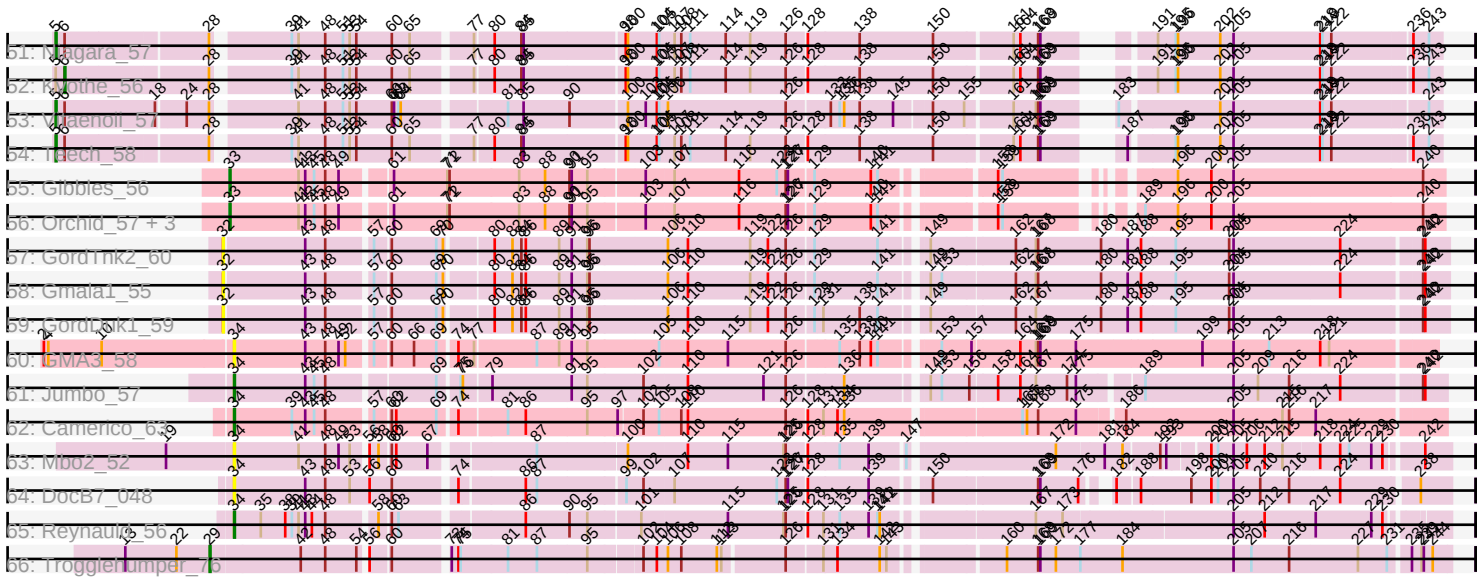


[illegible]

Pham 280267



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 280267 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280267 has 106 members, 16 are drafts.

Phages represented in each track:

- Track 1 : BRock_117
- Track 2 : GiJojo_116
- Track 3 : Talos_127
- Track 4 : LuckySocke_124
- Track 5 : Beleetus_123
- Track 6 : Garnacho_117
- Track 7 : Fudan_126
- Track 8 : Alone3_128
- Track 9 : Srilaccoli3_51
- Track 10 : Amore2_62, Austin_61, HayZem_62, GMA7_51
- Track 11 : GTE7_50
- Track 12 : CathyBurgh_59, Barbochs_57, Lizzo_59
- Track 13 : Squibbles_58
- Track 14 : Dakiti_60, Chelms_59
- Track 15 : Sam12_58, RemRem_60, Flakey_58, Ekhein_59, Exiguo_58
- Track 16 : PokyPuppy_58
- Track 17 : BigShaq_59
- Track 18 : Kelzog_61
- Track 19 : Poland_64, Msay19_64
- Track 20 : BirksAndSocks_64, Butterball_62, Boneham_63
- Track 21 : RoyalG_59, SteveFrench_58
- Track 22 : Linetti_59
- Track 23 : Worcestershire_59
- Track 24 : Monty_58, Hotorobo_59, Gorko_58
- Track 25 : PierreThree_58
- Track 26 : Jellybones_61
- Track 27 : John316_62
- Track 28 : FelixAlejandro_64
- Track 29 : Beaver_62
- Track 30 : GourdThymes_59
- Track 31 : Breezic_59
- Track 32 : CinnamonToast_65, BillyBobJr_65
- Track 33 : Adgers_62
- Track 34 : BenoitCattle_59
- Track 35 : Sombrero_60
- Track 36 : Diabla_63
- Track 37 : Crete_60

- Track 38 : Bianmat_57, Shelley_57, Lidong_57, Jams_57
- Track 39 : Jormungandr_57, Guillaume_57, Nimi13_57, MrWormie_57, Lahirium_57, Berries_57
- Track 40 : GalacticEye_57, Sticker17_57, Anamika_57, Neoevie_57, Damp_57, Harambe_57, Teal_57, Hello_57, Hail2Pitt_56, Minos_58, Newt_58
- Track 41 : Luker_58
- Track 42 : Charianelly_57
- Track 43 : Kaseim_57
- Track 44 : Woes_57
- Track 45 : Teatealatte_58, Tredge_57
- Track 46 : Benczkowski14_57, Katyusha_57
- Track 47 : Philon9_57
- Track 48 : ASerpRocky_55
- Track 49 : Hollow_57
- Track 50 : Demosthenes_55
- Track 51 : Niagara_57
- Track 52 : Kvothe_56
- Track 53 : Vitaenoi_57
- Track 54 : Teech_58
- Track 55 : Gibbles_56
- Track 56 : Orchid_57, PatrickStar_58, Kampe_58, RobinSparkles_61
- Track 57 : GordTnk2_60
- Track 58 : Gmala1_55
- Track 59 : GordDuk1_59
- Track 60 : GMA3_58
- Track 61 : Jumbo_57
- Track 62 : Camerico_63
- Track 63 : Mbo2_52
- Track 64 : DocB7_048
- Track 65 : Reynauld_56
- Track 66 : Trogglehumper_76

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

The start number called the most often in the published annotations is 39, it was called in 28 of the 90 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anamika_57, BenoitCattle_59, Berries_57, Bianmat_57, Chelms_59, Crete_60, Dakiti_60, Damp_57, Diabla_63, GalacticEye_57, Guillaume_57, Hail2Pitt_56, Harambe_57, Hello_57, Jams_57, Jormungandr_57, Kaseim_57, Lahirium_57, Lidong_57, Linetti_59, Minos_58, MrWormie_57, Neoevie_57, Newt_58, Nimi13_57, PierreThree_58, Shelley_57, Sticker17_57, Teal_57,

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

- Benczkowski14_57, BigShaq_59, Camerico_63, Charianelly_57, Katyusha_57, Kvothe_56, Luker_58, Niagara_57, PokyPuppy_58, Reynauld_56, RoyalG_59, Srilacoli3_51, SteveFrench_58, Teatealatte_58, Teech_58, Tredge_57, Woes_57,

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

- ASerpRocky_55, Adgers_62, Alone3_128, Amore2_62, Austin_61, BRock_117, Barbochs_57, Beaver_62, Beleetus_123, BillyBobJr_65, BirksAndSocks_64, Boneham_63, Breezic_59, Butterball_62, CathyBurgh_59, CinnamonToast_65, Demosthenes_55, DocB7_048, Ekhein_59, Exiguo_58, FelixAlejandro_64, Flakey_58, Fudan_126, GMA3_58, GMA7_51, GTE7_50, Garnacho_117, GiJojo_116, Gibbles_56, Gmala1_55, GordDuk1_59, GordTnk2_60, Gorko_58, GourdThymes_59, HayZem_62, Hollow_57, Hotorobo_59, Jellybones_61, John316_62, Jumbo_57, Kampe_58, Kelzog_61, Lizzo_59, LuckySocke_124, Mbo2_52, Monty_58, Msay19_64, Orchid_57, PatrickStar_58, Philon9_57, Poland_64, RemRem_60, RobinSparkles_61, Sam12_58, Sombrero_60, Squibbles_58, Talos_127, Trogglehumper_76, Vitaenoi_57, Worcestershire_59,

Summary by start number:

Start 5:

- Found in 12 of 106 (11.3%) of genes in pham
- Manual Annotations of this start: 9 of 90
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Benczkowski14_57 (CS4), Hollow_57 (CS4), Katyusha_57 (CS4), Niagara_57 (CS4), Philon9_57 (CS4), Teatealatte_58 (CS4), Teech_58 (CS4), Tredge_57 (CS4), Vitaenoi_57 (CS4),

Start 6:

- Found in 12 of 106 (11.3%) of genes in pham
- Manual Annotations of this start: 2 of 90
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Demosthenes_55 (CS4), Kvothe_56 (CS4),

Start 8:

- Found in 5 of 106 (4.7%) of genes in pham
- Manual Annotations of this start: 3 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amore2_62 (CS1), Austin_61 (CS1), GMA7_51 (CS1), GTE7_50 (CS1), HayZem_62 (CS1),

Start 18:

- Found in 5 of 106 (4.7%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 20.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky_55 (CS4),

Start 21:

- Found in 65 of 106 (61.3%) of genes in pham
- Manual Annotations of this start: 2 of 90
- Called 6.2% of time when present
- Phage (with cluster) where this start called: BillyBobJr_65 (CS2), Charianelly_57 (CS3), CinnamonToast_65 (CS2), Woes_57 (CS3),

Start 26:

- Found in 2 of 106 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 50.0% of time when present

- Phage (with cluster) where this start called: Luker_58 (CS3),

Start 27:

- Found in 40 of 106 (37.7%) of genes in pham
- Manual Annotations of this start: 28 of 90
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Adgers_62 (CS2), Barbochs_57 (CS2), Beaver_62 (CS2), BigShaq_59 (CS2), BirksAndSocks_64 (CS2), Boneham_63 (CS2), Breezic_59 (CS2), Butterball_62 (CS2), CathyBurgh_59 (CS2), Ekhein_59 (CS2), Exiguo_58 (CS2), FelixAlejandro_64 (CS2), Flakey_58 (CS2), Gorko_58 (CS2), GourdThymes_59 (CS2), Hotorobo_59 (CS2), Jellybones_61 (CS2), John316_62 (CS2), Kelzog_61 (CS2), Lizzo_59 (CS2), Monty_58 (CS2), Msay19_64 (CS2), Poland_64 (CS2), RemRem_60 (CS2), RoyalG_59 (CS2), Sam12_58 (CS2), Sombrero_60 (CS2), Squibbles_58 (CS2), SteveFrench_58 (CS2), Worcestershire_59 (CS2),

Start 29:

- Found in 1 of 106 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trogglehumper_76 (singleton),

Start 31:

- Found in 1 of 106 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PokyPuppy_58 (CS2),

Start 32:

- Found in 3 of 106 (2.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gmala1_55 (DF1), GordDuk1_59 (DF1), GordTnk2_60 (DF1),

Start 33:

- Found in 5 of 106 (4.7%) of genes in pham
- Manual Annotations of this start: 5 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gibbles_56 (CX), Kampe_58 (CX), Orchid_57 (CX), PatrickStar_58 (CX), RobinSparkles_61 (CX),

Start 34:

- Found in 7 of 106 (6.6%) of genes in pham
- Manual Annotations of this start: 3 of 90
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camerico_63 (DF4), DocB7_048 (singleton), GMA3_58 (DF2), Jumbo_57 (DF3), Mbo2_52 (singleton), Reynauld_56 (singleton), Srilaccoli3_51 (CH),

Start 35:

- Found in 8 of 106 (7.5%) of genes in pham
- Manual Annotations of this start: 4 of 90

- Called 62.5% of time when present
- Phage (with cluster) where this start called: Alone3_128 (BS), BRock_117 (BS), Beleetus_123 (BS), Garnacho_117 (BS), LuckySocke_124 (BS),

Start 36:

- Found in 2 of 106 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GiJojo_116 (BS),

Start 39:

- Found in 46 of 106 (43.4%) of genes in pham
- Manual Annotations of this start: 28 of 90
- Called 63.0% of time when present
- Phage (with cluster) where this start called: Anamika_57 (CS3), BenoitCattle_59 (CS2), Berries_57 (CS3), Bianmat_57 (CS3), Chelms_59 (CS2), Crete_60 (CS2), Dakiti_60 (CS2), Damp_57 (CS3), Diabla_63 (CS2), GalacticEye_57 (CS3), Guillaume_57 (CS3), Hail2Pitt_56 (CS3), Harambe_57 (CS3), Hello_57 (CS3), Jams_57 (CS3), Jormungandr_57 (CS3), Kaseim_57 (CS3), Lahirium_57 (CS3), Lidong_57 (CS3), Linetti_59 (CS2), Minos_58 (CS3), MrWormie_57 (CS3), Neovie_57 (CS3), Newt_58 (CS3), Nimi13_57 (CS3), PierreThree_58 (CS2), Shelley_57 (CS3), Sticker17_57 (CS3), Teal_57 (CS3),

Start 46:

- Found in 2 of 106 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 90
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Talos_127 (BS),

Start 49:

- Found in 13 of 106 (12.3%) of genes in pham
- No Manual Annotations of this start.
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Fudan_126 (BS),

Summary by clusters:

There are 12 clusters represented in this pham: singleton, CH, DF4, DF1, DF3, DF2, CX, BS, CS4, CS1, CS3, CS2,

Info for manual annotations of cluster BS:

- Start number 35 was manually annotated 4 times for cluster BS.
- Start number 36 was manually annotated 1 time for cluster BS.
- Start number 46 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster CS1:

- Start number 8 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 27 was manually annotated 28 times for cluster CS2.
- Start number 31 was manually annotated 1 time for cluster CS2.
- Start number 39 was manually annotated 6 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 21 was manually annotated 2 times for cluster CS3.
- Start number 26 was manually annotated 1 time for cluster CS3.
- Start number 39 was manually annotated 22 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 5 was manually annotated 9 times for cluster CS4.
- Start number 6 was manually annotated 2 times for cluster CS4.
- Start number 18 was manually annotated 1 time for cluster CS4.

Info for manual annotations of cluster CX:

- Start number 33 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DF3:

- Start number 34 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 34 was manually annotated 1 time for cluster DF4.

Gene Information:

Gene: ASerpRocky_55 Start: 52672, Stop: 51098, Start Num: 18

Candidate Starts for ASerpRocky_55:

(Start: 5 @52804 has 9 MA's), (Start: 6 @52792 has 2 MA's), (14, 52693), (Start: 18 @52672 has 1 MA's), (28, 52606), (41, 52507), (48, 52471), (51, 52447), (53, 52438), (54, 52429), (60, 52381), (65, 52357), (73, 52315), (76, 52300), (85, 52225), (90, 52165), (91, 52162), (98, 52096), (100, 52093), (104, 52057), (105, 52054), (108, 52027), (111, 52015), (114, 51967), (119, 51934), (122, 51910), (126, 51886), (128, 51862), (138, 51796), (150, 51697), (161, 51598), (168, 51565), (169, 51562), (195, 51445), (196, 51442), (202, 51385), (205, 51367), (218, 51250), (219, 51247), (222, 51235), (236, 51136), (243, 51115),

Gene: Adgers_62 Start: 52192, Stop: 50660, Start Num: 27

Candidate Starts for Adgers_62:

(1, 52447), (3, 52396), (13, 52291), (17, 52261), (Start: 21 @52228 has 2 MA's), (23, 52219), (Start: 27 @52192 has 28 MA's), (48, 52024), (54, 51982), (56, 51964), (60, 51934), (64, 51922), (65, 51910), (66, 51904), (68, 51883), (92, 51715), (103, 51628), (104, 51613), (106, 51601), (111, 51571), (126, 51442), (131, 51400), (134, 51382), (135, 51379), (137, 51370), (138, 51352), (150, 51265), (169, 51130), (170, 51115), (174, 51094), (195, 51013), (196, 51010), (202, 50953), (203, 50947), (205, 50935), (214, 50884), (216, 50860), (218, 50821), (221, 50809), (222, 50806), (233, 50713), (236, 50698),

Gene: Alone3_128 Start: 69071, Stop: 70642, Start Num: 35

Candidate Starts for Alone3_128:

(Start: 35 @69071 has 4 MA's), (47, 69152), (49, 69176), (64, 69242), (77, 69323), (86, 69389), (93, 69455), (94, 69464), (103, 69542), (109, 69593), (120, 69695), (123, 69716), (124, 69719), (130, 69770), (131, 69779), (133, 69794), (136, 69806), (142, 69854), (144, 69869), (179, 70139), (180, 70151), (183, 70175), (197, 70262), (211, 70367), (226, 70487), (228, 70499), (234, 70556), (236, 70568), (237, 70574), (246, 70622),

Gene: Amore2_62 Start: 52713, Stop: 51082, Start Num: 8

Candidate Starts for Amore2_62:

(Start: 8 @52713 has 3 MA's), (9, 52701), (15, 52650), (16, 52644), (25, 52587), (48, 52446), (54, 52404), (55, 52392), (60, 52356), (61, 52353), (66, 52326), (73, 52290), (75, 52278), (77, 52263), (89, 52155), (103, 52050), (104, 52035), (119, 51912), (126, 51864), (128, 51840), (131, 51822), (138, 51774), (146, 51723), (150, 51687), (154, 51669), (169, 51552), (182, 51501), (191, 51459), (199, 51399), (205, 51357), (214, 51306), (216, 51282), (236, 51120), (243, 51099),

Gene: Anamika_57 Start: 52887, Stop: 51475, Start Num: 39

Candidate Starts for Anamika_57:

(1, 53235), (11, 53106), (20, 53019), (Start: 21 @53016 has 2 MA's), (Start: 39 @52887 has 28 MA's), (48, 52842), (60, 52752), (61, 52749), (63, 52743), (66, 52722), (77, 52659), (89, 52551), (92, 52533), (103, 52446), (104, 52431), (111, 52389), (119, 52308), (126, 52260), (131, 52218), (134, 52200), (135, 52197), (138, 52170), (146, 52119), (150, 52083), (157, 52032), (169, 51948), (172, 51927), (202, 51771), (203, 51765), (205, 51753), (221, 51627), (236, 51513),

Gene: Austin_61 Start: 52711, Stop: 51080, Start Num: 8

Candidate Starts for Austin_61:

(Start: 8 @52711 has 3 MA's), (9, 52699), (15, 52648), (16, 52642), (25, 52585), (48, 52444), (54, 52402), (55, 52390), (60, 52354), (61, 52351), (66, 52324), (73, 52288), (75, 52276), (77, 52261), (89, 52153), (103, 52048), (104, 52033), (119, 51910), (126, 51862), (128, 51838), (131, 51820), (138, 51772), (146, 51721), (150, 51685), (154, 51667), (169, 51550), (182, 51499), (191, 51457), (199, 51397), (205, 51355), (214, 51304), (216, 51280), (236, 51118), (243, 51097),

Gene: BRock_117 Start: 63285, Stop: 64868, Start Num: 35

Candidate Starts for BRock_117:

(Start: 35 @63285 has 4 MA's), (37, 63294), (Start: 46 @63360 has 1 MA's), (47, 63366), (61, 63447), (64, 63456), (74, 63519), (75, 63522), (76, 63525), (77, 63540), (86, 63606), (92, 63669), (93, 63672), (94, 63681), (100, 63735), (103, 63759), (109, 63810), (117, 63891), (122, 63921), (124, 63936), (127, 63948), (130, 63987), (136, 64023), (138, 64044), (142, 64071), (144, 64086), (147, 64107), (152, 64149), (163, 64257), (171, 64305), (178, 64347), (179, 64356), (189, 64428), (194, 64461), (197, 64479), (208, 64572), (211, 64584), (220, 64671), (223, 64683), (226, 64704), (232, 64758), (233, 64770), (245, 64827),

Gene: Barbochs_57 Start: 51736, Stop: 50204, Start Num: 27

Candidate Starts for Barbochs_57:

(1, 51991), (3, 51940), (7, 51889), (13, 51835), (17, 51805), (Start: 21 @51772 has 2 MA's), (23, 51763), (Start: 27 @51736 has 28 MA's), (48, 51568), (54, 51526), (60, 51478), (64, 51466), (65, 51454), (66, 51448), (68, 51427), (75, 51400), (92, 51259), (103, 51172), (104, 51157), (106, 51145), (111, 51115), (115, 51064), (118, 51037), (126, 50986), (128, 50962), (131, 50944), (134, 50926), (135, 50923), (138, 50896), (144, 50854), (150, 50809), (169, 50674), (170, 50659), (174, 50638), (191, 50581), (195, 50557), (202, 50497), (203, 50491), (204, 50485), (205, 50479), (214, 50428), (216, 50404), (218, 50365), (221, 50353), (222, 50350), (233, 50257), (236, 50242), (243, 50221),

Gene: Beaver_62 Start: 53506, Stop: 51974, Start Num: 27

Candidate Starts for Beaver_62:

(1, 53761), (3, 53710), (7, 53659), (13, 53605), (17, 53575), (Start: 21 @53542 has 2 MA's), (23, 53533), (Start: 27 @53506 has 28 MA's), (48, 53338), (54, 53296), (60, 53248), (64, 53236), (65, 53224), (66, 53218), (68, 53197), (75, 53170), (92, 53029), (103, 52942), (104, 52927), (106, 52915), (111, 52885), (115, 52834), (118, 52807), (126, 52756), (131, 52714), (134, 52696), (135, 52693), (138, 52666), (144, 52624), (150, 52579), (154, 52561), (169, 52444), (170, 52429), (174, 52408), (191, 52351), (195, 52327), (202, 52267), (203, 52261), (204, 52255), (205, 52249), (214, 52198),

(216, 52174), (218, 52135), (221, 52123), (233, 52027), (236, 52012), (243, 51991),

Gene: Beleetus_123 Start: 66657, Stop: 68228, Start Num: 35

Candidate Starts for Beleetus_123:

(Start: 35 @66657 has 4 MA's), (47, 66738), (48, 66744), (49, 66762), (59, 66807), (62, 66822), (64, 66828), (74, 66891), (77, 66909), (86, 66975), (93, 67041), (94, 67050), (103, 67128), (109, 67179), (120, 67281), (123, 67302), (124, 67305), (130, 67356), (131, 67365), (133, 67380), (136, 67392), (142, 67440), (144, 67455), (179, 67725), (180, 67737), (183, 67761), (185, 67767), (190, 67800), (197, 67848), (211, 67953), (228, 68085), (234, 68142), (236, 68154), (237, 68160), (246, 68208),

Gene: Benczkowski14_57 Start: 53319, Stop: 51616, Start Num: 5

Candidate Starts for Benczkowski14_57:

(Start: 5 @53319 has 9 MA's), (Start: 6 @53307 has 2 MA's), (28, 53124), (Start: 39 @53034 has 28 MA's), (41, 53025), (48, 52989), (51, 52965), (53, 52956), (54, 52947), (60, 52899), (65, 52875), (77, 52803), (78, 52800), (80, 52782), (85, 52743), (98, 52614), (104, 52575), (105, 52572), (107, 52554), (108, 52545), (111, 52533), (114, 52485), (119, 52452), (126, 52404), (128, 52380), (138, 52314), (150, 52215), (161, 52116), (164, 52107), (168, 52083), (169, 52080), (191, 51987), (195, 51963), (196, 51960), (202, 51903), (205, 51885), (218, 51768), (219, 51765), (222, 51753), (236, 51654), (243, 51633),

Gene: BenoitCattle_59 Start: 52020, Stop: 50611, Start Num: 39

Candidate Starts for BenoitCattle_59:

(1, 52398), (3, 52347), (7, 52296), (13, 52242), (17, 52212), (Start: 21 @52179 has 2 MA's), (23, 52170), (Start: 27 @52143 has 28 MA's), (Start: 39 @52020 has 28 MA's), (48, 51975), (54, 51933), (60, 51885), (61, 51882), (63, 51876), (64, 51873), (65, 51861), (66, 51855), (75, 51807), (76, 51804), (89, 51684), (92, 51666), (98, 51603), (103, 51579), (104, 51564), (111, 51522), (115, 51471), (126, 51393), (134, 51333), (135, 51330), (137, 51321), (138, 51303), (144, 51261), (150, 51216), (169, 51081), (170, 51066), (174, 51045), (195, 50964), (196, 50961), (202, 50904), (203, 50898), (205, 50886), (214, 50835), (216, 50811), (218, 50772), (221, 50760), (233, 50664), (236, 50649),

Gene: Berries_57 Start: 52859, Stop: 51447, Start Num: 39

Candidate Starts for Berries_57:

(1, 53207), (11, 53078), (Start: 21 @52988 has 2 MA's), (Start: 39 @52859 has 28 MA's), (48, 52814), (60, 52724), (61, 52721), (63, 52715), (66, 52694), (77, 52631), (89, 52523), (92, 52505), (103, 52418), (104, 52403), (111, 52361), (119, 52280), (126, 52232), (131, 52190), (134, 52172), (135, 52169), (138, 52142), (146, 52091), (150, 52055), (157, 52004), (169, 51920), (172, 51899), (202, 51743), (203, 51737), (205, 51725), (221, 51599), (236, 51485),

Gene: Bianmat_57 Start: 52899, Stop: 51487, Start Num: 39

Candidate Starts for Bianmat_57:

(1, 53247), (11, 53118), (Start: 21 @53028 has 2 MA's), (Start: 39 @52899 has 28 MA's), (48, 52854), (60, 52764), (61, 52761), (63, 52755), (66, 52734), (77, 52671), (87, 52593), (89, 52563), (92, 52545), (103, 52458), (104, 52443), (111, 52401), (119, 52320), (126, 52272), (131, 52230), (134, 52212), (135, 52209), (138, 52182), (146, 52131), (150, 52095), (157, 52044), (169, 51960), (172, 51939), (202, 51783), (203, 51777), (205, 51765), (221, 51639), (236, 51525),

Gene: BigShaq_59 Start: 52148, Stop: 50616, Start Num: 27

Candidate Starts for BigShaq_59:

(1, 52403), (3, 52352), (7, 52301), (13, 52247), (17, 52217), (Start: 21 @52184 has 2 MA's), (23, 52175), (Start: 27 @52148 has 28 MA's), (Start: 39 @52025 has 28 MA's), (48, 51980), (54, 51938), (60, 51890), (61, 51887), (63, 51881), (64, 51878), (65, 51866), (66, 51860), (73, 51824), (75, 51812), (76, 51809), (89, 51689), (92, 51671), (103, 51584), (104, 51569), (111, 51527), (115, 51476), (118, 51449), (126, 51398), (134, 51338), (135, 51335), (137, 51326), (138, 51308), (144, 51266), (150,

51221), (169, 51086), (170, 51071), (174, 51050), (195, 50969), (196, 50966), (202, 50909), (203, 50903), (205, 50891), (214, 50840), (215, 50825), (216, 50816), (218, 50777), (221, 50765), (233, 50669), (236, 50654),

Gene: BillyBobJr_65 Start: 53852, Stop: 52284, Start Num: 21

Candidate Starts for BillyBobJr_65:

(1, 54071), (3, 54020), (11, 53942), (13, 53915), (17, 53885), (Start: 21 @53852 has 2 MA's), (23, 53843), (Start: 27 @53816 has 28 MA's), (48, 53648), (54, 53606), (56, 53588), (60, 53558), (64, 53546), (66, 53528), (75, 53480), (92, 53339), (103, 53252), (104, 53237), (106, 53225), (111, 53195), (115, 53144), (126, 53066), (128, 53042), (131, 53024), (134, 53006), (135, 53003), (137, 52994), (138, 52976), (150, 52889), (169, 52754), (170, 52739), (174, 52718), (191, 52661), (195, 52637), (196, 52634), (202, 52577), (203, 52571), (205, 52559), (214, 52508), (216, 52484), (218, 52445), (221, 52433), (222, 52430), (233, 52337), (236, 52322), (243, 52301),

Gene: BirksAndSocks_64 Start: 53856, Stop: 52324, Start Num: 27

Candidate Starts for BirksAndSocks_64:

(1, 54111), (3, 54060), (13, 53955), (17, 53925), (Start: 21 @53892 has 2 MA's), (23, 53883), (Start: 27 @53856 has 28 MA's), (48, 53688), (54, 53646), (56, 53628), (60, 53598), (64, 53586), (65, 53574), (66, 53568), (68, 53547), (92, 53379), (103, 53292), (104, 53277), (106, 53265), (111, 53235), (126, 53106), (128, 53082), (131, 53064), (134, 53046), (135, 53043), (137, 53034), (138, 53016), (150, 52929), (169, 52794), (170, 52779), (174, 52758), (195, 52677), (196, 52674), (202, 52617), (203, 52611), (205, 52599), (214, 52548), (216, 52524), (218, 52485), (221, 52473), (222, 52470), (233, 52377), (236, 52362),

Gene: Boneham_63 Start: 53757, Stop: 52225, Start Num: 27

Candidate Starts for Boneham_63:

(1, 54012), (3, 53961), (13, 53856), (17, 53826), (Start: 21 @53793 has 2 MA's), (23, 53784), (Start: 27 @53757 has 28 MA's), (48, 53589), (54, 53547), (56, 53529), (60, 53499), (64, 53487), (65, 53475), (66, 53469), (68, 53448), (92, 53280), (103, 53193), (104, 53178), (106, 53166), (111, 53136), (126, 53007), (128, 52983), (131, 52965), (134, 52947), (135, 52944), (137, 52935), (138, 52917), (150, 52830), (169, 52695), (170, 52680), (174, 52659), (195, 52578), (196, 52575), (202, 52518), (203, 52512), (205, 52500), (214, 52449), (216, 52425), (218, 52386), (221, 52374), (222, 52371), (233, 52278), (236, 52263),

Gene: Breezic_59 Start: 51749, Stop: 50217, Start Num: 27

Candidate Starts for Breezic_59:

(1, 52004), (3, 51953), (7, 51902), (13, 51848), (17, 51818), (Start: 21 @51785 has 2 MA's), (23, 51776), (Start: 27 @51749 has 28 MA's), (48, 51581), (54, 51539), (60, 51491), (64, 51479), (65, 51467), (66, 51461), (68, 51440), (75, 51413), (92, 51272), (103, 51185), (104, 51170), (106, 51158), (111, 51128), (115, 51077), (118, 51050), (126, 50999), (134, 50939), (135, 50936), (138, 50909), (144, 50867), (150, 50822), (169, 50687), (170, 50672), (174, 50651), (191, 50594), (195, 50570), (196, 50567), (202, 50510), (203, 50504), (204, 50498), (205, 50492), (214, 50441), (216, 50417), (218, 50378), (221, 50366), (222, 50363), (233, 50270), (236, 50255), (243, 50234),

Gene: Butterball_62 Start: 53762, Stop: 52230, Start Num: 27

Candidate Starts for Butterball_62:

(1, 54017), (3, 53966), (13, 53861), (17, 53831), (Start: 21 @53798 has 2 MA's), (23, 53789), (Start: 27 @53762 has 28 MA's), (48, 53594), (54, 53552), (56, 53534), (60, 53504), (64, 53492), (65, 53480), (66, 53474), (68, 53453), (92, 53285), (103, 53198), (104, 53183), (106, 53171), (111, 53141), (126, 53012), (128, 52988), (131, 52970), (134, 52952), (135, 52949), (137, 52940), (138, 52922), (150, 52835), (169, 52700), (170, 52685), (174, 52664), (195, 52583), (196, 52580), (202, 52523), (203, 52517), (205, 52505), (214, 52454), (216, 52430), (218, 52391), (221, 52379), (222, 52376), (233, 52283), (236, 52268),

Gene: Camerico_63 Start: 54751, Stop: 53234, Start Num: 34

Candidate Starts for Camerico_63:

(Start: 34 @54751 has 3 MA's), (Start: 39 @54673 has 28 MA's), (43, 54655), (45, 54643), (48, 54628), (57, 54574), (60, 54556), (62, 54550), (69, 54496), (74, 54478), (81, 54418), (86, 54394), (95, 54313), (97, 54274), (102, 54247), (105, 54226), (108, 54199), (110, 54190), (126, 54058), (128, 54034), (131, 54016), (134, 53998), (136, 53989), (165, 53773), (166, 53767), (168, 53752), (175, 53701), (186, 53647), (205, 53506), (215, 53440), (216, 53431), (217, 53398),

Gene: CathyBurgh_59 Start: 52326, Stop: 50794, Start Num: 27

Candidate Starts for CathyBurgh_59:

(1, 52581), (3, 52530), (7, 52479), (13, 52425), (17, 52395), (Start: 21 @52362 has 2 MA's), (23, 52353), (Start: 27 @52326 has 28 MA's), (48, 52158), (54, 52116), (60, 52068), (64, 52056), (65, 52044), (66, 52038), (68, 52017), (75, 51990), (92, 51849), (103, 51762), (104, 51747), (106, 51735), (111, 51705), (115, 51654), (118, 51627), (126, 51576), (128, 51552), (131, 51534), (134, 51516), (135, 51513), (138, 51486), (144, 51444), (150, 51399), (169, 51264), (170, 51249), (174, 51228), (191, 51171), (195, 51147), (202, 51087), (203, 51081), (204, 51075), (205, 51069), (214, 51018), (216, 50994), (218, 50955), (221, 50943), (222, 50940), (233, 50847), (236, 50832), (243, 50811),

Gene: Charianelly_57 Start: 52738, Stop: 51197, Start Num: 21

Candidate Starts for Charianelly_57:

(1, 52957), (11, 52828), (Start: 21 @52738 has 2 MA's), (Start: 39 @52609 has 28 MA's), (48, 52564), (60, 52474), (61, 52471), (63, 52465), (66, 52444), (77, 52381), (87, 52303), (89, 52273), (92, 52255), (103, 52168), (104, 52153), (111, 52111), (119, 52030), (126, 51982), (131, 51940), (134, 51922), (135, 51919), (138, 51892), (146, 51841), (150, 51805), (157, 51754), (169, 51670), (172, 51649), (202, 51493), (203, 51487), (205, 51475), (221, 51349), (236, 51235),

Gene: Chelms_59 Start: 52169, Stop: 50760, Start Num: 39

Candidate Starts for Chelms_59:

(1, 52547), (3, 52496), (7, 52445), (13, 52391), (17, 52361), (Start: 21 @52328 has 2 MA's), (23, 52319), (Start: 27 @52292 has 28 MA's), (Start: 39 @52169 has 28 MA's), (48, 52124), (54, 52082), (60, 52034), (61, 52031), (63, 52025), (64, 52022), (65, 52010), (66, 52004), (75, 51956), (76, 51953), (89, 51833), (92, 51815), (98, 51752), (103, 51728), (104, 51713), (111, 51671), (115, 51620), (118, 51593), (126, 51542), (134, 51482), (135, 51479), (137, 51470), (138, 51452), (144, 51410), (150, 51365), (151, 51362), (169, 51230), (170, 51215), (174, 51194), (195, 51113), (196, 51110), (202, 51053), (203, 51047), (205, 51035), (214, 50984), (215, 50969), (216, 50960), (218, 50921), (221, 50909), (233, 50813), (236, 50798),

Gene: CinnamonToast_65 Start: 53852, Stop: 52284, Start Num: 21

Candidate Starts for CinnamonToast_65:

(1, 54071), (3, 54020), (11, 53942), (13, 53915), (17, 53885), (Start: 21 @53852 has 2 MA's), (23, 53843), (Start: 27 @53816 has 28 MA's), (48, 53648), (54, 53606), (56, 53588), (60, 53558), (64, 53546), (66, 53528), (75, 53480), (92, 53339), (103, 53252), (104, 53237), (106, 53225), (111, 53195), (115, 53144), (126, 53066), (128, 53042), (131, 53024), (134, 53006), (135, 53003), (137, 52994), (138, 52976), (150, 52889), (169, 52754), (170, 52739), (174, 52718), (191, 52661), (195, 52637), (196, 52634), (202, 52577), (203, 52571), (205, 52559), (214, 52508), (216, 52484), (218, 52445), (221, 52433), (222, 52430), (233, 52337), (236, 52322), (243, 52301),

Gene: Crete_60 Start: 52291, Stop: 50882, Start Num: 39

Candidate Starts for Crete_60:

(1, 52669), (3, 52618), (7, 52567), (13, 52513), (17, 52483), (Start: 21 @52450 has 2 MA's), (23, 52441), (Start: 27 @52414 has 28 MA's), (Start: 39 @52291 has 28 MA's), (48, 52246), (54, 52204), (60, 52156), (61, 52153), (63, 52147), (64, 52144), (65, 52132), (66, 52126), (75, 52078), (76, 52075),

(89, 51955), (92, 51937), (98, 51874), (103, 51850), (104, 51835), (111, 51793), (115, 51742), (118, 51715), (126, 51664), (134, 51604), (135, 51601), (137, 51592), (138, 51574), (144, 51532), (150, 51487), (154, 51469), (169, 51352), (170, 51337), (174, 51316), (195, 51235), (196, 51232), (202, 51175), (203, 51169), (205, 51157), (214, 51106), (215, 51091), (216, 51082), (218, 51043), (221, 51031), (233, 50935), (236, 50920),

Gene: Dakiti_60 Start: 53037, Stop: 51628, Start Num: 39

Candidate Starts for Dakiti_60:

(1, 53415), (3, 53364), (7, 53313), (13, 53259), (17, 53229), (Start: 21 @53196 has 2 MA's), (23, 53187), (Start: 27 @53160 has 28 MA's), (Start: 39 @53037 has 28 MA's), (48, 52992), (54, 52950), (60, 52902), (61, 52899), (63, 52893), (64, 52890), (65, 52878), (66, 52872), (75, 52824), (76, 52821), (89, 52701), (92, 52683), (98, 52620), (103, 52596), (104, 52581), (111, 52539), (115, 52488), (118, 52461), (126, 52410), (134, 52350), (135, 52347), (137, 52338), (138, 52320), (144, 52278), (150, 52233), (151, 52230), (169, 52098), (170, 52083), (174, 52062), (195, 51981), (196, 51978), (202, 51921), (203, 51915), (205, 51903), (214, 51852), (215, 51837), (216, 51828), (218, 51789), (221, 51777), (233, 51681), (236, 51666),

Gene: Damp_57 Start: 51773, Stop: 50361, Start Num: 39

Candidate Starts for Damp_57:

(1, 52121), (11, 51992), (20, 51905), (Start: 21 @51902 has 2 MA's), (Start: 39 @51773 has 28 MA's), (48, 51728), (60, 51638), (61, 51635), (63, 51629), (66, 51608), (77, 51545), (89, 51437), (92, 51419), (103, 51332), (104, 51317), (111, 51275), (119, 51194), (126, 51146), (131, 51104), (134, 51086), (135, 51083), (138, 51056), (146, 51005), (150, 50969), (157, 50918), (169, 50834), (172, 50813), (202, 50657), (203, 50651), (205, 50639), (221, 50513), (236, 50399),

Gene: Demosthenes_55 Start: 52768, Stop: 51074, Start Num: 6

Candidate Starts for Demosthenes_55:

(Start: 5 @52780 has 9 MA's), (Start: 6 @52768 has 2 MA's), (14, 52669), (Start: 18 @52648 has 1 MA's), (28, 52582), (41, 52483), (48, 52447), (51, 52423), (53, 52414), (54, 52405), (60, 52357), (65, 52333), (73, 52291), (76, 52276), (77, 52261), (84, 52204), (85, 52201), (90, 52141), (91, 52138), (98, 52072), (100, 52069), (104, 52033), (105, 52030), (107, 52012), (108, 52003), (111, 51991), (114, 51943), (119, 51910), (122, 51886), (126, 51862), (128, 51838), (138, 51772), (150, 51673), (168, 51541), (169, 51538), (187, 51472), (195, 51421), (196, 51418), (202, 51361), (205, 51343), (218, 51226), (219, 51223), (222, 51211), (236, 51112), (243, 51091),

Gene: Diabla_63 Start: 53692, Stop: 52283, Start Num: 39

Candidate Starts for Diabla_63:

(1, 54070), (3, 54019), (13, 53914), (17, 53884), (Start: 21 @53851 has 2 MA's), (23, 53842), (Start: 27 @53815 has 28 MA's), (Start: 39 @53692 has 28 MA's), (48, 53647), (54, 53605), (60, 53557), (61, 53554), (63, 53548), (64, 53545), (66, 53527), (68, 53506), (75, 53479), (89, 53356), (92, 53338), (103, 53251), (104, 53236), (115, 53143), (126, 53065), (128, 53041), (134, 53005), (135, 53002), (138, 52975), (144, 52933), (150, 52888), (154, 52870), (159, 52804), (169, 52753), (170, 52738), (174, 52717), (191, 52660), (196, 52633), (202, 52576), (203, 52570), (205, 52558), (214, 52507), (216, 52483), (218, 52444), (221, 52432), (222, 52429), (233, 52336), (236, 52321), (243, 52300),

Gene: DocB7_048 Start: 43676, Stop: 42174, Start Num: 34

Candidate Starts for DocB7_048:

(Start: 34 @43676 has 3 MA's), (43, 43580), (48, 43553), (53, 43520), (56, 43496), (60, 43466), (74, 43391), (86, 43310), (87, 43295), (99, 43184), (102, 43163), (107, 43124), (123, 42986), (126, 42974), (127, 42971), (128, 42950), (139, 42872), (150, 42812), (168, 42677), (169, 42674), (176, 42623), (182, 42602), (188, 42575), (198, 42509), (200, 42482), (201, 42473), (205, 42452), (210, 42416), (216, 42377), (224, 42311), (238, 42215),

Gene: Ekhein_59 Start: 51454, Stop: 49922, Start Num: 27

Candidate Starts for Ekhein_59:

(1, 51709), (3, 51658), (7, 51607), (13, 51553), (17, 51523), (Start: 21 @51490 has 2 MA's), (23, 51481), (Start: 27 @51454 has 28 MA's), (48, 51286), (54, 51244), (60, 51196), (64, 51184), (65, 51172), (66, 51166), (68, 51145), (75, 51118), (92, 50977), (103, 50890), (104, 50875), (106, 50863), (111, 50833), (115, 50782), (118, 50755), (126, 50704), (131, 50662), (134, 50644), (135, 50641), (138, 50614), (144, 50572), (150, 50527), (169, 50392), (170, 50377), (174, 50356), (191, 50299), (195, 50275), (196, 50272), (202, 50215), (203, 50209), (204, 50203), (205, 50197), (214, 50146), (216, 50122), (218, 50083), (221, 50071), (222, 50068), (233, 49975), (236, 49960), (243, 49939),

Gene: Exiguo_58 Start: 51466, Stop: 49934, Start Num: 27

Candidate Starts for Exiguo_58:

(1, 51721), (3, 51670), (7, 51619), (13, 51565), (17, 51535), (Start: 21 @51502 has 2 MA's), (23, 51493), (Start: 27 @51466 has 28 MA's), (48, 51298), (54, 51256), (60, 51208), (64, 51196), (65, 51184), (66, 51178), (68, 51157), (75, 51130), (92, 50989), (103, 50902), (104, 50887), (106, 50875), (111, 50845), (115, 50794), (118, 50767), (126, 50716), (131, 50674), (134, 50656), (135, 50653), (138, 50626), (144, 50584), (150, 50539), (169, 50404), (170, 50389), (174, 50368), (191, 50311), (195, 50287), (196, 50284), (202, 50227), (203, 50221), (204, 50215), (205, 50209), (214, 50158), (216, 50134), (218, 50095), (221, 50083), (222, 50080), (233, 49987), (236, 49972), (243, 49951),

Gene: FelixAlejandro_64 Start: 54160, Stop: 52628, Start Num: 27

Candidate Starts for FelixAlejandro_64:

(1, 54415), (3, 54364), (13, 54259), (17, 54229), (Start: 21 @54196 has 2 MA's), (23, 54187), (Start: 27 @54160 has 28 MA's), (41, 54028), (48, 53992), (54, 53950), (56, 53932), (60, 53902), (64, 53890), (65, 53878), (66, 53872), (68, 53851), (92, 53683), (103, 53596), (104, 53581), (106, 53569), (111, 53539), (115, 53488), (126, 53410), (128, 53386), (131, 53368), (134, 53350), (135, 53347), (137, 53338), (138, 53320), (150, 53233), (169, 53098), (170, 53083), (174, 53062), (195, 52981), (196, 52978), (202, 52921), (203, 52915), (205, 52903), (214, 52852), (216, 52828), (218, 52789), (221, 52777), (222, 52774), (233, 52681), (236, 52666), (243, 52645),

Gene: Flakey_58 Start: 52330, Stop: 50798, Start Num: 27

Candidate Starts for Flakey_58:

(1, 52585), (3, 52534), (7, 52483), (13, 52429), (17, 52399), (Start: 21 @52366 has 2 MA's), (23, 52357), (Start: 27 @52330 has 28 MA's), (48, 52162), (54, 52120), (60, 52072), (64, 52060), (65, 52048), (66, 52042), (68, 52021), (75, 51994), (92, 51853), (103, 51766), (104, 51751), (106, 51739), (111, 51709), (115, 51658), (118, 51631), (126, 51580), (131, 51538), (134, 51520), (135, 51517), (138, 51490), (144, 51448), (150, 51403), (169, 51268), (170, 51253), (174, 51232), (191, 51175), (195, 51151), (196, 51148), (202, 51091), (203, 51085), (204, 51079), (205, 51073), (214, 51022), (216, 50998), (218, 50959), (221, 50947), (222, 50944), (233, 50851), (236, 50836), (243, 50815),

Gene: Fudan_126 Start: 67386, Stop: 68852, Start Num: 49

Candidate Starts for Fudan_126:

(Start: 35 @67281 has 4 MA's), (47, 67362), (49, 67386), (64, 67452), (77, 67533), (86, 67599), (93, 67665), (94, 67674), (103, 67752), (109, 67803), (120, 67905), (123, 67926), (124, 67929), (130, 67980), (131, 67989), (133, 68004), (136, 68016), (142, 68064), (144, 68079), (179, 68349), (180, 68361), (183, 68385), (197, 68472), (208, 68565), (211, 68577), (214, 68589), (226, 68697), (228, 68709), (234, 68766), (236, 68778), (237, 68784), (246, 68832),

Gene: GMA3_58 Start: 50868, Stop: 49351, Start Num: 34

Candidate Starts for GMA3_58:

(2, 51117), (4, 51111), (10, 51039), (Start: 34 @50868 has 3 MA's), (43, 50772), (48, 50745), (49, 50727), (52, 50718), (57, 50691), (60, 50673), (66, 50643), (69, 50613), (74, 50592), (77, 50571), (87, 50493), (89, 50463), (91, 50448), (95, 50427), (105, 50334), (110, 50298), (115, 50244), (126, 50166),

(135, 50103), (138, 50076), (140, 50061), (141, 50052), (153, 49989), (157, 49950), (164, 49890), (167, 49869), (168, 49866), (169, 49863), (175, 49815), (199, 49653), (205, 49611), (213, 49563), (218, 49497), (221, 49485),

Gene: GMA7_51 Start: 46927, Stop: 45296, Start Num: 8

Candidate Starts for GMA7_51:

(Start: 8 @46927 has 3 MA's), (9, 46915), (15, 46864), (16, 46858), (25, 46801), (48, 46660), (54, 46618), (55, 46606), (60, 46570), (61, 46567), (66, 46540), (73, 46504), (75, 46492), (77, 46477), (89, 46369), (103, 46264), (104, 46249), (119, 46126), (126, 46078), (128, 46054), (131, 46036), (138, 45988), (146, 45937), (150, 45901), (154, 45883), (169, 45766), (182, 45715), (191, 45673), (199, 45613), (205, 45571), (214, 45520), (216, 45496), (236, 45334), (243, 45313),

Gene: GTE7_50 Start: 46958, Stop: 45327, Start Num: 8

Candidate Starts for GTE7_50:

(Start: 8 @46958 has 3 MA's), (9, 46946), (15, 46895), (16, 46889), (25, 46832), (48, 46691), (54, 46649), (55, 46637), (60, 46601), (61, 46598), (66, 46571), (75, 46523), (77, 46508), (89, 46400), (103, 46295), (104, 46280), (119, 46157), (126, 46109), (128, 46085), (131, 46067), (138, 46019), (146, 45968), (150, 45932), (154, 45914), (169, 45797), (182, 45746), (191, 45704), (199, 45644), (205, 45602), (214, 45551), (216, 45527), (236, 45365), (243, 45344),

Gene: GalacticEye_57 Start: 52570, Stop: 51158, Start Num: 39

Candidate Starts for GalacticEye_57:

(1, 52918), (11, 52789), (20, 52702), (Start: 21 @52699 has 2 MA's), (Start: 39 @52570 has 28 MA's), (48, 52525), (60, 52435), (61, 52432), (63, 52426), (66, 52405), (77, 52342), (89, 52234), (92, 52216), (103, 52129), (104, 52114), (111, 52072), (119, 51991), (126, 51943), (131, 51901), (134, 51883), (135, 51880), (138, 51853), (146, 51802), (150, 51766), (157, 51715), (169, 51631), (172, 51610), (202, 51454), (203, 51448), (205, 51436), (221, 51310), (236, 51196),

Gene: Garnacho_117 Start: 66839, Stop: 68410, Start Num: 35

Candidate Starts for Garnacho_117:

(Start: 35 @66839 has 4 MA's), (47, 66920), (48, 66926), (49, 66944), (50, 66947), (64, 67010), (86, 67157), (93, 67223), (100, 67286), (109, 67361), (120, 67463), (124, 67487), (130, 67538), (131, 67547), (133, 67562), (135, 67568), (136, 67574), (142, 67622), (144, 67637), (194, 68012), (211, 68135), (214, 68147), (228, 68267), (236, 68336),

Gene: GiJojo_116 Start: 68346, Stop: 69914, Start Num: 36

Candidate Starts for GiJojo_116:

(Start: 36 @68346 has 1 MA's), (47, 68424), (48, 68430), (50, 68451), (52, 68457), (59, 68493), (64, 68514), (74, 68577), (75, 68580), (77, 68595), (86, 68661), (93, 68727), (94, 68736), (109, 68865), (120, 68967), (124, 68991), (127, 69003), (130, 69042), (131, 69051), (136, 69078), (144, 69141), (179, 69411), (197, 69534), (208, 69627), (211, 69639), (228, 69771), (236, 69840), (237, 69846), (246, 69894),

Gene: Gibbles_56 Start: 50443, Stop: 48953, Start Num: 33

Candidate Starts for Gibbles_56:

(Start: 33 @50443 has 5 MA's), (41, 50350), (43, 50341), (45, 50329), (48, 50314), (49, 50296), (61, 50239), (71, 50167), (72, 50164), (83, 50071), (88, 50038), (90, 50005), (91, 50002), (95, 49981), (103, 49912), (107, 49876), (116, 49789), (123, 49738), (126, 49726), (127, 49723), (129, 49693), (140, 49621), (141, 49612), (158, 49489), (159, 49483), (196, 49309), (200, 49264), (205, 49234), (240, 48982),

Gene: Gmala1_55 Start: 48612, Stop: 47071, Start Num: 32

Candidate Starts for Gmala1_55:

(32, 48612), (43, 48507), (48, 48480), (57, 48426), (60, 48408), (69, 48348), (70, 48339), (80, 48288), (82, 48264), (84, 48252), (86, 48246), (89, 48201), (91, 48186), (95, 48165), (96, 48162), (106, 48063), (110, 48036), (119, 47952), (122, 47928), (126, 47904), (129, 47871), (141, 47790), (149, 47742), (153, 47727), (162, 47634), (167, 47607), (168, 47604), (180, 47520), (187, 47484), (188, 47469), (195, 47424), (204, 47352), (205, 47346), (224, 47205), (240, 47106), (242, 47103),

Gene: GordDuk1_59 Start: 49176, Stop: 47635, Start Num: 32

Candidate Starts for GordDuk1_59:

(32, 49176), (43, 49071), (48, 49044), (57, 48990), (60, 48972), (69, 48912), (70, 48903), (80, 48852), (82, 48828), (84, 48816), (86, 48810), (89, 48765), (91, 48750), (95, 48729), (96, 48726), (106, 48627), (110, 48600), (119, 48516), (122, 48492), (126, 48468), (129, 48435), (131, 48426), (138, 48378), (141, 48354), (149, 48306), (162, 48198), (167, 48171), (180, 48084), (187, 48048), (188, 48033), (195, 47988), (204, 47916), (205, 47910), (240, 47670), (242, 47667),

Gene: GordTnk2_60 Start: 49330, Stop: 47789, Start Num: 32

Candidate Starts for GordTnk2_60:

(32, 49330), (43, 49225), (48, 49198), (57, 49144), (60, 49126), (69, 49066), (70, 49057), (80, 49006), (82, 48982), (84, 48970), (86, 48964), (89, 48919), (91, 48904), (95, 48883), (96, 48880), (106, 48781), (110, 48754), (119, 48670), (122, 48646), (126, 48622), (129, 48589), (141, 48508), (149, 48460), (162, 48352), (167, 48325), (168, 48322), (180, 48238), (187, 48202), (188, 48187), (195, 48142), (204, 48070), (205, 48064), (224, 47923), (240, 47824), (242, 47821),

Gene: Gorko_58 Start: 51458, Stop: 49926, Start Num: 27

Candidate Starts for Gorko_58:

(1, 51713), (3, 51662), (7, 51611), (13, 51557), (17, 51527), (Start: 21 @51494 has 2 MA's), (23, 51485), (Start: 27 @51458 has 28 MA's), (48, 51290), (54, 51248), (60, 51200), (64, 51188), (65, 51176), (66, 51170), (68, 51149), (75, 51122), (92, 50981), (103, 50894), (104, 50879), (106, 50867), (111, 50837), (115, 50786), (118, 50759), (126, 50708), (134, 50648), (135, 50645), (138, 50618), (144, 50576), (150, 50531), (169, 50396), (170, 50381), (174, 50360), (195, 50279), (196, 50276), (202, 50219), (203, 50213), (204, 50207), (205, 50201), (216, 50126), (218, 50087), (221, 50075), (222, 50072), (233, 49979), (236, 49964), (243, 49943),

Gene: GourdThymes_59 Start: 52332, Stop: 50800, Start Num: 27

Candidate Starts for GourdThymes_59:

(1, 52587), (3, 52536), (7, 52485), (13, 52431), (17, 52401), (Start: 21 @52368 has 2 MA's), (23, 52359), (Start: 27 @52332 has 28 MA's), (48, 52164), (54, 52122), (60, 52074), (64, 52062), (65, 52050), (66, 52044), (68, 52023), (75, 51996), (92, 51855), (103, 51768), (104, 51753), (106, 51741), (111, 51711), (115, 51660), (118, 51633), (126, 51582), (128, 51558), (131, 51540), (134, 51522), (135, 51519), (138, 51492), (144, 51450), (150, 51405), (169, 51270), (170, 51255), (174, 51234), (191, 51177), (195, 51153), (196, 51150), (202, 51093), (203, 51087), (204, 51081), (205, 51075), (214, 51024), (216, 51000), (218, 50961), (221, 50949), (222, 50946), (233, 50853), (236, 50838), (243, 50817),

Gene: Guillaume_57 Start: 52620, Stop: 51208, Start Num: 39

Candidate Starts for Guillaume_57:

(1, 52968), (11, 52839), (Start: 21 @52749 has 2 MA's), (Start: 39 @52620 has 28 MA's), (48, 52575), (60, 52485), (61, 52482), (63, 52476), (66, 52455), (77, 52392), (89, 52284), (92, 52266), (103, 52179), (104, 52164), (111, 52122), (119, 52041), (126, 51993), (131, 51951), (134, 51933), (135, 51930), (138, 51903), (146, 51852), (150, 51816), (157, 51765), (169, 51681), (172, 51660), (202, 51504), (203, 51498), (205, 51486), (221, 51360), (236, 51246),

Gene: Hail2Pitt_56 Start: 53096, Stop: 51684, Start Num: 39

Candidate Starts for Hail2Pitt_56:

(1, 53444), (11, 53315), (20, 53228), (Start: 21 @53225 has 2 MA's), (Start: 39 @53096 has 28 MA's), (48, 53051), (60, 52961), (61, 52958), (63, 52952), (66, 52931), (77, 52868), (89, 52760), (92, 52742), (103, 52655), (104, 52640), (111, 52598), (119, 52517), (126, 52469), (131, 52427), (134, 52409), (135, 52406), (138, 52379), (146, 52328), (150, 52292), (157, 52241), (169, 52157), (172, 52136), (202, 51980), (203, 51974), (205, 51962), (221, 51836), (236, 51722),

Gene: Harambe_57 Start: 52887, Stop: 51475, Start Num: 39

Candidate Starts for Harambe_57:

(1, 53235), (11, 53106), (20, 53019), (Start: 21 @53016 has 2 MA's), (Start: 39 @52887 has 28 MA's), (48, 52842), (60, 52752), (61, 52749), (63, 52743), (66, 52722), (77, 52659), (89, 52551), (92, 52533), (103, 52446), (104, 52431), (111, 52389), (119, 52308), (126, 52260), (131, 52218), (134, 52200), (135, 52197), (138, 52170), (146, 52119), (150, 52083), (157, 52032), (169, 51948), (172, 51927), (202, 51771), (203, 51765), (205, 51753), (221, 51627), (236, 51513),

Gene: HayZem_62 Start: 52710, Stop: 51079, Start Num: 8

Candidate Starts for HayZem_62:

(Start: 8 @52710 has 3 MA's), (9, 52698), (15, 52647), (16, 52641), (25, 52584), (48, 52443), (54, 52401), (55, 52389), (60, 52353), (61, 52350), (66, 52323), (73, 52287), (75, 52275), (77, 52260), (89, 52152), (103, 52047), (104, 52032), (119, 51909), (126, 51861), (128, 51837), (131, 51819), (138, 51771), (146, 51720), (150, 51684), (154, 51666), (169, 51549), (182, 51498), (191, 51456), (199, 51396), (205, 51354), (214, 51303), (216, 51279), (236, 51117), (243, 51096),

Gene: Hello_57 Start: 52849, Stop: 51437, Start Num: 39

Candidate Starts for Hello_57:

(1, 53197), (11, 53068), (20, 52981), (Start: 21 @52978 has 2 MA's), (Start: 39 @52849 has 28 MA's), (48, 52804), (60, 52714), (61, 52711), (63, 52705), (66, 52684), (77, 52621), (89, 52513), (92, 52495), (103, 52408), (104, 52393), (111, 52351), (119, 52270), (126, 52222), (131, 52180), (134, 52162), (135, 52159), (138, 52132), (146, 52081), (150, 52045), (157, 51994), (169, 51910), (172, 51889), (202, 51733), (203, 51727), (205, 51715), (221, 51589), (236, 51475),

Gene: Hollow_57 Start: 53503, Stop: 51797, Start Num: 5

Candidate Starts for Hollow_57:

(Start: 5 @53503 has 9 MA's), (Start: 6 @53491 has 2 MA's), (14, 53392), (Start: 18 @53371 has 1 MA's), (28, 53305), (41, 53206), (48, 53170), (51, 53146), (53, 53137), (54, 53128), (60, 53080), (65, 53056), (73, 53014), (76, 52999), (77, 52984), (84, 52927), (85, 52924), (90, 52864), (91, 52861), (98, 52795), (100, 52792), (104, 52756), (105, 52753), (107, 52735), (108, 52726), (111, 52714), (114, 52666), (119, 52633), (122, 52609), (126, 52585), (128, 52561), (138, 52495), (150, 52396), (168, 52264), (169, 52261), (195, 52144), (196, 52141), (202, 52084), (205, 52066), (218, 51949), (219, 51946), (222, 51934), (236, 51835), (243, 51814),

Gene: Hotorobo_59 Start: 52337, Stop: 50805, Start Num: 27

Candidate Starts for Hotorobo_59:

(1, 52592), (3, 52541), (7, 52490), (13, 52436), (17, 52406), (Start: 21 @52373 has 2 MA's), (23, 52364), (Start: 27 @52337 has 28 MA's), (48, 52169), (54, 52127), (60, 52079), (64, 52067), (65, 52055), (66, 52049), (68, 52028), (75, 52001), (92, 51860), (103, 51773), (104, 51758), (106, 51746), (111, 51716), (115, 51665), (118, 51638), (126, 51587), (134, 51527), (135, 51524), (138, 51497), (144, 51455), (150, 51410), (169, 51275), (170, 51260), (174, 51239), (195, 51158), (196, 51155), (202, 51098), (203, 51092), (204, 51086), (205, 51080), (216, 51005), (218, 50966), (221, 50954), (222, 50951), (233, 50858), (236, 50843), (243, 50822),

Gene: Jams_57 Start: 52059, Stop: 50647, Start Num: 39

Candidate Starts for Jams_57:

(1, 52407), (11, 52278), (Start: 21 @52188 has 2 MA's), (Start: 39 @52059 has 28 MA's), (48, 52014), (60, 51924), (61, 51921), (63, 51915), (66, 51894), (77, 51831), (87, 51753), (89, 51723), (92, 51705), (103, 51618), (104, 51603), (111, 51561), (119, 51480), (126, 51432), (131, 51390), (134, 51372), (135, 51369), (138, 51342), (146, 51291), (150, 51255), (157, 51204), (169, 51120), (172, 51099), (202, 50943), (203, 50937), (205, 50925), (221, 50799), (236, 50685),

Gene: Jellybones_61 Start: 53432, Stop: 51900, Start Num: 27

Candidate Starts for Jellybones_61:

(1, 53687), (3, 53636), (11, 53558), (13, 53531), (17, 53501), (Start: 21 @53468 has 2 MA's), (23, 53459), (Start: 27 @53432 has 28 MA's), (41, 53300), (48, 53264), (54, 53222), (56, 53204), (60, 53174), (64, 53162), (66, 53144), (75, 53096), (103, 52868), (104, 52853), (106, 52841), (111, 52811), (115, 52760), (126, 52682), (128, 52658), (131, 52640), (134, 52622), (135, 52619), (137, 52610), (138, 52592), (144, 52550), (150, 52505), (154, 52487), (169, 52370), (170, 52355), (174, 52334), (191, 52277), (195, 52253), (196, 52250), (202, 52193), (203, 52187), (205, 52175), (214, 52124), (216, 52100), (218, 52061), (221, 52049), (222, 52046), (233, 51953), (236, 51938), (243, 51917),

Gene: John316_62 Start: 53495, Stop: 51963, Start Num: 27

Candidate Starts for John316_62:

(1, 53750), (3, 53699), (7, 53648), (13, 53594), (17, 53564), (Start: 21 @53531 has 2 MA's), (23, 53522), (Start: 27 @53495 has 28 MA's), (48, 53327), (54, 53285), (60, 53237), (64, 53225), (65, 53213), (66, 53207), (68, 53186), (75, 53159), (103, 52931), (104, 52916), (106, 52904), (111, 52874), (115, 52823), (118, 52796), (126, 52745), (131, 52703), (134, 52685), (135, 52682), (138, 52655), (144, 52613), (150, 52568), (169, 52433), (170, 52418), (174, 52397), (195, 52316), (196, 52313), (202, 52256), (203, 52250), (204, 52244), (205, 52238), (216, 52163), (218, 52124), (221, 52112), (222, 52109), (233, 52016), (236, 52001), (243, 51980),

Gene: Jormungandr_57 Start: 52602, Stop: 51190, Start Num: 39

Candidate Starts for Jormungandr_57:

(1, 52950), (11, 52821), (Start: 21 @52731 has 2 MA's), (Start: 39 @52602 has 28 MA's), (48, 52557), (60, 52467), (61, 52464), (63, 52458), (66, 52437), (77, 52374), (89, 52266), (92, 52248), (103, 52161), (104, 52146), (111, 52104), (119, 52023), (126, 51975), (131, 51933), (134, 51915), (135, 51912), (138, 51885), (146, 51834), (150, 51798), (157, 51747), (169, 51663), (172, 51642), (202, 51486), (203, 51480), (205, 51468), (221, 51342), (236, 51228),

Gene: Jumbo_57 Start: 53259, Stop: 51742, Start Num: 34

Candidate Starts for Jumbo_57:

(Start: 34 @53259 has 3 MA's), (43, 53163), (45, 53151), (48, 53136), (69, 53004), (75, 52980), (76, 52977), (79, 52944), (91, 52839), (95, 52818), (102, 52746), (110, 52689), (121, 52587), (126, 52557), (136, 52488), (149, 52395), (153, 52380), (156, 52344), (158, 52311), (164, 52281), (167, 52260), (174, 52218), (175, 52206), (189, 52131), (205, 52014), (209, 51981), (216, 51939), (224, 51873), (240, 51774), (242, 51771),

Gene: Kampe_58 Start: 50421, Stop: 48931, Start Num: 33

Candidate Starts for Kampe_58:

(Start: 33 @50421 has 5 MA's), (41, 50328), (43, 50319), (45, 50307), (48, 50292), (49, 50274), (61, 50217), (71, 50145), (72, 50142), (83, 50049), (88, 50016), (90, 49983), (91, 49980), (95, 49959), (103, 49890), (107, 49854), (116, 49767), (126, 49704), (127, 49701), (129, 49671), (140, 49599), (141, 49590), (158, 49467), (159, 49461), (189, 49329), (196, 49287), (200, 49242), (205, 49212), (240, 48960),

Gene: Kaseim_57 Start: 52044, Stop: 50632, Start Num: 39

Candidate Starts for Kaseim_57:

(1, 52392), (11, 52263), (Start: 21 @52173 has 2 MA's), (Start: 26 @52137 has 1 MA's), (Start: 39 @52044 has 28 MA's), (48, 51999), (60, 51909), (61, 51906), (63, 51900), (66, 51879), (77, 51816), (89, 51708), (92, 51690), (103, 51603), (104, 51588), (111, 51546), (119, 51465), (126, 51417), (131, 51375), (134, 51357), (135, 51354), (138, 51327), (146, 51276), (150, 51240), (157, 51189), (169, 51105), (172, 51084), (202, 50928), (203, 50922), (205, 50910), (221, 50784), (236, 50670),

Gene: Katyusha_57 Start: 53319, Stop: 51616, Start Num: 5

Candidate Starts for Katyusha_57:

(Start: 5 @53319 has 9 MA's), (Start: 6 @53307 has 2 MA's), (28, 53124), (Start: 39 @53034 has 28 MA's), (41, 53025), (48, 52989), (51, 52965), (53, 52956), (54, 52947), (60, 52899), (65, 52875), (77, 52803), (78, 52800), (80, 52782), (85, 52743), (98, 52614), (104, 52575), (105, 52572), (107, 52554), (108, 52545), (111, 52533), (114, 52485), (119, 52452), (126, 52404), (128, 52380), (138, 52314), (150, 52215), (161, 52116), (164, 52107), (168, 52083), (169, 52080), (191, 51987), (195, 51963), (196, 51960), (202, 51903), (205, 51885), (218, 51768), (219, 51765), (222, 51753), (236, 51654), (243, 51633),

Gene: Kelzog_61 Start: 52344, Stop: 50812, Start Num: 27

Candidate Starts for Kelzog_61:

(1, 52599), (3, 52548), (7, 52497), (13, 52443), (17, 52413), (Start: 21 @52380 has 2 MA's), (23, 52371), (Start: 27 @52344 has 28 MA's), (48, 52176), (54, 52134), (60, 52086), (64, 52074), (65, 52062), (66, 52056), (68, 52035), (75, 52008), (92, 51867), (103, 51780), (104, 51765), (106, 51753), (111, 51723), (115, 51672), (118, 51645), (126, 51594), (134, 51534), (135, 51531), (138, 51504), (144, 51462), (150, 51417), (154, 51399), (169, 51282), (170, 51267), (174, 51246), (191, 51189), (195, 51165), (202, 51105), (203, 51099), (204, 51093), (205, 51087), (214, 51036), (216, 51012), (218, 50973), (221, 50961), (222, 50958), (233, 50865), (236, 50850), (243, 50829),

Gene: Kvothe_56 Start: 53206, Stop: 51515, Start Num: 6

Candidate Starts for Kvothe_56:

(Start: 5 @53218 has 9 MA's), (Start: 6 @53206 has 2 MA's), (28, 53023), (Start: 39 @52933 has 28 MA's), (41, 52924), (48, 52888), (51, 52864), (53, 52855), (54, 52846), (60, 52798), (65, 52774), (77, 52702), (80, 52681), (84, 52645), (85, 52642), (98, 52513), (100, 52510), (104, 52474), (105, 52471), (107, 52453), (108, 52444), (111, 52432), (114, 52384), (119, 52351), (126, 52303), (128, 52279), (138, 52213), (150, 52114), (161, 52015), (164, 52006), (168, 51982), (169, 51979), (191, 51886), (195, 51862), (196, 51859), (202, 51802), (205, 51784), (218, 51667), (219, 51664), (222, 51652), (236, 51553), (243, 51532),

Gene: Lahirium_57 Start: 53124, Stop: 51712, Start Num: 39

Candidate Starts for Lahirium_57:

(1, 53472), (11, 53343), (Start: 21 @53253 has 2 MA's), (Start: 39 @53124 has 28 MA's), (48, 53079), (60, 52989), (61, 52986), (63, 52980), (66, 52959), (77, 52896), (89, 52788), (92, 52770), (103, 52683), (104, 52668), (111, 52626), (119, 52545), (126, 52497), (131, 52455), (134, 52437), (135, 52434), (138, 52407), (146, 52356), (150, 52320), (157, 52269), (169, 52185), (172, 52164), (202, 52008), (203, 52002), (205, 51990), (221, 51864), (236, 51750),

Gene: Lidong_57 Start: 52859, Stop: 51447, Start Num: 39

Candidate Starts for Lidong_57:

(1, 53207), (11, 53078), (Start: 21 @52988 has 2 MA's), (Start: 39 @52859 has 28 MA's), (48, 52814), (60, 52724), (61, 52721), (63, 52715), (66, 52694), (77, 52631), (87, 52553), (89, 52523), (92, 52505), (103, 52418), (104, 52403), (111, 52361), (119, 52280), (126, 52232), (131, 52190), (134, 52172), (135, 52169), (138, 52142), (146, 52091), (150, 52055), (157, 52004), (169, 51920), (172, 51899), (202, 51743), (203, 51737), (205, 51725), (221, 51599), (236, 51485),

Gene: Linetti_59 Start: 53022, Stop: 51613, Start Num: 39

Candidate Starts for Linetti_59:

(1, 53400), (3, 53349), (7, 53298), (13, 53244), (17, 53214), (Start: 21 @53181 has 2 MA's), (23, 53172), (Start: 27 @53145 has 28 MA's), (Start: 39 @53022 has 28 MA's), (48, 52977), (54, 52935), (60, 52887), (61, 52884), (63, 52878), (64, 52875), (65, 52863), (66, 52857), (73, 52821), (75, 52809), (76, 52806), (89, 52686), (92, 52668), (98, 52605), (103, 52581), (104, 52566), (111, 52524), (118, 52446), (126, 52395), (134, 52335), (135, 52332), (137, 52323), (138, 52305), (144, 52263), (150, 52218), (169, 52083), (170, 52068), (174, 52047), (195, 51966), (196, 51963), (202, 51906), (203, 51900), (205, 51888), (214, 51837), (215, 51822), (216, 51813), (218, 51774), (221, 51762), (233, 51666), (236, 51651),

Gene: Lizzo_59 Start: 52326, Stop: 50794, Start Num: 27

Candidate Starts for Lizzo_59:

(1, 52581), (3, 52530), (7, 52479), (13, 52425), (17, 52395), (Start: 21 @52362 has 2 MA's), (23, 52353), (Start: 27 @52326 has 28 MA's), (48, 52158), (54, 52116), (60, 52068), (64, 52056), (65, 52044), (66, 52038), (68, 52017), (75, 51990), (92, 51849), (103, 51762), (104, 51747), (106, 51735), (111, 51705), (115, 51654), (118, 51627), (126, 51576), (128, 51552), (131, 51534), (134, 51516), (135, 51513), (138, 51486), (144, 51444), (150, 51399), (169, 51264), (170, 51249), (174, 51228), (191, 51171), (195, 51147), (202, 51087), (203, 51081), (204, 51075), (205, 51069), (214, 51018), (216, 50994), (218, 50955), (221, 50943), (222, 50940), (233, 50847), (236, 50832), (243, 50811),

Gene: LuckySocle_124 Start: 67230, Stop: 68801, Start Num: 35

Candidate Starts for LuckySocle_124:

(Start: 35 @67230 has 4 MA's), (47, 67311), (49, 67335), (64, 67401), (77, 67482), (86, 67548), (93, 67614), (94, 67623), (103, 67701), (109, 67752), (120, 67854), (123, 67875), (124, 67878), (130, 67929), (131, 67938), (133, 67953), (136, 67965), (142, 68013), (144, 68028), (179, 68298), (180, 68310), (183, 68334), (197, 68421), (208, 68514), (211, 68526), (214, 68538), (226, 68646), (228, 68658), (234, 68715), (236, 68727), (237, 68733), (246, 68781),

Gene: Luker_58 Start: 53170, Stop: 51665, Start Num: 26

Candidate Starts for Luker_58:

(1, 53425), (11, 53296), (Start: 21 @53206 has 2 MA's), (Start: 26 @53170 has 1 MA's), (Start: 39 @53077 has 28 MA's), (48, 53032), (60, 52942), (61, 52939), (63, 52933), (66, 52912), (77, 52849), (89, 52741), (92, 52723), (103, 52636), (104, 52621), (111, 52579), (119, 52498), (126, 52450), (131, 52408), (134, 52390), (135, 52387), (138, 52360), (146, 52309), (150, 52273), (157, 52222), (169, 52138), (172, 52117), (202, 51961), (203, 51955), (205, 51943), (221, 51817), (236, 51703),

Gene: Mbo2_52 Start: 42925, Stop: 41438, Start Num: 34

Candidate Starts for Mbo2_52:

(19, 43012), (Start: 34 @42925 has 3 MA's), (41, 42838), (48, 42802), (49, 42784), (53, 42769), (56, 42754), (58, 42742), (60, 42730), (62, 42724), (67, 42682), (87, 42559), (100, 42445), (110, 42370), (115, 42316), (125, 42241), (126, 42238), (128, 42214), (135, 42175), (139, 42136), (147, 42094), (172, 41911), (181, 41851), (184, 41833), (192, 41788), (193, 41785), (200, 41737), (201, 41728), (205, 41707), (206, 41689), (212, 41665), (215, 41641), (218, 41599), (224, 41572), (225, 41560), (229, 41530), (230, 41515), (242, 41473),

Gene: Minos_58 Start: 52601, Stop: 51189, Start Num: 39

Candidate Starts for Minos_58:

(1, 52949), (11, 52820), (20, 52733), (Start: 21 @52730 has 2 MA's), (Start: 39 @52601 has 28 MA's), (48, 52556), (60, 52466), (61, 52463), (63, 52457), (66, 52436), (77, 52373), (89, 52265), (92, 52247), (103, 52160), (104, 52145), (111, 52103), (119, 52022), (126, 51974), (131, 51932), (134, 51914), (135, 51911), (138, 51884), (146, 51833), (150, 51797), (157, 51746), (169, 51662), (172, 51641), (202, 51485), (203, 51479), (205, 51467), (221, 51341), (236, 51227),

Gene: Monty_58 Start: 51476, Stop: 49944, Start Num: 27

Candidate Starts for Monty_58:

(1, 51731), (3, 51680), (7, 51629), (13, 51575), (17, 51545), (Start: 21 @51512 has 2 MA's), (23, 51503), (Start: 27 @51476 has 28 MA's), (48, 51308), (54, 51266), (60, 51218), (64, 51206), (65, 51194), (66, 51188), (68, 51167), (75, 51140), (92, 50999), (103, 50912), (104, 50897), (106, 50885), (111, 50855), (115, 50804), (118, 50777), (126, 50726), (134, 50666), (135, 50663), (138, 50636), (144, 50594), (150, 50549), (169, 50414), (170, 50399), (174, 50378), (195, 50297), (196, 50294), (202, 50237), (203, 50231), (204, 50225), (205, 50219), (216, 50144), (218, 50105), (221, 50093), (222, 50090), (233, 49997), (236, 49982), (243, 49961),

Gene: MrWormie_57 Start: 51762, Stop: 50350, Start Num: 39

Candidate Starts for MrWormie_57:

(1, 52110), (11, 51981), (Start: 21 @51891 has 2 MA's), (Start: 39 @51762 has 28 MA's), (48, 51717), (60, 51627), (61, 51624), (63, 51618), (66, 51597), (77, 51534), (89, 51426), (92, 51408), (103, 51321), (104, 51306), (111, 51264), (119, 51183), (126, 51135), (131, 51093), (134, 51075), (135, 51072), (138, 51045), (146, 50994), (150, 50958), (157, 50907), (169, 50823), (172, 50802), (202, 50646), (203, 50640), (205, 50628), (221, 50502), (236, 50388),

Gene: Msay19_64 Start: 54046, Stop: 52514, Start Num: 27

Candidate Starts for Msay19_64:

(1, 54301), (3, 54250), (13, 54145), (17, 54115), (Start: 21 @54082 has 2 MA's), (23, 54073), (Start: 27 @54046 has 28 MA's), (48, 53878), (54, 53836), (56, 53818), (60, 53788), (64, 53776), (65, 53764), (66, 53758), (68, 53737), (92, 53569), (103, 53482), (104, 53467), (106, 53455), (111, 53425), (115, 53374), (126, 53296), (128, 53272), (131, 53254), (134, 53236), (135, 53233), (137, 53224), (138, 53206), (144, 53164), (150, 53119), (154, 53101), (169, 52984), (170, 52969), (174, 52948), (195, 52867), (196, 52864), (202, 52807), (203, 52801), (205, 52789), (216, 52714), (218, 52675), (221, 52663), (222, 52660), (233, 52567), (236, 52552),

Gene: Neoevie_57 Start: 52863, Stop: 51451, Start Num: 39

Candidate Starts for Neoevie_57:

(1, 53211), (11, 53082), (20, 52995), (Start: 21 @52992 has 2 MA's), (Start: 39 @52863 has 28 MA's), (48, 52818), (60, 52728), (61, 52725), (63, 52719), (66, 52698), (77, 52635), (89, 52527), (92, 52509), (103, 52422), (104, 52407), (111, 52365), (119, 52284), (126, 52236), (131, 52194), (134, 52176), (135, 52173), (138, 52146), (146, 52095), (150, 52059), (157, 52008), (169, 51924), (172, 51903), (202, 51747), (203, 51741), (205, 51729), (221, 51603), (236, 51489),

Gene: Newt_58 Start: 53091, Stop: 51679, Start Num: 39

Candidate Starts for Newt_58:

(1, 53439), (11, 53310), (20, 53223), (Start: 21 @53220 has 2 MA's), (Start: 39 @53091 has 28 MA's), (48, 53046), (60, 52956), (61, 52953), (63, 52947), (66, 52926), (77, 52863), (89, 52755), (92, 52737), (103, 52650), (104, 52635), (111, 52593), (119, 52512), (126, 52464), (131, 52422), (134, 52404), (135, 52401), (138, 52374), (146, 52323), (150, 52287), (157, 52236), (169, 52152), (172, 52131), (202, 51975), (203, 51969), (205, 51957), (221, 51831), (236, 51717),

Gene: Niagara_57 Start: 53309, Stop: 51606, Start Num: 5

Candidate Starts for Niagara_57:

(Start: 5 @53309 has 9 MA's), (Start: 6 @53297 has 2 MA's), (28, 53114), (Start: 39 @53024 has 28 MA's), (41, 53015), (48, 52979), (51, 52955), (53, 52946), (54, 52937), (60, 52889), (65, 52865), (77, 52793), (80, 52772), (84, 52736), (85, 52733), (98, 52604), (100, 52601), (104, 52565), (105, 52562), (107, 52544), (108, 52535), (111, 52523), (114, 52475), (119, 52442), (126, 52394), (128, 52370), (138, 52304), (150, 52205), (161, 52106), (164, 52097), (168, 52073), (169, 52070), (191, 51977), (195, 51953), (196, 51950), (202, 51893), (205, 51875), (218, 51758), (219, 51755), (222, 51743), (236, 51644), (243, 51623),

Gene: Nimi13_57 Start: 52610, Stop: 51198, Start Num: 39

Candidate Starts for Nimi13_57:

(1, 52958), (11, 52829), (Start: 21 @52739 has 2 MA's), (Start: 39 @52610 has 28 MA's), (48, 52565), (60, 52475), (61, 52472), (63, 52466), (66, 52445), (77, 52382), (89, 52274), (92, 52256), (103, 52169), (104, 52154), (111, 52112), (119, 52031), (126, 51983), (131, 51941), (134, 51923), (135, 51920), (138, 51893), (146, 51842), (150, 51806), (157, 51755), (169, 51671), (172, 51650), (202, 51494), (203, 51488), (205, 51476), (221, 51350), (236, 51236),

Gene: Orchid_57 Start: 50422, Stop: 48932, Start Num: 33

Candidate Starts for Orchid_57:

(Start: 33 @50422 has 5 MA's), (41, 50329), (43, 50320), (45, 50308), (48, 50293), (49, 50275), (61, 50218), (71, 50146), (72, 50143), (83, 50050), (88, 50017), (90, 49984), (91, 49981), (95, 49960), (103, 49891), (107, 49855), (116, 49768), (126, 49705), (127, 49702), (129, 49672), (140, 49600), (141, 49591), (158, 49468), (159, 49462), (189, 49330), (196, 49288), (200, 49243), (205, 49213), (240, 48961),

Gene: PatrickStar_58 Start: 50421, Stop: 48931, Start Num: 33

Candidate Starts for PatrickStar_58:

(Start: 33 @50421 has 5 MA's), (41, 50328), (43, 50319), (45, 50307), (48, 50292), (49, 50274), (61, 50217), (71, 50145), (72, 50142), (83, 50049), (88, 50016), (90, 49983), (91, 49980), (95, 49959), (103, 49890), (107, 49854), (116, 49767), (126, 49704), (127, 49701), (129, 49671), (140, 49599), (141, 49590), (158, 49467), (159, 49461), (189, 49329), (196, 49287), (200, 49242), (205, 49212), (240, 48960),

Gene: Philon9_57 Start: 53944, Stop: 52235, Start Num: 5

Candidate Starts for Philon9_57:

(Start: 5 @53944 has 9 MA's), (Start: 6 @53932 has 2 MA's), (Start: 18 @53812 has 1 MA's), (24, 53779), (28, 53749), (30, 53743), (41, 53635), (48, 53599), (51, 53575), (53, 53566), (54, 53557), (60, 53509), (61, 53506), (63, 53500), (64, 53497), (81, 53374), (85, 53353), (90, 53293), (100, 53221), (103, 53200), (104, 53185), (105, 53182), (106, 53173), (126, 53014), (132, 52963), (135, 52951), (136, 52945), (138, 52924), (145, 52879), (150, 52834), (155, 52792), (161, 52735), (167, 52705), (168, 52702), (169, 52699), (183, 52645), (202, 52522), (205, 52504), (218, 52387), (219, 52384), (222, 52372), (243, 52252),

Gene: PierreThree_58 Start: 52668, Stop: 51259, Start Num: 39

Candidate Starts for PierreThree_58:

(1, 53046), (3, 52995), (7, 52944), (13, 52890), (17, 52860), (Start: 21 @52827 has 2 MA's), (23, 52818), (Start: 27 @52791 has 28 MA's), (Start: 39 @52668 has 28 MA's), (48, 52623), (54, 52581), (60, 52533), (61, 52530), (63, 52524), (64, 52521), (65, 52509), (66, 52503), (75, 52455), (76, 52452), (89, 52332), (92, 52314), (98, 52251), (103, 52227), (104, 52212), (115, 52119), (126, 52041), (134, 51981), (135, 51978), (137, 51969), (138, 51951), (144, 51909), (150, 51864), (154, 51846), (169, 51729), (170, 51714), (174, 51693), (195, 51612), (196, 51609), (202, 51552), (203, 51546), (205, 51534), (214, 51483), (215, 51468), (216, 51459), (218, 51420), (221, 51408), (233, 51312), (236, 51297),

Gene: PokyPuppy_58 Start: 52764, Stop: 51256, Start Num: 31

Candidate Starts for PokyPuppy_58:

(1, 53043), (3, 52992), (7, 52941), (12, 52893), (13, 52887), (17, 52857), (Start: 21 @52824 has 2 MA's), (23, 52815), (Start: 27 @52788 has 28 MA's), (Start: 31 @52764 has 1 MA's), (Start: 39 @52665 has 28 MA's), (48, 52620), (54, 52578), (60, 52530), (61, 52527), (63, 52521), (64, 52518), (66, 52500), (75, 52452), (89, 52329), (92, 52311), (103, 52224), (104, 52209), (115, 52116), (118, 52089), (126, 52038), (134, 51978), (135, 51975), (137, 51966), (138, 51948), (144, 51906), (150,

51861), (169, 51726), (170, 51711), (174, 51690), (191, 51633), (196, 51606), (202, 51549), (203, 51543), (205, 51531), (214, 51480), (216, 51456), (218, 51417), (221, 51405), (222, 51402), (233, 51309), (236, 51294),

Gene: Poland_64 Start: 54025, Stop: 52493, Start Num: 27

Candidate Starts for Poland_64:

(1, 54280), (3, 54229), (13, 54124), (17, 54094), (Start: 21 @54061 has 2 MA's), (23, 54052), (Start: 27 @54025 has 28 MA's), (48, 53857), (54, 53815), (56, 53797), (60, 53767), (64, 53755), (65, 53743), (66, 53737), (68, 53716), (92, 53548), (103, 53461), (104, 53446), (106, 53434), (111, 53404), (115, 53353), (126, 53275), (128, 53251), (131, 53233), (134, 53215), (135, 53212), (137, 53203), (138, 53185), (144, 53143), (150, 53098), (154, 53080), (169, 52963), (170, 52948), (174, 52927), (195, 52846), (196, 52843), (202, 52786), (203, 52780), (205, 52768), (216, 52693), (218, 52654), (221, 52642), (222, 52639), (233, 52546), (236, 52531),

Gene: RemRem_60 Start: 51466, Stop: 49934, Start Num: 27

Candidate Starts for RemRem_60:

(1, 51721), (3, 51670), (7, 51619), (13, 51565), (17, 51535), (Start: 21 @51502 has 2 MA's), (23, 51493), (Start: 27 @51466 has 28 MA's), (48, 51298), (54, 51256), (60, 51208), (64, 51196), (65, 51184), (66, 51178), (68, 51157), (75, 51130), (92, 50989), (103, 50902), (104, 50887), (106, 50875), (111, 50845), (115, 50794), (118, 50767), (126, 50716), (131, 50674), (134, 50656), (135, 50653), (138, 50626), (144, 50584), (150, 50539), (169, 50404), (170, 50389), (174, 50368), (191, 50311), (195, 50287), (196, 50284), (202, 50227), (203, 50221), (204, 50215), (205, 50209), (214, 50158), (216, 50134), (218, 50095), (221, 50083), (222, 50080), (233, 49987), (236, 49972), (243, 49951),

Gene: Reynauld_56 Start: 50676, Stop: 49183, Start Num: 34

Candidate Starts for Reynauld_56:

(Start: 34 @50676 has 3 MA's), (Start: 35 @50640 has 4 MA's), (38, 50607), (Start: 39 @50598 has 28 MA's), (41, 50589), (43, 50580), (44, 50571), (48, 50553), (58, 50493), (60, 50481), (63, 50472), (86, 50325), (90, 50268), (95, 50244), (101, 50181), (115, 50067), (125, 49992), (126, 49989), (128, 49965), (131, 49947), (135, 49926), (139, 49887), (141, 49875), (142, 49872), (167, 49695), (173, 49659), (205, 49446), (212, 49404), (217, 49338), (229, 49263), (230, 49248),

Gene: RobinSparkles_61 Start: 50974, Stop: 49484, Start Num: 33

Candidate Starts for RobinSparkles_61:

(Start: 33 @50974 has 5 MA's), (41, 50881), (43, 50872), (45, 50860), (48, 50845), (49, 50827), (61, 50770), (71, 50698), (72, 50695), (83, 50602), (88, 50569), (90, 50536), (91, 50533), (95, 50512), (103, 50443), (107, 50407), (116, 50320), (126, 50257), (127, 50254), (129, 50224), (140, 50152), (141, 50143), (158, 50020), (159, 50014), (189, 49882), (196, 49840), (200, 49795), (205, 49765), (240, 49513),

Gene: RoyalG_59 Start: 52241, Stop: 50709, Start Num: 27

Candidate Starts for RoyalG_59:

(1, 52496), (3, 52445), (13, 52340), (17, 52310), (Start: 21 @52277 has 2 MA's), (23, 52268), (Start: 27 @52241 has 28 MA's), (Start: 39 @52118 has 28 MA's), (48, 52073), (54, 52031), (60, 51983), (61, 51980), (63, 51974), (64, 51971), (66, 51953), (68, 51932), (75, 51905), (89, 51782), (92, 51764), (103, 51677), (104, 51662), (115, 51569), (126, 51491), (128, 51467), (134, 51431), (138, 51401), (144, 51359), (150, 51314), (169, 51179), (170, 51164), (174, 51143), (196, 51059), (202, 51002), (203, 50996), (205, 50984), (214, 50933), (216, 50909), (218, 50870), (221, 50858), (222, 50855), (233, 50762), (236, 50747),

Gene: Sam12_58 Start: 51466, Stop: 49934, Start Num: 27

Candidate Starts for Sam12_58:

(1, 51721), (3, 51670), (7, 51619), (13, 51565), (17, 51535), (Start: 21 @51502 has 2 MA's), (23, 51493), (Start: 27 @51466 has 28 MA's), (48, 51298), (54, 51256), (60, 51208), (64, 51196), (65, 51184), (66, 51178), (68, 51157), (75, 51130), (92, 50989), (103, 50902), (104, 50887), (106, 50875), (111, 50845), (115, 50794), (118, 50767), (126, 50716), (131, 50674), (134, 50656), (135, 50653), (138, 50626), (144, 50584), (150, 50539), (169, 50404), (170, 50389), (174, 50368), (191, 50311), (195, 50287), (196, 50284), (202, 50227), (203, 50221), (204, 50215), (205, 50209), (214, 50158), (216, 50134), (218, 50095), (221, 50083), (222, 50080), (233, 49987), (236, 49972), (243, 49951),

Gene: Shelley_57 Start: 52086, Stop: 50674, Start Num: 39

Candidate Starts for Shelley_57:

(1, 52434), (11, 52305), (Start: 21 @52215 has 2 MA's), (Start: 39 @52086 has 28 MA's), (48, 52041), (60, 51951), (61, 51948), (63, 51942), (66, 51921), (77, 51858), (87, 51780), (89, 51750), (92, 51732), (103, 51645), (104, 51630), (111, 51588), (119, 51507), (126, 51459), (131, 51417), (134, 51399), (135, 51396), (138, 51369), (146, 51318), (150, 51282), (157, 51231), (169, 51147), (172, 51126), (202, 50970), (203, 50964), (205, 50952), (221, 50826), (236, 50712),

Gene: Sombrero_60 Start: 52033, Stop: 50501, Start Num: 27

Candidate Starts for Sombrero_60:

(1, 52288), (3, 52237), (13, 52132), (17, 52102), (Start: 21 @52069 has 2 MA's), (23, 52060), (Start: 27 @52033 has 28 MA's), (48, 51865), (54, 51823), (60, 51775), (64, 51763), (65, 51751), (66, 51745), (68, 51724), (92, 51556), (103, 51469), (104, 51454), (106, 51442), (111, 51412), (115, 51361), (126, 51283), (128, 51259), (131, 51241), (134, 51223), (135, 51220), (137, 51211), (138, 51193), (150, 51106), (169, 50971), (170, 50956), (174, 50935), (195, 50854), (196, 50851), (202, 50794), (203, 50788), (205, 50776), (214, 50725), (216, 50701), (218, 50662), (221, 50650), (222, 50647), (233, 50554), (236, 50539), (243, 50518),

Gene: Squibbles_58 Start: 52329, Stop: 50797, Start Num: 27

Candidate Starts for Squibbles_58:

(1, 52584), (3, 52533), (7, 52482), (13, 52428), (17, 52398), (Start: 21 @52365 has 2 MA's), (23, 52356), (Start: 27 @52329 has 28 MA's), (48, 52161), (54, 52119), (60, 52071), (64, 52059), (65, 52047), (66, 52041), (68, 52020), (75, 51993), (92, 51852), (103, 51765), (104, 51750), (106, 51738), (111, 51708), (115, 51657), (118, 51630), (126, 51579), (131, 51537), (134, 51519), (135, 51516), (138, 51489), (144, 51447), (150, 51402), (169, 51267), (170, 51252), (174, 51231), (191, 51174), (196, 51147), (202, 51090), (203, 51084), (204, 51078), (205, 51072), (214, 51021), (216, 50997), (218, 50958), (221, 50946), (222, 50943), (233, 50850), (236, 50835), (243, 50814),

Gene: Srilaccoli3_51 Start: 49904, Stop: 48411, Start Num: 34

Candidate Starts for Srilaccoli3_51:

(Start: 34 @49904 has 3 MA's), (Start: 35 @49868 has 4 MA's), (38, 49835), (Start: 39 @49826 has 28 MA's), (41, 49817), (43, 49808), (44, 49799), (48, 49781), (58, 49721), (60, 49709), (63, 49700), (86, 49553), (95, 49472), (125, 49220), (126, 49217), (131, 49175), (135, 49154), (139, 49115), (141, 49103), (142, 49100), (148, 49070), (167, 48923), (173, 48887), (205, 48674), (212, 48632), (217, 48566), (229, 48491), (230, 48476),

Gene: SteveFrench_58 Start: 52481, Stop: 50949, Start Num: 27

Candidate Starts for SteveFrench_58:

(1, 52736), (3, 52685), (13, 52580), (17, 52550), (Start: 21 @52517 has 2 MA's), (23, 52508), (Start: 27 @52481 has 28 MA's), (Start: 39 @52358 has 28 MA's), (48, 52313), (54, 52271), (60, 52223), (61, 52220), (63, 52214), (64, 52211), (66, 52193), (68, 52172), (75, 52145), (89, 52022), (92, 52004), (103, 51917), (104, 51902), (115, 51809), (126, 51731), (128, 51707), (134, 51671), (138, 51641), (144, 51599), (150, 51554), (169, 51419), (170, 51404), (174, 51383), (196, 51299), (202, 51242), (203, 51236), (205, 51224), (214, 51173), (216, 51149), (218, 51110), (221, 51098), (222, 51095), (233, 51002), (236, 50987),

Gene: Sticker17_57 Start: 52601, Stop: 51189, Start Num: 39

Candidate Starts for Sticker17_57:

(1, 52949), (11, 52820), (20, 52733), (Start: 21 @52730 has 2 MA's), (Start: 39 @52601 has 28 MA's), (48, 52556), (60, 52466), (61, 52463), (63, 52457), (66, 52436), (77, 52373), (89, 52265), (92, 52247), (103, 52160), (104, 52145), (111, 52103), (119, 52022), (126, 51974), (131, 51932), (134, 51914), (135, 51911), (138, 51884), (146, 51833), (150, 51797), (157, 51746), (169, 51662), (172, 51641), (202, 51485), (203, 51479), (205, 51467), (221, 51341), (236, 51227),

Gene: Talos_127 Start: 67581, Stop: 69077, Start Num: 46

Candidate Starts for Talos_127:

(Start: 36 @67509 has 1 MA's), (40, 67554), (Start: 46 @67581 has 1 MA's), (47, 67587), (49, 67611), (64, 67677), (77, 67758), (86, 67824), (90, 67881), (93, 67890), (94, 67899), (100, 67953), (109, 68028), (120, 68130), (123, 68151), (124, 68154), (130, 68205), (131, 68214), (133, 68229), (136, 68241), (142, 68289), (144, 68304), (147, 68325), (179, 68574), (180, 68586), (183, 68610), (189, 68646), (194, 68679), (197, 68697), (211, 68802), (226, 68922), (228, 68934), (234, 68991), (236, 69003), (237, 69009), (246, 69057),

Gene: Teal_57 Start: 53068, Stop: 51656, Start Num: 39

Candidate Starts for Teal_57:

(1, 53416), (11, 53287), (20, 53200), (Start: 21 @53197 has 2 MA's), (Start: 39 @53068 has 28 MA's), (48, 53023), (60, 52933), (61, 52930), (63, 52924), (66, 52903), (77, 52840), (89, 52732), (92, 52714), (103, 52627), (104, 52612), (111, 52570), (119, 52489), (126, 52441), (131, 52399), (134, 52381), (135, 52378), (138, 52351), (146, 52300), (150, 52264), (157, 52213), (169, 52129), (172, 52108), (202, 51952), (203, 51946), (205, 51934), (221, 51808), (236, 51694),

Gene: Teatealatte_58 Start: 53221, Stop: 51518, Start Num: 5

Candidate Starts for Teatealatte_58:

(Start: 5 @53221 has 9 MA's), (Start: 6 @53209 has 2 MA's), (28, 53026), (Start: 39 @52936 has 28 MA's), (41, 52927), (48, 52891), (51, 52867), (53, 52858), (54, 52849), (60, 52801), (64, 52789), (65, 52777), (76, 52720), (77, 52705), (78, 52702), (80, 52684), (84, 52648), (85, 52645), (98, 52516), (100, 52513), (104, 52477), (105, 52474), (107, 52456), (108, 52447), (111, 52435), (114, 52387), (119, 52354), (126, 52306), (128, 52282), (138, 52216), (150, 52117), (161, 52018), (168, 51985), (169, 51982), (187, 51916), (195, 51865), (196, 51862), (202, 51805), (205, 51787), (218, 51670), (219, 51667), (222, 51655), (236, 51556), (243, 51535),

Gene: Teech_58 Start: 53022, Stop: 51319, Start Num: 5

Candidate Starts for Teech_58:

(Start: 5 @53022 has 9 MA's), (Start: 6 @53010 has 2 MA's), (28, 52827), (Start: 39 @52737 has 28 MA's), (41, 52728), (48, 52692), (51, 52668), (53, 52659), (54, 52650), (60, 52602), (65, 52578), (77, 52506), (80, 52485), (84, 52449), (85, 52446), (98, 52317), (100, 52314), (104, 52278), (105, 52275), (107, 52257), (108, 52248), (111, 52236), (114, 52188), (119, 52155), (126, 52107), (128, 52083), (138, 52017), (150, 51918), (161, 51819), (164, 51810), (168, 51786), (169, 51783), (187, 51717), (195, 51666), (196, 51663), (202, 51606), (205, 51588), (218, 51471), (219, 51468), (222, 51456), (236, 51357), (243, 51336),

Gene: Tredge_57 Start: 53221, Stop: 51518, Start Num: 5

Candidate Starts for Tredge_57:

(Start: 5 @53221 has 9 MA's), (Start: 6 @53209 has 2 MA's), (28, 53026), (Start: 39 @52936 has 28 MA's), (41, 52927), (48, 52891), (51, 52867), (53, 52858), (54, 52849), (60, 52801), (64, 52789), (65, 52777), (76, 52720), (77, 52705), (78, 52702), (80, 52684), (84, 52648), (85, 52645), (98, 52516), (100, 52513), (104, 52477), (105, 52474), (107, 52456), (108, 52447), (111, 52435), (114, 52387), (119, 52354), (126, 52306), (128, 52282), (138, 52216), (150, 52117), (161, 52018), (168, 51985), (169,

51982), (187, 51916), (195, 51865), (196, 51862), (202, 51805), (205, 51787), (218, 51670), (219, 51667), (222, 51655), (236, 51556), (243, 51535),

Gene: Trogglehumper_76 Start: 59717, Stop: 58170, Start Num: 29

Candidate Starts for Trogglehumper_76:

(13, 59828), (22, 59762), (Start: 29 @59717 has 1 MA's), (42, 59600), (48, 59567), (54, 59525), (56, 59519), (60, 59495), (73, 59429), (74, 59420), (75, 59417), (81, 59354), (87, 59315), (95, 59249), (102, 59183), (104, 59165), (106, 59153), (108, 59135), (112, 59087), (113, 59081), (126, 59003), (131, 58961), (134, 58943), (142, 58886), (143, 58877), (160, 58751), (168, 58709), (169, 58706), (172, 58685), (177, 58652), (184, 58595), (205, 58445), (207, 58421), (216, 58370), (227, 58280), (231, 58241), (235, 58220), (239, 58208), (241, 58205), (244, 58193),

Gene: Vitaenoi_57 Start: 53928, Stop: 52234, Start Num: 5

Candidate Starts for Vitaenoi_57:

(Start: 5 @53928 has 9 MA's), (Start: 6 @53916 has 2 MA's), (Start: 18 @53796 has 1 MA's), (24, 53763), (28, 53733), (41, 53634), (48, 53598), (51, 53574), (53, 53565), (54, 53556), (60, 53508), (61, 53505), (63, 53499), (64, 53496), (81, 53373), (85, 53352), (90, 53292), (100, 53220), (103, 53199), (104, 53184), (105, 53181), (106, 53172), (126, 53013), (132, 52962), (135, 52950), (136, 52944), (138, 52923), (145, 52878), (150, 52833), (155, 52791), (161, 52734), (167, 52704), (168, 52701), (169, 52698), (183, 52644), (202, 52521), (205, 52503), (218, 52386), (219, 52383), (222, 52371), (243, 52251),

Gene: Woes_57 Start: 53248, Stop: 51707, Start Num: 21

Candidate Starts for Woes_57:

(1, 53467), (11, 53338), (20, 53251), (Start: 21 @53248 has 2 MA's), (Start: 39 @53119 has 28 MA's), (48, 53074), (60, 52984), (61, 52981), (63, 52975), (66, 52954), (77, 52891), (89, 52783), (92, 52765), (103, 52678), (104, 52663), (111, 52621), (119, 52540), (126, 52492), (131, 52450), (134, 52432), (135, 52429), (138, 52402), (146, 52351), (150, 52315), (157, 52264), (169, 52180), (172, 52159), (202, 52003), (203, 51997), (205, 51985), (221, 51859), (236, 51745),

Gene: Worcestershire_59 Start: 51468, Stop: 49936, Start Num: 27

Candidate Starts for Worcestershire_59:

(1, 51723), (3, 51672), (7, 51621), (13, 51567), (17, 51537), (Start: 21 @51504 has 2 MA's), (23, 51495), (Start: 27 @51468 has 28 MA's), (48, 51300), (54, 51258), (60, 51210), (64, 51198), (65, 51186), (66, 51180), (68, 51159), (75, 51132), (92, 50991), (103, 50904), (104, 50889), (106, 50877), (111, 50847), (115, 50796), (118, 50769), (126, 50718), (128, 50694), (131, 50676), (134, 50658), (135, 50655), (138, 50628), (144, 50586), (150, 50541), (169, 50406), (170, 50391), (174, 50370), (195, 50289), (196, 50286), (202, 50229), (203, 50223), (204, 50217), (205, 50211), (216, 50136), (218, 50097), (221, 50085), (222, 50082), (233, 49989), (236, 49974), (243, 49953),