

Zoomed Pham 193831

Item ID	Name	Price	Quantity	Amount	Tax	Subtotal	Item ID	Name	Price	Quantity	Amount	Tax	Subtotal	Item ID	Name	Price	Quantity	Amount	Tax	Subtotal
1	Hedg_18	130	1	130	145	130	2	Bowser_17	130	1	130	145	130	3	BackPagePag	130	1	130	145	130
4	Eyes_17	130	1	130	145	130	4	Eyes_17	130	1	130	145	130	5	GEazy_17 +	120	1	120	145	120
6	BBU_16	110	1	110	125	110	6	BBU_16	110	1	110	125	110	7	KIKO_16	130	1	130	145	130
8	Pardosaurus	130	1	130	145	130	8	Pardosaurus	130	1	130	145	130	9	ZAY_16	130	1	130	145	130
10	Burger_17	130	1	130	145	130	10	Burger_17	130	1	130	145	130	11	SchGabeltier	110	1	110	125	110
12	Op_16	130	1	130	145	130	12	Op_16	130	1	130	145	130	13	Lynn_16	130	1	130	145	130
15	VanGaweggs	130	1	130	145	130	15	VanGaweggs	130	1	130	145	130	16	Lynn_16	130	1	130	145	130
18	Spurcketto	130	1	130	145	130	18	Spurcketto	130	1	130	145	130	19	ChaRowow	130	1	130	145	130
21	Fred_30	130	1	130	145	130	21	Fred_30	130	1	130	145	130	22	Pop_30	130	1	130	145	130
24	Van_32	130	1	130	145	130	24	Van_32	130	1	130	145	130	25	Eggs_30	110	1	110	125	110
26	Diow_16	130	1	130	145	130	26	Diow_16	130	1	130	145	130	27	Belpnegor_16	130	1	130	145	130
28	Nordenberg_27	130	1	130	145	130	28	Nordenberg_27	130	1	130	145	130	29	ChadWaste	130	1	130	145	130
31	Bizzy_33	130	1	130	145	130	31	Bizzy_33	130	1	130	145	130	32	Fosterous_16	130	1	130	145	130
34	BrandonK1_34	130	1	130	145	130	34	BrandonK1_34	130	1	130	145	130	35	Fitzgerald_16	130	1	130	145	130
38	Gaea_32	130	1	130	145	130	38	Gaea_32	130	1	130	145	130	39	McKinley_35	130	1	130	145	130
41	Kewpeddi_32	130	1	130	145	130	41	Kewpeddi_32	130	1	130	145	130	42	Fosterous_16	130	1	130	145	130
43	Fitzgerald_16	130	1	130	145	130	43	Fitzgerald_16	130	1	130	145	130	44	Ribeye_33	130	1	130	145	130
45	YorkOnyx_16	130	1	130	145	130	45	YorkOnyx_16	130	1	130	145	130	46	Saronaya_16	130	1	130	145	130
47	Sedona_33	130	1	130	145	130	47	Sedona_33	130	1	130	145	130	48	Galadriel_35	130	1	130	145	130
49	Charming_16	130	1	130	145	130	49	Charming_16	130	1	130	145	130	50	Jabberwocky_31	130	1	130	145	130

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 193831 Report

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

Pham number 193831 has 129 members, 19 are drafts.

Phages represented in each track:

- Track 1 : Hedwig_18
- Track 2 : Bowser_17
- Track 3 : BackstagePass_17
- Track 4 : Eyes_17
- Track 5 : GEazy_17, HannahD_17
- Track 6 : BBQValindra_17
- Track 7 : Kiko_18
- Track 8 : TaronosaurusRx_17
- Track 9 : ZAYM_17
- Track 10 : Bunker_17
- Track 11 : Schnabeltier_17, MagicMan_17
- Track 12 : Opie_17
- Track 13 : DirtyBoi_18
- Track 14 : VanDeWege_32
- Track 15 : Togo_29, Portcullis_29, Shinji_29, SmokingBunny_29
- Track 16 : Savbucketdawg_29, Jambalaya_29, PinkCoffee_31, CoveyB_32
- Track 17 : ClamChowder_31, Gezellig_30, Halo3_30, PullumCavea_29, KimmyK_31, Fugax_31, Barb_31, Salvador_29, Phlop_29, Evamon_29, Wizard_29, Twister6_31, Arri_32, Danyall_31
- Track 18 : TillyBobJoe_29
- Track 19 : YungMoney_31
- Track 20 : Fireball_30
- Track 21 : RogerDodger_32
- Track 22 : Nubi_29
- Track 23 : Valary_32
- Track 24 : Bakery_30
- Track 25 : Mutzi_31
- Track 26 : Clown_33
- Track 27 : Belphegor_31
- Track 28 : Nordenberg_27
- Track 29 : ChadMasterC_33
- Track 30 : LilHam_30, Ashertheman_33, SchottB_31, Baumdotcom_32
- Track 31 : Bizzy_33
- Track 32 : Brandonk123_34
- Track 33 : Shivanishola_34
- Track 34 : Lennon_33, Sitar_33
- Track 35 : Geodirt_30

- Track 36 : Love_36
- Track 37 : RiverRaider_33
- Track 38 : Gaea_32
- Track 39 : McKinley_35
- Track 40 : BobBob_30, Tangent_33
- Track 41 : Kewpiedoll_32
- Track 42 : Fosterous_31
- Track 43 : Fitzgerald_31
- Track 44 : Ribeye_33, Derg_30, Baddon_32
- Track 45 : YorkOnyx_33
- Track 46 : Saronaya_32, Gustavo_32
- Track 47 : Sedona_33, Keitabear_33
- Track 48 : Galadriel_33
- Track 49 : Charming_33
- Track 50 : Jabberwocky_31, Sanjuju_31
- Track 51 : Barsten_33
- Track 52 : Flatwoods_33
- Track 53 : Tangerine_32
- Track 54 : Kamashten_32, Thing3_32
- Track 55 : Affeca_31, Angelicage_31
- Track 56 : Rofo_33, Paries_35
- Track 57 : JKSyngboy_30
- Track 58 : Kroos_33
- Track 59 : Kwobi_33
- Track 60 : Stultus_31
- Track 61 : MoontowerMania_32
- Track 62 : Ailee_31
- Track 63 : Bibwit_32
- Track 64 : Tycho_32
- Track 65 : Vivi2_35
- Track 66 : StorminNorm_32
- Track 67 : Leonard_31, Phinally_31
- Track 68 : Inspectinfecti_32
- Track 69 : Hans_33, Phauci_24
- Track 70 : Ali17_29
- Track 71 : EMoore_29
- Track 72 : MelBins_32
- Track 73 : Kwekel_30
- Track 74 : Twonlo_28, Chickadee_30, Tiamoceli_31
- Track 75 : RoadKill_28
- Track 76 : GTE6_30
- Track 77 : Dxdert_31
- Track 78 : EdmundFerry_29
- Track 79 : Scioto_33, Natkenzie_33, Abblin_33, Sampson_33
- Track 80 : DoctorFroggo_32, Verity_32, Delrey21_32
- Track 81 : ViaConlectus_33, APunk_34
- Track 82 : Zipp_32
- Track 83 : Tardus_34
- Track 84 : Zitch_34
- Track 85 : Lilbeanie_28

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

The start number called the most often in the published annotations is 19, it was called in 61 of the 110 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk_34, Abblin_33, Affeca_31, Ailee_31, Angelicage_31, Ashertheman_33, Baddon_32, Barsten_33, Baumdotcom_32, Bibwit_32, Bizzy_33, BobBob_30, Brandonk123_34, ChadMasterC_33, Charming_33, Chickadee_30, Delrey21_32, Derg_30, Dextert_31, DoctorFroggo_32, EdmundFerry_29, Fitzgerald_31, Flatwoods_33, Fosterous_31, GTE6_30, Gaea_32, Galadriel_33, Geodirt_30, Gustavo_32, JKSyngboy_30, Jabberwocky_31, Kamashten_32, Keitabear_33, Kewpiedoll_32, Kroos_33, Kwekel_30, Kwobi_33, Lennon_33, LilHam_30, Lilbeanie_28, Love_36, McKinley_35, MoontowerMania_32, Natkenzie_33, Nordenberg_27, Paries_35, Ribeye_33, RiverRaider_33, RoadKill_28, Rofo_33, Sampson_33, Sanjuju_31, Saronaya_32, SchottB_31, Scioto_33, Sedona_33, Shivanishola_34, Sitar_33, StorminNorm_32, Stultus_31, Tangent_33, Tangerine_32, Tardus_34, Thing3_32, Tiamoceli_31, Twonlo_28, Tycho_32, Verity_32, ViaConlectus_33, Vivi2_35, YorkOnyx_33, Zipp_32, Zitch_34,

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

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

- Ali17_29, Arri_32, BBQValindra_17, BackstagePass_17, Bakery_30, Barb_31, Belphegor_31, Bowser_17, Bunker_17, ClamChowder_31, Clown_33, CoveyB_32, Danyall_31, DirtyBoi_18, EMoore_29, Evamon_29, Eyes_17, Fireball_30, Fugax_31, GEazy_17, Gezellig_30, Halo3_30, HannahD_17, Hans_33, Hedwig_18, Inspectinfecti_32, Jambalaya_29, Kiko_18, KimmyK_31, Leonard_31, MagicMan_17, MelBins_32, Mutzi_31, Nubi_29, Opie_17, Phauci_24, Phinally_31, Phlop_29, PinkCoffee_31, Portcullis_29, PullumCavea_29, RogerDodger_32, Salvador_29, Savbucketdawg_29, Schnabeltier_17, Shinji_29, SmokingBunny_29, TaronosaurusRx_17, TillyBobJoe_29, Togo_29, Twister6_31, Valary_32, VanDeWege_32, Wizard_29, YungMoney_31, ZAYM_17,

Summary by start number:

Start 1:

- Found in 32 of 129 (24.8%) of genes in pham
- Manual Annotations of this start: 29 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arri_32 (DC1), Bakery_30 (DC1), Barb_31 (DC1), ClamChowder_31 (DC1), Clown_33 (DC2), CoveyB_32 (DC1), Danyall_31 (DC1), Evamon_29 (DC1), Fireball_30 (DC1), Fugax_31 (DC1), Gezellig_30 (DC1), Halo3_30 (DC1), Jambalaya_29 (DC1), KimmyK_31 (DC1), Mutzi_31 (DC1), Nubi_29 (DC1), Phlop_29 (DC1), PinkCoffee_31 (DC1), Portcullis_29 (DC1), PullumCavea_29 (DC1), RogerDodger_32 (DC1), Salvador_29 (DC1), Savbucketdawg_29 (DC1), Shinji_29 (DC1), SmokingBunny_29 (DC1), TillyBobJoe_29 (DC1), Togo_29 (DC1), Twister6_31 (DC1), Valary_32 (DC1), VanDeWege_32 (DC1), Wizard_29 (DC1), YungMoney_31 (DC1),

Start 4:

- Found in 15 of 129 (11.6%) of genes in pham
- Manual Annotations of this start: 12 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_17 (DB), BackstagePass_17 (DB), Bowser_17 (DB), Bunker_17 (DB), DirtyBoi_18 (DB), Eyes_17 (DB), GEazy_17 (DB), HannahD_17 (DB), Hedwig_18 (DB), Kiko_18 (DB), MagicMan_17 (DB), Opie_17 (DB), Schnabeltier_17 (DB), TaronosaurusRx_17 (DB), ZAYM_17 (DB),

Start 19:

- Found in 73 of 129 (56.6%) of genes in pham
- Manual Annotations of this start: 61 of 110
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk_34 (DE4), Abblin_33 (DE4), Affeca_31 (DE1), Ailee_31 (DE1), Angelicage_31 (DE1), Ashertheman_33 (DE1), Baddon_32 (DE1), Barsten_33 (DE1), Baumdotcom_32 (DE1), Bibwit_32 (DE1), Bizzy_33 (DE1), BobBob_30 (DE1), Brandonk123_34 (DE1), ChadMasterC_33 (DE1), Charming_33 (DE1), Chickadee_30 (DE3), Delrey21_32 (DE4), Derg_30 (DE1), Dexdert_31 (DE3), DoctorFroggo_32 (DE4), EdmundFerry_29 (DE3), Fitzgerald_31 (DE1), Flatwoods_33 (DE1), Fosterous_31 (DE1), GTE6_30 (DE3), Gaea_32 (DE1), Galadriel_33 (DE1), Geodirt_30 (DE1), Gustavo_32 (DE1), JKSyngboy_30 (DE1), Jabberwocky_31 (DE1), Kamashten_32 (DE1), Keitabear_33 (DE1), Kewpiedoll_32 (DE1), Kroos_33 (DE1), Kwekel_30 (DE3), Kwobi_33 (DE1), Lennon_33 (DE1), LilHam_30 (DE1), Lilbeanie_28 (DE5), Love_36 (DE1), McKinley_35 (DE1), MoontowerMania_32 (DE1), Natkenzie_33 (DE4), Nordenberg_27 (DE1), Paries_35 (DE1), Ribeye_33 (DE1), RiverRaider_33 (DE1), RoadKill_28 (DE3), Rofo_33 (DE1), Sampson_33 (DE4), Sanjuju_31 (DE1), Saronaya_32 (DE1), SchottB_31 (DE1), Scioto_33 (DE4), Sedona_33 (DE1), Shivanishola_34 (DE1), Sitar_33 (DE1), StorminNorm_32 (DE1), Stultus_31 (DE1), Tangent_33 (DE1), Tangerine_32 (DE1), Tardus_34 (DE4), Thing3_32 (DE1), Tiamoceli_31 (DE3), Twonlo_28 (DE3), Tycho_32 (DE1), Verity_32 (DE4), ViaConlectus_33 (DE4), Vivi2_35 (DE1), YorkOnyx_33 (DE1), Zipp_32 (DE4), Zitch_34 (DE4),

Start 20:

- Found in 40 of 129 (31.0%) of genes in pham
- Manual Annotations of this start: 8 of 110
- Called 22.5% of time when present
- Phage (with cluster) where this start called: Ali17_29 (DE2), Belphegor_31 (DE), EMOore_29 (DE2), Hans_33 (DE2), Inspectinfecti_32 (DE2), Leonard_31 (DE2), MelBins_32 (DE2), Phauci_24 (DE2), Phinally_31 (DE2),

Summary by clusters:

There are 9 clusters represented in this pham: DE, DB, DE1, DE2, DE3, DE4, DE5, DC2, DC1,

Info for manual annotations of cluster DB:

- Start number 4 was manually annotated 12 times for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 1 was manually annotated 28 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 1 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 19 was manually annotated 44 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 20 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 19 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 19 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 19 was manually annotated 1 time for cluster DE5.

Gene Information:

Gene: APunk_34 Start: 24307, Stop: 29232, Start Num: 19

Candidate Starts for APunk_34:

(Start: 19 @24307 has 61 MA's), (37, 24427), (39, 24439), (47, 24481), (51, 24505), (57, 24571), (58, 24580), (68, 24652), (75, 24685), (81, 24754), (83, 24763), (87, 24781), (97, 24847), (101, 24862), (104, 24871), (112, 24934), (114, 24940), (119, 24967), (122, 24997), (124, 25006), (134, 25069), (137, 25081), (146, 25168), (149, 25180), (157, 25303), (160, 25327), (161, 25345), (162, 25357), (169, 25417), (170, 25423), (172, 25435), (182, 25546), (184, 25582), (186, 25621), (187, 25633), (190, 25675), (193, 25705), (198, 25747), (199, 25756), (200, 25759), (203, 25789), (205, 25822), (216, 25915), (220, 25936), (224, 25951), (235, 26038), (237, 26059), (239, 26080), (247, 26134), (252, 26167), (257, 26218), (268, 26266), (269, 26275), (275, 26335), (277, 26347), (281, 26368), (283, 26374), (295, 26416), (296, 26422), (298, 26437), (299, 26443), (308, 26524), (309, 26527), (311, 26548), (320, 26602), (327, 26665), (339, 26722), (357, 26809), (365, 26875), (392, 26932), (393, 26935), (397, 26959), (412, 27049), (416, 27097), (445, 27325), (448, 27343), (455, 27400), (465, 27490), (471, 27553), (484, 27634), (488, 27661), (497, 27733), (498, 27742), (505, 27802), (515, 27913), (539, 28141), (542, 28150), (546, 28177), (553, 28219), (559, 28279), (569, 28441), (572, 28468), (577, 28540), (582, 28579), (604, 28786), (612, 28858), (618, 28924), (633, 29059), (639, 29122), (640, 29125), (642, 29143), (645, 29158), (649, 29185), (653, 29197),

Gene: Abblin_33 Start: 24850, Stop: 29775, Start Num: 19

Candidate Starts for Abblin_33:

(Start: 19 @24850 has 61 MA's), (37, 24970), (39, 24982), (47, 25024), (51, 25048), (57, 25114), (58, 25123), (66, 25168), (68, 25195), (81, 25297), (83, 25306), (87, 25324), (97, 25390), (101, 25405), (104, 25414), (112, 25477), (114, 25483), (119, 25510), (122, 25540), (124, 25549), (132, 25597), (134, 25612), (137, 25624), (146, 25711), (149, 25723), (157, 25846), (160, 25870), (161, 25888), (169, 25960), (170, 25966), (172, 25978), (182, 26089), (184, 26125), (186, 26164), (187, 26176), (190, 26218), (193, 26248), (198, 26290), (199, 26299), (200, 26302), (203, 26332), (205, 26365), (216, 26458), (224, 26494), (230, 26551), (235, 26581), (239, 26623), (247, 26677), (248, 26683), (252, 26710), (257, 26761), (265, 26797), (268, 26809), (269, 26818), (275, 26878), (277, 26890), (281, 26911), (283, 26917), (295, 26959), (296, 26965), (298, 26980), (299, 26986), (303, 27031), (308, 27067), (309, 27070), (320, 27145), (327, 27208), (339, 27265), (356, 27346), (362, 27397),

(384, 27454), (392, 27475), (393, 27478), (397, 27502), (416, 27640), (420, 27661), (445, 27868), (448, 27886), (455, 27943), (465, 28033), (471, 28096), (484, 28177), (488, 28204), (497, 28276), (498, 28285), (505, 28345), (515, 28456), (539, 28687), (542, 28696), (546, 28723), (553, 28765), (569, 28984), (572, 29011), (577, 29083), (582, 29122), (604, 29329), (612, 29401), (618, 29467), (633, 29602), (639, 29665), (640, 29668), (642, 29686), (645, 29701), (649, 29728), (653, 29740),

Gene: Affeca_31 Start: 24649, Stop: 29682, Start Num: 19

Candidate Starts for Affeca_31:

(Start: 19 @24649 has 61 MA's), (47, 24823), (51, 24847), (52, 24856), (54, 24889), (56, 24907), (58, 24922), (73, 25021), (81, 25096), (82, 25102), (83, 25105), (91, 25162), (92, 25180), (94, 25189), (96, 25204), (123, 25369), (127, 25387), (128, 25399), (134, 25438), (151, 25579), (154, 25639), (157, 25672), (161, 25714), (169, 25786), (171, 25801), (172, 25804), (182, 25915), (184, 25951), (187, 26002), (190, 26044), (193, 26074), (199, 26125), (203, 26158), (205, 26191), (206, 26203), (216, 26284), (220, 26305), (223, 26317), (236, 26413), (237, 26428), (239, 26449), (246, 26500), (248, 26509), (257, 26587), (268, 26635), (269, 26644), (275, 26704), (284, 26749), (287, 26758), (295, 26785), (299, 26812), (301, 26833), (305, 26869), (314, 26935), (320, 26971), (328, 27058), (329, 27061), (342, 27088), (356, 27139), (357, 27145), (374, 27271), (395, 27346), (402, 27373), (407, 27406), (414, 27469), (418, 27523), (424, 27586), (437, 27697), (443, 27724), (444, 27730), (458, 27832), (465, 27898), (468, 27925), (472, 27952), (476, 27991), (480, 28015), (488, 28057), (497, 28129), (498, 28138), (505, 28198), (507, 28243), (542, 28558), (543, 28564), (545, 28582), (560, 28678), (567, 28783), (575, 28882), (593, 29026), (598, 29101), (600, 29113), (607, 29197), (647, 29536), (655, 29575), (656, 29581), (658, 29587), (661, 29614), (665, 29650), (666, 29662),

Gene: Ailee_31 Start: 25358, Stop: 30172, Start Num: 19

Candidate Starts for Ailee_31:

(Start: 19 @25358 has 61 MA's), (47, 25532), (51, 25556), (86, 25694), (96, 25733), (98, 25739), (102, 25751), (106, 25769), (109, 25781), (111, 25808), (115, 25826), (118, 25838), (134, 25937), (151, 26078), (154, 26138), (157, 26171), (161, 26213), (169, 26285), (171, 26300), (172, 26303), (182, 26414), (184, 26450), (187, 26501), (190, 26543), (193, 26573), (199, 26624), (203, 26657), (205, 26690), (206, 26702), (216, 26783), (220, 26804), (223, 26816), (236, 26912), (237, 26927), (239, 26948), (246, 26999), (248, 27008), (257, 27086), (268, 27134), (269, 27143), (283, 27242), (284, 27248), (286, 27254), (287, 27257), (299, 27311), (301, 27332), (304, 27362), (305, 27368), (309, 27395), (344, 27590), (353, 27623), (356, 27638), (357, 27644), (362, 27689), (363, 27698), (366, 27713), (368, 27731), (374, 27770), (376, 27776), (395, 27845), (402, 27872), (407, 27905), (414, 27968), (418, 28022), (443, 28223), (444, 28229), (458, 28331), (460, 28343), (465, 28397), (468, 28424), (472, 28451), (476, 28490), (484, 28529), (488, 28556), (497, 28628), (498, 28637), (505, 28697), (507, 28742), (542, 29057), (543, 29063), (545, 29081), (560, 29177), (567, 29282), (575, 29381), (593, 29525), (598, 29600), (600, 29612), (607, 29687), (647, 30026), (655, 30065), (656, 30071), (658, 30077), (661, 30104), (665, 30140), (666, 30152),

Gene: Ali17_29 Start: 22538, Stop: 27427, Start Num: 20

Candidate Starts for Ali17_29:

(Start: 20 @22538 has 8 MA's), (37, 22658), (47, 22712), (51, 22736), (58, 22811), (59, 22814), (73, 22910), (81, 22985), (82, 22991), (84, 22997), (88, 23021), (90, 23030), (99, 23090), (101, 23096), (104, 23105), (109, 23135), (117, 23192), (122, 23231), (124, 23240), (125, 23243), (134, 23303), (135, 23306), (145, 23381), (146, 23390), (157, 23525), (158, 23534), (161, 23567), (163, 23591), (172, 23657), (176, 23720), (184, 23804), (186, 23843), (187, 23855), (191, 23903), (193, 23927), (199, 23978), (203, 24011), (208, 24062), (211, 24092), (218, 24149), (221, 24161), (224, 24173), (233, 24248), (239, 24302), (247, 24356), (252, 24389), (265, 24476), (268, 24488), (269, 24497), (275, 24557), (277, 24569), (281, 24590), (283, 24596), (284, 24602), (285, 24605), (286, 24608), (294, 24635), (295, 24638), (297, 24647), (298, 24659), (299, 24665), (303, 24710), (308, 24746), (309, 24749), (311, 24770), (327, 24887), (339, 24944), (357, 25031), (365, 25097), (392, 25154), (393, 25157), (397, 25181), (412, 25271), (416, 25319), (430, 25448), (439, 25517), (441, 25526),

(445, 25547), (448, 25565), (451, 25583), (468, 25739), (469, 25742), (484, 25847), (498, 25955), (505, 26015), (506, 26045), (515, 26126), (540, 26357), (542, 26363), (549, 26411), (552, 26426), (559, 26492), (568, 26624), (577, 26753), (582, 26792), (618, 27119), (626, 27215), (642, 27338), (649, 27380), (653, 27392),

Gene: Angelicage_31 Start: 25066, Stop: 30099, Start Num: 19

Candidate Starts for Angelicage_31:

(Start: 19 @25066 has 61 MA's), (47, 25240), (51, 25264), (52, 25273), (54, 25306), (56, 25324), (58, 25339), (73, 25438), (81, 25513), (82, 25519), (83, 25522), (91, 25579), (92, 25597), (94, 25606), (96, 25621), (123, 25786), (127, 25804), (128, 25816), (134, 25855), (151, 25996), (154, 26056), (157, 26089), (161, 26131), (169, 26203), (171, 26218), (172, 26221), (182, 26332), (184, 26368), (187, 26419), (190, 26461), (193, 26491), (199, 26542), (203, 26575), (205, 26608), (206, 26620), (216, 26701), (220, 26722), (223, 26734), (236, 26830), (237, 26845), (239, 26866), (246, 26917), (248, 26926), (257, 27004), (268, 27052), (269, 27061), (275, 27121), (284, 27166), (287, 27175), (295, 27202), (299, 27229), (301, 27250), (305, 27286), (314, 27352), (320, 27388), (328, 27475), (329, 27478), (342, 27505), (356, 27556), (357, 27562), (374, 27688), (395, 27763), (402, 27790), (407, 27823), (414, 27886), (418, 27940), (424, 28003), (437, 28114), (443, 28141), (444, 28147), (458, 28249), (465, 28315), (468, 28342), (472, 28369), (476, 28408), (480, 28432), (488, 28474), (497, 28546), (498, 28555), (505, 28615), (507, 28660), (542, 28975), (543, 28981), (545, 28999), (560, 29095), (567, 29200), (575, 29299), (593, 29443), (598, 29518), (600, 29530), (607, 29614), (647, 29953), (655, 29992), (656, 29998), (658, 30004), (661, 30031), (665, 30067), (666, 30079),

Gene: Arri_32 Start: 20088, Stop: 25619, Start Num: 1

Candidate Starts for Arri_32:

(Start: 1 @20088 has 29 MA's), (3, 20175), (6, 20262), (10, 20295), (12, 20319), (Start: 20 @20442 has 8 MA's), (22, 20463), (23, 20469), (27, 20493), (34, 20523), (43, 20562), (59, 20646), (67, 20682), (69, 20706), (77, 20745), (131, 21135), (151, 21303), (154, 21363), (161, 21435), (162, 21447), (165, 21483), (168, 21507), (178, 21606), (179, 21609), (182, 21639), (186, 21714), (187, 21726), (190, 21768), (193, 21798), (199, 21849), (213, 21990), (216, 22008), (218, 22020), (220, 22029), (235, 22131), (237, 22152), (239, 22173), (246, 22224), (247, 22227), (248, 22233), (257, 22311), (263, 22341), (268, 22359), (275, 22428), (281, 22461), (283, 22467), (285, 22476), (288, 22482), (299, 22536), (303, 22581), (306, 22608), (308, 22617), (310, 22638), (320, 22695), (323, 22731), (333, 22812), (334, 22815), (340, 22884), (349, 22956), (357, 23052), (365, 23118), (366, 23121), (369, 23145), (372, 23172), (373, 23175), (374, 23178), (376, 23184), (396, 23253), (399, 23262), (406, 23307), (411, 23316), (420, 23394), (425, 23448), (430, 23502), (436, 23559), (445, 23601), (451, 23637), (458, 23700), (463, 23751), (477, 23862), (485, 23901), (496, 23982), (511, 24156), (512, 24159), (517, 24192), (539, 24399), (542, 24408), (543, 24414), (572, 24726), (590, 24933), (601, 25071), (614, 25221), (623, 25332), (630, 25377), (631, 25386), (632, 25392), (638, 25428), (651, 25521), (654, 25533), (660, 25563), (662, 25596), (664, 25608),

Gene: Ashertheman_33 Start: 23943, Stop: 28961, Start Num: 19

Candidate Starts for Ashertheman_33:

(Start: 19 @23943 has 61 MA's), (31, 24030), (37, 24063), (47, 24117), (51, 24141), (54, 24183), (56, 24201), (58, 24216), (68, 24288), (73, 24315), (81, 24390), (83, 24399), (91, 24456), (92, 24474), (93, 24480), (134, 24732), (142, 24792), (154, 24933), (157, 24966), (161, 25008), (169, 25080), (171, 25095), (172, 25098), (182, 25209), (184, 25245), (187, 25296), (190, 25338), (193, 25368), (199, 25419), (203, 25452), (205, 25485), (206, 25497), (216, 25578), (223, 25611), (224, 25614), (230, 25671), (236, 25707), (237, 25722), (239, 25743), (246, 25794), (268, 25929), (269, 25938), (281, 26031), (283, 26037), (284, 26043), (287, 26052), (292, 26064), (294, 26076), (297, 26088), (299, 26106), (305, 26163), (320, 26265), (321, 26283), (324, 26307), (329, 26355), (344, 26385), (356, 26433), (357, 26439), (373, 26562), (374, 26565), (376, 26571), (394, 26628), (395, 26640), (400, 26661), (402, 26667), (407, 26700), (414, 26763), (418, 26817), (437, 26991), (443, 27018), (444, 27024), (458, 27126), (465, 27192), (488, 27351), (498, 27432), (505, 27492), (507, 27537), (539,

27843), (542, 27852), (546, 27879), (558, 27948), (567, 28077), (575, 28176), (593, 28320), (598, 28392), (599, 28398), (600, 28404), (607, 28479), (611, 28509), (623, 28647), (632, 28707), (638, 28743), (641, 28788), (647, 28815), (655, 28854), (656, 28860), (658, 28866), (661, 28893), (665, 28929), (666, 28941),

Gene: BBQValindra_17 Start: 10583, Stop: 15709, Start Num: 4

Candidate Starts for BBQValindra_17:

(Start: 4 @10583 has 12 MA's), (6, 10592), (25, 10865), (26, 10874), (28, 10904), (37, 10970), (58, 11126), (63, 11144), (80, 11297), (89, 11339), (100, 11426), (129, 11618), (144, 11735), (150, 11774), (154, 11858), (155, 11867), (157, 11891), (158, 11900), (159, 11909), (162, 11942), (163, 11954), (165, 11978), (172, 12023), (173, 12032), (174, 12068), (179, 12104), (181, 12116), (182, 12134), (184, 12170), (193, 12293), (199, 12335), (202, 12359), (213, 12470), (214, 12473), (215, 12476), (217, 12491), (226, 12545), (231, 12584), (242, 12665), (245, 12680), (247, 12701), (249, 12716), (250, 12728), (254, 12764), (260, 12800), (294, 12962), (307, 13019), (318, 13031), (319, 13034), (324, 13067), (325, 13073), (326, 13085), (346, 13160), (347, 13166), (350, 13172), (354, 13193), (355, 13196), (356, 13199), (364, 13262), (369, 13298), (371, 13313), (376, 13337), (384, 13352), (385, 13355), (399, 13415), (414, 13514), (417, 13556), (425, 13634), (431, 13703), (433, 13721), (449, 13829), (450, 13832), (452, 13838), (453, 13856), (454, 13859), (457, 13880), (458, 13898), (459, 13901), (460, 13910), (472, 14015), (475, 14045), (479, 14063), (483, 14069), (492, 14129), (498, 14189), (504, 14237), (506, 14267), (510, 14315), (513, 14327), (522, 14387), (528, 14444), (531, 14462), (534, 14507), (536, 14534), (537, 14552), (538, 14582), (541, 14591), (547, 14630), (548, 14636), (550, 14645), (563, 14804), (565, 14846), (580, 15038), (581, 15041), (586, 15098), (587, 15107), (588, 15119), (591, 15140), (610, 15353), (616, 15392), (621, 15461), (625, 15515), (646, 15668), (649, 15692),

Gene: BackstagePass_17 Start: 10561, Stop: 15849, Start Num: 4

Candidate Starts for BackstagePass_17:

(Start: 4 @10561 has 12 MA's), (6, 10570), (25, 10843), (26, 10852), (28, 10882), (36, 10945), (38, 10957), (41, 10972), (46, 10999), (55, 11083), (58, 11104), (64, 11131), (66, 11143), (80, 11275), (89, 11317), (94, 11371), (100, 11404), (131, 11605), (140, 11683), (154, 11836), (157, 11869), (158, 11878), (159, 11887), (162, 11920), (163, 11932), (165, 11956), (172, 12001), (175, 12055), (178, 12079), (179, 12082), (181, 12094), (182, 12112), (184, 12148), (193, 12271), (199, 12313), (213, 12448), (215, 12454), (217, 12469), (230, 12559), (231, 12562), (235, 12586), (238, 12613), (243, 12646), (245, 12658), (247, 12679), (250, 12706), (260, 12778), (296, 12949), (297, 12952), (298, 12964), (300, 12973), (308, 13057), (315, 13102), (324, 13174), (326, 13192), (330, 13225), (332, 13237), (347, 13273), (356, 13306), (362, 13357), (369, 13405), (376, 13444), (384, 13459), (385, 13462), (387, 13468), (396, 13513), (414, 13621), (417, 13663), (425, 13741), (429, 13765), (431, 13810), (449, 13933), (450, 13936), (454, 13963), (457, 13984), (458, 14002), (459, 14005), (460, 14014), (472, 14119), (483, 14173), (508, 14398), (509, 14434), (522, 14524), (525, 14566), (534, 14647), (536, 14674), (537, 14692), (541, 14731), (547, 14770), (548, 14776), (550, 14785), (563, 14944), (565, 14986), (580, 15178), (581, 15181), (587, 15247), (588, 15259), (591, 15280), (592, 15283), (610, 15493), (616, 15532), (621, 15601), (625, 15655), (646, 15808),

Gene: Baddon_32 Start: 24743, Stop: 29758, Start Num: 19

Candidate Starts for Baddon_32:

(Start: 19 @24743 has 61 MA's), (30, 24818), (37, 24863), (47, 24917), (51, 24941), (54, 24983), (56, 25001), (58, 25016), (68, 25088), (73, 25115), (81, 25190), (83, 25199), (91, 25256), (92, 25274), (93, 25280), (96, 25298), (103, 25325), (127, 25481), (134, 25532), (137, 25544), (142, 25592), (154, 25733), (157, 25766), (161, 25808), (169, 25880), (171, 25895), (172, 25898), (182, 26009), (184, 26045), (187, 26096), (190, 26138), (193, 26168), (199, 26219), (203, 26252), (205, 26285), (206, 26297), (216, 26378), (223, 26411), (224, 26414), (230, 26471), (236, 26507), (237, 26522), (239, 26543), (246, 26594), (268, 26729), (275, 26798), (283, 26837), (284, 26843), (287, 26852), (295, 26879), (299, 26906), (301, 26927), (305, 26963), (308, 26987), (309, 26990), (313, 27026), (320,

27065), (329, 27155), (344, 27185), (356, 27233), (357, 27239), (373, 27362), (374, 27365), (376, 27371), (394, 27428), (395, 27440), (402, 27467), (407, 27500), (408, 27506), (414, 27563), (418, 27617), (424, 27680), (437, 27791), (443, 27818), (444, 27824), (458, 27926), (465, 27992), (484, 28124), (488, 28151), (498, 28232), (505, 28292), (507, 28337), (539, 28643), (542, 28652), (546, 28679), (558, 28748), (575, 28976), (593, 29120), (598, 29189), (599, 29195), (600, 29201), (607, 29276), (611, 29306), (623, 29444), (632, 29504), (638, 29540), (641, 29585), (647, 29612), (655, 29651), (656, 29657), (658, 29663), (661, 29690), (665, 29726), (666, 29738),

Gene: Bakery_30 Start: 19326, Stop: 24842, Start Num: 1

Candidate Starts for Bakery_30:

(Start: 1 @19326 has 29 MA's), (6, 19500), (10, 19533), (12, 19557), (Start: 20 @19680 has 8 MA's), (22, 19701), (23, 19707), (27, 19731), (34, 19761), (43, 19800), (67, 19920), (69, 19944), (77, 19983), (146, 20499), (151, 20541), (154, 20601), (161, 20673), (165, 20721), (173, 20775), (179, 20847), (182, 20877), (186, 20952), (187, 20964), (190, 21006), (193, 21036), (199, 21087), (209, 21180), (213, 21228), (216, 21246), (218, 21258), (220, 21267), (234, 21366), (235, 21369), (237, 21390), (239, 21411), (246, 21462), (247, 21465), (257, 21549), (263, 21579), (268, 21597), (271, 21624), (275, 21666), (294, 21744), (295, 21747), (296, 21753), (299, 21774), (300, 21777), (306, 21846), (309, 21858), (320, 21933), (333, 22050), (334, 22053), (336, 22101), (357, 22290), (365, 22356), (366, 22359), (369, 22383), (373, 22413), (374, 22416), (376, 22422), (392, 22467), (396, 22491), (399, 22500), (406, 22545), (411, 22554), (413, 22566), (416, 22611), (417, 22614), (420, 22632), (425, 22686), (430, 22740), (445, 22839), (458, 22938), (463, 22989), (477, 23100), (485, 23139), (488, 23160), (496, 23220), (511, 23394), (512, 23397), (517, 23430), (539, 23640), (543, 23655), (590, 24165), (597, 24261), (601, 24294), (613, 24441), (614, 24444), (623, 24555), (631, 24609), (638, 24651), (651, 24744), (654, 24756), (660, 24786), (662, 24819), (664, 24831),

Gene: Barb_31 Start: 20106, Stop: 25637, Start Num: 1

Candidate Starts for Barb_31:

(Start: 1 @20106 has 29 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 8 MA's), (22, 20481), (23, 20487), (27, 20511), (34, 20541), (43, 20580), (59, 20664), (67, 20700), (69, 20724), (77, 20763), (131, 21153), (151, 21321), (154, 21381), (161, 21453), (162, 21465), (165, 21501), (168, 21525), (178, 21624), (179, 21627), (182, 21657), (186, 21732), (187, 21744), (190, 21786), (193, 21816), (199, 21867), (213, 22008), (216, 22026), (218, 22038), (220, 22047), (235, 22149), (237, 22170), (239, 22191), (246, 22242), (247, 22245), (248, 22251), (257, 22329), (263, 22359), (268, 22377), (275, 22446), (281, 22479), (283, 22485), (285, 22494), (288, 22500), (299, 22554), (303, 22599), (306, 22626), (308, 22635), (310, 22656), (320, 22713), (323, 22749), (333, 22830), (334, 22833), (340, 22902), (349, 22974), (357, 23070), (365, 23136), (366, 23139), (369, 23163), (372, 23190), (373, 23193), (374, 23196), (376, 23202), (396, 23271), (399, 23280), (406, 23325), (411, 23334), (420, 23412), (425, 23466), (430, 23520), (436, 23577), (445, 23619), (451, 23655), (458, 23718), (463, 23769), (477, 23880), (485, 23919), (496, 24000), (511, 24174), (512, 24177), (517, 24210), (539, 24417), (542, 24426), (543, 24432), (572, 24744), (590, 24951), (601, 25089), (614, 25239), (623, 25350), (630, 25395), (631, 25404), (632, 25410), (638, 25446), (651, 25539), (654, 25551), (660, 25581), (662, 25614), (664, 25626),

Gene: Barsten_33 Start: 24490, Stop: 29313, Start Num: 19

Candidate Starts for Barsten_33:

(Start: 19 @24490 has 61 MA's), (47, 24664), (51, 24688), (86, 24826), (96, 24865), (98, 24871), (102, 24883), (106, 24901), (109, 24913), (111, 24940), (115, 24958), (118, 24970), (134, 25069), (150, 25189), (151, 25210), (154, 25270), (157, 25303), (161, 25345), (164, 25381), (169, 25417), (171, 25432), (172, 25435), (182, 25546), (184, 25582), (187, 25633), (190, 25675), (193, 25705), (199, 25756), (203, 25789), (205, 25822), (206, 25834), (216, 25915), (220, 25936), (223, 25948), (236, 26044), (237, 26059), (239, 26080), (246, 26131), (248, 26140), (257, 26218), (268, 26266), (269, 26275), (275, 26335), (284, 26380), (287, 26389), (295, 26416), (299, 26443), (301, 26464), (305, 26500), (314, 26566), (320, 26602), (328, 26689), (329, 26692), (331, 26701), (342, 26719), (356,

26770), (357, 26776), (374, 26902), (395, 26977), (402, 27004), (407, 27037), (414, 27100), (418, 27154), (424, 27217), (437, 27328), (443, 27355), (444, 27361), (458, 27463), (460, 27475), (465, 27529), (468, 27556), (472, 27583), (476, 27622), (480, 27646), (488, 27688), (497, 27760), (498, 27769), (505, 27829), (507, 27874), (542, 28189), (543, 28195), (545, 28213), (560, 28309), (567, 28414), (575, 28513), (593, 28657), (598, 28732), (600, 28744), (607, 28828), (647, 29167), (655, 29206), (656, 29212), (658, 29218), (661, 29245), (665, 29281), (666, 29293),

Gene: Baumdotcom_32 Start: 23558, Stop: 28582, Start Num: 19

Candidate Starts for Baumdotcom_32:

(Start: 19 @23558 has 61 MA's), (31, 23645), (37, 23678), (47, 23732), (51, 23756), (54, 23798), (56, 23816), (58, 23831), (68, 23903), (73, 23930), (81, 24005), (83, 24014), (91, 24071), (92, 24089), (93, 24095), (134, 24347), (142, 24407), (154, 24548), (157, 24581), (161, 24623), (169, 24695), (171, 24710), (172, 24713), (182, 24824), (184, 24860), (187, 24911), (190, 24953), (193, 24983), (199, 25034), (203, 25067), (205, 25100), (206, 25112), (216, 25193), (223, 25226), (224, 25229), (230, 25286), (236, 25322), (237, 25337), (239, 25358), (246, 25409), (268, 25544), (269, 25553), (281, 25646), (283, 25652), (284, 25658), (287, 25667), (292, 25679), (294, 25691), (297, 25703), (299, 25721), (305, 25778), (320, 25880), (321, 25898), (324, 25922), (329, 25970), (344, 26000), (356, 26048), (357, 26054), (373, 26177), (374, 26180), (376, 26186), (394, 26243), (395, 26255), (400, 26276), (402, 26282), (407, 26315), (414, 26378), (418, 26432), (437, 26606), (443, 26633), (444, 26639), (458, 26741), (465, 26807), (488, 26966), (498, 27047), (505, 27107), (507, 27152), (539, 27464), (542, 27473), (546, 27500), (558, 27569), (567, 27698), (575, 27797), (593, 27941), (598, 28013), (599, 28019), (600, 28025), (607, 28100), (611, 28130), (623, 28268), (632, 28328), (638, 28364), (641, 28409), (647, 28436), (655, 28475), (656, 28481), (658, 28487), (661, 28514), (665, 28550), (666, 28562),

Gene: Belphegor_31 Start: 24145, Stop: 29028, Start Num: 20

Candidate Starts for Belphegor_31:

(Start: 20 @24145 has 8 MA's), (36, 24262), (37, 24265), (42, 24292), (47, 24319), (51, 24343), (54, 24385), (57, 24409), (58, 24418), (59, 24421), (68, 24490), (78, 24553), (81, 24592), (82, 24598), (84, 24604), (90, 24637), (95, 24679), (99, 24697), (101, 24703), (104, 24712), (117, 24799), (134, 24910), (135, 24913), (145, 24988), (146, 24997), (147, 25000), (157, 25132), (161, 25174), (163, 25198), (170, 25252), (172, 25264), (182, 25375), (184, 25411), (186, 25450), (187, 25462), (191, 25510), (193, 25534), (199, 25585), (203, 25618), (208, 25669), (211, 25699), (218, 25756), (221, 25768), (224, 25780), (229, 25819), (233, 25855), (246, 25960), (252, 25996), (257, 26047), (269, 26104), (275, 26164), (277, 26176), (283, 26203), (284, 26209), (285, 26212), (286, 26215), (294, 26242), (295, 26245), (298, 26266), (299, 26272), (306, 26344), (311, 26377), (320, 26431), (327, 26494), (339, 26551), (344, 26584), (357, 26638), (392, 26761), (396, 26785), (397, 26788), (412, 26878), (416, 26926), (430, 27055), (439, 27124), (448, 27172), (451, 27190), (468, 27346), (472, 27376), (484, 27454), (497, 27553), (505, 27622), (506, 27652), (539, 27961), (540, 27964), (542, 27970), (552, 28033), (559, 28099), (568, 28231), (577, 28360), (582, 28399), (618, 28720), (625, 28804), (649, 28981), (653, 28993),

Gene: Bibwit_32 Start: 24677, Stop: 29500, Start Num: 19

Candidate Starts for Bibwit_32:

(Start: 19 @24677 has 61 MA's), (47, 24851), (51, 24875), (86, 25013), (98, 25058), (102, 25070), (106, 25088), (109, 25100), (111, 25127), (115, 25145), (118, 25157), (134, 25256), (150, 25376), (151, 25397), (154, 25457), (157, 25490), (161, 25532), (164, 25568), (169, 25604), (171, 25619), (172, 25622), (182, 25733), (184, 25769), (187, 25820), (190, 25862), (193, 25892), (199, 25943), (203, 25976), (205, 26009), (206, 26021), (216, 26102), (220, 26123), (223, 26135), (236, 26231), (237, 26246), (239, 26267), (246, 26318), (248, 26327), (257, 26405), (268, 26453), (269, 26462), (275, 26522), (284, 26567), (287, 26576), (295, 26603), (299, 26630), (301, 26651), (305, 26687), (314, 26753), (320, 26789), (328, 26876), (329, 26879), (331, 26888), (342, 26906), (356, 26957), (357, 26963), (374, 27089), (402, 27191), (407, 27224), (414, 27287), (418, 27341), (424, 27404),

(437, 27515), (443, 27542), (444, 27548), (458, 27650), (465, 27716), (468, 27743), (472, 27770), (476, 27809), (480, 27833), (488, 27875), (497, 27947), (505, 28016), (507, 28061), (542, 28376), (543, 28382), (545, 28400), (560, 28496), (567, 28601), (575, 28700), (593, 28844), (598, 28919), (600, 28931), (607, 29015), (647, 29354), (655, 29393), (656, 29399), (658, 29405), (661, 29432), (665, 29468), (666, 29480),

Gene: Bizzy_33 Start: 23890, Stop: 28905, Start Num: 19

Candidate Starts for Bizzy_33:

(Start: 19 @23890 has 61 MA's), (30, 23965), (37, 24010), (47, 24064), (51, 24088), (54, 24130), (56, 24148), (58, 24163), (68, 24235), (73, 24262), (81, 24337), (83, 24346), (91, 24403), (92, 24421), (93, 24427), (96, 24445), (103, 24472), (134, 24679), (137, 24691), (142, 24739), (154, 24880), (157, 24913), (161, 24955), (169, 25027), (171, 25042), (172, 25045), (182, 25156), (184, 25192), (187, 25243), (190, 25285), (193, 25315), (199, 25366), (203, 25399), (205, 25432), (206, 25444), (216, 25525), (223, 25558), (224, 25561), (230, 25618), (236, 25654), (237, 25669), (239, 25690), (246, 25741), (268, 25876), (269, 25885), (281, 25978), (283, 25984), (284, 25990), (287, 25999), (294, 26023), (297, 26035), (299, 26053), (305, 26110), (320, 26212), (329, 26302), (344, 26332), (356, 26380), (357, 26386), (373, 26509), (374, 26512), (394, 26575), (395, 26587), (400, 26608), (402, 26614), (407, 26647), (414, 26710), (418, 26764), (424, 26827), (437, 26938), (443, 26965), (444, 26971), (458, 27073), (465, 27139), (484, 27271), (488, 27298), (498, 27379), (505, 27439), (507, 27484), (539, 27790), (542, 27799), (546, 27826), (558, 27895), (567, 28024), (575, 28123), (593, 28267), (598, 28336), (599, 28342), (600, 28348), (607, 28423), (611, 28453), (623, 28591), (632, 28651), (638, 28687), (641, 28732), (647, 28759), (655, 28798), (656, 28804), (658, 28810), (661, 28837), (665, 28873), (666, 28885),

Gene: BobBob_30 Start: 23955, Stop: 28781, Start Num: 19

Candidate Starts for BobBob_30:

(Start: 19 @23955 has 61 MA's), (47, 24129), (51, 24153), (86, 24291), (95, 24324), (98, 24336), (102, 24348), (106, 24366), (109, 24378), (115, 24423), (134, 24534), (150, 24654), (151, 24675), (154, 24735), (157, 24768), (161, 24810), (164, 24846), (169, 24882), (171, 24897), (172, 24900), (182, 25011), (184, 25047), (187, 25098), (190, 25140), (193, 25170), (199, 25221), (203, 25254), (205, 25287), (206, 25299), (216, 25380), (223, 25413), (236, 25509), (237, 25524), (239, 25545), (246, 25596), (248, 25605), (257, 25683), (268, 25731), (269, 25740), (275, 25800), (283, 25839), (284, 25845), (287, 25854), (295, 25881), (299, 25908), (301, 25929), (305, 25965), (314, 26031), (317, 26052), (320, 26067), (328, 26154), (329, 26157), (356, 26235), (363, 26295), (374, 26367), (402, 26469), (407, 26502), (414, 26565), (418, 26619), (424, 26682), (437, 26793), (443, 26820), (444, 26826), (458, 26928), (460, 26940), (465, 26994), (468, 27021), (472, 27048), (476, 27087), (480, 27111), (484, 27126), (488, 27153), (497, 27225), (498, 27234), (505, 27294), (507, 27339), (533, 27528), (542, 27657), (543, 27663), (545, 27681), (560, 27777), (567, 27882), (575, 27981), (593, 28125), (598, 28200), (600, 28212), (607, 28296), (647, 28635), (655, 28674), (656, 28680), (658, 28686), (661, 28713), (665, 28749), (666, 28761),

Gene: Bowser_17 Start: 10588, Stop: 15702, Start Num: 4

Candidate Starts for Bowser_17:

(Start: 4 @10588 has 12 MA's), (6, 10597), (25, 10870), (26, 10879), (28, 10909), (29, 10918), (37, 10975), (49, 11038), (55, 11110), (58, 11131), (63, 11149), (80, 11302), (89, 11344), (94, 11398), (130, 11626), (144, 11740), (150, 11779), (154, 11863), (157, 11896), (158, 11905), (159, 11914), (162, 11947), (163, 11959), (165, 11983), (172, 12028), (174, 12073), (179, 12109), (181, 12121), (182, 12139), (184, 12175), (193, 12298), (194, 12322), (199, 12340), (213, 12475), (215, 12481), (216, 12493), (217, 12496), (226, 12550), (231, 12589), (234, 12610), (235, 12613), (237, 12631), (238, 12640), (245, 12685), (247, 12706), (250, 12733), (261, 12811), (294, 12967), (307, 13024), (318, 13036), (319, 13039), (324, 13072), (326, 13090), (346, 13165), (347, 13171), (350, 13177), (354, 13198), (355, 13201), (356, 13204), (364, 13267), (369, 13303), (371, 13318), (376, 13342), (384, 13357), (385, 13360), (387, 13366), (396, 13411), (399, 13420), (414, 13519), (417, 13561),

(426, 13645), (431, 13708), (433, 13726), (449, 13834), (452, 13843), (453, 13861), (454, 13864), (458, 13903), (459, 13906), (460, 13915), (475, 14050), (483, 14074), (498, 14194), (503, 14239), (506, 14272), (510, 14320), (513, 14332), (522, 14392), (534, 14512), (536, 14539), (537, 14557), (547, 14635), (548, 14641), (550, 14650), (561, 14770), (563, 14809), (565, 14851), (574, 14944), (580, 15037), (581, 15040), (586, 15097), (587, 15106), (588, 15118), (591, 15139), (602, 15244), (610, 15352), (616, 15391), (621, 15460), (625, 15514), (646, 15664),

Gene: Brandonk123_34 Start: 25024, Stop: 29847, Start Num: 19

Candidate Starts for Brandonk123_34:

(Start: 19 @25024 has 61 MA's), (47, 25198), (51, 25222), (86, 25360), (96, 25399), (98, 25405), (102, 25417), (106, 25435), (109, 25447), (111, 25474), (115, 25492), (118, 25504), (134, 25603), (150, 25723), (151, 25744), (154, 25804), (157, 25837), (161, 25879), (164, 25915), (169, 25951), (171, 25966), (172, 25969), (182, 26080), (184, 26116), (187, 26167), (190, 26209), (193, 26239), (199, 26290), (203, 26323), (205, 26356), (206, 26368), (216, 26449), (220, 26470), (223, 26482), (236, 26578), (237, 26593), (239, 26614), (246, 26665), (248, 26674), (257, 26752), (268, 26800), (269, 26809), (275, 26869), (284, 26914), (287, 26923), (295, 26950), (299, 26977), (301, 26998), (305, 27034), (314, 27100), (320, 27136), (328, 27223), (329, 27226), (356, 27304), (363, 27364), (374, 27436), (394, 27499), (400, 27532), (402, 27538), (407, 27571), (414, 27634), (418, 27688), (424, 27751), (437, 27862), (443, 27889), (444, 27895), (458, 27997), (460, 28009), (465, 28063), (468, 28090), (472, 28117), (476, 28156), (488, 28222), (497, 28294), (498, 28303), (505, 28363), (507, 28408), (542, 28723), (543, 28729), (545, 28747), (560, 28843), (567, 28948), (575, 29047), (593, 29191), (598, 29266), (600, 29278), (607, 29362), (647, 29701), (655, 29740), (656, 29746), (658, 29752), (661, 29779), (665, 29815), (666, 29827),

Gene: Bunker_17 Start: 10580, Stop: 15829, Start Num: 4

Candidate Starts for Bunker_17:

(Start: 4 @10580 has 12 MA's), (6, 10589), (16, 10736), (25, 10862), (26, 10871), (32, 10934), (33, 10940), (35, 10946), (37, 10967), (41, 10991), (47, 11021), (49, 11030), (58, 11123), (62, 11135), (63, 11141), (80, 11294), (89, 11336), (94, 11390), (100, 11423), (131, 11624), (154, 11855), (157, 11888), (158, 11897), (159, 11906), (162, 11939), (163, 11951), (165, 11975), (172, 12020), (173, 12029), (179, 12101), (181, 12113), (182, 12131), (184, 12167), (193, 12290), (194, 12314), (210, 12431), (213, 12467), (215, 12473), (217, 12488), (226, 12542), (231, 12581), (234, 12602), (235, 12605), (237, 12623), (238, 12632), (245, 12677), (246, 12695), (247, 12698), (250, 12725), (261, 12803), (296, 12968), (298, 12983), (300, 12992), (308, 13076), (322, 13187), (324, 13193), (325, 13199), (330, 13244), (332, 13256), (347, 13292), (350, 13298), (354, 13319), (356, 13325), (357, 13331), (362, 13376), (364, 13388), (369, 13424), (376, 13463), (384, 13478), (385, 13481), (387, 13487), (396, 13532), (417, 13682), (425, 13760), (426, 13766), (431, 13832), (433, 13850), (449, 13958), (450, 13961), (453, 13985), (454, 13988), (458, 14027), (459, 14030), (460, 14039), (464, 14087), (475, 14174), (483, 14198), (492, 14258), (498, 14318), (506, 14396), (510, 14444), (513, 14456), (522, 14516), (534, 14633), (536, 14660), (547, 14756), (548, 14762), (550, 14771), (563, 14930), (565, 14972), (587, 15230), (588, 15242), (591, 15263), (592, 15266), (594, 15284), (610, 15476), (616, 15515), (625, 15638), (646, 15788), (649, 15812),

Gene: ChadMasterC_33 Start: 25682, Stop: 30712, Start Num: 19

Candidate Starts for ChadMasterC_33:

(Start: 19 @25682 has 61 MA's), (47, 25856), (51, 25880), (52, 25889), (54, 25922), (56, 25940), (58, 25955), (73, 26054), (81, 26129), (82, 26135), (83, 26138), (91, 26195), (92, 26213), (94, 26222), (96, 26237), (123, 26402), (127, 26420), (128, 26432), (134, 26471), (151, 26612), (154, 26672), (157, 26705), (161, 26747), (169, 26819), (171, 26834), (172, 26837), (182, 26948), (184, 26984), (187, 27035), (190, 27077), (193, 27107), (199, 27158), (203, 27191), (205, 27224), (206, 27236), (216, 27317), (220, 27338), (223, 27350), (236, 27446), (237, 27461), (239, 27482), (246, 27533), (248, 27542), (257, 27620), (268, 27668), (269, 27677), (275, 27737), (284, 27782), (287, 27791), (295, 27818), (299, 27845), (301, 27866), (305, 27902), (314, 27968), (320, 28004), (328, 28091), (329,

28094), (342, 28121), (356, 28172), (357, 28178), (374, 28304), (395, 28379), (402, 28406), (407, 28439), (414, 28502), (418, 28556), (424, 28619), (437, 28730), (443, 28757), (444, 28763), (458, 28865), (460, 28877), (465, 28931), (468, 28958), (472, 28985), (476, 29024), (480, 29048), (484, 29063), (488, 29090), (497, 29162), (498, 29171), (505, 29231), (507, 29276), (542, 29594), (543, 29600), (545, 29618), (560, 29714), (567, 29819), (575, 29918), (593, 30062), (598, 30131), (600, 30143), (607, 30227), (647, 30566), (655, 30605), (656, 30611), (658, 30617), (661, 30644), (665, 30680), (666, 30692),

Gene: Charming_33 Start: 24533, Stop: 29347, Start Num: 19

Candidate Starts for Charming_33:

(Start: 19 @24533 has 61 MA's), (47, 24707), (51, 24731), (86, 24869), (95, 24902), (98, 24914), (102, 24926), (106, 24944), (109, 24956), (115, 25001), (118, 25013), (134, 25112), (150, 25232), (151, 25253), (154, 25313), (157, 25346), (161, 25388), (164, 25424), (169, 25460), (171, 25475), (172, 25478), (182, 25589), (184, 25625), (187, 25676), (190, 25718), (193, 25748), (199, 25799), (203, 25832), (205, 25865), (206, 25877), (216, 25958), (220, 25979), (223, 25991), (236, 26087), (237, 26102), (239, 26123), (246, 26174), (248, 26183), (268, 26309), (269, 26318), (275, 26378), (284, 26423), (287, 26432), (295, 26459), (299, 26486), (301, 26507), (305, 26543), (314, 26609), (320, 26645), (328, 26732), (329, 26735), (356, 26813), (357, 26819), (374, 26945), (402, 27047), (407, 27080), (414, 27143), (418, 27197), (424, 27260), (437, 27371), (443, 27398), (444, 27404), (458, 27506), (465, 27572), (466, 27587), (468, 27599), (472, 27626), (476, 27665), (488, 27731), (498, 27812), (505, 27872), (507, 27917), (542, 28232), (543, 28238), (545, 28256), (560, 28352), (575, 28556), (593, 28700), (598, 28775), (607, 28862), (626, 29057), (647, 29201), (655, 29240), (656, 29246), (658, 29252), (661, 29279), (665, 29315), (666, 29327),

Gene: Chickadee_30 Start: 21428, Stop: 26545, Start Num: 19

Candidate Starts for Chickadee_30:

(Start: 19 @21428 has 61 MA's), (37, 21548), (47, 21602), (52, 21635), (57, 21692), (58, 21701), (59, 21704), (68, 21773), (71, 21785), (73, 21800), (78, 21836), (81, 21875), (82, 21881), (84, 21887), (90, 21920), (95, 21962), (97, 21971), (99, 21980), (101, 21986), (114, 22064), (117, 22082), (122, 22121), (132, 22178), (134, 22193), (148, 22286), (161, 22457), (169, 22529), (172, 22547), (178, 22625), (182, 22658), (184, 22694), (186, 22733), (187, 22745), (193, 22817), (199, 22868), (201, 22889), (203, 22901), (208, 22952), (211, 22982), (220, 23048), (235, 23150), (239, 23192), (247, 23246), (251, 23276), (252, 23279), (257, 23330), (262, 23357), (268, 23378), (274, 23444), (281, 23480), (283, 23486), (294, 23525), (297, 23537), (298, 23549), (299, 23555), (301, 23576), (311, 23660), (313, 23675), (317, 23699), (334, 23834), (335, 23846), (342, 23909), (343, 23912), (352, 24017), (354, 24035), (360, 24065), (366, 24116), (374, 24173), (380, 24248), (383, 24257), (386, 24266), (388, 24272), (392, 24323), (399, 24356), (401, 24368), (404, 24389), (405, 24401), (410, 24434), (412, 24455), (422, 24587), (429, 24641), (456, 24848), (468, 24962), (470, 24974), (487, 25100), (490, 25118), (499, 25196), (520, 25385), (523, 25415), (542, 25586), (546, 25613), (570, 25820), (571, 25823), (573, 25841), (596, 26090), (598, 26108), (603, 26120), (618, 26237), (636, 26393), (637, 26396), (640, 26438), (642, 26456), (645, 26471), (653, 26510),

Gene: ClamChowder_31 Start: 20106, Stop: 25637, Start Num: 1

Candidate Starts for ClamChowder_31:

(Start: 1 @20106 has 29 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 8 MA's), (22, 20481), (23, 20487), (27, 20511), (34, 20541), (43, 20580), (59, 20664), (67, 20700), (69, 20724), (77, 20763), (131, 21153), (151, 21321), (154, 21381), (161, 21453), (162, 21465), (165, 21501), (168, 21525), (178, 21624), (179, 21627), (182, 21657), (186, 21732), (187, 21744), (190, 21786), (193, 21816), (199, 21867), (213, 22008), (216, 22026), (218, 22038), (220, 22047), (235, 22149), (237, 22170), (239, 22191), (246, 22242), (247, 22245), (248, 22251), (257, 22329), (263, 22359), (268, 22377), (275, 22446), (281, 22479), (283, 22485), (285, 22494), (288, 22500), (299, 22554), (303, 22599), (306, 22626), (308, 22635), (310, 22656), (320, 22713), (323, 22749), (333, 22830), (334, 22833), (340, 22902), (349, 22974), (357, 23070), (365, 23136), (366, 23139), (369,

23163), (372, 23190), (373, 23193), (374, 23196), (376, 23202), (396, 23271), (399, 23280), (406, 23325), (411, 23334), (420, 23412), (425, 23466), (430, 23520), (436, 23577), (445, 23619), (451, 23655), (458, 23718), (463, 23769), (477, 23880), (485, 23919), (496, 24000), (511, 24174), (512, 24177), (517, 24210), (539, 24417), (542, 24426), (543, 24432), (572, 24744), (590, 24951), (601, 25089), (614, 25239), (623, 25350), (630, 25395), (631, 25404), (632, 25410), (638, 25446), (651, 25539), (654, 25551), (660, 25581), (662, 25614), (664, 25626),

Gene: Clown_33 Start: 21973, Stop: 27672, Start Num: 1

Candidate Starts for Clown_33:

(Start: 1 @21973 has 29 MA's), (2, 22048), (6, 22147), (7, 22156), (10, 22180), (14, 22249), (17, 22348), (18, 22351), (50, 22606), (61, 22696), (67, 22750), (76, 22807), (80, 22873), (85, 22894), (89, 22915), (113, 23086), (120, 23122), (121, 23128), (129, 23194), (131, 23203), (133, 23224), (143, 23308), (154, 23434), (161, 23506), (162, 23518), (165, 23554), (178, 23677), (179, 23680), (182, 23710), (186, 23785), (187, 23797), (189, 23830), (190, 23839), (194, 23893), (203, 23953), (206, 24001), (211, 24034), (216, 24079), (218, 24091), (220, 24100), (239, 24244), (246, 24295), (247, 24298), (252, 24331), (255, 24373), (259, 24388), (263, 24412), (268, 24430), (269, 24439), (275, 24499), (283, 24538), (284, 24544), (286, 24550), (289, 24556), (290, 24559), (294, 24577), (297, 24589), (299, 24607), (306, 24679), (311, 24712), (313, 24727), (320, 24766), (327, 24829), (334, 24886), (352, 25093), (366, 25192), (369, 25216), (372, 25243), (373, 25246), (374, 25249), (396, 25324), (399, 25333), (406, 25378), (411, 25387), (413, 25399), (420, 25465), (425, 25519), (430, 25573), (438, 25642), (445, 25672), (457, 25753), (458, 25771), (461, 25789), (463, 25822), (466, 25852), (498, 26062), (505, 26122), (507, 26167), (508, 26170), (515, 26233), (530, 26344), (532, 26362), (539, 26461), (540, 26464), (542, 26470), (543, 26476), (559, 26596), (577, 26869), (583, 26926), (584, 26950), (589, 26977), (624, 27400), (638, 27484), (646, 27547), (648, 27562), (654, 27589), (659, 27616), (660, 27619),

Gene: CoveyB_32 Start: 19906, Stop: 25437, Start Num: 1

Candidate Starts for CoveyB_32:

(Start: 1 @19906 has 29 MA's), (3, 19993), (6, 20080), (10, 20113), (12, 20137), (Start: 20 @20260 has 8 MA's), (22, 20281), (23, 20287), (27, 20311), (34, 20341), (43, 20380), (59, 20464), (67, 20500), (69, 20524), (77, 20563), (131, 20953), (151, 21121), (154, 21181), (161, 21253), (162, 21265), (165, 21301), (168, 21325), (178, 21424), (179, 21427), (182, 21457), (186, 21532), (187, 21544), (190, 21586), (193, 21616), (199, 21667), (213, 21808), (216, 21826), (218, 21838), (220, 21847), (235, 21949), (237, 21970), (239, 21991), (246, 22042), (247, 22045), (248, 22051), (257, 22129), (263, 22159), (268, 22177), (275, 22246), (281, 22279), (283, 22285), (285, 22294), (288, 22300), (299, 22354), (303, 22399), (306, 22426), (308, 22435), (310, 22456), (320, 22513), (323, 22549), (333, 22630), (334, 22633), (340, 22702), (349, 22774), (357, 22870), (365, 22936), (366, 22939), (369, 22963), (372, 22990), (373, 22993), (374, 22996), (376, 23002), (396, 23071), (399, 23080), (406, 23125), (411, 23134), (420, 23212), (425, 23266), (430, 23320), (436, 23377), (445, 23419), (451, 23455), (458, 23518), (463, 23569), (477, 23680), (485, 23719), (496, 23800), (511, 23974), (512, 23977), (517, 24010), (539, 24217), (542, 24226), (543, 24232), (572, 24544), (590, 24751), (601, 24889), (614, 25039), (623, 25150), (630, 25195), (631, 25204), (638, 25246), (651, 25339), (654, 25351), (660, 25381), (662, 25414), (664, 25426),

Gene: Danyall_31 Start: 19906, Stop: 25437, Start Num: 1

Candidate Starts for Danyall_31:

(Start: 1 @19906 has 29 MA's), (3, 19993), (6, 20080), (10, 20113), (12, 20137), (Start: 20 @20260 has 8 MA's), (22, 20281), (23, 20287), (27, 20311), (34, 20341), (43, 20380), (59, 20464), (67, 20500), (69, 20524), (77, 20563), (131, 20953), (151, 21121), (154, 21181), (161, 21253), (162, 21265), (165, 21301), (168, 21325), (178, 21424), (179, 21427), (182, 21457), (186, 21532), (187, 21544), (190, 21586), (193, 21616), (199, 21667), (213, 21808), (216, 21826), (218, 21838), (220, 21847), (235, 21949), (237, 21970), (239, 21991), (246, 22042), (247, 22045), (248, 22051), (257, 22129), (263, 22159), (268, 22177), (275, 22246), (281, 22279), (283, 22285), (285, 22294), (288, 22300), (299,

22354), (303, 22399), (306, 22426), (308, 22435), (310, 22456), (320, 22513), (323, 22549), (333, 22630), (334, 22633), (340, 22702), (349, 22774), (357, 22870), (365, 22936), (366, 22939), (369, 22963), (372, 22990), (373, 22993), (374, 22996), (376, 23002), (396, 23071), (399, 23080), (406, 23125), (411, 23134), (420, 23212), (425, 23266), (430, 23320), (436, 23377), (445, 23419), (451, 23455), (458, 23518), (463, 23569), (477, 23680), (485, 23719), (496, 23800), (511, 23974), (512, 23977), (517, 24010), (539, 24217), (542, 24226), (543, 24232), (572, 24544), (590, 24751), (601, 24889), (614, 25039), (623, 25150), (630, 25195), (631, 25204), (632, 25210), (638, 25246), (651, 25339), (654, 25351), (660, 25381), (662, 25414), (664, 25426),

Gene: Delrey21_32 Start: 25053, Stop: 29963, Start Num: 19

Candidate Starts for Delrey21_32:

(Start: 19 @25053 has 61 MA's), (37, 25173), (39, 25185), (43, 25206), (47, 25227), (51, 25251), (57, 25317), (58, 25326), (59, 25329), (75, 25431), (81, 25500), (83, 25509), (104, 25617), (108, 25638), (112, 25680), (114, 25686), (122, 25743), (124, 25752), (134, 25815), (146, 25914), (149, 25926), (153, 25968), (157, 26049), (160, 26073), (162, 26103), (167, 26160), (169, 26163), (170, 26169), (172, 26181), (177, 26253), (182, 26292), (184, 26328), (186, 26367), (187, 26379), (190, 26421), (193, 26451), (203, 26535), (205, 26568), (216, 26661), (220, 26682), (224, 26697), (235, 26784), (239, 26826), (247, 26880), (248, 26886), (252, 26913), (265, 27000), (268, 27012), (269, 27021), (275, 27081), (277, 27093), (283, 27120), (295, 27162), (296, 27168), (298, 27183), (299, 27189), (303, 27234), (306, 27261), (308, 27270), (309, 27273), (327, 27411), (337, 27465), (339, 27468), (357, 27555), (384, 27657), (396, 27702), (397, 27705), (412, 27795), (445, 28071), (447, 28086), (448, 28089), (462, 28212), (465, 28236), (471, 28299), (482, 28356), (498, 28473), (501, 28515), (505, 28533), (515, 28644), (529, 28746), (540, 28878), (542, 28884), (543, 28890), (546, 28911), (553, 28953), (569, 29172), (572, 29199), (577, 29271), (582, 29310), (604, 29517), (609, 29583), (612, 29589), (618, 29655), (626, 29751), (633, 29790), (639, 29853), (640, 29856), (642, 29874), (645, 29889), (649, 29916), (653, 29928),

Gene: Derg_30 Start: 23486, Stop: 28501, Start Num: 19

Candidate Starts for Derg_30:

(Start: 19 @23486 has 61 MA's), (30, 23561), (37, 23606), (47, 23660), (51, 23684), (54, 23726), (56, 23744), (58, 23759), (68, 23831), (73, 23858), (81, 23933), (83, 23942), (91, 23999), (92, 24017), (93, 24023), (96, 24041), (103, 24068), (127, 24224), (134, 24275), (137, 24287), (142, 24335), (154, 24476), (157, 24509), (161, 24551), (169, 24623), (171, 24638), (172, 24641), (182, 24752), (184, 24788), (187, 24839), (190, 24881), (193, 24911), (199, 24962), (203, 24995), (205, 25028), (206, 25040), (216, 25121), (223, 25154), (224, 25157), (230, 25214), (236, 25250), (237, 25265), (239, 25286), (246, 25337), (268, 25472), (275, 25541), (283, 25580), (284, 25586), (287, 25595), (295, 25622), (299, 25649), (301, 25670), (305, 25706), (308, 25730), (309, 25733), (313, 25769), (320, 25808), (329, 25898), (344, 25928), (356, 25976), (357, 25982), (373, 26105), (374, 26108), (376, 26114), (394, 26171), (395, 26183), (402, 26210), (407, 26243), (408, 26249), (414, 26306), (418, 26360), (424, 26423), (437, 26534), (443, 26561), (444, 26567), (458, 26669), (465, 26735), (484, 26867), (488, 26894), (498, 26975), (505, 27035), (507, 27080), (539, 27386), (542, 27395), (546, 27422), (558, 27491), (575, 27719), (593, 27863), (598, 27932), (599, 27938), (600, 27944), (607, 28019), (611, 28049), (623, 28187), (632, 28247), (638, 28283), (641, 28328), (647, 28355), (655, 28394), (656, 28400), (658, 28406), (661, 28433), (665, 28469), (666, 28481),

Gene: Dextert_31 Start: 21862, Stop: 26988, Start Num: 19

Candidate Starts for Dextert_31:

(Start: 19 @21862 has 61 MA's), (47, 22036), (52, 22069), (57, 22126), (58, 22135), (59, 22138), (68, 22207), (71, 22219), (73, 22234), (78, 22270), (81, 22309), (82, 22315), (84, 22321), (90, 22354), (95, 22396), (97, 22405), (99, 22414), (101, 22420), (106, 22447), (114, 22498), (117, 22516), (132, 22612), (134, 22627), (141, 22672), (148, 22720), (161, 22891), (169, 22963), (172, 22981), (178, 23059), (182, 23092), (184, 23128), (186, 23167), (187, 23179), (193, 23251), (199, 23302), (201, 23323), (203, 23335), (208, 23386), (211, 23416), (220, 23482), (235, 23584), (239, 23626), (247,

23680), (251, 23710), (252, 23713), (257, 23764), (262, 23791), (268, 23812), (274, 23878), (281, 23914), (283, 23920), (294, 23959), (295, 23962), (298, 23983), (299, 23989), (301, 24010), (306, 24061), (311, 24094), (313, 24109), (317, 24133), (342, 24343), (343, 24346), (352, 24451), (354, 24469), (360, 24499), (366, 24550), (374, 24607), (380, 24682), (383, 24691), (386, 24700), (388, 24706), (392, 24757), (399, 24790), (401, 24802), (404, 24823), (405, 24835), (410, 24868), (412, 24889), (422, 25021), (429, 25075), (456, 25282), (468, 25396), (470, 25408), (487, 25534), (490, 25552), (499, 25630), (520, 25819), (523, 25849), (546, 26047), (570, 26254), (571, 26257), (573, 26275), (596, 26524), (598, 26542), (603, 26554), (618, 26680), (636, 26836), (637, 26839), (640, 26881), (642, 26899), (645, 26914), (653, 26953),

Gene: DirtyBoi_18 Start: 11005, Stop: 16017, Start Num: 4

Candidate Starts for DirtyBoi_18:

(Start: 4 @11005 has 12 MA's), (9, 11035), (11, 11056), (13, 11092), (26, 11296), (28, 11326), (38, 11401), (53, 11506), (63, 11566), (74, 11644), (75, 11647), (80, 11719), (89, 11761), (100, 11848), (154, 12277), (157, 12310), (159, 12328), (163, 12373), (165, 12397), (172, 12442), (173, 12451), (174, 12487), (175, 12496), (178, 12520), (181, 12535), (182, 12553), (187, 12640), (192, 12694), (193, 12712), (203, 12787), (204, 12817), (213, 12889), (215, 12895), (217, 12910), (226, 12964), (235, 13027), (237, 13045), (240, 13072), (242, 13084), (245, 13099), (247, 13120), (266, 13240), (270, 13267), (273, 13300), (278, 13339), (280, 13354), (294, 13402), (298, 13426), (302, 13456), (308, 13519), (315, 13564), (316, 13567), (324, 13636), (341, 13708), (346, 13729), (347, 13735), (350, 13741), (355, 13765), (356, 13768), (359, 13789), (362, 13819), (364, 13831), (369, 13867), (384, 13921), (385, 13924), (387, 13930), (396, 13975), (399, 13984), (417, 14125), (421, 14158), (425, 14203), (426, 14209), (428, 14221), (431, 14272), (446, 14356), (450, 14380), (453, 14404), (454, 14407), (460, 14458), (465, 14506), (475, 14593), (483, 14617), (486, 14629), (488, 14650), (492, 14677), (503, 14782), (506, 14815), (510, 14863), (513, 14875), (524, 14947), (526, 14956), (555, 15112), (562, 15142), (578, 15334), (591, 15454), (592, 15457), (605, 15601), (610, 15664), (625, 15826), (626, 15838), (636, 15895), (644, 15970), (646, 15976), (650, 16006), (652, 16009),

Gene: DoctorFroggo_32 Start: 25053, Stop: 29963, Start Num: 19

Candidate Starts for DoctorFroggo_32:

(Start: 19 @25053 has 61 MA's), (37, 25173), (39, 25185), (43, 25206), (47, 25227), (51, 25251), (57, 25317), (58, 25326), (59, 25329), (75, 25431), (81, 25500), (83, 25509), (104, 25617), (108, 25638), (112, 25680), (114, 25686), (122, 25743), (124, 25752), (134, 25815), (146, 25914), (149, 25926), (153, 25968), (157, 26049), (160, 26073), (162, 26103), (167, 26160), (169, 26163), (170, 26169), (172, 26181), (177, 26253), (182, 26292), (184, 26328), (186, 26367), (187, 26379), (190, 26421), (193, 26451), (203, 26535), (205, 26568), (216, 26661), (220, 26682), (224, 26697), (235, 26784), (239, 26826), (247, 26880), (248, 26886), (252, 26913), (265, 27000), (268, 27012), (269, 27021), (275, 27081), (277, 27093), (283, 27120), (295, 27162), (296, 27168), (298, 27183), (299, 27189), (303, 27234), (306, 27261), (308, 27270), (309, 27273), (327, 27411), (337, 27465), (339, 27468), (357, 27555), (384, 27657), (396, 27702), (397, 27705), (412, 27795), (445, 28071), (447, 28086), (448, 28089), (462, 28212), (465, 28236), (471, 28299), (482, 28356), (498, 28473), (501, 28515), (505, 28533), (515, 28644), (529, 28746), (540, 28878), (542, 28884), (543, 28890), (546, 28911), (553, 28953), (569, 29172), (572, 29199), (577, 29271), (582, 29310), (604, 29517), (609, 29583), (612, 29589), (618, 29655), (626, 29751), (633, 29790), (639, 29853), (640, 29856), (642, 29874), (645, 29889), (649, 29916), (653, 29928),

Gene: EMoore_29 Start: 23379, Stop: 28523, Start Num: 20

Candidate Starts for EMoore_29:

(Start: 20 @23379 has 8 MA's), (37, 23499), (47, 23553), (51, 23577), (54, 23619), (58, 23652), (59, 23655), (73, 23751), (81, 23826), (82, 23832), (84, 23838), (90, 23871), (95, 23913), (101, 23937), (104, 23946), (109, 23976), (117, 24033), (122, 24072), (124, 24081), (125, 24084), (134, 24144), (135, 24147), (145, 24222), (146, 24231), (157, 24366), (158, 24375), (163, 24432), (170, 24486), (172, 24498), (178, 24576), (182, 24609), (184, 24645), (186, 24684), (187, 24696), (191, 24744),

(193, 24768), (203, 24852), (207, 24900), (208, 24903), (218, 24990), (221, 25002), (233, 25089), (239, 25143), (247, 25197), (248, 25203), (252, 25230), (257, 25281), (268, 25329), (269, 25338), (275, 25398), (277, 25410), (281, 25431), (283, 25437), (284, 25443), (285, 25446), (286, 25449), (294, 25476), (299, 25506), (303, 25551), (306, 25578), (309, 25590), (311, 25611), (313, 25626), (320, 25665), (334, 25785), (338, 25839), (348, 25914), (349, 25926), (351, 25989), (358, 26034), (361, 26055), (368, 26100), (375, 26142), (376, 26145), (377, 26169), (378, 26187), (379, 26199), (382, 26220), (387, 26232), (390, 26250), (392, 26277), (393, 26280), (409, 26364), (415, 26430), (420, 26463), (423, 26505), (425, 26517), (435, 26616), (439, 26646), (445, 26673), (451, 26709), (468, 26865), (469, 26868), (475, 26922), (482, 26946), (497, 27054), (498, 27063), (505, 27123), (506, 27153), (507, 27168), (515, 27234), (521, 27270), (540, 27465), (542, 27471), (546, 27498), (552, 27534), (577, 27861), (582, 27900), (608, 28137), (618, 28215), (626, 28311), (642, 28434), (649, 28476), (653, 28488),

Gene: EdmundFerry_29 Start: 21457, Stop: 26574, Start Num: 19

Candidate Starts for EdmundFerry_29:

(Start: 19 @21457 has 61 MA's), (37, 21577), (47, 21631), (52, 21664), (57, 21721), (58, 21730), (59, 21733), (68, 21802), (71, 21814), (73, 21829), (78, 21865), (81, 21904), (82, 21910), (84, 21916), (90, 21949), (95, 21991), (97, 22000), (99, 22009), (101, 22015), (114, 22093), (117, 22111), (122, 22150), (132, 22207), (134, 22222), (148, 22315), (161, 22486), (169, 22558), (172, 22576), (178, 22654), (182, 22687), (184, 22723), (186, 22762), (187, 22774), (193, 22846), (195, 22876), (199, 22897), (201, 22918), (203, 22930), (208, 22981), (211, 23011), (220, 23077), (235, 23179), (239, 23221), (247, 23275), (251, 23305), (252, 23308), (257, 23359), (262, 23386), (268, 23407), (274, 23473), (281, 23509), (283, 23515), (294, 23554), (297, 23566), (298, 23578), (299, 23584), (301, 23605), (311, 23689), (313, 23704), (317, 23728), (334, 23863), (342, 23938), (343, 23941), (352, 24046), (354, 24064), (360, 24094), (366, 24145), (374, 24202), (380, 24277), (383, 24286), (386, 24295), (388, 24301), (392, 24352), (399, 24385), (401, 24397), (404, 24418), (405, 24430), (410, 24463), (412, 24484), (422, 24616), (429, 24670), (456, 24877), (468, 24991), (470, 25003), (487, 25129), (490, 25147), (499, 25225), (520, 25414), (523, 25444), (542, 25615), (546, 25642), (570, 25849), (571, 25852), (573, 25870), (596, 26119), (598, 26137), (603, 26149), (618, 26266), (636, 26422), (637, 26425), (640, 26467), (642, 26485), (645, 26500), (653, 26539),

Gene: Evamon_29 Start: 19392, Stop: 24923, Start Num: 1

Candidate Starts for Evamon_29:

(Start: 1 @19392 has 29 MA's), (3, 19479), (6, 19566), (10, 19599), (12, 19623), (Start: 20 @19746 has 8 MA's), (22, 19767), (23, 19773), (27, 19797), (34, 19827), (43, 19866), (59, 19950), (67, 19986), (69, 20010), (77, 20049), (131, 20439), (151, 20607), (154, 20667), (161, 20739), (162, 20751), (165, 20787), (168, 20811), (178, 20910), (179, 20913), (182, 20943), (186, 21018), (187, 21030), (190, 21072), (193, 21102), (199, 21153), (213, 21294), (216, 21312), (218, 21324), (220, 21333), (235, 21435), (237, 21456), (239, 21477), (246, 21528), (247, 21531), (248, 21537), (257, 21615), (263, 21645), (268, 21663), (275, 21732), (281, 21765), (283, 21771), (285, 21780), (288, 21786), (299, 21840), (303, 21885), (306, 21912), (308, 21921), (310, 21942), (320, 21999), (323, 22035), (333, 22116), (334, 22119), (340, 22188), (349, 22260), (357, 22356), (365, 22422), (366, 22425), (369, 22449), (372, 22476), (373, 22479), (374, 22482), (376, 22488), (396, 22557), (399, 22566), (406, 22611), (411, 22620), (420, 22698), (425, 22752), (430, 22806), (436, 22863), (445, 22905), (451, 22941), (458, 23004), (463, 23055), (477, 23166), (485, 23205), (496, 23286), (511, 23460), (512, 23463), (517, 23496), (539, 23703), (542, 23712), (543, 23718), (572, 24030), (590, 24237), (601, 24375), (614, 24525), (623, 24636), (630, 24681), (631, 24690), (632, 24696), (638, 24732), (651, 24825), (654, 24837), (660, 24867), (662, 24900), (664, 24912),

Gene: Eyes_17 Start: 10596, Stop: 15716, Start Num: 4

Candidate Starts for Eyes_17:

(Start: 4 @10596 has 12 MA's), (6, 10605), (22, 10848), (25, 10878), (26, 10887), (28, 10917), (33, 10956), (37, 10983), (58, 11139), (63, 11157), (80, 11310), (89, 11352), (94, 11406), (129, 11631),

(130, 11634), (136, 11670), (144, 11748), (150, 11787), (154, 11871), (157, 11904), (158, 11913), (159, 11922), (162, 11955), (163, 11967), (165, 11991), (172, 12036), (173, 12045), (174, 12081), (179, 12117), (181, 12129), (182, 12147), (184, 12183), (185, 12192), (193, 12306), (199, 12348), (213, 12483), (214, 12486), (215, 12489), (217, 12504), (226, 12558), (231, 12597), (242, 12678), (245, 12693), (247, 12714), (254, 12777), (260, 12813), (294, 12975), (307, 13032), (318, 13044), (319, 13047), (324, 13080), (326, 13098), (346, 13173), (347, 13179), (350, 13185), (354, 13206), (355, 13209), (356, 13212), (364, 13275), (369, 13311), (371, 13326), (376, 13350), (384, 13365), (385, 13368), (387, 13374), (399, 13428), (414, 13527), (417, 13569), (425, 13647), (431, 13716), (433, 13734), (449, 13842), (450, 13845), (453, 13869), (454, 13872), (457, 13893), (459, 13914), (460, 13923), (475, 14058), (483, 14082), (492, 14142), (498, 14202), (503, 14247), (506, 14280), (510, 14328), (513, 14340), (522, 14400), (536, 14550), (537, 14568), (547, 14646), (548, 14652), (550, 14661), (554, 14688), (561, 14781), (563, 14820), (565, 14862), (576, 15015), (580, 15048), (581, 15051), (586, 15108), (587, 15117), (588, 15129), (591, 15150), (594, 15171), (610, 15363), (616, 15402), (621, 15471), (625, 15525), (646, 15678),

Gene: Fireball_30 Start: 19524, Stop: 25058, Start Num: 1

Candidate Starts for Fireball_30:

(Start: 1 @19524 has 29 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 8 MA's), (22, 19899), (23, 19905), (27, 19929), (30, 19938), (34, 19959), (43, 19998), (59, 20082), (67, 20118), (69, 20142), (77, 20181), (131, 20571), (151, 20739), (154, 20799), (161, 20871), (162, 20883), (165, 20919), (168, 20943), (178, 21042), (179, 21045), (182, 21075), (186, 21150), (187, 21162), (190, 21204), (193, 21234), (199, 21285), (213, 21426), (216, 21444), (218, 21456), (220, 21465), (235, 21567), (237, 21588), (239, 21609), (246, 21660), (247, 21663), (257, 21747), (263, 21777), (268, 21795), (275, 21864), (281, 21897), (283, 21903), (285, 21912), (288, 21918), (299, 21972), (306, 22044), (308, 22053), (310, 22074), (320, 22131), (323, 22167), (333, 22248), (334, 22251), (340, 22320), (349, 22392), (357, 22488), (365, 22554), (366, 22557), (369, 22581), (372, 22608), (373, 22611), (374, 22614), (376, 22620), (396, 22689), (399, 22698), (406, 22743), (411, 22752), (420, 22830), (432, 22959), (434, 22974), (439, 23016), (445, 23058), (448, 23076), (451, 23094), (458, 23157), (463, 23208), (477, 23319), (485, 23358), (496, 23439), (511, 23613), (512, 23616), (517, 23649), (519, 23664), (539, 23856), (542, 23865), (543, 23871), (559, 23985), (566, 24105), (582, 24285), (601, 24510), (614, 24660), (630, 24816), (631, 24825), (638, 24867), (653, 24966), (654, 24972), (660, 25002), (662, 25035), (664, 25047),

Gene: Fitzgerald_31 Start: 25116, Stop: 29930, Start Num: 19

Candidate Starts for Fitzgerald_31:

(Start: 19 @25116 has 61 MA's), (47, 25290), (51, 25314), (86, 25452), (96, 25491), (98, 25497), (102, 25509), (106, 25527), (109, 25539), (111, 25566), (115, 25584), (118, 25596), (120, 25602), (134, 25695), (150, 25815), (151, 25836), (154, 25896), (157, 25929), (161, 25971), (164, 26007), (169, 26043), (171, 26058), (172, 26061), (182, 26172), (184, 26208), (187, 26259), (190, 26301), (193, 26331), (199, 26382), (203, 26415), (205, 26448), (206, 26460), (216, 26541), (220, 26562), (223, 26574), (236, 26670), (237, 26685), (239, 26706), (246, 26757), (248, 26766), (268, 26892), (269, 26901), (275, 26961), (284, 27006), (287, 27015), (295, 27042), (299, 27069), (301, 27090), (305, 27126), (314, 27192), (320, 27228), (328, 27315), (329, 27318), (342, 27345), (356, 27396), (357, 27402), (374, 27528), (402, 27630), (407, 27663), (414, 27726), (418, 27780), (424, 27843), (437, 27954), (443, 27981), (444, 27987), (458, 28089), (460, 28101), (465, 28155), (468, 28182), (472, 28209), (476, 28248), (480, 28272), (484, 28287), (488, 28314), (497, 28386), (498, 28395), (505, 28455), (507, 28500), (533, 28689), (542, 28815), (543, 28821), (545, 28839), (560, 28935), (567, 29040), (575, 29139), (593, 29283), (598, 29358), (607, 29445), (647, 29784), (655, 29823), (656, 29829), (658, 29835), (661, 29862), (665, 29898), (666, 29910),

Gene: Flatwoods_33 Start: 23847, Stop: 28862, Start Num: 19

Candidate Starts for Flatwoods_33:

(Start: 19 @23847 has 61 MA's), (30, 23922), (37, 23967), (47, 24021), (51, 24045), (54, 24087), (56, 24105), (58, 24120), (68, 24192), (73, 24219), (81, 24294), (83, 24303), (90, 24339), (91, 24360), (92, 24378), (93, 24384), (96, 24402), (103, 24429), (134, 24636), (137, 24648), (142, 24696), (154, 24837), (157, 24870), (161, 24912), (169, 24984), (171, 24999), (172, 25002), (182, 25113), (184, 25149), (187, 25200), (190, 25242), (193, 25272), (199, 25323), (203, 25356), (205, 25389), (206, 25401), (216, 25482), (223, 25515), (224, 25518), (230, 25575), (236, 25611), (237, 25626), (239, 25647), (246, 25698), (268, 25833), (275, 25902), (283, 25941), (284, 25947), (287, 25956), (295, 25983), (299, 26010), (301, 26031), (305, 26067), (308, 26091), (309, 26094), (313, 26130), (320, 26169), (329, 26259), (344, 26289), (356, 26337), (357, 26343), (373, 26466), (374, 26469), (376, 26475), (394, 26532), (395, 26544), (402, 26571), (407, 26604), (408, 26610), (414, 26667), (418, 26721), (424, 26784), (437, 26895), (443, 26922), (444, 26928), (458, 27030), (465, 27096), (484, 27228), (488, 27255), (498, 27336), (505, 27396), (507, 27441), (539, 27747), (542, 27756), (546, 27783), (558, 27852), (567, 27981), (575, 28080), (593, 28224), (598, 28293), (599, 28299), (600, 28305), (607, 28380), (611, 28410), (623, 28548), (632, 28608), (638, 28644), (641, 28689), (647, 28716), (655, 28755), (656, 28761), (658, 28767), (661, 28794), (665, 28830), (666, 28842),

Gene: Fosterous_31 Start: 24949, Stop: 29772, Start Num: 19

Candidate Starts for Fosterous_31:

(Start: 19 @24949 has 61 MA's), (47, 25123), (51, 25147), (86, 25285), (95, 25318), (98, 25330), (102, 25342), (106, 25360), (109, 25372), (115, 25417), (134, 25528), (151, 25669), (154, 25729), (157, 25762), (161, 25804), (164, 25840), (169, 25876), (171, 25891), (172, 25894), (182, 26005), (184, 26041), (187, 26092), (190, 26134), (193, 26164), (199, 26215), (203, 26248), (205, 26281), (206, 26293), (216, 26374), (223, 26407), (236, 26503), (237, 26518), (239, 26539), (246, 26590), (248, 26599), (257, 26677), (268, 26725), (269, 26734), (275, 26794), (283, 26833), (284, 26839), (287, 26848), (295, 26875), (299, 26902), (301, 26923), (305, 26959), (314, 27025), (317, 27046), (320, 27061), (328, 27148), (329, 27151), (356, 27229), (363, 27289), (374, 27361), (402, 27463), (407, 27496), (414, 27559), (418, 27613), (424, 27676), (437, 27787), (443, 27814), (444, 27820), (458, 27922), (460, 27934), (465, 27988), (468, 28015), (472, 28042), (476, 28081), (480, 28105), (484, 28120), (488, 28147), (497, 28219), (498, 28228), (505, 28288), (507, 28333), (542, 28648), (543, 28654), (545, 28672), (560, 28768), (567, 28873), (575, 28972), (593, 29116), (598, 29191), (600, 29203), (607, 29287), (647, 29626), (655, 29665), (656, 29671), (658, 29677), (661, 29704), (665, 29740), (666, 29752),

Gene: Fugax_31 Start: 20106, Stop: 25637, Start Num: 1

Candidate Starts for Fugax_31:

(Start: 1 @20106 has 29 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 8 MA's), (22, 20481), (23, 20487), (27, 20511), (34, 20541), (43, 20580), (59, 20664), (67, 20700), (69, 20724), (77, 20763), (131, 21153), (151, 21321), (154, 21381), (161, 21453), (162, 21465), (165, 21501), (168, 21525), (178, 21624), (179, 21627), (182, 21657), (186, 21732), (187, 21744), (190, 21786), (193, 21816), (199, 21867), (213, 22008), (216, 22026), (218, 22038), (220, 22047), (235, 22149), (237, 22170), (239, 22191), (246, 22242), (247, 22245), (248, 22251), (257, 22329), (263, 22359), (268, 22377), (275, 22446), (281, 22479), (283, 22485), (285, 22494), (288, 22500), (299, 22554), (303, 22599), (306, 22626), (308, 22635), (310, 22656), (320, 22713), (323, 22749), (333, 22830), (334, 22833), (340, 22902), (349, 22974), (357, 23070), (365, 23136), (366, 23139), (369, 23163), (372, 23190), (373, 23193), (374, 23196), (376, 23202), (396, 23271), (399, 23280), (406, 23325), (411, 23334), (420, 23412), (425, 23466), (430, 23520), (436, 23577), (445, 23619), (451, 23655), (458, 23718), (463, 23769), (477, 23880), (485, 23919), (496, 24000), (511, 24174), (512, 24177), (517, 24210), (539, 24417), (542, 24426), (543, 24432), (572, 24744), (590, 24951), (601, 25089), (614, 25239), (623, 25350), (630, 25395), (631, 25404), (632, 25410), (638, 25446), (651, 25539), (654, 25551), (660, 25581), (662, 25614), (664, 25626),

Gene: GEazy_17 Start: 10605, Stop: 15728, Start Num: 4

Candidate Starts for GEazy_17:

(Start: 4 @10605 has 12 MA's), (6, 10614), (25, 10887), (26, 10896), (28, 10926), (49, 11055), (63, 11166), (70, 11223), (89, 11361), (94, 11415), (100, 11448), (131, 11649), (136, 11679), (144, 11757), (146, 11775), (150, 11796), (154, 11880), (157, 11913), (158, 11922), (159, 11931), (162, 11964), (163, 11976), (165, 12000), (172, 12045), (173, 12054), (174, 12090), (175, 12099), (179, 12126), (181, 12138), (182, 12156), (184, 12192), (193, 12315), (199, 12357), (213, 12492), (214, 12495), (215, 12498), (217, 12513), (226, 12567), (231, 12606), (242, 12687), (245, 12702), (247, 12723), (249, 12738), (250, 12750), (254, 12786), (260, 12822), (294, 12984), (307, 13041), (318, 13053), (319, 13056), (324, 13089), (326, 13107), (346, 13182), (347, 13188), (350, 13194), (354, 13215), (355, 13218), (356, 13221), (364, 13284), (369, 13320), (371, 13335), (376, 13359), (384, 13374), (385, 13377), (399, 13437), (414, 13536), (417, 13578), (425, 13656), (431, 13725), (433, 13743), (449, 13851), (453, 13878), (454, 13881), (458, 13920), (459, 13923), (460, 13932), (464, 13980), (475, 14067), (483, 14091), (492, 14151), (498, 14211), (506, 14289), (510, 14337), (513, 14349), (522, 14409), (525, 14451), (534, 14532), (536, 14559), (537, 14577), (538, 14607), (547, 14655), (548, 14661), (550, 14670), (557, 14718), (561, 14790), (563, 14829), (565, 14871), (580, 15057), (581, 15060), (586, 15117), (587, 15126), (588, 15138), (591, 15159), (610, 15372), (616, 15411), (621, 15480), (625, 15534), (636, 15606), (646, 15687), (649, 15711),

Gene: GTE6_30 Start: 21946, Stop: 27066, Start Num: 19

Candidate Starts for GTE6_30:

(Start: 19 @21946 has 61 MA's), (37, 22066), (47, 22120), (52, 22153), (57, 22210), (58, 22219), (59, 22222), (68, 22291), (71, 22303), (73, 22318), (78, 22354), (81, 22393), (82, 22399), (84, 22405), (90, 22438), (95, 22480), (97, 22489), (99, 22498), (101, 22504), (114, 22582), (117, 22600), (122, 22639), (132, 22696), (134, 22711), (161, 22975), (169, 23047), (172, 23065), (178, 23143), (182, 23176), (184, 23212), (186, 23251), (187, 23263), (193, 23335), (194, 23359), (195, 23365), (199, 23386), (201, 23407), (203, 23419), (208, 23470), (211, 23500), (220, 23566), (235, 23668), (239, 23710), (247, 23764), (251, 23794), (252, 23797), (257, 23848), (262, 23875), (268, 23896), (274, 23962), (281, 23998), (283, 24004), (293, 24034), (294, 24043), (297, 24055), (298, 24067), (299, 24073), (301, 24094), (306, 24145), (311, 24178), (313, 24193), (317, 24217), (334, 24352), (342, 24427), (343, 24430), (352, 24535), (354, 24553), (360, 24583), (366, 24634), (374, 24691), (380, 24766), (383, 24775), (386, 24784), (388, 24790), (391, 24832), (392, 24841), (399, 24874), (401, 24886), (404, 24907), (405, 24919), (410, 24952), (412, 24973), (422, 25105), (429, 25159), (456, 25366), (468, 25480), (470, 25492), (478, 25570), (487, 25618), (490, 25636), (499, 25714), (520, 25903), (523, 25933), (542, 26104), (546, 26131), (570, 26338), (571, 26341), (573, 26359), (596, 26608), (598, 26626), (603, 26638), (618, 26758), (636, 26914), (637, 26917), (640, 26959), (642, 26977), (645, 26992), (653, 27031),

Gene: Gaea_32 Start: 23498, Stop: 28510, Start Num: 19

Candidate Starts for Gaea_32:

(Start: 19 @23498 has 61 MA's), (30, 23573), (37, 23618), (47, 23672), (51, 23696), (54, 23738), (56, 23756), (58, 23771), (68, 23843), (73, 23870), (81, 23945), (83, 23954), (91, 24011), (92, 24029), (93, 24035), (134, 24287), (137, 24299), (142, 24347), (154, 24488), (157, 24521), (161, 24563), (169, 24635), (171, 24650), (172, 24653), (182, 24764), (184, 24800), (187, 24851), (190, 24893), (193, 24923), (199, 24974), (203, 25007), (205, 25040), (206, 25052), (216, 25133), (223, 25166), (224, 25169), (230, 25226), (236, 25262), (237, 25277), (239, 25298), (246, 25349), (268, 25484), (269, 25493), (281, 25586), (283, 25592), (284, 25598), (287, 25607), (294, 25631), (297, 25643), (299, 25661), (305, 25718), (320, 25820), (324, 25862), (329, 25910), (344, 25940), (356, 25988), (357, 25994), (374, 26120), (394, 26183), (395, 26195), (400, 26216), (402, 26222), (407, 26255), (414, 26318), (418, 26372), (437, 26546), (443, 26573), (444, 26579), (458, 26681), (465, 26747), (484, 26879), (488, 26906), (498, 26987), (505, 27047), (507, 27092), (539, 27398), (542, 27407), (546, 27434), (575, 27728), (593, 27872), (598, 27941), (599, 27947), (600, 27953), (607, 28028), (611, 28058), (623, 28196), (632, 28256), (638, 28292), (641, 28337), (647, 28364), (655, 28403), (656, 28409), (658, 28415), (661, 28442), (665, 28478), (666, 28490),

Gene: Galadriel_33 Start: 25438, Stop: 30261, Start Num: 19

Candidate Starts for Galadriel_33:

(Start: 19 @25438 has 61 MA's), (47, 25612), (51, 25636), (86, 25774), (98, 25819), (102, 25831), (106, 25849), (109, 25861), (111, 25888), (115, 25906), (118, 25918), (134, 26017), (150, 26137), (151, 26158), (154, 26218), (157, 26251), (161, 26293), (164, 26329), (169, 26365), (171, 26380), (172, 26383), (182, 26494), (184, 26530), (187, 26581), (190, 26623), (193, 26653), (199, 26704), (203, 26737), (205, 26770), (206, 26782), (216, 26863), (219, 26881), (220, 26884), (223, 26896), (236, 26992), (237, 27007), (239, 27028), (246, 27079), (248, 27088), (257, 27166), (268, 27214), (269, 27223), (275, 27283), (284, 27328), (287, 27337), (295, 27364), (299, 27391), (301, 27412), (305, 27448), (314, 27514), (320, 27550), (328, 27637), (329, 27640), (331, 27649), (342, 27667), (356, 27718), (357, 27724), (374, 27850), (395, 27925), (402, 27952), (407, 27985), (414, 28048), (418, 28102), (424, 28165), (437, 28276), (443, 28303), (444, 28309), (458, 28411), (460, 28423), (465, 28477), (468, 28504), (472, 28531), (476, 28570), (480, 28594), (488, 28636), (497, 28708), (498, 28717), (505, 28777), (507, 28822), (542, 29137), (543, 29143), (545, 29161), (560, 29257), (567, 29362), (575, 29461), (593, 29605), (598, 29680), (600, 29692), (607, 29776), (647, 30115), (655, 30154), (656, 30160), (658, 30166), (661, 30193), (665, 30229), (666, 30241),

Gene: Geodirt_30 Start: 24421, Stop: 29247, Start Num: 19

Candidate Starts for Geodirt_30:

(Start: 19 @24421 has 61 MA's), (47, 24595), (51, 24619), (86, 24757), (96, 24796), (98, 24802), (102, 24814), (106, 24832), (109, 24844), (111, 24871), (115, 24889), (134, 25000), (150, 25120), (151, 25141), (154, 25201), (157, 25234), (161, 25276), (164, 25312), (169, 25348), (171, 25363), (172, 25366), (182, 25477), (184, 25513), (187, 25564), (190, 25606), (193, 25636), (199, 25687), (203, 25720), (205, 25753), (206, 25765), (216, 25846), (220, 25867), (223, 25879), (236, 25975), (237, 25990), (239, 26011), (246, 26062), (248, 26071), (257, 26149), (268, 26197), (269, 26206), (275, 26266), (284, 26311), (287, 26320), (295, 26347), (299, 26374), (301, 26395), (305, 26431), (314, 26497), (320, 26533), (328, 26620), (329, 26623), (356, 26701), (363, 26761), (374, 26833), (394, 26896), (400, 26929), (402, 26935), (403, 26944), (407, 26968), (414, 27031), (418, 27085), (424, 27148), (437, 27259), (443, 27286), (444, 27292), (458, 27394), (460, 27406), (465, 27460), (468, 27487), (472, 27514), (476, 27553), (480, 27577), (484, 27592), (488, 27619), (497, 27691), (498, 27700), (505, 27760), (507, 27805), (542, 28123), (543, 28129), (545, 28147), (560, 28243), (575, 28447), (593, 28591), (598, 28666), (600, 28678), (607, 28762), (647, 29101), (655, 29140), (656, 29146), (658, 29152), (661, 29179), (665, 29215), (666, 29227),

Gene: Gezellig_30 Start: 19524, Stop: 25055, Start Num: 1

Candidate Starts for Gezellig_30:

(Start: 1 @19524 has 29 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 8 MA's), (22, 19899), (23, 19905), (27, 19929), (34, 19959), (43, 19998), (59, 20082), (67, 20118), (69, 20142), (77, 20181), (131, 20571), (151, 20739), (154, 20799), (161, 20871), (162, 20883), (165, 20919), (168, 20943), (178, 21042), (179, 21045), (182, 21075), (186, 21150), (187, 21162), (190, 21204), (193, 21234), (199, 21285), (213, 21426), (216, 21444), (218, 21456), (220, 21465), (235, 21567), (237, 21588), (239, 21609), (246, 21660), (247, 21663), (248, 21669), (257, 21747), (263, 21777), (268, 21795), (275, 21864), (281, 21897), (283, 21903), (285, 21912), (288, 21918), (299, 21972), (303, 22017), (306, 22044), (308, 22053), (310, 22074), (320, 22131), (323, 22167), (333, 22248), (334, 22251), (340, 22320), (349, 22392), (357, 22488), (365, 22554), (366, 22557), (369, 22581), (372, 22608), (373, 22611), (374, 22614), (376, 22620), (396, 22689), (399, 22698), (406, 22743), (411, 22752), (420, 22830), (425, 22884), (430, 22938), (436, 22995), (445, 23037), (451, 23073), (458, 23136), (463, 23187), (477, 23298), (485, 23337), (496, 23418), (511, 23592), (512, 23595), (517, 23628), (539, 23835), (542, 23844), (543, 23850), (572, 24162), (590, 24369), (601, 24507), (614, 24657), (623, 24768), (630, 24813), (631, 24822), (632, 24828), (638, 24864), (651, 24957), (654, 24969), (660, 24999), (662, 25032), (664, 25044),

Gene: Gustavo_32 Start: 23650, Stop: 28665, Start Num: 19

Candidate Starts for Gustavo_32:

(Start: 19 @23650 has 61 MA's), (31, 23737), (37, 23770), (47, 23824), (51, 23848), (54, 23890), (56, 23908), (58, 23923), (68, 23995), (73, 24022), (81, 24097), (83, 24106), (91, 24163), (92, 24181), (93, 24187), (96, 24205), (103, 24232), (134, 24439), (137, 24451), (142, 24499), (154, 24640), (157, 24673), (161, 24715), (169, 24787), (171, 24802), (172, 24805), (182, 24916), (184, 24952), (187, 25003), (190, 25045), (193, 25075), (195, 25105), (203, 25159), (205, 25192), (216, 25285), (223, 25318), (224, 25321), (230, 25378), (236, 25414), (237, 25429), (239, 25450), (246, 25501), (268, 25636), (269, 25645), (281, 25738), (283, 25744), (284, 25750), (287, 25759), (292, 25771), (294, 25783), (297, 25795), (299, 25813), (305, 25870), (320, 25972), (329, 26062), (344, 26092), (356, 26140), (357, 26146), (373, 26269), (374, 26272), (394, 26335), (395, 26347), (400, 26368), (402, 26374), (407, 26407), (414, 26470), (418, 26524), (437, 26698), (443, 26725), (444, 26731), (458, 26833), (465, 26899), (484, 27031), (488, 27058), (498, 27139), (505, 27199), (507, 27244), (539, 27550), (542, 27559), (546, 27586), (558, 27655), (567, 27784), (575, 27883), (593, 28027), (598, 28096), (599, 28102), (600, 28108), (607, 28183), (611, 28213), (622, 28318), (623, 28351), (632, 28411), (638, 28447), (641, 28492), (647, 28519), (655, 28558), (656, 28564), (658, 28570), (661, 28597), (665, 28633), (666, 28645),

Gene: Halo3_30 Start: 19817, Stop: 25348, Start Num: 1

Candidate Starts for Halo3_30:

(Start: 1 @19817 has 29 MA's), (3, 19904), (6, 19991), (10, 20024), (12, 20048), (Start: 20 @20171 has 8 MA's), (22, 20192), (23, 20198), (27, 20222), (34, 20252), (43, 20291), (59, 20375), (67, 20411), (69, 20435), (77, 20474), (131, 20864), (151, 21032), (154, 21092), (161, 21164), (162, 21176), (165, 21212), (168, 21236), (178, 21335), (179, 21338), (182, 21368), (186, 21443), (187, 21455), (190, 21497), (193, 21527), (199, 21578), (213, 21719), (216, 21737), (218, 21749), (220, 21758), (235, 21860), (237, 21881), (239, 21902), (246, 21953), (247, 21956), (248, 21962), (257, 22040), (263, 22070), (268, 22088), (275, 22157), (281, 22190), (283, 22196), (285, 22205), (288, 22211), (299, 22265), (303, 22310), (306, 22337), (308, 22346), (310, 22367), (320, 22424), (323, 22460), (333, 22541), (334, 22544), (340, 22613), (349, 22685), (357, 22781), (365, 22847), (366, 22850), (369, 22874), (372, 22901), (373, 22904), (374, 22907), (376, 22913), (396, 22982), (399, 22991), (406, 23036), (411, 23045), (420, 23123), (425, 23177), (430, 23231), (436, 23288), (445, 23330), (451, 23366), (458, 23429), (463, 23480), (477, 23591), (485, 23630), (496, 23711), (511, 23885), (512, 23888), (517, 23921), (539, 24128), (542, 24137), (543, 24143), (572, 24455), (590, 24662), (601, 24800), (614, 24950), (623, 25061), (630, 25106), (631, 25115), (632, 25121), (638, 25157), (651, 25250), (654, 25262), (660, 25292), (662, 25325), (664, 25337),

Gene: HannahD_17 Start: 10605, Stop: 15728, Start Num: 4

Candidate Starts for HannahD_17:

(Start: 4 @10605 has 12 MA's), (6, 10614), (25, 10887), (26, 10896), (28, 10926), (49, 11055), (63, 11166), (70, 11223), (89, 11361), (94, 11415), (100, 11448), (131, 11649), (136, 11679), (144, 11757), (146, 11775), (150, 11796), (154, 11880), (157, 11913), (158, 11922), (159, 11931), (162, 11964), (163, 11976), (165, 12000), (172, 12045), (173, 12054), (174, 12090), (175, 12099), (179, 12126), (181, 12138), (182, 12156), (184, 12192), (193, 12315), (199, 12357), (213, 12492), (214, 12495), (215, 12498), (217, 12513), (226, 12567), (231, 12606), (242, 12687), (245, 12702), (247, 12723), (249, 12738), (250, 12750), (254, 12786), (260, 12822), (294, 12984), (307, 13041), (318, 13053), (319, 13056), (324, 13089), (326, 13107), (346, 13182), (347, 13188), (350, 13194), (354, 13215), (355, 13218), (356, 13221), (364, 13284), (369, 13320), (371, 13335), (376, 13359), (384, 13374), (385, 13377), (399, 13437), (414, 13536), (417, 13578), (425, 13656), (431, 13725), (433, 13743), (449, 13851), (453, 13878), (454, 13881), (458, 13920), (459, 13923), (460, 13932), (464, 13980), (475, 14067), (483, 14091), (492, 14151), (498, 14211), (506, 14289), (510, 14337), (513, 14349), (522, 14409), (525, 14451), (534, 14532), (536, 14559), (537, 14577), (538, 14607), (547, 14655), (548, 14661), (550, 14670), (557, 14718), (561, 14790), (563, 14829), (565, 14871), (580, 15057), (581, 15060), (586, 15117), (587, 15126), (588, 15138), (591, 15159), (610, 15372), (616, 15411), (621, 15480), (625, 15534), (636, 15606), (646, 15687), (649, 15711),

Gene: Hans_33 Start: 23262, Stop: 28151, Start Num: 20

Candidate Starts for Hans_33:

(Start: 20 @23262 has 8 MA's), (37, 23382), (47, 23436), (51, 23460), (58, 23535), (59, 23538), (73, 23634), (81, 23709), (82, 23715), (84, 23721), (88, 23745), (90, 23754), (99, 23814), (101, 23820), (104, 23829), (109, 23859), (117, 23916), (122, 23955), (124, 23964), (134, 24027), (135, 24030), (145, 24105), (146, 24114), (157, 24249), (158, 24258), (161, 24291), (163, 24315), (172, 24381), (176, 24444), (184, 24528), (186, 24567), (187, 24579), (191, 24627), (193, 24651), (199, 24702), (203, 24735), (208, 24786), (211, 24816), (218, 24873), (221, 24885), (224, 24897), (233, 24972), (239, 25026), (247, 25080), (252, 25113), (265, 25200), (268, 25212), (269, 25221), (275, 25281), (277, 25293), (281, 25314), (283, 25320), (284, 25326), (285, 25329), (286, 25332), (294, 25359), (295, 25362), (297, 25371), (298, 25383), (299, 25389), (303, 25434), (308, 25470), (309, 25473), (311, 25494), (327, 25611), (339, 25668), (357, 25755), (365, 25821), (392, 25878), (393, 25881), (397, 25905), (412, 25995), (416, 26043), (430, 26172), (439, 26241), (441, 26250), (445, 26271), (448, 26289), (451, 26307), (468, 26463), (469, 26466), (484, 26571), (498, 26679), (505, 26739), (506, 26769), (515, 26850), (540, 27081), (542, 27087), (549, 27135), (552, 27150), (559, 27216), (568, 27348), (577, 27477), (582, 27516), (618, 27843), (626, 27939), (642, 28062), (649, 28104), (653, 28116),

Gene: Hedwig_18 Start: 11001, Stop: 16013, Start Num: 4

Candidate Starts for Hedwig_18:

(Start: 4 @11001 has 12 MA's), (9, 11031), (11, 11052), (13, 11088), (26, 11292), (28, 11322), (38, 11397), (53, 11502), (63, 11562), (74, 11640), (75, 11643), (80, 11715), (89, 11757), (100, 11844), (154, 12273), (155, 12282), (157, 12306), (159, 12324), (163, 12369), (165, 12393), (172, 12438), (173, 12447), (174, 12483), (175, 12492), (178, 12516), (181, 12531), (182, 12549), (183, 12573), (187, 12636), (192, 12690), (193, 12708), (203, 12783), (204, 12813), (213, 12885), (215, 12891), (217, 12906), (221, 12927), (226, 12960), (235, 13023), (237, 13041), (240, 13068), (242, 13080), (245, 13095), (247, 13116), (266, 13236), (270, 13263), (273, 13296), (278, 13335), (280, 13350), (294, 13398), (298, 13422), (302, 13452), (308, 13515), (315, 13560), (316, 13563), (324, 13632), (341, 13704), (346, 13725), (347, 13731), (350, 13737), (355, 13761), (356, 13764), (359, 13785), (362, 13815), (364, 13827), (369, 13863), (384, 13917), (385, 13920), (387, 13926), (396, 13971), (399, 13980), (417, 14121), (421, 14154), (425, 14199), (426, 14205), (428, 14217), (431, 14268), (446, 14352), (450, 14376), (453, 14400), (454, 14403), (460, 14454), (465, 14502), (475, 14589), (483, 14613), (486, 14625), (488, 14646), (492, 14673), (503, 14778), (506, 14811), (510, 14859), (513, 14871), (524, 14943), (526, 14952), (555, 15108), (562, 15138), (578, 15330), (591, 15450), (592, 15453), (605, 15597), (610, 15660), (625, 15822), (626, 15834), (636, 15891), (644, 15966), (646, 15972), (650, 16002), (652, 16005),

Gene: Inspectinfecti_32 Start: 23624, Stop: 28513, Start Num: 20

Candidate Starts for Inspectinfecti_32:

(Start: 20 @23624 has 8 MA's), (37, 23744), (47, 23798), (51, 23822), (58, 23897), (59, 23900), (73, 23996), (81, 24071), (82, 24077), (84, 24083), (88, 24107), (90, 24116), (99, 24176), (101, 24182), (104, 24191), (109, 24221), (117, 24278), (122, 24317), (124, 24326), (134, 24389), (135, 24392), (145, 24467), (146, 24476), (157, 24611), (158, 24620), (161, 24653), (163, 24677), (172, 24743), (176, 24806), (184, 24890), (186, 24929), (187, 24941), (191, 24989), (193, 25013), (199, 25064), (203, 25097), (208, 25148), (211, 25178), (218, 25235), (221, 25247), (224, 25259), (233, 25334), (239, 25388), (247, 25442), (248, 25448), (252, 25475), (257, 25526), (265, 25562), (268, 25574), (269, 25583), (275, 25643), (277, 25655), (283, 25682), (284, 25688), (285, 25691), (286, 25694), (294, 25721), (295, 25724), (297, 25733), (298, 25745), (299, 25751), (303, 25796), (308, 25832), (309, 25835), (311, 25856), (327, 25973), (339, 26030), (357, 26117), (365, 26183), (392, 26240), (393, 26243), (397, 26267), (412, 26357), (416, 26405), (430, 26534), (439, 26603), (441, 26612), (445, 26633), (448, 26651), (451, 26669), (468, 26825), (469, 26828), (484, 26933), (498, 27041), (505, 27101), (506, 27131), (515, 27212), (540, 27443), (542, 27449), (549, 27497), (552, 27512),

(559, 27578), (568, 27710), (577, 27839), (582, 27878), (618, 28205), (626, 28301), (642, 28424), (649, 28466), (653, 28478),

Gene: JKSyngboy_30 Start: 24222, Stop: 29240, Start Num: 19

Candidate Starts for JKSyngboy_30:

(Start: 19 @24222 has 61 MA's), (30, 24297), (47, 24396), (51, 24420), (54, 24462), (56, 24480), (58, 24495), (68, 24567), (73, 24594), (83, 24678), (92, 24753), (93, 24759), (96, 24777), (134, 25011), (142, 25071), (154, 25212), (157, 25245), (161, 25287), (169, 25359), (171, 25374), (172, 25377), (182, 25488), (184, 25524), (187, 25575), (190, 25617), (193, 25647), (203, 25731), (205, 25764), (206, 25776), (216, 25857), (223, 25890), (224, 25893), (234, 25977), (236, 25986), (237, 26001), (239, 26022), (246, 26073), (257, 26160), (268, 26208), (269, 26217), (281, 26310), (283, 26316), (284, 26322), (287, 26331), (292, 26343), (294, 26355), (297, 26367), (299, 26385), (305, 26442), (320, 26544), (324, 26586), (329, 26634), (344, 26664), (356, 26712), (357, 26718), (367, 26793), (374, 26844), (376, 26850), (394, 26907), (395, 26919), (400, 26940), (402, 26946), (407, 26979), (408, 26985), (414, 27042), (418, 27096), (437, 27270), (443, 27297), (444, 27303), (458, 27405), (465, 27471), (476, 27564), (488, 27630), (497, 27702), (498, 27711), (505, 27771), (507, 27816), (539, 28119), (542, 28128), (543, 28134), (546, 28155), (560, 28254), (567, 28359), (575, 28458), (593, 28602), (598, 28671), (599, 28677), (600, 28683), (607, 28758), (611, 28788), (623, 28926), (632, 28986), (638, 29022), (641, 29067), (647, 29094), (655, 29133), (656, 29139), (658, 29145), (661, 29172), (665, 29208), (666, 29220),

Gene: Jabberwocky_31 Start: 25577, Stop: 30391, Start Num: 19

Candidate Starts for Jabberwocky_31:

(Start: 19 @25577 has 61 MA's), (47, 25751), (51, 25775), (86, 25913), (98, 25958), (102, 25970), (106, 25988), (109, 26000), (111, 26027), (115, 26045), (118, 26057), (134, 26156), (150, 26276), (151, 26297), (154, 26357), (157, 26390), (161, 26432), (164, 26468), (169, 26504), (171, 26519), (172, 26522), (182, 26633), (184, 26669), (187, 26720), (190, 26762), (193, 26792), (199, 26843), (203, 26876), (205, 26909), (206, 26921), (216, 27002), (220, 27023), (223, 27035), (236, 27131), (237, 27146), (239, 27167), (246, 27218), (248, 27227), (257, 27305), (268, 27353), (269, 27362), (275, 27422), (284, 27467), (287, 27476), (295, 27503), (299, 27530), (301, 27551), (305, 27587), (314, 27653), (320, 27689), (328, 27776), (329, 27779), (342, 27806), (356, 27857), (357, 27863), (374, 27989), (402, 28091), (407, 28124), (414, 28187), (418, 28241), (424, 28304), (437, 28415), (443, 28442), (444, 28448), (458, 28550), (465, 28616), (468, 28643), (472, 28670), (476, 28709), (480, 28733), (488, 28775), (497, 28847), (498, 28856), (505, 28916), (507, 28961), (542, 29276), (543, 29282), (545, 29300), (560, 29396), (567, 29501), (575, 29600), (593, 29744), (598, 29819), (600, 29831), (607, 29906), (647, 30245), (655, 30284), (656, 30290), (658, 30296), (661, 30323), (665, 30359), (666, 30371),

Gene: Jambalaya_29 Start: 19171, Stop: 24702, Start Num: 1

Candidate Starts for Jambalaya_29:

(Start: 1 @19171 has 29 MA's), (3, 19258), (6, 19345), (10, 19378), (12, 19402), (Start: 20 @19525 has 8 MA's), (22, 19546), (23, 19552), (27, 19576), (34, 19606), (43, 19645), (59, 19729), (67, 19765), (69, 19789), (77, 19828), (131, 20218), (151, 20386), (154, 20446), (161, 20518), (162, 20530), (165, 20566), (168, 20590), (178, 20689), (179, 20692), (182, 20722), (186, 20797), (187, 20809), (190, 20851), (193, 20881), (199, 20932), (213, 21073), (216, 21091), (218, 21103), (220, 21112), (235, 21214), (237, 21235), (239, 21256), (246, 21307), (247, 21310), (248, 21316), (257, 21394), (263, 21424), (268, 21442), (275, 21511), (281, 21544), (283, 21550), (285, 21559), (288, 21565), (299, 21619), (303, 21664), (306, 21691), (308, 21700), (310, 21721), (320, 21778), (323, 21814), (333, 21895), (334, 21898), (340, 21967), (349, 22039), (357, 22135), (365, 22201), (366, 22204), (369, 22228), (372, 22255), (373, 22258), (374, 22261), (376, 22267), (396, 22336), (399, 22345), (406, 22390), (411, 22399), (420, 22477), (425, 22531), (430, 22585), (436, 22642), (445, 22684), (451, 22720), (458, 22783), (463, 22834), (477, 22945), (485, 22984), (496, 23065), (511, 23239), (512, 23242), (517, 23275), (539, 23482), (542, 23491), (543, 23497), (572, 23809), (590, 24016), (601,

24154), (614, 24304), (623, 24415), (630, 24460), (631, 24469), (638, 24511), (651, 24604), (654, 24616), (660, 24646), (662, 24679), (664, 24691),

Gene: Kamashten_32 Start: 25026, Stop: 29843, Start Num: 19

Candidate Starts for Kamashten_32:

(Start: 19 @25026 has 61 MA's), (47, 25200), (51, 25224), (86, 25362), (98, 25407), (102, 25419), (106, 25437), (109, 25449), (111, 25476), (115, 25494), (118, 25506), (134, 25605), (150, 25725), (151, 25746), (154, 25806), (157, 25839), (161, 25881), (169, 25953), (171, 25968), (172, 25971), (182, 26082), (184, 26118), (187, 26169), (190, 26211), (193, 26241), (199, 26292), (203, 26325), (205, 26358), (206, 26370), (216, 26451), (220, 26472), (223, 26484), (236, 26580), (237, 26595), (239, 26616), (246, 26667), (248, 26676), (257, 26754), (268, 26802), (269, 26811), (275, 26871), (284, 26916), (287, 26925), (295, 26952), (299, 26979), (301, 27000), (305, 27036), (314, 27102), (320, 27138), (328, 27225), (329, 27228), (331, 27237), (342, 27255), (356, 27306), (357, 27312), (374, 27438), (395, 27513), (402, 27540), (407, 27573), (414, 27636), (418, 27690), (424, 27753), (437, 27864), (443, 27891), (444, 27897), (458, 27999), (460, 28011), (465, 28065), (468, 28092), (472, 28119), (476, 28158), (480, 28182), (488, 28224), (497, 28296), (498, 28305), (505, 28365), (507, 28410), (542, 28728), (543, 28734), (545, 28752), (560, 28848), (567, 28953), (575, 29052), (593, 29196), (598, 29271), (600, 29283), (607, 29358), (626, 29553), (647, 29697), (655, 29736), (656, 29742), (658, 29748), (661, 29775), (665, 29811), (666, 29823),

Gene: Keitabear_33 Start: 26382, Stop: 31208, Start Num: 19

Candidate Starts for Keitabear_33:

(Start: 19 @26382 has 61 MA's), (47, 26556), (51, 26580), (86, 26718), (98, 26763), (102, 26775), (106, 26793), (109, 26805), (111, 26832), (115, 26850), (118, 26862), (134, 26961), (150, 27081), (151, 27102), (154, 27162), (157, 27195), (161, 27237), (164, 27273), (169, 27309), (171, 27324), (172, 27327), (182, 27438), (184, 27474), (187, 27525), (190, 27567), (193, 27597), (199, 27648), (203, 27681), (205, 27714), (206, 27726), (216, 27807), (220, 27828), (223, 27840), (236, 27936), (237, 27951), (239, 27972), (246, 28023), (248, 28032), (257, 28110), (268, 28158), (269, 28167), (275, 28227), (284, 28272), (287, 28281), (295, 28308), (299, 28335), (301, 28356), (305, 28392), (314, 28458), (320, 28494), (328, 28581), (329, 28584), (331, 28593), (342, 28611), (356, 28662), (357, 28668), (374, 28794), (402, 28896), (407, 28929), (414, 28992), (418, 29046), (424, 29109), (437, 29220), (443, 29247), (444, 29253), (458, 29355), (465, 29421), (468, 29448), (472, 29475), (476, 29514), (480, 29538), (488, 29580), (497, 29652), (505, 29721), (507, 29766), (542, 30084), (543, 30090), (545, 30108), (560, 30204), (575, 30408), (593, 30552), (598, 30627), (600, 30639), (607, 30723), (647, 31062), (655, 31101), (656, 31107), (658, 31113), (661, 31140), (665, 31176), (666, 31188),

Gene: Kewpiedoll_32 Start: 24214, Stop: 29250, Start Num: 19

Candidate Starts for Kewpiedoll_32:

(Start: 19 @24214 has 61 MA's), (47, 24388), (51, 24412), (52, 24421), (54, 24454), (56, 24472), (58, 24487), (73, 24586), (81, 24661), (82, 24667), (83, 24670), (91, 24727), (92, 24745), (94, 24754), (96, 24769), (107, 24817), (123, 24934), (127, 24952), (128, 24964), (134, 25003), (151, 25144), (154, 25204), (157, 25237), (161, 25279), (169, 25351), (171, 25366), (172, 25369), (182, 25480), (184, 25516), (187, 25567), (190, 25609), (193, 25639), (199, 25690), (203, 25723), (205, 25756), (206, 25768), (216, 25849), (220, 25870), (223, 25882), (236, 25978), (237, 25993), (239, 26014), (246, 26065), (248, 26074), (257, 26152), (268, 26200), (269, 26209), (275, 26269), (284, 26314), (287, 26323), (295, 26350), (299, 26377), (301, 26398), (305, 26434), (314, 26500), (320, 26536), (328, 26623), (329, 26626), (356, 26704), (363, 26764), (374, 26836), (381, 26854), (394, 26899), (395, 26911), (400, 26932), (402, 26938), (403, 26947), (407, 26971), (414, 27034), (418, 27088), (424, 27151), (437, 27262), (443, 27289), (444, 27295), (458, 27397), (460, 27409), (465, 27463), (468, 27490), (472, 27517), (476, 27556), (484, 27595), (488, 27622), (497, 27694), (498, 27703), (505, 27763), (507, 27808), (533, 27997), (542, 28126), (543, 28132), (545, 28150), (560, 28246), (567, 28351), (575, 28450), (593, 28594), (598, 28669), (600, 28681), (607, 28765), (647, 29104), (655,

29143), (656, 29149), (658, 29155), (661, 29182), (665, 29218), (666, 29230),

Gene: Kiko_18 Start: 10875, Stop: 15764, Start Num: 4

Candidate Starts for Kiko_18:

(Start: 4 @10875 has 12 MA's), (8, 10899), (13, 10962), (15, 11019), (21, 11115), (22, 11127), (24, 11142), (26, 11166), (28, 11196), (45, 11307), (46, 11313), (47, 11316), (48, 11322), (49, 11325), (50, 11337), (53, 11376), (58, 11418), (62, 11430), (69, 11490), (76, 11523), (80, 11589), (85, 11610), (89, 11631), (94, 11685), (100, 11718), (119, 11835), (129, 11910), (131, 11919), (136, 11949), (144, 12027), (154, 12147), (158, 12189), (159, 12198), (162, 12231), (163, 12243), (165, 12267), (166, 12276), (173, 12321), (174, 12357), (175, 12366), (177, 12384), (182, 12423), (184, 12459), (185, 12468), (187, 12510), (193, 12582), (201, 12645), (210, 12723), (212, 12756), (213, 12759), (215, 12765), (217, 12780), (221, 12801), (225, 12831), (226, 12834), (232, 12876), (238, 12924), (240, 12942), (241, 12948), (244, 12963), (245, 12969), (246, 12987), (247, 12990), (250, 13017), (256, 13065), (258, 13074), (266, 13110), (267, 13113), (273, 13170), (276, 13200), (280, 13224), (294, 13272), (298, 13296), (300, 13305), (302, 13326), (312, 13416), (322, 13500), (324, 13506), (362, 13557), (369, 13605), (371, 13620), (376, 13644), (381, 13656), (384, 13659), (385, 13662), (387, 13668), (396, 13713), (399, 13722), (417, 13863), (421, 13896), (425, 13941), (449, 14136), (450, 14139), (452, 14145), (458, 14205), (460, 14217), (472, 14322), (483, 14376), (489, 14412), (492, 14436), (512, 14637), (527, 14727), (544, 14844), (555, 14886), (579, 15093), (581, 15102), (587, 15168), (591, 15201), (610, 15411), (625, 15573), (626, 15585), (636, 15642), (647, 15726), (650, 15753),

Gene: KimmyK_31 Start: 20106, Stop: 25637, Start Num: 1

Candidate Starts for KimmyK_31:

(Start: 1 @20106 has 29 MA's), (3, 20193), (6, 20280), (10, 20313), (12, 20337), (Start: 20 @20460 has 8 MA's), (22, 20481), (23, 20487), (27, 20511), (34, 20541), (43, 20580), (59, 20664), (67, 20700), (69, 20724), (77, 20763), (131, 21153), (151, 21321), (154, 21381), (161, 21453), (162, 21465), (165, 21501), (168, 21525), (178, 21624), (179, 21627), (182, 21657), (186, 21732), (187, 21744), (190, 21786), (193, 21816), (199, 21867), (213, 22008), (216, 22026), (218, 22038), (220, 22047), (235, 22149), (237, 22170), (239, 22191), (246, 22242), (247, 22245), (248, 22251), (257, 22329), (263, 22359), (268, 22377), (275, 22446), (281, 22479), (283, 22485), (285, 22494), (288, 22500), (299, 22554), (303, 22599), (306, 22626), (308, 22635), (310, 22656), (320, 22713), (323, 22749), (333, 22830), (334, 22833), (340, 22902), (349, 22974), (357, 23070), (365, 23136), (366, 23139), (369, 23163), (372, 23190), (373, 23193), (374, 23196), (376, 23202), (396, 23271), (399, 23280), (406, 23325), (411, 23334), (420, 23412), (425, 23466), (430, 23520), (436, 23577), (445, 23619), (451, 23655), (458, 23718), (463, 23769), (477, 23880), (485, 23919), (496, 24000), (511, 24174), (512, 24177), (517, 24210), (539, 24417), (542, 24426), (543, 24432), (572, 24744), (590, 24951), (601, 25089), (614, 25239), (623, 25350), (630, 25395), (631, 25404), (632, 25410), (638, 25446), (651, 25539), (654, 25551), (660, 25581), (662, 25614), (664, 25626),

Gene: Kroos_33 Start: 24403, Stop: 29418, Start Num: 19

Candidate Starts for Kroos_33:

(Start: 19 @24403 has 61 MA's), (30, 24478), (37, 24523), (47, 24577), (51, 24601), (54, 24643), (56, 24661), (58, 24676), (68, 24748), (73, 24775), (81, 24850), (83, 24859), (90, 24895), (91, 24916), (92, 24934), (93, 24940), (96, 24958), (103, 24985), (134, 25192), (137, 25204), (142, 25252), (154, 25393), (157, 25426), (161, 25468), (169, 25540), (171, 25555), (172, 25558), (182, 25669), (184, 25705), (187, 25756), (190, 25798), (193, 25828), (199, 25879), (203, 25912), (205, 25945), (206, 25957), (216, 26038), (223, 26071), (224, 26074), (230, 26131), (236, 26167), (237, 26182), (239, 26203), (246, 26254), (268, 26389), (275, 26458), (283, 26497), (284, 26503), (287, 26512), (295, 26539), (299, 26566), (301, 26587), (305, 26623), (308, 26647), (309, 26650), (313, 26686), (320, 26725), (321, 26743), (324, 26767), (329, 26815), (344, 26845), (356, 26893), (357, 26899), (373, 27022), (374, 27025), (376, 27031), (394, 27088), (395, 27100), (400, 27121), (402, 27127), (407, 27160), (408, 27166), (414, 27223), (418, 27277), (424, 27340), (437, 27451), (443, 27478), (444,

27484), (458, 27586), (465, 27652), (484, 27784), (488, 27811), (498, 27892), (505, 27952), (507, 27997), (539, 28303), (542, 28312), (546, 28339), (558, 28408), (567, 28537), (575, 28636), (593, 28780), (598, 28849), (599, 28855), (600, 28861), (607, 28936), (611, 28966), (623, 29104), (632, 29164), (638, 29200), (641, 29245), (647, 29272), (655, 29311), (656, 29317), (658, 29323), (661, 29350), (665, 29386), (666, 29398),

Gene: Kwekel_30 Start: 21376, Stop: 26505, Start Num: 19

Candidate Starts for Kwekel_30:

(Start: 19 @21376 has 61 MA's), (37, 21496), (47, 21550), (52, 21583), (57, 21640), (58, 21649), (59, 21652), (71, 21733), (73, 21748), (78, 21784), (81, 21823), (82, 21829), (84, 21835), (90, 21868), (95, 21910), (97, 21919), (99, 21928), (101, 21934), (114, 22012), (117, 22030), (122, 22069), (134, 22141), (157, 22363), (161, 22405), (169, 22477), (172, 22495), (178, 22573), (182, 22606), (184, 22642), (187, 22693), (193, 22765), (194, 22789), (195, 22795), (199, 22816), (203, 22849), (208, 22900), (211, 22930), (220, 22996), (228, 23041), (235, 23098), (239, 23140), (247, 23194), (252, 23227), (262, 23305), (274, 23392), (281, 23428), (283, 23434), (293, 23464), (294, 23473), (299, 23503), (301, 23524), (306, 23575), (311, 23608), (313, 23623), (334, 23782), (342, 23857), (343, 23860), (348, 23887), (351, 23962), (352, 23965), (354, 23983), (359, 24010), (363, 24049), (369, 24088), (374, 24121), (380, 24196), (383, 24205), (386, 24214), (388, 24220), (391, 24262), (392, 24271), (399, 24304), (401, 24316), (404, 24337), (405, 24349), (410, 24382), (412, 24403), (422, 24535), (429, 24589), (456, 24796), (461, 24835), (468, 24910), (487, 25048), (490, 25066), (499, 25144), (520, 25333), (523, 25363), (542, 25534), (546, 25561), (570, 25768), (571, 25771), (573, 25789), (596, 26038), (603, 26068), (618, 26197), (637, 26356), (640, 26398), (642, 26416), (645, 26431), (653, 26470),

Gene: Kwobi_33 Start: 24389, Stop: 29404, Start Num: 19

Candidate Starts for Kwobi_33:

(Start: 19 @24389 has 61 MA's), (31, 24476), (37, 24509), (47, 24563), (51, 24587), (54, 24629), (56, 24647), (58, 24662), (68, 24734), (73, 24761), (81, 24836), (83, 24845), (91, 24902), (92, 24920), (93, 24926), (134, 25178), (142, 25238), (154, 25379), (157, 25412), (161, 25454), (169, 25526), (171, 25541), (172, 25544), (182, 25655), (184, 25691), (187, 25742), (190, 25784), (193, 25814), (195, 25844), (203, 25898), (205, 25931), (216, 26024), (223, 26057), (224, 26060), (230, 26117), (236, 26153), (237, 26168), (239, 26189), (246, 26240), (268, 26375), (269, 26384), (281, 26477), (283, 26483), (284, 26489), (287, 26498), (294, 26522), (297, 26534), (299, 26552), (305, 26609), (320, 26711), (329, 26801), (344, 26831), (356, 26879), (357, 26885), (373, 27008), (374, 27011), (376, 27017), (394, 27074), (395, 27086), (400, 27107), (402, 27113), (407, 27146), (414, 27209), (418, 27263), (424, 27326), (437, 27437), (443, 27464), (444, 27470), (458, 27572), (465, 27638), (484, 27770), (488, 27797), (498, 27878), (505, 27938), (507, 27983), (539, 28289), (542, 28298), (546, 28325), (558, 28394), (567, 28523), (575, 28622), (593, 28766), (598, 28835), (599, 28841), (600, 28847), (607, 28922), (611, 28952), (623, 29090), (632, 29150), (638, 29186), (641, 29231), (647, 29258), (655, 29297), (656, 29303), (658, 29309), (661, 29336), (665, 29372), (666, 29384),

Gene: Lennon_33 Start: 26184, Stop: 30995, Start Num: 19

Candidate Starts for Lennon_33:

(Start: 19 @26184 has 61 MA's), (47, 26358), (51, 26382), (86, 26520), (96, 26559), (98, 26565), (102, 26577), (106, 26595), (109, 26607), (111, 26634), (115, 26652), (118, 26664), (134, 26763), (150, 26883), (151, 26904), (154, 26964), (157, 26997), (161, 27039), (164, 27075), (169, 27111), (171, 27126), (172, 27129), (182, 27240), (184, 27276), (187, 27327), (190, 27369), (193, 27399), (199, 27450), (203, 27483), (205, 27516), (206, 27528), (216, 27609), (220, 27630), (223, 27642), (236, 27738), (237, 27753), (239, 27774), (246, 27825), (248, 27834), (257, 27912), (268, 27960), (269, 27969), (275, 28029), (283, 28068), (284, 28074), (287, 28083), (295, 28110), (299, 28137), (301, 28158), (305, 28194), (314, 28260), (320, 28296), (328, 28383), (329, 28386), (342, 28413), (356, 28464), (357, 28470), (374, 28596), (402, 28698), (407, 28731), (414, 28794), (418, 28848), (424, 28911), (437, 29022), (443, 29049), (444, 29055), (458, 29157), (460, 29169), (465, 29223), (468,

29250), (472, 29277), (476, 29316), (480, 29340), (488, 29382), (497, 29454), (498, 29463), (505, 29523), (507, 29568), (542, 29883), (543, 29889), (545, 29907), (560, 30003), (567, 30108), (575, 30207), (593, 30351), (598, 30414), (600, 30426), (607, 30510), (647, 30849), (655, 30888), (656, 30894), (658, 30900), (661, 30927), (665, 30963), (666, 30975),

Gene: Leonard_31 Start: 23260, Stop: 28149, Start Num: 20

Candidate Starts for Leonard_31:

(Start: 20 @23260 has 8 MA's), (37, 23380), (47, 23434), (51, 23458), (58, 23533), (59, 23536), (73, 23632), (81, 23707), (82, 23713), (84, 23719), (88, 23743), (90, 23752), (99, 23812), (101, 23818), (104, 23827), (109, 23857), (117, 23914), (122, 23953), (124, 23962), (134, 24025), (135, 24028), (145, 24103), (146, 24112), (157, 24247), (158, 24256), (161, 24289), (163, 24313), (172, 24379), (176, 24442), (184, 24526), (186, 24565), (187, 24577), (191, 24625), (193, 24649), (199, 24700), (203, 24733), (208, 24784), (211, 24814), (218, 24871), (221, 24883), (224, 24895), (233, 24970), (239, 25024), (247, 25078), (248, 25084), (252, 25111), (265, 25198), (268, 25210), (269, 25219), (275, 25279), (277, 25291), (281, 25312), (283, 25318), (284, 25324), (285, 25327), (294, 25357), (295, 25360), (297, 25369), (298, 25381), (299, 25387), (303, 25432), (308, 25468), (309, 25471), (311, 25492), (327, 25609), (339, 25666), (357, 25753), (365, 25819), (392, 25876), (393, 25879), (397, 25903), (412, 25993), (416, 26041), (430, 26170), (439, 26239), (445, 26269), (448, 26287), (468, 26461), (469, 26464), (484, 26569), (497, 26668), (498, 26677), (505, 26737), (506, 26767), (515, 26848), (540, 27079), (542, 27085), (552, 27148), (568, 27346), (577, 27475), (582, 27514), (615, 27796), (618, 27841), (620, 27868), (626, 27937), (642, 28060), (649, 28102), (653, 28114),

Gene: LilHam_30 Start: 22983, Stop: 28007, Start Num: 19

Candidate Starts for LilHam_30:

(Start: 19 @22983 has 61 MA's), (31, 23070), (37, 23103), (47, 23157), (51, 23181), (54, 23223), (56, 23241), (58, 23256), (68, 23328), (73, 23355), (81, 23430), (83, 23439), (91, 23496), (92, 23514), (93, 23520), (134, 23772), (142, 23832), (154, 23973), (157, 24006), (161, 24048), (169, 24120), (171, 24135), (172, 24138), (182, 24249), (184, 24285), (187, 24336), (190, 24378), (193, 24408), (199, 24459), (203, 24492), (205, 24525), (206, 24537), (216, 24618), (223, 24651), (224, 24654), (230, 24711), (236, 24747), (237, 24762), (239, 24783), (246, 24834), (268, 24969), (269, 24978), (281, 25071), (283, 25077), (284, 25083), (287, 25092), (292, 25104), (294, 25116), (297, 25128), (299, 25146), (305, 25203), (320, 25305), (321, 25323), (324, 25347), (329, 25395), (344, 25425), (356, 25473), (357, 25479), (373, 25602), (374, 25605), (376, 25611), (394, 25668), (395, 25680), (400, 25701), (402, 25707), (407, 25740), (414, 25803), (418, 25857), (437, 26031), (443, 26058), (444, 26064), (458, 26166), (465, 26232), (488, 26391), (498, 26472), (505, 26532), (507, 26577), (539, 26889), (542, 26898), (546, 26925), (558, 26994), (567, 27123), (575, 27222), (593, 27366), (598, 27438), (599, 27444), (600, 27450), (607, 27525), (611, 27555), (623, 27693), (632, 27753), (638, 27789), (641, 27834), (647, 27861), (655, 27900), (656, 27906), (658, 27912), (661, 27939), (665, 27975), (666, 27987),

Gene: Lilbeanie_28 Start: 18351, Stop: 23423, Start Num: 19

Candidate Starts for Lilbeanie_28:

(Start: 19 @18351 has 61 MA's), (30, 18426), (40, 18492), (47, 18525), (51, 18549), (52, 18558), (65, 18633), (72, 18663), (79, 18693), (105, 18813), (122, 18930), (126, 18948), (134, 19002), (135, 19005), (138, 19035), (146, 19089), (152, 19140), (156, 19221), (157, 19224), (170, 19347), (172, 19359), (182, 19470), (184, 19506), (186, 19545), (188, 19569), (190, 19599), (193, 19629), (203, 19713), (205, 19749), (216, 19839), (222, 19869), (227, 19902), (228, 19905), (230, 19932), (239, 20004), (246, 20055), (247, 20058), (248, 20064), (252, 20091), (253, 20112), (257, 20142), (261, 20166), (264, 20175), (281, 20292), (283, 20298), (291, 20322), (293, 20328), (297, 20349), (299, 20367), (305, 20424), (313, 20487), (320, 20526), (345, 20649), (368, 20754), (389, 20823), (406, 20898), (418, 21006), (419, 21009), (427, 21066), (432, 21108), (434, 21123), (442, 21162), (445, 21171), (456, 21231), (459, 21255), (463, 21303), (467, 21327), (484, 21408), (488, 21435), (497, 21507), (498, 21516), (502, 21567), (505, 21576), (507, 21621), (542, 21915), (546, 21942), (587,

22335), (595, 22422), (606, 22542), (627, 22785), (634, 22827), (635, 22830), (643, 22911), (657, 22974), (663, 23034), (667, 23079), (668, 23091), (669, 23118), (670, 23181), (671, 23202), (672, 23241), (673, 23265), (674, 23301), (675, 23316), (676, 23349), (677, 23376), (678, 23388),

Gene: Love_36 Start: 25948, Stop: 30777, Start Num: 19

Candidate Starts for Love_36:

(Start: 19 @25948 has 61 MA's), (47, 26122), (51, 26146), (86, 26284), (98, 26329), (102, 26341), (106, 26359), (109, 26371), (111, 26398), (115, 26416), (118, 26428), (134, 26527), (150, 26647), (151, 26668), (154, 26728), (157, 26761), (161, 26803), (164, 26839), (169, 26875), (171, 26890), (172, 26893), (182, 27004), (184, 27040), (187, 27091), (190, 27133), (193, 27163), (199, 27214), (203, 27247), (206, 27292), (216, 27373), (220, 27394), (223, 27406), (236, 27502), (237, 27517), (239, 27538), (246, 27589), (248, 27598), (268, 27724), (269, 27733), (275, 27793), (284, 27838), (287, 27847), (295, 27874), (299, 27901), (301, 27922), (305, 27958), (314, 28024), (320, 28060), (328, 28147), (329, 28150), (331, 28159), (342, 28177), (356, 28228), (357, 28234), (374, 28360), (395, 28435), (402, 28462), (407, 28495), (414, 28558), (418, 28612), (424, 28675), (437, 28786), (443, 28813), (444, 28819), (458, 28921), (460, 28933), (465, 28987), (468, 29014), (472, 29041), (476, 29080), (488, 29146), (497, 29218), (498, 29227), (505, 29287), (507, 29332), (542, 29647), (543, 29653), (545, 29671), (560, 29767), (567, 29872), (575, 29971), (593, 30115), (598, 30196), (600, 30208), (607, 30292), (617, 30382), (647, 30631), (655, 30670), (656, 30676), (658, 30682), (661, 30709), (665, 30745), (666, 30757),

Gene: MagicMan_17 Start: 10932, Stop: 16046, Start Num: 4

Candidate Starts for MagicMan_17:

(Start: 4 @10932 has 12 MA's), (6, 10941), (25, 11214), (26, 11223), (28, 11253), (29, 11262), (37, 11319), (49, 11382), (55, 11454), (58, 11475), (63, 11493), (80, 11646), (89, 11688), (94, 11742), (100, 11775), (129, 11967), (130, 11970), (136, 12006), (144, 12084), (150, 12123), (154, 12207), (157, 12240), (158, 12249), (159, 12258), (162, 12291), (163, 12303), (165, 12327), (172, 12372), (173, 12381), (174, 12417), (175, 12426), (179, 12453), (181, 12465), (182, 12483), (184, 12519), (193, 12642), (199, 12684), (213, 12819), (214, 12822), (215, 12825), (217, 12840), (226, 12894), (231, 12933), (240, 13002), (242, 13014), (245, 13029), (247, 13050), (249, 13065), (250, 13077), (254, 13113), (260, 13149), (294, 13311), (307, 13368), (318, 13380), (319, 13383), (324, 13416), (346, 13509), (347, 13515), (350, 13521), (354, 13542), (355, 13545), (356, 13548), (364, 13611), (369, 13647), (371, 13662), (376, 13686), (384, 13701), (385, 13704), (387, 13710), (399, 13764), (414, 13863), (417, 13905), (425, 13983), (429, 14007), (431, 14052), (449, 14178), (452, 14187), (453, 14205), (454, 14208), (458, 14247), (459, 14250), (460, 14259), (483, 14418), (498, 14538), (506, 14616), (510, 14664), (513, 14676), (522, 14736), (534, 14853), (536, 14880), (537, 14898), (547, 14976), (548, 14982), (550, 14991), (554, 15018), (561, 15111), (563, 15150), (565, 15192), (576, 15345), (580, 15378), (581, 15381), (586, 15438), (587, 15447), (588, 15459), (591, 15480), (594, 15501), (610, 15693), (616, 15732), (621, 15801), (625, 15855), (646, 16008),

Gene: McKinley_35 Start: 25980, Stop: 30803, Start Num: 19

Candidate Starts for McKinley_35:

(Start: 19 @25980 has 61 MA's), (47, 26154), (51, 26178), (86, 26316), (98, 26361), (102, 26373), (106, 26391), (109, 26403), (111, 26430), (115, 26448), (118, 26460), (134, 26559), (150, 26679), (151, 26700), (154, 26760), (157, 26793), (161, 26835), (164, 26871), (169, 26907), (171, 26922), (172, 26925), (182, 27036), (184, 27072), (187, 27123), (190, 27165), (193, 27195), (199, 27246), (203, 27279), (205, 27312), (206, 27324), (216, 27405), (220, 27426), (223, 27438), (236, 27534), (237, 27549), (239, 27570), (246, 27621), (248, 27630), (257, 27708), (268, 27756), (269, 27765), (275, 27825), (283, 27864), (284, 27870), (287, 27879), (295, 27906), (299, 27933), (301, 27954), (305, 27990), (314, 28056), (317, 28077), (320, 28092), (328, 28179), (329, 28182), (356, 28260), (363, 28320), (374, 28392), (402, 28494), (407, 28527), (414, 28590), (418, 28644), (424, 28707), (437, 28818), (443, 28845), (444, 28851), (458, 28953), (460, 28965), (465, 29019), (468, 29046), (472, 29073), (476, 29112), (480, 29136), (484, 29151), (488, 29178), (497, 29250), (498, 29259),

(505, 29319), (507, 29364), (533, 29553), (542, 29682), (543, 29688), (545, 29706), (560, 29805), (567, 29910), (574, 29982), (575, 30009), (593, 30153), (598, 30222), (600, 30234), (607, 30318), (647, 30657), (655, 30696), (656, 30702), (658, 30708), (661, 30735), (665, 30771), (666, 30783),

Gene: MelBins_32 Start: 23406, Stop: 28298, Start Num: 20

Candidate Starts for MelBins_32:

(Start: 20 @23406 has 8 MA's), (37, 23526), (47, 23580), (51, 23604), (58, 23679), (59, 23682), (73, 23778), (81, 23853), (82, 23859), (84, 23865), (88, 23889), (90, 23898), (99, 23958), (101, 23964), (104, 23973), (109, 24003), (117, 24060), (122, 24099), (124, 24108), (125, 24111), (134, 24171), (135, 24174), (145, 24249), (146, 24258), (157, 24393), (158, 24402), (161, 24435), (163, 24459), (172, 24525), (176, 24588), (184, 24672), (186, 24711), (187, 24723), (191, 24771), (193, 24795), (203, 24879), (208, 24930), (211, 24960), (218, 25017), (221, 25029), (233, 25116), (239, 25170), (247, 25224), (248, 25230), (252, 25257), (265, 25344), (268, 25356), (269, 25365), (275, 25425), (277, 25437), (281, 25458), (283, 25464), (284, 25470), (285, 25473), (286, 25476), (294, 25503), (295, 25506), (297, 25515), (298, 25527), (299, 25533), (303, 25578), (308, 25614), (309, 25617), (311, 25638), (327, 25755), (339, 25812), (357, 25899), (365, 25965), (392, 26022), (393, 26025), (397, 26049), (412, 26139), (416, 26187), (430, 26316), (439, 26385), (445, 26415), (448, 26433), (451, 26451), (468, 26607), (469, 26610), (484, 26715), (497, 26814), (498, 26823), (505, 26883), (506, 26913), (515, 26994), (540, 27225), (542, 27231), (552, 27294), (564, 27471), (568, 27492), (577, 27621), (582, 27660), (618, 27990), (626, 28086), (628, 28095), (642, 28209), (649, 28251), (653, 28263),

Gene: MoontowerMania_32 Start: 24791, Stop: 29617, Start Num: 19

Candidate Starts for MoontowerMania_32:

(Start: 19 @24791 has 61 MA's), (47, 24965), (51, 24989), (86, 25127), (98, 25172), (102, 25184), (106, 25202), (109, 25214), (115, 25259), (134, 25370), (150, 25490), (151, 25511), (154, 25571), (157, 25604), (161, 25646), (169, 25718), (171, 25733), (172, 25736), (182, 25847), (184, 25883), (187, 25934), (190, 25976), (193, 26006), (199, 26057), (203, 26090), (205, 26123), (206, 26135), (216, 26216), (220, 26237), (223, 26249), (236, 26345), (237, 26360), (239, 26381), (246, 26432), (248, 26441), (257, 26519), (268, 26567), (269, 26576), (275, 26636), (284, 26681), (287, 26690), (295, 26717), (299, 26744), (301, 26765), (305, 26801), (314, 26867), (320, 26903), (328, 26990), (329, 26993), (331, 27002), (342, 27020), (356, 27071), (357, 27077), (374, 27203), (395, 27278), (402, 27305), (407, 27338), (414, 27401), (418, 27455), (424, 27518), (437, 27629), (443, 27656), (444, 27662), (458, 27764), (460, 27776), (465, 27830), (468, 27857), (472, 27884), (476, 27923), (480, 27947), (484, 27962), (488, 27989), (497, 28061), (498, 28070), (505, 28130), (507, 28175), (542, 28493), (543, 28499), (545, 28517), (560, 28613), (567, 28718), (575, 28817), (593, 28961), (598, 29036), (600, 29048), (607, 29132), (647, 29471), (655, 29510), (656, 29516), (658, 29522), (661, 29549), (665, 29585), (666, 29597),

Gene: Mutzi_31 Start: 19848, Stop: 25364, Start Num: 1

Candidate Starts for Mutzi_31:

(Start: 1 @19848 has 29 MA's), (3, 19935), (6, 20022), (10, 20055), (12, 20079), (Start: 20 @20202 has 8 MA's), (22, 20223), (23, 20229), (27, 20253), (34, 20283), (43, 20322), (59, 20406), (67, 20442), (69, 20466), (77, 20505), (116, 20793), (131, 20895), (142, 20982), (151, 21063), (154, 21123), (161, 21195), (165, 21243), (168, 21267), (178, 21366), (179, 21369), (182, 21399), (186, 21474), (187, 21486), (190, 21528), (193, 21558), (199, 21609), (203, 21642), (212, 21747), (213, 21750), (216, 21768), (218, 21780), (220, 21789), (235, 21891), (237, 21912), (239, 21933), (246, 21984), (247, 21987), (257, 22071), (261, 22095), (263, 22101), (268, 22119), (275, 22188), (281, 22221), (283, 22227), (285, 22236), (288, 22242), (299, 22296), (306, 22368), (308, 22377), (310, 22398), (320, 22455), (323, 22491), (333, 22572), (334, 22575), (338, 22629), (340, 22644), (349, 22716), (357, 22812), (365, 22878), (366, 22881), (369, 22905), (372, 22932), (373, 22935), (374, 22938), (396, 23013), (398, 23019), (399, 23022), (406, 23067), (411, 23076), (420, 23154), (425, 23208), (430, 23262), (436, 23319), (445, 23361), (458, 23460), (463, 23511), (477, 23622), (485, 23661), (496,

23742), (500, 23784), (511, 23916), (512, 23919), (516, 23949), (517, 23952), (519, 23967), (539, 24159), (542, 24168), (543, 24174), (572, 24486), (589, 24681), (590, 24693), (614, 24966), (630, 25122), (631, 25131), (632, 25137), (638, 25173), (651, 25266), (654, 25278), (660, 25308), (662, 25341), (664, 25353),

Gene: Natkenzie_33 Start: 24850, Stop: 29775, Start Num: 19

Candidate Starts for Natkenzie_33:

(Start: 19 @24850 has 61 MA's), (37, 24970), (39, 24982), (47, 25024), (51, 25048), (57, 25114), (58, 25123), (66, 25168), (68, 25195), (81, 25297), (83, 25306), (87, 25324), (97, 25390), (101, 25405), (104, 25414), (112, 25477), (114, 25483), (119, 25510), (122, 25540), (124, 25549), (132, 25597), (134, 25612), (137, 25624), (146, 25711), (149, 25723), (157, 25846), (160, 25870), (161, 25888), (169, 25960), (170, 25966), (172, 25978), (182, 26089), (184, 26125), (186, 26164), (187, 26176), (190, 26218), (193, 26248), (198, 26290), (199, 26299), (200, 26302), (203, 26332), (205, 26365), (216, 26458), (224, 26494), (230, 26551), (235, 26581), (239, 26623), (247, 26677), (248, 26683), (252, 26710), (257, 26761), (265, 26797), (268, 26809), (269, 26818), (275, 26878), (277, 26890), (281, 26911), (283, 26917), (295, 26959), (296, 26965), (298, 26980), (299, 26986), (303, 27031), (308, 27067), (309, 27070), (320, 27145), (327, 27208), (339, 27265), (356, 27346), (362, 27397), (384, 27454), (392, 27475), (393, 27478), (397, 27502), (416, 27640), (420, 27661), (445, 27868), (448, 27886), (455, 27943), (465, 28033), (471, 28096), (484, 28177), (488, 28204), (497, 28276), (498, 28285), (505, 28345), (515, 28456), (539, 28687), (542, 28696), (546, 28723), (553, 28765), (569, 28984), (572, 29011), (577, 29083), (582, 29122), (604, 29329), (612, 29401), (618, 29467), (633, 29602), (639, 29665), (640, 29668), (642, 29686), (645, 29701), (649, 29728), (653, 29740),

Gene: Nordenberg_27 Start: 24150, Stop: 28973, Start Num: 19

Candidate Starts for Nordenberg_27:

(Start: 19 @24150 has 61 MA's), (47, 24324), (51, 24348), (86, 24486), (98, 24531), (102, 24543), (106, 24561), (109, 24573), (111, 24600), (115, 24618), (118, 24630), (134, 24729), (150, 24849), (151, 24870), (154, 24930), (157, 24963), (161, 25005), (164, 25041), (169, 25077), (171, 25092), (172, 25095), (182, 25206), (184, 25242), (187, 25293), (190, 25335), (193, 25365), (199, 25416), (203, 25449), (206, 25494), (216, 25575), (223, 25608), (236, 25704), (237, 25719), (239, 25740), (246, 25791), (248, 25800), (268, 25926), (269, 25935), (275, 25995), (283, 26034), (284, 26040), (287, 26049), (295, 26076), (299, 26103), (301, 26124), (305, 26160), (314, 26226), (320, 26262), (328, 26349), (329, 26352), (331, 26361), (342, 26379), (356, 26430), (357, 26436), (374, 26562), (395, 26637), (402, 26664), (407, 26697), (414, 26760), (418, 26814), (424, 26877), (437, 26988), (443, 27015), (444, 27021), (458, 27123), (460, 27135), (465, 27189), (468, 27216), (472, 27243), (476, 27282), (488, 27348), (497, 27420), (498, 27429), (505, 27489), (507, 27534), (542, 27852), (543, 27858), (545, 27876), (560, 27969), (567, 28074), (575, 28173), (593, 28317), (598, 28392), (600, 28404), (607, 28488), (647, 28827), (655, 28866), (656, 28872), (658, 28878), (661, 28905), (665, 28941), (666, 28953),

Gene: Nubi_29 Start: 19412, Stop: 24925, Start Num: 1

Candidate Starts for Nubi_29:

(Start: 1 @19412 has 29 MA's), (3, 19499), (6, 19586), (10, 19619), (12, 19643), (Start: 20 @19766 has 8 MA's), (22, 19787), (23, 19793), (27, 19817), (34, 19847), (43, 19886), (59, 19970), (67, 20006), (69, 20030), (77, 20069), (131, 20459), (151, 20627), (154, 20687), (161, 20759), (162, 20771), (165, 20807), (168, 20831), (178, 20930), (179, 20933), (182, 20963), (186, 21038), (187, 21050), (190, 21092), (193, 21122), (199, 21173), (213, 21314), (216, 21332), (218, 21344), (220, 21353), (235, 21455), (237, 21476), (239, 21497), (246, 21548), (247, 21551), (257, 21635), (263, 21665), (268, 21683), (275, 21752), (281, 21785), (283, 21791), (285, 21800), (288, 21806), (299, 21860), (306, 21932), (310, 21962), (320, 22019), (323, 22055), (333, 22136), (334, 22139), (340, 22208), (357, 22376), (365, 22442), (366, 22445), (369, 22469), (372, 22496), (373, 22499), (374, 22502), (399, 22586), (406, 22631), (411, 22640), (416, 22697), (420, 22718), (425, 22772), (430, 22826), (436, 22883), (445, 22925), (451, 22961), (457, 23006), (458, 23024), (463, 23075), (477, 23186), (485,

23225), (496, 23306), (511, 23480), (512, 23483), (517, 23516), (539, 23720), (542, 23729), (543, 23735), (572, 24044), (590, 24251), (601, 24377), (614, 24527), (623, 24638), (630, 24683), (631, 24692), (632, 24698), (638, 24734), (651, 24827), (654, 24839), (660, 24869), (662, 24902), (664, 24914),

Gene: Opie_17 Start: 10940, Stop: 16069, Start Num: 4

Candidate Starts for Opie_17:

(Start: 4 @10940 has 12 MA's), (6, 10949), (25, 11222), (26, 11231), (37, 11327), (44, 11369), (49, 11390), (58, 11483), (63, 11501), (89, 11696), (110, 11855), (129, 11975), (130, 11978), (136, 12014), (144, 12092), (154, 12215), (157, 12248), (158, 12257), (159, 12266), (162, 12299), (163, 12311), (165, 12335), (172, 12380), (174, 12425), (179, 12461), (181, 12473), (182, 12491), (184, 12527), (193, 12650), (199, 12692), (213, 12827), (214, 12830), (215, 12833), (217, 12848), (226, 12902), (231, 12941), (242, 13022), (245, 13037), (247, 13058), (249, 13073), (250, 13085), (254, 13121), (260, 13157), (294, 13319), (303, 13352), (307, 13376), (318, 13388), (319, 13391), (324, 13424), (326, 13442), (347, 13523), (350, 13529), (354, 13550), (355, 13553), (356, 13556), (369, 13655), (371, 13670), (376, 13694), (384, 13709), (385, 13712), (387, 13718), (399, 13772), (414, 13871), (417, 13913), (421, 13946), (425, 13991), (429, 14015), (431, 14060), (433, 14078), (449, 14186), (454, 14216), (458, 14255), (459, 14258), (460, 14267), (493, 14516), (495, 14540), (510, 14684), (514, 14708), (522, 14759), (534, 14876), (536, 14903), (537, 14921), (547, 14999), (548, 15005), (550, 15014), (554, 15041), (561, 15134), (563, 15173), (565, 15215), (576, 15368), (580, 15401), (581, 15404), (586, 15461), (587, 15470), (588, 15482), (591, 15503), (594, 15524), (610, 15716), (616, 15755), (619, 15821), (621, 15824), (625, 15878), (646, 16031),

Gene: Paries_35 Start: 25616, Stop: 30439, Start Num: 19

Candidate Starts for Paries_35:

(Start: 19 @25616 has 61 MA's), (47, 25790), (51, 25814), (86, 25952), (95, 25985), (98, 25997), (102, 26009), (106, 26027), (109, 26039), (115, 26084), (134, 26195), (150, 26315), (151, 26336), (154, 26396), (157, 26429), (161, 26471), (164, 26507), (169, 26543), (171, 26558), (172, 26561), (182, 26672), (184, 26708), (187, 26759), (190, 26801), (193, 26831), (199, 26882), (203, 26915), (205, 26948), (206, 26960), (216, 27041), (220, 27062), (223, 27074), (236, 27170), (237, 27185), (239, 27206), (246, 27257), (248, 27266), (257, 27344), (268, 27392), (269, 27401), (275, 27461), (284, 27506), (287, 27515), (295, 27542), (299, 27569), (301, 27590), (305, 27626), (314, 27692), (320, 27728), (328, 27815), (329, 27818), (331, 27827), (342, 27845), (356, 27896), (357, 27902), (374, 28028), (395, 28103), (402, 28130), (407, 28163), (414, 28226), (418, 28280), (424, 28343), (437, 28454), (443, 28481), (444, 28487), (458, 28589), (460, 28601), (465, 28655), (468, 28682), (472, 28709), (476, 28748), (488, 28814), (497, 28886), (498, 28895), (505, 28955), (507, 29000), (542, 29315), (543, 29321), (545, 29339), (560, 29435), (567, 29540), (575, 29639), (593, 29783), (598, 29858), (600, 29870), (607, 29954), (647, 30293), (655, 30332), (656, 30338), (658, 30344), (661, 30371), (665, 30407), (666, 30419),

Gene: Phauci_24 Start: 19849, Stop: 24738, Start Num: 20

Candidate Starts for Phauci_24:

(Start: 20 @19849 has 8 MA's), (37, 19969), (47, 20023), (51, 20047), (58, 20122), (59, 20125), (73, 20221), (81, 20296), (82, 20302), (84, 20308), (88, 20332), (90, 20341), (99, 20401), (101, 20407), (104, 20416), (109, 20446), (117, 20503), (122, 20542), (124, 20551), (134, 20614), (135, 20617), (145, 20692), (146, 20701), (157, 20836), (158, 20845), (161, 20878), (163, 20902), (172, 20968), (176, 21031), (184, 21115), (186, 21154), (187, 21166), (191, 21214), (193, 21238), (199, 21289), (203, 21322), (208, 21373), (211, 21403), (218, 21460), (221, 21472), (224, 21484), (233, 21559), (239, 21613), (247, 21667), (252, 21700), (265, 21787), (268, 21799), (269, 21808), (275, 21868), (277, 21880), (281, 21901), (283, 21907), (284, 21913), (285, 21916), (286, 21919), (294, 21946), (295, 21949), (297, 21958), (298, 21970), (299, 21976), (303, 22021), (308, 22057), (309, 22060), (311, 22081), (327, 22198), (339, 22255), (357, 22342), (365, 22408), (392, 22465), (393, 22468), (397, 22492), (412, 22582), (416, 22630), (430, 22759), (439, 22828), (441, 22837), (445, 22858),

(448, 22876), (451, 22894), (468, 23050), (469, 23053), (484, 23158), (498, 23266), (505, 23326), (506, 23356), (515, 23437), (540, 23668), (542, 23674), (549, 23722), (552, 23737), (559, 23803), (568, 23935), (577, 24064), (582, 24103), (618, 24430), (626, 24526), (642, 24649), (649, 24691), (653, 24703),

Gene: Phinally_31 Start: 23257, Stop: 28146, Start Num: 20

Candidate Starts for Phinally_31:

(Start: 20 @23257 has 8 MA's), (37, 23377), (47, 23431), (51, 23455), (58, 23530), (59, 23533), (73, 23629), (81, 23704), (82, 23710), (84, 23716), (88, 23740), (90, 23749), (99, 23809), (101, 23815), (104, 23824), (109, 23854), (117, 23911), (122, 23950), (124, 23959), (134, 24022), (135, 24025), (145, 24100), (146, 24109), (157, 24244), (158, 24253), (161, 24286), (163, 24310), (172, 24376), (176, 24439), (184, 24523), (186, 24562), (187, 24574), (191, 24622), (193, 24646), (199, 24697), (203, 24730), (208, 24781), (211, 24811), (218, 24868), (221, 24880), (224, 24892), (233, 24967), (239, 25021), (247, 25075), (248, 25081), (252, 25108), (265, 25195), (268, 25207), (269, 25216), (275, 25276), (277, 25288), (281, 25309), (283, 25315), (284, 25321), (285, 25324), (294, 25354), (295, 25357), (297, 25366), (298, 25378), (299, 25384), (303, 25429), (308, 25465), (309, 25468), (311, 25489), (327, 25606), (339, 25663), (357, 25750), (365, 25816), (392, 25873), (393, 25876), (397, 25900), (412, 25990), (416, 26038), (430, 26167), (439, 26236), (445, 26266), (448, 26284), (468, 26458), (469, 26461), (484, 26566), (497, 26665), (498, 26674), (505, 26734), (506, 26764), (515, 26845), (540, 27076), (542, 27082), (552, 27145), (568, 27343), (577, 27472), (582, 27511), (615, 27793), (618, 27838), (620, 27865), (626, 27934), (642, 28057), (649, 28099), (653, 28111),

Gene: Phlop_29 Start: 19476, Stop: 25007, Start Num: 1

Candidate Starts for Phlop_29:

(Start: 1 @19476 has 29 MA's), (3, 19563), (6, 19650), (10, 19683), (12, 19707), (Start: 20 @19830 has 8 MA's), (22, 19851), (23, 19857), (27, 19881), (34, 19911), (43, 19950), (59, 20034), (67, 20070), (69, 20094), (77, 20133), (131, 20523), (151, 20691), (154, 20751), (161, 20823), (162, 20835), (165, 20871), (168, 20895), (178, 20994), (179, 20997), (182, 21027), (186, 21102), (187, 21114), (190, 21156), (193, 21186), (199, 21237), (213, 21378), (216, 21396), (218, 21408), (220, 21417), (235, 21519), (237, 21540), (239, 21561), (246, 21612), (247, 21615), (248, 21621), (257, 21699), (263, 21729), (268, 21747), (275, 21816), (281, 21849), (283, 21855), (285, 21864), (288, 21870), (299, 21924), (303, 21969), (306, 21996), (308, 22005), (310, 22026), (320, 22083), (323, 22119), (333, 22200), (334, 22203), (340, 22272), (349, 22344), (357, 22440), (365, 22506), (366, 22509), (369, 22533), (372, 22560), (373, 22563), (374, 22566), (376, 22572), (396, 22641), (399, 22650), (406, 22695), (411, 22704), (420, 22782), (425, 22836), (430, 22890), (436, 22947), (445, 22989), (451, 23025), (458, 23088), (463, 23139), (477, 23250), (485, 23289), (496, 23370), (511, 23544), (512, 23547), (517, 23580), (539, 23787), (542, 23796), (543, 23802), (572, 24114), (590, 24321), (601, 24459), (614, 24609), (623, 24720), (630, 24765), (631, 24774), (632, 24780), (638, 24816), (651, 24909), (654, 24921), (660, 24951), (662, 24984), (664, 24996),

Gene: PinkCoffee_31 Start: 20115, Stop: 25646, Start Num: 1

Candidate Starts for PinkCoffee_31:

(Start: 1 @20115 has 29 MA's), (3, 20202), (6, 20289), (10, 20322), (12, 20346), (Start: 20 @20469 has 8 MA's), (22, 20490), (23, 20496), (27, 20520), (34, 20550), (43, 20589), (59, 20673), (67, 20709), (69, 20733), (77, 20772), (131, 21162), (151, 21330), (154, 21390), (161, 21462), (162, 21474), (165, 21510), (168, 21534), (178, 21633), (179, 21636), (182, 21666), (186, 21741), (187, 21753), (190, 21795), (193, 21825), (199, 21876), (213, 22017), (216, 22035), (218, 22047), (220, 22056), (235, 22158), (237, 22179), (239, 22200), (246, 22251), (247, 22254), (248, 22260), (257, 22338), (263, 22368), (268, 22386), (275, 22455), (281, 22488), (283, 22494), (285, 22503), (288, 22509), (299, 22563), (303, 22608), (306, 22635), (308, 22644), (310, 22665), (320, 22722), (323, 22758), (333, 22839), (334, 22842), (340, 22911), (349, 22983), (357, 23079), (365, 23145), (366, 23148), (369, 23172), (372, 23199), (373, 23202), (374, 23205), (376, 23211), (396, 23280), (399, 23289), (406, 23334), (411, 23343), (420, 23421), (425, 23475), (430, 23529), (436, 23586), (445, 23628), (451,

23664), (458, 23727), (463, 23778), (477, 23889), (485, 23928), (496, 24009), (511, 24183), (512, 24186), (517, 24219), (539, 24426), (542, 24435), (543, 24441), (572, 24753), (590, 24960), (601, 25098), (614, 25248), (623, 25359), (630, 25404), (631, 25413), (638, 25455), (651, 25548), (654, 25560), (660, 25590), (662, 25623), (664, 25635),

Gene: Portcullis_29 Start: 19434, Stop: 24956, Start Num: 1

Candidate Starts for Portcullis_29:

(Start: 1 @19434 has 29 MA's), (3, 19521), (6, 19608), (10, 19641), (12, 19665), (Start: 20 @19788 has 8 MA's), (22, 19809), (23, 19815), (27, 19839), (34, 19869), (43, 19908), (59, 19992), (67, 20028), (69, 20052), (77, 20091), (131, 20481), (151, 20649), (154, 20709), (161, 20781), (162, 20793), (165, 20829), (168, 20853), (178, 20952), (179, 20955), (182, 20985), (186, 21060), (187, 21072), (190, 21114), (193, 21144), (199, 21195), (213, 21336), (216, 21354), (218, 21366), (220, 21375), (235, 21477), (237, 21498), (239, 21519), (246, 21570), (247, 21573), (257, 21657), (263, 21687), (268, 21705), (275, 21774), (281, 21807), (283, 21813), (285, 21822), (288, 21828), (299, 21882), (306, 21954), (308, 21963), (310, 21984), (320, 22041), (323, 22077), (333, 22158), (334, 22161), (340, 22230), (357, 22398), (365, 22464), (366, 22467), (369, 22491), (372, 22518), (373, 22521), (374, 22524), (376, 22530), (396, 22599), (399, 22608), (406, 22653), (411, 22662), (420, 22740), (425, 22794), (430, 22848), (436, 22905), (445, 22947), (451, 22983), (458, 23046), (463, 23097), (477, 23208), (485, 23247), (496, 23328), (511, 23502), (512, 23505), (517, 23538), (539, 23745), (542, 23754), (543, 23760), (546, 23781), (572, 24075), (590, 24282), (601, 24408), (614, 24558), (623, 24669), (630, 24714), (631, 24723), (632, 24729), (638, 24765), (651, 24858), (654, 24870), (660, 24900), (662, 24933), (664, 24945),

Gene: PullumCavea_29 Start: 19476, Stop: 25007, Start Num: 1

Candidate Starts for PullumCavea_29:

(Start: 1 @19476 has 29 MA's), (3, 19563), (6, 19650), (10, 19683), (12, 19707), (Start: 20 @19830 has 8 MA's), (22, 19851), (23, 19857), (27, 19881), (34, 19911), (43, 19950), (59, 20034), (67, 20070), (69, 20094), (77, 20133), (131, 20523), (151, 20691), (154, 20751), (161, 20823), (162, 20835), (165, 20871), (168, 20895), (178, 20994), (179, 20997), (182, 21027), (186, 21102), (187, 21114), (190, 21156), (193, 21186), (199, 21237), (213, 21378), (216, 21396), (218, 21408), (220, 21417), (235, 21519), (237, 21540), (239, 21561), (246, 21612), (247, 21615), (248, 21621), (257, 21699), (263, 21729), (268, 21747), (275, 21816), (281, 21849), (283, 21855), (285, 21864), (288, 21870), (299, 21924), (303, 21969), (306, 21996), (308, 22005), (310, 22026), (320, 22083), (323, 22119), (333, 22200), (334, 22203), (340, 22272), (349, 22344), (357, 22440), (365, 22506), (366, 22509), (369, 22533), (372, 22560), (373, 22563), (374, 22566), (376, 22572), (396, 22641), (399, 22650), (406, 22695), (411, 22704), (420, 22782), (425, 22836), (430, 22890), (436, 22947), (445, 22989), (451, 23025), (458, 23088), (463, 23139), (477, 23250), (485, 23289), (496, 23370), (511, 23544), (512, 23547), (517, 23580), (539, 23787), (542, 23796), (543, 23802), (572, 24114), (590, 24321), (601, 24459), (614, 24609), (623, 24720), (630, 24765), (631, 24774), (632, 24780), (638, 24816), (651, 24909), (654, 24921), (660, 24951), (662, 24984), (664, 24996),

Gene: Ribeye_33 Start: 24804, Stop: 29822, Start Num: 19

Candidate Starts for Ribeye_33:

(Start: 19 @24804 has 61 MA's), (30, 24879), (37, 24924), (47, 24978), (51, 25002), (54, 25044), (56, 25062), (58, 25077), (68, 25149), (73, 25176), (81, 25251), (83, 25260), (91, 25317), (92, 25335), (93, 25341), (96, 25359), (103, 25386), (127, 25542), (134, 25593), (137, 25605), (142, 25653), (154, 25794), (157, 25827), (161, 25869), (169, 25941), (171, 25956), (172, 25959), (182, 26070), (184, 26106), (187, 26157), (190, 26199), (193, 26229), (199, 26280), (203, 26313), (205, 26346), (206, 26358), (216, 26439), (223, 26472), (224, 26475), (230, 26532), (236, 26568), (237, 26583), (239, 26604), (246, 26655), (268, 26790), (275, 26859), (283, 26898), (284, 26904), (287, 26913), (295, 26940), (299, 26967), (301, 26988), (305, 27024), (308, 27048), (309, 27051), (313, 27087), (320, 27126), (329, 27216), (344, 27246), (356, 27294), (357, 27300), (373, 27423), (374, 27426), (376, 27432), (394, 27489), (395, 27501), (402, 27528), (407, 27561), (408, 27567), (414, 27624), (418,

27678), (424, 27741), (437, 27852), (443, 27879), (444, 27885), (458, 27987), (465, 28053), (484, 28185), (488, 28212), (498, 28293), (505, 28353), (507, 28398), (539, 28704), (542, 28713), (546, 28740), (558, 28809), (575, 29037), (593, 29181), (598, 29250), (599, 29256), (600, 29262), (607, 29340), (611, 29370), (623, 29508), (632, 29568), (638, 29604), (641, 29649), (647, 29676), (655, 29715), (656, 29721), (658, 29727), (661, 29754), (665, 29790), (666, 29802),

Gene: RiverRaider_33 Start: 23248, Stop: 28107, Start Num: 19

Candidate Starts for RiverRaider_33:

(Start: 19 @23248 has 61 MA's), (31, 23335), (37, 23368), (47, 23422), (51, 23446), (52, 23455), (60, 23500), (86, 23584), (95, 23617), (98, 23629), (102, 23641), (106, 23659), (109, 23671), (115, 23716), (122, 23755), (134, 23827), (145, 23917), (149, 23938), (154, 24028), (157, 24061), (161, 24103), (169, 24175), (171, 24190), (172, 24193), (182, 24304), (184, 24340), (187, 24391), (190, 24433), (193, 24463), (199, 24514), (203, 24547), (205, 24580), (206, 24592), (216, 24673), (220, 24694), (223, 24706), (228, 24739), (236, 24802), (237, 24817), (239, 24838), (246, 24889), (248, 24898), (257, 24976), (268, 25024), (272, 25072), (279, 25120), (281, 25126), (283, 25132), (287, 25147), (290, 25153), (294, 25171), (296, 25180), (299, 25201), (301, 25222), (305, 25258), (308, 25282), (313, 25321), (328, 25447), (344, 25480), (356, 25528), (357, 25534), (363, 25588), (366, 25603), (368, 25621), (374, 25660), (395, 25735), (402, 25762), (403, 25771), (407, 25795), (414, 25858), (418, 25912), (443, 26113), (444, 26119), (458, 26221), (460, 26233), (465, 26287), (474, 26368), (477, 26383), (481, 26407), (494, 26488), (511, 26665), (516, 26695), (518, 26698), (535, 26830), (542, 26911), (543, 26917), (546, 26938), (552, 26974), (559, 27037), (572, 27226), (577, 27298), (582, 27337), (598, 27532), (600, 27544), (607, 27616), (617, 27706), (629, 27823), (632, 27844), (647, 27961), (656, 28006), (658, 28012), (665, 28075), (666, 28087),

Gene: RoadKill_28 Start: 20943, Stop: 26069, Start Num: 19

Candidate Starts for RoadKill_28:

(Start: 19 @20943 has 61 MA's), (47, 21117), (52, 21150), (57, 21207), (58, 21216), (59, 21219), (68, 21288), (71, 21300), (73, 21315), (78, 21351), (81, 21390), (82, 21396), (84, 21402), (90, 21435), (95, 21477), (97, 21486), (99, 21495), (101, 21501), (106, 21528), (114, 21579), (117, 21597), (132, 21693), (134, 21708), (141, 21753), (148, 21801), (157, 21930), (161, 21972), (169, 22044), (172, 22062), (178, 22140), (180, 22152), (182, 22173), (184, 22209), (186, 22248), (187, 22260), (193, 22332), (194, 22356), (195, 22362), (199, 22383), (201, 22404), (203, 22416), (208, 22467), (211, 22497), (220, 22563), (235, 22665), (239, 22707), (247, 22761), (251, 22791), (252, 22794), (262, 22872), (274, 22959), (281, 22995), (283, 23001), (294, 23040), (295, 23043), (298, 23064), (299, 23070), (301, 23091), (306, 23142), (311, 23175), (313, 23190), (317, 23214), (342, 23424), (343, 23427), (352, 23532), (354, 23550), (360, 23580), (366, 23631), (374, 23688), (380, 23763), (383, 23772), (386, 23781), (388, 23787), (392, 23838), (399, 23871), (401, 23883), (404, 23904), (405, 23916), (410, 23949), (412, 23970), (422, 24102), (429, 24156), (456, 24363), (468, 24477), (470, 24489), (487, 24615), (490, 24633), (499, 24711), (520, 24900), (523, 24930), (546, 25128), (570, 25335), (571, 25338), (573, 25356), (596, 25605), (598, 25623), (603, 25635), (618, 25761), (636, 25917), (637, 25920), (640, 25962), (642, 25980), (645, 25995), (653, 26034),

Gene: Rofo_33 Start: 25011, Stop: 29837, Start Num: 19

Candidate Starts for Rofo_33:

(Start: 19 @25011 has 61 MA's), (47, 25185), (51, 25209), (86, 25347), (95, 25380), (98, 25392), (102, 25404), (106, 25422), (109, 25434), (115, 25479), (134, 25590), (150, 25710), (151, 25731), (154, 25791), (157, 25824), (161, 25866), (164, 25902), (169, 25938), (171, 25953), (172, 25956), (182, 26067), (184, 26103), (187, 26154), (190, 26196), (193, 26226), (199, 26277), (203, 26310), (205, 26343), (206, 26355), (216, 26436), (220, 26457), (223, 26469), (236, 26565), (237, 26580), (239, 26601), (246, 26652), (248, 26661), (257, 26739), (268, 26787), (269, 26796), (275, 26856), (284, 26901), (287, 26910), (295, 26937), (299, 26964), (301, 26985), (305, 27021), (314, 27087), (320, 27123), (328, 27210), (329, 27213), (331, 27222), (342, 27240), (356, 27291), (357, 27297), (374, 27423), (395, 27498), (402, 27525), (407, 27558), (414, 27621), (418, 27675), (424, 27738), (437,

27849), (443, 27876), (444, 27882), (458, 27984), (460, 27996), (465, 28050), (468, 28077), (472, 28104), (476, 28143), (488, 28209), (497, 28281), (498, 28290), (505, 28350), (507, 28395), (542, 28713), (543, 28719), (545, 28737), (560, 28833), (567, 28938), (575, 29037), (593, 29181), (598, 29256), (600, 29268), (607, 29352), (647, 29691), (655, 29730), (656, 29736), (658, 29742), (661, 29769), (665, 29805), (666, 29817),

Gene: RogerDodger_32 Start: 20284, Stop: 25797, Start Num: 1

Candidate Starts for RogerDodger_32:

(Start: 1 @20284 has 29 MA's), (3, 20371), (6, 20458), (10, 20491), (12, 20515), (Start: 20 @20638 has 8 MA's), (22, 20659), (23, 20665), (27, 20689), (34, 20719), (43, 20758), (59, 20842), (67, 20878), (69, 20902), (77, 20941), (131, 21331), (151, 21499), (154, 21559), (161, 21631), (162, 21643), (165, 21679), (168, 21703), (178, 21802), (179, 21805), (182, 21835), (186, 21910), (187, 21922), (190, 21964), (193, 21994), (199, 22045), (213, 22186), (216, 22204), (218, 22216), (220, 22225), (235, 22327), (237, 22348), (239, 22369), (246, 22420), (247, 22423), (248, 22429), (257, 22507), (263, 22537), (268, 22555), (275, 22624), (281, 22657), (283, 22663), (285, 22672), (288, 22678), (299, 22732), (303, 22777), (306, 22804), (308, 22813), (310, 22834), (320, 22891), (323, 22927), (333, 23008), (334, 23011), (340, 23080), (349, 23152), (357, 23248), (365, 23314), (366, 23317), (369, 23341), (372, 23368), (373, 23371), (374, 23374), (376, 23380), (396, 23449), (399, 23458), (406, 23503), (411, 23512), (420, 23590), (425, 23644), (430, 23698), (436, 23755), (445, 23797), (451, 23833), (458, 23896), (463, 23947), (473, 24031), (477, 24058), (485, 24097), (488, 24118), (496, 24178), (511, 24352), (512, 24355), (517, 24388), (539, 24595), (542, 24604), (543, 24610), (559, 24724), (566, 24844), (582, 25024), (601, 25249), (614, 25399), (623, 25510), (630, 25555), (631, 25564), (638, 25606), (653, 25705), (654, 25711), (660, 25741), (662, 25774), (664, 25786),

Gene: Salvador_29 Start: 19390, Stop: 24921, Start Num: 1

Candidate Starts for Salvador_29:

(Start: 1 @19390 has 29 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 8 MA's), (22, 19765), (23, 19771), (27, 19795), (34, 19825), (43, 19864), (59, 19948), (67, 19984), (69, 20008), (77, 20047), (131, 20437), (151, 20605), (154, 20665), (161, 20737), (162, 20749), (165, 20785), (168, 20809), (178, 20908), (179, 20911), (182, 20941), (186, 21016), (187, 21028), (190, 21070), (193, 21100), (199, 21151), (213, 21292), (216, 21310), (218, 21322), (220, 21331), (235, 21433), (237, 21454), (239, 21475), (246, 21526), (247, 21529), (248, 21535), (257, 21613), (263, 21643), (268, 21661), (275, 21730), (281, 21763), (283, 21769), (285, 21778), (288, 21784), (299, 21838), (303, 21883), (306, 21910), (308, 21919), (310, 21940), (320, 21997), (323, 22033), (333, 22114), (334, 22117), (340, 22186), (349, 22258), (357, 22354), (365, 22420), (366, 22423), (369, 22447), (372, 22474), (373, 22477), (374, 22480), (376, 22486), (396, 22555), (399, 22564), (406, 22609), (411, 22618), (420, 22696), (425, 22750), (430, 22804), (436, 22861), (445, 22903), (451, 22939), (458, 23002), (463, 23053), (477, 23164), (485, 23203), (496, 23284), (511, 23458), (512, 23461), (517, 23494), (539, 23701), (542, 23710), (543, 23716), (572, 24028), (590, 24235), (601, 24373), (614, 24523), (623, 24634), (630, 24679), (631, 24688), (632, 24694), (638, 24730), (651, 24823), (654, 24835), (660, 24865), (662, 24898), (664, 24910),

Gene: Sampson_33 Start: 24795, Stop: 29720, Start Num: 19

Candidate Starts for Sampson_33:

(Start: 19 @24795 has 61 MA's), (37, 24915), (39, 24927), (47, 24969), (51, 24993), (57, 25059), (58, 25068), (66, 25113), (68, 25140), (81, 25242), (83, 25251), (87, 25269), (97, 25335), (101, 25350), (104, 25359), (112, 25422), (114, 25428), (119, 25455), (122, 25485), (124, 25494), (132, 25542), (134, 25557), (137, 25569), (146, 25656), (149, 25668), (157, 25791), (160, 25815), (161, 25833), (169, 25905), (170, 25911), (172, 25923), (182, 26034), (184, 26070), (186, 26109), (187, 26121), (190, 26163), (193, 26193), (198, 26235), (199, 26244), (200, 26247), (203, 26277), (205, 26310), (216, 26403), (224, 26439), (230, 26496), (235, 26526), (239, 26568), (247, 26622), (248, 26628), (252, 26655), (257, 26706), (265, 26742), (268, 26754), (269, 26763), (275, 26823), (277, 26835), (281, 26856), (283, 26862), (295, 26904), (296, 26910), (298, 26925), (299, 26931), (303, 26976),

(308, 27012), (309, 27015), (320, 27090), (327, 27153), (339, 27210), (356, 27291), (362, 27342), (384, 27399), (392, 27420), (393, 27423), (397, 27447), (416, 27585), (420, 27606), (445, 27813), (448, 27831), (455, 27888), (465, 27978), (471, 28041), (484, 28122), (488, 28149), (497, 28221), (498, 28230), (505, 28290), (515, 28401), (539, 28632), (542, 28641), (546, 28668), (553, 28710), (569, 28929), (572, 28956), (577, 29028), (582, 29067), (604, 29274), (612, 29346), (618, 29412), (633, 29547), (639, 29610), (640, 29613), (642, 29631), (645, 29646), (649, 29673), (653, 29685),

Gene: Sanjuju_31 Start: 25192, Stop: 30006, Start Num: 19

Candidate Starts for Sanjuju_31:

(Start: 19 @25192 has 61 MA's), (47, 25366), (51, 25390), (86, 25528), (98, 25573), (102, 25585), (106, 25603), (109, 25615), (111, 25642), (115, 25660), (118, 25672), (134, 25771), (150, 25891), (151, 25912), (154, 25972), (157, 26005), (161, 26047), (164, 26083), (169, 26119), (171, 26134), (172, 26137), (182, 26248), (184, 26284), (187, 26335), (190, 26377), (193, 26407), (199, 26458), (203, 26491), (205, 26524), (206, 26536), (216, 26617), (220, 26638), (223, 26650), (236, 26746), (237, 26761), (239, 26782), (246, 26833), (248, 26842), (257, 26920), (268, 26968), (269, 26977), (275, 27037), (284, 27082), (287, 27091), (295, 27118), (299, 27145), (301, 27166), (305, 27202), (314, 27268), (320, 27304), (328, 27391), (329, 27394), (342, 27421), (356, 27472), (357, 27478), (374, 27604), (402, 27706), (407, 27739), (414, 27802), (418, 27856), (424, 27919), (437, 28030), (443, 28057), (444, 28063), (458, 28165), (465, 28231), (468, 28258), (472, 28285), (476, 28324), (480, 28348), (488, 28390), (497, 28462), (498, 28471), (505, 28531), (507, 28576), (542, 28891), (543, 28897), (545, 28915), (560, 29011), (567, 29116), (575, 29215), (593, 29359), (598, 29434), (600, 29446), (607, 29521), (647, 29860), (655, 29899), (656, 29905), (658, 29911), (661, 29938), (665, 29974), (666, 29986),

Gene: Saronaya_32 Start: 23650, Stop: 28665, Start Num: 19

Candidate Starts for Saronaya_32:

(Start: 19 @23650 has 61 MA's), (31, 23737), (37, 23770), (47, 23824), (51, 23848), (54, 23890), (56, 23908), (58, 23923), (68, 23995), (73, 24022), (81, 24097), (83, 24106), (91, 24163), (92, 24181), (93, 24187), (96, 24205), (103, 24232), (134, 24439), (137, 24451), (142, 24499), (154, 24640), (157, 24673), (161, 24715), (169, 24787), (171, 24802), (172, 24805), (182, 24916), (184, 24952), (187, 25003), (190, 25045), (193, 25075), (195, 25105), (203, 25159), (205, 25192), (216, 25285), (223, 25318), (224, 25321), (230, 25378), (236, 25414), (237, 25429), (239, 25450), (246, 25501), (268, 25636), (269, 25645), (281, 25738), (283, 25744), (284, 25750), (287, 25759), (292, 25771), (294, 25783), (297, 25795), (299, 25813), (305, 25870), (320, 25972), (329, 26062), (344, 26092), (356, 26140), (357, 26146), (373, 26269), (374, 26272), (394, 26335), (395, 26347), (400, 26368), (402, 26374), (407, 26407), (414, 26470), (418, 26524), (437, 26698), (443, 26725), (444, 26731), (458, 26833), (465, 26899), (484, 27031), (488, 27058), (498, 27139), (505, 27199), (507, 27244), (539, 27550), (542, 27559), (546, 27586), (558, 27655), (567, 27784), (575, 27883), (593, 28027), (598, 28096), (599, 28102), (600, 28108), (607, 28183), (611, 28213), (622, 28318), (623, 28351), (632, 28411), (638, 28447), (641, 28492), (647, 28519), (655, 28558), (656, 28564), (658, 28570), (661, 28597), (665, 28633), (666, 28645),

Gene: Savbucketdawg_29 Start: 19171, Stop: 24702, Start Num: 1

Candidate Starts for Savbucketdawg_29:

(Start: 1 @19171 has 29 MA's), (3, 19258), (6, 19345), (10, 19378), (12, 19402), (Start: 20 @19525 has 8 MA's), (22, 19546), (23, 19552), (27, 19576), (34, 19606), (43, 19645), (59, 19729), (67, 19765), (69, 19789), (77, 19828), (131, 20218), (151, 20386), (154, 20446), (161, 20518), (162, 20530), (165, 20566), (168, 20590), (178, 20689), (179, 20692), (182, 20722), (186, 20797), (187, 20809), (190, 20851), (193, 20881), (199, 20932), (213, 21073), (216, 21091), (218, 21103), (220, 21112), (235, 21214), (237, 21235), (239, 21256), (246, 21307), (247, 21310), (248, 21316), (257, 21394), (263, 21424), (268, 21442), (275, 21511), (281, 21544), (283, 21550), (285, 21559), (288, 21565), (299, 21619), (303, 21664), (306, 21691), (308, 21700), (310, 21721), (320, 21778), (323, 21814), (333, 21895), (334, 21898), (340, 21967), (349, 22039), (357, 22135), (365, 22201), (366, 22204), (369,

22228), (372, 22255), (373, 22258), (374, 22261), (376, 22267), (396, 22336), (399, 22345), (406, 22390), (411, 22399), (420, 22477), (425, 22531), (430, 22585), (436, 22642), (445, 22684), (451, 22720), (458, 22783), (463, 22834), (477, 22945), (485, 22984), (496, 23065), (511, 23239), (512, 23242), (517, 23275), (539, 23482), (542, 23491), (543, 23497), (572, 23809), (590, 24016), (601, 24154), (614, 24304), (623, 24415), (630, 24460), (631, 24469), (638, 24511), (651, 24604), (654, 24616), (660, 24646), (662, 24679), (664, 24691),

Gene: Schnabeltier_17 Start: 10933, Stop: 16047, Start Num: 4

Candidate Starts for Schnabeltier_17:

(Start: 4 @10933 has 12 MA's), (6, 10942), (25, 11215), (26, 11224), (28, 11254), (29, 11263), (37, 11320), (49, 11383), (55, 11455), (58, 11476), (63, 11494), (80, 11647), (89, 11689), (94, 11743), (100, 11776), (129, 11968), (130, 11971), (136, 12007), (144, 12085), (150, 12124), (154, 12208), (157, 12241), (158, 12250), (159, 12259), (162, 12292), (163, 12304), (165, 12328), (172, 12373), (173, 12382), (174, 12418), (175, 12427), (179, 12454), (181, 12466), (182, 12484), (184, 12520), (193, 12643), (199, 12685), (213, 12820), (214, 12823), (215, 12826), (217, 12841), (226, 12895), (231, 12934), (240, 13003), (242, 13015), (245, 13030), (247, 13051), (249, 13066), (250, 13078), (254, 13114), (260, 13150), (294, 13312), (307, 13369), (318, 13381), (319, 13384), (324, 13417), (346, 13510), (347, 13516), (350, 13522), (354, 13543), (355, 13546), (356, 13549), (364, 13612), (369, 13648), (371, 13663), (376, 13687), (384, 13702), (385, 13705), (387, 13711), (399, 13765), (414, 13864), (417, 13906), (425, 13984), (429, 14008), (431, 14053), (449, 14179), (452, 14188), (453, 14206), (454, 14209), (458, 14248), (459, 14251), (460, 14260), (483, 14419), (498, 14539), (506, 14617), (510, 14665), (513, 14677), (522, 14737), (534, 14854), (536, 14881), (537, 14899), (547, 14977), (548, 14983), (550, 14992), (554, 15019), (561, 15112), (563, 15151), (565, 15193), (576, 15346), (580, 15379), (581, 15382), (586, 15439), (587, 15448), (588, 15460), (591, 15481), (594, 15502), (610, 15694), (616, 15733), (621, 15802), (625, 15856), (646, 16009),

Gene: SchottB_31 Start: 24662, Stop: 29680, Start Num: 19

Candidate Starts for SchottB_31:

(Start: 19 @24662 has 61 MA's), (31, 24749), (37, 24782), (47, 24836), (51, 24860), (54, 24902), (56, 24920), (58, 24935), (68, 25007), (73, 25034), (81, 25109), (83, 25118), (91, 25175), (92, 25193), (93, 25199), (134, 25451), (142, 25511), (154, 25652), (157, 25685), (161, 25727), (169, 25799), (171, 25814), (172, 25817), (182, 25928), (184, 25964), (187, 26015), (190, 26057), (193, 26087), (199, 26138), (203, 26171), (205, 26204), (206, 26216), (216, 26297), (223, 26330), (224, 26333), (230, 26390), (236, 26426), (237, 26441), (239, 26462), (246, 26513), (268, 26648), (269, 26657), (281, 26750), (283, 26756), (284, 26762), (287, 26771), (292, 26783), (294, 26795), (297, 26807), (299, 26825), (305, 26882), (320, 26984), (321, 27002), (324, 27026), (329, 27074), (344, 27104), (356, 27152), (357, 27158), (373, 27281), (374, 27284), (376, 27290), (394, 27347), (395, 27359), (400, 27380), (402, 27386), (407, 27419), (414, 27482), (418, 27536), (437, 27710), (443, 27737), (444, 27743), (458, 27845), (465, 27911), (488, 28070), (498, 28151), (505, 28211), (507, 28256), (539, 28562), (542, 28571), (546, 28598), (558, 28667), (567, 28796), (575, 28895), (593, 29039), (598, 29111), (599, 29117), (600, 29123), (607, 29198), (611, 29228), (623, 29366), (632, 29426), (638, 29462), (641, 29507), (647, 29534), (655, 29573), (656, 29579), (658, 29585), (661, 29612), (665, 29648), (666, 29660),

Gene: Scioto_33 Start: 24850, Stop: 29775, Start Num: 19

Candidate Starts for Scioto_33:

(Start: 19 @24850 has 61 MA's), (37, 24970), (39, 24982), (47, 25024), (51, 25048), (57, 25114), (58, 25123), (66, 25168), (68, 25195), (81, 25297), (83, 25306), (87, 25324), (97, 25390), (101, 25405), (104, 25414), (112, 25477), (114, 25483), (119, 25510), (122, 25540), (124, 25549), (132, 25597), (134, 25612), (137, 25624), (146, 25711), (149, 25723), (157, 25846), (160, 25870), (161, 25888), (169, 25960), (170, 25966), (172, 25978), (182, 26089), (184, 26125), (186, 26164), (187, 26176), (190, 26218), (193, 26248), (198, 26290), (199, 26299), (200, 26302), (203, 26332), (205, 26365), (216, 26458), (224, 26494), (230, 26551), (235, 26581), (239, 26623), (247, 26677), (248, 26683),

(252, 26710), (257, 26761), (265, 26797), (268, 26809), (269, 26818), (275, 26878), (277, 26890), (281, 26911), (283, 26917), (295, 26959), (296, 26965), (298, 26980), (299, 26986), (303, 27031), (308, 27067), (309, 27070), (320, 27145), (327, 27208), (339, 27265), (356, 27346), (362, 27397), (384, 27454), (392, 27475), (393, 27478), (397, 27502), (416, 27640), (420, 27661), (445, 27868), (448, 27886), (455, 27943), (465, 28033), (471, 28096), (484, 28177), (488, 28204), (497, 28276), (498, 28285), (505, 28345), (515, 28456), (539, 28687), (542, 28696), (546, 28723), (553, 28765), (569, 28984), (572, 29011), (577, 29083), (582, 29122), (604, 29329), (612, 29401), (618, 29467), (633, 29602), (639, 29665), (640, 29668), (642, 29686), (645, 29701), (649, 29728), (653, 29740),

Gene: Sedona_33 Start: 26117, Stop: 30943, Start Num: 19

Candidate Starts for Sedona_33:

(Start: 19 @26117 has 61 MA's), (47, 26291), (51, 26315), (86, 26453), (98, 26498), (102, 26510), (106, 26528), (109, 26540), (111, 26567), (115, 26585), (118, 26597), (134, 26696), (150, 26816), (151, 26837), (154, 26897), (157, 26930), (161, 26972), (164, 27008), (169, 27044), (171, 27059), (172, 27062), (182, 27173), (184, 27209), (187, 27260), (190, 27302), (193, 27332), (199, 27383), (203, 27416), (205, 27449), (206, 27461), (216, 27542), (220, 27563), (223, 27575), (236, 27671), (237, 27686), (239, 27707), (246, 27758), (248, 27767), (257, 27845), (268, 27893), (269, 27902), (275, 27962), (284, 28007), (287, 28016), (295, 28043), (299, 28070), (301, 28091), (305, 28127), (314, 28193), (320, 28229), (328, 28316), (329, 28319), (331, 28328), (342, 28346), (356, 28397), (357, 28403), (374, 28529), (402, 28631), (407, 28664), (414, 28727), (418, 28781), (424, 28844), (437, 28955), (443, 28982), (444, 28988), (458, 29090), (465, 29156), (468, 29183), (472, 29210), (476, 29249), (480, 29273), (488, 29315), (497, 29387), (505, 29456), (507, 29501), (542, 29819), (543, 29825), (545, 29843), (560, 29939), (575, 30143), (593, 30287), (598, 30362), (600, 30374), (607, 30458), (647, 30797), (655, 30836), (656, 30842), (658, 30848), (661, 30875), (665, 30911), (666, 30923),

Gene: Shinji_29 Start: 19375, Stop: 24897, Start Num: 1

Candidate Starts for Shinji_29:

(Start: 1 @19375 has 29 MA's), (3, 19462), (6, 19549), (10, 19582), (12, 19606), (Start: 20 @19729 has 8 MA's), (22, 19750), (23, 19756), (27, 19780), (34, 19810), (43, 19849), (59, 19933), (67, 19969), (69, 19993), (77, 20032), (131, 20422), (151, 20590), (154, 20650), (161, 20722), (162, 20734), (165, 20770), (168, 20794), (178, 20893), (179, 20896), (182, 20926), (186, 21001), (187, 21013), (190, 21055), (193, 21085), (199, 21136), (213, 21277), (216, 21295), (218, 21307), (220, 21316), (235, 21418), (237, 21439), (239, 21460), (246, 21511), (247, 21514), (257, 21598), (263, 21628), (268, 21646), (275, 21715), (281, 21748), (283, 21754), (285, 21763), (288, 21769), (299, 21823), (306, 21895), (308, 21904), (310, 21925), (320, 21982), (323, 22018), (333, 22099), (334, 22102), (340, 22171), (357, 22339), (365, 22405), (366, 22408), (369, 22432), (372, 22459), (373, 22462), (374, 22465), (376, 22471), (396, 22540), (399, 22549), (406, 22594), (411, 22603), (420, 22681), (425, 22735), (430, 22789), (436, 22846), (445, 22888), (451, 22924), (458, 22987), (463, 23038), (477, 23149), (485, 23188), (496, 23269), (511, 23443), (512, 23446), (517, 23479), (539, 23686), (542, 23695), (543, 23701), (546, 23722), (572, 24016), (590, 24223), (601, 24349), (614, 24499), (623, 24610), (630, 24655), (631, 24664), (632, 24670), (638, 24706), (651, 24799), (654, 24811), (660, 24841), (662, 24874), (664, 24886),

Gene: Shivanishola_34 Start: 25088, Stop: 29905, Start Num: 19

Candidate Starts for Shivanishola_34:

(Start: 19 @25088 has 61 MA's), (47, 25262), (52, 25295), (86, 25424), (95, 25457), (98, 25469), (102, 25481), (109, 25511), (111, 25538), (115, 25556), (134, 25667), (150, 25787), (151, 25808), (154, 25868), (157, 25901), (161, 25943), (164, 25979), (169, 26015), (171, 26030), (172, 26033), (182, 26144), (184, 26180), (187, 26231), (190, 26273), (193, 26303), (199, 26354), (203, 26387), (205, 26420), (206, 26432), (216, 26513), (220, 26534), (223, 26546), (236, 26642), (237, 26657), (239, 26678), (246, 26729), (248, 26738), (257, 26816), (268, 26864), (269, 26873), (275, 26933), (284, 26978), (287, 26987), (295, 27014), (299, 27041), (301, 27062), (305, 27098), (314, 27164), (320,

27200), (328, 27287), (329, 27290), (331, 27299), (342, 27317), (356, 27368), (357, 27374), (374, 27500), (402, 27602), (407, 27635), (414, 27698), (418, 27752), (424, 27815), (437, 27926), (443, 27953), (444, 27959), (458, 28061), (460, 28073), (465, 28127), (468, 28154), (472, 28181), (476, 28220), (488, 28286), (497, 28358), (498, 28367), (505, 28427), (507, 28472), (542, 28787), (543, 28793), (545, 28811), (560, 28907), (575, 29111), (593, 29255), (598, 29324), (607, 29420), (647, 29759), (655, 29798), (656, 29804), (658, 29810), (661, 29837), (665, 29873), (666, 29885),

Gene: Sitar_33 Start: 26184, Stop: 30995, Start Num: 19

Candidate Starts for Sitar_33:

(Start: 19 @26184 has 61 MA's), (47, 26358), (51, 26382), (86, 26520), (96, 26559), (98, 26565), (102, 26577), (106, 26595), (109, 26607), (111, 26634), (115, 26652), (118, 26664), (134, 26763), (150, 26883), (151, 26904), (154, 26964), (157, 26997), (161, 27039), (164, 27075), (169, 27111), (171, 27126), (172, 27129), (182, 27240), (184, 27276), (187, 27327), (190, 27369), (193, 27399), (199, 27450), (203, 27483), (205, 27516), (206, 27528), (216, 27609), (220, 27630), (223, 27642), (236, 27738), (237, 27753), (239, 27774), (246, 27825), (248, 27834), (257, 27912), (268, 27960), (269, 27969), (275, 28029), (283, 28068), (284, 28074), (287, 28083), (295, 28110), (299, 28137), (301, 28158), (305, 28194), (314, 28260), (320, 28296), (328, 28383), (329, 28386), (342, 28413), (356, 28464), (357, 28470), (374, 28596), (402, 28698), (407, 28731), (414, 28794), (418, 28848), (424, 28911), (437, 29022), (443, 29049), (444, 29055), (458, 29157), (460, 29169), (465, 29223), (468, 29250), (472, 29277), (476, 29316), (480, 29340), (488, 29382), (497, 29454), (498, 29463), (505, 29523), (507, 29568), (542, 29883), (543, 29889), (545, 29907), (560, 30003), (567, 30108), (575, 30207), (593, 30351), (598, 30414), (600, 30426), (607, 30510), (647, 30849), (655, 30888), (656, 30894), (658, 30900), (661, 30927), (665, 30963), (666, 30975),

Gene: SmokingBunny_29 Start: 19390, Stop: 24912, Start Num: 1

Candidate Starts for SmokingBunny_29:

(Start: 1 @19390 has 29 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 8 MA's), (22, 19765), (23, 19771), (27, 19795), (34, 19825), (43, 19864), (59, 19948), (67, 19984), (69, 20008), (77, 20047), (131, 20437), (151, 20605), (154, 20665), (161, 20737), (162, 20749), (165, 20785), (168, 20809), (178, 20908), (179, 20911), (182, 20941), (186, 21016), (187, 21028), (190, 21070), (193, 21100), (199, 21151), (213, 21292), (216, 21310), (218, 21322), (220, 21331), (235, 21433), (237, 21454), (239, 21475), (246, 21526), (247, 21529), (257, 21613), (263, 21643), (268, 21661), (275, 21730), (281, 21763), (283, 21769), (285, 21778), (288, 21784), (299, 21838), (306, 21910), (308, 21919), (310, 21940), (320, 21997), (323, 22033), (333, 22114), (334, 22117), (340, 22186), (357, 22354), (365, 22420), (366, 22423), (369, 22447), (372, 22474), (373, 22477), (374, 22480), (376, 22486), (396, 22555), (399, 22564), (406, 22609), (411, 22618), (420, 22696), (425, 22750), (430, 22804), (436, 22861), (445, 22903), (451, 22939), (458, 23002), (463, 23053), (477, 23164), (485, 23203), (496, 23284), (511, 23458), (512, 23461), (517, 23494), (539, 23701), (542, 23710), (543, 23716), (546, 23737), (572, 24031), (590, 24238), (601, 24364), (614, 24514), (623, 24625), (630, 24670), (631, 24679), (632, 24685), (638, 24721), (651, 24814), (654, 24826), (660, 24856), (662, 24889), (664, 24901),

Gene: StorminNorm_32 Start: 23529, Stop: 28547, Start Num: 19

Candidate Starts for StorminNorm_32:

(Start: 19 @23529 has 61 MA's), (31, 23616), (37, 23649), (47, 23703), (51, 23727), (54, 23769), (56, 23787), (58, 23802), (68, 23874), (73, 23901), (81, 23976), (83, 23985), (91, 24042), (92, 24060), (93, 24066), (134, 24318), (142, 24378), (154, 24519), (157, 24552), (161, 24594), (169, 24666), (171, 24681), (172, 24684), (182, 24795), (184, 24831), (187, 24882), (190, 24924), (193, 24954), (199, 25005), (203, 25038), (205, 25071), (206, 25083), (216, 25164), (223, 25197), (224, 25200), (230, 25257), (236, 25293), (237, 25308), (239, 25329), (246, 25380), (268, 25515), (269, 25524), (281, 25617), (283, 25623), (284, 25629), (287, 25638), (294, 25662), (297, 25674), (299, 25692), (305, 25749), (320, 25851), (329, 25941), (344, 25971), (356, 26019), (357, 26025), (373, 26148), (374, 26151), (376, 26157), (394, 26214), (395, 26226), (400, 26247), (402, 26253), (407, 26286), (414,

26349), (418, 26403), (424, 26466), (437, 26577), (443, 26604), (444, 26610), (458, 26712), (465, 26778), (484, 26910), (488, 26937), (498, 27018), (505, 27078), (507, 27123), (539, 27429), (542, 27438), (546, 27465), (558, 27534), (567, 27663), (575, 27762), (593, 27906), (598, 27978), (599, 27984), (600, 27990), (607, 28065), (611, 28095), (623, 28233), (632, 28293), (638, 28329), (641, 28374), (647, 28401), (655, 28440), (656, 28446), (658, 28452), (661, 28479), (665, 28515), (666, 28527),

Gene: Stultus_31 Start: 24099, Stop: 28922, Start Num: 19

Candidate Starts for Stultus_31:

(Start: 19 @24099 has 61 MA's), (47, 24273), (51, 24297), (86, 24435), (96, 24474), (98, 24480), (102, 24492), (106, 24510), (109, 24522), (111, 24549), (115, 24567), (118, 24579), (134, 24678), (151, 24819), (154, 24879), (157, 24912), (161, 24954), (164, 24990), (169, 25026), (171, 25041), (172, 25044), (182, 25155), (184, 25191), (187, 25242), (190, 25284), (193, 25314), (199, 25365), (203, 25398), (205, 25431), (206, 25443), (216, 25524), (220, 25545), (223, 25557), (236, 25653), (237, 25668), (239, 25689), (246, 25740), (248, 25749), (257, 25827), (268, 25875), (269, 25884), (275, 25944), (284, 25989), (287, 25998), (295, 26025), (299, 26052), (301, 26073), (305, 26109), (314, 26175), (320, 26211), (328, 26298), (329, 26301), (331, 26310), (342, 26328), (356, 26379), (357, 26385), (374, 26511), (395, 26586), (402, 26613), (407, 26646), (414, 26709), (418, 26763), (424, 26826), (437, 26937), (443, 26964), (444, 26970), (458, 27072), (460, 27084), (465, 27138), (468, 27165), (472, 27192), (476, 27231), (480, 27255), (488, 27297), (497, 27369), (498, 27378), (505, 27438), (507, 27483), (542, 27798), (543, 27804), (545, 27822), (560, 27918), (567, 28023), (575, 28122), (593, 28266), (598, 28341), (600, 28353), (607, 28437), (647, 28776), (655, 28815), (656, 28821), (658, 28827), (661, 28854), (665, 28890), (666, 28902),

Gene: Tangent_33 Start: 24533, Stop: 29359, Start Num: 19

Candidate Starts for Tangent_33:

(Start: 19 @24533 has 61 MA's), (47, 24707), (51, 24731), (86, 24869), (95, 24902), (98, 24914), (102, 24926), (106, 24944), (109, 24956), (115, 25001), (134, 25112), (150, 25232), (151, 25253), (154, 25313), (157, 25346), (161, 25388), (164, 25424), (169, 25460), (171, 25475), (172, 25478), (182, 25589), (184, 25625), (187, 25676), (190, 25718), (193, 25748), (199, 25799), (203, 25832), (205, 25865), (206, 25877), (216, 25958), (223, 25991), (236, 26087), (237, 26102), (239, 26123), (246, 26174), (248, 26183), (257, 26261), (268, 26309), (269, 26318), (275, 26378), (283, 26417), (284, 26423), (287, 26432), (295, 26459), (299, 26486), (301, 26507), (305, 26543), (314, 26609), (317, 26630), (320, 26645), (328, 26732), (329, 26735), (356, 26813), (363, 26873), (374, 26945), (402, 27047), (407, 27080), (414, 27143), (418, 27197), (424, 27260), (437, 27371), (443, 27398), (444, 27404), (458, 27506), (460, 27518), (465, 27572), (468, 27599), (472, 27626), (476, 27665), (480, 27689), (484, 27704), (488, 27731), (497, 27803), (498, 27812), (505, 27872), (507, 27917), (533, 28106), (542, 28235), (543, 28241), (545, 28259), (560, 28355), (567, 28460), (575, 28559), (593, 28703), (598, 28778), (600, 28790), (607, 28874), (647, 29213), (655, 29252), (656, 29258), (658, 29264), (661, 29291), (665, 29327), (666, 29339),

Gene: Tangerine_32 Start: 23535, Stop: 28550, Start Num: 19

Candidate Starts for Tangerine_32:

(Start: 19 @23535 has 61 MA's), (31, 23622), (37, 23655), (47, 23709), (51, 23733), (54, 23775), (56, 23793), (58, 23808), (68, 23880), (73, 23907), (81, 23982), (83, 23991), (91, 24048), (92, 24066), (93, 24072), (96, 24090), (103, 24117), (134, 24324), (137, 24336), (142, 24384), (154, 24525), (157, 24558), (161, 24600), (169, 24672), (171, 24687), (172, 24690), (182, 24801), (184, 24837), (187, 24888), (190, 24930), (193, 24960), (195, 24990), (203, 25044), (205, 25077), (216, 25170), (223, 25203), (224, 25206), (230, 25263), (236, 25299), (237, 25314), (239, 25335), (246, 25386), (268, 25521), (269, 25530), (281, 25623), (283, 25629), (284, 25635), (287, 25644), (294, 25668), (297, 25680), (299, 25698), (305, 25755), (320, 25857), (329, 25947), (344, 25977), (356, 26025), (357, 26031), (373, 26154), (374, 26157), (394, 26220), (395, 26232), (400, 26253), (402, 26259), (407, 26292), (414, 26355), (418, 26409), (437, 26583), (443, 26610), (444, 26616), (458, 26718), (465,

26784), (484, 26916), (488, 26943), (498, 27024), (505, 27084), (507, 27129), (539, 27435), (542, 27444), (546, 27471), (558, 27540), (567, 27669), (575, 27768), (593, 27912), (598, 27981), (599, 27987), (600, 27993), (607, 28068), (611, 28098), (623, 28236), (632, 28296), (638, 28332), (641, 28377), (647, 28404), (655, 28443), (656, 28449), (658, 28455), (661, 28482), (665, 28518), (666, 28530),

Gene: Tardus_34 Start: 24199, Stop: 29124, Start Num: 19

Candidate Starts for Tardus_34:

(Start: 19 @24199 has 61 MA's), (37, 24319), (39, 24331), (47, 24373), (51, 24397), (52, 24406), (57, 24463), (58, 24472), (68, 24544), (75, 24577), (81, 24646), (83, 24655), (87, 24673), (101, 24754), (104, 24763), (112, 24826), (114, 24832), (119, 24859), (122, 24889), (124, 24898), (134, 24961), (137, 24973), (139, 25006), (146, 25060), (149, 25072), (153, 25114), (157, 25195), (160, 25219), (161, 25237), (162, 25249), (169, 25309), (172, 25327), (182, 25438), (184, 25474), (186, 25513), (187, 25525), (190, 25567), (193, 25597), (203, 25681), (205, 25714), (216, 25807), (220, 25828), (224, 25843), (235, 25930), (239, 25972), (247, 26026), (252, 26059), (268, 26158), (269, 26167), (275, 26227), (277, 26239), (283, 26266), (295, 26308), (296, 26314), (298, 26329), (299, 26335), (308, 26416), (309, 26419), (311, 26440), (320, 26494), (327, 26557), (339, 26614), (357, 26701), (365, 26767), (392, 26824), (393, 26827), (397, 26851), (412, 26941), (416, 26989), (445, 27217), (448, 27235), (455, 27292), (465, 27382), (471, 27445), (484, 27526), (488, 27553), (497, 27625), (498, 27634), (505, 27694), (515, 27805), (539, 28033), (542, 28042), (546, 28069), (553, 28111), (559, 28171), (569, 28333), (572, 28360), (577, 28432), (582, 28471), (604, 28678), (612, 28750), (618, 28816), (633, 28951), (639, 29014), (640, 29017), (642, 29035), (645, 29050), (649, 29077), (653, 29089),

Gene: TaronosaurusRx_17 Start: 10940, Stop: 16063, Start Num: 4

Candidate Starts for TaronosaurusRx_17:

(Start: 4 @10940 has 12 MA's), (5, 10946), (25, 11219), (26, 11228), (29, 11267), (37, 11324), (49, 11387), (58, 11480), (63, 11498), (80, 11651), (89, 11693), (100, 11780), (129, 11972), (130, 11975), (136, 12011), (140, 12059), (154, 12212), (157, 12245), (158, 12254), (159, 12263), (162, 12296), (163, 12308), (165, 12332), (172, 12377), (173, 12386), (175, 12431), (179, 12458), (181, 12470), (182, 12488), (193, 12647), (194, 12671), (196, 12680), (197, 12683), (213, 12824), (214, 12827), (215, 12830), (216, 12842), (217, 12845), (226, 12899), (231, 12938), (245, 13034), (247, 13055), (249, 13070), (250, 13082), (260, 13154), (294, 13316), (307, 13373), (318, 13385), (319, 13388), (324, 13421), (346, 13514), (347, 13520), (350, 13526), (354, 13547), (355, 13550), (356, 13553), (359, 13574), (362, 13604), (369, 13652), (370, 13658), (371, 13667), (376, 13691), (384, 13706), (385, 13709), (387, 13715), (396, 13760), (399, 13769), (414, 13868), (417, 13910), (421, 13943), (425, 13988), (429, 14012), (431, 14057), (433, 14075), (454, 14213), (457, 14234), (458, 14252), (459, 14255), (460, 14264), (491, 14495), (493, 14513), (495, 14537), (510, 14681), (514, 14705), (522, 14756), (536, 14900), (537, 14918), (541, 14957), (547, 14996), (548, 15002), (550, 15011), (556, 15053), (561, 15131), (563, 15170), (574, 15305), (580, 15398), (581, 15401), (586, 15458), (587, 15467), (588, 15479), (591, 15500), (610, 15713), (616, 15752), (621, 15821), (625, 15875), (646, 16025),

Gene: Thing3_32 Start: 25026, Stop: 29843, Start Num: 19

Candidate Starts for Thing3_32:

(Start: 19 @25026 has 61 MA's), (47, 25200), (51, 25224), (86, 25362), (98, 25407), (102, 25419), (106, 25437), (109, 25449), (111, 25476), (115, 25494), (118, 25506), (134, 25605), (150, 25725), (151, 25746), (154, 25806), (157, 25839), (161, 25881), (169, 25953), (171, 25968), (172, 25971), (182, 26082), (184, 26118), (187, 26169), (190, 26211), (193, 26241), (199, 26292), (203, 26325), (205, 26358), (206, 26370), (216, 26451), (220, 26472), (223, 26484), (236, 26580), (237, 26595), (239, 26616), (246, 26667), (248, 26676), (257, 26754), (268, 26802), (269, 26811), (275, 26871), (284, 26916), (287, 26925), (295, 26952), (299, 26979), (301, 27000), (305, 27036), (314, 27102), (320, 27138), (328, 27225), (329, 27228), (331, 27237), (342, 27255), (356, 27306), (357, 27312),

(374, 27438), (395, 27513), (402, 27540), (407, 27573), (414, 27636), (418, 27690), (424, 27753), (437, 27864), (443, 27891), (444, 27897), (458, 27999), (460, 28011), (465, 28065), (468, 28092), (472, 28119), (476, 28158), (480, 28182), (488, 28224), (497, 28296), (498, 28305), (505, 28365), (507, 28410), (542, 28728), (543, 28734), (545, 28752), (560, 28848), (567, 28953), (575, 29052), (593, 29196), (598, 29271), (600, 29283), (607, 29358), (626, 29553), (647, 29697), (655, 29736), (656, 29742), (658, 29748), (661, 29775), (665, 29811), (666, 29823),

Gene: Tiamoceli_31 Start: 22285, Stop: 27402, Start Num: 19

Candidate Starts for Tiamoceli_31:

(Start: 19 @22285 has 61 MA's), (37, 22405), (47, 22459), (52, 22492), (57, 22549), (58, 22558), (59, 22561), (68, 22630), (71, 22642), (73, 22657), (78, 22693), (81, 22732), (82, 22738), (84, 22744), (90, 22777), (95, 22819), (97, 22828), (99, 22837), (101, 22843), (114, 22921), (117, 22939), (122, 22978), (132, 23035), (134, 23050), (148, 23143), (161, 23314), (169, 23386), (172, 23404), (178, 23482), (182, 23515), (184, 23551), (186, 23590), (187, 23602), (193, 23674), (199, 23725), (201, 23746), (203, 23758), (208, 23809), (211, 23839), (220, 23905), (235, 24007), (239, 24049), (247, 24103), (251, 24133), (252, 24136), (257, 24187), (262, 24214), (268, 24235), (274, 24301), (281, 24337), (283, 24343), (294, 24382), (297, 24394), (298, 24406), (299, 24412), (301, 24433), (311, 24517), (313, 24532), (317, 24556), (334, 24691), (335, 24703), (342, 24766), (343, 24769), (352, 24874), (354, 24892), (360, 24922), (366, 24973), (374, 25030), (380, 25105), (383, 25114), (386, 25123), (388, 25129), (392, 25180), (399, 25213), (401, 25225), (404, 25246), (405, 25258), (410, 25291), (412, 25312), (422, 25444), (429, 25498), (456, 25705), (468, 25819), (470, 25831), (487, 25957), (490, 25975), (499, 26053), (520, 26242), (523, 26272), (542, 26443), (546, 26470), (570, 26677), (571, 26680), (573, 26698), (596, 26947), (598, 26965), (603, 26977), (618, 27094), (636, 27250), (637, 27253), (640, 27295), (642, 27313), (645, 27328), (653, 27367),

Gene: TillyBobJoe_29 Start: 19189, Stop: 24723, Start Num: 1

Candidate Starts for TillyBobJoe_29:

(Start: 1 @19189 has 29 MA's), (3, 19276), (6, 19363), (10, 19396), (12, 19420), (Start: 20 @19543 has 8 MA's), (22, 19564), (23, 19570), (27, 19594), (30, 19603), (34, 19624), (43, 19663), (59, 19747), (67, 19783), (69, 19807), (77, 19846), (131, 20236), (151, 20404), (154, 20464), (161, 20536), (162, 20548), (165, 20584), (168, 20608), (178, 20707), (179, 20710), (182, 20740), (186, 20815), (187, 20827), (190, 20869), (193, 20899), (199, 20950), (213, 21091), (216, 21109), (218, 21121), (220, 21130), (235, 21232), (237, 21253), (239, 21274), (246, 21325), (247, 21328), (248, 21334), (257, 21412), (263, 21442), (268, 21460), (275, 21529), (281, 21562), (283, 21568), (285, 21577), (288, 21583), (299, 21637), (306, 21709), (308, 21718), (310, 21739), (320, 21796), (323, 21832), (333, 21913), (334, 21916), (340, 21985), (349, 22057), (357, 22153), (365, 22219), (366, 22222), (369, 22246), (372, 22273), (373, 22276), (374, 22279), (376, 22285), (396, 22354), (399, 22363), (406, 22408), (411, 22417), (420, 22495), (432, 22624), (434, 22639), (439, 22681), (445, 22723), (448, 22741), (451, 22759), (458, 22822), (463, 22873), (477, 22984), (485, 23023), (496, 23104), (511, 23278), (512, 23281), (517, 23314), (519, 23329), (539, 23521), (542, 23530), (543, 23536), (559, 23650), (566, 23770), (582, 23950), (601, 24175), (614, 24325), (630, 24481), (631, 24490), (638, 24532), (653, 24631), (654, 24637), (660, 24667), (662, 24700), (664, 24712),

Gene: Togo_29 Start: 19390, Stop: 24912, Start Num: 1

Candidate Starts for Togo_29:

(Start: 1 @19390 has 29 MA's), (3, 19477), (6, 19564), (10, 19597), (12, 19621), (Start: 20 @19744 has 8 MA's), (22, 19765), (23, 19771), (27, 19795), (34, 19825), (43, 19864), (59, 19948), (67, 19984), (69, 20008), (77, 20047), (131, 20437), (151, 20605), (154, 20665), (161, 20737), (162, 20749), (165, 20785), (168, 20809), (178, 20908), (179, 20911), (182, 20941), (186, 21016), (187, 21028), (190, 21070), (193, 21100), (199, 21151), (213, 21292), (216, 21310), (218, 21322), (220, 21331), (235, 21433), (237, 21454), (239, 21475), (246, 21526), (247, 21529), (257, 21613), (263, 21643), (268, 21661), (275, 21730), (281, 21763), (283, 21769), (285, 21778), (288, 21784), (299, 21838), (306, 21910), (308, 21919), (310, 21940), (320, 21997), (323, 22033), (333, 22114), (334, 22117), (340,

22186), (357, 22354), (365, 22420), (366, 22423), (369, 22447), (372, 22474), (373, 22477), (374, 22480), (376, 22486), (396, 22555), (399, 22564), (406, 22609), (411, 22618), (420, 22696), (425, 22750), (430, 22804), (436, 22861), (445, 22903), (451, 22939), (458, 23002), (463, 23053), (477, 23164), (485, 23203), (496, 23284), (511, 23458), (512, 23461), (517, 23494), (539, 23701), (542, 23710), (543, 23716), (546, 23737), (572, 24031), (590, 24238), (601, 24364), (614, 24514), (623, 24625), (630, 24670), (631, 24679), (632, 24685), (638, 24721), (651, 24814), (654, 24826), (660, 24856), (662, 24889), (664, 24901),

Gene: Twister6_31 Start: 19817, Stop: 25348, Start Num: 1

Candidate Starts for Twister6_31:

(Start: 1 @19817 has 29 MA's), (3, 19904), (6, 19991), (10, 20024), (12, 20048), (Start: 20 @20171 has 8 MA's), (22, 20192), (23, 20198), (27, 20222), (34, 20252), (43, 20291), (59, 20375), (67, 20411), (69, 20435), (77, 20474), (131, 20864), (151, 21032), (154, 21092), (161, 21164), (162, 21176), (165, 21212), (168, 21236), (178, 21335), (179, 21338), (182, 21368), (186, 21443), (187, 21455), (190, 21497), (193, 21527), (199, 21578), (213, 21719), (216, 21737), (218, 21749), (220, 21758), (235, 21860), (237, 21881), (239, 21902), (246, 21953), (247, 21956), (248, 21962), (257, 22040), (263, 22070), (268, 22088), (275, 22157), (281, 22190), (283, 22196), (285, 22205), (288, 22211), (299, 22265), (303, 22310), (306, 22337), (308, 22346), (310, 22367), (320, 22424), (323, 22460), (333, 22541), (334, 22544), (340, 22613), (349, 22685), (357, 22781), (365, 22847), (366, 22850), (369, 22874), (372, 22901), (373, 22904), (374, 22907), (376, 22913), (396, 22982), (399, 22991), (406, 23036), (411, 23045), (420, 23123), (425, 23177), (430, 23231), (436, 23288), (445, 23330), (451, 23366), (458, 23429), (463, 23480), (477, 23591), (485, 23630), (496, 23711), (511, 23885), (512, 23888), (517, 23921), (539, 24128), (542, 24137), (543, 24143), (572, 24455), (590, 24662), (601, 24800), (614, 24950), (623, 25061), (630, 25106), (631, 25115), (632, 25121), (638, 25157), (651, 25250), (654, 25262), (660, 25292), (662, 25325), (664, 25337),

Gene: Twonlo_28 Start: 20903, Stop: 26020, Start Num: 19

Candidate Starts for Twonlo_28:

(Start: 19 @20903 has 61 MA's), (37, 21023), (47, 21077), (52, 21110), (57, 21167), (58, 21176), (59, 21179), (68, 21248), (71, 21260), (73, 21275), (78, 21311), (81, 21350), (82, 21356), (84, 21362), (90, 21395), (95, 21437), (97, 21446), (99, 21455), (101, 21461), (114, 21539), (117, 21557), (122, 21596), (132, 21653), (134, 21668), (148, 21761), (161, 21932), (169, 22004), (172, 22022), (178, 22100), (182, 22133), (184, 22169), (186, 22208), (187, 22220), (193, 22292), (199, 22343), (201, 22364), (203, 22376), (208, 22427), (211, 22457), (220, 22523), (235, 22625), (239, 22667), (247, 22721), (251, 22751), (252, 22754), (257, 22805), (262, 22832), (268, 22853), (274, 22919), (281, 22955), (283, 22961), (294, 23000), (297, 23012), (298, 23024), (299, 23030), (301, 23051), (311, 23135), (313, 23150), (317, 23174), (334, 23309), (335, 23321), (342, 23384), (343, 23387), (352, 23492), (354, 23510), (360, 23540), (366, 23591), (374, 23648), (380, 23723), (383, 23732), (386, 23741), (388, 23747), (392, 23798), (399, 23831), (401, 23843), (404, 23864), (405, 23876), (410, 23909), (412, 23930), (422, 24062), (429, 24116), (456, 24323), (468, 24437), (470, 24449), (487, 24575), (490, 24593), (499, 24671), (520, 24860), (523, 24890), (542, 25061), (546, 25088), (570, 25295), (571, 25298), (573, 25316), (596, 25565), (598, 25583), (603, 25595), (618, 25712), (636, 25868), (637, 25871), (640, 25913), (642, 25931), (645, 25946), (653, 25985),

Gene: Tycho_32 Start: 23624, Stop: 28639, Start Num: 19

Candidate Starts for Tycho_32:

(Start: 19 @23624 has 61 MA's), (31, 23711), (37, 23744), (47, 23798), (51, 23822), (54, 23864), (56, 23882), (58, 23897), (68, 23969), (73, 23996), (81, 24071), (83, 24080), (91, 24137), (92, 24155), (93, 24161), (134, 24413), (142, 24473), (154, 24614), (157, 24647), (161, 24689), (169, 24761), (171, 24776), (172, 24779), (182, 24890), (184, 24926), (187, 24977), (190, 25019), (193, 25049), (199, 25100), (203, 25133), (205, 25166), (206, 25178), (216, 25259), (223, 25292), (224, 25295), (230, 25352), (236, 25388), (237, 25403), (239, 25424), (246, 25475), (268, 25610), (269, 25619), (281, 25712), (283, 25718), (284, 25724), (287, 25733), (292, 25745), (294, 25757), (297, 25769), (299,

25787), (305, 25844), (320, 25946), (321, 25964), (324, 25988), (329, 26036), (344, 26066), (356, 26114), (357, 26120), (373, 26243), (374, 26246), (376, 26252), (394, 26309), (395, 26321), (400, 26342), (402, 26348), (407, 26381), (414, 26444), (418, 26498), (424, 26561), (437, 26672), (443, 26699), (444, 26705), (458, 26807), (465, 26873), (484, 27005), (488, 27032), (498, 27113), (505, 27173), (507, 27218), (539, 27524), (542, 27533), (546, 27560), (558, 27629), (567, 27758), (575, 27857), (593, 28001), (598, 28070), (599, 28076), (600, 28082), (607, 28157), (611, 28187), (623, 28325), (632, 28385), (638, 28421), (641, 28466), (647, 28493), (655, 28532), (656, 28538), (658, 28544), (661, 28571), (665, 28607), (666, 28619),

Gene: Valary_32 Start: 20326, Stop: 25857, Start Num: 1

Candidate Starts for Valary_32:

(Start: 1 @20326 has 29 MA's), (3, 20413), (6, 20500), (10, 20533), (Start: 20 @20680 has 8 MA's), (22, 20701), (23, 20707), (27, 20731), (34, 20761), (43, 20800), (59, 20884), (67, 20920), (69, 20944), (77, 20983), (131, 21373), (151, 21541), (154, 21601), (161, 21673), (162, 21685), (165, 21721), (168, 21745), (178, 21844), (179, 21847), (182, 21877), (186, 21952), (187, 21964), (190, 22006), (193, 22036), (199, 22087), (213, 22228), (216, 22246), (218, 22258), (220, 22267), (235, 22369), (237, 22390), (239, 22411), (246, 22462), (247, 22465), (257, 22549), (263, 22579), (268, 22597), (275, 22666), (281, 22699), (283, 22705), (285, 22714), (288, 22720), (299, 22774), (306, 22846), (308, 22855), (310, 22876), (320, 22933), (323, 22969), (333, 23050), (334, 23053), (340, 23122), (357, 23290), (365, 23356), (366, 23359), (369, 23383), (372, 23410), (373, 23413), (374, 23416), (376, 23422), (396, 23491), (399, 23500), (406, 23545), (411, 23554), (420, 23632), (425, 23686), (430, 23740), (436, 23797), (445, 23839), (451, 23875), (458, 23938), (463, 23989), (473, 24073), (477, 24100), (485, 24139), (488, 24160), (496, 24220), (511, 24394), (512, 24397), (517, 24430), (539, 24637), (542, 24646), (543, 24652), (572, 24964), (590, 25171), (601, 25309), (614, 25459), (623, 25570), (630, 25615), (631, 25624), (632, 25630), (638, 25666), (651, 25759), (654, 25771), (660, 25801), (662, 25834), (664, 25846),

Gene: VanDeWege_32 Start: 20198, Stop: 25696, Start Num: 1

Candidate Starts for VanDeWege_32:

(Start: 1 @20198 has 29 MA's), (3, 20285), (6, 20372), (10, 20405), (12, 20429), (Start: 20 @20552 has 8 MA's), (22, 20573), (23, 20579), (27, 20603), (34, 20633), (43, 20672), (59, 20756), (67, 20792), (69, 20816), (77, 20855), (131, 21245), (151, 21413), (154, 21473), (161, 21545), (162, 21557), (165, 21593), (168, 21617), (178, 21716), (179, 21719), (182, 21749), (186, 21824), (187, 21836), (190, 21878), (193, 21908), (199, 21959), (213, 22100), (216, 22118), (218, 22130), (220, 22139), (235, 22241), (237, 22262), (239, 22283), (246, 22334), (247, 22337), (248, 22343), (257, 22421), (263, 22451), (268, 22469), (275, 22538), (281, 22571), (283, 22577), (285, 22586), (288, 22592), (299, 22646), (303, 22691), (306, 22718), (308, 22727), (310, 22748), (320, 22805), (323, 22841), (333, 22922), (334, 22925), (340, 22994), (349, 23066), (357, 23162), (365, 23228), (366, 23231), (369, 23255), (372, 23282), (373, 23285), (374, 23288), (376, 23294), (396, 23363), (399, 23372), (406, 23417), (411, 23426), (420, 23504), (425, 23558), (430, 23612), (436, 23669), (445, 23711), (451, 23747), (458, 23810), (463, 23861), (466, 23891), (477, 23972), (485, 24011), (496, 24092), (500, 24134), (511, 24266), (512, 24269), (517, 24302), (542, 24518), (543, 24524), (559, 24638), (564, 24749), (577, 24911), (585, 24992), (589, 25019), (614, 25298), (623, 25409), (630, 25454), (631, 25463), (632, 25469), (638, 25505), (651, 25598), (654, 25610), (660, 25640), (662, 25673), (664, 25685),

Gene: Verity_32 Start: 25053, Stop: 29963, Start Num: 19

Candidate Starts for Verity_32:

(Start: 19 @25053 has 61 MA's), (37, 25173), (39, 25185), (43, 25206), (47, 25227), (51, 25251), (57, 25317), (58, 25326), (59, 25329), (75, 25431), (81, 25500), (83, 25509), (104, 25617), (108, 25638), (112, 25680), (114, 25686), (122, 25743), (124, 25752), (134, 25815), (146, 25914), (149, 25926), (153, 25968), (157, 26049), (160, 26073), (162, 26103), (167, 26160), (169, 26163), (170, 26169), (172, 26181), (177, 26253), (182, 26292), (184, 26328), (186, 26367), (187, 26379), (190, 26421),

(193, 26451), (203, 26535), (205, 26568), (216, 26661), (220, 26682), (224, 26697), (235, 26784), (239, 26826), (247, 26880), (248, 26886), (252, 26913), (265, 27000), (268, 27012), (269, 27021), (275, 27081), (277, 27093), (283, 27120), (295, 27162), (296, 27168), (298, 27183), (299, 27189), (303, 27234), (306, 27261), (308, 27270), (309, 27273), (327, 27411), (337, 27465), (339, 27468), (357, 27555), (384, 27657), (396, 27702), (397, 27705), (412, 27795), (445, 28071), (447, 28086), (448, 28089), (462, 28212), (465, 28236), (471, 28299), (482, 28356), (498, 28473), (501, 28515), (505, 28533), (515, 28644), (529, 28746), (540, 28878), (542, 28884), (543, 28890), (546, 28911), (553, 28953), (569, 29172), (572, 29199), (577, 29271), (582, 29310), (604, 29517), (609, 29583), (612, 29589), (618, 29655), (626, 29751), (633, 29790), (639, 29853), (640, 29856), (642, 29874), (645, 29889), (649, 29916), (653, 29928),

Gene: ViaConlectus_33 Start: 23474, Stop: 28399, Start Num: 19

Candidate Starts for ViaConlectus_33:

(Start: 19 @23474 has 61 MA's), (37, 23594), (39, 23606), (47, 23648), (51, 23672), (57, 23738), (58, 23747), (68, 23819), (75, 23852), (81, 23921), (83, 23930), (87, 23948), (97, 24014), (101, 24029), (104, 24038), (112, 24101), (114, 24107), (119, 24134), (122, 24164), (124, 24173), (134, 24236), (137, 24248), (146, 24335), (149, 24347), (157, 24470), (160, 24494), (161, 24512), (162, 24524), (169, 24584), (170, 24590), (172, 24602), (182, 24713), (184, 24749), (186, 24788), (187, 24800), (190, 24842), (193, 24872), (198, 24914), (199, 24923), (200, 24926), (203, 24956), (205, 24989), (216, 25082), (220, 25103), (224, 25118), (235, 25205), (237, 25226), (239, 25247), (247, 25301), (252, 25334), (257, 25385), (268, 25433), (269, 25442), (275, 25502), (277, 25514), (281, 25535), (283, 25541), (295, 25583), (296, 25589), (298, 25604), (299, 25610), (308, 25691), (309, 25694), (311, 25715), (320, 25769), (327, 25832), (339, 25889), (357, 25976), (365, 26042), (392, 26099), (393, 26102), (397, 26126), (412, 26216), (416, 26264), (445, 26492), (448, 26510), (455, 26567), (465, 26657), (471, 26720), (484, 26801), (488, 26828), (497, 26900), (498, 26909), (505, 26969), (515, 27080), (539, 27311), (542, 27320), (546, 27347), (553, 27389), (559, 27446), (569, 27608), (572, 27635), (577, 27707), (582, 27746), (604, 27953), (612, 28025), (618, 28091), (633, 28226), (639, 28289), (640, 28292), (642, 28310), (645, 28325), (649, 28352), (653, 28364),

Gene: Vivi2_35 Start: 25706, Stop: 30517, Start Num: 19

Candidate Starts for Vivi2_35:

(Start: 19 @25706 has 61 MA's), (47, 25880), (51, 25904), (86, 26042), (95, 26075), (98, 26087), (102, 26099), (106, 26117), (109, 26129), (115, 26174), (118, 26186), (134, 26285), (150, 26405), (151, 26426), (154, 26486), (157, 26519), (161, 26561), (164, 26597), (169, 26633), (171, 26648), (172, 26651), (182, 26762), (184, 26798), (187, 26849), (190, 26891), (193, 26921), (199, 26972), (203, 27005), (205, 27038), (206, 27050), (216, 27131), (220, 27152), (223, 27164), (236, 27260), (237, 27275), (239, 27296), (246, 27347), (248, 27356), (268, 27482), (269, 27491), (275, 27551), (284, 27596), (287, 27605), (295, 27632), (299, 27659), (301, 27680), (305, 27716), (314, 27782), (320, 27818), (328, 27905), (329, 27908), (356, 27986), (357, 27992), (374, 28118), (402, 28220), (407, 28253), (414, 28316), (418, 28370), (424, 28433), (437, 28544), (443, 28571), (444, 28577), (458, 28679), (465, 28745), (466, 28760), (468, 28772), (472, 28799), (476, 28838), (488, 28904), (498, 28985), (505, 29045), (507, 29090), (542, 29405), (543, 29411), (545, 29429), (560, 29522), (575, 29726), (593, 29870), (598, 29945), (607, 30032), (647, 30371), (655, 30410), (656, 30416), (658, 30422), (661, 30449), (665, 30485), (666, 30497),

Gene: Wizard_29 Start: 19524, Stop: 25055, Start Num: 1

Candidate Starts for Wizard_29:

(Start: 1 @19524 has 29 MA's), (3, 19611), (6, 19698), (10, 19731), (12, 19755), (Start: 20 @19878 has 8 MA's), (22, 19899), (23, 19905), (27, 19929), (34, 19959), (43, 19998), (59, 20082), (67, 20118), (69, 20142), (77, 20181), (131, 20571), (151, 20739), (154, 20799), (161, 20871), (162, 20883), (165, 20919), (168, 20943), (178, 21042), (179, 21045), (182, 21075), (186, 21150), (187, 21162), (190, 21204), (193, 21234), (199, 21285), (213, 21426), (216, 21444), (218, 21456), (220, 21465), (235, 21567), (237, 21588), (239, 21609), (246, 21660), (247, 21663), (248, 21669), (257, 21747), (263,

21777), (268, 21795), (275, 21864), (281, 21897), (283, 21903), (285, 21912), (288, 21918), (299, 21972), (303, 22017), (306, 22044), (308, 22053), (310, 22074), (320, 22131), (323, 22167), (333, 22248), (334, 22251), (340, 22320), (349, 22392), (357, 22488), (365, 22554), (366, 22557), (369, 22581), (372, 22608), (373, 22611), (374, 22614), (376, 22620), (396, 22689), (399, 22698), (406, 22743), (411, 22752), (420, 22830), (425, 22884), (430, 22938), (436, 22995), (445, 23037), (451, 23073), (458, 23136), (463, 23187), (477, 23298), (485, 23337), (496, 23418), (511, 23592), (512, 23595), (517, 23628), (539, 23835), (542, 23844), (543, 23850), (572, 24162), (590, 24369), (601, 24507), (614, 24657), (623, 24768), (630, 24813), (631, 24822), (632, 24828), (638, 24864), (651, 24957), (654, 24969), (660, 24999), (662, 25032), (664, 25044),

Gene: YorkOnyx_33 Start: 23880, Stop: 28898, Start Num: 19

Candidate Starts for YorkOnyx_33:

(Start: 19 @23880 has 61 MA's), (30, 23955), (37, 24000), (47, 24054), (51, 24078), (54, 24120), (56, 24138), (58, 24153), (68, 24225), (73, 24252), (81, 24327), (83, 24336), (91, 24393), (92, 24411), (93, 24417), (96, 24435), (103, 24462), (123, 24600), (127, 24618), (134, 24669), (137, 24681), (142, 24729), (154, 24870), (157, 24903), (161, 24945), (169, 25017), (171, 25032), (172, 25035), (182, 25146), (184, 25182), (187, 25233), (190, 25275), (193, 25305), (203, 25389), (205, 25422), (216, 25515), (223, 25548), (224, 25551), (230, 25608), (236, 25644), (237, 25659), (239, 25680), (246, 25731), (248, 25740), (257, 25818), (268, 25866), (269, 25875), (281, 25968), (283, 25974), (284, 25980), (287, 25989), (294, 26013), (297, 26025), (299, 26043), (305, 26100), (314, 26166), (320, 26202), (324, 26244), (329, 26292), (344, 26322), (356, 26370), (357, 26376), (373, 26499), (374, 26502), (394, 26565), (395, 26577), (400, 26598), (402, 26604), (407, 26637), (414, 26700), (418, 26754), (424, 26817), (437, 26928), (443, 26955), (444, 26961), (458, 27063), (465, 27129), (484, 27261), (488, 27288), (498, 27369), (505, 27429), (507, 27474), (539, 27780), (542, 27789), (546, 27816), (567, 28014), (575, 28113), (593, 28257), (598, 28329), (599, 28335), (600, 28341), (607, 28416), (611, 28446), (623, 28584), (632, 28644), (638, 28680), (641, 28725), (647, 28752), (655, 28791), (656, 28797), (658, 28803), (661, 28830), (665, 28866), (666, 28878),

Gene: YungMoney_31 Start: 20893, Stop: 26415, Start Num: 1

Candidate Starts for YungMoney_31:

(Start: 1 @20893 has 29 MA's), (6, 21067), (10, 21100), (12, 21124), (Start: 20 @21247 has 8 MA's), (22, 21268), (23, 21274), (27, 21298), (34, 21328), (43, 21367), (67, 21487), (69, 21511), (77, 21550), (146, 22066), (151, 22108), (154, 22168), (161, 22240), (165, 22288), (173, 22342), (179, 22414), (182, 22444), (186, 22519), (187, 22531), (190, 22573), (193, 22603), (199, 22654), (209, 22747), (213, 22795), (216, 22813), (218, 22825), (220, 22834), (234, 22933), (235, 22936), (237, 22957), (239, 22978), (246, 23029), (247, 23032), (257, 23116), (263, 23146), (268, 23164), (271, 23191), (275, 23233), (294, 23311), (295, 23314), (296, 23320), (299, 23341), (300, 23344), (306, 23413), (309, 23425), (320, 23500), (333, 23617), (334, 23620), (336, 23668), (357, 23857), (365, 23923), (366, 23926), (369, 23950), (373, 23980), (374, 23983), (376, 23989), (392, 24034), (396, 24058), (399, 24067), (406, 24112), (411, 24121), (413, 24133), (416, 24178), (417, 24181), (420, 24199), (429, 24274), (440, 24382), (445, 24409), (458, 24508), (463, 24559), (477, 24670), (485, 24709), (496, 24790), (511, 24964), (512, 24967), (517, 25000), (539, 25210), (542, 25219), (551, 25267), (572, 25537), (590, 25744), (597, 25834), (601, 25867), (613, 26014), (614, 26017), (623, 26128), (631, 26182), (638, 26224), (651, 26317), (654, 26329), (660, 26359), (662, 26392), (664, 26404),

Gene: ZAYM_17 Start: 10932, Stop: 16055, Start Num: 4

Candidate Starts for ZAYM_17:

(Start: 4 @10932 has 12 MA's), (5, 10938), (25, 11211), (26, 11220), (29, 11259), (37, 11316), (49, 11379), (58, 11472), (63, 11490), (80, 11643), (89, 11685), (100, 11772), (129, 11964), (130, 11967), (136, 12003), (140, 12051), (154, 12204), (157, 12237), (158, 12246), (159, 12255), (162, 12288), (163, 12300), (165, 12324), (172, 12369), (173, 12378), (179, 12450), (181, 12462), (182, 12480), (193, 12639), (194, 12663), (196, 12672), (197, 12675), (213, 12816), (214, 12819), (215, 12822), (217, 12837), (226, 12891), (231, 12930), (245, 13026), (247, 13047), (249, 13062), (250, 13074),

(260, 13146), (294, 13308), (307, 13365), (318, 13377), (319, 13380), (324, 13413), (346, 13506), (347, 13512), (350, 13518), (354, 13539), (355, 13542), (356, 13545), (359, 13566), (362, 13596), (369, 13644), (370, 13650), (371, 13659), (376, 13683), (384, 13698), (385, 13701), (387, 13707), (396, 13752), (399, 13761), (414, 13860), (417, 13902), (421, 13935), (425, 13980), (429, 14004), (431, 14049), (433, 14067), (454, 14205), (457, 14226), (458, 14244), (459, 14247), (460, 14256), (491, 14487), (493, 14505), (495, 14529), (510, 14673), (514, 14697), (522, 14748), (536, 14892), (537, 14910), (541, 14949), (547, 14988), (548, 14994), (550, 15003), (556, 15045), (561, 15123), (563, 15162), (574, 15297), (580, 15390), (581, 15393), (586, 15450), (587, 15459), (588, 15471), (591, 15492), (610, 15705), (616, 15744), (621, 15813), (625, 15867), (646, 16017),

Gene: Zipp_32 Start: 24950, Stop: 29863, Start Num: 19

Candidate Starts for Zipp_32:

(Start: 19 @24950 has 61 MA's), (37, 25070), (39, 25082), (43, 25103), (47, 25124), (51, 25148), (57, 25214), (58, 25223), (59, 25226), (68, 25295), (75, 25328), (78, 25358), (81, 25397), (83, 25406), (104, 25514), (108, 25535), (112, 25577), (114, 25583), (122, 25640), (124, 25649), (134, 25712), (146, 25811), (149, 25823), (153, 25865), (157, 25946), (160, 25970), (162, 26000), (167, 26057), (169, 26060), (170, 26066), (172, 26078), (177, 26150), (182, 26189), (184, 26225), (186, 26264), (187, 26276), (190, 26318), (193, 26348), (203, 26432), (205, 26465), (216, 26558), (220, 26579), (224, 26594), (235, 26681), (239, 26723), (247, 26777), (248, 26783), (252, 26810), (261, 26885), (268, 26909), (269, 26918), (275, 26978), (277, 26990), (282, 27014), (283, 27017), (293, 27047), (295, 27059), (296, 27065), (298, 27080), (299, 27086), (303, 27131), (306, 27158), (308, 27167), (309, 27170), (327, 27308), (337, 27362), (339, 27365), (357, 27452), (396, 27599), (397, 27602), (412, 27692), (445, 27968), (447, 27983), (448, 27986), (462, 28109), (465, 28133), (471, 28196), (482, 28253), (498, 28370), (501, 28412), (505, 28430), (515, 28541), (529, 28643), (540, 28775), (543, 28787), (546, 28808), (553, 28853), (569, 29072), (572, 29099), (577, 29171), (582, 29210), (604, 29417), (609, 29483), (612, 29489), (618, 29555), (626, 29651), (633, 29690), (639, 29753), (640, 29756), (642, 29774), (645, 29789), (649, 29816), (653, 29828),

Gene: Zitch_34 Start: 22821, Stop: 27749, Start Num: 19

Candidate Starts for Zitch_34:

(Start: 19 @22821 has 61 MA's), (37, 22941), (39, 22953), (47, 22995), (51, 23019), (52, 23028), (57, 23085), (58, 23094), (68, 23166), (81, 23268), (83, 23277), (87, 23295), (101, 23376), (104, 23385), (112, 23448), (114, 23454), (119, 23481), (122, 23511), (124, 23520), (134, 23583), (139, 23628), (149, 23694), (157, 23817), (160, 23841), (161, 23859), (169, 23931), (172, 23949), (177, 24021), (182, 24060), (184, 24096), (186, 24135), (187, 24147), (190, 24189), (193, 24219), (203, 24303), (205, 24336), (216, 24429), (224, 24465), (230, 24522), (235, 24552), (239, 24594), (247, 24648), (252, 24681), (257, 24732), (268, 24780), (269, 24789), (275, 24849), (277, 24861), (281, 24882), (283, 24888), (295, 24930), (296, 24936), (298, 24951), (299, 24957), (308, 25038), (309, 25041), (311, 25062), (320, 25116), (327, 25179), (339, 25236), (357, 25323), (365, 25389), (392, 25446), (393, 25449), (397, 25473), (412, 25563), (416, 25611), (445, 25839), (448, 25857), (455, 25914), (465, 26004), (471, 26067), (484, 26148), (488, 26175), (497, 26247), (498, 26256), (505, 26316), (515, 26427), (539, 26658), (542, 26667), (546, 26694), (553, 26736), (569, 26955), (572, 26982), (577, 27054), (582, 27093), (604, 27300), (612, 27372), (618, 27441), (633, 27576), (639, 27639), (640, 27642), (642, 27660), (645, 27675), (649, 27702), (653, 27714),