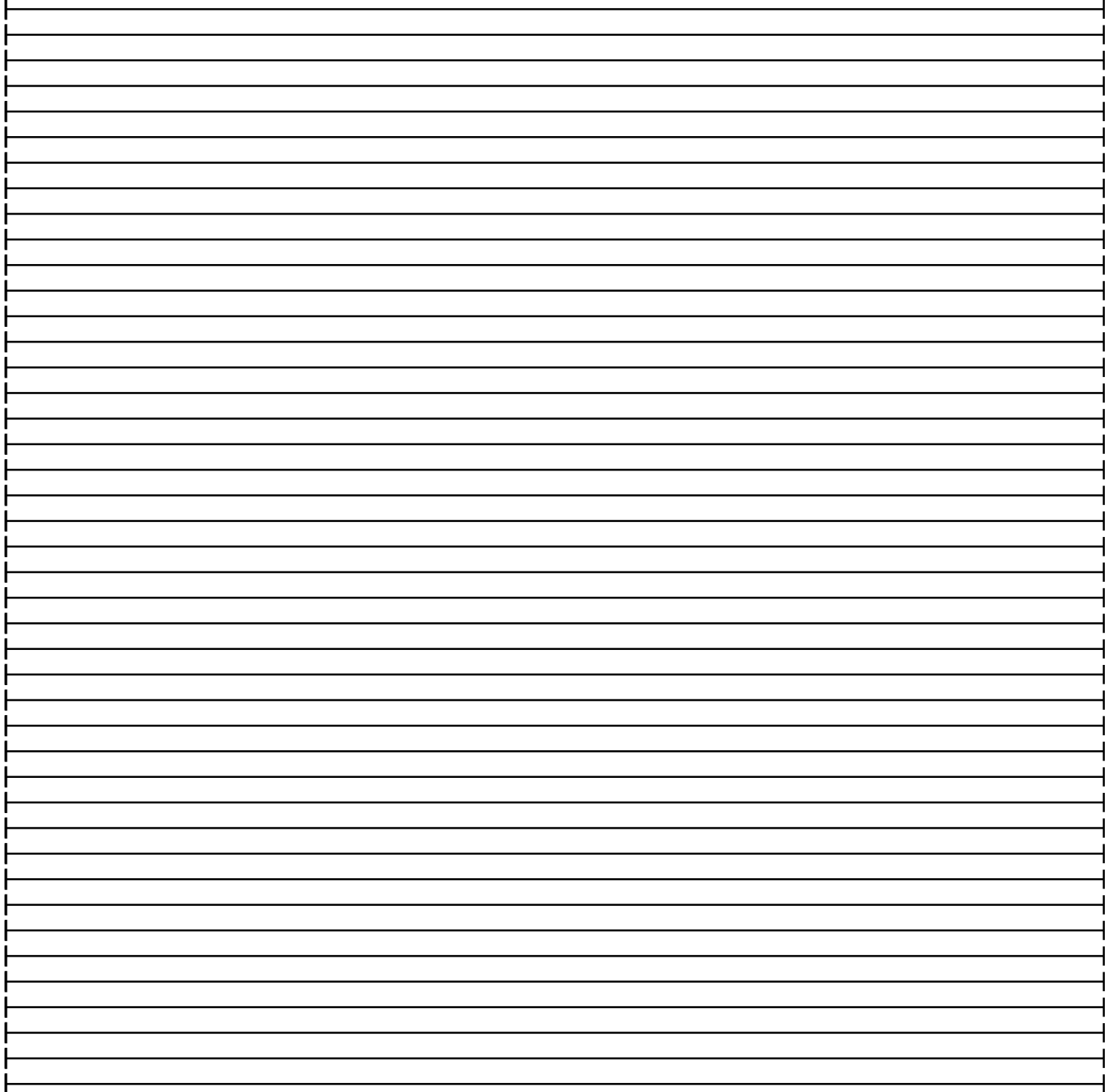
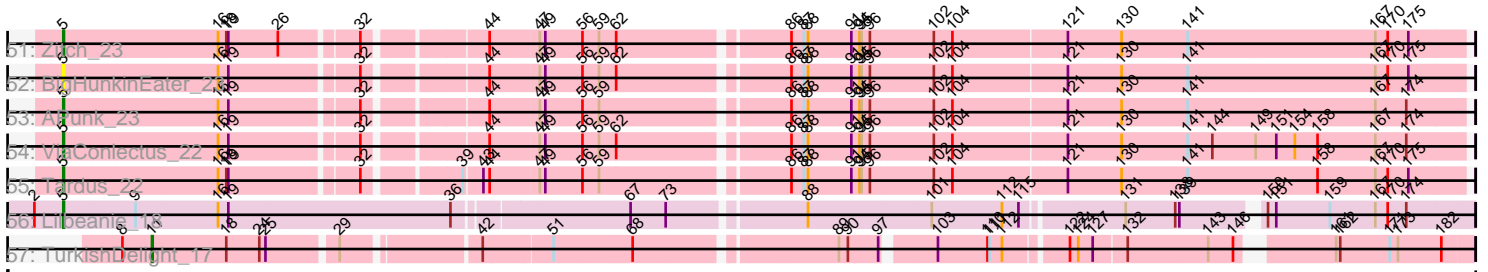


Pham 294530



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 294530 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294530 has 132 members, 8 are drafts.

Phages represented in each track:

- Track 1 : BayC_13, Salete_13, Maih_13
- Track 2 : TP1604_13, Asis_13, BabyGotBac_13
- Track 3 : YDN12_14
- Track 4 : Xkcd426_14
- Track 5 : RainyPolka_13
- Track 6 : Abt2graduatex2_13
- Track 7 : Mischief19_14
- Track 8 : Jambalaya_19, TillyBobJoe_19, Savbucketdawg_19, Shinji_19, Portcullis_19
- Track 9 : Mutzi_21
- Track 10 : Danyall_21, CoveyB_21, CherryCola_22, Twister6_21, VanDeWege_22, RogerDodger_22, Valary_22
- Track 11 : Salvador_19, SmokingBunny_19, Nubi_19, Evamon_19, Togo_19
- Track 12 : Bakery_20
- Track 13 : KimmyK_21, PinkCoffee_21, ClamChowder_21, Fugax_21, Barb_21
- Track 14 : Halo3_20
- Track 15 : Gezellig_19, Egi03_19, Fireball_20, Wizard_19
- Track 16 : Phlop_19, PullumCavea_19
- Track 17 : YungMoney_21
- Track 18 : Arri_22
- Track 19 : Clown_23
- Track 20 : Baumdotcom_20, Saronaya_20, Gustavo_20
- Track 21 : Lennon_22, Stultus_20, Bibwit_21, Sedona_22, Sitar_22, Ailee_20
- Track 22 : Fosterous_18, Love_22, Brandonk123_22, Shivanishola_20, MoontowerMania_19, Kamashten_21, BobBob_18, Sanjuju_18, Charming_18, Tangent_18, Thing3_21, Paries_21, Geodirt_19, Jabberwocky_18
- Track 23 : Gaea_20, Tycho_20, Kroos_21, Kwobi_22, Flatwoods_21, Bizzy_21
- Track 24 : McKinley_21, Kewpiedoll_21, ChadMasterC_20, FuegoCuervo_23, McCrothy_21, Galadriel_22, Vivi2_20, Barsten_21, Fitzgerald_18
- Track 25 : Ribeye_21
- Track 26 : Derg_16, LilHam_18, SchottB_19
- Track 27 : RiverRaider_21
- Track 28 : Ashertheman_21, StorminNorm_20, Tangerine_20
- Track 29 : Affeca_20, Angelicage_20
- Track 30 : JKSyngboy_19
- Track 31 : Rofo_20
- Track 32 : Keitabear_22

- Track 33 : Baddon_20
- Track 34 : YorkOnyx_21
- Track 35 : Nordenberg_15
- Track 36 : Leonard_21, Ali17_19, Phinally_21
- Track 37 : Belphegor_18
- Track 38 : EMOore_16
- Track 39 : MelBins_22
- Track 40 : Hans_23
- Track 41 : Phauci_14
- Track 42 : Inspectinfecti_22
- Track 43 : Chickadee_20, Tiamoceli_21
- Track 44 : Kwekel_20
- Track 45 : Twonlo_18
- Track 46 : GTE6_20
- Track 47 : RoadKill_18, EdmundFerry_19, Dexdert_21
- Track 48 : Scioto_21, Natkenzie_21, Sampson_21, Abblin_21
- Track 49 : DoctorFroggo_21, Zipp_21, Delrey21_21, Verity_21
- Track 50 : Pumpkiney_23
- Track 51 : Zitch_23
- Track 52 : BigHunkinEater_23
- Track 53 : APunk_23
- Track 54 : ViaConlectus_22
- Track 55 : Tardus_22
- Track 56 : Lilbeanie_18
- Track 57 : TurkishDelight_17

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

The start number called the most often in the published annotations is 5, it was called in 112 of the 124 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk_23, Abblin_21, Affeca_20, Ailee_20, Ali17_19, Angelicage_20, Arri_22, Ashertheman_21, Baddon_20, Bakery_20, Barb_21, Barsten_21, Baumdotcom_20, Belphegor_18, Bibwit_21, BigHunkinEater_23, Bizzy_21, BobBob_18, Brandonk123_22, ChadMasterC_20, Charming_18, CherryCola_22, Chickadee_20, ClamChowder_21, Clown_23, CoveyB_21, Danyall_21, Delrey21_21, Derg_16, Dexdert_21, DoctorFroggo_21, EMOore_16, EdmundFerry_19, Egi03_19, Evamon_19, Fireball_20, Fitzgerald_18, Flatwoods_21, Fosterous_18, FuegoCuervo_23, Fugax_21, GTE6_20, Gaea_20, Galadriel_22, Geodirt_19, Gezellig_19, Gustavo_20, Halo3_20, Hans_23, Inspectinfecti_22, JKSyngboy_19, Jabberwocky_18, Jambalaya_19, Kamashten_21, Keitabear_22, Kewpiedoll_21, KimmyK_21, Kroos_21, Kwekel_20, Kwobi_22, Lennon_22, Leonard_21, LilHam_18, Lilbeanie_18, Love_22, McCrothy_21, McKinley_21, MelBins_22, MoontowerMania_19, Mutzi_21, Natkenzie_21, Nordenberg_15, Nubi_19, Paries_21, Phauci_14, Phinally_21, Phlop_19, PinkCoffee_21, Portcullis_19, PullumCavea_19, Pumpkiney_23, Ribeye_21, RiverRaider_21, RoadKill_18, Rofo_20, RogerDodger_22, Salvador_19, Sampson_21, Sanjuju_18, Saronaya_20, Savbucketdawg_19, SchottB_19, Scioto_21, Sedona_22, Shinji_19, Shivanishola_20, Sitar_22, SmokingBunny_19, StorminNorm_20, Stultus_20, Tangent_18,

Tangerine_20, Tardus_22, Thing3_21, Tiamoceli_21, TillyBobJoe_19, Togo_19, Twister6_21, Twonlo_18, Tycho_20, Valary_22, VanDeWege_22, Verity_21, ViaConlectus_22, Vivi2_20, Wizard_19, YorkOnyx_21, YungMoney_21, Zipp_21, Zitch_23,

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

-

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

• Abt2graduatex2_13, Asis_13, BabyGotBac_13, BayC_13, Maih_13, Mischief19_14, RainyPolka_13, Salete_13, TP1604_13, TurkishDelight_17, Xkcd426_14, YDN12_14,

Summary by start number:

Start 5:

- Found in 120 of 132 (90.9%) of genes in pham
- Manual Annotations of this start: 112 of 124
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk_23 (DE4), Abblin_21 (DE4), Affeca_20 (DE1), Ailee_20 (DE1), Ali17_19 (DE2), Angelicage_20 (DE1), Arri_22 (DC1), Ashertheman_21 (DE1), Baddon_20 (DE1), Bakery_20 (DC1), Barb_21 (DC1), Barsten_21 (DE1), Baumdotcom_20 (DE1), Belphegor_18 (DE2), Bibwit_21 (DE1), BigHunkinEater_23 (DE4), Bizzy_21 (DE1), BobBob_18 (DE1), Brandonk123_22 (DE1), ChadMasterC_20 (DE1), Charming_18 (DE1), CherryCola_22 (DC1), Chickadee_20 (DE3), ClamChowder_21 (DC1), Clown_23 (DC2), CoveyB_21 (DC1), Danyall_21 (DC1), Delrey21_21 (DE4), Derg_16 (DE1), Dextert_21 (DE3), DoctorFroggo_21 (DE4), EMoore_16 (DE2), EdmundFerry_19 (DE3), Egi03_19 (DC1), Evamon_19 (DC1), Fireball_20 (DC1), Fitzgerald_18 (DE1), Flatwoods_21 (DE1), Fosterous_18 (DE1), FuegoCuervo_23 (DE1), Fugax_21 (DC1), GTE6_20 (DE3), Gaea_20 (DE1), Galadriel_22 (DE1), Geodirt_19 (DE1), Gezellig_19 (DC1), Gustavo_20 (DE1), Halo3_20 (DC1), Hans_23 (DE2), Inspectinfecti_22 (DE2), JKSyngboy_19 (DE1), Jabberwocky_18 (DE1), Jambalaya_19 (DC1), Kamashten_21 (DE1), Keitabear_22 (DE1), Kewpiedoll_21 (DE1), KimmyK_21 (DC1), Kroos_21 (DE1), Kwekel_20 (DE3), Kwobi_22 (DE1), Lennon_22 (DE1), Leonard_21 (DE2), LilHam_18 (DE1), Lilbeanie_18 (DE5), Love_22 (DE1), McCrothy_21 (DE1), McKinley_21 (DE1), MelBins_22 (DE2), MoontowerMania_19 (DE1), Mutzi_21 (DC1), Natkenzie_21 (DE4), Nordenberg_15 (DE1), Nubi_19 (DC1), Paries_21 (DE1), Phauci_14 (DE2), Phinally_21 (DE2), Phlop_19 (DC1), PinkCoffee_21 (DC1), Portcullis_19 (DC1), PullumCavea_19 (DC1), Pumpkiney_23 (DE4), Ribeye_21 (DE1), RiverRaider_21 (DE1), RoadKill_18 (DE3), Rofo_20 (DE1), RogerDodger_22 (DC1), Salvador_19 (DC1), Sampson_21 (DE4), Sanjuju_18 (DE1), Saronaya_20 (DE1), Savbucketdawg_19 (DC1), SchottB_19 (DE1), Scioto_21 (DE4), Sedona_22 (DE1), Shinji_19 (DC1), Shivanishola_20 (DE1), Sitar_22 (DE1), SmokingBunny_19 (DC1), StorminNorm_20 (DE1), Stultus_20 (DE1), Tangent_18 (DE1), Tangerine_20 (DE1), Tardus_22 (DE4), Thing3_21 (DE1), Tiamoceli_21 (DE3), TillyBobJoe_19 (DC1), Togo_19 (DC1), Twister6_21 (DC1), Twonlo_18 (DE3), Tycho_20 (DE1), Valary_22 (DC1), VanDeWege_22 (DC1), Verity_21 (DE4), ViaConlectus_22 (DE4), Vivi2_20 (DE1), Wizard_19 (DC1), YorkOnyx_21 (DE1), YungMoney_21 (DC1), Zipp_21 (DE4), Zitch_23 (DE4),

Start 11:

- Found in 12 of 132 (9.1%) of genes in pham
- Manual Annotations of this start: 12 of 124

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2_13 (BG), Asis_13 (BG), BabyGotBac_13 (BG), BayC_13 (BG), Maih_13 (BG), Mischief19_14 (BG), RainyPolka_13 (BG), Salete_13 (BG), TP1604_13 (BG), TurkishDelight_17 (singleton), Xkcd426_14 (BG), YDN12_14 (BG),

Summary by clusters:

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

Info for manual annotations of cluster BG:

- Start number 11 was manually annotated 11 times for cluster BG.

Info for manual annotations of cluster DC1:

- Start number 5 was manually annotated 32 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 5 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 5 was manually annotated 53 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 5 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 5 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 5 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 5 was manually annotated 1 time for cluster DE5.

Gene Information:

Gene: APunk_23 Start: 16314, Stop: 18233, Start Num: 5

Candidate Starts for APunk_23:

(Start: 5 @16314 has 112 MA's), (16, 16530), (19, 16545), (32, 16719), (44, 16866), (47, 16935), (49, 16941), (56, 16995), (59, 17019), (86, 17271), (87, 17289), (88, 17295), (91, 17358), (94, 17370), (95, 17373), (96, 17385), (102, 17475), (104, 17502), (121, 17661), (130, 17739), (141, 17835), (167, 18105), (174, 18150),

Gene: Abblin_21 Start: 15527, Stop: 17449, Start Num: 5

Candidate Starts for Abblin_21:

(Start: 5 @15527 has 112 MA's), (16, 15743), (19, 15758), (32, 15932), (43, 16070), (44, 16079), (47, 16148), (49, 16154), (56, 16208), (59, 16232), (86, 16484), (87, 16502), (88, 16508), (91, 16571), (94, 16583), (95, 16586), (96, 16598), (102, 16688), (104, 16715), (121, 16874), (130, 16952), (141, 17048), (144, 17084), (154, 17204), (158, 17237), (167, 17321), (174, 17366),

Gene: Abt2graduatex2_13 Start: 13868, Stop: 15571, Start Num: 11

Candidate Starts for Abt2graduatex2_13:

(Start: 11 @13868 has 12 MA's), (12, 13877), (20, 13964), (31, 14111), (33, 14135), (46, 14318), (51, 14372), (54, 14402), (58, 14432), (59, 14435), (68, 14483), (71, 14519), (78, 14564), (82, 14606), (85, 14675), (102, 14855), (110, 14933), (111, 14936), (127, 15086), (131, 15128), (136, 15188), (140, 15209), (156, 15341), (162, 15398), (165, 15419), (169, 15461), (171, 15467), (183, 15542),

Gene: Affeca_20 Start: 15348, Stop: 17258, Start Num: 5

Candidate Starts for Affeca_20:

(Start: 5 @15348 has 112 MA's), (19, 15579), (22, 15597), (36, 15867), (52, 16005), (60, 16074), (66, 16107), (87, 16332), (88, 16338), (94, 16413), (95, 16416), (96, 16428), (98, 16464), (102, 16515), (115, 16638), (118, 16674), (134, 16818), (139, 16869), (155, 17013), (156, 17016), (157, 17019), (161, 17067), (167, 17124),

Gene: Ailee_20 Start: 15256, Stop: 17172, Start Num: 5

Candidate Starts for Ailee_20:

(Start: 5 @15256 has 112 MA's), (19, 15487), (22, 15505), (36, 15781), (52, 15919), (60, 15988), (66, 16021), (87, 16246), (88, 16252), (91, 16315), (94, 16327), (95, 16330), (96, 16342), (102, 16429), (115, 16552), (118, 16588), (134, 16732), (139, 16783), (155, 16927), (156, 16930), (157, 16933), (161, 16981), (167, 17038), (184, 17155),

Gene: Ali17_19 Start: 14661, Stop: 16580, Start Num: 5

Candidate Starts for Ali17_19:

(Start: 5 @14661 has 112 MA's), (15, 14862), (28, 14985), (36, 15156), (44, 15201), (45, 15222), (52, 15279), (69, 15405), (75, 15456), (77, 15465), (81, 15516), (83, 15567), (87, 15630), (88, 15636), (91, 15699), (96, 15726), (102, 15813), (120, 15996), (129, 16071), (132, 16086), (134, 16110), (136, 16143), (139, 16161), (145, 16218), (154, 16329), (163, 16398), (164, 16410), (167, 16446), (178, 16512),

Gene: Angelicage_20 Start: 15771, Stop: 17681, Start Num: 5

Candidate Starts for Angelicage_20:

(Start: 5 @15771 has 112 MA's), (19, 16002), (22, 16020), (36, 16290), (52, 16428), (60, 16497), (66, 16530), (87, 16755), (88, 16761), (94, 16836), (95, 16839), (96, 16851), (98, 16887), (102, 16938), (115, 17061), (118, 17097), (134, 17241), (139, 17292), (155, 17436), (156, 17439), (157, 17442), (161, 17490), (167, 17547),

Gene: Arri_22 Start: 12537, Stop: 14423, Start Num: 5

Candidate Starts for Arri_22:

(Start: 5 @12537 has 112 MA's), (20, 12774), (22, 12786), (26, 12840), (38, 13062), (57, 13224), (61, 13257), (88, 13509), (93, 13581), (98, 13638), (99, 13650), (110, 13767), (115, 13812), (116, 13815), (129, 13938), (131, 13950), (136, 14010), (148, 14112), (154, 14163), (156, 14172), (164, 14244), (166, 14274), (178, 14346), (181, 14370),

Gene: Ashertheman_21 Start: 14855, Stop: 16762, Start Num: 5

Candidate Starts for Ashertheman_21:

(Start: 5 @14855 has 112 MA's), (13, 14990), (19, 15086), (36, 15368), (45, 15437), (48, 15485), (52, 15509), (56, 15545), (60, 15578), (63, 15602), (77, 15695), (87, 15836), (88, 15842), (91, 15905), (94, 15917), (95, 15920), (96, 15932), (102, 16019), (115, 16142), (118, 16178), (129, 16283), (134, 16322), (139, 16373), (154, 16511), (155, 16517), (156, 16520), (161, 16571), (167, 16628), (168, 16640), (171, 16649), (185, 16748),

Gene: Asis_13 Start: 13751, Stop: 15445, Start Num: 11

Candidate Starts for Asis_13:

(Start: 11 @13751 has 12 MA's), (12, 13760), (23, 13862), (31, 13994), (33, 14018), (36, 14114), (46, 14195), (50, 14240), (51, 14249), (55, 14282), (58, 14309), (59, 14312), (68, 14360), (70, 14393), (71, 14396), (76, 14435), (78, 14441), (84, 14519), (85, 14552), (92, 14642), (100, 14717), (102, 14732), (108, 14798), (110, 14810), (111, 14813), (122, 14930), (127, 14963), (131, 15005), (143, 15122), (156, 15218), (162, 15275), (165, 15296), (169, 15338), (171, 15344), (177, 15377), (180, 15401), (183, 15419), (186, 15434),

Gene: BabyGotBac_13 Start: 13751, Stop: 15445, Start Num: 11

Candidate Starts for BabyGotBac_13:

(Start: 11 @13751 has 12 MA's), (12, 13760), (23, 13862), (31, 13994), (33, 14018), (36, 14114), (46, 14195), (50, 14240), (51, 14249), (55, 14282), (58, 14309), (59, 14312), (68, 14360), (70, 14393), (71, 14396), (76, 14435), (78, 14441), (84, 14519), (85, 14552), (92, 14642), (100, 14717), (102, 14732), (108, 14798), (110, 14810), (111, 14813), (122, 14930), (127, 14963), (131, 15005), (143, 15122), (156, 15218), (162, 15275), (165, 15296), (169, 15338), (171, 15344), (177, 15377), (180, 15401), (183, 15419), (186, 15434),

Gene: Baddon_20 Start: 15702, Stop: 17609, Start Num: 5

Candidate Starts for Baddon_20:

(Start: 5 @15702 has 112 MA's), (13, 15837), (14, 15870), (19, 15933), (36, 16215), (45, 16284), (48, 16332), (52, 16356), (60, 16425), (63, 16449), (77, 16542), (87, 16683), (88, 16689), (91, 16752), (94, 16764), (95, 16767), (96, 16779), (102, 16866), (115, 16989), (118, 17025), (121, 17058), (126, 17088), (129, 17130), (134, 17169), (139, 17220), (155, 17364), (156, 17367), (161, 17418), (167, 17475), (168, 17487), (171, 17496), (174, 17520),

Gene: Bakery_20 Start: 11735, Stop: 13636, Start Num: 5

Candidate Starts for Bakery_20:

(Start: 5 @11735 has 112 MA's), (20, 11972), (22, 11984), (26, 12038), (57, 12425), (61, 12458), (66, 12482), (77, 12563), (80, 12590), (88, 12728), (98, 12857), (99, 12869), (102, 12908), (110, 12986), (115, 13031), (116, 13034), (118, 13055), (123, 13097), (126, 13118), (129, 13160), (131, 13172), (164, 13466), (166, 13496), (170, 13520), (175, 13550),

Gene: Barb_21 Start: 12512, Stop: 14410, Start Num: 5

Candidate Starts for Barb_21:

(Start: 5 @12512 has 112 MA's), (20, 12749), (22, 12761), (26, 12815), (57, 13208), (61, 13241), (66, 13265), (88, 13505), (98, 13634), (99, 13646), (110, 13763), (115, 13808), (116, 13811), (123, 13871), (125, 13889), (129, 13934), (131, 13946), (132, 13949), (133, 13970), (144, 14069), (148, 14108), (156, 14168), (164, 14240), (166, 14270), (170, 14294), (174, 14321), (175, 14324), (179, 14351),

Gene: Barsten_21 Start: 15284, Stop: 17188, Start Num: 5

Candidate Starts for Barsten_21:

(Start: 5 @15284 has 112 MA's), (19, 15515), (22, 15533), (36, 15800), (52, 15938), (60, 16007), (66, 16040), (87, 16265), (88, 16271), (91, 16334), (94, 16346), (95, 16349), (96, 16361), (102, 16448), (115, 16571), (118, 16607), (134, 16751), (139, 16802), (155, 16946), (156, 16949), (157, 16952), (161, 17000), (167, 17057),

Gene: Baumdotcom_20 Start: 14471, Stop: 16378, Start Num: 5

Candidate Starts for Baumdotcom_20:

(Start: 5 @14471 has 112 MA's), (13, 14606), (19, 14702), (36, 14984), (45, 15053), (48, 15101), (52, 15125), (56, 15161), (60, 15194), (63, 15218), (77, 15311), (87, 15452), (88, 15458), (91, 15521), (94, 15533), (95, 15536), (96, 15548), (102, 15635), (115, 15758), (118, 15794), (129, 15899), (134, 15938), (139, 15989), (154, 16127), (155, 16133), (156, 16136), (161, 16187), (167, 16244), (168, 16256), (171, 16265),

Gene: BayC_13 Start: 13751, Stop: 15445, Start Num: 11

Candidate Starts for BayC_13:

(Start: 11 @13751 has 12 MA's), (12, 13760), (23, 13862), (31, 13994), (33, 14018), (36, 14114), (46, 14195), (50, 14240), (51, 14249), (55, 14282), (58, 14309), (59, 14312), (68, 14360), (70, 14393), (71, 14396), (76, 14435), (78, 14441), (84, 14519), (85, 14552), (92, 14642), (102, 14732), (108, 14798), (110, 14810), (111, 14813), (122, 14930), (127, 14963), (131, 15005), (143, 15122), (156, 15218), (162, 15275), (169, 15338), (171, 15344), (177, 15377), (180, 15401), (183, 15419), (186, 15434),

Gene: Belphegor_18 Start: 13765, Stop: 15693, Start Num: 5

Candidate Starts for Belphegor_18:

(Start: 5 @13765 has 112 MA's), (15, 13969), (21, 14008), (28, 14092), (37, 14272), (52, 14392), (63, 14485), (75, 14569), (77, 14578), (81, 14629), (83, 14680), (87, 14743), (88, 14749), (91, 14812), (96, 14839), (102, 14926), (129, 15184), (132, 15199), (134, 15223), (139, 15274), (145, 15331), (153, 15427), (154, 15442), (163, 15511), (164, 15523), (167, 15559), (176, 15610),

Gene: Bibwit_21 Start: 15528, Stop: 17423, Start Num: 5

Candidate Starts for Bibwit_21:

(Start: 5 @15528 has 112 MA's), (19, 15759), (22, 15777), (36, 16032), (52, 16170), (60, 16239), (66, 16272), (87, 16497), (88, 16503), (91, 16566), (94, 16578), (95, 16581), (96, 16593), (102, 16680), (115, 16803), (118, 16839), (134, 16983), (139, 17034), (155, 17178), (156, 17181), (157, 17184), (161, 17232), (167, 17289), (184, 17406),

Gene: BigHunkinEater_23 Start: 14639, Stop: 16555, Start Num: 5

Candidate Starts for BigHunkinEater_23:

(Start: 5 @14639 has 112 MA's), (16, 14855), (19, 14870), (32, 15044), (44, 15191), (47, 15257), (49, 15263), (56, 15317), (59, 15341), (62, 15365), (86, 15593), (87, 15611), (88, 15617), (91, 15680), (94, 15692), (95, 15695), (96, 15707), (102, 15797), (104, 15824), (121, 15983), (130, 16061), (141, 16157), (167, 16427), (170, 16445), (175, 16475),

Gene: Bizzy_21 Start: 14750, Stop: 16663, Start Num: 5

Candidate Starts for Bizzy_21:

(Start: 5 @14750 has 112 MA's), (13, 14885), (19, 14981), (36, 15269), (45, 15338), (48, 15386), (52, 15410), (56, 15446), (60, 15479), (63, 15503), (77, 15596), (87, 15737), (88, 15743), (91, 15806), (94, 15818), (95, 15821), (96, 15833), (102, 15920), (115, 16043), (118, 16079), (121, 16112), (129, 16184), (134, 16223), (139, 16274), (154, 16412), (155, 16418), (156, 16421), (161, 16472), (167, 16529), (168, 16541), (171, 16550),

Gene: BobBob_18 Start: 14138, Stop: 16045, Start Num: 5

Candidate Starts for BobBob_18:

(Start: 5 @14138 has 112 MA's), (19, 14369), (22, 14387), (36, 14654), (52, 14792), (60, 14861), (66, 14894), (87, 15119), (88, 15125), (91, 15188), (94, 15200), (95, 15203), (96, 15215), (102, 15302), (106, 15356), (115, 15425), (118, 15461), (134, 15605), (139, 15656), (155, 15800), (156, 15803), (157, 15806), (161, 15854), (167, 15911),

Gene: Brandonk123_22 Start: 14830, Stop: 16737, Start Num: 5

Candidate Starts for Brandonk123_22:

(Start: 5 @14830 has 112 MA's), (19, 15061), (22, 15079), (36, 15346), (52, 15484), (60, 15553), (66, 15586), (87, 15811), (88, 15817), (91, 15880), (94, 15892), (95, 15895), (96, 15907), (102, 15994), (106, 16048), (115, 16117), (118, 16153), (134, 16297), (139, 16348), (155, 16492), (156, 16495), (157, 16498), (161, 16546), (167, 16603),

Gene: ChadMasterC_20 Start: 15249, Stop: 17144, Start Num: 5

Candidate Starts for ChadMasterC_20:

(Start: 5 @15249 has 112 MA's), (19, 15480), (22, 15498), (36, 15753), (52, 15891), (60, 15960), (66, 15993), (87, 16218), (88, 16224), (91, 16287), (94, 16299), (95, 16302), (96, 16314), (102, 16401), (115, 16524), (118, 16560), (134, 16704), (139, 16755), (155, 16899), (156, 16902), (157, 16905), (161, 16953), (167, 17010),

Gene: Charming_18 Start: 14140, Stop: 16047, Start Num: 5

Candidate Starts for Charming_18:

(Start: 5 @14140 has 112 MA's), (19, 14371), (22, 14389), (36, 14656), (52, 14794), (60, 14863), (66, 14896), (87, 15121), (88, 15127), (91, 15190), (94, 15202), (95, 15205), (96, 15217), (102, 15304), (106, 15358), (115, 15427), (118, 15463), (134, 15607), (139, 15658), (155, 15802), (156, 15805), (157, 15808), (161, 15856), (167, 15913),

Gene: CherryCola_22 Start: 12733, Stop: 14619, Start Num: 5

Candidate Starts for CherryCola_22:

(Start: 5 @12733 has 112 MA's), (20, 12970), (22, 12982), (26, 13036), (38, 13258), (57, 13420), (61, 13453), (88, 13705), (93, 13777), (98, 13834), (99, 13846), (110, 13963), (115, 14008), (116, 14011), (129, 14134), (131, 14146), (136, 14206), (154, 14359), (156, 14368), (164, 14440), (166, 14470), (178, 14542), (181, 14566),

Gene: Chickadee_20 Start: 13744, Stop: 15633, Start Num: 5

Candidate Starts for Chickadee_20:

(4, 13735), (Start: 5 @13744 has 112 MA's), (7, 13810), (19, 13978), (22, 13996), (38, 14269), (48, 14365), (74, 14557), (76, 14572), (83, 14650), (88, 14719), (91, 14782), (94, 14794), (95, 14797), (100, 14881), (102, 14896), (112, 14995), (118, 15049), (129, 15154), (139, 15244), (147, 15325), (154, 15382), (164, 15463), (167, 15499), (178, 15565),

Gene: ClamChowder_21 Start: 12512, Stop: 14410, Start Num: 5

Candidate Starts for ClamChowder_21:

(Start: 5 @12512 has 112 MA's), (20, 12749), (22, 12761), (26, 12815), (57, 13208), (61, 13241), (66, 13265), (88, 13505), (98, 13634), (99, 13646), (110, 13763), (115, 13808), (116, 13811), (123, 13871), (125, 13889), (129, 13934), (131, 13946), (132, 13949), (133, 13970), (144, 14069), (148, 14108), (156, 14168), (164, 14240), (166, 14270), (170, 14294), (174, 14321), (175, 14324), (179, 14351),

Gene: Clown_23 Start: 14522, Stop: 16378, Start Num: 5

Candidate Starts for Clown_23:

(3, 14495), (Start: 5 @14522 has 112 MA's), (6, 14543), (9, 14624), (19, 14756), (22, 14774), (27, 14840), (53, 15146), (61, 15212), (63, 15227), (67, 15239), (88, 15479), (93, 15551), (98, 15608), (99, 15620), (102, 15659), (110, 15737), (113, 15767), (115, 15782), (129, 15908), (131, 15920), (132, 15923), (144, 16043), (145, 16052), (154, 16133), (160, 16187), (164, 16214), (174, 16295), (175, 16298),

Gene: CoveyB_21 Start: 12369, Stop: 14255, Start Num: 5

Candidate Starts for CoveyB_21:

(Start: 5 @12369 has 112 MA's), (20, 12606), (22, 12618), (26, 12672), (38, 12894), (57, 13056), (61, 13089), (88, 13341), (93, 13413), (98, 13470), (99, 13482), (110, 13599), (115, 13644), (116, 13647), (129, 13770), (131, 13782), (136, 13842), (154, 13995), (156, 14004), (164, 14076), (166, 14106), (178, 14178), (181, 14202),

Gene: Danyall_21 Start: 12369, Stop: 14255, Start Num: 5

Candidate Starts for Danyall_21:

(Start: 5 @12369 has 112 MA's), (20, 12606), (22, 12618), (26, 12672), (38, 12894), (57, 13056), (61, 13089), (88, 13341), (93, 13413), (98, 13470), (99, 13482), (110, 13599), (115, 13644), (116, 13647), (129, 13770), (131, 13782), (136, 13842), (154, 13995), (156, 14004), (164, 14076), (166, 14106),

(178, 14178), (181, 14202),

Gene: Delrey21_21 Start: 14990, Stop: 16909, Start Num: 5

Candidate Starts for Delrey21_21:

(Start: 5 @14990 has 112 MA's), (9, 15089), (16, 15206), (18, 15218), (19, 15221), (32, 15395), (39, 15509), (44, 15542), (47, 15608), (49, 15614), (56, 15668), (59, 15692), (64, 15728), (86, 15944), (87, 15962), (88, 15968), (91, 16031), (94, 16043), (95, 16046), (96, 16058), (102, 16148), (104, 16175), (121, 16334), (130, 16412), (135, 16448), (141, 16508), (145, 16553), (154, 16664), (158, 16697), (167, 16781), (170, 16799), (175, 16829),

Gene: Derg_16 Start: 14345, Stop: 16255, Start Num: 5

Candidate Starts for Derg_16:

(Start: 5 @14345 has 112 MA's), (13, 14480), (19, 14576), (36, 14861), (45, 14930), (48, 14978), (52, 15002), (56, 15038), (60, 15071), (63, 15095), (77, 15188), (87, 15329), (88, 15335), (91, 15398), (94, 15410), (95, 15413), (96, 15425), (102, 15512), (115, 15635), (118, 15671), (121, 15704), (129, 15776), (134, 15815), (139, 15866), (155, 16010), (156, 16013), (161, 16064), (167, 16121), (168, 16133), (171, 16142),

Gene: Dxdert_21 Start: 14191, Stop: 16077, Start Num: 5

Candidate Starts for Dxdert_21:

(4, 14182), (Start: 5 @14191 has 112 MA's), (7, 14257), (19, 14425), (22, 14443), (38, 14713), (48, 14809), (76, 15016), (83, 15094), (88, 15163), (91, 15226), (94, 15238), (95, 15241), (100, 15325), (102, 15340), (112, 15439), (118, 15493), (129, 15598), (139, 15688), (147, 15769), (154, 15826), (157, 15838), (163, 15895), (164, 15907), (167, 15943), (178, 16009),

Gene: DoctorFroggo_21 Start: 14990, Stop: 16909, Start Num: 5

Candidate Starts for DoctorFroggo_21:

(Start: 5 @14990 has 112 MA's), (9, 15089), (16, 15206), (18, 15218), (19, 15221), (32, 15395), (39, 15509), (44, 15542), (47, 15608), (49, 15614), (56, 15668), (59, 15692), (64, 15728), (86, 15944), (87, 15962), (88, 15968), (91, 16031), (94, 16043), (95, 16046), (96, 16058), (102, 16148), (104, 16175), (121, 16334), (130, 16412), (135, 16448), (141, 16508), (145, 16553), (154, 16664), (158, 16697), (167, 16781), (170, 16799), (175, 16829),

Gene: EMoore_16 Start: 13023, Stop: 14942, Start Num: 5

Candidate Starts for EMoore_16:

(Start: 5 @13023 has 112 MA's), (21, 13263), (40, 13551), (75, 13818), (77, 13827), (79, 13845), (81, 13878), (87, 13992), (88, 13998), (91, 14061), (96, 14088), (102, 14175), (120, 14358), (129, 14433), (131, 14445), (134, 14472), (139, 14523), (145, 14580), (154, 14691), (163, 14760), (164, 14772), (167, 14808), (168, 14820), (170, 14826),

Gene: EdmundFerry_19 Start: 13775, Stop: 15661, Start Num: 5

Candidate Starts for EdmundFerry_19:

(4, 13766), (Start: 5 @13775 has 112 MA's), (7, 13841), (19, 14009), (22, 14027), (38, 14297), (48, 14393), (76, 14600), (83, 14678), (88, 14747), (91, 14810), (94, 14822), (95, 14825), (100, 14909), (102, 14924), (112, 15023), (118, 15077), (129, 15182), (139, 15272), (147, 15353), (154, 15410), (157, 15422), (163, 15479), (164, 15491), (167, 15527), (178, 15593),

Gene: Egi03_19 Start: 11979, Stop: 13871, Start Num: 5

Candidate Starts for Egi03_19:

(Start: 5 @11979 has 112 MA's), (20, 12216), (22, 12228), (26, 12282), (38, 12507), (57, 12669), (61, 12702), (67, 12729), (98, 13095), (99, 13107), (110, 13224), (115, 13269), (116, 13272), (123, 13332), (125, 13350), (129, 13395), (131, 13407), (132, 13410), (144, 13530), (148, 13569), (156, 13629), (164, 13701), (166, 13731), (170, 13755), (174, 13782), (175, 13785), (179, 13812),

Gene: Evamon_19 Start: 11844, Stop: 13742, Start Num: 5

Candidate Starts for Evamon_19:

(Start: 5 @11844 has 112 MA's), (20, 12081), (22, 12093), (26, 12147), (38, 12378), (57, 12540), (61, 12573), (88, 12837), (98, 12966), (99, 12978), (110, 13095), (115, 13140), (116, 13143), (123, 13203), (125, 13221), (128, 13236), (129, 13266), (131, 13278), (132, 13281), (144, 13401), (148, 13440), (156, 13500), (164, 13572), (166, 13602), (170, 13626), (174, 13653), (175, 13656), (179, 13683),

Gene: Fireball_20 Start: 11982, Stop: 13874, Start Num: 5

Candidate Starts for Fireball_20:

(Start: 5 @11982 has 112 MA's), (20, 12219), (22, 12231), (26, 12285), (38, 12510), (57, 12672), (61, 12705), (67, 12732), (98, 13098), (99, 13110), (110, 13227), (115, 13272), (116, 13275), (123, 13335), (125, 13353), (129, 13398), (131, 13410), (132, 13413), (144, 13533), (148, 13572), (156, 13632), (164, 13704), (166, 13734), (170, 13758), (174, 13785), (175, 13788), (179, 13815),

Gene: Fitzgerald_18 Start: 14566, Stop: 16473, Start Num: 5

Candidate Starts for Fitzgerald_18:

(Start: 5 @14566 has 112 MA's), (19, 14797), (22, 14815), (36, 15082), (52, 15220), (60, 15289), (66, 15322), (87, 15547), (88, 15553), (91, 15616), (94, 15628), (95, 15631), (96, 15643), (102, 15730), (115, 15853), (118, 15889), (134, 16033), (139, 16084), (155, 16228), (156, 16231), (157, 16234), (161, 16282), (167, 16339),

Gene: Flatwoods_21 Start: 14757, Stop: 16682, Start Num: 5

Candidate Starts for Flatwoods_21:

(Start: 5 @14757 has 112 MA's), (13, 14892), (19, 14988), (36, 15288), (45, 15357), (48, 15405), (52, 15429), (56, 15465), (60, 15498), (63, 15522), (77, 15615), (87, 15756), (88, 15762), (91, 15825), (94, 15837), (95, 15840), (96, 15852), (102, 15939), (115, 16062), (118, 16098), (121, 16131), (129, 16203), (134, 16242), (139, 16293), (154, 16431), (155, 16437), (156, 16440), (161, 16491), (167, 16548), (168, 16560), (171, 16569),

Gene: Fosterous_18 Start: 15029, Stop: 16936, Start Num: 5

Candidate Starts for Fosterous_18:

(Start: 5 @15029 has 112 MA's), (19, 15260), (22, 15278), (36, 15545), (52, 15683), (60, 15752), (66, 15785), (87, 16010), (88, 16016), (91, 16079), (94, 16091), (95, 16094), (96, 16106), (102, 16193), (106, 16247), (115, 16316), (118, 16352), (134, 16496), (139, 16547), (155, 16691), (156, 16694), (157, 16697), (161, 16745), (167, 16802),

Gene: FuegoCuervo_23 Start: 14318, Stop: 16225, Start Num: 5

Candidate Starts for FuegoCuervo_23:

(Start: 5 @14318 has 112 MA's), (19, 14549), (22, 14567), (36, 14834), (52, 14972), (60, 15041), (66, 15074), (87, 15299), (88, 15305), (91, 15368), (94, 15380), (95, 15383), (96, 15395), (102, 15482), (115, 15605), (118, 15641), (134, 15785), (139, 15836), (155, 15980), (156, 15983), (157, 15986), (161, 16034), (167, 16091),

Gene: Fugax_21 Start: 12512, Stop: 14410, Start Num: 5

Candidate Starts for Fugax_21:

(Start: 5 @12512 has 112 MA's), (20, 12749), (22, 12761), (26, 12815), (57, 13208), (61, 13241), (66, 13265), (88, 13505), (98, 13634), (99, 13646), (110, 13763), (115, 13808), (116, 13811), (123, 13871), (125, 13889), (129, 13934), (131, 13946), (132, 13949), (133, 13970), (144, 14069), (148, 14108), (156, 14168), (164, 14240), (166, 14270), (170, 14294), (174, 14321), (175, 14324), (179, 14351),

Gene: GTE6_20 Start: 14261, Stop: 16150, Start Num: 5

Candidate Starts for GTE6_20:

(4, 14252), (Start: 5 @14261 has 112 MA's), (7, 14327), (19, 14495), (22, 14513), (38, 14786), (48, 14882), (76, 15089), (83, 15167), (88, 15236), (91, 15299), (94, 15311), (95, 15314), (100, 15398), (102, 15413), (112, 15512), (118, 15566), (129, 15671), (139, 15761), (147, 15842), (154, 15899), (158, 15932), (164, 15980), (167, 16016), (178, 16082),

Gene: Gaea_20 Start: 14451, Stop: 16370, Start Num: 5

Candidate Starts for Gaea_20:

(Start: 5 @14451 has 112 MA's), (13, 14586), (19, 14682), (36, 14976), (45, 15045), (48, 15093), (52, 15117), (56, 15153), (60, 15186), (63, 15210), (77, 15303), (87, 15444), (88, 15450), (91, 15513), (94, 15525), (95, 15528), (96, 15540), (102, 15627), (115, 15750), (118, 15786), (121, 15819), (129, 15891), (134, 15930), (139, 15981), (154, 16119), (155, 16125), (156, 16128), (161, 16179), (167, 16236), (168, 16248), (171, 16257),

Gene: Galadriel_22 Start: 14888, Stop: 16786, Start Num: 5

Candidate Starts for Galadriel_22:

(Start: 5 @14888 has 112 MA's), (19, 15119), (22, 15137), (36, 15395), (52, 15533), (60, 15602), (66, 15635), (87, 15860), (88, 15866), (91, 15929), (94, 15941), (95, 15944), (96, 15956), (102, 16043), (115, 16166), (118, 16202), (134, 16346), (139, 16397), (155, 16541), (156, 16544), (157, 16547), (161, 16595), (167, 16652),

Gene: Geodirt_19 Start: 15093, Stop: 17003, Start Num: 5

Candidate Starts for Geodirt_19:

(Start: 5 @15093 has 112 MA's), (19, 15324), (22, 15342), (36, 15612), (52, 15750), (60, 15819), (66, 15852), (87, 16077), (88, 16083), (91, 16146), (94, 16158), (95, 16161), (96, 16173), (102, 16260), (106, 16314), (115, 16383), (118, 16419), (134, 16563), (139, 16614), (155, 16758), (156, 16761), (157, 16764), (161, 16812), (167, 16869),

Gene: Gezellig_19 Start: 11982, Stop: 13874, Start Num: 5

Candidate Starts for Gezellig_19:

(Start: 5 @11982 has 112 MA's), (20, 12219), (22, 12231), (26, 12285), (38, 12510), (57, 12672), (61, 12705), (67, 12732), (98, 13098), (99, 13110), (110, 13227), (115, 13272), (116, 13275), (123, 13335), (125, 13353), (129, 13398), (131, 13410), (132, 13413), (144, 13533), (148, 13572), (156, 13632), (164, 13704), (166, 13734), (170, 13758), (174, 13785), (175, 13788), (179, 13815),

Gene: Gustavo_20 Start: 14562, Stop: 16469, Start Num: 5

Candidate Starts for Gustavo_20:

(Start: 5 @14562 has 112 MA's), (13, 14697), (19, 14793), (36, 15075), (45, 15144), (48, 15192), (52, 15216), (56, 15252), (60, 15285), (63, 15309), (77, 15402), (87, 15543), (88, 15549), (91, 15612), (94, 15624), (95, 15627), (96, 15639), (102, 15726), (115, 15849), (118, 15885), (129, 15990), (134, 16029), (139, 16080), (154, 16218), (155, 16224), (156, 16227), (161, 16278), (167, 16335), (168, 16347), (171, 16356),

Gene: Halo3_20 Start: 12297, Stop: 14195, Start Num: 5

Candidate Starts for Halo3_20:

(Start: 5 @12297 has 112 MA's), (20, 12534), (22, 12546), (26, 12600), (57, 12993), (61, 13026), (88, 13290), (98, 13419), (99, 13431), (101, 13467), (110, 13548), (115, 13593), (116, 13596), (123, 13656), (129, 13719), (131, 13731), (132, 13734), (148, 13893), (156, 13953), (164, 14025), (166, 14055), (170, 14079), (174, 14106), (175, 14109),

Gene: Hans_23 Start: 15322, Stop: 17238, Start Num: 5

Candidate Starts for Hans_23:

(Start: 5 @15322 has 112 MA's), (15, 15523), (28, 15646), (36, 15814), (45, 15880), (52, 15937), (75, 16114), (77, 16123), (81, 16174), (83, 16225), (87, 16288), (88, 16294), (91, 16357), (96, 16384), (102,

16471), (104, 16498), (120, 16654), (129, 16729), (132, 16744), (134, 16768), (136, 16801), (139, 16819), (145, 16876), (154, 16987), (163, 17056), (164, 17068), (167, 17104), (178, 17170),

Gene: Inspectinfecti_22 Start: 15744, Stop: 17663, Start Num: 5

Candidate Starts for Inspectinfecti_22:

(Start: 5 @15744 has 112 MA's), (15, 15945), (28, 16068), (36, 16239), (44, 16284), (45, 16305), (52, 16362), (75, 16539), (77, 16548), (81, 16599), (83, 16650), (87, 16713), (88, 16719), (91, 16782), (96, 16809), (102, 16896), (104, 16923), (109, 16971), (120, 17079), (129, 17154), (132, 17169), (134, 17193), (136, 17226), (139, 17244), (145, 17301), (154, 17412), (163, 17481), (164, 17493), (167, 17529), (178, 17595),

Gene: JKSyngboy_19 Start: 15221, Stop: 17128, Start Num: 5

Candidate Starts for JKSyngboy_19:

(Start: 5 @15221 has 112 MA's), (13, 15356), (14, 15389), (19, 15452), (36, 15734), (45, 15803), (48, 15851), (52, 15875), (60, 15944), (63, 15968), (77, 16061), (87, 16202), (88, 16208), (91, 16271), (94, 16283), (95, 16286), (96, 16298), (102, 16385), (115, 16508), (118, 16544), (121, 16577), (129, 16649), (134, 16688), (139, 16739), (155, 16883), (156, 16886), (161, 16937), (167, 16994), (168, 17006), (171, 17015),

Gene: Jabberwocky_18 Start: 15000, Stop: 16907, Start Num: 5

Candidate Starts for Jabberwocky_18:

(Start: 5 @15000 has 112 MA's), (19, 15231), (22, 15249), (36, 15516), (52, 15654), (60, 15723), (66, 15756), (87, 15981), (88, 15987), (91, 16050), (94, 16062), (95, 16065), (96, 16077), (102, 16164), (106, 16218), (115, 16287), (118, 16323), (134, 16467), (139, 16518), (155, 16662), (156, 16665), (157, 16668), (161, 16716), (167, 16773),

Gene: Jambalaya_19 Start: 11635, Stop: 13521, Start Num: 5

Candidate Starts for Jambalaya_19:

(Start: 5 @11635 has 112 MA's), (20, 11872), (22, 11884), (26, 11938), (57, 12319), (61, 12352), (67, 12379), (98, 12745), (99, 12757), (110, 12874), (115, 12919), (116, 12922), (123, 12982), (125, 13000), (129, 13045), (131, 13057), (132, 13060), (144, 13180), (148, 13219), (156, 13279), (164, 13351), (166, 13381), (170, 13405), (174, 13432), (175, 13435), (179, 13462),

Gene: Kamashten_21 Start: 15684, Stop: 17591, Start Num: 5

Candidate Starts for Kamashten_21:

(Start: 5 @15684 has 112 MA's), (19, 15915), (22, 15933), (36, 16200), (52, 16338), (60, 16407), (66, 16440), (87, 16665), (88, 16671), (91, 16734), (94, 16746), (95, 16749), (96, 16761), (102, 16848), (106, 16902), (115, 16971), (118, 17007), (134, 17151), (139, 17202), (155, 17346), (156, 17349), (157, 17352), (161, 17400), (167, 17457),

Gene: Keitabear_22 Start: 17233, Stop: 19128, Start Num: 5

Candidate Starts for Keitabear_22:

(Start: 5 @17233 has 112 MA's), (19, 17464), (22, 17482), (36, 17737), (52, 17875), (60, 17944), (66, 17977), (87, 18202), (88, 18208), (94, 18283), (95, 18286), (96, 18298), (98, 18334), (102, 18385), (115, 18508), (118, 18544), (134, 18688), (139, 18739), (155, 18883), (156, 18886), (157, 18889), (161, 18937), (167, 18994), (184, 19111),

Gene: Kewpiedoll_21 Start: 15069, Stop: 16979, Start Num: 5

Candidate Starts for Kewpiedoll_21:

(Start: 5 @15069 has 112 MA's), (19, 15300), (22, 15318), (36, 15588), (52, 15726), (60, 15795), (66, 15828), (87, 16053), (88, 16059), (91, 16122), (94, 16134), (95, 16137), (96, 16149), (102, 16236), (115, 16359), (118, 16395), (134, 16539), (139, 16590), (155, 16734), (156, 16737), (157, 16740), (161, 16788), (167, 16845),

Gene: KimmyK_21 Start: 12512, Stop: 14410, Start Num: 5

Candidate Starts for KimmyK_21:

(Start: 5 @12512 has 112 MA's), (20, 12749), (22, 12761), (26, 12815), (57, 13208), (61, 13241), (66, 13265), (88, 13505), (98, 13634), (99, 13646), (110, 13763), (115, 13808), (116, 13811), (123, 13871), (125, 13889), (129, 13934), (131, 13946), (132, 13949), (133, 13970), (144, 14069), (148, 14108), (156, 14168), (164, 14240), (166, 14270), (170, 14294), (174, 14321), (175, 14324), (179, 14351),

Gene: Kroos_21 Start: 15314, Stop: 17227, Start Num: 5

Candidate Starts for Kroos_21:

(Start: 5 @15314 has 112 MA's), (13, 15449), (19, 15545), (36, 15833), (45, 15902), (48, 15950), (52, 15974), (56, 16010), (60, 16043), (63, 16067), (77, 16160), (87, 16301), (88, 16307), (91, 16370), (94, 16382), (95, 16385), (96, 16397), (102, 16484), (115, 16607), (118, 16643), (121, 16676), (129, 16748), (134, 16787), (139, 16838), (154, 16976), (155, 16982), (156, 16985), (161, 17036), (167, 17093), (168, 17105), (171, 17114),

Gene: Kwekel_20 Start: 13711, Stop: 15594, Start Num: 5

Candidate Starts for Kwekel_20:

(4, 13702), (Start: 5 @13711 has 112 MA's), (19, 13945), (22, 13963), (38, 14233), (48, 14329), (76, 14536), (83, 14614), (87, 14677), (88, 14683), (91, 14746), (94, 14758), (95, 14761), (100, 14845), (102, 14860), (118, 15013), (129, 15118), (139, 15208), (147, 15289), (154, 15346), (163, 15415), (164, 15427), (167, 15463), (178, 15529),

Gene: Kwobi_22 Start: 15290, Stop: 17209, Start Num: 5

Candidate Starts for Kwobi_22:

(Start: 5 @15290 has 112 MA's), (13, 15425), (19, 15521), (36, 15815), (45, 15884), (48, 15932), (52, 15956), (56, 15992), (60, 16025), (63, 16049), (77, 16142), (87, 16283), (88, 16289), (91, 16352), (94, 16364), (95, 16367), (96, 16379), (102, 16466), (115, 16589), (118, 16625), (121, 16658), (129, 16730), (134, 16769), (139, 16820), (154, 16958), (155, 16964), (156, 16967), (161, 17018), (167, 17075), (168, 17087), (171, 17096),

Gene: Lennon_22 Start: 16336, Stop: 18231, Start Num: 5

Candidate Starts for Lennon_22:

(Start: 5 @16336 has 112 MA's), (19, 16567), (22, 16585), (36, 16840), (52, 16978), (60, 17047), (66, 17080), (87, 17305), (88, 17311), (91, 17374), (94, 17386), (95, 17389), (96, 17401), (102, 17488), (115, 17611), (118, 17647), (134, 17791), (139, 17842), (155, 17986), (156, 17989), (157, 17992), (161, 18040), (167, 18097), (184, 18214),

Gene: Leonard_21 Start: 15339, Stop: 17258, Start Num: 5

Candidate Starts for Leonard_21:

(Start: 5 @15339 has 112 MA's), (15, 15540), (28, 15663), (36, 15834), (44, 15879), (45, 15900), (52, 15957), (69, 16083), (75, 16134), (77, 16143), (81, 16194), (83, 16245), (87, 16308), (88, 16314), (91, 16377), (96, 16404), (102, 16491), (120, 16674), (129, 16749), (132, 16764), (134, 16788), (136, 16821), (139, 16839), (145, 16896), (154, 17007), (163, 17076), (164, 17088), (167, 17124), (178, 17190),

Gene: LilHam_18 Start: 13869, Stop: 15788, Start Num: 5

Candidate Starts for LilHam_18:

(Start: 5 @13869 has 112 MA's), (13, 14004), (19, 14100), (36, 14394), (45, 14463), (48, 14511), (52, 14535), (56, 14571), (60, 14604), (63, 14628), (77, 14721), (87, 14862), (88, 14868), (91, 14931), (94, 14943), (95, 14946), (96, 14958), (102, 15045), (115, 15168), (118, 15204), (121, 15237), (129, 15309), (134, 15348), (139, 15399), (155, 15543), (156, 15546), (161, 15597), (167, 15654), (168, 15666), (171, 15675),

Gene: Lilbeanie_18 Start: 10655, Stop: 12583, Start Num: 5

Candidate Starts for Lilbeanie_18:

(2, 10613), (Start: 5 @10655 has 112 MA's), (9, 10754), (16, 10871), (19, 10886), (36, 11204), (67, 11441), (73, 11489), (88, 11672), (101, 11846), (112, 11948), (115, 11972), (131, 12107), (138, 12179), (139, 12185), (150, 12287), (151, 12299), (159, 12377), (167, 12443), (170, 12461), (174, 12488),

Gene: Love_22 Start: 15199, Stop: 17106, Start Num: 5

Candidate Starts for Love_22:

(Start: 5 @15199 has 112 MA's), (19, 15430), (22, 15448), (36, 15715), (52, 15853), (60, 15922), (66, 15955), (87, 16180), (88, 16186), (91, 16249), (94, 16261), (95, 16264), (96, 16276), (102, 16363), (106, 16417), (115, 16486), (118, 16522), (134, 16666), (139, 16717), (155, 16861), (156, 16864), (157, 16867), (161, 16915), (167, 16972),

Gene: Maih_13 Start: 13750, Stop: 15444, Start Num: 11

Candidate Starts for Maih_13:

(Start: 11 @13750 has 12 MA's), (12, 13759), (23, 13861), (31, 13993), (33, 14017), (36, 14113), (46, 14194), (50, 14239), (51, 14248), (55, 14281), (58, 14308), (59, 14311), (68, 14359), (70, 14392), (71, 14395), (76, 14434), (78, 14440), (84, 14518), (85, 14551), (92, 14641), (102, 14731), (108, 14797), (110, 14809), (111, 14812), (122, 14929), (127, 14962), (131, 15004), (143, 15121), (156, 15217), (162, 15274), (169, 15337), (171, 15343), (177, 15376), (180, 15400), (183, 15418), (186, 15433),

Gene: McCrothy_21 Start: 15065, Stop: 16975, Start Num: 5

Candidate Starts for McCrothy_21:

(Start: 5 @15065 has 112 MA's), (19, 15296), (22, 15314), (36, 15584), (52, 15722), (60, 15791), (66, 15824), (87, 16049), (88, 16055), (91, 16118), (94, 16130), (95, 16133), (96, 16145), (102, 16232), (115, 16355), (118, 16391), (134, 16535), (139, 16586), (155, 16730), (156, 16733), (157, 16736), (161, 16784), (167, 16841),

Gene: McKinley_21 Start: 15222, Stop: 17132, Start Num: 5

Candidate Starts for McKinley_21:

(Start: 5 @15222 has 112 MA's), (19, 15453), (22, 15471), (36, 15741), (52, 15879), (60, 15948), (66, 15981), (87, 16206), (88, 16212), (91, 16275), (94, 16287), (95, 16290), (96, 16302), (102, 16389), (115, 16512), (118, 16548), (134, 16692), (139, 16743), (155, 16887), (156, 16890), (157, 16893), (161, 16941), (167, 16998),

Gene: MelBins_22 Start: 15543, Stop: 17459, Start Num: 5

Candidate Starts for MelBins_22:

(Start: 5 @15543 has 112 MA's), (15, 15744), (28, 15867), (36, 16035), (45, 16101), (52, 16158), (75, 16335), (77, 16344), (81, 16395), (83, 16446), (87, 16509), (88, 16515), (91, 16578), (96, 16605), (102, 16692), (120, 16875), (129, 16950), (132, 16965), (134, 16989), (136, 17022), (139, 17040), (145, 17097), (154, 17208), (163, 17277), (164, 17289), (167, 17325), (178, 17391),

Gene: Mischief19_14 Start: 15652, Stop: 17313, Start Num: 11

Candidate Starts for Mischief19_14:

(Start: 11 @15652 has 12 MA's), (17, 15730), (31, 15895), (34, 15976), (44, 16060), (52, 16147), (57, 16189), (59, 16204), (65, 16243), (67, 16249), (68, 16252), (70, 16285), (84, 16411), (85, 16444), (87, 16465), (90, 16525), (100, 16609), (107, 16684), (110, 16702), (127, 16837), (131, 16879), (143, 16996), (152, 17065), (157, 17095),

Gene: MoontowerMania_19 Start: 14205, Stop: 16112, Start Num: 5

Candidate Starts for MoontowerMania_19:

(Start: 5 @14205 has 112 MA's), (19, 14436), (22, 14454), (36, 14721), (52, 14859), (60, 14928), (66, 14961), (87, 15186), (88, 15192), (91, 15255), (94, 15267), (95, 15270), (96, 15282), (102, 15369), (106, 15423), (115, 15492), (118, 15528), (134, 15672), (139, 15723), (155, 15867), (156, 15870), (157, 15873), (161, 15921), (167, 15978),

Gene: Mutzi_21 Start: 12236, Stop: 14134, Start Num: 5

Candidate Starts for Mutzi_21:

(Start: 5 @12236 has 112 MA's), (20, 12473), (22, 12485), (26, 12539), (57, 12932), (61, 12965), (66, 12989), (88, 13229), (99, 13370), (110, 13487), (115, 13532), (116, 13535), (123, 13595), (129, 13658), (148, 13832), (156, 13892), (157, 13895), (164, 13964), (166, 13994), (170, 14018), (174, 14045), (175, 14048),

Gene: Natkenzie_21 Start: 15527, Stop: 17449, Start Num: 5

Candidate Starts for Natkenzie_21:

(Start: 5 @15527 has 112 MA's), (16, 15743), (19, 15758), (32, 15932), (43, 16070), (44, 16079), (47, 16148), (49, 16154), (56, 16208), (59, 16232), (86, 16484), (87, 16502), (88, 16508), (91, 16571), (94, 16583), (95, 16586), (96, 16598), (102, 16688), (104, 16715), (121, 16874), (130, 16952), (141, 17048), (144, 17084), (154, 17204), (158, 17237), (167, 17321), (174, 17366),

Gene: Nordenberg_15 Start: 13519, Stop: 15426, Start Num: 5

Candidate Starts for Nordenberg_15:

(Start: 5 @13519 has 112 MA's), (19, 13750), (22, 13768), (36, 14035), (52, 14173), (60, 14242), (66, 14275), (87, 14500), (88, 14506), (91, 14569), (94, 14581), (95, 14584), (96, 14596), (102, 14683), (115, 14806), (118, 14842), (134, 14986), (139, 15037), (154, 15175), (155, 15181), (156, 15184), (157, 15187), (161, 15235), (167, 15292),

Gene: Nubi_19 Start: 11864, Stop: 13762, Start Num: 5

Candidate Starts for Nubi_19:

(Start: 5 @11864 has 112 MA's), (20, 12101), (22, 12113), (26, 12167), (38, 12398), (57, 12560), (61, 12593), (88, 12857), (98, 12986), (99, 12998), (110, 13115), (115, 13160), (116, 13163), (123, 13223), (125, 13241), (128, 13256), (129, 13286), (131, 13298), (132, 13301), (144, 13421), (148, 13460), (156, 13520), (164, 13592), (166, 13622), (170, 13646), (174, 13673), (175, 13676), (179, 13703),

Gene: Paries_21 Start: 14887, Stop: 16794, Start Num: 5

Candidate Starts for Paries_21:

(Start: 5 @14887 has 112 MA's), (19, 15118), (22, 15136), (36, 15403), (52, 15541), (60, 15610), (66, 15643), (87, 15868), (88, 15874), (91, 15937), (94, 15949), (95, 15952), (96, 15964), (102, 16051), (106, 16105), (115, 16174), (118, 16210), (134, 16354), (139, 16405), (155, 16549), (156, 16552), (157, 16555), (161, 16603), (167, 16660),

Gene: Phauci_14 Start: 11906, Stop: 13825, Start Num: 5

Candidate Starts for Phauci_14:

(Start: 5 @11906 has 112 MA's), (15, 12107), (28, 12230), (36, 12401), (44, 12446), (45, 12467), (52, 12524), (75, 12701), (77, 12710), (81, 12761), (83, 12812), (87, 12875), (88, 12881), (91, 12944), (96, 12971), (102, 13058), (120, 13241), (129, 13316), (132, 13331), (134, 13355), (136, 13388), (139, 13406), (145, 13463), (154, 13574), (163, 13643), (164, 13655), (167, 13691), (178, 13757),

Gene: Phinally_21 Start: 15336, Stop: 17255, Start Num: 5

Candidate Starts for Phinally_21:

(Start: 5 @15336 has 112 MA's), (15, 15537), (28, 15660), (36, 15831), (44, 15876), (45, 15897), (52, 15954), (69, 16080), (75, 16131), (77, 16140), (81, 16191), (83, 16242), (87, 16305), (88, 16311), (91, 16374), (96, 16401), (102, 16488), (120, 16671), (129, 16746), (132, 16761), (134, 16785), (136, 16818), (139, 16836), (145, 16893), (154, 17004), (163, 17073), (164, 17085), (167, 17121), (178,

17187),

Gene: Phlop_19 Start: 11937, Stop: 13826, Start Num: 5

Candidate Starts for Phlop_19:

(Start: 5 @11937 has 112 MA's), (20, 12174), (22, 12186), (26, 12240), (38, 12465), (57, 12627), (61, 12660), (66, 12684), (88, 12912), (93, 12984), (98, 13041), (110, 13170), (115, 13215), (116, 13218), (129, 13341), (131, 13353), (136, 13413), (154, 13566), (156, 13575), (164, 13647), (166, 13677), (174, 13728), (178, 13749), (181, 13773),

Gene: PinkCoffee_21 Start: 12521, Stop: 14419, Start Num: 5

Candidate Starts for PinkCoffee_21:

(Start: 5 @12521 has 112 MA's), (20, 12758), (22, 12770), (26, 12824), (57, 13217), (61, 13250), (66, 13274), (88, 13514), (98, 13643), (99, 13655), (110, 13772), (115, 13817), (116, 13820), (123, 13880), (125, 13898), (129, 13943), (131, 13955), (132, 13958), (133, 13979), (144, 14078), (148, 14117), (156, 14177), (164, 14249), (166, 14279), (170, 14303), (174, 14330), (175, 14333), (179, 14360),

Gene: Portcullis_19 Start: 11883, Stop: 13769, Start Num: 5

Candidate Starts for Portcullis_19:

(Start: 5 @11883 has 112 MA's), (20, 12120), (22, 12132), (26, 12186), (57, 12567), (61, 12600), (67, 12627), (98, 12993), (99, 13005), (110, 13122), (115, 13167), (116, 13170), (123, 13230), (125, 13248), (129, 13293), (131, 13305), (132, 13308), (144, 13428), (148, 13467), (156, 13527), (164, 13599), (166, 13629), (170, 13653), (174, 13680), (175, 13683), (179, 13710),

Gene: PullumCavea_19 Start: 11937, Stop: 13826, Start Num: 5

Candidate Starts for PullumCavea_19:

(Start: 5 @11937 has 112 MA's), (20, 12174), (22, 12186), (26, 12240), (38, 12465), (57, 12627), (61, 12660), (66, 12684), (88, 12912), (93, 12984), (98, 13041), (110, 13170), (115, 13215), (116, 13218), (129, 13341), (131, 13353), (136, 13413), (154, 13566), (156, 13575), (164, 13647), (166, 13677), (174, 13728), (178, 13749), (181, 13773),

Gene: Pumpkiney_23 Start: 14240, Stop: 16156, Start Num: 5

Candidate Starts for Pumpkiney_23:

(Start: 5 @14240 has 112 MA's), (16, 14456), (19, 14471), (32, 14645), (44, 14792), (47, 14858), (49, 14864), (56, 14918), (59, 14942), (62, 14966), (86, 15194), (87, 15212), (88, 15218), (91, 15281), (94, 15293), (95, 15296), (96, 15308), (102, 15398), (104, 15425), (121, 15584), (130, 15662), (141, 15758), (167, 16028), (174, 16073),

Gene: RainyPolka_13 Start: 13679, Stop: 15376, Start Num: 11

Candidate Starts for RainyPolka_13:

(Start: 11 @13679 has 12 MA's), (12, 13688), (17, 13757), (20, 13775), (23, 13790), (31, 13922), (33, 13946), (36, 14045), (46, 14126), (51, 14180), (54, 14210), (55, 14213), (58, 14240), (59, 14243), (68, 14291), (78, 14372), (82, 14414), (85, 14483), (92, 14573), (102, 14663), (108, 14729), (110, 14741), (111, 14744), (117, 14810), (127, 14894), (131, 14936), (136, 14996), (156, 15149), (162, 15206), (168, 15266), (169, 15269), (177, 15308), (180, 15332), (183, 15350),

Gene: Ribeye_21 Start: 15768, Stop: 17690, Start Num: 5

Candidate Starts for Ribeye_21:

(Start: 5 @15768 has 112 MA's), (19, 15999), (36, 16296), (45, 16365), (48, 16413), (52, 16437), (60, 16506), (63, 16530), (77, 16623), (87, 16764), (88, 16770), (91, 16833), (94, 16845), (95, 16848), (96, 16860), (102, 16947), (115, 17070), (118, 17106), (121, 17139), (129, 17211), (134, 17250), (139, 17301), (154, 17439), (155, 17445), (156, 17448), (161, 17499), (167, 17556), (168, 17568), (171, 17577),

Gene: RiverRaider_21 Start: 14172, Stop: 16070, Start Num: 5

Candidate Starts for RiverRaider_21:

(1, 14094), (Start: 5 @14172 has 112 MA's), (19, 14403), (22, 14421), (28, 14496), (36, 14670), (45, 14751), (52, 14817), (60, 14886), (87, 15144), (88, 15150), (91, 15213), (94, 15225), (95, 15228), (96, 15240), (102, 15327), (115, 15450), (118, 15486), (129, 15591), (134, 15630), (139, 15681), (142, 15714), (155, 15825), (156, 15828), (157, 15831), (158, 15852), (161, 15879), (165, 15906), (167, 15936), (168, 15948),

Gene: RoadKill_18 Start: 13249, Stop: 15138, Start Num: 5

Candidate Starts for RoadKill_18:

(4, 13240), (Start: 5 @13249 has 112 MA's), (7, 13315), (19, 13483), (22, 13501), (38, 13774), (48, 13870), (76, 14077), (83, 14155), (88, 14224), (91, 14287), (94, 14299), (95, 14302), (100, 14386), (102, 14401), (112, 14500), (118, 14554), (129, 14659), (139, 14749), (147, 14830), (154, 14887), (157, 14899), (163, 14956), (164, 14968), (167, 15004), (178, 15070),

Gene: Rofo_20 Start: 15139, Stop: 17046, Start Num: 5

Candidate Starts for Rofo_20:

(Start: 5 @15139 has 112 MA's), (19, 15370), (22, 15388), (36, 15655), (52, 15793), (60, 15862), (66, 15895), (87, 16120), (88, 16126), (91, 16189), (94, 16201), (95, 16204), (96, 16216), (115, 16426), (118, 16462), (134, 16606), (139, 16657), (155, 16801), (156, 16804), (157, 16807), (161, 16855), (167, 16912),

Gene: RogerDodger_22 Start: 12733, Stop: 14619, Start Num: 5

Candidate Starts for RogerDodger_22:

(Start: 5 @12733 has 112 MA's), (20, 12970), (22, 12982), (26, 13036), (38, 13258), (57, 13420), (61, 13453), (88, 13705), (93, 13777), (98, 13834), (99, 13846), (110, 13963), (115, 14008), (116, 14011), (129, 14134), (131, 14146), (136, 14206), (154, 14359), (156, 14368), (164, 14440), (166, 14470), (178, 14542), (181, 14566),

Gene: Salete_13 Start: 13751, Stop: 15445, Start Num: 11

Candidate Starts for Salete_13:

(Start: 11 @13751 has 12 MA's), (12, 13760), (23, 13862), (31, 13994), (33, 14018), (36, 14114), (46, 14195), (50, 14240), (51, 14249), (55, 14282), (58, 14309), (59, 14312), (68, 14360), (70, 14393), (71, 14396), (76, 14435), (78, 14441), (84, 14519), (85, 14552), (92, 14642), (102, 14732), (108, 14798), (110, 14810), (111, 14813), (122, 14930), (127, 14963), (131, 15005), (143, 15122), (156, 15218), (162, 15275), (169, 15338), (171, 15344), (177, 15377), (180, 15401), (183, 15419), (186, 15434),

Gene: Salvador_19 Start: 11842, Stop: 13740, Start Num: 5

Candidate Starts for Salvador_19:

(Start: 5 @11842 has 112 MA's), (20, 12079), (22, 12091), (26, 12145), (38, 12376), (57, 12538), (61, 12571), (88, 12835), (98, 12964), (99, 12976), (110, 13093), (115, 13138), (116, 13141), (123, 13201), (125, 13219), (128, 13234), (129, 13264), (131, 13276), (132, 13279), (144, 13399), (148, 13438), (156, 13498), (164, 13570), (166, 13600), (170, 13624), (174, 13651), (175, 13654), (179, 13681),

Gene: Sampson_21 Start: 15472, Stop: 17394, Start Num: 5

Candidate Starts for Sampson_21:

(Start: 5 @15472 has 112 MA's), (16, 15688), (19, 15703), (32, 15877), (43, 16015), (44, 16024), (47, 16093), (49, 16099), (56, 16153), (59, 16177), (86, 16429), (87, 16447), (88, 16453), (91, 16516), (94, 16528), (95, 16531), (96, 16543), (102, 16633), (104, 16660), (121, 16819), (130, 16897), (141, 16993), (144, 17029), (154, 17149), (158, 17182), (167, 17266), (174, 17311),

Gene: Sanjuju_18 Start: 14651, Stop: 16558, Start Num: 5

Candidate Starts for Sanjuju_18:

(Start: 5 @14651 has 112 MA's), (19, 14882), (22, 14900), (36, 15167), (52, 15305), (60, 15374), (66, 15407), (87, 15632), (88, 15638), (91, 15701), (94, 15713), (95, 15716), (96, 15728), (102, 15815), (106, 15869), (115, 15938), (118, 15974), (134, 16118), (139, 16169), (155, 16313), (156, 16316), (157, 16319), (161, 16367), (167, 16424),

Gene: Saronaya_20 Start: 14562, Stop: 16469, Start Num: 5

Candidate Starts for Saronaya_20:

(Start: 5 @14562 has 112 MA's), (13, 14697), (19, 14793), (36, 15075), (45, 15144), (48, 15192), (52, 15216), (56, 15252), (60, 15285), (63, 15309), (77, 15402), (87, 15543), (88, 15549), (91, 15612), (94, 15624), (95, 15627), (96, 15639), (102, 15726), (115, 15849), (118, 15885), (129, 15990), (134, 16029), (139, 16080), (154, 16218), (155, 16224), (156, 16227), (161, 16278), (167, 16335), (168, 16347), (171, 16356),

Gene: Savbucketdawg_19 Start: 11635, Stop: 13521, Start Num: 5

Candidate Starts for Savbucketdawg_19:

(Start: 5 @11635 has 112 MA's), (20, 11872), (22, 11884), (26, 11938), (57, 12319), (61, 12352), (67, 12379), (98, 12745), (99, 12757), (110, 12874), (115, 12919), (116, 12922), (123, 12982), (125, 13000), (129, 13045), (131, 13057), (132, 13060), (144, 13180), (148, 13219), (156, 13279), (164, 13351), (166, 13381), (170, 13405), (174, 13432), (175, 13435), (179, 13462),

Gene: SchottB_19 Start: 15551, Stop: 17470, Start Num: 5

Candidate Starts for SchottB_19:

(Start: 5 @15551 has 112 MA's), (13, 15686), (19, 15782), (36, 16076), (45, 16145), (48, 16193), (52, 16217), (56, 16253), (60, 16286), (63, 16310), (77, 16403), (87, 16544), (88, 16550), (91, 16613), (94, 16625), (95, 16628), (96, 16640), (102, 16727), (115, 16850), (118, 16886), (121, 16919), (129, 16991), (134, 17030), (139, 17081), (155, 17225), (156, 17228), (161, 17279), (167, 17336), (168, 17348), (171, 17357),

Gene: Scioto_21 Start: 15527, Stop: 17449, Start Num: 5

Candidate Starts for Scioto_21:

(Start: 5 @15527 has 112 MA's), (16, 15743), (19, 15758), (32, 15932), (43, 16070), (44, 16079), (47, 16148), (49, 16154), (56, 16208), (59, 16232), (86, 16484), (87, 16502), (88, 16508), (91, 16571), (94, 16583), (95, 16586), (96, 16598), (102, 16688), (104, 16715), (121, 16874), (130, 16952), (141, 17048), (144, 17084), (154, 17204), (158, 17237), (167, 17321), (174, 17366),

Gene: Sedona_22 Start: 16968, Stop: 18863, Start Num: 5

Candidate Starts for Sedona_22:

(Start: 5 @16968 has 112 MA's), (19, 17199), (22, 17217), (36, 17472), (52, 17610), (60, 17679), (66, 17712), (87, 17937), (88, 17943), (91, 18006), (94, 18018), (95, 18021), (96, 18033), (102, 18120), (115, 18243), (118, 18279), (134, 18423), (139, 18474), (155, 18618), (156, 18621), (157, 18624), (161, 18672), (167, 18729), (184, 18846),

Gene: Shinji_19 Start: 11824, Stop: 13710, Start Num: 5

Candidate Starts for Shinji_19:

(Start: 5 @11824 has 112 MA's), (20, 12061), (22, 12073), (26, 12127), (57, 12508), (61, 12541), (67, 12568), (98, 12934), (99, 12946), (110, 13063), (115, 13108), (116, 13111), (123, 13171), (125, 13189), (129, 13234), (131, 13246), (132, 13249), (144, 13369), (148, 13408), (156, 13468), (164, 13540), (166, 13570), (170, 13594), (174, 13621), (175, 13624), (179, 13651),

Gene: Shivanishola_20 Start: 14945, Stop: 16852, Start Num: 5

Candidate Starts for Shivanishola_20:

(Start: 5 @14945 has 112 MA's), (19, 15176), (22, 15194), (36, 15461), (52, 15599), (60, 15668), (66, 15701), (87, 15926), (88, 15932), (91, 15995), (94, 16007), (95, 16010), (96, 16022), (102, 16109),

(106, 16163), (115, 16232), (118, 16268), (134, 16412), (139, 16463), (155, 16607), (156, 16610), (157, 16613), (161, 16661), (167, 16718),

Gene: Sitar_22 Start: 16336, Stop: 18231, Start Num: 5

Candidate Starts for Sitar_22:

(Start: 5 @16336 has 112 MA's), (19, 16567), (22, 16585), (36, 16840), (52, 16978), (60, 17047), (66, 17080), (87, 17305), (88, 17311), (91, 17374), (94, 17386), (95, 17389), (96, 17401), (102, 17488), (115, 17611), (118, 17647), (134, 17791), (139, 17842), (155, 17986), (156, 17989), (157, 17992), (161, 18040), (167, 18097), (184, 18214),

Gene: SmokingBunny_19 Start: 11842, Stop: 13740, Start Num: 5

Candidate Starts for SmokingBunny_19:

(Start: 5 @11842 has 112 MA's), (20, 12079), (22, 12091), (26, 12145), (38, 12376), (57, 12538), (61, 12571), (88, 12835), (98, 12964), (99, 12976), (110, 13093), (115, 13138), (116, 13141), (123, 13201), (125, 13219), (128, 13234), (129, 13264), (131, 13276), (132, 13279), (144, 13399), (148, 13438), (156, 13498), (164, 13570), (166, 13600), (170, 13624), (174, 13651), (175, 13654), (179, 13681),

Gene: StorminNorm_20 Start: 14442, Stop: 16349, Start Num: 5

Candidate Starts for StorminNorm_20:

(Start: 5 @14442 has 112 MA's), (13, 14577), (19, 14673), (36, 14955), (45, 15024), (48, 15072), (52, 15096), (56, 15132), (60, 15165), (63, 15189), (77, 15282), (87, 15423), (88, 15429), (91, 15492), (94, 15504), (95, 15507), (96, 15519), (102, 15606), (115, 15729), (118, 15765), (129, 15870), (134, 15909), (139, 15960), (154, 16098), (155, 16104), (156, 16107), (161, 16158), (167, 16215), (168, 16227), (171, 16236), (185, 16335),

Gene: Stultus_20 Start: 14947, Stop: 16842, Start Num: 5

Candidate Starts for Stultus_20:

(Start: 5 @14947 has 112 MA's), (19, 15178), (22, 15196), (36, 15451), (52, 15589), (60, 15658), (66, 15691), (87, 15916), (88, 15922), (91, 15985), (94, 15997), (95, 16000), (96, 16012), (102, 16099), (115, 16222), (118, 16258), (134, 16402), (139, 16453), (155, 16597), (156, 16600), (157, 16603), (161, 16651), (167, 16708), (184, 16825),

Gene: TP1604_13 Start: 13751, Stop: 15445, Start Num: 11

Candidate Starts for TP1604_13:

(Start: 11 @13751 has 12 MA's), (12, 13760), (23, 13862), (31, 13994), (33, 14018), (36, 14114), (46, 14195), (50, 14240), (51, 14249), (55, 14282), (58, 14309), (59, 14312), (68, 14360), (70, 14393), (71, 14396), (76, 14435), (78, 14441), (84, 14519), (85, 14552), (92, 14642), (100, 14717), (102, 14732), (108, 14798), (110, 14810), (111, 14813), (122, 14930), (127, 14963), (131, 15005), (143, 15122), (156, 15218), (162, 15275), (165, 15296), (169, 15338), (171, 15344), (177, 15377), (180, 15401), (183, 15419), (186, 15434),

Gene: Tangent_18 Start: 14140, Stop: 16047, Start Num: 5

Candidate Starts for Tangent_18:

(Start: 5 @14140 has 112 MA's), (19, 14371), (22, 14389), (36, 14656), (52, 14794), (60, 14863), (66, 14896), (87, 15121), (88, 15127), (91, 15190), (94, 15202), (95, 15205), (96, 15217), (102, 15304), (106, 15358), (115, 15427), (118, 15463), (134, 15607), (139, 15658), (155, 15802), (156, 15805), (157, 15808), (161, 15856), (167, 15913),

Gene: Tangerine_20 Start: 14448, Stop: 16355, Start Num: 5

Candidate Starts for Tangerine_20:

(Start: 5 @14448 has 112 MA's), (13, 14583), (19, 14679), (36, 14961), (45, 15030), (48, 15078), (52, 15102), (56, 15138), (60, 15171), (63, 15195), (77, 15288), (87, 15429), (88, 15435), (91, 15498), (94, 15510), (95, 15513), (96, 15525), (102, 15612), (115, 15735), (118, 15771), (129, 15876), (134,

15915), (139, 15966), (154, 16104), (155, 16110), (156, 16113), (161, 16164), (167, 16221), (168, 16233), (171, 16242), (185, 16341),

Gene: Tardus_22 Start: 14807, Stop: 16726, Start Num: 5

Candidate Starts for Tardus_22:

(Start: 5 @14807 has 112 MA's), (16, 15023), (18, 15035), (19, 15038), (32, 15212), (39, 15326), (43, 15350), (44, 15359), (47, 15425), (49, 15431), (56, 15485), (59, 15509), (86, 15761), (87, 15779), (88, 15785), (91, 15848), (94, 15860), (95, 15863), (96, 15875), (102, 15965), (104, 15992), (121, 16151), (130, 16229), (141, 16325), (158, 16514), (167, 16598), (170, 16616), (175, 16646),

Gene: Thing3_21 Start: 15684, Stop: 17591, Start Num: 5

Candidate Starts for Thing3_21:

(Start: 5 @15684 has 112 MA's), (19, 15915), (22, 15933), (36, 16200), (52, 16338), (60, 16407), (66, 16440), (87, 16665), (88, 16671), (91, 16734), (94, 16746), (95, 16749), (96, 16761), (102, 16848), (106, 16902), (115, 16971), (118, 17007), (134, 17151), (139, 17202), (155, 17346), (156, 17349), (157, 17352), (161, 17400), (167, 17457),

Gene: Tiamoceli_21 Start: 14601, Stop: 16490, Start Num: 5

Candidate Starts for Tiamoceli_21:

(4, 14592), (Start: 5 @14601 has 112 MA's), (7, 14667), (19, 14835), (22, 14853), (38, 15126), (48, 15222), (74, 15414), (76, 15429), (83, 15507), (88, 15576), (91, 15639), (94, 15651), (95, 15654), (100, 15738), (102, 15753), (112, 15852), (118, 15906), (129, 16011), (139, 16101), (147, 16182), (154, 16239), (164, 16320), (167, 16356), (178, 16422),

Gene: TillyBobJoe_19 Start: 11638, Stop: 13524, Start Num: 5

Candidate Starts for TillyBobJoe_19:

(Start: 5 @11638 has 112 MA's), (20, 11875), (22, 11887), (26, 11941), (57, 12322), (61, 12355), (67, 12382), (98, 12748), (99, 12760), (110, 12877), (115, 12922), (116, 12925), (123, 12985), (125, 13003), (129, 13048), (131, 13060), (132, 13063), (144, 13183), (148, 13222), (156, 13282), (164, 13354), (166, 13384), (170, 13408), (174, 13435), (175, 13438), (179, 13465),

Gene: Togo_19 Start: 11842, Stop: 13740, Start Num: 5

Candidate Starts for Togo_19:

(Start: 5 @11842 has 112 MA's), (20, 12079), (22, 12091), (26, 12145), (38, 12376), (57, 12538), (61, 12571), (88, 12835), (98, 12964), (99, 12976), (110, 13093), (115, 13138), (116, 13141), (123, 13201), (125, 13219), (128, 13234), (129, 13264), (131, 13276), (132, 13279), (144, 13399), (148, 13438), (156, 13498), (164, 13570), (166, 13600), (170, 13624), (174, 13651), (175, 13654), (179, 13681),

Gene: TurkishDelight_17 Start: 12983, Stop: 14710, Start Num: 11

Candidate Starts for TurkishDelight_17:

(8, 12944), (Start: 11 @12983 has 12 MA's), (18, 13091), (24, 13139), (25, 13148), (29, 13241), (42, 13418), (51, 13514), (68, 13625), (89, 13889), (90, 13898), (97, 13940), (103, 14003), (110, 14075), (111, 14078), (112, 14096), (122, 14177), (124, 14189), (127, 14210), (132, 14255), (143, 14369), (146, 14405), (161, 14516), (162, 14522), (171, 14594), (173, 14606), (182, 14669),

Gene: Twister6_21 Start: 12280, Stop: 14166, Start Num: 5

Candidate Starts for Twister6_21:

(Start: 5 @12280 has 112 MA's), (20, 12517), (22, 12529), (26, 12583), (38, 12805), (57, 12967), (61, 13000), (88, 13252), (93, 13324), (98, 13381), (99, 13393), (110, 13510), (115, 13555), (116, 13558), (129, 13681), (131, 13693), (136, 13753), (154, 13906), (156, 13915), (164, 13987), (166, 14017), (178, 14089), (181, 14113),

Gene: Twonlo_18 Start: 13218, Stop: 15107, Start Num: 5

Candidate Starts for Twonlo_18:

(4, 13209), (Start: 5 @13218 has 112 MA's), (7, 13284), (19, 13452), (22, 13470), (38, 13743), (48, 13839), (74, 14031), (76, 14046), (83, 14124), (88, 14193), (91, 14256), (94, 14268), (95, 14271), (100, 14355), (102, 14370), (112, 14469), (118, 14523), (129, 14628), (139, 14718), (147, 14799), (154, 14856), (163, 14925), (164, 14937), (167, 14973), (178, 15039),

Gene: Tycho_20 Start: 14565, Stop: 16484, Start Num: 5

Candidate Starts for Tycho_20:

(Start: 5 @14565 has 112 MA's), (13, 14700), (19, 14796), (36, 15090), (45, 15159), (48, 15207), (52, 15231), (56, 15267), (60, 15300), (63, 15324), (77, 15417), (87, 15558), (88, 15564), (91, 15627), (94, 15639), (95, 15642), (96, 15654), (102, 15741), (115, 15864), (118, 15900), (121, 15933), (129, 16005), (134, 16044), (139, 16095), (154, 16233), (155, 16239), (156, 16242), (161, 16293), (167, 16350), (168, 16362), (171, 16371),

Gene: Valary_22 Start: 12733, Stop: 14619, Start Num: 5

Candidate Starts for Valary_22:

(Start: 5 @12733 has 112 MA's), (20, 12970), (22, 12982), (26, 13036), (38, 13258), (57, 13420), (61, 13453), (88, 13705), (93, 13777), (98, 13834), (99, 13846), (110, 13963), (115, 14008), (116, 14011), (129, 14134), (131, 14146), (136, 14206), (154, 14359), (156, 14368), (164, 14440), (166, 14470), (178, 14542), (181, 14566),

Gene: VanDeWege_22 Start: 12661, Stop: 14547, Start Num: 5

Candidate Starts for VanDeWege_22:

(Start: 5 @12661 has 112 MA's), (20, 12898), (22, 12910), (26, 12964), (38, 13186), (57, 13348), (61, 13381), (88, 13633), (93, 13705), (98, 13762), (99, 13774), (110, 13891), (115, 13936), (116, 13939), (129, 14062), (131, 14074), (136, 14134), (154, 14287), (156, 14296), (164, 14368), (166, 14398), (178, 14470), (181, 14494),

Gene: Verity_21 Start: 14990, Stop: 16909, Start Num: 5

Candidate Starts for Verity_21:

(Start: 5 @14990 has 112 MA's), (9, 15089), (16, 15206), (18, 15218), (19, 15221), (32, 15395), (39, 15509), (44, 15542), (47, 15608), (49, 15614), (56, 15668), (59, 15692), (64, 15728), (86, 15944), (87, 15962), (88, 15968), (91, 16031), (94, 16043), (95, 16046), (96, 16058), (102, 16148), (104, 16175), (121, 16334), (130, 16412), (135, 16448), (141, 16508), (145, 16553), (154, 16664), (158, 16697), (167, 16781), (170, 16799), (175, 16829),

Gene: ViaConlectus_22 Start: 15542, Stop: 17461, Start Num: 5

Candidate Starts for ViaConlectus_22:

(Start: 5 @15542 has 112 MA's), (16, 15758), (19, 15773), (32, 15947), (44, 16094), (47, 16160), (49, 16166), (56, 16220), (59, 16244), (62, 16268), (86, 16496), (87, 16514), (88, 16520), (91, 16583), (94, 16595), (95, 16598), (96, 16610), (102, 16700), (104, 16727), (121, 16886), (130, 16964), (141, 17060), (144, 17096), (149, 17159), (151, 17189), (154, 17216), (158, 17249), (167, 17333), (174, 17378),

Gene: Vivi2_20 Start: 15311, Stop: 17209, Start Num: 5

Candidate Starts for Vivi2_20:

(Start: 5 @15311 has 112 MA's), (19, 15542), (22, 15560), (36, 15818), (52, 15956), (60, 16025), (66, 16058), (87, 16283), (88, 16289), (91, 16352), (94, 16364), (95, 16367), (96, 16379), (102, 16466), (115, 16589), (118, 16625), (134, 16769), (139, 16820), (155, 16964), (156, 16967), (157, 16970), (161, 17018), (167, 17075),

Gene: Wizard_19 Start: 11982, Stop: 13874, Start Num: 5

Candidate Starts for Wizard_19:

(Start: 5 @11982 has 112 MA's), (20, 12219), (22, 12231), (26, 12285), (38, 12510), (57, 12672), (61, 12705), (67, 12732), (98, 13098), (99, 13110), (110, 13227), (115, 13272), (116, 13275), (123, 13335), (125, 13353), (129, 13398), (131, 13410), (132, 13413), (144, 13533), (148, 13572), (156, 13632), (164, 13704), (166, 13734), (170, 13758), (174, 13785), (175, 13788), (179, 13815),

Gene: Xkcd426_14 Start: 14736, Stop: 16433, Start Num: 11

Candidate Starts for Xkcd426_14:

(10, 14721), (Start: 11 @14736 has 12 MA's), (18, 14823), (30, 14970), (35, 15072), (41, 15117), (50, 15210), (51, 15219), (52, 15225), (59, 15282), (67, 15327), (68, 15330), (72, 15369), (78, 15411), (85, 15522), (105, 15771), (106, 15774), (110, 15798), (114, 15831), (118, 15870), (119, 15876), (127, 15939), (131, 15981), (134, 16008), (135, 16011), (137, 16047), (162, 16257), (169, 16320), (172, 16335), (175, 16353),

Gene: YDN12_14 Start: 13688, Stop: 15382, Start Num: 11

Candidate Starts for YDN12_14:

(Start: 11 @13688 has 12 MA's), (12, 13697), (23, 13799), (33, 13955), (36, 14051), (46, 14132), (50, 14177), (51, 14186), (55, 14219), (58, 14246), (59, 14249), (68, 14297), (70, 14330), (71, 14333), (76, 14372), (78, 14378), (82, 14420), (85, 14489), (102, 14669), (108, 14735), (110, 14747), (122, 14867), (127, 14900), (131, 14942), (143, 15059), (156, 15155), (162, 15212), (169, 15275), (171, 15281), (177, 15314), (180, 15338), (183, 15356), (186, 15371),

Gene: YorkOnyx_21 Start: 14834, Stop: 16753, Start Num: 5

Candidate Starts for YorkOnyx_21:

(Start: 5 @14834 has 112 MA's), (13, 14969), (19, 15065), (36, 15359), (45, 15428), (48, 15476), (52, 15500), (56, 15536), (60, 15569), (63, 15593), (77, 15686), (87, 15827), (88, 15833), (91, 15896), (94, 15908), (95, 15911), (96, 15923), (98, 15959), (100, 15995), (102, 16010), (106, 16064), (115, 16133), (118, 16169), (121, 16202), (129, 16274), (134, 16313), (139, 16364), (154, 16502), (155, 16508), (156, 16511), (161, 16562), (167, 16619), (168, 16631), (171, 16640),

Gene: YungMoney_21 Start: 13292, Stop: 15184, Start Num: 5

Candidate Starts for YungMoney_21:

(Start: 5 @13292 has 112 MA's), (20, 13529), (22, 13541), (26, 13595), (57, 13982), (61, 14015), (66, 14039), (88, 14279), (98, 14408), (99, 14420), (101, 14456), (110, 14537), (115, 14582), (116, 14585), (123, 14645), (129, 14708), (131, 14720), (156, 14942), (164, 15014), (166, 15044), (170, 15068), (174, 15095), (175, 15098),

Gene: Zipp_21 Start: 15639, Stop: 17558, Start Num: 5

Candidate Starts for Zipp_21:

(Start: 5 @15639 has 112 MA's), (9, 15738), (16, 15855), (18, 15867), (19, 15870), (32, 16044), (39, 16158), (44, 16191), (47, 16257), (49, 16263), (56, 16317), (59, 16341), (64, 16377), (86, 16593), (87, 16611), (88, 16617), (91, 16680), (94, 16692), (95, 16695), (96, 16707), (102, 16797), (104, 16824), (121, 16983), (130, 17061), (135, 17097), (141, 17157), (145, 17202), (154, 17313), (158, 17346), (167, 17430), (170, 17448), (175, 17478),

Gene: Zitch_23 Start: 14769, Stop: 16688, Start Num: 5

Candidate Starts for Zitch_23:

(Start: 5 @14769 has 112 MA's), (16, 14988), (18, 15000), (19, 15003), (26, 15075), (32, 15177), (44, 15324), (47, 15390), (49, 15396), (56, 15450), (59, 15474), (62, 15498), (86, 15726), (87, 15744), (88, 15750), (91, 15813), (94, 15825), (95, 15828), (96, 15840), (102, 15930), (104, 15957), (121, 16116), (130, 16194), (141, 16290), (167, 16560), (170, 16578), (175, 16608),