



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 283656 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283656 has 104 members, 28 are drafts.

Phages represented in each track:

- Track 1 : GodonK_66
- Track 2 : Phendrix_65
- Track 3 : BlueNGold_76, Boopy_77, Forza_77, Mareelih_76
- Track 4 : Sixama_72
- Track 5 : GMA2_9
- Track 6 : Shrubaron_20, Metamorphoo_20
- Track 7 : BeagleBug_19, Onika_19
- Track 8 : Ariadne_28
- Track 9 : LittleFortune_21, Yeti_20, Phorgeous_19
- Track 10 : Jefe_20
- Track 11 : Busephilis_20, Hermeonysus_19
- Track 12 : Shotgun_19, Rockwell_19, CrazyRich_19, Savannah_19, Ramiel05_19, Kowalski_19
- Track 13 : ClearAsMud_22
- Track 14 : Cranjis_21
- Track 15 : Lucretia_20
- Track 16 : Jollipop_20
- Track 17 : PiperSansNom_20
- Track 18 : Jayden_20
- Track 19 : NoodlelyBoi_19
- Track 20 : Gina_20, Teamocil_20
- Track 21 : Megan_13
- Track 22 : KaiHaiDragon_20, EarickHC_20
- Track 23 : PhedwardCullen_18
- Track 24 : Pulchra_21
- Track 25 : Selwyn23_21
- Track 26 : Paschalis_19, PierreOrion_20
- Track 27 : BrazzalePHS_19
- Track 28 : Phrancesco_21, Scumberland_21, Honeyfin_21
- Track 29 : Zapato_17
- Track 30 : Skugga_18
- Track 31 : Smarties_28
- Track 32 : Glorp_21
- Track 33 : Piperis_20
- Track 34 : Fireman_20
- Track 35 : Merry_, Sunny_
- Track 36 : Antares_20

- Track 37 : Tyrumbra_18
- Track 38 : SirFrank_19
- Track 39 : Nicole72_14
- Track 40 : Crisis_21
- Track 41 : RobsFeet_21
- Track 42 : Ganandorf_19
- Track 43 : Quhwah_22
- Track 44 : Cinna_12
- Track 45 : MementoMori_13
- Track 46 : Margaery_12
- Track 47 : Cressida_13
- Track 48 : Matzah_13
- Track 49 : Kozie_14
- Track 50 : Terij_13
- Track 51 : KSunshine22_70, Emmetator_68, Ellewin_67, BooTeria_72, Artu_68
- Track 52 : Talia1610_76
- Track 53 : Chilliams_73
- Track 54 : ReginaGlobina_75, Atuin_70, LeoJr_75
- Track 55 : FloraSnap32_75
- Track 56 : Bloom_80, FrostedClock_79, Patbob_76
- Track 57 : Phrampa_70
- Track 58 : SJReid_79
- Track 59 : Panchaali_73
- Track 60 : Rockabye_78
- Track 61 : Racecar_77, Mimi_76
- Track 62 : WaddleDee_63, DunneganBoMo_65
- Track 63 : GoldenEssence_62
- Track 64 : Stewart25555_66
- Track 65 : PauloDiaboli_82, Dodo_82, A3Wally_82
- Track 66 : Zooman_67
- Track 67 : Big4_71
- Track 68 : Erasmago_75
- Track 69 : Cece_66
- Track 70 : Pumpernickel_80
- Track 71 : MisoSoup_11
- Track 72 : Laure_78
- Track 73 : FuzzBuster_24

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

The start number called the most often in the published annotations is 8, it was called in 39 of the 76 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Antares_20, BeagleBug_19, Busephilis_20, ClearAsMud_22, Cranjis_21, CrazyRich_19, Crisis_21, FuzzBuster_24, Gina_20, Hermeonysus_19, Honeyfin_21, Jayden_20, Jefe_20, Jollipop_20, Kowalski_19, LittleFortune_21, Lucretia_20, Megan_13, MementoMori_13, Metamorphoo_20, Nicole72_14, NoodlelyBoi_19, Onika_19, Paschalis_19, Phorgeous_19, Phrancesco_21, PierreOrion_20, PiperSansNom_20, Piperis_20, Pulchra_21, Quhwah_22, Ramiel05_19,

RobbFeet_21, Rockwell_19, Savannah_19, Scumberland_21, Selwyn23_21, Shotgun_19, Shrubaron_20, SirFrank_19, Skugga_18, Smarties_28, Teamocil_20, Yeti_20,

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

- Ariadne_28, BrazzalePHS_19, Cinna_12, Cressida_13, EarickHC_20, Fireman_20, Ganandorf_19, Glorp_21, KaiHaiDragon_20, Kozie_14, Margaery_12, Matzah_13, Merry_, PhedwardCullen_18, Sunny_, Terij_13, Tyrumbra_18, Zapato_17,

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

- A3Wally_82, Artu_68, Atuin_70, Big4_71, Bloom_80, BlueNGold_76, BooTeria_72, Boopy_77, Cece_66, Chilliamps_73, Dodo_82, DunneganBoMo_65, Ellewin_67, Emmetator_68, Erasmago_75, FloraSnap32_75, Forza_77, FrostedClock_79, GMA2_9, GodonK_66, GoldenEssence_62, KSunshine22_70, Laure_78, LeoJr_75, Mareelih_76, Mimi_76, MisoSoup_11, Panchaali_73, Patbob_76, PauloDiaboli_82, Phendrix_65, Phrampa_70, Pumpernickel_80, Racecar_77, ReginaGlobina_75, Rockabye_78, SJReid_79, Sixama_72, Stewart25555_66, Talia1610_76, WaddleDee_63, Zooman_67,

Summary by start number:

Start 2:

- Found in 2 of 104 (1.9%) of genes in pham
- Manual Annotations of this start: 2 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Merry_ (EC), Sunny_ (EC),

Start 8:

- Found in 62 of 104 (59.6%) of genes in pham
- Manual Annotations of this start: 39 of 76
- Called 71.0% of time when present
- Phage (with cluster) where this start called: Antares_20 (EC), BeagleBug_19 (EC), Busephilis_20 (EC), ClearAsMud_22 (EC), Cranjis_21 (EC), CrazyRich_19 (EC), Crisis_21 (EC), FuzzBuster_24 (singleton), Gina_20 (EC), Hermeonysus_19 (EC), Honeyfin_21 (EC), Jayden_20 (EC), Jefe_20 (EC), Jollipop_20 (EC), Kowalski_19 (EC), LittleFortune_21 (EC), Lucretia_20 (EC), Megan_13 (EC), MementoMori_13 (EI), Metamorphoo_20 (EC), Nicole72_14 (EC), NoodlelyBoi_19 (EC), Onika_19 (EC), Paschalis_19 (EC), Phorgeous_19 (EC), Phrancesco_21 (EC), PierreOrion_20 (EC), PiperSansNom_20 (EC), Piperis_20 (EC), Pulchra_21 (EC), Quhwah_22 (EC), Ramiel05_19 (EC), RobbFeet_21 (EC), Rockwell_19 (EC), Savannah_19 (EC), Scumberland_21 (EC), Selwyn23_21 (EC), Shotgun_19 (EC), Shrubaron_20 (EC), SirFrank_19 (EC), Skugga_18 (EC), Smarties_28 (EC), Teamocil_20 (EC), Yeti_20 (EC),

Start 9:

- Found in 63 of 104 (60.6%) of genes in pham
- Manual Annotations of this start: 14 of 76
- Called 27.0% of time when present
- Phage (with cluster) where this start called: Ariadne_28 (EC), BrazzalePHS_19 (EC), Cinna_12 (EI), Cressida_13 (EI), EarickHC_20 (EC), Fireman_20 (EC), Ganandorf_19 (EC), Glorp_21 (EC), KaiHaiDragon_20 (EC), Kozie_14 (EI), Margaery_12 (EI), Matzah_13 (EI), MisoSoup_11 (UNK), PhedwardCullen_18 (EC), Terij_13 (EI), Tyrumbra_18 (EC), Zapato_17 (EC),

Start 10:

- Found in 1 of 104 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_9 (DS),

Start 12:

- Found in 2 of 104 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 76
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Phendrix_65 (DK),

Start 14:

- Found in 9 of 104 (8.7%) of genes in pham
- Manual Annotations of this start: 2 of 76
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Mimi_76 (FC), Racecar_77 (FC),

Start 15:

- Found in 2 of 104 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 76
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GodonK_66 (DK),

Start 17:

- Found in 24 of 104 (23.1%) of genes in pham
- Manual Annotations of this start: 6 of 76
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Atuin_70 (FC), Bloom_80 (FC), Chilliams_73 (FC), DunneganBoMo_65 (FC), FrostedClock_79 (FC), GoldenEssence_62 (FC), LeoJr_75 (FC), Panchaali_73 (FC), Patbob_76 (FC), Phrampa_70 (FC), ReginaGlobina_75 (FC), Rockabye_78 (FC), SJReid_79 (FC), Stewart25555_66 (FC), Talia1610_76 (FC), WaddleDee_63 (FC),

Start 18:

- Found in 6 of 104 (5.8%) of genes in pham
- Manual Annotations of this start: 5 of 76
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BlueNGold_76 (DS), Boopy_77 (DS), Forza_77 (DS), Mareelih_76 (DS), Sixama_72 (DS),

Start 21:

- Found in 8 of 104 (7.7%) of genes in pham
- Manual Annotations of this start: 6 of 76
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_82 (GD1), Big4_71 (GD2), Cece_66 (GD3), Dodo_82 (GD1), Erasmago_75 (GD2), PauloDiaboli_82 (GD1), Pumpernickel_80 (GD4), Zooman_67 (GD2),

Start 28:

- Found in 13 of 104 (12.5%) of genes in pham
- No Manual Annotations of this start.

- Called 38.5% of time when present
- Phage (with cluster) where this start called: Artu_68 (FC), BooTeria_72 (FC), Ellewin_67 (FC), Emmetator_68 (FC), KSunshine22_70 (FC),

Start 34:

- Found in 17 of 104 (16.3%) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: FloraSnap32_75 (FC),

Start 35:

- Found in 4 of 104 (3.8%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Laure_78 (UNK),

Summary by clusters:

There are 11 clusters represented in this pham: GD1, GD2, GD3, EI, DK, singleton, EC, FC, GD4, UNK, DS,

Info for manual annotations of cluster DK:

- Start number 12 was manually annotated 1 time for cluster DK.
- Start number 15 was manually annotated 1 time for cluster DK.

Info for manual annotations of cluster DS:

- Start number 18 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EC:

- Start number 2 was manually annotated 2 times for cluster EC.
- Start number 8 was manually annotated 37 times for cluster EC.
- Start number 9 was manually annotated 8 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 8 was manually annotated 1 time for cluster EI.
- Start number 9 was manually annotated 6 times for cluster EI.

Info for manual annotations of cluster FC:

- Start number 14 was manually annotated 2 times for cluster FC.
- Start number 17 was manually annotated 6 times for cluster FC.

Info for manual annotations of cluster GD1:

- Start number 21 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 21 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 21 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 21 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_82 Start: 29832, Stop: 31568, Start Num: 21

Candidate Starts for A3Wally_82:

(Start: 21 @29832 has 6 MA's), (31, 29895), (32, 29904), (41, 29982), (48, 30054), (49, 30063), (53, 30087), (55, 30096), (65, 30177), (79, 30270), (92, 30327), (108, 30450), (111, 30504), (123, 30612), (139, 30723), (143, 30765), (155, 30846), (157, 30867), (164, 30930), (170, 30990), (176, 31023), (184, 31071), (192, 31131), (200, 31242), (219, 31350), (233, 31470), (237, 31494),

Gene: Antares_20 Start: 8653, Stop: 10359, Start Num: 8

Candidate Starts for Antares_20:

(Start: 8 @8653 has 39 MA's), (Start: 9 @8662 has 14 MA's), (11, 8677), (29, 8776), (31, 8782), (43, 8887), (44, 8899), (59, 9004), (61, 9016), (65, 9070), (69, 9088), (77, 9142), (81, 9172), (92, 9211), (96, 9229), (97, 9238), (104, 9274), (109, 9337), (114, 9400), (117, 9427), (120, 9472), (139, 9574), (140, 9577), (143, 9616), (147, 9634), (156, 9706), (163, 9772), (164, 9781), (168, 9820), (173, 9853), (177, 9886), (179, 9892), (182, 9922), (196, 10075), (200, 10090), (206, 10111), (207, 10114), (235, 10318), (238, 10327),

Gene: Ariadne_28 Start: 10109, Stop: 11824, Start Num: 9

Candidate Starts for Ariadne_28:

(Start: 8 @10100 has 39 MA's), (Start: 9 @10109 has 14 MA's), (31, 10229), (43, 10334), (44, 10346), (58, 10445), (65, 10517), (69, 10535), (102, 10715), (104, 10721), (105, 10745), (109, 10784), (114, 10847), (117, 10874), (120, 10919), (139, 11021), (140, 11024), (143, 11063), (145, 11072), (152, 11114), (156, 11153), (163, 11219), (164, 11228), (165, 11243), (168, 11267), (177, 11333), (179, 11339), (182, 11366), (196, 11519), (201, 11537), (210, 11579), (213, 11603), (215, 11624), (224, 11660), (247, 11801), (250, 11813),

Gene: Artu_68 Start: 28004, Stop: 29578, Start Num: 28

Candidate Starts for Artu_68:

(Start: 17 @27944 has 6 MA's), (28, 28004), (75, 28361), (108, 28550), (109, 28559), (133, 28763), (139, 28811), (161, 28991), (170, 29078), (181, 29144), (183, 29156), (212, 29387), (228, 29474), (252, 29567),

Gene: Atuin_70 Start: 31058, Stop: 32686, Start Num: 17

Candidate Starts for Atuin_70:

(Start: 17 @31058 has 6 MA's), (50, 31298), (75, 31475), (109, 31673), (125, 31835), (133, 31877), (134, 31889), (139, 31925), (161, 32105), (170, 32192), (183, 32270), (212, 32501), (228, 32588), (240, 32636), (252, 32675),

Gene: BeagleBug_19 Start: 8461, Stop: 10137, Start Num: 8

Candidate Starts for BeagleBug_19:

(Start: 8 @8461 has 39 MA's), (Start: 9 @8470 has 14 MA's), (29, 8584), (31, 8590), (43, 8695), (44, 8707), (58, 8806), (59, 8812), (61, 8824), (65, 8878), (69, 8896), (77, 8950), (81, 8980), (92, 9019), (96, 9037), (97, 9046), (104, 9082), (109, 9145), (114, 9208), (117, 9235), (120, 9280), (139, 9382), (140, 9385), (143, 9424), (147, 9442), (156, 9514), (163, 9580), (164, 9589), (168, 9628), (173, 9661), (177, 9694), (179, 9700), (182, 9730), (185, 9745), (196, 9883), (200, 9898), (206, 9919), (207, 9922),

Gene: Big4_71 Start: 29132, Stop: 30859, Start Num: 21

Candidate Starts for Big4_71:

(Start: 21 @29132 has 6 MA's), (28, 29186), (32, 29210), (38, 29261), (42, 29297), (54, 29399), (63, 29450), (65, 29483), (75, 29549), (108, 29756), (111, 29810), (139, 30026), (152, 30119), (155, 30149), (164, 30233), (167, 30269), (170, 30293), (176, 30326), (178, 30341), (200, 30545), (201, 30548), (202, 30551), (212, 30602), (233, 30773),

Gene: Bloom_80 Start: 33695, Stop: 35374, Start Num: 17

Candidate Starts for Bloom_80:

(Start: 14 @33689 has 2 MA's), (Start: 17 @33695 has 6 MA's), (34, 33800), (48, 33923), (50, 33935), (67, 34058), (109, 34310), (111, 34355), (131, 34511), (133, 34520), (134, 34532), (139, 34568), (141, 34589), (163, 34766), (208, 35120), (218, 35186), (220, 35192), (240, 35318), (241, 35327), (252, 35363),

Gene: BlueNGold_76 Start: 31373, Stop: 33103, Start Num: 18

Candidate Starts for BlueNGold_76:

(Start: 18 @31373 has 5 MA's), (32, 31451), (39, 31505), (40, 31517), (50, 31604), (52, 31619), (64, 31709), (73, 31784), (88, 31874), (110, 32069), (111, 32087), (112, 32090), (114, 32105), (116, 32120), (118, 32135), (119, 32162), (124, 32201), (151, 32372), (155, 32405), (160, 32456), (162, 32471), (163, 32480), (171, 32555), (172, 32558), (176, 32582), (201, 32807), (205, 32822), (211, 32852), (217, 32900), (220, 32915), (221, 32921),

Gene: BooTeria_72 Start: 28459, Stop: 30033, Start Num: 28

Candidate Starts for BooTeria_72:

(Start: 17 @28399 has 6 MA's), (28, 28459), (75, 28816), (108, 29005), (109, 29014), (133, 29218), (139, 29266), (161, 29446), (170, 29533), (181, 29599), (183, 29611), (212, 29842), (228, 29929), (252, 30022),

Gene: Boopy_77 Start: 31385, Stop: 33115, Start Num: 18

Candidate Starts for Boopy_77:

(Start: 18 @31385 has 5 MA's), (32, 31463), (39, 31517), (40, 31529), (50, 31616), (52, 31631), (64, 31721), (73, 31796), (88, 31886), (110, 32081), (111, 32099), (112, 32102), (114, 32117), (116, 32132), (118, 32147), (119, 32174), (124, 32213), (151, 32384), (155, 32417), (160, 32468), (162, 32483), (163, 32492), (171, 32567), (172, 32570), (176, 32594), (201, 32819), (205, 32834), (211, 32864), (217, 32912), (220, 32927), (221, 32933),

Gene: BrazzalePHS_19 Start: 8484, Stop: 10151, Start Num: 9

Candidate Starts for BrazzalePHS_19:

(Start: 8 @8475 has 39 MA's), (Start: 9 @8484 has 14 MA's), (29, 8598), (31, 8604), (43, 8709), (44, 8721), (58, 8820), (59, 8826), (61, 8838), (65, 8892), (69, 8910), (77, 8964), (81, 8994), (92, 9033), (96, 9051), (97, 9060), (104, 9096), (109, 9159), (114, 9222), (117, 9249), (139, 9396), (140, 9399), (143, 9438), (147, 9456), (156, 9528), (163, 9594), (164, 9603), (173, 9675), (177, 9708), (179, 9714), (182, 9744), (185, 9759), (196, 9897), (200, 9912), (206, 9933), (207, 9936),

Gene: Busephilis_20 Start: 8414, Stop: 10090, Start Num: 8

Candidate Starts for Busephilis_20:

(Start: 8 @8414 has 39 MA's), (Start: 9 @8423 has 14 MA's), (29, 8537), (31, 8543), (43, 8648), (44, 8660), (58, 8759), (59, 8765), (61, 8777), (65, 8831), (69, 8849), (77, 8903), (81, 8933), (92, 8972), (96, 8990), (97, 8999), (104, 9035), (109, 9098), (114, 9161), (117, 9188), (139, 9335), (140, 9338), (143, 9377), (147, 9395), (156, 9467), (163, 9533), (164, 9542), (173, 9614), (177, 9647), (179, 9653), (182, 9683), (185, 9698), (196, 9836), (200, 9851), (206, 9872), (207, 9875),

Gene: Cece_66 Start: 27502, Stop: 29211, Start Num: 21

Candidate Starts for Cece_66:

(Start: 21 @27502 has 6 MA's), (31, 27565), (32, 27574), (49, 27733), (81, 27946), (95, 28012), (108, 28117), (111, 28171), (120, 28258), (138, 28384), (139, 28390), (148, 28462), (155, 28513), (164, 28597), (170, 28657), (198, 28900), (202, 28915), (206, 28930), (209, 28951), (211, 28957), (224, 29038), (237, 29125),

Gene: Chilliams_73 Start: 34081, Stop: 35706, Start Num: 17

Candidate Starts for Chilliams_73:

(Start: 17 @34081 has 6 MA's), (32, 34162), (35, 34189), (48, 34306), (50, 34318), (62, 34387), (92, 34579), (101, 34621), (113, 34747), (119, 34813), (131, 34888), (140, 34948), (157, 35089), (163, 35143), (164, 35152), (170, 35212), (200, 35464), (208, 35497), (214, 35536), (220, 35569), (227, 35596), (252, 35695),

Gene: Cinna_12 Start: 5856, Stop: 7613, Start Num: 9

Candidate Starts for Cinna_12:

(Start: 8 @5847 has 39 MA's), (Start: 9 @5856 has 14 MA's), (25, 5940), (30, 5976), (34, 6009), (43, 6087), (44, 6099), (45, 6108), (46, 6120), (47, 6126), (58, 6198), (59, 6204), (70, 6300), (77, 6342), (79, 6372), (85, 6402), (92, 6438), (93, 6447), (96, 6456), (97, 6465), (107, 6546), (108, 6552), (109, 6561), (114, 6624), (117, 6651), (120, 6696), (132, 6747), (139, 6798), (143, 6840), (147, 6858), (149, 6873), (156, 6930), (164, 7005), (166, 7029), (178, 7113), (179, 7116), (185, 7161), (190, 7191), (195, 7239), (201, 7320), (206, 7338), (207, 7341), (216, 7410), (221, 7434), (239, 7569), (246, 7593),

Gene: ClearAsMud_22 Start: 9173, Stop: 10873, Start Num: 8

Candidate Starts for ClearAsMud_22:

(Start: 8 @9173 has 39 MA's), (Start: 9 @9182 has 14 MA's), (31, 9302), (43, 9407), (44, 9419), (58, 9518), (59, 9524), (60, 9533), (65, 9590), (69, 9608), (77, 9662), (79, 9686), (80, 9689), (87, 9713), (92, 9731), (96, 9749), (97, 9758), (104, 9794), (109, 9857), (114, 9920), (117, 9947), (120, 9992), (139, 10094), (140, 10097), (143, 10136), (147, 10154), (156, 10226), (163, 10292), (164, 10301), (168, 10340), (177, 10406), (179, 10412), (182, 10442), (196, 10595), (201, 10613), (207, 10634), (210, 10655), (211, 10658), (213, 10679), (235, 10832),

Gene: Cranjjs_21 Start: 8638, Stop: 10314, Start Num: 8

Candidate Starts for Cranjjs_21:

(Start: 8 @8638 has 39 MA's), (Start: 9 @8647 has 14 MA's), (11, 8662), (29, 8761), (31, 8767), (43, 8872), (44, 8884), (58, 8983), (59, 8989), (61, 9001), (65, 9055), (69, 9073), (77, 9127), (81, 9157), (92, 9196), (96, 9214), (97, 9223), (104, 9259), (109, 9322), (114, 9385), (117, 9412), (139, 9559), (140, 9562), (143, 9601), (147, 9619), (156, 9691), (163, 9757), (164, 9766), (168, 9805), (173, 9838), (177, 9871), (179, 9877), (182, 9907), (185, 9922), (196, 10060), (200, 10075), (206, 10096), (207, 10099),

Gene: CrazyRich_19 Start: 8448, Stop: 10124, Start Num: 8

Candidate Starts for CrazyRich_19:

(Start: 8 @8448 has 39 MA's), (Start: 9 @8457 has 14 MA's), (29, 8571), (31, 8577), (43, 8682), (44, 8694), (58, 8793), (59, 8799), (61, 8811), (65, 8865), (69, 8883), (77, 8937), (81, 8967), (92, 9006), (96, 9024), (97, 9033), (104, 9069), (109, 9132), (114, 9195), (117, 9222), (139, 9369), (140, 9372), (143, 9411), (147, 9429), (156, 9501), (163, 9567), (164, 9576), (173, 9648), (177, 9681), (179, 9687), (182, 9717), (185, 9732), (196, 9870), (200, 9885), (206, 9906), (207, 9909),

Gene: Cressida_13 Start: 6076, Stop: 7833, Start Num: 9

Candidate Starts for Cressida_13:

(Start: 8 @6067 has 39 MA's), (Start: 9 @6076 has 14 MA's), (25, 6160), (34, 6232), (43, 6310), (44, 6322), (45, 6331), (46, 6343), (47, 6349), (58, 6421), (59, 6427), (70, 6523), (77, 6565), (85, 6625), (86, 6628), (92, 6661), (93, 6670), (96, 6679), (97, 6688), (107, 6769), (108, 6775), (109, 6784), (114, 6847), (117, 6874), (120, 6919), (139, 7021), (142, 7060), (147, 7081), (149, 7096), (156, 7153), (164, 7228), (166, 7252), (178, 7336), (179, 7339), (180, 7348), (185, 7384), (190, 7414), (191, 7420), (195,

7462), (201, 7543), (206, 7561), (207, 7564), (215, 7630), (216, 7633),

Gene: Crisis_21 Start: 8432, Stop: 10108, Start Num: 8

Candidate Starts for Crisis_21:

(Start: 8 @8432 has 39 MA's), (Start: 9 @8441 has 14 MA's), (11, 8456), (29, 8555), (31, 8561), (43, 8666), (44, 8678), (58, 8777), (59, 8783), (61, 8795), (65, 8849), (69, 8867), (77, 8921), (81, 8951), (92, 8990), (96, 9008), (97, 9017), (104, 9053), (109, 9116), (114, 9179), (117, 9206), (139, 9353), (140, 9356), (143, 9395), (147, 9413), (156, 9485), (163, 9551), (164, 9560), (173, 9632), (177, 9665), (179, 9671), (182, 9701), (185, 9716), (196, 9854), (200, 9869), (206, 9890), (207, 9893),

Gene: Dodo_82 Start: 30154, Stop: 31890, Start Num: 21

Candidate Starts for Dodo_82:

(Start: 21 @30154 has 6 MA's), (31, 30217), (32, 30226), (41, 30304), (48, 30376), (49, 30385), (53, 30409), (55, 30418), (65, 30499), (79, 30592), (92, 30649), (108, 30772), (111, 30826), (123, 30934), (139, 31045), (143, 31087), (155, 31168), (157, 31189), (164, 31252), (170, 31312), (176, 31345), (184, 31393), (192, 31453), (200, 31564), (219, 31672), (233, 31792), (237, 31816),

Gene: DunneganBoMo_65 Start: 27824, Stop: 29458, Start Num: 17

Candidate Starts for DunneganBoMo_65:

(Start: 17 @27824 has 6 MA's), (28, 27884), (75, 28241), (108, 28430), (109, 28439), (133, 28643), (139, 28691), (161, 28871), (170, 28958), (181, 29024), (183, 29036), (212, 29267), (228, 29354), (252, 29447),

Gene: EarickHC_20 Start: 8353, Stop: 10035, Start Num: 9

Candidate Starts for EarickHC_20:

(Start: 8 @8344 has 39 MA's), (Start: 9 @8353 has 14 MA's), (11, 8368), (29, 8467), (31, 8473), (43, 8578), (44, 8590), (58, 8689), (59, 8695), (61, 8707), (65, 8761), (69, 8779), (77, 8833), (81, 8863), (92, 8902), (96, 8920), (97, 8929), (104, 8965), (109, 9028), (114, 9091), (117, 9118), (139, 9265), (140, 9268), (143, 9307), (156, 9397), (163, 9463), (164, 9472), (173, 9544), (177, 9577), (179, 9583), (182, 9613), (185, 9628), (196, 9766), (200, 9781), (206, 9802), (207, 9805),

Gene: Ellewin_67 Start: 27611, Stop: 29185, Start Num: 28

Candidate Starts for Ellewin_67:

(Start: 17 @27551 has 6 MA's), (28, 27611), (75, 27968), (108, 28157), (109, 28166), (133, 28370), (139, 28418), (161, 28598), (170, 28685), (181, 28751), (183, 28763), (212, 28994), (228, 29081), (252, 29174),

Gene: Emmetator_68 Start: 28631, Stop: 30205, Start Num: 28

Candidate Starts for Emmetator_68:

(Start: 17 @28571 has 6 MA's), (28, 28631), (75, 28988), (108, 29177), (109, 29186), (133, 29390), (139, 29438), (161, 29618), (170, 29705), (181, 29771), (183, 29783), (212, 30014), (228, 30101), (252, 30194),

Gene: Erasmago_75 Start: 28819, Stop: 30543, Start Num: 21

Candidate Starts for Erasmago_75:

(3, 28681), (4, 28687), (5, 28690), (Start: 21 @28819 has 6 MA's), (28, 28873), (32, 28897), (38, 28948), (71, 29212), (81, 29269), (108, 29443), (111, 29497), (139, 29713), (155, 29836), (164, 29920), (170, 29980), (176, 30013), (200, 30232), (233, 30457),

Gene: Fireman_20 Start: 8089, Stop: 9774, Start Num: 9

Candidate Starts for Fireman_20:

(Start: 8 @8080 has 39 MA's), (Start: 9 @8089 has 14 MA's), (31, 8212), (43, 8317), (44, 8329), (65, 8500), (69, 8518), (76, 8569), (92, 8641), (94, 8653), (96, 8659), (97, 8668), (104, 8704), (109, 8767),

(114, 8830), (117, 8857), (120, 8902), (122, 8911), (132, 8953), (139, 9004), (140, 9007), (143, 9046), (145, 9055), (147, 9064), (152, 9097), (156, 9136), (163, 9202), (164, 9211), (165, 9226), (168, 9250), (177, 9316), (179, 9322), (182, 9349), (196, 9502), (207, 9541), (210, 9562), (215, 9607), (238, 9754),

Gene: FloraSnap32_75 Start: 32255, Stop: 33829, Start Num: 34

Candidate Starts for FloraSnap32_75:

(Start: 14 @32144 has 2 MA's), (Start: 17 @32150 has 6 MA's), (34, 32255), (48, 32378), (50, 32390), (67, 32513), (109, 32765), (111, 32810), (131, 32966), (133, 32975), (134, 32987), (139, 33023), (141, 33044), (163, 33221), (208, 33575), (218, 33641), (220, 33647), (240, 33773), (241, 33782), (252, 33818),

Gene: Forza_77 Start: 31301, Stop: 33031, Start Num: 18

Candidate Starts for Forza_77:

(Start: 18 @31301 has 5 MA's), (32, 31379), (39, 31433), (40, 31445), (50, 31532), (52, 31547), (64, 31637), (73, 31712), (88, 31802), (110, 31997), (111, 32015), (112, 32018), (114, 32033), (116, 32048), (118, 32063), (119, 32090), (124, 32129), (151, 32300), (155, 32333), (160, 32384), (162, 32399), (163, 32408), (171, 32483), (172, 32486), (176, 32510), (201, 32735), (205, 32750), (211, 32780), (217, 32828), (220, 32843), (221, 32849),

Gene: FrostedClock_79 Start: 33183, Stop: 34862, Start Num: 17

Candidate Starts for FrostedClock_79:

(Start: 14 @33177 has 2 MA's), (Start: 17 @33183 has 6 MA's), (34, 33288), (48, 33411), (50, 33423), (67, 33546), (109, 33798), (111, 33843), (131, 33999), (133, 34008), (134, 34020), (139, 34056), (141, 34077), (163, 34254), (208, 34608), (218, 34674), (220, 34680), (240, 34806), (241, 34815), (252, 34851),

Gene: FuzzBuster_24 Start: 8570, Stop: 10354, Start Num: 8

Candidate Starts for FuzzBuster_24:

(Start: 8 @8570 has 39 MA's), (Start: 9 @8579 has 14 MA's), (22, 8636), (43, 8798), (47, 8837), (61, 8930), (79, 9086), (90, 9116), (91, 9119), (114, 9314), (117, 9341), (120, 9386), (121, 9392), (122, 9395), (126, 9419), (139, 9488), (143, 9530), (145, 9539), (146, 9542), (155, 9611), (164, 9695), (166, 9719), (178, 9803), (179, 9806), (188, 9863), (189, 9872), (190, 9878), (206, 10025), (210, 10049), (214, 10076), (215, 10094), (224, 10136), (244, 10265),

Gene: GMA2_9 Start: 6225, Stop: 7979, Start Num: 10

Candidate Starts for GMA2_9:

(10, 6225), (39, 6396), (50, 6495), (51, 6504), (57, 6543), (82, 6741), (98, 6834), (110, 6963), (111, 6981), (118, 7029), (119, 7056), (120, 7068), (135, 7143), (163, 7374), (172, 7452), (178, 7491), (203, 7707), (211, 7746), (220, 7809), (221, 7815), (228, 7851), (234, 7926),

Gene: Ganandorf_19 Start: 8504, Stop: 10171, Start Num: 9

Candidate Starts for Ganandorf_19:

(Start: 8 @8495 has 39 MA's), (Start: 9 @8504 has 14 MA's), (29, 8618), (31, 8624), (43, 8729), (44, 8741), (58, 8840), (59, 8846), (61, 8858), (65, 8912), (69, 8930), (77, 8984), (81, 9014), (92, 9053), (96, 9071), (97, 9080), (104, 9116), (109, 9179), (114, 9242), (117, 9269), (139, 9416), (140, 9419), (143, 9458), (147, 9476), (156, 9548), (163, 9614), (164, 9623), (173, 9695), (177, 9728), (179, 9734), (182, 9764), (185, 9779), (196, 9917), (200, 9932), (206, 9953), (207, 9956),

Gene: Gina_20 Start: 7583, Stop: 9301, Start Num: 8

Candidate Starts for Gina_20:

(Start: 8 @7583 has 39 MA's), (Start: 9 @7592 has 14 MA's), (31, 7712), (43, 7817), (44, 7829), (58, 7928), (61, 7946), (65, 8000), (69, 8018), (76, 8069), (78, 8093), (87, 8123), (94, 8153), (96, 8159), (97, 8168), (104, 8204), (109, 8267), (114, 8330), (117, 8357), (120, 8402), (139, 8504), (140, 8507), (145,

8555), (147, 8564), (152, 8597), (156, 8636), (163, 8702), (164, 8711), (165, 8726), (166, 8735), (168, 8750), (169, 8762), (173, 8783), (177, 8816), (179, 8822), (182, 8852), (190, 8897), (196, 9005), (203, 9029), (210, 9065), (211, 9068), (213, 9089), (215, 9110), (234, 9245), (238, 9257), (245, 9284),

Gene: Glorp_21 Start: 8506, Stop: 10173, Start Num: 9

Candidate Starts for Glorp_21:

(Start: 8 @8497 has 39 MA's), (Start: 9 @8506 has 14 MA's), (11, 8521), (29, 8620), (31, 8626), (43, 8731), (44, 8743), (58, 8842), (59, 8848), (61, 8860), (65, 8914), (69, 8932), (77, 8986), (81, 9016), (92, 9055), (96, 9073), (97, 9082), (104, 9118), (109, 9181), (114, 9244), (117, 9271), (139, 9418), (140, 9421), (143, 9460), (147, 9478), (156, 9550), (163, 9616), (164, 9625), (173, 9697), (177, 9730), (179, 9736), (182, 9766), (185, 9781), (196, 9919), (200, 9934), (206, 9955), (207, 9958),

Gene: GodonK_66 Start: 24698, Stop: 26512, Start Num: 15

Candidate Starts for GodonK_66:

(Start: 12 @24686 has 1 MA's), (Start: 15 @24698 has 1 MA's), (24, 24743), (27, 24767), (39, 24854), (47, 24938), (48, 24941), (56, 24986), (82, 25199), (99, 25298), (103, 25322), (111, 25442), (115, 25472), (118, 25490), (119, 25517), (136, 25613), (139, 25637), (142, 25676), (146, 25691), (152, 25730), (153, 25733), (154, 25736), (158, 25784), (160, 25811), (163, 25835), (171, 25910), (172, 25913), (173, 25916), (175, 25928), (176, 25937), (178, 25952), (179, 25955), (197, 26150), (209, 26201), (221, 26276), (226, 26297), (243, 26414),

Gene: GoldenEssence_62 Start: 27488, Stop: 29167, Start Num: 17

Candidate Starts for GoldenEssence_62:

(Start: 14 @27482 has 2 MA's), (Start: 17 @27488 has 6 MA's), (34, 27593), (48, 27716), (50, 27728), (67, 27851), (94, 28001), (109, 28103), (111, 28148), (116, 28181), (131, 28304), (133, 28313), (134, 28325), (139, 28361), (163, 28559), (170, 28628), (208, 28913), (218, 28979), (220, 28985), (240, 29111), (241, 29120), (252, 29156),

Gene: Hermeonysus_19 Start: 8365, Stop: 10041, Start Num: 8

Candidate Starts for Hermeonysus_19:

(Start: 8 @8365 has 39 MA's), (Start: 9 @8374 has 14 MA's), (29, 8488), (31, 8494), (43, 8599), (44, 8611), (58, 8710), (59, 8716), (61, 8728), (65, 8782), (69, 8800), (77, 8854), (81, 8884), (92, 8923), (96, 8941), (97, 8950), (104, 8986), (109, 9049), (114, 9112), (117, 9139), (139, 9286), (140, 9289), (143, 9328), (147, 9346), (156, 9418), (163, 9484), (164, 9493), (173, 9565), (177, 9598), (179, 9604), (182, 9634), (185, 9649), (196, 9787), (200, 9802), (206, 9823), (207, 9826),

Gene: Honeyfin_21 Start: 8650, Stop: 10356, Start Num: 8

Candidate Starts for Honeyfin_21:

(Start: 8 @8650 has 39 MA's), (Start: 9 @8659 has 14 MA's), (11, 8674), (29, 8773), (31, 8779), (43, 8884), (44, 8896), (58, 8995), (59, 9001), (65, 9067), (69, 9085), (77, 9139), (81, 9169), (92, 9208), (96, 9226), (97, 9235), (104, 9271), (109, 9334), (114, 9397), (117, 9424), (120, 9469), (139, 9571), (140, 9574), (143, 9613), (147, 9631), (156, 9703), (163, 9769), (164, 9778), (168, 9817), (173, 9850), (177, 9883), (179, 9889), (182, 9919), (196, 10072), (200, 10087), (206, 10108), (207, 10111), (238, 10324),

Gene: Jayden_20 Start: 7979, Stop: 9697, Start Num: 8

Candidate Starts for Jayden_20:

(1, 7835), (Start: 8 @7979 has 39 MA's), (Start: 9 @7988 has 14 MA's), (26, 8084), (31, 8108), (43, 8213), (44, 8225), (58, 8324), (61, 8342), (65, 8396), (69, 8414), (76, 8465), (77, 8468), (84, 8507), (87, 8519), (92, 8537), (96, 8555), (97, 8564), (104, 8600), (109, 8663), (114, 8726), (117, 8753), (120, 8798), (139, 8900), (140, 8903), (147, 8960), (152, 8993), (156, 9032), (163, 9098), (164, 9107), (165, 9122), (168, 9146), (169, 9158), (177, 9212), (179, 9218), (182, 9248), (196, 9401), (206, 9437), (210, 9461), (211, 9464), (213, 9485), (215, 9506), (232, 9629), (234, 9641), (238, 9653), (245, 9680),

Gene: Jefe_20 Start: 8418, Stop: 10094, Start Num: 8

Candidate Starts for Jefe_20:

(Start: 8 @8418 has 39 MA's), (Start: 9 @8427 has 14 MA's), (29, 8541), (31, 8547), (43, 8652), (44, 8664), (59, 8769), (61, 8781), (65, 8835), (69, 8853), (77, 8907), (81, 8937), (92, 8976), (96, 8994), (97, 9003), (104, 9039), (109, 9102), (114, 9165), (117, 9192), (139, 9339), (140, 9342), (143, 9381), (147, 9399), (156, 9471), (163, 9537), (164, 9546), (173, 9618), (177, 9651), (179, 9657), (182, 9687), (185, 9702), (196, 9840), (200, 9855), (206, 9876), (207, 9879),

Gene: Jollipop_20 Start: 8736, Stop: 10442, Start Num: 8

Candidate Starts for Jollipop_20:

(Start: 8 @8736 has 39 MA's), (Start: 9 @8745 has 14 MA's), (11, 8760), (29, 8859), (31, 8865), (43, 8970), (44, 8982), (58, 9081), (59, 9087), (61, 9099), (65, 9153), (69, 9171), (77, 9225), (81, 9255), (92, 9294), (96, 9312), (97, 9321), (104, 9357), (109, 9420), (114, 9483), (117, 9510), (120, 9555), (139, 9657), (140, 9660), (143, 9699), (147, 9717), (156, 9789), (163, 9855), (164, 9864), (168, 9903), (173, 9936), (177, 9969), (179, 9975), (182, 10005), (196, 10158), (200, 10173), (206, 10194), (207, 10197), (235, 10401), (238, 10410),

Gene: KSunshine22_70 Start: 29151, Stop: 30725, Start Num: 28

Candidate Starts for KSunshine22_70:

(Start: 17 @29091 has 6 MA's), (28, 29151), (75, 29508), (108, 29697), (109, 29706), (133, 29910), (139, 29958), (161, 30138), (170, 30225), (181, 30291), (183, 30303), (212, 30534), (228, 30621), (252, 30714),

Gene: KaiHaiDragon_20 Start: 8353, Stop: 10035, Start Num: 9

Candidate Starts for KaiHaiDragon_20:

(Start: 8 @8344 has 39 MA's), (Start: 9 @8353 has 14 MA's), (11, 8368), (29, 8467), (31, 8473), (43, 8578), (44, 8590), (58, 8689), (59, 8695), (61, 8707), (65, 8761), (69, 8779), (77, 8833), (81, 8863), (92, 8902), (96, 8920), (97, 8929), (104, 8965), (109, 9028), (114, 9091), (117, 9118), (139, 9265), (140, 9268), (143, 9307), (156, 9397), (163, 9463), (164, 9472), (173, 9544), (177, 9577), (179, 9583), (182, 9613), (185, 9628), (196, 9766), (200, 9781), (206, 9802), (207, 9805),

Gene: Kowalski_19 Start: 8475, Stop: 10151, Start Num: 8

Candidate Starts for Kowalski_19:

(Start: 8 @8475 has 39 MA's), (Start: 9 @8484 has 14 MA's), (29, 8598), (31, 8604), (43, 8709), (44, 8721), (58, 8820), (59, 8826), (61, 8838), (65, 8892), (69, 8910), (77, 8964), (81, 8994), (92, 9033), (96, 9051), (97, 9060), (104, 9096), (109, 9159), (114, 9222), (117, 9249), (139, 9396), (140, 9399), (143, 9438), (147, 9456), (156, 9528), (163, 9594), (164, 9603), (173, 9675), (177, 9708), (179, 9714), (182, 9744), (185, 9759), (196, 9897), (200, 9912), (206, 9933), (207, 9936),

Gene: Kozie_14 Start: 7119, Stop: 8849, Start Num: 9

Candidate Starts for Kozie_14:

(Start: 8 @7110 has 39 MA's), (Start: 9 @7119 has 14 MA's), (25, 7200), (36, 7275), (43, 7341), (44, 7353), (45, 7362), (47, 7380), (58, 7452), (65, 7524), (70, 7554), (76, 7593), (77, 7596), (83, 7650), (89, 7677), (92, 7695), (93, 7704), (96, 7713), (97, 7722), (101, 7746), (106, 7779), (107, 7800), (108, 7806), (117, 7905), (120, 7950), (139, 8052), (147, 8112), (149, 8127), (156, 8184), (164, 8259), (168, 8298), (179, 8370), (180, 8379), (201, 8574), (206, 8592), (207, 8595), (214, 8643), (216, 8664), (221, 8688), (222, 8694), (226, 8712), (236, 8805),

Gene: Laure_78 Start: 33903, Stop: 35429, Start Num: 35

Candidate Starts for Laure_78:

(Start: 18 @33795 has 5 MA's), (34, 33897), (35, 33903), (50, 34032), (55, 34062), (74, 34203), (75, 34209), (94, 34305), (113, 34461), (129, 34590), (131, 34608), (133, 34617), (139, 34665), (143, 34707), (145, 34716), (163, 34863), (174, 34947), (179, 34983), (186, 35031), (193, 35091), (200,

35187), (205, 35205), (208, 35220), (211, 35235), (214, 35259), (240, 35376), (252, 35418),

Gene: LeoJr_75 Start: 31198, Stop: 32826, Start Num: 17

Candidate Starts for LeoJr_75:

(Start: 17 @31198 has 6 MA's), (50, 31438), (75, 31615), (109, 31813), (125, 31975), (133, 32017), (134, 32029), (139, 32065), (161, 32245), (170, 32332), (183, 32410), (212, 32641), (228, 32728), (240, 32776), (252, 32815),

Gene: LittleFortune_21 Start: 8692, Stop: 10398, Start Num: 8

Candidate Starts for LittleFortune_21:

(Start: 8 @8692 has 39 MA's), (Start: 9 @8701 has 14 MA's), (11, 8716), (29, 8815), (31, 8821), (43, 8926), (44, 8938), (58, 9037), (59, 9043), (65, 9109), (69, 9127), (77, 9181), (81, 9211), (92, 9250), (96, 9268), (97, 9277), (104, 9313), (109, 9376), (114, 9439), (117, 9466), (120, 9511), (139, 9613), (140, 9616), (143, 9655), (147, 9673), (156, 9745), (163, 9811), (164, 9820), (168, 9859), (173, 9892), (177, 9925), (179, 9931), (182, 9961), (196, 10114), (200, 10129), (206, 10150), (207, 10153), (235, 10357), (238, 10366),

Gene: Lucretia_20 Start: 8412, Stop: 10088, Start Num: 8

Candidate Starts for Lucretia_20:

(Start: 8 @8412 has 39 MA's), (Start: 9 @8421 has 14 MA's), (11, 8436), (29, 8535), (31, 8541), (43, 8646), (44, 8658), (58, 8757), (59, 8763), (61, 8775), (65, 8829), (69, 8847), (77, 8901), (81, 8931), (92, 8970), (96, 8988), (97, 8997), (104, 9033), (109, 9096), (114, 9159), (117, 9186), (139, 9333), (140, 9336), (143, 9375), (147, 9393), (156, 9465), (163, 9531), (164, 9540), (173, 9612), (177, 9645), (179, 9651), (182, 9681), (185, 9696), (196, 9834), (200, 9849), (206, 9870), (207, 9873),

Gene: Mareelih_76 Start: 30803, Stop: 32533, Start Num: 18

Candidate Starts for Mareelih_76:

(Start: 18 @30803 has 5 MA's), (32, 30881), (39, 30935), (40, 30947), (50, 31034), (52, 31049), (64, 31139), (73, 31214), (88, 31304), (110, 31499), (111, 31517), (112, 31520), (114, 31535), (116, 31550), (118, 31565), (119, 31592), (124, 31631), (151, 31802), (155, 31835), (160, 31886), (162, 31901), (163, 31910), (171, 31985), (172, 31988), (176, 32012), (201, 32237), (205, 32252), (211, 32282), (217, 32330), (220, 32345), (221, 32351),

Gene: Margaery_12 Start: 5952, Stop: 7694, Start Num: 9

Candidate Starts for Margaery_12:

(Start: 8 @5943 has 39 MA's), (Start: 9 @5952 has 14 MA's), (23, 6021), (25, 6033), (34, 6090), (36, 6105), (43, 6168), (44, 6180), (45, 6189), (47, 6207), (58, 6279), (70, 6381), (77, 6423), (83, 6474), (89, 6501), (90, 6507), (92, 6519), (93, 6528), (100, 6567), (101, 6570), (106, 6606), (107, 6627), (108, 6633), (109, 6642), (114, 6705), (117, 6732), (120, 6777), (139, 6879), (145, 6930), (152, 6972), (156, 7011), (163, 7077), (164, 7086), (166, 7110), (167, 7122), (168, 7125), (179, 7197), (185, 7242), (188, 7257), (206, 7419), (214, 7470), (216, 7491), (224, 7536), (230, 7590),

Gene: Matzah_13 Start: 6000, Stop: 7757, Start Num: 9

Candidate Starts for Matzah_13:

(Start: 8 @5991 has 39 MA's), (Start: 9 @6000 has 14 MA's), (25, 6084), (30, 6120), (34, 6153), (43, 6231), (44, 6243), (45, 6252), (46, 6264), (47, 6270), (58, 6342), (59, 6348), (70, 6444), (77, 6486), (79, 6516), (85, 6546), (92, 6582), (93, 6591), (96, 6600), (97, 6609), (107, 6690), (108, 6696), (109, 6705), (114, 6768), (117, 6795), (120, 6840), (132, 6891), (139, 6942), (147, 7002), (149, 7017), (156, 7074), (164, 7149), (166, 7173), (178, 7257), (179, 7260), (185, 7305), (190, 7335), (195, 7383), (201, 7464), (206, 7482), (207, 7485), (216, 7554), (221, 7578), (239, 7713), (246, 7737),

Gene: Megan_13 Start: 8673, Stop: 10412, Start Num: 8

Candidate Starts for Megan_13:

(7, 8646), (Start: 8 @8673 has 39 MA's), (Start: 9 @8682 has 14 MA's), (13, 8712), (28, 8790), (33, 8826), (43, 8910), (44, 8922), (50, 8964), (53, 8985), (61, 9039), (65, 9093), (66, 9096), (76, 9162), (92, 9225), (96, 9243), (97, 9252), (109, 9345), (114, 9408), (117, 9435), (120, 9480), (126, 9513), (127, 9522), (128, 9525), (139, 9582), (140, 9585), (143, 9624), (145, 9633), (147, 9642), (152, 9675), (156, 9714), (163, 9780), (164, 9789), (166, 9813), (168, 9828), (179, 9900), (188, 9975), (190, 9990), (198, 10110), (199, 10116), (206, 10140), (207, 10143), (214, 10191), (222, 10242), (224, 10254), (229, 10290), (231, 10332), (248, 10395),

Gene: MementoMori_13 Start: 5993, Stop: 7759, Start Num: 8

Candidate Starts for MementoMori_13:

(Start: 8 @5993 has 39 MA's), (Start: 9 @6002 has 14 MA's), (25, 6083), (30, 6119), (34, 6152), (43, 6230), (44, 6242), (45, 6251), (46, 6263), (47, 6269), (58, 6341), (59, 6347), (70, 6443), (77, 6485), (79, 6515), (83, 6536), (85, 6545), (92, 6581), (93, 6590), (96, 6599), (97, 6608), (107, 6689), (108, 6695), (109, 6704), (114, 6767), (117, 6794), (120, 6839), (132, 6890), (139, 6941), (147, 7001), (149, 7016), (156, 7073), (164, 7148), (166, 7172), (178, 7256), (179, 7259), (185, 7304), (190, 7334), (195, 7382), (201, 7463), (206, 7481), (207, 7484), (214, 7532), (216, 7553), (221, 7577), (222, 7583), (239, 7715), (246, 7739),

Gene: Merry_ Start: 8363, Stop: 10132, Start Num: 2

Candidate Starts for Merry_:

(Start: 2 @8363 has 2 MA's), (7, 8429), (Start: 8 @8456 has 39 MA's), (Start: 9 @8465 has 14 MA's), (26, 8561), (31, 8585), (43, 8690), (44, 8702), (58, 8801), (65, 8873), (69, 8891), (78, 8966), (80, 8972), (92, 9011), (94, 9023), (97, 9038), (100, 9062), (104, 9074), (106, 9101), (108, 9128), (109, 9137), (117, 9227), (120, 9272), (139, 9374), (140, 9377), (145, 9425), (147, 9434), (156, 9506), (163, 9572), (164, 9581), (179, 9692), (187, 9749), (201, 9893), (204, 9905), (210, 9935), (232, 10103),

Gene: Metamorphoo_20 Start: 8066, Stop: 9760, Start Num: 8

Candidate Starts for Metamorphoo_20:

(Start: 8 @8066 has 39 MA's), (Start: 9 @8075 has 14 MA's), (31, 8198), (43, 8303), (44, 8315), (58, 8414), (65, 8486), (69, 8504), (92, 8627), (94, 8639), (96, 8645), (97, 8654), (104, 8690), (109, 8753), (114, 8816), (117, 8843), (120, 8888), (122, 8897), (132, 8939), (139, 8990), (140, 8993), (143, 9032), (145, 9041), (147, 9050), (152, 9083), (156, 9122), (163, 9188), (164, 9197), (165, 9212), (168, 9236), (177, 9302), (179, 9308), (182, 9335), (196, 9488), (207, 9527), (210, 9548), (215, 9593), (238, 9740),

Gene: Mimi_76 Start: 33036, Stop: 34721, Start Num: 14

Candidate Starts for Mimi_76:

(Start: 14 @33036 has 2 MA's), (Start: 17 @33042 has 6 MA's), (34, 33147), (48, 33270), (50, 33282), (67, 33405), (109, 33657), (111, 33702), (131, 33858), (133, 33867), (134, 33879), (139, 33915), (141, 33936), (163, 34113), (208, 34467), (218, 34533), (220, 34539), (240, 34665), (241, 34674), (252, 34710),

Gene: MisoSoup_11 Start: 4288, Stop: 6081, Start Num: 9

Candidate Starts for MisoSoup_11:

(Start: 9 @4288 has 14 MA's), (16, 4321), (43, 4504), (61, 4636), (62, 4648), (66, 4693), (67, 4702), (68, 4705), (69, 4708), (87, 4813), (90, 4819), (93, 4840), (103, 4891), (114, 5017), (117, 5044), (120, 5089), (126, 5122), (128, 5134), (139, 5191), (145, 5242), (155, 5314), (159, 5347), (164, 5398), (166, 5422), (168, 5437), (179, 5509), (189, 5575), (190, 5581), (210, 5755), (215, 5800), (242, 5989), (251, 6016),

Gene: Nicole72_14 Start: 8906, Stop: 10651, Start Num: 8

Candidate Starts for Nicole72_14:

(Start: 8 @8906 has 39 MA's), (Start: 9 @8915 has 14 MA's), (33, 9056), (43, 9140), (44, 9152), (46, 9173), (50, 9194), (58, 9251), (61, 9269), (69, 9341), (76, 9392), (92, 9455), (96, 9473), (97, 9482),

(109, 9575), (114, 9638), (117, 9665), (120, 9710), (126, 9743), (127, 9752), (128, 9755), (139, 9812), (140, 9815), (143, 9854), (145, 9863), (147, 9872), (152, 9905), (156, 9944), (163, 10010), (164, 10019), (166, 10043), (168, 10058), (179, 10130), (183, 10175), (198, 10340), (199, 10346), (206, 10370), (207, 10373), (214, 10421), (215, 10439), (223, 10478), (224, 10487), (231, 10565), (239, 10607),

Gene: NoodlelyBoi_19 Start: 8480, Stop: 10180, Start Num: 8

Candidate Starts for NoodlelyBoi_19:

(Start: 8 @8480 has 39 MA's), (Start: 9 @8489 has 14 MA's), (31, 8609), (43, 8714), (44, 8726), (58, 8825), (59, 8831), (60, 8840), (65, 8897), (69, 8915), (77, 8969), (79, 8993), (80, 8996), (87, 9020), (92, 9038), (96, 9056), (97, 9065), (104, 9101), (109, 9164), (114, 9227), (117, 9254), (120, 9299), (139, 9401), (140, 9404), (143, 9443), (147, 9461), (156, 9533), (163, 9599), (164, 9608), (168, 9647), (177, 9713), (179, 9719), (182, 9749), (196, 9902), (201, 9920), (207, 9941), (210, 9962), (211, 9965), (213, 9986),

Gene: Onika_19 Start: 8448, Stop: 10124, Start Num: 8

Candidate Starts for Onika_19:

(Start: 8 @8448 has 39 MA's), (Start: 9 @8457 has 14 MA's), (29, 8571), (31, 8577), (43, 8682), (44, 8694), (58, 8793), (59, 8799), (61, 8811), (65, 8865), (69, 8883), (77, 8937), (81, 8967), (92, 9006), (96, 9024), (97, 9033), (104, 9069), (109, 9132), (114, 9195), (117, 9222), (120, 9267), (139, 9369), (140, 9372), (143, 9411), (147, 9429), (156, 9501), (163, 9567), (164, 9576), (168, 9615), (173, 9648), (177, 9681), (179, 9687), (182, 9717), (185, 9732), (196, 9870), (200, 9885), (206, 9906), (207, 9909),

Gene: Panchaali_73 Start: 28678, Stop: 30309, Start Num: 17

Candidate Starts for Panchaali_73:

(Start: 17 @28678 has 6 MA's), (28, 28738), (49, 28915), (50, 28918), (74, 29089), (75, 29095), (108, 29284), (109, 29293), (125, 29455), (133, 29500), (139, 29548), (144, 29596), (148, 29620), (161, 29728), (183, 29893), (212, 30124), (218, 30166), (252, 30298),

Gene: Paschalis_19 Start: 8434, Stop: 10140, Start Num: 8

Candidate Starts for Paschalis_19:

(Start: 8 @8434 has 39 MA's), (Start: 9 @8443 has 14 MA's), (11, 8458), (29, 8557), (31, 8563), (43, 8668), (44, 8680), (58, 8779), (59, 8785), (61, 8797), (65, 8851), (69, 8869), (77, 8923), (81, 8953), (92, 8992), (96, 9010), (97, 9019), (104, 9055), (109, 9118), (114, 9181), (117, 9208), (120, 9253), (139, 9355), (140, 9358), (143, 9397), (147, 9415), (156, 9487), (163, 9553), (164, 9562), (168, 9601), (173, 9634), (177, 9667), (179, 9673), (182, 9703), (196, 9856), (200, 9871), (206, 9892), (207, 9895), (238, 10108),

Gene: Patbob_76 Start: 33335, Stop: 35014, Start Num: 17

Candidate Starts for Patbob_76:

(Start: 14 @33329 has 2 MA's), (Start: 17 @33335 has 6 MA's), (34, 33440), (48, 33563), (50, 33575), (67, 33698), (109, 33950), (111, 33995), (131, 34151), (133, 34160), (134, 34172), (139, 34208), (141, 34229), (163, 34406), (208, 34760), (218, 34826), (220, 34832), (240, 34958), (241, 34967), (252, 35003),

Gene: PauloDiaboli_82 Start: 29189, Stop: 30925, Start Num: 21

Candidate Starts for PauloDiaboli_82:

(Start: 21 @29189 has 6 MA's), (31, 29252), (32, 29261), (41, 29339), (48, 29411), (49, 29420), (53, 29444), (55, 29453), (65, 29534), (79, 29627), (92, 29684), (108, 29807), (111, 29861), (123, 29969), (139, 30080), (143, 30122), (155, 30203), (157, 30224), (164, 30287), (170, 30347), (176, 30380), (184, 30428), (192, 30488), (200, 30599), (219, 30707), (233, 30827), (237, 30851),

Gene: PhedwardCullen_18 Start: 8217, Stop: 9884, Start Num: 9

Candidate Starts for PhedwardCullen_18:

(Start: 8 @8208 has 39 MA's), (Start: 9 @8217 has 14 MA's), (11, 8232), (29, 8331), (31, 8337), (43, 8442), (44, 8454), (58, 8553), (59, 8559), (61, 8571), (65, 8625), (69, 8643), (77, 8697), (81, 8727), (92, 8766), (96, 8784), (97, 8793), (104, 8829), (109, 8892), (114, 8955), (117, 8982), (120, 9027), (139, 9129), (140, 9132), (143, 9171), (147, 9189), (156, 9261), (163, 9327), (164, 9336), (168, 9375), (173, 9408), (177, 9441), (179, 9447), (182, 9477), (185, 9492), (196, 9630), (200, 9645), (206, 9666), (207, 9669),

Gene: Phendrix_65 Start: 24534, Stop: 26360, Start Num: 12

Candidate Starts for Phendrix_65:

(Start: 12 @24534 has 1 MA's), (Start: 15 @24546 has 1 MA's), (24, 24591), (27, 24615), (39, 24702), (47, 24786), (48, 24789), (56, 24834), (82, 25047), (99, 25146), (103, 25170), (111, 25290), (115, 25320), (118, 25338), (119, 25365), (136, 25461), (139, 25485), (142, 25524), (146, 25539), (152, 25578), (153, 25581), (154, 25584), (158, 25632), (160, 25659), (163, 25683), (171, 25758), (172, 25761), (173, 25764), (175, 25776), (176, 25785), (178, 25800), (197, 25998), (209, 26049), (221, 26124), (226, 26145), (243, 26262),

Gene: Phorgeous_19 Start: 8286, Stop: 9992, Start Num: 8

Candidate Starts for Phorgeous_19:

(Start: 8 @8286 has 39 MA's), (Start: 9 @8295 has 14 MA's), (11, 8310), (29, 8409), (31, 8415), (43, 8520), (44, 8532), (58, 8631), (59, 8637), (65, 8703), (69, 8721), (77, 8775), (81, 8805), (92, 8844), (96, 8862), (97, 8871), (104, 8907), (109, 8970), (114, 9033), (117, 9060), (120, 9105), (139, 9207), (140, 9210), (143, 9249), (147, 9267), (156, 9339), (163, 9405), (164, 9414), (168, 9453), (173, 9486), (177, 9519), (179, 9525), (182, 9555), (196, 9708), (200, 9723), (206, 9744), (207, 9747), (235, 9951), (238, 9960),

Gene: Phrampa_70 Start: 30361, Stop: 32055, Start Num: 17

Candidate Starts for Phrampa_70:

(Start: 14 @30355 has 2 MA's), (Start: 17 @30361 has 6 MA's), (34, 30463), (48, 30586), (50, 30598), (57, 30646), (67, 30721), (79, 30802), (109, 30973), (111, 31018), (120, 31105), (131, 31174), (133, 31183), (139, 31231), (141, 31252), (145, 31282), (163, 31429), (208, 31783), (220, 31855), (240, 31996), (241, 32005), (252, 32044),

Gene: Phrancesco_21 Start: 8565, Stop: 10271, Start Num: 8

Candidate Starts for Phrancesco_21:

(Start: 8 @8565 has 39 MA's), (Start: 9 @8574 has 14 MA's), (11, 8589), (29, 8688), (31, 8694), (43, 8799), (44, 8811), (58, 8910), (59, 8916), (65, 8982), (69, 9000), (77, 9054), (81, 9084), (92, 9123), (96, 9141), (97, 9150), (104, 9186), (109, 9249), (114, 9312), (117, 9339), (120, 9384), (139, 9486), (140, 9489), (143, 9528), (147, 9546), (156, 9618), (163, 9684), (164, 9693), (168, 9732), (173, 9765), (177, 9798), (179, 9804), (182, 9834), (196, 9987), (200, 10002), (206, 10023), (207, 10026), (238, 10239),

Gene: PierreOrion_20 Start: 8589, Stop: 10295, Start Num: 8

Candidate Starts for PierreOrion_20:

(Start: 8 @8589 has 39 MA's), (Start: 9 @8598 has 14 MA's), (11, 8613), (29, 8712), (31, 8718), (43, 8823), (44, 8835), (58, 8934), (59, 8940), (61, 8952), (65, 9006), (69, 9024), (77, 9078), (81, 9108), (92, 9147), (96, 9165), (97, 9174), (104, 9210), (109, 9273), (114, 9336), (117, 9363), (120, 9408), (139, 9510), (140, 9513), (143, 9552), (147, 9570), (156, 9642), (163, 9708), (164, 9717), (168, 9756), (173, 9789), (177, 9822), (179, 9828), (182, 9858), (196, 10011), (200, 10026), (206, 10047), (207, 10050), (238, 10263),

Gene: PiperSansNom_20 Start: 8738, Stop: 10444, Start Num: 8

Candidate Starts for PiperSansNom_20:

(Start: 8 @8738 has 39 MA's), (Start: 9 @8747 has 14 MA's), (11, 8762), (29, 8861), (31, 8867), (43, 8972), (44, 8984), (58, 9083), (59, 9089), (61, 9101), (65, 9155), (69, 9173), (77, 9227), (81, 9257), (92, 9296), (96, 9314), (97, 9323), (104, 9359), (109, 9422), (114, 9485), (117, 9512), (139, 9659), (140, 9662), (143, 9701), (147, 9719), (156, 9791), (163, 9857), (164, 9866), (168, 9905), (173, 9938), (177, 9971), (179, 9977), (182, 10007), (196, 10160), (200, 10175), (206, 10196), (207, 10199), (235, 10403), (238, 10412),

Gene: Piperis_20 Start: 8441, Stop: 10117, Start Num: 8

Candidate Starts for Piperis_20:

(Start: 8 @8441 has 39 MA's), (Start: 9 @8450 has 14 MA's), (11, 8465), (29, 8564), (31, 8570), (43, 8675), (44, 8687), (58, 8786), (59, 8792), (61, 8804), (65, 8858), (69, 8876), (77, 8930), (81, 8960), (92, 8999), (96, 9017), (97, 9026), (104, 9062), (109, 9125), (114, 9188), (117, 9215), (120, 9260), (139, 9362), (140, 9365), (143, 9404), (147, 9422), (156, 9494), (163, 9560), (164, 9569), (168, 9608), (173, 9641), (177, 9674), (179, 9680), (182, 9710), (196, 9863), (200, 9878), (206, 9899), (207, 9902),

Gene: Pulchra_21 Start: 8840, Stop: 10516, Start Num: 8

Candidate Starts for Pulchra_21:

(Start: 8 @8840 has 39 MA's), (Start: 9 @8849 has 14 MA's), (11, 8864), (29, 8963), (31, 8969), (43, 9074), (44, 9086), (58, 9185), (59, 9191), (61, 9203), (65, 9257), (69, 9275), (77, 9329), (81, 9359), (92, 9398), (96, 9416), (97, 9425), (104, 9461), (109, 9524), (114, 9587), (117, 9614), (139, 9761), (140, 9764), (143, 9803), (147, 9821), (156, 9893), (163, 9959), (164, 9968), (168, 10007), (173, 10040), (177, 10073), (179, 10079), (182, 10109), (185, 10124), (196, 10262), (200, 10277), (206, 10298), (207, 10301),

Gene: Pumpernickel_80 Start: 31376, Stop: 33094, Start Num: 21

Candidate Starts for Pumpernickel_80:

(3, 31238), (5, 31247), (6, 31259), (Start: 21 @31376 has 6 MA's), (37, 31490), (79, 31817), (103, 31934), (111, 32051), (123, 32159), (139, 32267), (155, 32390), (157, 32411), (163, 32465), (170, 32534), (194, 32702), (200, 32786), (201, 32789), (202, 32792), (214, 32858),

Gene: Quhwah_22 Start: 8789, Stop: 10495, Start Num: 8

Candidate Starts for Quhwah_22:

(Start: 8 @8789 has 39 MA's), (Start: 9 @8798 has 14 MA's), (29, 8912), (31, 8918), (43, 9023), (44, 9035), (58, 9134), (59, 9140), (61, 9152), (65, 9206), (69, 9224), (77, 9278), (81, 9308), (92, 9347), (96, 9365), (97, 9374), (104, 9410), (109, 9473), (114, 9536), (117, 9563), (120, 9608), (139, 9710), (140, 9713), (143, 9752), (147, 9770), (156, 9842), (163, 9908), (164, 9917), (168, 9956), (173, 9989), (177, 10022), (179, 10028), (182, 10058), (196, 10211), (200, 10226), (206, 10247), (207, 10250), (235, 10454), (238, 10463),

Gene: Racecar_77 Start: 33689, Stop: 35374, Start Num: 14

Candidate Starts for Racecar_77:

(Start: 14 @33689 has 2 MA's), (Start: 17 @33695 has 6 MA's), (34, 33800), (48, 33923), (50, 33935), (67, 34058), (109, 34310), (111, 34355), (131, 34511), (133, 34520), (134, 34532), (139, 34568), (141, 34589), (163, 34766), (208, 35120), (218, 35186), (220, 35192), (240, 35318), (241, 35327), (252, 35363),

Gene: Ramiel05_19 Start: 8475, Stop: 10151, Start Num: 8

Candidate Starts for Ramiel05_19:

(Start: 8 @8475 has 39 MA's), (Start: 9 @8484 has 14 MA's), (29, 8598), (31, 8604), (43, 8709), (44, 8721), (58, 8820), (59, 8826), (61, 8838), (65, 8892), (69, 8910), (77, 8964), (81, 8994), (92, 9033), (96, 9051), (97, 9060), (104, 9096), (109, 9159), (114, 9222), (117, 9249), (139, 9396), (140, 9399), (143, 9438), (147, 9456), (156, 9528), (163, 9594), (164, 9603), (173, 9675), (177, 9708), (179, 9714), (182, 9744), (185, 9759), (196, 9897), (200, 9912), (206, 9933), (207, 9936),

Gene: ReginaGlobina_75 Start: 31755, Stop: 33383, Start Num: 17

Candidate Starts for ReginaGlobina_75:

(Start: 17 @31755 has 6 MA's), (50, 31995), (75, 32172), (109, 32370), (125, 32532), (133, 32574), (134, 32586), (139, 32622), (161, 32802), (170, 32889), (183, 32967), (212, 33198), (228, 33285), (240, 33333), (252, 33372),

Gene: RobsFeet_21 Start: 8347, Stop: 10041, Start Num: 8

Candidate Starts for RobsFeet_21:

(Start: 8 @8347 has 39 MA's), (Start: 9 @8356 has 14 MA's), (31, 8479), (43, 8584), (44, 8596), (58, 8695), (65, 8767), (69, 8785), (92, 8908), (94, 8920), (96, 8926), (97, 8935), (104, 8971), (109, 9034), (114, 9097), (117, 9124), (120, 9169), (132, 9220), (139, 9271), (140, 9274), (143, 9313), (145, 9322), (147, 9331), (152, 9364), (156, 9403), (163, 9469), (164, 9478), (165, 9493), (168, 9517), (177, 9583), (179, 9589), (182, 9616), (196, 9769), (207, 9808), (210, 9829), (215, 9874), (238, 10021),

Gene: Rockabye_78 Start: 34436, Stop: 36061, Start Num: 17

Candidate Starts for Rockabye_78:

(Start: 17 @34436 has 6 MA's), (35, 34544), (48, 34661), (50, 34673), (62, 34742), (92, 34934), (119, 35168), (131, 35243), (140, 35303), (157, 35444), (163, 35498), (164, 35507), (170, 35567), (200, 35819), (208, 35852), (220, 35924), (227, 35951), (252, 36050),

Gene: Rockwell_19 Start: 8475, Stop: 10151, Start Num: 8

Candidate Starts for Rockwell_19:

(Start: 8 @8475 has 39 MA's), (Start: 9 @8484 has 14 MA's), (29, 8598), (31, 8604), (43, 8709), (44, 8721), (58, 8820), (59, 8826), (61, 8838), (65, 8892), (69, 8910), (77, 8964), (81, 8994), (92, 9033), (96, 9051), (97, 9060), (104, 9096), (109, 9159), (114, 9222), (117, 9249), (139, 9396), (140, 9399), (143, 9438), (147, 9456), (156, 9528), (163, 9594), (164, 9603), (173, 9675), (177, 9708), (179, 9714), (182, 9744), (185, 9759), (196, 9897), (200, 9912), (206, 9933), (207, 9936),

Gene: SJReid_79 Start: 34914, Stop: 36533, Start Num: 17

Candidate Starts for SJReid_79:

(Start: 17 @34914 has 6 MA's), (34, 35016), (35, 35022), (50, 35151), (77, 35334), (137, 35763), (140, 35775), (141, 35793), (163, 35970), (170, 36039), (200, 36291), (208, 36324), (220, 36396), (227, 36423), (240, 36480), (252, 36522),

Gene: Savannah_19 Start: 8499, Stop: 10175, Start Num: 8

Candidate Starts for Savannah_19:

(Start: 8 @8499 has 39 MA's), (Start: 9 @8508 has 14 MA's), (29, 8622), (31, 8628), (43, 8733), (44, 8745), (58, 8844), (59, 8850), (61, 8862), (65, 8916), (69, 8934), (77, 8988), (81, 9018), (92, 9057), (96, 9075), (97, 9084), (104, 9120), (109, 9183), (114, 9246), (117, 9273), (139, 9420), (140, 9423), (143, 9462), (147, 9480), (156, 9552), (163, 9618), (164, 9627), (173, 9699), (177, 9732), (179, 9738), (182, 9768), (185, 9783), (196, 9921), (200, 9936), (206, 9957), (207, 9960),

Gene: Scumberland_21 Start: 8659, Stop: 10365, Start Num: 8

Candidate Starts for Scumberland_21:

(Start: 8 @8659 has 39 MA's), (Start: 9 @8668 has 14 MA's), (11, 8683), (29, 8782), (31, 8788), (43, 8893), (44, 8905), (58, 9004), (59, 9010), (65, 9076), (69, 9094), (77, 9148), (81, 9178), (92, 9217), (96, 9235), (97, 9244), (104, 9280), (109, 9343), (114, 9406), (117, 9433), (120, 9478), (139, 9580), (140, 9583), (143, 9622), (147, 9640), (156, 9712), (163, 9778), (164, 9787), (168, 9826), (173, 9859), (177, 9892), (179, 9898), (182, 9928), (196, 10081), (200, 10096), (206, 10117), (207, 10120), (238, 10333),

Gene: Selwyn23_21 Start: 8668, Stop: 10344, Start Num: 8

Candidate Starts for Selwyn23_21:

(Start: 8 @8668 has 39 MA's), (Start: 9 @8677 has 14 MA's), (11, 8692), (29, 8791), (31, 8797), (43, 8902), (44, 8914), (58, 9013), (59, 9019), (61, 9031), (65, 9085), (69, 9103), (77, 9157), (81, 9187), (92, 9226), (96, 9244), (97, 9253), (104, 9289), (109, 9352), (114, 9415), (117, 9442), (139, 9589), (140, 9592), (143, 9631), (147, 9649), (156, 9721), (163, 9787), (164, 9796), (173, 9868), (177, 9901), (179, 9907), (182, 9937), (185, 9952), (196, 10090), (200, 10105), (206, 10126), (207, 10129),

Gene: Shotgun_19 Start: 8297, Stop: 9973, Start Num: 8

Candidate Starts for Shotgun_19:

(Start: 8 @8297 has 39 MA's), (Start: 9 @8306 has 14 MA's), (29, 8420), (31, 8426), (43, 8531), (44, 8543), (58, 8642), (59, 8648), (61, 8660), (65, 8714), (69, 8732), (77, 8786), (81, 8816), (92, 8855), (96, 8873), (97, 8882), (104, 8918), (109, 8981), (114, 9044), (117, 9071), (139, 9218), (140, 9221), (143, 9260), (147, 9278), (156, 9350), (163, 9416), (164, 9425), (173, 9497), (177, 9530), (179, 9536), (182, 9566), (185, 9581), (196, 9719), (200, 9734), (206, 9755), (207, 9758),

Gene: Shrubaron_20 Start: 7982, Stop: 9676, Start Num: 8

Candidate Starts for Shrubaron_20:

(Start: 8 @7982 has 39 MA's), (Start: 9 @7991 has 14 MA's), (31, 8114), (43, 8219), (44, 8231), (58, 8330), (65, 8402), (69, 8420), (92, 8543), (94, 8555), (96, 8561), (97, 8570), (104, 8606), (109, 8669), (114, 8732), (117, 8759), (120, 8804), (122, 8813), (132, 8855), (139, 8906), (140, 8909), (143, 8948), (145, 8957), (147, 8966), (152, 8999), (156, 9038), (163, 9104), (164, 9113), (165, 9128), (168, 9152), (177, 9218), (179, 9224), (182, 9251), (196, 9404), (207, 9443), (210, 9464), (215, 9509), (238, 9656),

Gene: SirFrank_19 Start: 8327, Stop: 10030, Start Num: 8

Candidate Starts for SirFrank_19:

(Start: 8 @8327 has 39 MA's), (Start: 9 @8336 has 14 MA's), (31, 8456), (43, 8561), (44, 8573), (58, 8672), (59, 8678), (60, 8687), (65, 8744), (77, 8816), (79, 8840), (80, 8843), (87, 8867), (92, 8885), (96, 8903), (97, 8912), (104, 8948), (109, 9011), (114, 9074), (117, 9101), (120, 9146), (139, 9248), (140, 9251), (143, 9290), (147, 9308), (156, 9380), (163, 9446), (164, 9455), (168, 9494), (177, 9560), (179, 9566), (182, 9596), (196, 9749), (201, 9767), (207, 9788), (210, 9809), (211, 9812), (213, 9833), (235, 9989),

Gene: Sixama_72 Start: 30011, Stop: 31756, Start Num: 18

Candidate Starts for Sixama_72:

(Start: 18 @30011 has 5 MA's), (19, 30017), (20, 30020), (32, 30098), (50, 30251), (57, 30299), (82, 30497), (111, 30740), (112, 30743), (114, 30758), (115, 30770), (118, 30788), (119, 30815), (122, 30836), (123, 30848), (150, 31019), (155, 31058), (160, 31109), (163, 31133), (171, 31208), (172, 31211), (176, 31235), (211, 31505), (221, 31574), (234, 31685), (249, 31733),

Gene: Skugga_18 Start: 7422, Stop: 9140, Start Num: 8

Candidate Starts for Skugga_18:

(Start: 8 @7422 has 39 MA's), (Start: 9 @7431 has 14 MA's), (31, 7551), (43, 7656), (44, 7668), (58, 7767), (61, 7785), (65, 7839), (76, 7908), (78, 7932), (87, 7962), (94, 7992), (96, 7998), (97, 8007), (104, 8043), (109, 8106), (114, 8169), (117, 8196), (120, 8241), (139, 8343), (140, 8346), (147, 8403), (152, 8436), (156, 8475), (163, 8541), (164, 8550), (165, 8565), (166, 8574), (168, 8589), (173, 8622), (177, 8655), (179, 8661), (182, 8691), (190, 8736), (196, 8844), (203, 8868), (210, 8904), (211, 8907), (213, 8928), (215, 8949), (224, 8985), (234, 9084), (238, 9096), (245, 9123),

Gene: Smarties_28 Start: 10100, Stop: 11824, Start Num: 8

Candidate Starts for Smarties_28:

(Start: 8 @10100 has 39 MA's), (Start: 9 @10109 has 14 MA's), (31, 10229), (43, 10334), (44, 10346), (58, 10445), (65, 10517), (69, 10535), (102, 10715), (104, 10721), (105, 10745), (109, 10784), (114, 10847), (117, 10874), (120, 10919), (139, 11021), (140, 11024), (143, 11063), (145, 11072), (152, 11114), (156, 11153), (163, 11219), (164, 11228), (165, 11243), (168, 11267), (177, 11333), (179,

11339), (182, 11366), (196, 11519), (201, 11537), (210, 11579), (213, 11603), (215, 11624), (224, 11660), (247, 11801), (250, 11813),

Gene: Stewart25555_66 Start: 28084, Stop: 29715, Start Num: 17

Candidate Starts for Stewart25555_66:

(Start: 17 @28084 has 6 MA's), (28, 28144), (50, 28324), (51, 28333), (75, 28501), (109, 28699), (130, 28882), (133, 28903), (139, 28951), (141, 28972), (144, 28999), (161, 29131), (170, 29218), (183, 29296), (212, 29527), (252, 29704),

Gene: Sunny_ Start: 8363, Stop: 10132, Start Num: 2

Candidate Starts for Sunny_:

(Start: 2 @8363 has 2 MA's), (7, 8429), (Start: 8 @8456 has 39 MA's), (Start: 9 @8465 has 14 MA's), (26, 8561), (31, 8585), (43, 8690), (44, 8702), (58, 8801), (65, 8873), (69, 8891), (78, 8966), (80, 8972), (92, 9011), (94, 9023), (97, 9038), (100, 9062), (104, 9074), (106, 9101), (108, 9128), (109, 9137), (117, 9227), (120, 9272), (139, 9374), (140, 9377), (145, 9425), (147, 9434), (156, 9506), (163, 9572), (164, 9581), (179, 9692), (187, 9749), (201, 9893), (204, 9905), (210, 9935), (232, 10103),

Gene: Talia1610_76 Start: 33060, Stop: 34739, Start Num: 17

Candidate Starts for Talia1610_76:

(Start: 14 @33054 has 2 MA's), (Start: 17 @33060 has 6 MA's), (34, 33165), (48, 33288), (50, 33300), (67, 33423), (109, 33675), (111, 33720), (116, 33753), (131, 33876), (133, 33885), (134, 33897), (139, 33933), (163, 34131), (170, 34200), (208, 34485), (218, 34551), (220, 34557), (240, 34683), (241, 34692), (252, 34728),

Gene: Teamocil_20 Start: 7583, Stop: 9301, Start Num: 8

Candidate Starts for Teamocil_20:

(Start: 8 @7583 has 39 MA's), (Start: 9 @7592 has 14 MA's), (31, 7712), (43, 7817), (44, 7829), (58, 7928), (61, 7946), (65, 8000), (69, 8018), (76, 8069), (78, 8093), (87, 8123), (94, 8153), (96, 8159), (97, 8168), (104, 8204), (109, 8267), (114, 8330), (117, 8357), (120, 8402), (139, 8504), (140, 8507), (145, 8555), (147, 8564), (152, 8597), (156, 8636), (163, 8702), (164, 8711), (165, 8726), (166, 8735), (168, 8750), (169, 8762), (173, 8783), (177, 8816), (179, 8822), (182, 8852), (190, 8897), (196, 9005), (203, 9029), (210, 9065), (211, 9068), (213, 9089), (215, 9110), (234, 9245), (238, 9257), (245, 9284),

Gene: Terij_13 Start: 6017, Stop: 7762, Start Num: 9

Candidate Starts for Terij_13:

(Start: 8 @6008 has 39 MA's), (Start: 9 @6017 has 14 MA's), (25, 6098), (27, 6119), (34, 6155), (36, 6170), (43, 6233), (44, 6245), (45, 6254), (58, 6344), (77, 6488), (83, 6539), (92, 6584), (93, 6593), (100, 6632), (106, 6668), (107, 6689), (108, 6695), (109, 6704), (114, 6767), (117, 6794), (139, 6941), (143, 6983), (145, 6992), (147, 7001), (149, 7016), (152, 7034), (156, 7073), (163, 7139), (164, 7148), (166, 7172), (167, 7184), (168, 7187), (179, 7259), (185, 7310), (188, 7325), (195, 7388), (201, 7469), (206, 7487), (215, 7556), (216, 7559), (224, 7604),

Gene: Tyrumbra_18 Start: 7432, Stop: 9117, Start Num: 9

Candidate Starts for Tyrumbra_18:

(Start: 8 @7423 has 39 MA's), (Start: 9 @7432 has 14 MA's), (31, 7555), (43, 7660), (44, 7672), (58, 7771), (65, 7843), (69, 7861), (87, 7966), (92, 7984), (94, 7996), (96, 8002), (97, 8011), (104, 8047), (109, 8110), (114, 8173), (117, 8200), (120, 8245), (122, 8254), (132, 8296), (139, 8347), (140, 8350), (143, 8389), (145, 8398), (147, 8407), (152, 8440), (156, 8479), (163, 8545), (164, 8554), (165, 8569), (168, 8593), (177, 8659), (179, 8665), (182, 8692), (196, 8845), (207, 8884), (210, 8905), (215, 8950), (224, 8986), (225, 8992), (238, 9097),

Gene: WaddleDee_63 Start: 27676, Stop: 29310, Start Num: 17

Candidate Starts for WaddleDee_63:

(Start: 17 @27676 has 6 MA's), (28, 27736), (75, 28093), (108, 28282), (109, 28291), (133, 28495), (139, 28543), (161, 28723), (170, 28810), (181, 28876), (183, 28888), (212, 29119), (228, 29206), (252, 29299),

Gene: Yeti_20 Start: 8441, Stop: 10147, Start Num: 8

Candidate Starts for Yeti_20:

(Start: 8 @8441 has 39 MA's), (Start: 9 @8450 has 14 MA's), (11, 8465), (29, 8564), (31, 8570), (43, 8675), (44, 8687), (58, 8786), (59, 8792), (65, 8858), (69, 8876), (77, 8930), (81, 8960), (92, 8999), (96, 9017), (97, 9026), (104, 9062), (109, 9125), (114, 9188), (117, 9215), (120, 9260), (139, 9362), (140, 9365), (143, 9404), (147, 9422), (156, 9494), (163, 9560), (164, 9569), (168, 9608), (173, 9641), (177, 9674), (179, 9680), (182, 9710), (196, 9863), (200, 9878), (206, 9899), (207, 9902), (235, 10106), (238, 10115),

Gene: Zapato_17 Start: 7638, Stop: 9347, Start Num: 9

Candidate Starts for Zapato_17:

(Start: 8 @7629 has 39 MA's), (Start: 9 @7638 has 14 MA's), (26, 7734), (31, 7758), (43, 7863), (44, 7875), (58, 7974), (61, 7992), (65, 8046), (69, 8064), (72, 8097), (76, 8115), (87, 8169), (94, 8199), (96, 8205), (97, 8214), (104, 8250), (109, 8313), (114, 8376), (117, 8403), (120, 8448), (139, 8550), (140, 8553), (143, 8592), (145, 8601), (147, 8610), (152, 8643), (156, 8682), (163, 8748), (164, 8757), (165, 8772), (166, 8781), (168, 8796), (169, 8808), (177, 8862), (179, 8868), (182, 8898), (203, 9075), (206, 9087), (210, 9111), (211, 9114), (213, 9135), (214, 9138), (232, 9279), (234, 9291), (238, 9303), (245, 9330),

Gene: Zooman_67 Start: 27800, Stop: 29527, Start Num: 21

Candidate Starts for Zooman_67:

(3, 27662), (4, 27668), (5, 27671), (Start: 21 @27800 has 6 MA's), (28, 27854), (32, 27878), (38, 27929), (49, 28037), (53, 28061), (65, 28151), (67, 28163), (75, 28217), (108, 28424), (111, 28478), (139, 28694), (152, 28787), (155, 28817), (164, 28901), (170, 28961), (176, 28994), (178, 29009), (200, 29213), (201, 29216), (202, 29219), (212, 29270), (233, 29441),