, 29155), (909, 29164), (911, 29188),

Gene: Boopy_99 Start: 53090, Stop: 59086, Start Num: 4

Candidate Starts for Boopy_99:

(Start: 4 @53090 has 5 MA's), (8, 53180), (88, 53726), (106, 53837), (108, 53849), (113, 53867), (153, 54227), (165, 54401), (167, 54443), (171, 54497), (176, 54539), (180, 54590), (185, 54647), (192, 54683), (199, 54743), (200, 54746), (210, 54794), (211, 54797), (219, 54839), (226, 54869), (236, 54920), (244, 54950), (262, 55079), (280, 55193), (288, 55223), (304, 55298), (307, 55310), (335, 55448), (358, 55544), (375, 55607), (384, 55637), (389, 55646), (397, 55679), (418, 55775), (420, 55781), (434, 55829), (435, 55835), (436, 55841), (489, 56048), (497, 56102), (528, 56282), (535, 56336), (541, 56369), (547, 56414), (548, 56417), (553, 56438), (554, 56444), (572, 56555), (577, 56570), (596, 56687), (597, 56690), (628, 56864), (650, 56996), (672, 57122), (674, 57143), (721, 57437), (731, 57509), (746, 57653), (752, 57686), (760, 57746), (771, 57812), (775, 57845), (824, 58160), (837, 58232), (841, 58271), (843, 58301), (846, 58367), (850, 58385), (861, 58469), (862, 58472), (879, 58601), (882, 58625), (898, 58766), (903, 58793), (912, 58988), (913, 59003),

Gene: Braxoaddie_43 Start: 25198, Stop: 30408, Start Num: 10

Candidate Starts for Braxoaddie_43:

(Start: 10 @25198 has 49 MA's), (32, 25390), (52, 25546), (62, 25600), (63, 25603), (74, 25681), (77, 25696), (126, 25987), (140, 26107), (142, 26134), (161, 26332), (176, 26509), (179, 26551), (186, 26629), (188, 26635), (198, 26707), (201, 26719), (202, 26725), (206, 26746), (215, 26785), (227,

26842), (235, 26884), (237, 26893), (245, 26926), (247, 26944), (249, 26974), (270, 27100), (274, 27133), (278, 27166), (285, 27196), (294, 27244), (295, 27253), (310, 27307), (327, 27379), (330, 27400), (332, 27409), (364, 27565), (377, 27616), (391, 27664), (398, 27697), (407, 27736), (408, 27739), (419, 27790), (420, 27793), (429, 27826), (444, 27868), (448, 27880), (449, 27883), (452, 27892), (463, 27934), (464, 27937), (466, 27943), (469, 27955), (478, 28009), (480, 28021), (511, 28198), (513, 28207), (515, 28210), (528, 28255), (544, 28345), (549, 28363), (583, 28528), (588, 28558), (592, 28573), (621, 28729), (630, 28741), (636, 28765), (647, 28819), (654, 28852), (663, 28897), (684, 28990), (686, 28999), (689, 29011), (692, 29020), (696, 29041), (697, 29044), (707, 29116), (708, 29119), (712, 29140), (718, 29182), (743, 29332), (747, 29365), (748, 29374), (790, 29611), (796, 29656), (813, 29722), (815, 29728), (818, 29749), (820, 29758), (822, 29779), (833, 29800), (840, 29845), (857, 29986), (885, 30175), (887, 30208), (902, 30310), (904, 30322), (909, 30349),

Gene: Buggaboo_40 Start: 24297, Stop: 29702, Start Num: 10

Candidate Starts for Buggaboo_40:

(Start: 10 @24297 has 49 MA's), (24, 24426), (52, 24645), (54, 24654), (95, 24858), (135, 25146), (142, 25209), (144, 25221), (146, 25227), (171, 25521), (174, 25551), (176, 25584), (183, 25680), (186, 25704), (193, 25734), (208, 25824), (215, 25860), (225, 25908), (226, 25914), (229, 25923), (233, 25938), (235, 25959), (237, 25968), (247, 26019), (249, 26049), (289, 26292), (294, 26319), (295, 26328), (302, 26349), (312, 26394), (327, 26454), (331, 26478), (333, 26490), (379, 26667), (393, 26706), (397, 26727), (405, 26760), (413, 26793), (414, 26796), (420, 26817), (422, 26823), (433, 26862), (439, 26868), (443, 26889), (448, 26904), (454, 26925), (465, 26964), (469, 26979), (470, 26988), (472, 26997), (474, 27009), (479, 27039), (480, 27045), (481, 27048), (493, 27099), (496, 27123), (502, 27165), (504, 27177), (527, 27297), (529, 27309), (539, 27369), (545, 27402), (550, 27420), (551, 27426), (559, 27474), (562, 27489), (563, 27498), (564, 27501), (567, 27534), (569, 27543), (573, 27552), (575, 27558), (606, 27714), (623, 27822), (624, 27825), (635, 27873), (638, 27897), (643, 27924), (650, 27957), (657, 27990), (669, 28047), (680, 28089), (687, 28137), (689, 28146), (692, 28155), (703, 28224), (710, 28278), (713, 28296), (714, 28311), (723, 28353), (724, 28362), (729, 28404), (730, 28407), (733, 28437), (734, 28449), (853, 29241), (859, 29274), (863, 29316), (870, 29367), (893, 29556), (902, 29604), (907, 29634), (909, 29643), (911, 29667),

Gene: ChewyVIII_54 Start: 32390, Stop: 37234, Start Num: 10

Candidate Starts for ChewyVIII_54:

(Start: 10 @32390 has 49 MA's), (12, 32405), (21, 32504), (28, 32561), (38, 32603), (45, 32672), (52, 32732), (57, 32753), (58, 32759), (61, 32777), (85, 32894), (91, 32936), (92, 32939), (98, 32975), (113, 33056), (121, 33101), (123, 33113), (124, 33131), (136, 33236), (141, 33278), (142, 33296), (146, 33314), (160, 33494), (173, 33632), (176, 33674), (178, 33707), (187, 33800), (216, 33956), (222, 33986), (223, 33989), (238, 34064), (254, 34166), (261, 34229), (263, 34241), (272, 34274), (274, 34301), (282, 34346), (284, 34352), (289, 34370), (292, 34385), (338, 34580), (379, 34715), (390, 34742), (396, 34754), (398, 34772), (471, 34946), (473, 34958), (495, 35039), (568, 35390), (576, 35411), (581, 35435), (584, 35459), (589, 35486), (593, 35507), (602, 35543), (603, 35555), (608, 35573), (609, 35582), (615, 35630), (629, 35675), (645, 35738), (649, 35756), (657, 35786), (664, 35810), (676, 35852), (703, 35960), (718, 36053), (726, 36077), (751, 36239), (754, 36254), (782, 36413), (792, 36467), (802, 36524), (812, 36554), (832, 36638), (844, 36707), (873, 36932), (874, 36935), (877, 36944), (893, 37085), (899, 37121), (907, 37169), (908, 37175), (909, 37178),

Gene: CoffeeBean_43 Start: 25156, Stop: 30366, Start Num: 10

Candidate Starts for CoffeeBean_43:

(Start: 10 @25156 has 49 MA's), (32, 25348), (52, 25504), (55, 25516), (62, 25558), (63, 25561), (74, 25639), (77, 25654), (95, 25747), (126, 25945), (140, 26065), (142, 26092), (161, 26290), (176, 26467), (179, 26509), (186, 26587), (188, 26593), (198, 26665), (201, 26677), (202, 26683), (206, 26704), (215, 26743), (227, 26800), (235, 26842), (237, 26851), (245, 26884), (247, 26902), (249, 26932), (270, 27058), (274, 27091), (285, 27154), (294, 27202), (295, 27211), (310, 27265), (327,

27337), (330, 27358), (332, 27367), (364, 27523), (377, 27574), (391, 27622), (398, 27655), (407, 27694), (408, 27697), (419, 27748), (420, 27751), (429, 27784), (444, 27826), (448, 27838), (449, 27841), (452, 27850), (463, 27892), (464, 27895), (466, 27901), (469, 27913), (478, 27967), (480, 27979), (511, 28156), (513, 28165), (515, 28168), (528, 28213), (544, 28303), (549, 28321), (583, 28486), (588, 28516), (592, 28531), (621, 28687), (630, 28699), (636, 28723), (647, 28777), (654, 28810), (663, 28855), (684, 28948), (686, 28957), (689, 28969), (692, 28978), (696, 28999), (697, 29002), (707, 29074), (708, 29077), (712, 29098), (718, 29140), (743, 29290), (747, 29323), (748, 29332), (790, 29569), (796, 29614), (813, 29680), (815, 29686), (818, 29707), (820, 29716), (822, 29737), (833, 29758), (840, 29803), (857, 29944), (885, 30133), (887, 30166), (902, 30268), (904, 30280), (909, 30307),

Gene: Colleen_17 Start: 11629, Stop: 16536, Start Num: 19

Candidate Starts for Colleen_17:

(Start: 19 @11629 has 4 MA's), (64, 11956), (87, 12085), (91, 12124), (99, 12172), (124, 12325), (127, 12370), (142, 12538), (147, 12565), (154, 12649), (157, 12688), (171, 12898), (176, 12961), (179, 13003), (189, 13090), (191, 13099), (193, 13111), (203, 13180), (206, 13198), (209, 13207), (210, 13216), (222, 13270), (225, 13285), (243, 13369), (250, 13429), (253, 13447), (263, 13525), (266, 13534), (268, 13543), (269, 13546), (276, 13606), (278, 13618), (280, 13630), (282, 13639), (312, 13771), (350, 13918), (357, 13936), (366, 13966), (375, 14002), (377, 14008), (385, 14038), (393, 14062), (394, 14065), (411, 14140), (413, 14149), (418, 14170), (420, 14173), (422, 14179), (428, 14203), (429, 14206), (439, 14221), (441, 14233), (447, 14254), (451, 14266), (454, 14278), (456, 14287), (478, 14386), (480, 14398), (491, 14419), (499, 14485), (516, 14575), (524, 14596), (540, 14701), (601, 14980), (625, 15115), (633, 15151), (653, 15253), (659, 15283), (666, 15325), (682, 15403), (711, 15565), (728, 15661), (753, 15802), (759, 15844), (762, 15865), (798, 16063), (799, 16087), (811, 16135), (851, 16384), (856, 16417), (863, 16480), (867, 16513), (870, 16522),

Gene: Commandaria_41 Start: 24799, Stop: 30195, Start Num: 10

Candidate Starts for Commandaria_41:

(Start: 10 @24799 has 49 MA's), (48, 25105), (49, 25126), (52, 25147), (95, 25369), (98, 25381), (135, 25657), (142, 25720), (144, 25732), (146, 25738), (170, 26020), (171, 26032), (174, 26062), (176, 26095), (179, 26137), (185, 26203), (193, 26245), (205, 26326), (215, 26371), (233, 26449), (235, 26470), (237, 26479), (247, 26530), (248, 26554), (249, 26560), (289, 26803), (295, 26839), (302, 26860), (311, 26902), (312, 26905), (354, 27085), (374, 27151), (379, 27178), (389, 27205), (393, 27217), (399, 27247), (412, 27298), (417, 27319), (420, 27328), (426, 27352), (432, 27370), (444, 27403), (469, 27490), (475, 27532), (478, 27544), (498, 27646), (507, 27706), (530, 27826), (541, 27901), (545, 27916), (550, 27934), (551, 27940), (559, 27988), (562, 28003), (567, 28048), (569, 28057), (573, 28066), (575, 28072), (606, 28228), (623, 28336), (624, 28339), (635, 28387), (638, 28411), (643, 28438), (650, 28471), (657, 28504), (668, 28558), (669, 28561), (680, 28603), (689, 28660), (692, 28669), (694, 28684), (701, 28726), (703, 28738), (707, 28774), (710, 28792), (725, 28888), (729, 28930), (730, 28933), (733, 28963), (734, 28975), (736, 28984), (773, 29218), (795, 29353), (859, 29767), (871, 29863), (891, 30040), (893, 30049), (896, 30073), (907, 30127), (909, 30136),

Gene: Dalilpop_44 Start: 25804, Stop: 31200, Start Num: 10

Candidate Starts for Dalilpop_44:

(Start: 10 @25804 has 49 MA's), (32, 25996), (65, 26221), (94, 26368), (118, 26503), (142, 26725), (146, 26743), (162, 26926), (171, 27037), (174, 27067), (176, 27100), (193, 27250), (198, 27298), (205, 27331), (215, 27376), (225, 27424), (233, 27454), (237, 27484), (247, 27535), (249, 27565), (278, 27757), (289, 27808), (302, 27865), (311, 27907), (312, 27910), (346, 28060), (350, 28078), (379, 28183), (389, 28210), (396, 28231), (405, 28276), (410, 28291), (412, 28303), (417, 28324), (428, 28363), (443, 28405), (448, 28420), (455, 28444), (456, 28450), (467, 28486), (471, 28507), (478, 28549), (488, 28585), (527, 28816), (529, 28828), (545, 28921), (550, 28939), (551, 28945), (559, 28993), (562, 29008), (567, 29053), (569, 29062), (573, 29071), (575, 29077), (606, 29233),

(613, 29269), (623, 29341), (635, 29392), (638, 29416), (643, 29443), (650, 29476), (657, 29509), (669, 29566), (676, 29593), (680, 29608), (689, 29665), (707, 29779), (710, 29797), (713, 29815), (714, 29830), (729, 29920), (730, 29923), (737, 29977), (750, 30076), (859, 30772), (878, 30910), (883, 30961), (893, 31054), (894, 31066), (902, 31102), (906, 31129), (909, 31141),

Gene: Emianna_39 Start: 24486, Stop: 29879, Start Num: 10

Candidate Starts for Emianna_39:

(Start: 10 @24486 has 49 MA's), (49, 24813), (52, 24834), (83, 24978), (89, 25023), (95, 25056), (117, 25176), (146, 25425), (152, 25482), (171, 25719), (174, 25749), (176, 25782), (186, 25902), (193, 25932), (208, 26022), (215, 26058), (225, 26106), (226, 26112), (233, 26136), (235, 26157), (237, 26166), (247, 26217), (249, 26247), (302, 26547), (311, 26589), (312, 26592), (327, 26652), (332, 26682), (369, 26820), (374, 26838), (379, 26865), (387, 26886), (389, 26892), (398, 26931), (399, 26934), (414, 26994), (417, 27006), (420, 27015), (439, 27066), (442, 27081), (475, 27219), (478, 27231), (494, 27306), (507, 27393), (527, 27498), (529, 27510), (545, 27603), (551, 27627), (559, 27675), (562, 27690), (566, 27711), (567, 27735), (569, 27744), (573, 27753), (575, 27759), (582, 27795), (587, 27822), (606, 27915), (623, 28023), (635, 28074), (638, 28098), (643, 28125), (650, 28158), (657, 28191), (669, 28248), (676, 28275), (680, 28290), (689, 28347), (701, 28413), (713, 28497), (729, 28605), (730, 28608), (733, 28638), (852, 29412), (859, 29451), (869, 29538), (885, 29646), (893, 29733), (896, 29757), (902, 29781), (907, 29811), (909, 29820),

Gene: Ennea_45 Start: 25122, Stop: 30548, Start Num: 10

Candidate Starts for Ennea_45:

(Start: 10 @25122 has 49 MA's), (52, 25470), (64, 25530), (65, 25539), (118, 25812), (142, 26034), (144, 26046), (146, 26052), (171, 26346), (174, 26376), (176, 26409), (193, 26559), (208, 26649), (215, 26685), (225, 26733), (226, 26739), (233, 26763), (235, 26784), (237, 26793), (247, 26844), (249, 26874), (289, 27117), (302, 27174), (312, 27219), (313, 27225), (344, 27357), (349, 27384), (379, 27492), (387, 27513), (389, 27519), (399, 27561), (420, 27642), (422, 27648), (439, 27693), (442, 27708), (457, 27762), (478, 27858), (507, 28020), (511, 28059), (518, 28089), (529, 28137), (539, 28197), (545, 28230), (551, 28254), (559, 28302), (562, 28317), (563, 28326), (567, 28362), (569, 28371), (573, 28380), (574, 28383), (575, 28386), (606, 28542), (613, 28578), (623, 28650), (635, 28698), (643, 28749), (650, 28782), (657, 28815), (669, 28872), (673, 28887), (701, 29037), (703, 29049), (714, 29136), (724, 29187), (729, 29229), (730, 29232), (733, 29262), (776, 29556), (791, 29646), (794, 29667), (805, 29736), (821, 29823), (859, 30120), (864, 30168), (869, 30207), (893, 30402), (902, 30450), (904, 30462), (906, 30477), (909, 30489), (910, 30498),

Gene: Flapper_43 Start: 24865, Stop: 30267, Start Num: 10

Candidate Starts for Flapper_43:

(Start: 10 @24865 has 49 MA's), (32, 25057), (59, 25246), (65, 25282), (118, 25561), (142, 25783), (146, 25801), (156, 25915), (171, 26095), (174, 26125), (176, 26158), (193, 26308), (198, 26356), (205, 26389), (215, 26434), (225, 26482), (233, 26512), (237, 26542), (247, 26593), (249, 26623), (278, 26815), (302, 26923), (311, 26965), (312, 26968), (346, 27118), (379, 27241), (389, 27268), (405, 27334), (410, 27349), (412, 27361), (415, 27373), (417, 27382), (428, 27421), (455, 27502), (456, 27508), (461, 27529), (467, 27544), (471, 27565), (478, 27607), (488, 27643), (493, 27673), (527, 27874), (529, 27886), (545, 27979), (551, 28003), (559, 28051), (562, 28066), (567, 28111), (569, 28120), (573, 28129), (575, 28135), (606, 28291), (623, 28399), (624, 28402), (635, 28450), (638, 28474), (642, 28498), (643, 28501), (650, 28534), (657, 28567), (669, 28624), (673, 28639), (680, 28666), (689, 28723), (707, 28837), (710, 28855), (713, 28873), (714, 28888), (729, 28978), (737, 29035), (795, 29413), (859, 29839), (883, 30028), (893, 30121), (902, 30169), (906, 30196), (909, 30208),

Gene: Float294_41 Start: 24561, Stop: 29990, Start Num: 10

Candidate Starts for Float294_41:

(Start: 10 @24561 has 49 MA's), (52, 24909), (64, 24969), (65, 24978), (118, 25254), (124, 25296), (142, 25476), (144, 25488), (146, 25494), (164, 25713), (171, 25788), (174, 25818), (176, 25851), (193, 26001), (208, 26091), (215, 26127), (225, 26175), (226, 26181), (233, 26205), (235, 26226), (237, 26235), (247, 26286), (249, 26316), (289, 26559), (302, 26616), (304, 26628), (312, 26661), (313, 26667), (344, 26799), (349, 26826), (379, 26934), (387, 26955), (399, 27003), (420, 27084), (422, 27090), (439, 27135), (442, 27150), (457, 27204), (478, 27300), (507, 27462), (511, 27501), (518, 27531), (529, 27579), (539, 27639), (545, 27672), (551, 27696), (559, 27744), (562, 27759), (563, 27768), (567, 27804), (569, 27813), (573, 27822), (574, 27825), (575, 27828), (606, 27984), (613, 28020), (623, 28092), (635, 28140), (643, 28191), (650, 28224), (657, 28257), (669, 28314), (673, 28329), (701, 28479), (703, 28491), (714, 28578), (724, 28629), (729, 28671), (730, 28674), (733, 28704), (776, 28998), (791, 29088), (794, 29109), (805, 29178), (821, 29265), (859, 29562), (864, 29610), (869, 29649), (893, 29844), (902, 29892), (904, 29904), (906, 29919), (909, 29931), (910, 29940),

Gene: Forza_99 Start: 53006, Stop: 59002, Start Num: 4

Candidate Starts for Forza_99:

(Start: 4 @53006 has 5 MA's), (8, 53096), (88, 53642), (106, 53753), (108, 53765), (113, 53783), (153, 54143), (165, 54317), (167, 54359), (171, 54413), (176, 54455), (180, 54506), (185, 54563), (192, 54599), (199, 54659), (200, 54662), (210, 54710), (211, 54713), (219, 54755), (226, 54785), (236, 54836), (244, 54866), (262, 54995), (280, 55109), (288, 55139), (304, 55214), (307, 55226), (335, 55364), (358, 55460), (375, 55523), (384, 55553), (389, 55562), (397, 55595), (418, 55691), (420, 55697), (434, 55745), (435, 55751), (436, 55757), (489, 55964), (497, 56018), (528, 56198), (535, 56252), (541, 56285), (547, 56330), (548, 56333), (553, 56354), (554, 56360), (572, 56471), (577, 56486), (596, 56603), (597, 56606), (628, 56780), (650, 56912), (672, 57038), (674, 57059), (721, 57353), (731, 57425), (746, 57569), (752, 57602), (760, 57662), (771, 57728), (775, 57761), (824, 58076), (837, 58148), (841, 58187), (843, 58217), (846, 58283), (850, 58301), (861, 58385), (862, 58388), (879, 58517), (882, 58541), (898, 58682), (903, 58709), (912, 58904), (913, 58919),

Gene: Foxboro_40 Start: 24992, Stop: 30385, Start Num: 10

Candidate Starts for Foxboro_40:

(Start: 10 @24992 has 49 MA's), (49, 25319), (52, 25340), (83, 25484), (89, 25529), (95, 25562), (117, 25682), (146, 25931), (152, 25988), (171, 26225), (174, 26255), (176, 26288), (186, 26408), (193, 26438), (208, 26528), (215, 26564), (225, 26612), (226, 26618), (233, 26642), (235, 26663), (237, 26672), (247, 26723), (249, 26753), (302, 27053), (311, 27095), (312, 27098), (327, 27158), (332, 27188), (369, 27326), (374, 27344), (379, 27371), (387, 27392), (389, 27398), (398, 27437), (399, 27440), (414, 27500), (417, 27512), (420, 27521), (439, 27572), (442, 27587), (470, 27692), (475, 27725), (478, 27737), (494, 27812), (507, 27899), (527, 28004), (529, 28016), (545, 28109), (551, 28133), (559, 28181), (562, 28196), (566, 28217), (567, 28241), (569, 28250), (573, 28259), (575, 28265), (582, 28301), (587, 28328), (606, 28421), (623, 28529), (635, 28580), (638, 28604), (643, 28631), (650, 28664), (657, 28697), (669, 28754), (676, 28781), (680, 28796), (689, 28853), (701, 28919), (713, 29003), (729, 29111), (730, 29114), (733, 29144), (852, 29918), (859, 29957), (869, 30044), (885, 30152), (893, 30239), (896, 30263), (902, 30287), (907, 30317), (909, 30326),

Gene: Fury_48 Start: 24214, Stop: 29757, Start Num: 10

Candidate Starts for Fury_48:

(Start: 10 @24214 has 49 MA's), (32, 24403), (41, 24472), (42, 24475), (49, 24538), (52, 24559), (95, 24787), (142, 25138), (146, 25156), (154, 25243), (156, 25270), (163, 25357), (165, 25396), (171, 25450), (174, 25480), (176, 25513), (178, 25546), (185, 25621), (215, 25789), (233, 25867), (235, 25888), (237, 25897), (242, 25921), (247, 25948), (249, 25978), (294, 26248), (302, 26278), (312, 26323), (374, 26569), (379, 26596), (381, 26602), (396, 26644), (405, 26689), (415, 26728), (422, 26752), (433, 26791), (439, 26797), (448, 26833), (452, 26845), (453, 26851), (454, 26854), (461, 26884), (465, 26893), (469, 26908), (479, 26968), (484, 26986), (502, 27097), (511, 27163), (529, 27241), (545, 27358), (551, 27382), (559, 27430), (562, 27445), (565, 27463), (567, 27490), (580,

27541), (588, 27595), (601, 27655), (614, 27742), (616, 27763), (641, 27886), (698, 28204), (701, 28228), (703, 28240), (729, 28420), (783, 28801), (791, 28855), (803, 28945), (860, 29341), (869, 29416), (884, 29521), (893, 29611), (904, 29671), (906, 29686), (909, 29698), (910, 29707),

Gene: GAL1_18 Start: 11671, Stop: 16068, Start Num: 15

Candidate Starts for GAL1_18:

(Start: 10 @11638 has 49 MA's), (11, 11647), (12, 11653), (15, 11671), (18, 11719), (20, 11728), (23, 11761), (30, 11818), (31, 11827), (35, 11842), (43, 11905), (44, 11914), (46, 11926), (57, 12004), (60, 12025), (70, 12073), (76, 12124), (82, 12136), (90, 12193), (97, 12235), (101, 12259), (104, 12280), (105, 12283), (107, 12295), (115, 12334), (116, 12343), (130, 12472), (131, 12475), (132, 12481), (133, 12502), (139, 12544), (142, 12586), (144, 12598), (145, 12601), (149, 12640), (155, 12718), (156, 12724), (157, 12736), (158, 12745), (164, 12829), (169, 12871), (172, 12913), (175, 12958), (176, 12979), (178, 13012), (179, 13021), (183, 13075), (192, 13123), (195, 13144), (196, 13147), (204, 13207), (213, 13234), (214, 13237), (218, 13267), (220, 13270), (224, 13288), (232, 13321), (235, 13345), (251, 13444), (255, 13486), (259, 13504), (266, 13549), (267, 13552), (279, 13627), (301, 13723), (305, 13744), (310, 13756), (314, 13777), (323, 13810), (326, 13822), (327, 13828), (341, 13888), (346, 13897), (347, 13900), (348, 13909), (355, 13930), (357, 13933), (359, 13939), (360, 13942), (372, 13981), (373, 13987), (374, 13993), (378, 14008), (382, 14029), (388, 14044), (393, 14059), (399, 14089), (400, 14092), (401, 14095), (402, 14104), (404, 14110), (414, 14143), (421, 14164), (428, 14188), (441, 14221), (451, 14254), (462, 14296), (482, 14392), (503, 14500), (512, 14563), (533, 14653), (560, 14794), (591, 14962), (596, 14992), (610, 15052), (641, 15235), (651, 15283), (678, 15406), (685, 15454), (697, 15508), (715, 15637), (753, 15853), (757, 15883), (763, 15919), (772, 15964), (773, 15967), (778, 16000), (781, 16021), (787, 16054),

Gene: GMA4_16 Start: 10768, Stop: 16050, Start Num: 14

Candidate Starts for GMA4_16:

(14, 10768), (22, 10858), (34, 10936), (36, 10942), (39, 10954), (51, 11086), (57, 11113), (64, 11155), (69, 11185), (71, 11197), (87, 11287), (106, 11419), (111, 11449), (133, 11614), (134, 11626), (142, 11698), (143, 11704), (144, 11710), (171, 12016), (177, 12076), (178, 12100), (180, 12118), (181, 12139), (197, 12253), (200, 12274), (215, 12343), (221, 12376), (231, 12424), (246, 12502), (257, 12601), (258, 12604), (264, 12649), (275, 12730), (277, 12739), (291, 12805), (297, 12838), (311, 12892), (316, 12913), (320, 12928), (321, 12937), (330, 12979), (356, 13090), (359, 13099), (360, 13102), (361, 13105), (363, 13111), (367, 13126), (376, 13162), (379, 13180), (381, 13186), (385, 13195), (386, 13198), (387, 13201), (392, 13216), (400, 13252), (406, 13282), (407, 13285), (411, 13306), (424, 13357), (425, 13360), (427, 13366), (431, 13378), (471, 13525), (507, 13738), (508, 13741), (512, 13780), (535, 13900), (538, 13909), (555, 13993), (559, 14014), (586, 14161), (607, 14263), (611, 14281), (615, 14326), (617, 14341), (635, 14413), (646, 14482), (650, 14506), (652, 14518), (657, 14545), (661, 14560), (675, 14641), (679, 14659), (691, 14719), (700, 14764), (704, 14794), (722, 14920), (729, 14977), (764, 15232), (766, 15250), (791, 15397), (810, 15511), (817, 15550), (819, 15559), (826, 15640), (827, 15643), (840, 15712), (842, 15733), (843, 15745), (846, 15811), (849, 15823), (854, 15862), (875, 16012), (879, 16036),

Gene: GRU1_29 Start: 16753, Stop: 22167, Start Num: 10

Candidate Starts for GRU1_29:

(Start: 10 @16753 has 49 MA's), (65, 17170), (118, 17461), (142, 17683), (146, 17701), (171, 17995), (174, 18025), (176, 18058), (191, 18196), (193, 18208), (198, 18256), (205, 18289), (215, 18334), (225, 18382), (233, 18412), (237, 18442), (247, 18493), (249, 18523), (278, 18715), (289, 18766), (302, 18823), (311, 18865), (312, 18868), (346, 19018), (379, 19141), (389, 19168), (396, 19189), (405, 19234), (410, 19249), (412, 19261), (417, 19282), (428, 19321), (443, 19363), (448, 19378), (455, 19402), (456, 19408), (467, 19444), (471, 19465), (478, 19507), (488, 19543), (527, 19774), (529, 19786), (545, 19879), (551, 19903), (559, 19951), (562, 19966), (567, 20011), (569, 20020), (573, 20029), (575, 20035), (606, 20191), (613, 20227), (623, 20299), (635, 20350), (638, 20374), (642, 20398), (643, 20401), (650, 20434), (657, 20467), (669, 20524), (673, 20539), (680, 20566),

(689, 20623), (707, 20737), (710, 20755), (713, 20773), (714, 20788), (729, 20878), (730, 20881), (737, 20935), (859, 21739), (882, 21910), (883, 21928), (893, 22021), (902, 22069), (906, 22096), (909, 22108),

Gene: GTE5_30 Start: 17717, Stop: 23122, Start Num: 10

Candidate Starts for GTE5_30:

(Start: 10 @17717 has 49 MA's), (32, 17909), (59, 18098), (65, 18134), (118, 18413), (142, 18635), (146, 18653), (171, 18947), (174, 18977), (176, 19010), (193, 19160), (198, 19208), (205, 19241), (215, 19286), (225, 19334), (233, 19364), (237, 19394), (247, 19445), (249, 19475), (278, 19667), (289, 19718), (302, 19775), (311, 19817), (312, 19820), (346, 19970), (379, 20093), (389, 20120), (396, 20141), (405, 20186), (410, 20201), (412, 20213), (415, 20225), (417, 20234), (428, 20273), (455, 20354), (456, 20360), (467, 20396), (471, 20417), (478, 20459), (488, 20495), (527, 20726), (545, 20831), (551, 20855), (559, 20903), (562, 20918), (567, 20963), (569, 20972), (573, 20981), (575, 20987), (582, 21023), (606, 21143), (623, 21251), (624, 21254), (635, 21302), (638, 21326), (642, 21350), (643, 21353), (650, 21386), (657, 21419), (668, 21476), (669, 21479), (680, 21521), (689, 21578), (707, 21692), (710, 21710), (713, 21728), (714, 21743), (729, 21833), (737, 21890), (789, 22229), (795, 22268), (859, 22694), (883, 22883), (893, 22976), (894, 22988), (902, 23024), (906, 23051), (909, 23063),

Gene: GTE8_28 Start: 17751, Stop: 23138, Start Num: 10

Candidate Starts for GTE8_28:

(Start: 10 @17751 has 49 MA's), (49, 18078), (52, 18099), (83, 18243), (95, 18321), (146, 18690), (152, 18747), (171, 18984), (174, 19014), (176, 19047), (186, 19167), (193, 19197), (205, 19278), (215, 19323), (225, 19371), (226, 19377), (233, 19401), (235, 19422), (237, 19431), (247, 19482), (249, 19512), (289, 19755), (302, 19812), (311, 19854), (312, 19857), (327, 19917), (379, 20130), (387, 20151), (389, 20157), (399, 20199), (420, 20280), (422, 20286), (439, 20331), (442, 20346), (445, 20358), (494, 20571), (507, 20658), (527, 20763), (529, 20775), (545, 20868), (550, 20886), (551, 20892), (559, 20940), (562, 20955), (567, 21000), (569, 21009), (573, 21018), (575, 21024), (587, 21087), (606, 21180), (622, 21285), (623, 21288), (626, 21300), (635, 21333), (638, 21357), (642, 21381), (643, 21384), (650, 21417), (657, 21450), (669, 21507), (680, 21549), (701, 21672), (703, 21684), (713, 21756), (716, 21780), (729, 21864), (730, 21867), (733, 21897), (852, 22671), (859, 22710), (869, 22797), (876, 22836), (893, 22992), (896, 23016), (902, 23040), (907, 23070), (909, 23079),

Gene: Gagieri_43 Start: 25032, Stop: 30248, Start Num: 10

Candidate Starts for Gagieri_43:

(Start: 10 @25032 has 49 MA's), (32, 25224), (49, 25359), (52, 25380), (57, 25401), (66, 25452), (71, 25482), (74, 25515), (77, 25530), (89, 25602), (95, 25635), (117, 25755), (126, 25833), (132, 25875), (142, 25980), (161, 26178), (176, 26355), (179, 26397), (186, 26475), (198, 26553), (202, 26571), (206, 26592), (215, 26631), (227, 26688), (235, 26730), (237, 26739), (245, 26772), (247, 26790), (249, 26820), (269, 26940), (273, 26961), (274, 26979), (278, 27012), (285, 27042), (294, 27090), (299, 27114), (312, 27165), (327, 27225), (330, 27246), (332, 27255), (342, 27318), (345, 27345), (346, 27351), (359, 27396), (364, 27411), (368, 27429), (377, 27462), (391, 27510), (407, 27582), (408, 27585), (414, 27615), (419, 27636), (420, 27639), (429, 27672), (440, 27699), (444, 27714), (448, 27726), (449, 27729), (452, 27738), (463, 27780), (464, 27783), (466, 27789), (469, 27801), (477, 27846), (478, 27855), (480, 27867), (509, 28020), (511, 28044), (513, 28053), (515, 28056), (520, 28068), (544, 28191), (549, 28209), (588, 28404), (592, 28419), (594, 28434), (600, 28452), (621, 28569), (647, 28659), (654, 28692), (663, 28737), (684, 28830), (686, 28839), (689, 28851), (692, 28860), (707, 28956), (712, 28980), (718, 29022), (747, 29202), (748, 29211), (790, 29448), (796, 29493), (813, 29559), (815, 29565), (818, 29586), (820, 29595), (822, 29616), (823, 29619), (833, 29637), (840, 29682), (844, 29715), (857, 29823), (885, 30012), (887, 30045), (890, 30078), (893, 30099), (902, 30147), (904, 30159), (909, 30186),

Gene: GodonK_87 Start: 44708, Stop: 51373, Start Num: 1

Candidate Starts for GodonK_87:

(Start: 1 @44708 has 2 MA's), (7, 45251), (9, 45314), (24, 45452), (40, 45563), (93, 45908), (96, 45941), (102, 45968), (104, 45989), (116, 46049), (124, 46103), (129, 46169), (132, 46208), (153, 46418), (154, 46439), (168, 46655), (171, 46709), (182, 46850), (183, 46862), (195, 46931), (197, 46952), (210, 47021), (215, 47042), (217, 47054), (228, 47102), (234, 47129), (238, 47153), (262, 47306), (269, 47336), (271, 47345), (281, 47426), (287, 47447), (293, 47477), (295, 47492), (300, 47510), (303, 47516), (306, 47534), (308, 47537), (316, 47576), (319, 47588), (322, 47600), (329, 47633), (331, 47642), (337, 47681), (343, 47717), (346, 47729), (353, 47759), (360, 47777), (366, 47798), (367, 47801), (386, 47882), (393, 47903), (395, 47909), (398, 47930), (443, 48119), (450, 48140), (455, 48158), (481, 48272), (501, 48374), (511, 48434), (522, 48476), (531, 48521), (536, 48560), (556, 48680), (557, 48692), (580, 48812), (605, 48953), (617, 49046), (634, 49121), (644, 49190), (656, 49256), (658, 49277), (667, 49337), (672, 49364), (674, 49385), (683, 49436), (690, 49475), (699, 49520), (702, 49544), (715, 49643), (717, 49655), (727, 49724), (730, 49733), (739, 49811), (740, 49814), (765, 50033), (769, 50054), (775, 50099), (783, 50141), (784, 50153), (834, 50501), (845, 50633), (847, 50654), (848, 50657), (881, 50903), (886, 50969), (913, 51290), (914, 51308), (915, 51362),

Gene: GrootJr_41 Start: 23862, Stop: 29261, Start Num: 10

Candidate Starts for GrootJr_41:

(Start: 10 @23862 has 49 MA's), (32, 24054), (49, 24189), (52, 24210), (56, 24225), (83, 24354), (89, 24405), (95, 24438), (146, 24807), (152, 24864), (171, 25101), (174, 25131), (176, 25164), (186, 25284), (193, 25314), (208, 25404), (215, 25440), (225, 25488), (226, 25494), (233, 25518), (235, 25539), (237, 25548), (247, 25599), (249, 25629), (302, 25929), (311, 25971), (312, 25974), (327, 26034), (332, 26064), (369, 26202), (374, 26220), (379, 26247), (387, 26268), (389, 26274), (398, 26313), (399, 26316), (414, 26376), (417, 26388), (420, 26397), (439, 26448), (442, 26463), (475, 26601), (478, 26613), (494, 26688), (507, 26775), (527, 26880), (529, 26892), (545, 26985), (551, 27009), (559, 27057), (562, 27072), (566, 27093), (567, 27117), (569, 27126), (573, 27135), (575, 27141), (582, 27177), (587, 27204), (606, 27297), (623, 27405), (635, 27456), (638, 27480), (643, 27507), (650, 27540), (657, 27573), (669, 27630), (676, 27657), (680, 27672), (689, 27729), (701, 27795), (713, 27879), (729, 27987), (730, 27990), (733, 28020), (852, 28794), (859, 28833), (869, 28920), (885, 29028), (893, 29115), (896, 29139), (902, 29163), (907, 29193), (909, 29202),

Gene: HomeFry_45 Start: 22840, Stop: 28359, Start Num: 10

Candidate Starts for HomeFry_45:

(Start: 10 @22840 has 49 MA's), (32, 23029), (41, 23098), (49, 23164), (52, 23185), (89, 23377), (95, 23410), (103, 23458), (142, 23761), (146, 23779), (154, 23866), (156, 23893), (165, 24019), (171, 24073), (174, 24103), (176, 24136), (178, 24169), (192, 24280), (201, 24346), (215, 24412), (233, 24490), (247, 24571), (249, 24601), (294, 24871), (302, 24901), (312, 24946), (340, 25072), (374, 25192), (379, 25219), (381, 25225), (396, 25267), (405, 25312), (415, 25351), (422, 25375), (433, 25414), (439, 25420), (448, 25456), (452, 25468), (453, 25474), (454, 25477), (465, 25516), (469, 25531), (479, 25591), (484, 25609), (502, 25720), (504, 25732), (511, 25786), (529, 25864), (545, 25981), (551, 26005), (559, 26053), (562, 26068), (567, 26113), (580, 26164), (588, 26218), (601, 26278), (614, 26365), (641, 26509), (701, 26845), (703, 26857), (729, 27037), (758, 27277), (783, 27421), (788, 27454), (860, 27943), (869, 28018), (893, 28213), (904, 28273), (906, 28288), (909, 28300), (910, 28309),

Gene: HubbaBubba_37 Start: 20251, Stop: 25650, Start Num: 10

Candidate Starts for HubbaBubba_37:

(Start: 10 @20251 has 49 MA's), (21, 20362), (24, 20380), (26, 20410), (34, 20449), (50, 20584), (52, 20599), (79, 20737), (94, 20824), (95, 20830), (135, 21118), (142, 21181), (144, 21193), (146, 21199), (170, 21481), (176, 21556), (185, 21664), (193, 21706), (205, 21787), (215, 21832), (225, 21880), (233, 21910), (237, 21940), (247, 21991), (249, 22021), (276, 22201), (278, 22213), (302, 22321),

(312, 22366), (313, 22372), (352, 22537), (359, 22558), (374, 22612), (379, 22639), (387, 22660), (393, 22678), (398, 22705), (420, 22789), (429, 22822), (433, 22834), (445, 22867), (447, 22873), (453, 22894), (457, 22909), (461, 22927), (470, 22960), (487, 23038), (502, 23140), (511, 23206), (545, 23377), (559, 23449), (562, 23464), (567, 23509), (569, 23518), (573, 23527), (598, 23650), (606, 23689), (622, 23794), (623, 23797), (627, 23809), (642, 23890), (643, 23893), (650, 23926), (657, 23959), (668, 24016), (669, 24019), (689, 24118), (693, 24130), (701, 24184), (705, 24199), (710, 24250), (713, 24268), (716, 24292), (723, 24328), (729, 24388), (730, 24391), (733, 24421), (736, 24442), (785, 24763), (859, 25222), (863, 25264), (893, 25504), (904, 25564), (907, 25582), (909, 25591),

Gene: IDyn_40 Start: 21647, Stop: 27046, Start Num: 10

Candidate Starts for IDyn_40:

(Start: 10 @21647 has 49 MA's), (21, 21758), (24, 21776), (26, 21806), (34, 21845), (50, 21980), (52, 21995), (79, 22133), (89, 22193), (94, 22220), (95, 22226), (135, 22514), (142, 22577), (144, 22589), (146, 22595), (170, 22877), (176, 22952), (185, 23060), (193, 23102), (198, 23150), (205, 23183), (215, 23228), (225, 23276), (233, 23306), (237, 23336), (247, 23387), (249, 23417), (276, 23597), (302, 23717), (312, 23762), (313, 23768), (333, 23858), (352, 23933), (374, 24008), (379, 24035), (387, 24056), (393, 24074), (398, 24101), (429, 24218), (433, 24230), (445, 24263), (447, 24269), (453, 24290), (457, 24305), (461, 24323), (469, 24347), (470, 24356), (487, 24434), (502, 24536), (511, 24602), (545, 24773), (559, 24845), (562, 24860), (567, 24905), (569, 24914), (573, 24923), (598, 25046), (606, 25085), (622, 25190), (623, 25193), (627, 25205), (642, 25286), (643, 25289), (650, 25322), (657, 25355), (668, 25412), (669, 25415), (689, 25514), (693, 25526), (701, 25580), (705, 25595), (710, 25646), (713, 25664), (716, 25688), (723, 25724), (729, 25784), (730, 25787), (733, 25817), (736, 25838), (768, 26048), (785, 26159), (859, 26618), (863, 26660), (893, 26900), (904, 26960), (907, 26978), (909, 26987),

Gene: Jifall16_38 Start: 24140, Stop: 29533, Start Num: 10

Candidate Starts for Jifall16_38:

(Start: 10 @24140 has 49 MA's), (49, 24467), (52, 24488), (83, 24632), (89, 24677), (95, 24710), (117, 24830), (146, 25079), (152, 25136), (171, 25373), (174, 25403), (176, 25436), (186, 25556), (193, 25586), (208, 25676), (215, 25712), (225, 25760), (226, 25766), (233, 25790), (235, 25811), (237, 25820), (247, 25871), (249, 25901), (302, 26201), (311, 26243), (312, 26246), (327, 26306), (332, 26336), (369, 26474), (374, 26492), (379, 26519), (387, 26540), (389, 26546), (398, 26585), (399, 26588), (414, 26648), (417, 26660), (420, 26669), (439, 26720), (442, 26735), (475, 26873), (478, 26885), (494, 26960), (507, 27047), (527, 27152), (529, 27164), (545, 27257), (551, 27281), (559, 27329), (562, 27344), (566, 27365), (567, 27389), (569, 27398), (573, 27407), (575, 27413), (582, 27449), (587, 27476), (606, 27569), (623, 27677), (635, 27728), (638, 27752), (643, 27779), (650, 27812), (657, 27845), (669, 27902), (676, 27929), (680, 27944), (689, 28001), (701, 28067), (713, 28151), (729, 28259), (730, 28262), (733, 28292), (852, 29066), (859, 29105), (869, 29192), (885, 29300), (893, 29387), (895, 29402), (896, 29411), (902, 29435), (907, 29465), (909, 29474),

Gene: Kabluna_42 Start: 23212, Stop: 28638, Start Num: 10

Candidate Starts for Kabluna_42:

(Start: 10 @23212 has 49 MA's), (24, 23341), (27, 23374), (47, 23503), (52, 23560), (54, 23569), (83, 23704), (95, 23785), (135, 24073), (142, 24136), (144, 24148), (146, 24154), (171, 24448), (174, 24478), (176, 24511), (186, 24631), (193, 24661), (194, 24664), (208, 24751), (215, 24787), (225, 24835), (233, 24865), (235, 24886), (237, 24895), (247, 24946), (249, 24976), (289, 25219), (294, 25246), (295, 25255), (302, 25276), (312, 25321), (325, 25372), (327, 25381), (331, 25405), (379, 25594), (393, 25633), (397, 25654), (402, 25678), (414, 25723), (420, 25744), (422, 25750), (433, 25789), (439, 25795), (443, 25816), (454, 25852), (465, 25891), (469, 25906), (470, 25915), (472, 25924), (474, 25936), (479, 25966), (480, 25972), (481, 25975), (493, 26026), (496, 26050), (502, 26092), (504, 26104), (527, 26224), (529, 26236), (539, 26296), (545, 26329), (550, 26347), (551, 26353), (559, 26401), (562, 26416), (563, 26425), (564, 26428), (567, 26461), (569, 26470), (573,

26479), (574, 26482), (575, 26485), (606, 26641), (623, 26749), (624, 26752), (635, 26800), (638, 26824), (643, 26851), (650, 26884), (657, 26917), (669, 26974), (680, 27016), (689, 27073), (703, 27151), (713, 27223), (716, 27247), (724, 27289), (729, 27331), (730, 27334), (733, 27364), (734, 27376), (744, 27436), (795, 27790), (838, 28024), (853, 28177), (859, 28210), (863, 28252), (870, 28303), (893, 28492), (902, 28540), (907, 28570), (909, 28579), (911, 28603),

Gene: KidneyBean_39 Start: 24261, Stop: 29657, Start Num: 10

Candidate Starts for KidneyBean_39:

(Start: 10 @24261 has 49 MA's), (32, 24453), (49, 24588), (52, 24609), (56, 24624), (83, 24753), (95, 24834), (146, 25203), (164, 25422), (171, 25497), (174, 25527), (176, 25560), (191, 25698), (193, 25710), (205, 25791), (215, 25836), (225, 25884), (233, 25914), (237, 25944), (240, 25962), (247, 25995), (249, 26025), (289, 26268), (294, 26295), (302, 26325), (311, 26367), (312, 26370), (315, 26385), (332, 26460), (335, 26478), (365, 26583), (374, 26616), (377, 26628), (379, 26643), (381, 26649), (389, 26670), (396, 26691), (405, 26736), (410, 26751), (412, 26763), (413, 26769), (416, 26781), (417, 26784), (423, 26805), (428, 26823), (446, 26874), (467, 26946), (470, 26964), (471, 26967), (479, 27015), (480, 27021), (511, 27210), (525, 27261), (527, 27276), (529, 27288), (545, 27381), (551, 27405), (559, 27453), (562, 27468), (567, 27513), (569, 27522), (573, 27531), (575, 27537), (587, 27600), (606, 27693), (623, 27801), (624, 27804), (635, 27852), (638, 27876), (643, 27903), (650, 27936), (657, 27969), (669, 28026), (680, 28068), (689, 28125), (701, 28191), (713, 28275), (714, 28290), (719, 28320), (729, 28383), (730, 28386), (733, 28416), (859, 29229), (869, 29316), (885, 29424), (893, 29511), (896, 29535), (902, 29559), (907, 29589), (909, 29598),

Gene: Kurt_39 Start: 24501, Stop: 29894, Start Num: 10

Candidate Starts for Kurt_39:

(Start: 10 @24501 has 49 MA's), (49, 24828), (52, 24849), (83, 24993), (89, 25038), (95, 25071), (117, 25191), (146, 25440), (152, 25497), (171, 25734), (174, 25764), (176, 25797), (186, 25917), (193, 25947), (208, 26037), (215, 26073), (225, 26121), (226, 26127), (233, 26151), (235, 26172), (237, 26181), (247, 26232), (249, 26262), (302, 26562), (311, 26604), (312, 26607), (327, 26667), (332, 26697), (369, 26835), (374, 26853), (379, 26880), (387, 26901), (389, 26907), (398, 26946), (399, 26949), (414, 27009), (417, 27021), (420, 27030), (439, 27081), (442, 27096), (475, 27234), (478, 27246), (494, 27321), (507, 27408), (527, 27513), (529, 27525), (545, 27618), (551, 27642), (559, 27690), (562, 27705), (566, 27726), (567, 27750), (569, 27759), (573, 27768), (575, 27774), (582, 27810), (587, 27837), (606, 27930), (623, 28038), (635, 28089), (638, 28113), (643, 28140), (650, 28173), (657, 28206), (669, 28263), (676, 28290), (680, 28305), (689, 28362), (701, 28428), (713, 28512), (729, 28620), (730, 28623), (733, 28653), (852, 29427), (859, 29466), (869, 29553), (885, 29661), (893, 29748), (896, 29772), (902, 29796), (907, 29826), (909, 29835),

Gene: Lollipop1437_44 Start: 25110, Stop: 30536, Start Num: 10

Candidate Starts for Lollipop1437_44:

(Start: 10 @25110 has 49 MA's), (52, 25458), (64, 25518), (65, 25527), (118, 25800), (142, 26022), (144, 26034), (146, 26040), (171, 26334), (174, 26364), (176, 26397), (193, 26547), (208, 26637), (215, 26673), (225, 26721), (226, 26727), (233, 26751), (235, 26772), (237, 26781), (247, 26832), (249, 26862), (289, 27105), (302, 27162), (304, 27174), (312, 27207), (313, 27213), (344, 27345), (349, 27372), (379, 27480), (387, 27501), (389, 27507), (399, 27549), (420, 27630), (422, 27636), (439, 27681), (442, 27696), (457, 27750), (478, 27846), (507, 28008), (511, 28047), (518, 28077), (529, 28125), (539, 28185), (545, 28218), (551, 28242), (559, 28290), (562, 28305), (567, 28350), (569, 28359), (573, 28368), (574, 28371), (575, 28374), (606, 28530), (613, 28566), (623, 28638), (635, 28686), (643, 28737), (650, 28770), (657, 28803), (669, 28860), (673, 28875), (701, 29025), (703, 29037), (714, 29124), (724, 29175), (729, 29217), (730, 29220), (733, 29250), (776, 29544), (791, 29634), (794, 29655), (805, 29724), (821, 29811), (859, 30108), (864, 30156), (869, 30195), (893, 30390), (902, 30438), (904, 30450), (906, 30465), (909, 30477), (910, 30486),

Gene: MacGully_48 Start: 25696, Stop: 30690, Start Num: 10

Candidate Starts for MacGully_48:

(Start: 10 @25696 has 49 MA's), (31, 25882), (32, 25888), (38, 25906), (49, 26023), (52, 26044), (62, 26098), (71, 26146), (74, 26179), (75, 26185), (81, 26194), (95, 26257), (98, 26269), (117, 26377), (122, 26407), (142, 26602), (151, 26668), (161, 26800), (169, 26881), (176, 26977), (178, 27010), (179, 27019), (182, 27061), (198, 27175), (202, 27193), (206, 27214), (233, 27331), (245, 27394), (247, 27412), (249, 27442), (274, 27601), (278, 27634), (302, 27742), (312, 27787), (336, 27898), (374, 28033), (379, 28060), (387, 28081), (393, 28099), (399, 28129), (409, 28162), (419, 28198), (420, 28201), (426, 28222), (430, 28234), (452, 28285), (467, 28330), (471, 28348), (478, 28381), (492, 28426), (514, 28573), (519, 28585), (542, 28678), (547, 28696), (561, 28762), (588, 28909), (592, 28924), (594, 28939), (600, 28957), (621, 29071), (630, 29083), (640, 29137), (647, 29161), (654, 29194), (655, 29203), (689, 29329), (692, 29338), (697, 29362), (707, 29440), (718, 29506), (741, 29638), (799, 29950), (807, 29980), (814, 30001), (833, 30082), (835, 30088), (836, 30097), (840, 30127), (844, 30160), (855, 30253), (857, 30265), (865, 30325), (872, 30373), (904, 30601), (907, 30619), (909, 30628),

Gene: Mareelih_97 Start: 52508, Stop: 58504, Start Num: 4

Candidate Starts for Mareelih_97:

(Start: 4 @52508 has 5 MA's), (8, 52598), (88, 53144), (106, 53255), (108, 53267), (113, 53285), (153, 53645), (165, 53819), (167, 53861), (171, 53915), (176, 53957), (180, 54008), (185, 54065), (192, 54101), (199, 54161), (200, 54164), (210, 54212), (211, 54215), (219, 54257), (226, 54287), (236, 54338), (244, 54368), (262, 54497), (280, 54611), (288, 54641), (304, 54716), (307, 54728), (335, 54866), (358, 54962), (375, 55025), (384, 55055), (389, 55064), (397, 55097), (418, 55193), (420, 55199), (434, 55247), (435, 55253), (436, 55259), (489, 55466), (497, 55520), (528, 55700), (535, 55754), (541, 55787), (547, 55832), (548, 55835), (553, 55856), (554, 55862), (572, 55973), (577, 55988), (596, 56105), (597, 56108), (628, 56282), (650, 56414), (672, 56540), (674, 56561), (721, 56855), (731, 56927), (746, 57071), (752, 57104), (760, 57164), (771, 57230), (775, 57263), (824, 57578), (837, 57650), (841, 57689), (843, 57719), (846, 57785), (850, 57803), (861, 57887), (862, 57890), (879, 58019), (882, 58043), (898, 58184), (903, 58211), (912, 58406), (913, 58421),

Gene: Marietta_41 Start: 21563, Stop: 26962, Start Num: 10

Candidate Starts for Marietta_41:

(Start: 10 @21563 has 49 MA's), (21, 21674), (24, 21692), (26, 21722), (34, 21761), (50, 21896), (52, 21911), (79, 22049), (94, 22136), (95, 22142), (135, 22430), (142, 22493), (144, 22505), (146, 22511), (170, 22793), (176, 22868), (185, 22976), (193, 23018), (205, 23099), (215, 23144), (225, 23192), (233, 23222), (237, 23252), (247, 23303), (249, 23333), (276, 23513), (277, 23519), (278, 23525), (302, 23633), (312, 23678), (313, 23684), (352, 23849), (359, 23870), (374, 23924), (379, 23951), (387, 23972), (393, 23990), (398, 24017), (429, 24134), (433, 24146), (445, 24179), (447, 24185), (453, 24206), (457, 24221), (461, 24239), (469, 24263), (470, 24272), (487, 24350), (502, 24452), (511, 24518), (545, 24689), (559, 24761), (562, 24776), (567, 24821), (569, 24830), (573, 24839), (598, 24962), (606, 25001), (622, 25106), (623, 25109), (627, 25121), (642, 25202), (643, 25205), (650, 25238), (657, 25271), (668, 25328), (669, 25331), (680, 25373), (689, 25430), (693, 25442), (701, 25496), (705, 25511), (710, 25562), (713, 25580), (716, 25604), (723, 25640), (729, 25700), (730, 25703), (733, 25733), (736, 25754), (768, 25964), (785, 26075), (859, 26534), (863, 26576), (893, 26816), (904, 26876), (907, 26894), (909, 26903),

Gene: Maselop_43 Start: 25232, Stop: 30442, Start Num: 10

Candidate Starts for Maselop_43:

(Start: 10 @25232 has 49 MA's), (32, 25424), (52, 25580), (55, 25592), (62, 25634), (63, 25637), (74, 25715), (77, 25730), (95, 25823), (126, 26021), (140, 26141), (142, 26168), (161, 26366), (176, 26543), (179, 26585), (186, 26663), (188, 26669), (198, 26741), (201, 26753), (202, 26759), (206, 26780), (215, 26819), (227, 26876), (235, 26918), (237, 26927), (245, 26960), (247, 26978), (249, 27008), (270, 27134), (274, 27167), (285, 27230), (294, 27278), (295, 27287), (310, 27341), (327, 27413), (330, 27434), (332, 27443), (364, 27599), (377, 27650), (391, 27698), (398, 27731), (407,

27770), (408, 27773), (419, 27824), (420, 27827), (429, 27860), (444, 27902), (448, 27914), (449, 27917), (452, 27926), (463, 27968), (464, 27971), (466, 27977), (469, 27989), (478, 28043), (480, 28055), (511, 28232), (513, 28241), (515, 28244), (528, 28289), (544, 28379), (549, 28397), (583, 28562), (588, 28592), (592, 28607), (621, 28763), (630, 28775), (636, 28799), (647, 28853), (654, 28886), (663, 28931), (684, 29024), (686, 29033), (689, 29045), (692, 29054), (696, 29075), (697, 29078), (707, 29150), (708, 29153), (712, 29174), (718, 29216), (743, 29366), (747, 29399), (748, 29408), (790, 29645), (796, 29690), (813, 29756), (815, 29762), (818, 29783), (820, 29792), (822, 29813), (833, 29834), (840, 29879), (857, 30020), (885, 30209), (887, 30242), (902, 30344), (904, 30356), (909, 30383),

Gene: MerCougar_40 Start: 24411, Stop: 29816, Start Num: 10

Candidate Starts for MerCougar_40:

(Start: 10 @24411 has 49 MA's), (24, 24540), (89, 24939), (95, 24972), (135, 25260), (142, 25323), (144, 25335), (146, 25341), (171, 25635), (174, 25665), (176, 25698), (186, 25818), (215, 25974), (225, 26022), (233, 26052), (237, 26082), (247, 26133), (249, 26163), (276, 26343), (289, 26406), (294, 26433), (298, 26454), (302, 26463), (312, 26508), (327, 26568), (332, 26598), (333, 26604), (379, 26781), (386, 26799), (389, 26808), (396, 26829), (400, 26853), (410, 26889), (412, 26901), (416, 26919), (417, 26922), (446, 27012), (461, 27069), (470, 27102), (471, 27105), (479, 27153), (480, 27159), (529, 27426), (539, 27486), (545, 27519), (550, 27537), (551, 27543), (559, 27591), (562, 27606), (563, 27615), (564, 27618), (567, 27651), (569, 27660), (573, 27669), (574, 27672), (575, 27675), (587, 27738), (606, 27831), (623, 27939), (624, 27942), (635, 27990), (638, 28014), (643, 28041), (650, 28074), (657, 28107), (669, 28164), (680, 28206), (689, 28263), (701, 28329), (703, 28341), (713, 28413), (729, 28518), (852, 29346), (859, 29388), (863, 29430), (870, 29481), (885, 29583), (902, 29718), (907, 29748), (909, 29757),

Gene: NadineRae_39 Start: 20810, Stop: 26215, Start Num: 10

Candidate Starts for NadineRae_39:

(Start: 10 @20810 has 49 MA's), (21, 20921), (24, 20939), (26, 20969), (34, 21008), (50, 21143), (52, 21158), (79, 21296), (89, 21356), (94, 21383), (95, 21389), (135, 21677), (142, 21740), (144, 21752), (146, 21758), (170, 22040), (176, 22115), (185, 22223), (193, 22265), (205, 22346), (215, 22391), (225, 22439), (233, 22469), (237, 22499), (247, 22550), (249, 22580), (252, 22592), (276, 22760), (302, 22880), (312, 22925), (313, 22931), (352, 23096), (374, 23171), (379, 23198), (387, 23219), (393, 23237), (398, 23264), (429, 23381), (433, 23393), (445, 23426), (447, 23432), (453, 23453), (457, 23468), (461, 23486), (469, 23510), (470, 23519), (487, 23597), (502, 23699), (511, 23765), (545, 23936), (550, 23954), (559, 24008), (562, 24023), (567, 24068), (569, 24077), (573, 24086), (606, 24248), (613, 24284), (623, 24356), (624, 24359), (635, 24407), (638, 24431), (642, 24455), (643, 24458), (650, 24491), (657, 24524), (668, 24581), (669, 24584), (680, 24626), (689, 24683), (693, 24695), (701, 24749), (705, 24764), (710, 24815), (713, 24833), (716, 24857), (723, 24893), (729, 24953), (730, 24956), (733, 24986), (736, 25007), (768, 25217), (785, 25328), (859, 25787), (863, 25829), (893, 26069), (904, 26129), (907, 26147), (909, 26156),

Gene: NatB6_39 Start: 23537, Stop: 28930, Start Num: 10

Candidate Starts for NatB6_39:

(Start: 10 @23537 has 49 MA's), (49, 23864), (52, 23885), (83, 24029), (89, 24074), (95, 24107), (117, 24227), (146, 24476), (152, 24533), (171, 24770), (174, 24800), (176, 24833), (186, 24953), (193, 24983), (208, 25073), (215, 25109), (225, 25157), (226, 25163), (233, 25187), (235, 25208), (237, 25217), (247, 25268), (249, 25298), (302, 25598), (311, 25640), (312, 25643), (327, 25703), (332, 25733), (369, 25871), (374, 25889), (379, 25916), (387, 25937), (389, 25943), (398, 25982), (399, 25985), (414, 26045), (417, 26057), (420, 26066), (439, 26117), (442, 26132), (475, 26270), (478, 26282), (494, 26357), (507, 26444), (527, 26549), (529, 26561), (545, 26654), (551, 26678), (559, 26726), (562, 26741), (566, 26762), (567, 26786), (569, 26795), (573, 26804), (575, 26810), (582, 26846), (587, 26873), (606, 26966), (623, 27074), (635, 27125), (638, 27149), (643, 27176), (650, 27209), (657, 27242), (669, 27299), (676, 27326), (680, 27341), (689, 27398), (701, 27464), (713,

27548), (729, 27656), (730, 27659), (733, 27689), (852, 28463), (859, 28502), (869, 28589), (885, 28697), (893, 28784), (896, 28808), (902, 28832), (907, 28862), (909, 28871),

Gene: NosilaM_42 Start: 24109, Stop: 29535, Start Num: 10

Candidate Starts for NosilaM_42:

(Start: 10 @24109 has 49 MA's), (24, 24238), (27, 24271), (47, 24400), (52, 24457), (54, 24466), (83, 24601), (95, 24682), (135, 24970), (142, 25033), (144, 25045), (146, 25051), (171, 25345), (174, 25375), (176, 25408), (186, 25528), (193, 25558), (194, 25561), (208, 25648), (215, 25684), (225, 25732), (233, 25762), (235, 25783), (237, 25792), (247, 25843), (249, 25873), (287, 26107), (289, 26116), (294, 26143), (295, 26152), (302, 26173), (312, 26218), (327, 26278), (331, 26302), (333, 26314), (379, 26491), (393, 26530), (397, 26551), (402, 26575), (414, 26620), (420, 26641), (422, 26647), (433, 26686), (439, 26692), (443, 26713), (448, 26728), (454, 26749), (465, 26788), (469, 26803), (470, 26812), (472, 26821), (474, 26833), (479, 26863), (480, 26869), (481, 26872), (493, 26923), (496, 26947), (502, 26989), (504, 27001), (527, 27121), (529, 27133), (539, 27193), (545, 27226), (550, 27244), (551, 27250), (559, 27298), (562, 27313), (563, 27322), (564, 27325), (567, 27358), (569, 27367), (573, 27376), (574, 27379), (575, 27382), (606, 27538), (623, 27646), (624, 27649), (635, 27697), (638, 27721), (643, 27748), (650, 27781), (657, 27814), (669, 27871), (689, 27970), (703, 28048), (713, 28120), (716, 28144), (723, 28177), (724, 28186), (730, 28231), (733, 28261), (734, 28273), (795, 28687), (838, 28921), (853, 29074), (859, 29107), (863, 29149), (870, 29200), (893, 29389), (902, 29437), (907, 29467), (909, 29476), (911, 29500),

Gene: NovumRegina_39 Start: 23861, Stop: 29260, Start Num: 10

Candidate Starts for NovumRegina_39:

(Start: 10 @23861 has 49 MA's), (32, 24053), (49, 24188), (52, 24209), (56, 24224), (83, 24353), (89, 24404), (95, 24437), (146, 24806), (152, 24863), (171, 25100), (174, 25130), (176, 25163), (186, 25283), (193, 25313), (208, 25403), (215, 25439), (225, 25487), (226, 25493), (233, 25517), (235, 25538), (237, 25547), (247, 25598), (249, 25628), (302, 25928), (311, 25970), (312, 25973), (327, 26033), (332, 26063), (369, 26201), (374, 26219), (379, 26246), (387, 26267), (389, 26273), (398, 26312), (399, 26315), (414, 26375), (417, 26387), (420, 26396), (439, 26447), (442, 26462), (475, 26600), (478, 26612), (494, 26687), (507, 26774), (527, 26879), (529, 26891), (545, 26984), (551, 27008), (559, 27056), (562, 27071), (566, 27092), (567, 27116), (569, 27125), (573, 27134), (575, 27140), (582, 27176), (587, 27203), (606, 27296), (623, 27404), (635, 27455), (638, 27479), (643, 27506), (650, 27539), (657, 27572), (669, 27629), (676, 27656), (680, 27671), (689, 27728), (701, 27794), (713, 27878), (729, 27986), (730, 27989), (733, 28019), (852, 28793), (859, 28832), (869, 28919), (885, 29027), (893, 29114), (896, 29138), (902, 29162), (907, 29192), (909, 29201),

Gene: Outis_40 Start: 24099, Stop: 29510, Start Num: 10

Candidate Starts for Outis_40:

(Start: 10 @24099 has 49 MA's), (21, 24210), (24, 24228), (41, 24360), (52, 24447), (54, 24456), (89, 24633), (95, 24666), (101, 24702), (135, 24954), (142, 25017), (144, 25029), (146, 25035), (171, 25329), (174, 25359), (176, 25392), (186, 25512), (208, 25632), (215, 25668), (225, 25716), (233, 25746), (237, 25776), (247, 25827), (249, 25857), (276, 26037), (289, 26100), (294, 26127), (302, 26157), (312, 26202), (322, 26244), (327, 26262), (332, 26292), (333, 26298), (379, 26475), (389, 26502), (396, 26523), (402, 26559), (410, 26583), (412, 26595), (416, 26613), (417, 26616), (446, 26706), (461, 26763), (470, 26796), (471, 26799), (479, 26847), (480, 26853), (488, 26877), (527, 27108), (529, 27120), (539, 27180), (545, 27213), (550, 27231), (551, 27237), (558, 27279), (559, 27285), (562, 27300), (563, 27309), (564, 27312), (567, 27345), (569, 27354), (573, 27363), (574, 27366), (575, 27369), (606, 27525), (623, 27633), (624, 27636), (635, 27684), (638, 27708), (643, 27735), (650, 27768), (657, 27801), (669, 27858), (680, 27900), (689, 27957), (703, 28035), (713, 28107), (729, 28212), (852, 29040), (859, 29082), (863, 29124), (870, 29175), (885, 29277), (902, 29412), (907, 29442), (909, 29451),

Gene: Patio_42 Start: 24346, Stop: 29772, Start Num: 10

Candidate Starts for Patio_42:

(Start: 10 @24346 has 49 MA's), (52, 24694), (64, 24754), (65, 24763), (118, 25036), (142, 25258), (144, 25270), (146, 25276), (164, 25495), (171, 25570), (174, 25600), (176, 25633), (193, 25783), (208, 25873), (215, 25909), (225, 25957), (226, 25963), (233, 25987), (235, 26008), (237, 26017), (247, 26068), (249, 26098), (289, 26341), (302, 26398), (312, 26443), (313, 26449), (344, 26581), (349, 26608), (379, 26716), (387, 26737), (389, 26743), (399, 26785), (420, 26866), (422, 26872), (439, 26917), (442, 26932), (457, 26986), (478, 27082), (507, 27244), (511, 27283), (518, 27313), (529, 27361), (539, 27421), (545, 27454), (551, 27478), (559, 27526), (562, 27541), (567, 27586), (569, 27595), (573, 27604), (574, 27607), (575, 27610), (606, 27766), (613, 27802), (623, 27874), (635, 27922), (643, 27973), (650, 28006), (657, 28039), (669, 28096), (673, 28111), (701, 28261), (703, 28273), (714, 28360), (724, 28411), (729, 28453), (730, 28456), (733, 28486), (776, 28780), (791, 28870), (794, 28891), (805, 28960), (821, 29047), (859, 29344), (864, 29392), (869, 29431), (893, 29626), (902, 29674), (904, 29686), (906, 29701), (909, 29713), (910, 29722),

Gene: Pemberton_43 Start: 21550, Stop: 26955, Start Num: 10

Candidate Starts for Pemberton_43:

(Start: 10 @21550 has 49 MA's), (21, 21661), (24, 21679), (26, 21709), (34, 21748), (50, 21883), (52, 21898), (79, 22036), (89, 22096), (94, 22123), (95, 22129), (132, 22375), (135, 22417), (142, 22480), (144, 22492), (146, 22498), (170, 22780), (176, 22855), (185, 22963), (193, 23005), (205, 23086), (215, 23131), (225, 23179), (233, 23209), (237, 23239), (247, 23290), (249, 23320), (276, 23500), (277, 23506), (278, 23512), (302, 23620), (312, 23665), (313, 23671), (333, 23761), (352, 23836), (374, 23911), (379, 23938), (387, 23959), (393, 23977), (398, 24004), (420, 24088), (426, 24112), (429, 24121), (433, 24133), (445, 24166), (447, 24172), (453, 24193), (457, 24208), (461, 24226), (465, 24235), (469, 24250), (470, 24259), (487, 24337), (493, 24370), (502, 24439), (511, 24505), (545, 24676), (559, 24748), (562, 24763), (567, 24808), (569, 24817), (573, 24826), (598, 24949), (606, 24988), (613, 25024), (623, 25096), (624, 25099), (635, 25147), (638, 25171), (642, 25195), (643, 25198), (650, 25231), (657, 25264), (668, 25321), (669, 25324), (680, 25366), (689, 25423), (693, 25435), (701, 25489), (705, 25504), (710, 25555), (713, 25573), (716, 25597), (723, 25633), (729, 25693), (730, 25696), (733, 25726), (736, 25747), (768, 25957), (785, 26068), (859, 26527), (863, 26569), (893, 26809), (904, 26869), (907, 26887), (909, 26896),

Gene: PhaoMing_15 Start: 10315, Stop: 14700, Start Num: 15

Candidate Starts for PhaoMing_15:

(Start: 10 @10282 has 49 MA's), (11, 10291), (12, 10297), (15, 10315), (18, 10363), (20, 10372), (23, 10405), (30, 10462), (31, 10471), (35, 10486), (37, 10492), (43, 10549), (44, 10558), (46, 10570), (57, 10648), (60, 10669), (70, 10717), (72, 10741), (76, 10768), (90, 10837), (97, 10879), (101, 10903), (104, 10924), (105, 10927), (107, 10939), (115, 10978), (116, 10987), (131, 11119), (132, 11125), (142, 11230), (144, 11242), (145, 11245), (149, 11284), (155, 11362), (156, 11368), (157, 11380), (158, 11389), (164, 11473), (169, 11515), (172, 11557), (175, 11602), (176, 11623), (178, 11656), (179, 11665), (183, 11719), (185, 11731), (192, 11767), (195, 11788), (196, 11791), (204, 11851), (213, 11878), (214, 11881), (218, 11911), (220, 11914), (224, 11932), (232, 11965), (235, 11989), (251, 12088), (255, 12130), (266, 12193), (267, 12196), (279, 12271), (291, 12325), (292, 12328), (301, 12367), (305, 12388), (310, 12400), (314, 12421), (323, 12454), (326, 12466), (327, 12472), (341, 12532), (346, 12541), (347, 12544), (348, 12553), (355, 12574), (357, 12577), (359, 12583), (360, 12586), (372, 12625), (373, 12631), (374, 12637), (378, 12652), (388, 12688), (393, 12703), (399, 12733), (400, 12736), (401, 12739), (402, 12748), (405, 12757), (414, 12787), (428, 12832), (441, 12865), (451, 12898), (462, 12940), (482, 13036), (503, 13144), (512, 13207), (524, 13246), (533, 13297), (537, 13324), (554, 13399), (560, 13438), (571, 13507), (612, 13699), (641, 13867), (651, 13915), (678, 14038), (685, 14086), (697, 14140), (715, 14269), (753, 14485), (757, 14515), (763, 14551), (772, 14596), (773, 14599), (778, 14632), (781, 14653), (787, 14686),

Gene: Phendrix_85 Start: 44570, Stop: 51235, Start Num: 1

Candidate Starts for Phendrix_85:

(Start: 1 @44570 has 2 MA's), (7, 45113), (9, 45176), (24, 45314), (40, 45425), (93, 45770), (96, 45803), (102, 45830), (104, 45851), (116, 45911), (124, 45965), (129, 46031), (132, 46070), (153, 46280), (154, 46301), (168, 46517), (171, 46571), (182, 46712), (183, 46724), (192, 46772), (195, 46793), (197, 46814), (210, 46883), (215, 46904), (217, 46916), (228, 46964), (234, 46991), (238, 47015), (260, 47153), (262, 47168), (269, 47198), (271, 47207), (287, 47309), (293, 47339), (295, 47354), (300, 47372), (303, 47378), (306, 47396), (308, 47399), (316, 47438), (319, 47450), (322, 47462), (329, 47495), (331, 47504), (337, 47543), (343, 47579), (346, 47591), (353, 47621), (360, 47639), (366, 47660), (367, 47663), (386, 47744), (393, 47765), (395, 47771), (398, 47792), (443, 47981), (450, 48002), (455, 48020), (481, 48134), (501, 48236), (511, 48296), (522, 48338), (531, 48383), (536, 48422), (556, 48542), (557, 48554), (580, 48674), (605, 48815), (617, 48908), (634, 48983), (644, 49052), (656, 49118), (658, 49139), (667, 49199), (672, 49226), (674, 49247), (683, 49298), (690, 49337), (699, 49382), (702, 49406), (715, 49505), (717, 49517), (727, 49586), (730, 49595), (739, 49673), (740, 49676), (765, 49895), (769, 49916), (775, 49961), (783, 50003), (784, 50015), (834, 50363), (845, 50495), (847, 50516), (848, 50519), (881, 50765), (886, 50831), (913, 51152), (914, 51170), (915, 51224),

Gene: Phomeo_38 Start: 24136, Stop: 29529, Start Num: 10

Candidate Starts for Phomeo_38:

(Start: 10 @24136 has 49 MA's), (49, 24463), (52, 24484), (83, 24628), (89, 24673), (95, 24706), (117, 24826), (146, 25075), (152, 25132), (171, 25369), (174, 25399), (176, 25432), (186, 25552), (193, 25582), (208, 25672), (215, 25708), (225, 25756), (226, 25762), (233, 25786), (235, 25807), (237, 25816), (247, 25867), (249, 25897), (302, 26197), (311, 26239), (312, 26242), (327, 26302), (332, 26332), (369, 26470), (374, 26488), (379, 26515), (387, 26536), (389, 26542), (398, 26581), (399, 26584), (414, 26644), (417, 26656), (420, 26665), (439, 26716), (442, 26731), (475, 26869), (478, 26881), (494, 26956), (507, 27043), (527, 27148), (529, 27160), (545, 27253), (551, 27277), (559, 27325), (562, 27340), (566, 27361), (567, 27385), (569, 27394), (573, 27403), (575, 27409), (582, 27445), (587, 27472), (606, 27565), (623, 27673), (635, 27724), (638, 27748), (643, 27775), (650, 27808), (657, 27841), (669, 27898), (676, 27925), (680, 27940), (689, 27997), (701, 28063), (713, 28147), (729, 28255), (730, 28258), (733, 28288), (852, 29062), (859, 29101), (869, 29188), (885, 29296), (893, 29383), (896, 29407), (902, 29431), (907, 29461), (909, 29470),

Gene: Pleakley_48 Start: 24215, Stop: 29758, Start Num: 10

Candidate Starts for Pleakley_48:

(Start: 10 @24215 has 49 MA's), (32, 24404), (41, 24473), (42, 24476), (49, 24539), (52, 24560), (95, 24788), (142, 25139), (146, 25157), (154, 25244), (156, 25271), (163, 25358), (165, 25397), (171, 25451), (174, 25481), (176, 25514), (178, 25547), (185, 25622), (215, 25790), (233, 25868), (235, 25889), (237, 25898), (242, 25922), (247, 25949), (249, 25979), (294, 26249), (302, 26279), (312, 26324), (374, 26570), (379, 26597), (381, 26603), (396, 26645), (405, 26690), (415, 26729), (422, 26753), (433, 26792), (439, 26798), (448, 26834), (452, 26846), (453, 26852), (454, 26855), (461, 26885), (465, 26894), (469, 26909), (479, 26969), (484, 26987), (502, 27098), (511, 27164), (529, 27242), (545, 27359), (551, 27383), (559, 27431), (562, 27446), (565, 27464), (567, 27491), (580, 27542), (588, 27596), (601, 27656), (614, 27743), (616, 27764), (641, 27887), (698, 28205), (701, 28229), (703, 28241), (729, 28421), (783, 28802), (791, 28856), (803, 28946), (860, 29342), (869, 29417), (884, 29522), (893, 29612), (904, 29672), (906, 29687), (909, 29699), (910, 29708),

Gene: Polyuki_43 Start: 25221, Stop: 30431, Start Num: 10

Candidate Starts for Polyuki_43:

(Start: 10 @25221 has 49 MA's), (32, 25413), (52, 25569), (62, 25623), (63, 25626), (74, 25704), (77, 25719), (126, 26010), (140, 26130), (142, 26157), (161, 26355), (176, 26532), (179, 26574), (186, 26652), (188, 26658), (198, 26730), (201, 26742), (202, 26748), (206, 26769), (215, 26808), (227, 26865), (235, 26907), (237, 26916), (245, 26949), (247, 26967), (249, 26997), (270, 27123), (274, 27156), (278, 27189), (285, 27219), (294, 27267), (295, 27276), (310, 27330), (327, 27402), (330, 27423), (332, 27432), (364, 27588), (377, 27639), (391, 27687), (398, 27720), (407, 27759), (408,

27762), (419, 27813), (420, 27816), (429, 27849), (444, 27891), (448, 27903), (449, 27906), (452, 27915), (463, 27957), (464, 27960), (466, 27966), (469, 27978), (478, 28032), (480, 28044), (511, 28221), (513, 28230), (515, 28233), (528, 28278), (544, 28368), (549, 28386), (583, 28551), (588, 28581), (592, 28596), (621, 28752), (630, 28764), (636, 28788), (647, 28842), (654, 28875), (663, 28920), (684, 29013), (686, 29022), (689, 29034), (692, 29043), (696, 29064), (697, 29067), (707, 29139), (708, 29142), (712, 29163), (718, 29205), (743, 29355), (747, 29388), (748, 29397), (790, 29634), (796, 29679), (813, 29745), (815, 29751), (818, 29772), (820, 29781), (822, 29802), (833, 29823), (840, 29868), (857, 30009), (885, 30198), (887, 30231), (902, 30333), (904, 30345), (909, 30372),

Gene: Poushou_17 Start: 11629, Stop: 16536, Start Num: 19

Candidate Starts for Poushou_17:

(Start: 19 @11629 has 4 MA's), (64, 11956), (87, 12085), (91, 12124), (99, 12172), (124, 12325), (127, 12370), (142, 12538), (147, 12565), (154, 12649), (157, 12688), (171, 12898), (176, 12961), (179, 13003), (189, 13090), (191, 13099), (193, 13111), (203, 13180), (206, 13198), (209, 13207), (210, 13216), (222, 13270), (225, 13285), (243, 13369), (250, 13429), (253, 13447), (263, 13525), (266, 13534), (268, 13543), (269, 13546), (276, 13606), (278, 13618), (280, 13630), (282, 13639), (312, 13771), (350, 13918), (357, 13936), (366, 13966), (375, 14002), (377, 14008), (385, 14038), (393, 14062), (394, 14065), (411, 14140), (413, 14149), (418, 14170), (420, 14173), (422, 14179), (428, 14203), (429, 14206), (439, 14221), (441, 14233), (447, 14254), (451, 14266), (454, 14278), (456, 14287), (478, 14386), (480, 14398), (491, 14419), (499, 14485), (516, 14575), (524, 14596), (540, 14701), (601, 14980), (625, 15115), (633, 15151), (653, 15253), (659, 15283), (666, 15325), (682, 15403), (711, 15565), (728, 15661), (753, 15802), (759, 15844), (762, 15865), (798, 16063), (799, 16087), (811, 16135), (851, 16384), (856, 16417), (863, 16480), (867, 16513), (870, 16522),

Gene: REQ2_18 Start: 12445, Stop: 18258, Start Num: 2

Candidate Starts for REQ2_18:

(Start: 2 @12445 has 1 MA's), (5, 12493), (17, 12664), (33, 12805), (53, 12958), (55, 12970), (67, 13045), (68, 13051), (70, 13060), (78, 13114), (84, 13147), (92, 13198), (93, 13201), (100, 13252), (109, 13306), (110, 13309), (119, 13366), (120, 13369), (124, 13402), (125, 13420), (127, 13447), (128, 13450), (130, 13480), (135, 13531), (137, 13540), (144, 13630), (178, 14125), (189, 14227), (201, 14308), (207, 14338), (220, 14407), (230, 14452), (239, 14515), (261, 14668), (276, 14767), (283, 14803), (285, 14809), (286, 14818), (288, 14824), (309, 14914), (317, 14950), (326, 14983), (330, 15010), (334, 15034), (336, 15049), (339, 15061), (359, 15142), (393, 15244), (437, 15430), (440, 15445), (459, 15517), (464, 15529), (468, 15544), (476, 15589), (483, 15622), (486, 15631), (493, 15667), (511, 15802), (517, 15826), (521, 15838), (526, 15859), (528, 15871), (543, 15961), (562, 16075), (566, 16093), (578, 16150), (599, 16264), (604, 16297), (620, 16405), (629, 16441), (637, 16480), (639, 16498), (642, 16519), (643, 16522), (665, 16615), (695, 16750), (699, 16771), (707, 16828), (755, 17152), (761, 17185), (774, 17263), (780, 17308), (786, 17347), (793, 17377), (794, 17392), (797, 17410), (800, 17443), (830, 17611), (888, 18052), (889, 18064), (892, 18094), (893, 18097), (901, 18142), (909, 18190),

Gene: RedRaider_46 Start: 26371, Stop: 31794, Start Num: 10

Candidate Starts for RedRaider_46:

(Start: 10 @26371 has 49 MA's), (52, 26719), (64, 26779), (65, 26788), (98, 26944), (118, 27061), (142, 27283), (144, 27295), (146, 27301), (165, 27541), (171, 27595), (174, 27625), (176, 27658), (193, 27808), (208, 27898), (215, 27934), (225, 27982), (233, 28012), (235, 28033), (237, 28042), (247, 28093), (249, 28123), (255, 28168), (289, 28366), (302, 28423), (312, 28468), (313, 28474), (327, 28528), (331, 28552), (349, 28633), (379, 28741), (387, 28762), (399, 28810), (417, 28882), (420, 28891), (422, 28897), (439, 28942), (442, 28957), (457, 29011), (465, 29038), (478, 29107), (507, 29269), (518, 29338), (529, 29386), (539, 29446), (545, 29479), (551, 29503), (559, 29551), (562, 29566), (563, 29575), (564, 29578), (567, 29611), (569, 29620), (573, 29629), (574, 29632), (575, 29635), (606, 29791), (613, 29827), (623, 29899), (635, 29947), (643, 29998), (650, 30031),

(657, 30064), (669, 30121), (673, 30136), (701, 30286), (703, 30298), (724, 30436), (729, 30478), (730, 30481), (733, 30511), (776, 30805), (783, 30841), (791, 30895), (794, 30916), (805, 30985), (809, 31009), (859, 31366), (864, 31414), (866, 31426), (869, 31453), (871, 31462), (884, 31558), (893, 31648), (902, 31696), (904, 31708), (906, 31723), (909, 31735), (910, 31744),

Gene: Samy_20 Start: 11377, Stop: 16083, Start Num: 13

Candidate Starts for Samy_20:

(Start: 13 @11377 has 1 MA's), (16, 11407), (17, 11413), (25, 11521), (29, 11539), (45, 11653), (57, 11737), (64, 11779), (73, 11851), (112, 12037), (133, 12211), (138, 12238), (144, 12313), (150, 12358), (185, 12829), (190, 12853), (194, 12871), (201, 12928), (212, 12979), (241, 13126), (257, 13243), (272, 13321), (290, 13444), (296, 13477), (303, 13498), (324, 13588), (374, 13792), (375, 13798), (380, 13822), (426, 13984), (432, 14002), (447, 14047), (453, 14068), (469, 14125), (500, 14275), (503, 14296), (506, 14317), (507, 14320), (513, 14374), (553, 14551), (564, 14626), (579, 14704), (618, 14938), (631, 14992), (641, 15052), (648, 15088), (660, 15142), (669, 15184), (681, 15250), (692, 15304), (709, 15409), (720, 15484), (749, 15694), (794, 15976),

Gene: Scuba_48 Start: 24292, Stop: 29835, Start Num: 10

Candidate Starts for Scuba_48:

(Start: 10 @24292 has 49 MA's), (32, 24481), (41, 24550), (42, 24553), (49, 24616), (52, 24637), (95, 24865), (142, 25216), (146, 25234), (154, 25321), (156, 25348), (159, 25402), (165, 25474), (171, 25528), (174, 25558), (176, 25591), (178, 25624), (185, 25699), (215, 25867), (233, 25945), (237, 25975), (242, 25999), (247, 26026), (248, 26050), (249, 26056), (294, 26326), (302, 26356), (304, 26368), (312, 26401), (374, 26647), (379, 26674), (381, 26680), (396, 26722), (405, 26767), (415, 26806), (422, 26830), (433, 26869), (439, 26875), (448, 26911), (452, 26923), (453, 26929), (454, 26932), (461, 26962), (465, 26971), (469, 26986), (479, 27046), (484, 27064), (502, 27175), (511, 27241), (529, 27319), (545, 27436), (551, 27460), (559, 27508), (562, 27523), (565, 27541), (567, 27568), (580, 27619), (588, 27673), (601, 27733), (614, 27820), (616, 27841), (641, 27964), (698, 28282), (701, 28306), (703, 28318), (709, 28363), (729, 28498), (783, 28879), (791, 28933), (803, 29023), (808, 29047), (860, 29419), (869, 29494), (884, 29599), (893, 29689), (904, 29749), (906, 29764), (909, 29776), (910, 29785),

Gene: Sixama_97 Start: 52616, Stop: 58471, Start Num: 4

Candidate Starts for Sixama_97:

(Start: 4 @52616 has 5 MA's), (8, 52697), (106, 53333), (153, 53723), (165, 53897), (167, 53939), (171, 53993), (176, 54035), (184, 54134), (185, 54143), (189, 54164), (210, 54290), (211, 54293), (244, 54446), (255, 54536), (256, 54539), (262, 54575), (274, 54644), (285, 54707), (304, 54794), (335, 54944), (362, 55052), (371, 55076), (375, 55103), (384, 55133), (397, 55175), (403, 55208), (418, 55271), (434, 55325), (436, 55337), (489, 55544), (497, 55598), (505, 55661), (510, 55679), (523, 55754), (528, 55778), (532, 55811), (535, 55832), (541, 55865), (548, 55913), (549, 55919), (552, 55931), (570, 56048), (590, 56147), (595, 56180), (596, 56183), (597, 56186), (628, 56360), (650, 56492), (677, 56651), (706, 56810), (732, 57002), (735, 57023), (770, 57290), (771, 57293), (779, 57356), (784, 57380), (801, 57485), (806, 57497), (816, 57545), (858, 57863), (879, 58019), (882, 58043), (898, 58184), (912, 58373), (913, 58388),

Gene: Skysand_41 Start: 24563, Stop: 29992, Start Num: 10

Candidate Starts for Skysand_41:

(Start: 10 @24563 has 49 MA's), (52, 24911), (64, 24971), (65, 24980), (118, 25256), (124, 25298), (142, 25478), (144, 25490), (146, 25496), (164, 25715), (171, 25790), (174, 25820), (176, 25853), (193, 26003), (208, 26093), (215, 26129), (225, 26177), (226, 26183), (233, 26207), (235, 26228), (237, 26237), (247, 26288), (249, 26318), (289, 26561), (302, 26618), (304, 26630), (312, 26663), (313, 26669), (344, 26801), (349, 26828), (379, 26936), (387, 26957), (399, 27005), (420, 27086), (422, 27092), (439, 27137), (442, 27152), (457, 27206), (478, 27302), (507, 27464), (511, 27503), (518, 27533), (529, 27581), (539, 27641), (545, 27674), (551, 27698), (559, 27746), (562, 27761),

(563, 27770), (567, 27806), (569, 27815), (573, 27824), (574, 27827), (575, 27830), (606, 27986), (613, 28022), (623, 28094), (635, 28142), (643, 28193), (650, 28226), (657, 28259), (669, 28316), (673, 28331), (701, 28481), (703, 28493), (714, 28580), (724, 28631), (729, 28673), (730, 28676), (733, 28706), (776, 29000), (791, 29090), (794, 29111), (805, 29180), (821, 29267), (859, 29564), (864, 29612), (869, 29651), (893, 29846), (902, 29894), (904, 29906), (906, 29921), (909, 29933), (910, 29942),

Gene: StarStruck_40 Start: 24099, Stop: 29510, Start Num: 10

Candidate Starts for StarStruck_40:

(Start: 10 @24099 has 49 MA's), (21, 24210), (24, 24228), (41, 24360), (52, 24447), (54, 24456), (89, 24633), (95, 24666), (101, 24702), (135, 24954), (142, 25017), (144, 25029), (146, 25035), (171, 25329), (174, 25359), (176, 25392), (186, 25512), (208, 25632), (215, 25668), (225, 25716), (233, 25746), (237, 25776), (247, 25827), (249, 25857), (276, 26037), (289, 26100), (294, 26127), (302, 26157), (312, 26202), (322, 26244), (327, 26262), (332, 26292), (333, 26298), (379, 26475), (389, 26502), (396, 26523), (402, 26559), (410, 26583), (412, 26595), (416, 26613), (417, 26616), (446, 26706), (461, 26763), (470, 26796), (471, 26799), (479, 26847), (480, 26853), (488, 26877), (527, 27108), (529, 27120), (539, 27180), (545, 27213), (550, 27231), (551, 27237), (558, 27279), (559, 27285), (562, 27300), (563, 27309), (564, 27312), (567, 27345), (569, 27354), (573, 27363), (574, 27366), (575, 27369), (606, 27525), (623, 27633), (624, 27636), (635, 27684), (638, 27708), (643, 27735), (650, 27768), (657, 27801), (669, 27858), (680, 27900), (689, 27957), (703, 28035), (713, 28107), (729, 28212), (852, 29040), (859, 29082), (863, 29124), (870, 29175), (885, 29277), (902, 29412), (907, 29442), (909, 29451),

Gene: Sukkupi_41 Start: 23124, Stop: 28529, Start Num: 10

Candidate Starts for Sukkupi_41:

(Start: 10 @23124 has 49 MA's), (21, 23235), (24, 23253), (26, 23283), (34, 23322), (50, 23457), (52, 23472), (79, 23610), (89, 23670), (94, 23697), (95, 23703), (132, 23949), (135, 23991), (142, 24054), (144, 24066), (146, 24072), (170, 24354), (176, 24429), (185, 24537), (193, 24579), (205, 24660), (215, 24705), (225, 24753), (233, 24783), (237, 24813), (247, 24864), (249, 24894), (276, 25074), (277, 25080), (278, 25086), (302, 25194), (312, 25239), (313, 25245), (333, 25335), (352, 25410), (374, 25485), (379, 25512), (387, 25533), (393, 25551), (398, 25578), (429, 25695), (433, 25707), (445, 25740), (447, 25746), (453, 25767), (457, 25782), (461, 25800), (469, 25824), (470, 25833), (487, 25911), (493, 25944), (502, 26013), (511, 26079), (545, 26250), (559, 26322), (562, 26337), (567, 26382), (569, 26391), (573, 26400), (598, 26523), (606, 26562), (613, 26598), (623, 26670), (624, 26673), (635, 26721), (638, 26745), (642, 26769), (643, 26772), (650, 26805), (657, 26838), (668, 26895), (669, 26898), (680, 26940), (689, 26997), (693, 27009), (701, 27063), (705, 27078), (710, 27129), (713, 27147), (716, 27171), (723, 27207), (729, 27267), (730, 27270), (733, 27300), (736, 27321), (768, 27531), (785, 27642), (859, 28101), (863, 28143), (893, 28383), (904, 28443), (907, 28461), (909, 28470),

Gene: SuperSulley_40 Start: 24297, Stop: 29702, Start Num: 10

Candidate Starts for SuperSulley_40:

(Start: 10 @24297 has 49 MA's), (24, 24426), (52, 24645), (54, 24654), (95, 24858), (135, 25146), (142, 25209), (144, 25221), (146, 25227), (171, 25521), (174, 25551), (176, 25584), (183, 25680), (186, 25704), (193, 25734), (208, 25824), (215, 25860), (225, 25908), (226, 25914), (229, 25923), (233, 25938), (235, 25959), (237, 25968), (247, 26019), (249, 26049), (289, 26292), (294, 26319), (295, 26328), (302, 26349), (312, 26394), (327, 26454), (331, 26478), (333, 26490), (379, 26667), (393, 26706), (397, 26727), (405, 26760), (413, 26793), (414, 26796), (420, 26817), (422, 26823), (433, 26862), (439, 26868), (443, 26889), (448, 26904), (454, 26925), (465, 26964), (469, 26979), (470, 26988), (472, 26997), (474, 27009), (479, 27039), (480, 27045), (481, 27048), (493, 27099), (496, 27123), (502, 27165), (504, 27177), (527, 27297), (529, 27309), (539, 27369), (545, 27402), (550, 27420), (551, 27426), (559, 27474), (562, 27489), (563, 27498), (564, 27501), (567, 27534), (569, 27543), (573, 27552), (575, 27558), (606, 27714), (623, 27822), (624, 27825), (635, 27873),

(638, 27897), (643, 27924), (650, 27957), (657, 27990), (669, 28047), (680, 28089), (687, 28137), (689, 28146), (692, 28155), (703, 28224), (710, 28278), (713, 28296), (714, 28311), (723, 28353), (724, 28362), (729, 28404), (730, 28407), (733, 28437), (734, 28449), (853, 29241), (859, 29274), (863, 29316), (870, 29367), (893, 29556), (902, 29604), (907, 29634), (909, 29643), (911, 29667),

Gene: TouchMeNot_17 Start: 11629, Stop: 16536, Start Num: 19

Candidate Starts for TouchMeNot_17:

(Start: 19 @11629 has 4 MA's), (64, 11956), (87, 12085), (91, 12124), (99, 12172), (124, 12325), (127, 12370), (142, 12538), (147, 12565), (154, 12649), (157, 12688), (171, 12898), (176, 12961), (179, 13003), (189, 13090), (191, 13099), (193, 13111), (203, 13180), (206, 13198), (209, 13207), (210, 13216), (222, 13270), (225, 13285), (243, 13369), (250, 13429), (253, 13447), (263, 13525), (266, 13534), (268, 13543), (269, 13546), (276, 13606), (278, 13618), (280, 13630), (282, 13639), (312, 13771), (350, 13918), (357, 13936), (366, 13966), (375, 14002), (377, 14008), (385, 14038), (393, 14062), (394, 14065), (411, 14140), (413, 14149), (418, 14170), (420, 14173), (422, 14179), (428, 14203), (429, 14206), (439, 14221), (441, 14233), (447, 14254), (451, 14266), (454, 14278), (456, 14287), (478, 14386), (480, 14398), (491, 14419), (499, 14485), (516, 14575), (524, 14596), (540, 14701), (601, 14980), (625, 15115), (633, 15151), (653, 15253), (659, 15283), (666, 15325), (682, 15403), (711, 15565), (728, 15661), (753, 15802), (759, 15844), (762, 15865), (798, 16063), (799, 16087), (811, 16135), (851, 16384), (856, 16417), (863, 16480), (867, 16513), (870, 16522),

Gene: Tracker_39 Start: 23264, Stop: 28657, Start Num: 10

Candidate Starts for Tracker_39:

(Start: 10 @23264 has 49 MA's), (49, 23591), (52, 23612), (83, 23756), (89, 23801), (95, 23834), (117, 23954), (146, 24203), (152, 24260), (171, 24497), (174, 24527), (176, 24560), (186, 24680), (193, 24710), (208, 24800), (215, 24836), (225, 24884), (226, 24890), (233, 24914), (235, 24935), (237, 24944), (247, 24995), (249, 25025), (302, 25325), (311, 25367), (312, 25370), (327, 25430), (332, 25460), (369, 25598), (374, 25616), (379, 25643), (387, 25664), (389, 25670), (398, 25709), (399, 25712), (414, 25772), (417, 25784), (420, 25793), (439, 25844), (442, 25859), (470, 25964), (475, 25997), (478, 26009), (494, 26084), (507, 26171), (527, 26276), (529, 26288), (545, 26381), (551, 26405), (559, 26453), (562, 26468), (566, 26489), (567, 26513), (569, 26522), (573, 26531), (575, 26537), (582, 26573), (587, 26600), (606, 26693), (623, 26801), (635, 26852), (638, 26876), (643, 26903), (650, 26936), (657, 26969), (669, 27026), (676, 27053), (680, 27068), (689, 27125), (701, 27191), (713, 27275), (729, 27383), (730, 27386), (733, 27416), (852, 28190), (859, 28229), (869, 28316), (885, 28424), (893, 28511), (896, 28535), (902, 28559), (907, 28589), (909, 28598),

Gene: Turuncu_43 Start: 24570, Stop: 29978, Start Num: 10

Candidate Starts for Turuncu_43:

(Start: 10 @24570 has 49 MA's), (32, 24762), (59, 24951), (65, 24987), (94, 25134), (118, 25269), (142, 25491), (146, 25509), (171, 25803), (174, 25833), (176, 25866), (193, 26016), (198, 26064), (205, 26097), (215, 26142), (225, 26190), (233, 26220), (237, 26250), (247, 26301), (249, 26331), (278, 26523), (289, 26574), (302, 26631), (311, 26673), (312, 26676), (346, 26826), (379, 26949), (389, 26976), (396, 26997), (410, 27057), (412, 27069), (415, 27081), (417, 27090), (428, 27129), (455, 27210), (456, 27216), (461, 27237), (467, 27252), (471, 27273), (478, 27315), (488, 27351), (527, 27582), (529, 27594), (545, 27687), (551, 27711), (559, 27759), (562, 27774), (567, 27819), (569, 27828), (573, 27837), (575, 27843), (606, 27999), (623, 28107), (624, 28110), (635, 28158), (638, 28182), (642, 28206), (643, 28209), (650, 28242), (657, 28275), (668, 28332), (669, 28335), (680, 28377), (689, 28434), (707, 28548), (710, 28566), (713, 28584), (714, 28599), (729, 28689), (737, 28746), (795, 29124), (825, 29301), (859, 29550), (883, 29739), (893, 29832), (902, 29880), (906, 29907), (909, 29919),

Gene: Whack_16 Start: 10349, Stop: 16249, Start Num: 2

Candidate Starts for Whack_16:

(Start: 2 @10349 has 1 MA's), (3, 10358), (5, 10397), (6, 10445), (55, 10874), (67, 10949), (68, 10955), (78, 11018), (80, 11021), (86, 11054), (92, 11102), (93, 11105), (106, 11192), (110, 11213), (114, 11231), (119, 11270), (124, 11306), (128, 11354), (130, 11384), (137, 11444), (148, 11567), (164, 11777), (166, 11819), (178, 12029), (182, 12083), (189, 12134), (201, 12215), (225, 12341), (230, 12359), (265, 12593), (276, 12674), (283, 12710), (285, 12716), (288, 12731), (298, 12782), (299, 12785), (312, 12836), (318, 12860), (320, 12866), (328, 12899), (332, 12926), (334, 12941), (346, 13004), (351, 13025), (370, 13088), (383, 13145), (410, 13247), (438, 13343), (458, 13400), (460, 13406), (461, 13409), (485, 13511), (490, 13529), (493, 13553), (534, 13802), (539, 13823), (546, 13880), (575, 14024), (585, 14081), (605, 14183), (609, 14207), (610, 14210), (617, 14270), (619, 14276), (632, 14324), (643, 14399), (662, 14498), (670, 14549), (671, 14555), (686, 14636), (688, 14645), (738, 14966), (742, 14990), (745, 15026), (750, 15065), (756, 15110), (767, 15170), (773, 15212), (777, 15242), (778, 15245), (804, 15416), (806, 15419), (811, 15446), (828, 15578), (829, 15593), (831, 15599), (832, 15608), (839, 15656), (868, 15905), (880, 15977), (888, 16052), (893, 16097), (897, 16127), (900, 16136), (905, 16172), (909, 16187),

Gene: Wheezy_39 Start: 23469, Stop: 28862, Start Num: 10

Candidate Starts for Wheezy_39:

(Start: 10 @23469 has 49 MA's), (49, 23796), (52, 23817), (83, 23961), (89, 24006), (95, 24039), (117, 24159), (146, 24408), (152, 24465), (163, 24609), (171, 24702), (174, 24732), (176, 24765), (186, 24885), (193, 24915), (208, 25005), (215, 25041), (225, 25089), (226, 25095), (233, 25119), (235, 25140), (237, 25149), (247, 25200), (249, 25230), (302, 25530), (311, 25572), (312, 25575), (327, 25635), (332, 25665), (369, 25803), (374, 25821), (379, 25848), (387, 25869), (389, 25875), (398, 25914), (399, 25917), (414, 25977), (417, 25989), (420, 25998), (439, 26049), (442, 26064), (475, 26202), (478, 26214), (494, 26289), (507, 26376), (527, 26481), (529, 26493), (545, 26586), (551, 26610), (559, 26658), (562, 26673), (566, 26694), (567, 26718), (569, 26727), (573, 26736), (575, 26742), (582, 26778), (606, 26898), (623, 27006), (635, 27057), (638, 27081), (643, 27108), (650, 27141), (657, 27174), (669, 27231), (676, 27258), (680, 27273), (689, 27330), (701, 27396), (713, 27480), (729, 27588), (730, 27591), (733, 27621), (852, 28395), (859, 28434), (869, 28521), (885, 28629), (893, 28716), (896, 28740), (902, 28764), (907, 28794), (909, 28803),

Gene: WhoseManz_41 Start: 21176, Stop: 26575, Start Num: 10

Candidate Starts for WhoseManz_41:

(Start: 10 @21176 has 49 MA's), (21, 21287), (24, 21305), (26, 21335), (34, 21374), (50, 21509), (52, 21524), (79, 21662), (94, 21749), (95, 21755), (135, 22043), (142, 22106), (144, 22118), (146, 22124), (170, 22406), (176, 22481), (185, 22589), (193, 22631), (205, 22712), (215, 22757), (225, 22805), (233, 22835), (237, 22865), (247, 22916), (249, 22946), (276, 23126), (277, 23132), (278, 23138), (302, 23246), (312, 23291), (313, 23297), (352, 23462), (359, 23483), (374, 23537), (379, 23564), (387, 23585), (393, 23603), (398, 23630), (429, 23747), (433, 23759), (445, 23792), (447, 23798), (453, 23819), (457, 23834), (461, 23852), (469, 23876), (470, 23885), (487, 23963), (502, 24065), (511, 24131), (545, 24302), (559, 24374), (562, 24389), (567, 24434), (569, 24443), (573, 24452), (598, 24575), (606, 24614), (622, 24719), (623, 24722), (627, 24734), (642, 24815), (643, 24818), (650, 24851), (657, 24884), (668, 24941), (669, 24944), (680, 24986), (689, 25043), (693, 25055), (701, 25109), (705, 25124), (710, 25175), (713, 25193), (716, 25217), (723, 25253), (729, 25313), (730, 25316), (733, 25346), (736, 25367), (768, 25577), (785, 25688), (859, 26147), (863, 26189), (893, 26429), (904, 26489), (907, 26507), (909, 26516),

Gene: Yndexa_41 Start: 23124, Stop: 28529, Start Num: 10

Candidate Starts for Yndexa_41:

(Start: 10 @23124 has 49 MA's), (21, 23235), (24, 23253), (26, 23283), (34, 23322), (50, 23457), (52, 23472), (79, 23610), (89, 23670), (94, 23697), (95, 23703), (132, 23949), (135, 23991), (142, 24054), (144, 24066), (146, 24072), (170, 24354), (176, 24429), (185, 24537), (193, 24579), (205, 24660), (215, 24705), (225, 24753), (233, 24783), (237, 24813), (247, 24864), (249, 24894), (276, 25074), (277, 25080), (278, 25086), (302, 25194), (312, 25239), (313, 25245), (333, 25335), (352, 25410),

(374, 25485), (379, 25512), (387, 25533), (393, 25551), (398, 25578), (429, 25695), (433, 25707),
(445, 25740), (447, 25746), (453, 25767), (457, 25782), (461, 25800), (469, 25824), (470, 25833),
(487, 25911), (493, 25944), (502, 26013), (511, 26079), (545, 26250), (559, 26322), (562, 26337),
(567, 26382), (569, 26391), (573, 26400), (598, 26523), (606, 26562), (613, 26598), (623, 26670),
(624, 26673), (635, 26721), (638, 26745), (642, 26769), (643, 26772), (650, 26805), (657, 26838),
(668, 26895), (669, 26898), (680, 26940), (689, 26997), (693, 27009), (701, 27063), (705, 27078),
(710, 27129), (713, 27147), (716, 27171), (723, 27207), (729, 27267), (730, 27270), (733, 27300),
(736, 27321), (768, 27531), (785, 27642), (859, 28101), (863, 28143), (893, 28383), (904, 28443),
(907, 28461), (909, 28470),