

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 224374 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224374 has 142 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Preamble_25
- Track 2 : Albanese_29
- Track 3 : GreenHearts_29
- Track 4 : Glenn_29, TattModd_29, Rozby_29, Fluke_29, Beethoven_29, Riverdale_29, Vallejo_29, Carpal_29
- Track 5 : Aledel_26, Eunoia_26, Riovina_26, OMalley_26
- Track 6 : Lucy_25
- Track 7 : DreamTeam_25, Gisselle_25, Kittykat_25
- Track 8 : RAP15_29, MeganNoll_29, Cholula_29, Savage2526_29, Potatoes_29, Jumboset_29
- Track 9 : Greenhouse_29
- Track 10 : PinkFriday_25
- Track 11 : Christian_25
- Track 12 : Maria1952_26, Daiboju_26, Temper16_26, KingBob_26, Herb_26, Sergei_26
- Track 13 : Bennie_25
- Track 14 : PitaDog_25, Bodacious_25, DrRobert_25, Nancia_25, ChewChew_25, CristinaYang_25
- Track 15 : Lakshmi_29
- Track 16 : Litotes_29
- Track 17 : AustinPowers_26
- Track 18 : Moki_25
- Track 19 : Korra_30
- Track 20 : WonderBoy_25
- Track 21 : Nubia_29, Oxynfrius_29
- Track 22 : AppleCider_29
- Track 23 : HunterDalle_26, Vulture_26
- Track 24 : Wawa_29
- Track 25 : Urla_26
- Track 26 : Suppi_29, Canowicakte_29, Wayne_29
- Track 27 : EstebanJulior_26, MamaPearl_26
- Track 28 : Zorro_29
- Track 29 : Misaeng_29
- Track 30 : Scuttle_29
- Track 31 : BigMack_25
- Track 32 : PartyCup_29
- Track 33 : Huntingdon_29, RcigaStruga_29

- Track 34 : BrotherBLo_29
- Track 35 : Makoto_25
- Track 36 : Joann_29
- Track 37 : Chridison_26
- Track 38 : LilStuart_25
- Track 39 : Pumancara_25
- Track 40 : Kalizoi_29
- Track 41 : Laroye_95
- Track 42 : Wheelbite_90
- Track 43 : Salgado_95, LiSara_92
- Track 44 : Shrooms_93
- Track 45 : Waltz_91
- Track 46 : Kovu_95
- Track 47 : ApoKipo_97
- Track 48 : Edmundo_94
- Track 49 : Bogota_43, Intolerant_41
- Track 50 : Microdon_41
- Track 51 : JackieB_42
- Track 52 : Crosby_42
- Track 53 : LazerLemon_42
- Track 54 : Araceli_42
- Track 55 : UNTPL_44
- Track 56 : Stuff_42
- Track 57 : Marky_44
- Track 58 : Henoccus_42
- Track 59 : Ghobes_35
- Track 60 : Archimedes_37
- Track 61 : Frizzle_34
- Track 62 : Sapo_34
- Track 63 : Mareelih_167, Forza_170, Boopy_169, BlueNGold_166
- Track 64 : GMA2_64
- Track 65 : Sixama_168
- Track 66 : Theresita_31
- Track 67 : PermaG_34
- Track 68 : Cicada_35, SBlackberry_33
- Track 69 : Jera_34
- Track 70 : Rasovi_33, Htur_33
- Track 71 : Johann_34, Goodman_34
- Track 72 : Linayshia_33
- Track 73 : IndiRoo_33
- Track 74 : FireCastle_33
- Track 75 : Olympi_34
- Track 76 : TurboVicky_33
- Track 77 : Benry_32
- Track 78 : Sucha_30
- Track 79 : Typher_35
- Track 80 : Milani_33
- Track 81 : Zanella_33
- Track 82 : Chilliams_99
- Track 83 : Bloom_105, Mimi_101, Racecar_102, Talia1610_101
- Track 84 : Patbob_102
- Track 85 : GoldenEssence_90
- Track 86 : Phrampa_96

- Track 87 : Kharcho_61, Ottawa_61
- Track 88 : TMaxx_40
- Track 89 : Neuville_38, AnnabelleLee_38
- Track 90 : Audell_37
- Track 91 : Dodo_114, PauloDiaboli_114, A3Wally_114
- Track 92 : Cece_97
- Track 93 : Pumpnickel_111
- Track 94 : Parvarticeps_24

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

The start number called the most often in the published annotations is 55, it was called in 72 of the 126 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_29, Aledel_26, AppleCider_29, AustinPowers_26, Beethoven_29, Bennie_25, BigMack_25, Bodacious_25, BrotherBLo_29, Canowicakte_29, Carpal_29, ChewChew_25, Cholula_29, Chridison_26, Christian_25, CristinaYang_25, Daiboju_26, DrRobert_25, DreamTeam_25, EstebanJulior_26, Eunoia_26, Fluke_29, Gisselle_25, Glenn_29, GreenHearts_29, Greenhouse_29, Herb_26, HunterDalle_26, Huntingdon_29, Joann_29, Jumboset_29, Kalizoi_29, KingBob_26, Kittykat_25, Korra_30, Lakshmi_29, LilStuart_25, Litotes_29, Lucy_25, Makoto_25, MamaPearl_26, Maria1952_26, MeganNoll_29, Misaeng_29, Moki_25, Nancia_25, Nubia_29, OMalley_26, Oxynfrius_29, PartyCup_29, PinkFriday_25, PitaDog_25, Potatoes_29, Preamble_25, Pumancara_25, RAP15_29, RcigaStruga_29, Riovina_26, Riverdale_29, Rozby_29, Savage2526_29, Scuttle_29, Sergei_26, Suppi_29, TattModd_29, Temper16_26, Urla_26, Vallejo_29, Vulture_26, Wawa_29, Wayne_29, WonderBoy_25, Zorro_29,

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

-

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

- A3Wally_114, AnnabelleLee_38, ApoKipo_97, Araceli_42, Archimedes_37, Audell_37, Benry_32, Bloom_105, BlueNGold_166, Bogota_43, Boopy_169, Cece_97, Chilliams_99, Cicada_35, Crosby_42, Dodo_114, Edmundo_94, FireCastle_33, Forza_170, Frizzle_34, GMA2_64, Ghobes_35, GoldenEssence_90, Goodman_34, Henoccus_42, Htur_33, IndiRoo_33, Intolerant_41, JackieB_42, Jera_34, Johann_34, Kharcho_61, Kovu_95, Laroye_95, LazerLemon_42, LiSara_92, Linayshia_33, Mareelih_167, Marky_44, Microdon_41, Milani_33, Mimi_101, Neuville_38, Olympi_34, Ottawa_61, Parvarticeps_24, Patbob_102, PauloDiaboli_114, PermaG_34, Phrampa_96, Pumpnickel_111, Racecar_102, Rasovi_33, SBlackberry_33, Salgado_95, Sapo_34, Shrooms_93, Sixama_168, Stuff_42, Sucha_30, TMaxx_40, Talia1610_101, Theresita_31, TurboVicky_33, Typher_35, UNTPL_44, Waltz_91, Wheelbite_90, Zanella_33,

Summary by start number:

Start 5:

- Found in 2 of 142 (1.4%) of genes in pham

- Manual Annotations of this start: 2 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kharcho_61 (FM), Ottawa_61 (FM),

Start 6:

- Found in 6 of 142 (4.2%) of genes in pham
- Manual Annotations of this start: 6 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_166 (DS), Boopy_169 (DS), Cece_97 (GD3), Forza_170 (DS), Mareelih_167 (DS), Sixama_168 (DS),

Start 7:

- Found in 1 of 142 (0.7%) 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_64 (DS),

Start 8:

- Found in 8 of 142 (5.6%) of genes in pham
- Manual Annotations of this start: 3 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bloom_105 (FC), Chilliams_99 (FC), GoldenEssence_90 (FC), Mimi_101 (FC), Patbob_102 (FC), Phrampa_96 (FC), Racecar_102 (FC), Talia1610_101 (FC),

Start 9:

- Found in 4 of 142 (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: AnnabelLee_38 (FR), Audell_37 (FR), Neuville_38 (FR), TMaxx_40 (FR),

Start 10:

- Found in 4 of 142 (2.8%) of genes in pham
- Manual Annotations of this start: 3 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_114 (GD1), Dodo_114 (GD1), PauloDiaboli_114 (GD1), Pumpnickel_111 (GD4),

Start 28:

- Found in 9 of 142 (6.3%) of genes in pham
- Manual Annotations of this start: 8 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ApoKipo_97 (AL), Edmundo_94 (AL), Kovu_95 (AL), Laroye_95 (AL), LiSara_92 (AL), Salgado_95 (AL), Shrooms_93 (AL), Waltz_91 (AL), Wheelbite_90 (AL),

Start 55:

- Found in 73 of 142 (51.4%) of genes in pham
- Manual Annotations of this start: 72 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Albanese_29 (AK), Aledel_26 (AK), AppleCider_29 (AK), AustinPowers_26 (AK), Beethoven_29 (AK), Bennie_25 (AK),

BigMack_25 (AK), Bodacious_25 (AK), BrotherBLo_29 (AK), Canowicakte_29 (AK), Carpal_29 (AK), ChewChew_25 (AK), Cholula_29 (AK), Chridison_26 (AK), Christian_25 (AK), CristinaYang_25 (AK), Daiboju_26 (AK), DrRobert_25 (AK), DreamTeam_25 (AK), EstebanJulior_26 (AK), Eunoia_26 (AK), Fluke_29 (AK), Gisselle_25 (AK), Glenn_29 (AK), GreenHearts_29 (AK), Greenhouse_29 (AK), Herb_26 (AK), HunterDalle_26 (AK), Huntingdon_29 (AK), Joann_29 (AK), Jumboset_29 (AK), Kalizoi_29 (AK), KingBob_26 (AK), Kittykat_25 (AK), Korra_30 (AK), Lakshmi_29 (AK), LilStuart_25 (AK), Litotes_29 (AK), Lucy_25 (AK), Makoto_25 (AK), MamaPearl_26 (AK), Maria1952_26 (AK), MeganNoll_29 (AK), Misaeng_29 (AK), Moki_25 (AK), Nancia_25 (AK), Nubia_29 (AK), OMalley_26 (AK), Oxynfrius_29 (AK), PartyCup_29 (AK), PinkFriday_25 (AK), PitaDog_25 (AK), Potatoes_29 (AK), Preamble_25 (AK), Pumancara_25 (AK), RAP15_29 (AK), RcigaStruga_29 (AK), Rivovina_26 (AK), Riverdale_29 (AK), Rozby_29 (AK), Savage2526_29 (AK), Scuttle_29 (AK), Sergei_26 (AK), Suppi_29 (AK), TattModd_29 (AK), Temper16_26 (AK), Urla_26 (AK), Vallejo_29 (AK), Vulture_26 (AK), Wawa_29 (AK), Wayne_29 (AK), WonderBoy_25 (AK), Zorro_29 (AK),

Start 57:

- Found in 1 of 142 (0.7%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Parvaparticeps_24 (UNK),

Start 58:

- Found in 1 of 142 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FireCastle_33 (EJ),

Start 59:

- Found in 4 of 142 (2.8%) of genes in pham
- Manual Annotations of this start: 3 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Htur_33 (EJ), Linayshia_33 (EJ), PermaG_34 (EJ), Rasovi_33 (EJ),

Start 60:

- Found in 15 of 142 (10.6%) of genes in pham
- Manual Annotations of this start: 13 of 126
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Benry_32 (EJ), Cicada_35 (EJ), Goodman_34 (EJ), IndiRoo_33 (EJ), Jera_34 (EJ), Johann_34 (EJ), Milani_33 (EJ), Olympi_34 (EJ), SBlackberry_33 (EJ), Sucha_30 (EJ), Theresita_31 (EA7), TurboVicky_33 (EJ), Typher_35 (EJ), Zanella_33 (EJ),

Start 61:

- Found in 12 of 142 (8.5%) of genes in pham
- Manual Annotations of this start: 12 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Araceli_42 (BH), Archimedes_37 (DA), Bogota_43 (BH), Crosby_42 (BH), Henoccus_42 (BH), Intolerant_41 (BH), JackieB_42 (BH), LazerLemon_42 (BH), Microdon_41 (BH), Sapo_34 (DA), Stuff_42 (BH), UNTPL_44 (BH),

Start 62:

- Found in 12 of 142 (8.5%) of genes in pham
- Manual Annotations of this start: 3 of 126
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Frizzle_34 (DA), Ghobes_35 (DA), Marky_44 (BH),

Summary by clusters:

There are 14 clusters represented in this pham: GD1, FR, GD3, GD4, EJ, DS, AK, BH, AL, DA, FC, UNK, FM, EA7,

Info for manual annotations of cluster AK:

- Start number 55 was manually annotated 72 times for cluster AK.

Info for manual annotations of cluster AL:

- Start number 28 was manually annotated 8 times for cluster AL.

Info for manual annotations of cluster BH:

- Start number 61 was manually annotated 10 times for cluster BH.
- Start number 62 was manually annotated 1 time for cluster BH.

Info for manual annotations of cluster DA:

- Start number 61 was manually annotated 2 times for cluster DA.
- Start number 62 was manually annotated 2 times for cluster DA.

Info for manual annotations of cluster DS:

- Start number 6 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EA7:

- Start number 60 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EJ:

- Start number 58 was manually annotated 1 time for cluster EJ.
- Start number 59 was manually annotated 3 times for cluster EJ.
- Start number 60 was manually annotated 12 times for cluster EJ.

Info for manual annotations of cluster FC:

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

Info for manual annotations of cluster FM:

- Start number 5 was manually annotated 2 times for cluster FM.

Info for manual annotations of cluster GD1:

- Start number 10 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD3:

- Start number 6 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 10 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_114 Start: 79188, Stop: 77338, Start Num: 10

Candidate Starts for A3Wally_114:

(2, 79257), (3, 79251), (Start: 10 @79188 has 3 MA's), (15, 79143), (17, 79131), (27, 79005), (37, 78942), (69, 78867), (84, 78759), (88, 78741), (98, 78672), (104, 78645), (111, 78585), (138, 78420), (162, 78276), (181, 78189), (185, 78162), (190, 78126), (192, 78117), (204, 78060), (206, 78054), (211, 78009), (214, 77997), (217, 77976), (222, 77952), (230, 77916), (246, 77871), (259, 77787), (260, 77784), (261, 77778), (273, 77715), (291, 77613), (303, 77526), (310, 77484), (321, 77433),

Gene: Albanese_29 Start: 22144, Stop: 23535, Start Num: 55

Candidate Starts for Albanese_29:

(Start: 55 @22144 has 72 MA's), (77, 22231), (90, 22303), (91, 22306), (101, 22369), (102, 22372), (105, 22390), (106, 22396), (112, 22423), (124, 22480), (128, 22531), (139, 22570), (145, 22606), (151, 22624), (154, 22660), (157, 22681), (160, 22699), (168, 22732), (180, 22771), (186, 22813), (191, 22840), (197, 22864), (204, 22900), (206, 22906), (210, 22939), (212, 22954), (214, 22963), (227, 23008), (239, 23041), (240, 23044), (256, 23128), (261, 23149), (264, 23161), (269, 23179), (284, 23269), (289, 23290), (290, 23293), (294, 23317), (295, 23326), (305, 23413), (327, 23503), (331, 23527),

Gene: Aledel_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for Aledel_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228), (157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (249, 22690), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: AnnabelLee_38 Start: 26373, Stop: 24541, Start Num: 9

Candidate Starts for AnnabelLee_38:

(9, 26373), (17, 26316), (43, 26115), (76, 25980), (97, 25845), (102, 25818), (114, 25761), (116, 25746), (125, 25692), (138, 25596), (139, 25590), (142, 25575), (152, 25530), (156, 25482), (159, 25461), (164, 25443), (174, 25392), (189, 25299), (192, 25287), (206, 25224), (217, 25152), (231, 25092), (239, 25071), (252, 25005), (253, 24987), (258, 24969), (259, 24966), (266, 24930), (284, 24822), (287, 24813), (298, 24753), (303, 24705),

Gene: ApoKipo_97 Start: 56676, Stop: 58337, Start Num: 28

Candidate Starts for ApoKipo_97:

(Start: 28 @56676 has 8 MA's), (39, 56736), (54, 56796), (63, 56823), (94, 56997), (96, 57009), (120, 57129), (124, 57165), (127, 57189), (133, 57234), (140, 57270), (141, 57276), (152, 57324), (155, 57366), (182, 57486), (191, 57549), (198, 57582), (205, 57612), (207, 57630), (208, 57633), (212, 57666), (222, 57699), (239, 57756), (251, 57825), (262, 57882), (275, 57954), (281, 57981), (283, 58008), (298, 58083), (301, 58110), (305, 58158), (313, 58191), (315, 58200), (316, 58203), (323, 58236), (335, 58290), (336, 58302), (337, 58305), (339, 58311),

Gene: AppleCider_29 Start: 22130, Stop: 23524, Start Num: 55

Candidate Starts for AppleCider_29:

(Start: 55 @22130 has 72 MA's), (71, 22187), (90, 22292), (105, 22379), (122, 22463), (123, 22466), (124, 22469), (139, 22559), (145, 22595), (147, 22604), (157, 22670), (160, 22688), (168, 22721), (173, 22733), (186, 22802), (191, 22829), (197, 22853), (204, 22889), (206, 22895), (210, 22928), (212, 22943), (214, 22952), (244, 23042), (254, 23111), (261, 23138), (267, 23156), (269, 23168), (284, 23258), (286, 23264), (288, 23273), (289, 23279), (295, 23315), (305, 23402), (318, 23453), (327, 23492), (331, 23516),

Gene: Araceli_42 Start: 30875, Stop: 32269, Start Num: 61

Candidate Starts for Araceli_42:

(Start: 61 @30875 has 12 MA's), (Start: 62 @30878 has 3 MA's), (76, 30953), (79, 30977), (86, 31007), (87, 31010), (90, 31022), (95, 31055), (109, 31112), (114, 31136), (122, 31181), (124, 31187), (132, 31247), (137, 31268), (147, 31322), (165, 31421), (169, 31448), (172, 31457), (195, 31583), (206, 31631), (209, 31652), (210, 31664), (212, 31679), (221, 31709), (229, 31742), (232, 31751), (245, 31793), (255, 31859), (256, 31862), (261, 31883), (267, 31901), (270, 31919), (281, 31973), (284, 32003), (295, 32060), (296, 32063), (302, 32111), (311, 32165), (325, 32234), (329, 32252),

Gene: Archimedes_37 Start: 33084, Stop: 31684, Start Num: 61

Candidate Starts for Archimedes_37:

(Start: 61 @33084 has 12 MA's), (70, 33042), (76, 33006), (78, 32988), (79, 32982), (86, 32952), (90, 32937), (91, 32934), (105, 32850), (146, 32628), (151, 32616), (169, 32502), (195, 32376), (198, 32364), (202, 32343), (203, 32340), (206, 32328), (210, 32295), (212, 32280), (219, 32256), (229, 32220), (232, 32211), (254, 32112), (269, 32055), (271, 32043), (273, 32037), (288, 31950), (292, 31929), (295, 31908), (307, 31815), (333, 31689),

Gene: Audell_37 Start: 28742, Stop: 26934, Start Num: 9

Candidate Starts for Audell_37:

(9, 28742), (17, 28682), (24, 28619), (41, 28487), (43, 28481), (75, 28364), (76, 28352), (89, 28268), (114, 28130), (142, 27944), (156, 27851), (159, 27830), (162, 27818), (192, 27659), (195, 27644), (201, 27614), (206, 27596), (221, 27527), (223, 27521), (226, 27506), (236, 27479), (239, 27467), (242, 27458), (246, 27440), (251, 27404), (252, 27401), (253, 27383), (258, 27365), (259, 27362), (287, 27209), (293, 27176), (298, 27149), (300, 27128), (303, 27101), (320, 27011), (329, 26960),

Gene: AustinPowers_26 Start: 21746, Stop: 23140, Start Num: 55

Candidate Starts for AustinPowers_26:

(Start: 55 @21746 has 72 MA's), (71, 21803), (85, 21890), (90, 21908), (91, 21911), (105, 21995), (112, 22028), (122, 22079), (124, 22085), (132, 22145), (139, 22175), (145, 22211), (151, 22229), (154, 22265), (157, 22286), (160, 22304), (161, 22310), (168, 22337), (186, 22418), (191, 22445), (197, 22469), (199, 22484), (206, 22511), (210, 22544), (212, 22559), (254, 22727), (261, 22754), (264, 22766), (269, 22784), (284, 22874), (286, 22880), (289, 22895), (290, 22898), (303, 22991), (305, 23018), (320, 23075), (327, 23108), (331, 23132),

Gene: Beethoven_29 Start: 22100, Stop: 23500, Start Num: 55

Candidate Starts for Beethoven_29:

(Start: 55 @22100 has 72 MA's), (71, 22163), (90, 22268), (91, 22271), (105, 22355), (112, 22388), (122, 22439), (124, 22445), (137, 22526), (138, 22529), (139, 22535), (145, 22571), (151, 22589), (152, 22592), (154, 22625), (157, 22646), (160, 22664), (168, 22697), (186, 22778), (191, 22805), (198, 22835), (199, 22844), (206, 22871), (210, 22904), (212, 22919), (227, 22973), (234, 22994), (239, 23006), (244, 23018), (286, 23240), (288, 23249), (289, 23255), (295, 23291), (303, 23351), (305, 23378), (327, 23468),

Gene: Bennie_25 Start: 20566, Stop: 21960, Start Num: 55

Candidate Starts for Bennie_25:

(Start: 55 @20566 has 72 MA's), (71, 20623), (90, 20728), (91, 20731), (105, 20815), (112, 20848), (122, 20899), (124, 20905), (139, 20995), (145, 21031), (151, 21049), (152, 21052), (154, 21085), (157, 21106), (186, 21238), (191, 21265), (198, 21295), (199, 21304), (206, 21331), (210, 21364), (212, 21379), (221, 21406), (227, 21433), (240, 21469), (249, 21511), (261, 21574), (267, 21592), (281, 21664), (282, 21688), (284, 21694), (285, 21697), (289, 21715), (290, 21718), (294, 21742), (295, 21751), (305, 21838), (318, 21889), (327, 21928),

Gene: Benry_32 Start: 21495, Stop: 22922, Start Num: 60

Candidate Starts for Benry_32:

(Start: 60 @21495 has 13 MA's), (122, 21849), (123, 21852), (126, 21873), (142, 21960), (152, 22002), (203, 22284), (206, 22296), (209, 22317), (212, 22344), (220, 22371), (221, 22374), (227, 22401), (229, 22407), (242, 22443), (261, 22542), (275, 22605), (280, 22623), (281, 22626), (290, 22680), (295, 22713), (298, 22725), (302, 22764), (305, 22800), (307, 22806), (311, 22818), (318, 22851), (324, 22881),

Gene: BigMack_25 Start: 20560, Stop: 21960, Start Num: 55

Candidate Starts for BigMack_25:

(Start: 55 @20560 has 72 MA's), (71, 20623), (90, 20728), (91, 20731), (105, 20815), (112, 20848), (122, 20899), (124, 20905), (137, 20986), (138, 20989), (139, 20995), (145, 21031), (151, 21049), (152, 21052), (154, 21085), (157, 21106), (160, 21124), (186, 21238), (191, 21265), (198, 21295), (199, 21304), (206, 21331), (210, 21364), (212, 21379), (221, 21406), (229, 21439), (249, 21511), (261, 21574), (267, 21592), (274, 21625), (284, 21694), (286, 21700), (289, 21715), (290, 21718), (295, 21751), (303, 21811), (305, 21838), (327, 21928),

Gene: Bloom_105 Start: 80738, Stop: 82576, Start Num: 8

Candidate Starts for Bloom_105:

(Start: 8 @80738 has 3 MA's), (18, 80819), (26, 80897), (39, 80993), (69, 81053), (74, 81083), (93, 81203), (100, 81254), (113, 81314), (170, 81653), (184, 81710), (185, 81731), (192, 81776), (204, 81833), (206, 81839), (210, 81872), (211, 81884), (214, 81896), (221, 81941), (230, 81980), (246, 82037), (248, 82043), (252, 82076), (265, 82145), (281, 82229), (299, 82346), (330, 82520), (338, 82562),

Gene: BlueNGold_166 Start: 96830, Stop: 94920, Start Num: 6

Candidate Starts for BlueNGold_166:

(Start: 6 @96830 has 6 MA's), (29, 96626), (37, 96578), (49, 96533), (70, 96452), (72, 96440), (87, 96335), (93, 96308), (111, 96203), (116, 96179), (143, 96014), (190, 95747), (192, 95738), (198, 95711), (210, 95642), (252, 95393), (263, 95327), (268, 95303), (292, 95168), (301, 95108), (312, 95036),

Gene: Bodacious_25 Start: 20580, Stop: 21974, Start Num: 55

Candidate Starts for Bodacious_25:

(Start: 55 @20580 has 72 MA's), (71, 20637), (90, 20742), (91, 20745), (105, 20829), (112, 20862), (122, 20913), (124, 20919), (137, 21000), (138, 21003), (139, 21009), (145, 21045), (151, 21063), (152, 21066), (154, 21099), (157, 21120), (186, 21252), (191, 21279), (199, 21318), (204, 21339), (206, 21345), (210, 21378), (212, 21393), (214, 21402), (227, 21447), (240, 21483), (249, 21525), (261, 21588), (267, 21606), (284, 21708), (285, 21711), (289, 21729), (290, 21732), (294, 21756), (295, 21765), (305, 21852), (327, 21942), (331, 21966),

Gene: Bogota_43 Start: 31399, Stop: 32793, Start Num: 61

Candidate Starts for Bogota_43:

(Start: 61 @31399 has 12 MA's), (Start: 62 @31402 has 3 MA's), (76, 31477), (79, 31501), (86, 31531), (90, 31546), (109, 31636), (115, 31672), (132, 31771), (134, 31780), (148, 31849), (169, 31972), (195, 32107), (200, 32134), (206, 32155), (209, 32176), (221, 32233), (229, 32266), (232, 32275), (245,

32317), (255, 32383), (261, 32407), (267, 32425), (270, 32443), (281, 32497), (284, 32527), (295, 32584), (296, 32587), (302, 32635), (306, 32674), (311, 32689), (325, 32758), (329, 32776), (331, 32785),

Gene: Boopy_169 Start: 96841, Stop: 94931, Start Num: 6

Candidate Starts for Boopy_169:

(Start: 6 @96841 has 6 MA's), (29, 96637), (37, 96589), (49, 96544), (70, 96463), (72, 96451), (87, 96346), (93, 96319), (111, 96214), (116, 96190), (143, 96025), (190, 95758), (192, 95749), (198, 95722), (210, 95653), (252, 95404), (263, 95338), (268, 95314), (292, 95179), (301, 95119), (312, 95047),

Gene: BrotherBLo_29 Start: 22106, Stop: 23506, Start Num: 55

Candidate Starts for BrotherBLo_29:

(Start: 55 @22106 has 72 MA's), (71, 22169), (90, 22274), (105, 22361), (112, 22394), (122, 22445), (124, 22451), (137, 22532), (138, 22535), (139, 22541), (145, 22577), (151, 22595), (152, 22598), (154, 22631), (157, 22652), (160, 22670), (186, 22784), (191, 22811), (198, 22841), (199, 22850), (206, 22877), (210, 22910), (212, 22925), (227, 22979), (234, 23000), (239, 23012), (244, 23024), (284, 23240), (285, 23243), (286, 23246), (288, 23255), (289, 23261), (295, 23297), (303, 23357), (305, 23384), (327, 23474),

Gene: Canowicakte_29 Start: 22165, Stop: 23559, Start Num: 55

Candidate Starts for Canowicakte_29:

(Start: 55 @22165 has 72 MA's), (71, 22222), (90, 22327), (105, 22414), (122, 22498), (123, 22501), (124, 22504), (139, 22594), (145, 22630), (147, 22639), (151, 22648), (157, 22705), (160, 22723), (168, 22756), (173, 22768), (186, 22837), (191, 22864), (197, 22888), (206, 22930), (210, 22963), (212, 22978), (214, 22987), (244, 23077), (254, 23146), (261, 23173), (267, 23191), (269, 23203), (284, 23293), (286, 23299), (288, 23308), (289, 23314), (295, 23350), (305, 23437), (318, 23488), (327, 23527), (331, 23551),

Gene: Carpal_29 Start: 22107, Stop: 23507, Start Num: 55

Candidate Starts for Carpal_29:

(Start: 55 @22107 has 72 MA's), (71, 22170), (90, 22275), (91, 22278), (105, 22362), (112, 22395), (122, 22446), (124, 22452), (137, 22533), (138, 22536), (139, 22542), (145, 22578), (151, 22596), (152, 22599), (154, 22632), (157, 22653), (160, 22671), (168, 22704), (186, 22785), (191, 22812), (198, 22842), (199, 22851), (206, 22878), (210, 22911), (212, 22926), (227, 22980), (234, 23001), (239, 23013), (244, 23025), (286, 23247), (288, 23256), (289, 23262), (295, 23298), (303, 23358), (305, 23385), (327, 23475),

Gene: Cece_97 Start: 81318, Stop: 79462, Start Num: 6

Candidate Starts for Cece_97:

(Start: 6 @81318 has 6 MA's), (17, 81255), (24, 81186), (35, 81078), (69, 80991), (83, 80901), (87, 80868), (89, 80862), (100, 80790), (111, 80709), (113, 80703), (138, 80544), (162, 80400), (175, 80340), (183, 80310), (190, 80250), (192, 80241), (204, 80184), (206, 80178), (210, 80145), (211, 80133), (217, 80100), (230, 80040), (259, 79911), (260, 79908), (265, 79881), (273, 79839), (276, 79818), (292, 79731), (303, 79650), (310, 79608), (313, 79584), (326, 79527),

Gene: ChewChew_25 Start: 20575, Stop: 21969, Start Num: 55

Candidate Starts for ChewChew_25:

(Start: 55 @20575 has 72 MA's), (71, 20632), (90, 20737), (91, 20740), (105, 20824), (112, 20857), (122, 20908), (124, 20914), (137, 20995), (138, 20998), (139, 21004), (145, 21040), (151, 21058), (152, 21061), (154, 21094), (157, 21115), (186, 21247), (191, 21274), (199, 21313), (204, 21334), (206, 21340), (210, 21373), (212, 21388), (214, 21397), (227, 21442), (240, 21478), (249, 21520), (261, 21583), (267, 21601), (284, 21703), (285, 21706), (289, 21724), (290, 21727), (294, 21751),

(295, 21760), (305, 21847), (327, 21937), (331, 21961),

Gene: Chilliams_99 Start: 73536, Stop: 75392, Start Num: 8

Candidate Starts for Chilliams_99:

(Start: 8 @73536 has 3 MA's), (31, 73752), (39, 73794), (41, 73800), (56, 73833), (74, 73902), (76, 73917), (82, 73953), (86, 73992), (100, 74073), (113, 74133), (133, 74268), (185, 74550), (192, 74595), (206, 74658), (210, 74691), (211, 74703), (218, 74751), (224, 74769), (235, 74814), (241, 74835), (246, 74856), (252, 74895), (257, 74928), (265, 74964), (268, 74979), (273, 75006), (279, 75042), (281, 75048), (299, 75165), (303, 75195), (329, 75336),

Gene: Cholula_29 Start: 22153, Stop: 23553, Start Num: 55

Candidate Starts for Cholula_29:

(Start: 55 @22153 has 72 MA's), (71, 22216), (90, 22321), (91, 22324), (105, 22408), (112, 22441), (122, 22492), (124, 22498), (137, 22579), (138, 22582), (139, 22588), (145, 22624), (151, 22642), (152, 22645), (157, 22699), (168, 22750), (186, 22831), (191, 22858), (198, 22888), (199, 22897), (206, 22924), (210, 22957), (212, 22972), (227, 23026), (234, 23047), (239, 23059), (244, 23071), (286, 23293), (288, 23302), (289, 23308), (295, 23344), (303, 23404), (305, 23431), (327, 23521),

Gene: Chridison_26 Start: 21746, Stop: 23140, Start Num: 55

Candidate Starts for Chridison_26:

(Start: 55 @21746 has 72 MA's), (71, 21803), (85, 21890), (90, 21908), (91, 21911), (105, 21995), (112, 22028), (122, 22079), (124, 22085), (132, 22145), (139, 22175), (145, 22211), (151, 22229), (157, 22286), (160, 22304), (161, 22310), (168, 22337), (186, 22418), (191, 22445), (197, 22469), (199, 22484), (206, 22511), (210, 22544), (212, 22559), (221, 22586), (254, 22727), (261, 22754), (264, 22766), (269, 22784), (277, 22826), (284, 22874), (286, 22880), (289, 22895), (290, 22898), (295, 22931), (303, 22991), (305, 23018), (320, 23075), (327, 23108), (331, 23132),

Gene: Christian_25 Start: 20576, Stop: 21970, Start Num: 55

Candidate Starts for Christian_25:

(Start: 55 @20576 has 72 MA's), (71, 20633), (90, 20738), (91, 20741), (105, 20825), (112, 20858), (124, 20915), (137, 20996), (138, 20999), (139, 21005), (145, 21041), (151, 21059), (152, 21062), (154, 21095), (157, 21116), (186, 21248), (191, 21275), (199, 21314), (204, 21335), (206, 21341), (210, 21374), (212, 21389), (214, 21398), (227, 21443), (240, 21479), (249, 21521), (261, 21584), (267, 21602), (284, 21704), (285, 21707), (289, 21725), (290, 21728), (294, 21752), (295, 21761), (305, 21848), (327, 21938), (331, 21962),

Gene: Cicada_35 Start: 23458, Stop: 24885, Start Num: 60

Candidate Starts for Cicada_35:

(Start: 60 @23458 has 13 MA's), (119, 23776), (123, 23815), (132, 23878), (142, 23923), (145, 23944), (161, 24043), (195, 24211), (206, 24259), (209, 24280), (212, 24307), (220, 24334), (227, 24364), (228, 24367), (229, 24370), (242, 24406), (256, 24484), (275, 24568), (280, 24586), (281, 24589), (295, 24676), (298, 24688), (302, 24727), (305, 24763), (307, 24769), (318, 24814), (324, 24844),

Gene: CristinaYang_25 Start: 20580, Stop: 21974, Start Num: 55

Candidate Starts for CristinaYang_25:

(Start: 55 @20580 has 72 MA's), (71, 20637), (90, 20742), (91, 20745), (105, 20829), (112, 20862), (122, 20913), (124, 20919), (137, 21000), (138, 21003), (139, 21009), (145, 21045), (151, 21063), (152, 21066), (154, 21099), (157, 21120), (186, 21252), (191, 21279), (199, 21318), (204, 21339), (206, 21345), (210, 21378), (212, 21393), (214, 21402), (227, 21447), (240, 21483), (249, 21525), (261, 21588), (267, 21606), (284, 21708), (285, 21711), (289, 21729), (290, 21732), (294, 21756), (295, 21765), (305, 21852), (327, 21942), (331, 21966),

Gene: Crosby_42 Start: 31144, Stop: 32538, Start Num: 61

Candidate Starts for Crosby_42:

(Start: 61 @31144 has 12 MA's), (Start: 62 @31147 has 3 MA's), (76, 31222), (79, 31246), (81, 31252), (86, 31276), (90, 31291), (91, 31294), (103, 31366), (109, 31381), (115, 31417), (132, 31516), (148, 31594), (169, 31717), (195, 31852), (200, 31879), (206, 31900), (221, 31978), (229, 32011), (232, 32020), (245, 32062), (255, 32128), (256, 32131), (261, 32152), (267, 32170), (270, 32188), (281, 32242), (284, 32272), (295, 32329), (296, 32332), (302, 32380), (306, 32419), (311, 32434), (325, 32503), (329, 32521), (331, 32530),

Gene: Daiboju_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for Daiboju_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Dodo_114 Start: 79498, Stop: 77648, Start Num: 10

Candidate Starts for Dodo_114:

(2, 79567), (3, 79561), (Start: 10 @79498 has 3 MA's), (15, 79453), (17, 79441), (27, 79315), (37, 79252), (69, 79177), (84, 79069), (88, 79051), (98, 78982), (104, 78955), (111, 78895), (138, 78730), (162, 78586), (181, 78499), (185, 78472), (190, 78436), (192, 78427), (204, 78370), (206, 78364), (211, 78319), (214, 78307), (217, 78286), (222, 78262), (230, 78226), (246, 78181), (259, 78097), (260, 78094), (261, 78088), (273, 78025), (291, 77923), (303, 77836), (310, 77794), (321, 77743),

Gene: DrRobert_25 Start: 20576, Stop: 21970, Start Num: 55

Candidate Starts for DrRobert_25:

(Start: 55 @20576 has 72 MA's), (71, 20633), (90, 20738), (91, 20741), (105, 20825), (112, 20858), (122, 20909), (124, 20915), (137, 20996), (138, 20999), (139, 21005), (145, 21041), (151, 21059), (152, 21062), (154, 21095), (157, 21116), (186, 21248), (191, 21275), (199, 21314), (204, 21335), (206, 21341), (210, 21374), (212, 21389), (214, 21398), (227, 21443), (240, 21479), (249, 21521), (261, 21584), (267, 21602), (284, 21704), (285, 21707), (289, 21725), (290, 21728), (294, 21752), (295, 21761), (305, 21848), (327, 21938), (331, 21962),

Gene: DreamTeam_25 Start: 20615, Stop: 22009, Start Num: 55

Candidate Starts for DreamTeam_25:

(Start: 55 @20615 has 72 MA's), (71, 20672), (90, 20777), (91, 20780), (105, 20864), (112, 20897), (123, 20951), (124, 20954), (139, 21044), (145, 21080), (152, 21101), (154, 21134), (157, 21155), (186, 21287), (191, 21314), (199, 21353), (206, 21380), (210, 21413), (212, 21428), (214, 21437), (227, 21482), (240, 21518), (255, 21599), (261, 21623), (267, 21641), (269, 21653), (281, 21713), (282, 21737), (284, 21743), (285, 21746), (289, 21764), (290, 21767), (294, 21791), (295, 21800), (305, 21887), (318, 21938), (327, 21977),

Gene: Edmundo_94 Start: 55295, Stop: 56959, Start Num: 28

Candidate Starts for Edmundo_94:

(Start: 28 @55295 has 8 MA's), (39, 55358), (42, 55367), (67, 55454), (73, 55499), (94, 55619), (112, 55712), (117, 55736), (120, 55748), (126, 55802), (133, 55853), (140, 55889), (144, 55916), (150, 55937), (152, 55943), (155, 55985), (182, 56102), (193, 56180), (198, 56198), (208, 56249), (212, 56282), (222, 56315), (239, 56372), (246, 56399), (251, 56441), (267, 56522), (272, 56552), (275, 56570), (281, 56597), (283, 56624), (298, 56699), (301, 56726), (302, 56738), (313, 56807), (315, 56816), (316, 56819), (323, 56852), (332, 56888), (335, 56903), (337, 56918), (340, 56939),

Gene: EstebanJulior_26 Start: 21743, Stop: 23140, Start Num: 55

Candidate Starts for EstebanJulior_26:

(Start: 55 @21743 has 72 MA's), (71, 21803), (90, 21908), (91, 21911), (105, 21995), (112, 22028), (122, 22079), (124, 22085), (137, 22166), (139, 22175), (145, 22211), (151, 22229), (152, 22232), (154, 22265), (157, 22286), (186, 22418), (198, 22475), (199, 22484), (204, 22505), (206, 22511), (210, 22544), (212, 22559), (229, 22619), (240, 22649), (255, 22730), (267, 22772), (274, 22805), (282, 22868), (285, 22877), (288, 22889), (289, 22895), (292, 22910), (294, 22922), (295, 22931), (305, 23018), (320, 23075), (327, 23108),

Gene: Eunoia_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for Eunoia_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228), (157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (249, 22690), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: FireCastle_33 Start: 23203, Stop: 24633, Start Num: 58

Candidate Starts for FireCastle_33:

(38, 23134), (Start: 58 @23203 has 1 MA's), (Start: 60 @23206 has 13 MA's), (119, 23524), (123, 23563), (126, 23584), (142, 23671), (145, 23692), (206, 24007), (209, 24028), (212, 24055), (220, 24082), (221, 24085), (227, 24112), (229, 24118), (242, 24154), (250, 24202), (256, 24232), (275, 24316), (281, 24337), (290, 24391), (293, 24409), (295, 24424), (298, 24436), (302, 24475), (305, 24511), (307, 24517), (311, 24529), (324, 24592), (333, 24628),

Gene: Fluke_29 Start: 22148, Stop: 23548, Start Num: 55

Candidate Starts for Fluke_29:

(Start: 55 @22148 has 72 MA's), (71, 22211), (90, 22316), (91, 22319), (105, 22403), (112, 22436), (122, 22487), (124, 22493), (137, 22574), (138, 22577), (139, 22583), (145, 22619), (151, 22637), (152, 22640), (154, 22673), (157, 22694), (160, 22712), (168, 22745), (186, 22826), (191, 22853), (198, 22883), (199, 22892), (206, 22919), (210, 22952), (212, 22967), (227, 23021), (234, 23042), (239, 23054), (244, 23066), (286, 23288), (288, 23297), (289, 23303), (295, 23339), (303, 23399), (305, 23426), (327, 23516),

Gene: Forza_170 Start: 96758, Stop: 94848, Start Num: 6

Candidate Starts for Forza_170:

(Start: 6 @96758 has 6 MA's), (29, 96554), (37, 96506), (49, 96461), (70, 96380), (72, 96368), (87, 96263), (93, 96236), (111, 96131), (116, 96107), (143, 95942), (190, 95675), (192, 95666), (198, 95639), (210, 95570), (252, 95321), (263, 95255), (268, 95231), (292, 95096), (301, 95036), (312, 94964),

Gene: Frizzle_34 Start: 32091, Stop: 30688, Start Num: 62

Candidate Starts for Frizzle_34:

(20, 32331), (22, 32328), (30, 32217), (Start: 62 @32091 has 3 MA's), (76, 32016), (79, 31992), (80, 31989), (86, 31959), (87, 31956), (108, 31845), (123, 31770), (124, 31767), (126, 31749), (128, 31716), (130, 31713), (137, 31686), (142, 31662), (146, 31635), (169, 31509), (171, 31506), (195, 31383), (196, 31380), (202, 31350), (203, 31347), (219, 31263), (232, 31218), (267, 31071), (273, 31041), (274, 31038), (307, 30819), (313, 30777),

Gene: GMA2_64 Start: 67776, Stop: 65812, Start Num: 7

Candidate Starts for GMA2_64:

(7, 67776), (24, 67644), (70, 67386), (87, 67269), (89, 67263), (93, 67242), (98, 67197), (111, 67137), (116, 67113), (121, 67077), (129, 67011), (138, 66972), (149, 66918), (156, 66864), (189, 66684), (192, 66672), (210, 66576), (213, 66558), (219, 66504), (247, 66342), (268, 66198), (286, 66093), (297, 66036), (301, 66003), (326, 65859),

Gene: Ghobes_35 Start: 32092, Stop: 30689, Start Num: 62

Candidate Starts for Ghobes_35:

(20, 32332), (22, 32329), (30, 32218), (Start: 62 @32092 has 3 MA's), (76, 32017), (79, 31993), (80, 31990), (86, 31960), (87, 31957), (108, 31846), (123, 31771), (124, 31768), (128, 31717), (130, 31714), (137, 31687), (142, 31663), (146, 31636), (169, 31510), (171, 31507), (195, 31384), (196, 31381), (202, 31351), (203, 31348), (219, 31264), (232, 31219), (254, 31117), (267, 31072), (273, 31042), (274, 31039), (290, 30946), (292, 30934), (307, 30820), (313, 30778),

Gene: Gisselle_25 Start: 20615, Stop: 22009, Start Num: 55

Candidate Starts for Gisselle_25:

(Start: 55 @20615 has 72 MA's), (71, 20672), (90, 20777), (91, 20780), (105, 20864), (112, 20897), (123, 20951), (124, 20954), (139, 21044), (145, 21080), (152, 21101), (154, 21134), (157, 21155), (186, 21287), (191, 21314), (199, 21353), (206, 21380), (210, 21413), (212, 21428), (214, 21437), (227, 21482), (240, 21518), (255, 21599), (261, 21623), (267, 21641), (269, 21653), (281, 21713), (282, 21737), (284, 21743), (285, 21746), (289, 21764), (290, 21767), (294, 21791), (295, 21800), (305, 21887), (318, 21938), (327, 21977),

Gene: Glenn_29 Start: 22157, Stop: 23557, Start Num: 55

Candidate Starts for Glenn_29:

(Start: 55 @22157 has 72 MA's), (71, 22220), (90, 22325), (91, 22328), (105, 22412), (112, 22445), (122, 22496), (124, 22502), (137, 22583), (138, 22586), (139, 22592), (145, 22628), (151, 22646), (152, 22649), (154, 22682), (157, 22703), (160, 22721), (168, 22754), (186, 22835), (191, 22862), (198, 22892), (199, 22901), (206, 22928), (210, 22961), (212, 22976), (227, 23030), (234, 23051), (239, 23063), (244, 23075), (286, 23297), (288, 23306), (289, 23312), (295, 23348), (303, 23408), (305, 23435), (327, 23525),

Gene: GoldenEssence_90 Start: 74530, Stop: 76368, Start Num: 8

Candidate Starts for GoldenEssence_90:

(Start: 8 @74530 has 3 MA's), (26, 74689), (39, 74785), (69, 74845), (74, 74875), (86, 74965), (93, 74995), (100, 75046), (113, 75106), (184, 75502), (185, 75523), (192, 75568), (204, 75625), (206, 75631), (210, 75664), (211, 75676), (214, 75688), (215, 75703), (221, 75733), (230, 75772), (246, 75829), (248, 75835), (252, 75868), (265, 75937), (281, 76021), (299, 76138), (330, 76312), (338, 76354),

Gene: Goodman_34 Start: 23371, Stop: 24798, Start Num: 60

Candidate Starts for Goodman_34:

(Start: 60 @23371 has 13 MA's), (99, 23587), (119, 23689), (123, 23728), (132, 23791), (142, 23836), (145, 23857), (161, 23956), (195, 24124), (206, 24172), (209, 24193), (212, 24220), (220, 24247), (227, 24277), (229, 24283), (242, 24319), (256, 24397), (275, 24481), (280, 24499), (281, 24502), (295, 24589), (298, 24601), (302, 24640), (305, 24676), (307, 24682), (320, 24733), (324, 24757),

Gene: GreenHearts_29 Start: 22236, Stop: 23627, Start Num: 55

Candidate Starts for GreenHearts_29:

(Start: 55 @22236 has 72 MA's), (77, 22323), (90, 22395), (91, 22398), (102, 22464), (105, 22482), (106, 22488), (112, 22515), (124, 22572), (128, 22623), (139, 22662), (145, 22698), (151, 22716), (154, 22752), (157, 22773), (160, 22791), (168, 22824), (180, 22863), (186, 22905), (191, 22932), (197, 22956), (204, 22992), (206, 22998), (210, 23031), (212, 23046), (214, 23055), (227, 23100), (239, 23133), (240, 23136), (256, 23220), (261, 23241), (264, 23253), (267, 23259), (269, 23271),

(284, 23361), (285, 23364), (286, 23367), (289, 23382), (290, 23385), (294, 23409), (295, 23418), (305, 23505), (318, 23556), (327, 23595), (331, 23619),

Gene: Greenhouse_29 Start: 22160, Stop: 23551, Start Num: 55

Candidate Starts for Greenhouse_29:

(32, 22058), (40, 22100), (47, 22127), (Start: 55 @22160 has 72 MA's), (77, 22247), (90, 22319), (91, 22322), (102, 22388), (105, 22406), (106, 22412), (112, 22439), (124, 22496), (128, 22547), (131, 22553), (132, 22556), (139, 22586), (145, 22622), (151, 22640), (154, 22676), (157, 22697), (160, 22715), (180, 22787), (186, 22829), (191, 22856), (197, 22880), (204, 22916), (206, 22922), (210, 22955), (212, 22970), (214, 22979), (239, 23057), (240, 23060), (256, 23144), (261, 23165), (264, 23177), (267, 23183), (269, 23195), (284, 23285), (289, 23306), (290, 23309), (294, 23333), (295, 23342), (305, 23429), (318, 23480), (327, 23519), (331, 23543),

Gene: Henococcus_42 Start: 30892, Stop: 32286, Start Num: 61

Candidate Starts for Henococcus_42:

(Start: 61 @30892 has 12 MA's), (Start: 62 @30895 has 3 MA's), (76, 30970), (79, 30994), (86, 31024), (87, 31027), (90, 31039), (109, 31129), (114, 31153), (122, 31198), (124, 31204), (132, 31264), (137, 31285), (147, 31339), (165, 31438), (169, 31465), (172, 31474), (195, 31600), (206, 31648), (209, 31669), (210, 31681), (212, 31696), (221, 31726), (229, 31759), (232, 31768), (245, 31810), (255, 31876), (256, 31879), (261, 31900), (267, 31918), (270, 31936), (281, 31990), (284, 32020), (295, 32077), (296, 32080), (302, 32128), (311, 32182), (325, 32251), (329, 32269),

Gene: Herb_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for Herb_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Htur_33 Start: 23465, Stop: 24892, Start Num: 59

Candidate Starts for Htur_33:

(45, 23426), (52, 23447), (Start: 59 @23465 has 3 MA's), (123, 23822), (132, 23885), (142, 23930), (145, 23951), (195, 24218), (206, 24266), (209, 24287), (212, 24314), (220, 24341), (221, 24344), (227, 24371), (229, 24377), (242, 24413), (256, 24491), (261, 24512), (267, 24530), (269, 24542), (284, 24626), (295, 24683), (298, 24695), (302, 24734), (305, 24770), (307, 24776),

Gene: HunterDalle_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for HunterDalle_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228), (154, 22264), (157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: Huntingdon_29 Start: 22127, Stop: 23518, Start Num: 55

Candidate Starts for Huntingdon_29:

(Start: 55 @22127 has 72 MA's), (77, 22214), (90, 22286), (91, 22289), (102, 22355), (105, 22373), (106, 22379), (112, 22406), (124, 22463), (137, 22544), (139, 22553), (145, 22589), (151, 22607), (154, 22643), (157, 22664), (160, 22682), (168, 22715), (180, 22754), (186, 22796), (191, 22823),

(197, 22847), (204, 22883), (206, 22889), (210, 22922), (212, 22937), (214, 22946), (227, 22991), (239, 23024), (240, 23027), (255, 23108), (264, 23144), (267, 23150), (269, 23162), (284, 23252), (289, 23273), (290, 23276), (294, 23300), (295, 23309), (305, 23396), (318, 23447), (327, 23486), (331, 23510),

Gene: IndiRoo_33 Start: 21703, Stop: 23130, Start Num: 60

Candidate Starts for IndiRoo_33:

(50, 21682), (Start: 60 @21703 has 13 MA's), (122, 22057), (123, 22060), (126, 22081), (142, 22168), (152, 22210), (203, 22492), (206, 22504), (209, 22525), (212, 22552), (220, 22579), (221, 22582), (227, 22609), (229, 22615), (242, 22651), (261, 22750), (275, 22813), (281, 22834), (290, 22888), (295, 22921), (298, 22933), (302, 22972), (305, 23008), (307, 23014), (311, 23026), (318, 23059), (324, 23089),

Gene: Intolerant_41 Start: 31037, Stop: 32431, Start Num: 61

Candidate Starts for Intolerant_41:

(Start: 61 @31037 has 12 MA's), (Start: 62 @31040 has 3 MA's), (76, 31115), (79, 31139), (86, 31169), (90, 31184), (109, 31274), (115, 31310), (132, 31409), (134, 31418), (148, 31487), (169, 31610), (195, 31745), (200, 31772), (206, 31793), (209, 31814), (221, 31871), (229, 31904), (232, 31913), (245, 31955), (255, 32021), (261, 32045), (267, 32063), (270, 32081), (281, 32135), (284, 32165), (295, 32222), (296, 32225), (302, 32273), (306, 32312), (311, 32327), (325, 32396), (329, 32414), (331, 32423),

Gene: JackieB_42 Start: 30731, Stop: 32125, Start Num: 61

Candidate Starts for JackieB_42:

(Start: 61 @30731 has 12 MA's), (Start: 62 @30734 has 3 MA's), (76, 30809), (79, 30833), (86, 30863), (87, 30866), (90, 30878), (109, 30968), (114, 30992), (122, 31037), (124, 31043), (132, 31103), (137, 31124), (147, 31178), (165, 31277), (169, 31304), (172, 31313), (195, 31439), (206, 31487), (209, 31508), (210, 31520), (212, 31535), (221, 31565), (229, 31598), (232, 31607), (245, 31649), (256, 31718), (261, 31739), (267, 31757), (270, 31775), (281, 31829), (284, 31859), (295, 31916), (296, 31919), (302, 31967), (311, 32021), (325, 32090), (329, 32108),

Gene: Jera_34 Start: 22504, Stop: 23931, Start Num: 60

Candidate Starts for Jera_34:

(48, 22462), (Start: 60 @22504 has 13 MA's), (119, 22822), (142, 22969), (145, 22990), (147, 22999), (195, 23257), (206, 23305), (209, 23326), (221, 23383), (229, 23416), (242, 23452), (256, 23530), (261, 23551), (280, 23632), (281, 23635), (295, 23722), (298, 23734), (302, 23773), (305, 23809), (307, 23815), (311, 23827), (324, 23890),

Gene: Joann_29 Start: 22094, Stop: 23485, Start Num: 55

Candidate Starts for Joann_29:

(Start: 55 @22094 has 72 MA's), (77, 22181), (90, 22253), (91, 22256), (102, 22322), (105, 22340), (112, 22373), (124, 22430), (128, 22481), (131, 22487), (132, 22490), (139, 22520), (145, 22556), (151, 22574), (154, 22610), (157, 22631), (160, 22649), (168, 22682), (180, 22721), (186, 22763), (191, 22790), (197, 22814), (204, 22850), (206, 22856), (210, 22889), (212, 22904), (214, 22913), (227, 22958), (234, 22979), (239, 22991), (255, 23075), (261, 23099), (264, 23111), (267, 23117), (269, 23129), (284, 23219), (286, 23225), (289, 23240), (290, 23243), (294, 23267), (295, 23276), (305, 23363), (327, 23453), (331, 23477),

Gene: Johann_34 Start: 23371, Stop: 24798, Start Num: 60

Candidate Starts for Johann_34:

(Start: 60 @23371 has 13 MA's), (99, 23587), (119, 23689), (123, 23728), (132, 23791), (142, 23836), (145, 23857), (161, 23956), (195, 24124), (206, 24172), (209, 24193), (212, 24220), (220, 24247), (227, 24277), (229, 24283), (242, 24319), (256, 24397), (275, 24481), (280, 24499), (281, 24502),

(295, 24589), (298, 24601), (302, 24640), (305, 24676), (307, 24682), (320, 24733), (324, 24757),

Gene: Jumboset_29 Start: 22100, Stop: 23500, Start Num: 55

Candidate Starts for Jumboset_29:

(Start: 55 @22100 has 72 MA's), (71, 22163), (90, 22268), (91, 22271), (105, 22355), (112, 22388), (122, 22439), (124, 22445), (137, 22526), (138, 22529), (139, 22535), (145, 22571), (151, 22589), (152, 22592), (157, 22646), (168, 22697), (186, 22778), (191, 22805), (198, 22835), (199, 22844), (206, 22871), (210, 22904), (212, 22919), (227, 22973), (234, 22994), (239, 23006), (244, 23018), (286, 23240), (288, 23249), (289, 23255), (295, 23291), (303, 23351), (305, 23378), (327, 23468),

Gene: Kalizoi_29 Start: 22099, Stop: 23499, Start Num: 55

Candidate Starts for Kalizoi_29:

(Start: 55 @22099 has 72 MA's), (71, 22162), (90, 22267), (91, 22270), (105, 22354), (112, 22387), (122, 22438), (124, 22444), (137, 22525), (138, 22528), (139, 22534), (145, 22570), (151, 22588), (152, 22591), (157, 22645), (168, 22696), (186, 22777), (191, 22804), (198, 22834), (199, 22843), (206, 22870), (210, 22903), (212, 22918), (227, 22972), (234, 22993), (239, 23005), (244, 23017), (286, 23239), (288, 23248), (289, 23254), (295, 23290), (303, 23350), (305, 23377), (327, 23467), (331, 23491), (333, 23494),

Gene: Kharcho_61 Start: 33998, Stop: 35899, Start Num: 5

Candidate Starts for Kharcho_61:

(1, 33905), (Start: 5 @33998 has 2 MA's), (14, 34085), (22, 34139), (25, 34190), (29, 34238), (34, 34262), (67, 34388), (68, 34397), (99, 34583), (109, 34625), (130, 34772), (136, 34793), (145, 34850), (152, 34874), (155, 34916), (161, 34952), (187, 35090), (208, 35192), (240, 35318), (246, 35342), (251, 35384), (301, 35669), (310, 35732), (316, 35762), (334, 35843), (336, 35858),

Gene: KingBob_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for KingBob_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Kittykat_25 Start: 20600, Stop: 21994, Start Num: 55

Candidate Starts for Kittykat_25:

(Start: 55 @20600 has 72 MA's), (71, 20657), (90, 20762), (91, 20765), (105, 20849), (112, 20882), (123, 20936), (124, 20939), (139, 21029), (145, 21065), (152, 21086), (154, 21119), (157, 21140), (186, 21272), (191, 21299), (199, 21338), (206, 21365), (210, 21398), (212, 21413), (214, 21422), (227, 21467), (240, 21503), (255, 21584), (261, 21608), (267, 21626), (269, 21638), (281, 21698), (282, 21722), (284, 21728), (285, 21731), (289, 21749), (290, 21752), (294, 21776), (295, 21785), (305, 21872), (318, 21923), (327, 21962),

Gene: Korra_30 Start: 22105, Stop: 23505, Start Num: 55

Candidate Starts for Korra_30:

(Start: 55 @22105 has 72 MA's), (71, 22168), (90, 22273), (91, 22276), (105, 22360), (112, 22393), (122, 22444), (124, 22450), (137, 22531), (138, 22534), (139, 22540), (145, 22576), (151, 22594), (152, 22597), (154, 22630), (157, 22651), (168, 22702), (186, 22783), (191, 22810), (198, 22840), (199, 22849), (206, 22876), (210, 22909), (212, 22924), (227, 22978), (234, 22999), (239, 23011), (244, 23023), (267, 23137), (286, 23245), (288, 23254), (289, 23260), (295, 23296), (303, 23356), (305, 23383), (327, 23473),

Gene: Kovu_95 Start: 56142, Stop: 57803, Start Num: 28

Candidate Starts for Kovu_95:

(16, 56019), (21, 56058), (Start: 28 @56142 has 8 MA's), (39, 56202), (63, 56289), (65, 56292), (94, 56463), (96, 56475), (120, 56595), (124, 56631), (127, 56655), (130, 56688), (133, 56700), (140, 56736), (141, 56742), (152, 56790), (155, 56832), (182, 56952), (191, 57015), (198, 57048), (205, 57078), (208, 57099), (212, 57132), (222, 57165), (239, 57222), (246, 57249), (251, 57291), (262, 57348), (267, 57372), (272, 57402), (275, 57420), (281, 57447), (283, 57474), (298, 57549), (301, 57576), (305, 57624), (309, 57636), (313, 57657), (315, 57666), (316, 57669), (322, 57696), (323, 57702), (328, 57729), (335, 57756), (336, 57768), (337, 57771), (339, 57777),

Gene: Lakshmi_29 Start: 22120, Stop: 23511, Start Num: 55

Candidate Starts for Lakshmi_29:

(Start: 55 @22120 has 72 MA's), (77, 22207), (90, 22279), (91, 22282), (101, 22345), (102, 22348), (105, 22366), (106, 22372), (112, 22399), (124, 22456), (128, 22507), (131, 22513), (132, 22516), (139, 22546), (145, 22582), (151, 22600), (154, 22636), (157, 22657), (160, 22675), (168, 22708), (180, 22747), (186, 22789), (191, 22816), (197, 22840), (204, 22876), (206, 22882), (210, 22915), (212, 22930), (214, 22939), (227, 22984), (239, 23017), (240, 23020), (256, 23104), (261, 23125), (264, 23137), (269, 23155), (284, 23245), (289, 23266), (290, 23269), (294, 23293), (295, 23302), (305, 23389), (318, 23440), (327, 23479), (331, 23503),

Gene: Laroye_95 Start: 55108, Stop: 56772, Start Num: 28

Candidate Starts for Laroye_95:

(Start: 28 @55108 has 8 MA's), (39, 55171), (54, 55231), (67, 55267), (73, 55312), (94, 55432), (112, 55525), (117, 55549), (120, 55561), (126, 55615), (133, 55666), (140, 55702), (144, 55729), (152, 55756), (155, 55798), (182, 55915), (193, 55993), (198, 56011), (208, 56062), (212, 56095), (222, 56128), (239, 56185), (246, 56212), (251, 56254), (262, 56311), (267, 56335), (272, 56365), (275, 56383), (281, 56410), (298, 56512), (301, 56539), (302, 56551), (313, 56620), (315, 56629), (316, 56632), (322, 56659), (323, 56665), (332, 56701), (335, 56716), (337, 56731), (340, 56752),

Gene: LazerLemon_42 Start: 31529, Stop: 32923, Start Num: 61

Candidate Starts for LazerLemon_42:

(36, 31445), (Start: 61 @31529 has 12 MA's), (69, 31562), (76, 31607), (79, 31631), (86, 31661), (87, 31664), (90, 31676), (109, 31766), (114, 31790), (132, 31901), (147, 31976), (154, 32021), (163, 32072), (165, 32075), (167, 32096), (195, 32237), (200, 32264), (206, 32285), (209, 32306), (221, 32363), (227, 32390), (229, 32396), (232, 32405), (245, 32447), (255, 32513), (256, 32516), (261, 32537), (267, 32555), (270, 32573), (281, 32627), (295, 32714), (296, 32717), (302, 32765), (306, 32804), (311, 32819), (325, 32888), (329, 32906), (331, 32915),

Gene: LiSara_92 Start: 55240, Stop: 56904, Start Num: 28

Candidate Starts for LiSara_92:

(Start: 28 @55240 has 8 MA's), (39, 55303), (54, 55363), (67, 55399), (73, 55444), (94, 55564), (112, 55657), (117, 55681), (120, 55693), (126, 55747), (133, 55798), (140, 55834), (144, 55861), (152, 55888), (155, 55930), (182, 56047), (193, 56125), (198, 56143), (208, 56194), (212, 56227), (222, 56260), (239, 56317), (246, 56344), (251, 56386), (262, 56443), (267, 56467), (272, 56497), (275, 56515), (281, 56542), (298, 56644), (301, 56671), (302, 56683), (313, 56752), (315, 56761), (322, 56791), (323, 56797), (332, 56833), (335, 56848), (337, 56863), (340, 56884),

Gene: LilStuart_25 Start: 20568, Stop: 21962, Start Num: 55

Candidate Starts for LilStuart_25:

(Start: 55 @20568 has 72 MA's), (71, 20625), (90, 20730), (91, 20733), (105, 20817), (112, 20850), (122, 20901), (124, 20907), (137, 20988), (138, 20991), (139, 20997), (145, 21033), (151, 21051), (152, 21054), (154, 21087), (157, 21108), (186, 21240), (191, 21267), (199, 21306), (204, 21327),

(206, 21333), (210, 21366), (212, 21381), (214, 21390), (227, 21435), (240, 21471), (249, 21513), (261, 21576), (267, 21594), (284, 21696), (285, 21699), (289, 21717), (290, 21720), (294, 21744), (295, 21753), (305, 21840), (327, 21930), (331, 21954), (333, 21957),

Gene: Linayshia_33 Start: 23433, Stop: 24860, Start Num: 59

Candidate Starts for Linayshia_33:

(45, 23391), (Start: 59 @23433 has 3 MA's), (123, 23790), (132, 23853), (142, 23898), (145, 23919), (195, 24186), (206, 24234), (209, 24255), (212, 24282), (220, 24309), (221, 24312), (227, 24339), (229, 24345), (242, 24381), (256, 24459), (261, 24480), (267, 24498), (269, 24510), (284, 24594), (295, 24651), (298, 24663), (302, 24702), (305, 24738), (307, 24744),

Gene: Litotes_29 Start: 22115, Stop: 23509, Start Num: 55

Candidate Starts for Litotes_29:

(Start: 55 @22115 has 72 MA's), (71, 22172), (90, 22277), (105, 22364), (123, 22451), (124, 22454), (139, 22544), (145, 22580), (147, 22589), (151, 22598), (157, 22655), (160, 22673), (168, 22706), (173, 22718), (186, 22787), (191, 22814), (197, 22838), (206, 22880), (210, 22913), (212, 22928), (214, 22937), (244, 23027), (254, 23096), (261, 23123), (267, 23141), (269, 23153), (284, 23243), (286, 23249), (288, 23258), (289, 23264), (295, 23300), (305, 23387), (318, 23438), (320, 23444), (327, 23477), (331, 23501),

Gene: Lucy_25 Start: 20556, Stop: 21950, Start Num: 55

Candidate Starts for Lucy_25:

(Start: 55 @20556 has 72 MA's), (71, 20613), (90, 20718), (91, 20721), (105, 20805), (112, 20838), (124, 20895), (137, 20976), (138, 20979), (139, 20985), (145, 21021), (151, 21039), (152, 21042), (154, 21075), (157, 21096), (168, 21147), (186, 21228), (191, 21255), (199, 21294), (204, 21315), (206, 21321), (210, 21354), (212, 21369), (221, 21396), (227, 21423), (240, 21459), (261, 21564), (267, 21582), (284, 21684), (285, 21687), (289, 21705), (290, 21708), (294, 21732), (295, 21741), (305, 21828), (318, 21879), (319, 21882), (327, 21918), (331, 21942),

Gene: Makoto_25 Start: 20576, Stop: 21970, Start Num: 55

Candidate Starts for Makoto_25:

(Start: 55 @20576 has 72 MA's), (71, 20633), (90, 20738), (105, 20825), (112, 20858), (124, 20915), (128, 20966), (137, 20996), (138, 20999), (139, 21005), (145, 21041), (151, 21059), (152, 21062), (154, 21095), (157, 21116), (186, 21248), (191, 21275), (199, 21314), (204, 21335), (206, 21341), (210, 21374), (212, 21389), (214, 21398), (227, 21443), (240, 21479), (249, 21521), (261, 21584), (267, 21602), (284, 21704), (285, 21707), (289, 21725), (290, 21728), (294, 21752), (295, 21761), (305, 21848), (327, 21938), (331, 21962),

Gene: MamaPearl_26 Start: 21743, Stop: 23140, Start Num: 55

Candidate Starts for MamaPearl_26:

(Start: 55 @21743 has 72 MA's), (71, 21803), (90, 21908), (91, 21911), (105, 21995), (112, 22028), (122, 22079), (124, 22085), (137, 22166), (139, 22175), (145, 22211), (151, 22229), (152, 22232), (154, 22265), (157, 22286), (186, 22418), (198, 22475), (199, 22484), (204, 22505), (206, 22511), (210, 22544), (212, 22559), (229, 22619), (240, 22649), (255, 22730), (267, 22772), (274, 22805), (282, 22868), (285, 22877), (288, 22889), (289, 22895), (292, 22910), (294, 22922), (295, 22931), (305, 23018), (320, 23075), (327, 23108),

Gene: Mareelih_167 Start: 96276, Stop: 94366, Start Num: 6

Candidate Starts for Mareelih_167:

(Start: 6 @96276 has 6 MA's), (29, 96072), (37, 96024), (49, 95979), (70, 95898), (72, 95886), (87, 95781), (93, 95754), (111, 95649), (116, 95625), (143, 95460), (190, 95193), (192, 95184), (198, 95157), (210, 95088), (252, 94839), (263, 94773), (268, 94749), (292, 94614), (301, 94554), (312, 94482),

Gene: Maria1952_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for Maria1952_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Marky_44 Start: 31624, Stop: 33015, Start Num: 62

Candidate Starts for Marky_44:

(53, 31615), (Start: 62 @31624 has 3 MA's), (64, 31630), (76, 31699), (79, 31723), (90, 31768), (110, 31861), (122, 31927), (142, 32038), (147, 32068), (148, 32071), (169, 32194), (195, 32329), (200, 32356), (206, 32377), (209, 32398), (210, 32410), (245, 32539), (256, 32608), (261, 32629), (267, 32647), (270, 32665), (281, 32719), (284, 32749), (295, 32806), (296, 32809), (302, 32857), (313, 32926), (325, 32980), (329, 32998),

Gene: MeganNoll_29 Start: 22157, Stop: 23557, Start Num: 55

Candidate Starts for MeganNoll_29:

(Start: 55 @22157 has 72 MA's), (71, 22220), (90, 22325), (91, 22328), (105, 22412), (112, 22445), (122, 22496), (124, 22502), (137, 22583), (138, 22586), (139, 22592), (145, 22628), (151, 22646), (152, 22649), (157, 22703), (168, 22754), (186, 22835), (191, 22862), (198, 22892), (199, 22901), (206, 22928), (210, 22961), (212, 22976), (227, 23030), (234, 23051), (239, 23063), (244, 23075), (286, 23297), (288, 23306), (289, 23312), (295, 23348), (303, 23408), (305, 23435), (327, 23525),

Gene: Microdon_41 Start: 30843, Stop: 32237, Start Num: 61

Candidate Starts for Microdon_41:

(Start: 61 @30843 has 12 MA's), (Start: 62 @30846 has 3 MA's), (76, 30921), (79, 30945), (81, 30951), (86, 30975), (90, 30990), (91, 30993), (103, 31065), (109, 31080), (115, 31116), (132, 31215), (169, 31416), (195, 31551), (200, 31578), (206, 31599), (221, 31677), (229, 31710), (232, 31719), (245, 31761), (255, 31827), (256, 31830), (261, 31851), (267, 31869), (270, 31887), (281, 31941), (284, 31971), (295, 32028), (296, 32031), (302, 32079), (306, 32118), (311, 32133), (325, 32202), (329, 32220), (331, 32229),

Gene: Milani_33 Start: 22173, Stop: 23600, Start Num: 60

Candidate Starts for Milani_33:

(Start: 60 @22173 has 13 MA's), (122, 22527), (123, 22530), (126, 22551), (142, 22638), (206, 22974), (209, 22995), (212, 23022), (220, 23049), (221, 23052), (229, 23085), (242, 23121), (255, 23196), (261, 23220), (275, 23283), (281, 23304), (290, 23358), (295, 23391), (298, 23403), (302, 23442), (305, 23478), (307, 23484), (311, 23496), (313, 23511), (324, 23559), (327, 23568), (331, 23592),

Gene: Mimi_101 Start: 80085, Stop: 81923, Start Num: 8

Candidate Starts for Mimi_101:

(Start: 8 @80085 has 3 MA's), (18, 80166), (26, 80244), (39, 80340), (69, 80400), (74, 80430), (93, 80550), (100, 80601), (113, 80661), (170, 81000), (184, 81057), (185, 81078), (192, 81123), (204, 81180), (206, 81186), (210, 81219), (211, 81231), (214, 81243), (221, 81288), (230, 81327), (246, 81384), (248, 81390), (252, 81423), (265, 81492), (281, 81576), (299, 81693), (330, 81867), (338, 81909),

Gene: Misaeng_29 Start: 22230, Stop: 23621, Start Num: 55

Candidate Starts for Misaeng_29:

(Start: 55 @22230 has 72 MA's), (77, 22317), (90, 22389), (91, 22392), (102, 22458), (105, 22476), (112, 22509), (124, 22566), (137, 22647), (139, 22656), (145, 22692), (151, 22710), (154, 22746), (157, 22767), (160, 22785), (168, 22818), (186, 22899), (191, 22926), (197, 22950), (204, 22986), (206, 22992), (210, 23025), (212, 23040), (214, 23049), (227, 23094), (239, 23127), (240, 23130), (256, 23214), (264, 23247), (267, 23253), (269, 23265), (284, 23355), (286, 23361), (289, 23376), (290, 23379), (292, 23391), (294, 23403), (295, 23412), (305, 23499), (327, 23589),

Gene: Moki_25 Start: 20566, Stop: 21960, Start Num: 55

Candidate Starts for Moki_25:

(Start: 55 @20566 has 72 MA's), (71, 20623), (90, 20728), (105, 20815), (112, 20848), (123, 20902), (124, 20905), (139, 20995), (145, 21031), (151, 21049), (152, 21052), (157, 21106), (186, 21238), (191, 21265), (198, 21295), (199, 21304), (206, 21331), (210, 21364), (212, 21379), (221, 21406), (227, 21433), (240, 21469), (249, 21511), (261, 21574), (267, 21592), (281, 21664), (282, 21688), (284, 21694), (285, 21697), (289, 21715), (290, 21718), (294, 21742), (295, 21751), (305, 21838), (318, 21889), (327, 21928),

Gene: Nancia_25 Start: 20580, Stop: 21974, Start Num: 55

Candidate Starts for Nancia_25:

(Start: 55 @20580 has 72 MA's), (71, 20637), (90, 20742), (91, 20745), (105, 20829), (112, 20862), (122, 20913), (124, 20919), (137, 21000), (138, 21003), (139, 21009), (145, 21045), (151, 21063), (152, 21066), (154, 21099), (157, 21120), (186, 21252), (191, 21279), (199, 21318), (204, 21339), (206, 21345), (210, 21378), (212, 21393), (214, 21402), (227, 21447), (240, 21483), (249, 21525), (261, 21588), (267, 21606), (284, 21708), (285, 21711), (289, 21729), (290, 21732), (294, 21756), (295, 21765), (305, 21852), (327, 21942), (331, 21966),

Gene: Neuville_38 Start: 26376, Stop: 24544, Start Num: 9

Candidate Starts for Neuville_38:

(9, 26376), (17, 26319), (43, 26118), (76, 25983), (97, 25848), (102, 25821), (114, 25764), (116, 25749), (125, 25695), (138, 25599), (139, 25593), (142, 25578), (152, 25533), (156, 25485), (159, 25464), (164, 25446), (174, 25395), (189, 25302), (192, 25290), (206, 25227), (217, 25155), (231, 25095), (239, 25074), (252, 25008), (253, 24990), (258, 24972), (259, 24969), (266, 24933), (284, 24825), (287, 24816), (298, 24756), (303, 24708),

Gene: Nubia_29 Start: 22080, Stop: 23471, Start Num: 55

Candidate Starts for Nubia_29:

(Start: 55 @22080 has 72 MA's), (77, 22167), (90, 22239), (91, 22242), (102, 22308), (105, 22326), (106, 22332), (112, 22359), (124, 22416), (128, 22467), (139, 22506), (145, 22542), (151, 22560), (154, 22596), (157, 22617), (160, 22635), (168, 22668), (180, 22707), (186, 22749), (191, 22776), (197, 22800), (204, 22836), (206, 22842), (210, 22875), (212, 22890), (214, 22899), (227, 22944), (239, 22977), (240, 22980), (261, 23085), (264, 23097), (269, 23115), (284, 23205), (289, 23226), (290, 23229), (294, 23253), (295, 23262), (305, 23349), (318, 23400), (327, 23439), (331, 23463),

Gene: OMalley_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for OMalley_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228), (157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (249, 22690), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: Olympi_34 Start: 23358, Stop: 24785, Start Num: 60

Candidate Starts for Olympi_34:

(Start: 60 @23358 has 13 MA's), (99, 23574), (119, 23676), (123, 23715), (132, 23778), (142, 23823), (145, 23844), (161, 23943), (195, 24111), (206, 24159), (209, 24180), (212, 24207), (220, 24234), (227, 24264), (229, 24270), (242, 24306), (256, 24384), (280, 24486), (281, 24489), (295, 24576), (298, 24588), (302, 24627), (305, 24663), (311, 24681), (324, 24744),

Gene: Ottawa_61 Start: 33948, Stop: 35849, Start Num: 5

Candidate Starts for Ottawa_61:

(1, 33855), (Start: 5 @33948 has 2 MA's), (14, 34035), (22, 34089), (25, 34140), (29, 34188), (34, 34212), (67, 34338), (68, 34347), (99, 34533), (109, 34575), (130, 34722), (136, 34743), (145, 34800), (152, 34824), (155, 34866), (161, 34902), (187, 35040), (208, 35142), (240, 35268), (246, 35292), (251, 35334), (301, 35619), (310, 35682), (316, 35712), (334, 35793), (336, 35808),

Gene: Oxynfrius_29 Start: 22093, Stop: 23484, Start Num: 55

Candidate Starts for Oxynfrius_29:

(Start: 55 @22093 has 72 MA's), (77, 22180), (90, 22252), (91, 22255), (102, 22321), (105, 22339), (106, 22345), (112, 22372), (124, 22429), (128, 22480), (139, 22519), (145, 22555), (151, 22573), (154, 22609), (157, 22630), (160, 22648), (168, 22681), (180, 22720), (186, 22762), (191, 22789), (197, 22813), (204, 22849), (206, 22855), (210, 22888), (212, 22903), (214, 22912), (227, 22957), (239, 22990), (240, 22993), (261, 23098), (264, 23110), (269, 23128), (284, 23218), (289, 23239), (290, 23242), (294, 23266), (295, 23275), (305, 23362), (318, 23413), (327, 23452), (331, 23476),

Gene: PartyCup_29 Start: 22162, Stop: 23556, Start Num: 55

Candidate Starts for PartyCup_29:

(Start: 55 @22162 has 72 MA's), (71, 22219), (90, 22324), (105, 22411), (122, 22495), (123, 22498), (124, 22501), (139, 22591), (145, 22627), (147, 22636), (151, 22645), (157, 22702), (160, 22720), (168, 22753), (173, 22765), (186, 22834), (191, 22861), (197, 22885), (204, 22921), (206, 22927), (210, 22960), (212, 22975), (214, 22984), (244, 23074), (254, 23143), (261, 23170), (267, 23188), (269, 23200), (284, 23290), (286, 23296), (288, 23305), (289, 23311), (295, 23347), (305, 23434), (320, 23491), (327, 23524), (331, 23548),

Gene: Parvaparticeps_24 Start: 17958, Stop: 16552, Start Num: 57

Candidate Starts for Parvaparticeps_24:

(57, 17958), (86, 17817), (90, 17802), (104, 17718), (118, 17655), (122, 17622), (132, 17556), (137, 17535), (139, 17526), (142, 17511), (147, 17481), (153, 17451), (161, 17397), (195, 17235), (210, 17154), (220, 17109), (227, 17079), (228, 17076), (242, 17037), (261, 16938), (267, 16920), (269, 16908), (273, 16890), (294, 16770), (295, 16761), (302, 16710), (303, 16701), (304, 16692), (305, 16674), (311, 16656), (324, 16593), (327, 16584), (331, 16560),

Gene: Patbob_102 Start: 80820, Stop: 82658, Start Num: 8

Candidate Starts for Patbob_102:

(Start: 8 @80820 has 3 MA's), (26, 80979), (39, 81075), (69, 81135), (74, 81165), (86, 81255), (93, 81285), (100, 81336), (113, 81396), (184, 81792), (185, 81813), (192, 81858), (206, 81921), (210, 81954), (211, 81966), (214, 81978), (221, 82023), (230, 82062), (246, 82119), (248, 82125), (252, 82158), (265, 82227), (281, 82311), (299, 82428), (330, 82602), (338, 82644),

Gene: PauloDiaboli_114 Start: 78533, Stop: 76683, Start Num: 10

Candidate Starts for PauloDiaboli_114:

(2, 78602), (3, 78596), (Start: 10 @78533 has 3 MA's), (15, 78488), (17, 78476), (27, 78350), (37, 78287), (69, 78212), (84, 78104), (88, 78086), (98, 78017), (104, 77990), (111, 77930), (138, 77765), (162, 77621), (181, 77534), (185, 77507), (190, 77471), (192, 77462), (204, 77405), (206, 77399), (211, 77354), (214, 77342), (217, 77321), (222, 77297), (230, 77261), (246, 77216), (259, 77132), (260, 77129), (261, 77123), (273, 77060), (291, 76958), (303, 76871), (310, 76829), (321, 76778),

Gene: PermaG_34 Start: 23404, Stop: 24831, Start Num: 59

Candidate Starts for PermaG_34:

(45, 23362), (Start: 59 @23404 has 3 MA's), (90, 23560), (122, 23758), (123, 23761), (124, 23764), (126, 23782), (142, 23869), (145, 23890), (161, 23989), (178, 24055), (195, 24157), (196, 24160), (206, 24205), (209, 24226), (212, 24253), (220, 24280), (221, 24283), (225, 24295), (227, 24310), (229, 24316), (242, 24352), (249, 24388), (250, 24400), (256, 24430), (275, 24514), (280, 24532), (281, 24535), (295, 24622), (298, 24634), (302, 24673), (305, 24709), (307, 24715), (324, 24790),

Gene: Phrampa_96 Start: 82318, Stop: 84156, Start Num: 8

Candidate Starts for Phrampa_96:

(Start: 8 @82318 has 3 MA's), (26, 82477), (39, 82573), (69, 82633), (74, 82663), (86, 82753), (93, 82783), (113, 82894), (170, 83233), (185, 83311), (192, 83356), (206, 83419), (210, 83452), (211, 83464), (214, 83476), (215, 83491), (216, 83494), (221, 83521), (230, 83560), (246, 83617), (248, 83623), (252, 83656), (265, 83725), (281, 83809), (299, 83926), (330, 84100), (338, 84142),

Gene: PinkFriday_25 Start: 20614, Stop: 22011, Start Num: 55

Candidate Starts for PinkFriday_25:

(Start: 55 @20614 has 72 MA's), (71, 20674), (85, 20761), (90, 20779), (105, 20866), (106, 20872), (112, 20899), (122, 20950), (124, 20956), (132, 21016), (137, 21037), (139, 21046), (145, 21082), (151, 21100), (152, 21103), (154, 21136), (157, 21157), (160, 21175), (161, 21181), (168, 21208), (177, 21235), (186, 21289), (188, 21301), (191, 21316), (197, 21340), (199, 21355), (200, 21361), (206, 21382), (210, 21415), (212, 21430), (214, 21439), (229, 21490), (249, 21562), (261, 21625), (267, 21643), (281, 21715), (282, 21739), (284, 21745), (285, 21748), (289, 21766), (295, 21802), (305, 21889), (327, 21979), (331, 22003),

Gene: PitaDog_25 Start: 20567, Stop: 21961, Start Num: 55

Candidate Starts for PitaDog_25:

(Start: 55 @20567 has 72 MA's), (71, 20624), (90, 20729), (91, 20732), (105, 20816), (112, 20849), (122, 20900), (124, 20906), (137, 20987), (138, 20990), (139, 20996), (145, 21032), (151, 21050), (152, 21053), (154, 21086), (157, 21107), (186, 21239), (191, 21266), (199, 21305), (204, 21326), (206, 21332), (210, 21365), (212, 21380), (214, 21389), (227, 21434), (240, 21470), (249, 21512), (261, 21575), (267, 21593), (284, 21695), (285, 21698), (289, 21716), (290, 21719), (294, 21743), (295, 21752), (305, 21839), (327, 21929), (331, 21953),

Gene: Potatoes_29 Start: 22153, Stop: 23553, Start Num: 55

Candidate Starts for Potatoes_29:

(Start: 55 @22153 has 72 MA's), (71, 22216), (90, 22321), (91, 22324), (105, 22408), (112, 22441), (122, 22492), (124, 22498), (137, 22579), (138, 22582), (139, 22588), (145, 22624), (151, 22642), (152, 22645), (157, 22699), (168, 22750), (186, 22831), (191, 22858), (198, 22888), (199, 22897), (206, 22924), (210, 22957), (212, 22972), (227, 23026), (234, 23047), (239, 23059), (244, 23071), (286, 23293), (288, 23302), (289, 23308), (295, 23344), (303, 23404), (305, 23431), (327, 23521),

Gene: Preamble_25 Start: 20577, Stop: 21971, Start Num: 55

Candidate Starts for Preamble_25:

(Start: 55 @20577 has 72 MA's), (71, 20634), (90, 20739), (91, 20742), (105, 20826), (112, 20859), (123, 20913), (124, 20916), (139, 21006), (145, 21042), (152, 21063), (154, 21096), (157, 21117), (168, 21168), (186, 21249), (191, 21276), (199, 21315), (206, 21342), (210, 21375), (212, 21390), (214, 21399), (227, 21444), (240, 21480), (255, 21561), (261, 21585), (267, 21603), (269, 21615), (281, 21675), (282, 21699), (284, 21705), (285, 21708), (289, 21726), (290, 21729), (294, 21753), (295, 21762), (305, 21849), (318, 21900), (327, 21939),

Gene: Pumancara_25 Start: 20596, Stop: 21993, Start Num: 55

Candidate Starts for Pumancara_25:

(Start: 55 @20596 has 72 MA's), (71, 20656), (85, 20743), (90, 20761), (105, 20848), (106, 20854), (112, 20881), (122, 20932), (124, 20938), (132, 20998), (137, 21019), (139, 21028), (145, 21064), (151, 21082), (152, 21085), (154, 21118), (157, 21139), (161, 21163), (168, 21190), (177, 21217), (186, 21271), (188, 21283), (191, 21298), (197, 21322), (199, 21337), (206, 21364), (210, 21397), (212, 21412), (214, 21421), (229, 21472), (249, 21544), (255, 21583), (261, 21607), (267, 21625), (281, 21697), (282, 21721), (284, 21727), (285, 21730), (289, 21748), (295, 21784), (305, 21871), (314, 21910), (327, 21961), (331, 21985), (333, 21988),

Gene: Pumpernickel_111 Start: 80095, Stop: 78248, Start Num: 10

Candidate Starts for Pumpernickel_111:

(Start: 10 @80095 has 3 MA's), (37, 79855), (38, 79852), (44, 79831), (69, 79780), (84, 79672), (89, 79651), (114, 79489), (149, 79276), (158, 79210), (162, 79189), (166, 79180), (176, 79123), (181, 79102), (185, 79075), (190, 79039), (192, 79030), (194, 79018), (204, 78973), (206, 78967), (210, 78934), (232, 78823), (233, 78820), (244, 78778), (251, 78727), (273, 78607), (278, 78580), (288, 78520), (308, 78382), (310, 78376), (320, 78328), (331, 78268),

Gene: RAP15_29 Start: 22157, Stop: 23557, Start Num: 55

Candidate Starts for RAP15_29:

(Start: 55 @22157 has 72 MA's), (71, 22220), (90, 22325), (91, 22328), (105, 22412), (112, 22445), (122, 22496), (124, 22502), (137, 22583), (138, 22586), (139, 22592), (145, 22628), (151, 22646), (152, 22649), (157, 22703), (168, 22754), (186, 22835), (191, 22862), (198, 22892), (199, 22901), (206, 22928), (210, 22961), (212, 22976), (227, 23030), (234, 23051), (239, 23063), (244, 23075), (286, 23297), (288, 23306), (289, 23312), (295, 23348), (303, 23408), (305, 23435), (327, 23525),

Gene: Racecar_102 Start: 80738, Stop: 82576, Start Num: 8

Candidate Starts for Racecar_102:

(Start: 8 @80738 has 3 MA's), (18, 80819), (26, 80897), (39, 80993), (69, 81053), (74, 81083), (93, 81203), (100, 81254), (113, 81314), (170, 81653), (184, 81710), (185, 81731), (192, 81776), (204, 81833), (206, 81839), (210, 81872), (211, 81884), (214, 81896), (221, 81941), (230, 81980), (246, 82037), (248, 82043), (252, 82076), (265, 82145), (281, 82229), (299, 82346), (330, 82520), (338, 82562),

Gene: Rasovi_33 Start: 23465, Stop: 24892, Start Num: 59

Candidate Starts for Rasovi_33:

(45, 23426), (52, 23447), (Start: 59 @23465 has 3 MA's), (123, 23822), (132, 23885), (142, 23930), (145, 23951), (195, 24218), (206, 24266), (209, 24287), (212, 24314), (220, 24341), (221, 24344), (227, 24371), (229, 24377), (242, 24413), (256, 24491), (261, 24512), (267, 24530), (269, 24542), (284, 24626), (295, 24683), (298, 24695), (302, 24734), (305, 24770), (307, 24776),

Gene: RcigaStruga_29 Start: 22127, Stop: 23518, Start Num: 55

Candidate Starts for RcigaStruga_29:

(Start: 55 @22127 has 72 MA's), (77, 22214), (90, 22286), (91, 22289), (102, 22355), (105, 22373), (106, 22379), (112, 22406), (124, 22463), (137, 22544), (139, 22553), (145, 22589), (151, 22607), (154, 22643), (157, 22664), (160, 22682), (168, 22715), (180, 22754), (186, 22796), (191, 22823), (197, 22847), (204, 22883), (206, 22889), (210, 22922), (212, 22937), (214, 22946), (227, 22991), (239, 23024), (240, 23027), (255, 23108), (264, 23144), (267, 23150), (269, 23162), (284, 23252), (289, 23273), (290, 23276), (294, 23300), (295, 23309), (305, 23396), (318, 23447), (327, 23486), (331, 23510),

Gene: Riovina_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for Riovina_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228),

(157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (249, 22690), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: Riverdale_29 Start: 22087, Stop: 23487, Start Num: 55

Candidate Starts for Riverdale_29:

(Start: 55 @22087 has 72 MA's), (71, 22150), (90, 22255), (91, 22258), (105, 22342), (112, 22375), (122, 22426), (124, 22432), (137, 22513), (138, 22516), (139, 22522), (145, 22558), (151, 22576), (152, 22579), (154, 22612), (157, 22633), (160, 22651), (168, 22684), (186, 22765), (191, 22792), (198, 22822), (199, 22831), (206, 22858), (210, 22891), (212, 22906), (227, 22960), (234, 22981), (239, 22993), (244, 23005), (286, 23227), (288, 23236), (289, 23242), (295, 23278), (303, 23338), (305, 23365), (327, 23455),

Gene: Rozby_29 Start: 22088, Stop: 23488, Start Num: 55

Candidate Starts for Rozby_29:

(Start: 55 @22088 has 72 MA's), (71, 22151), (90, 22256), (91, 22259), (105, 22343), (112, 22376), (122, 22427), (124, 22433), (137, 22514), (138, 22517), (139, 22523), (145, 22559), (151, 22577), (152, 22580), (154, 22613), (157, 22634), (160, 22652), (168, 22685), (186, 22766), (191, 22793), (198, 22823), (199, 22832), (206, 22859), (210, 22892), (212, 22907), (227, 22961), (234, 22982), (239, 22994), (244, 23006), (286, 23228), (288, 23237), (289, 23243), (295, 23279), (303, 23339), (305, 23366), (327, 23456),

Gene: SBlackberry_33 Start: 23236, Stop: 24663, Start Num: 60

Candidate Starts for SBlackberry_33:

(Start: 60 @23236 has 13 MA's), (119, 23554), (123, 23593), (132, 23656), (142, 23701), (145, 23722), (161, 23821), (195, 23989), (206, 24037), (209, 24058), (212, 24085), (220, 24112), (227, 24142), (228, 24145), (229, 24148), (242, 24184), (256, 24262), (275, 24346), (280, 24364), (281, 24367), (295, 24454), (298, 24466), (302, 24505), (305, 24541), (307, 24547), (318, 24592), (324, 24622),

Gene: Salgado_95 Start: 54910, Stop: 56574, Start Num: 28

Candidate Starts for Salgado_95:

(Start: 28 @54910 has 8 MA's), (39, 54973), (54, 55033), (67, 55069), (73, 55114), (94, 55234), (112, 55327), (117, 55351), (120, 55363), (126, 55417), (133, 55468), (140, 55504), (144, 55531), (152, 55558), (155, 55600), (182, 55717), (193, 55795), (198, 55813), (208, 55864), (212, 55897), (222, 55930), (239, 55987), (246, 56014), (251, 56056), (262, 56113), (267, 56137), (272, 56167), (275, 56185), (281, 56212), (298, 56314), (301, 56341), (302, 56353), (313, 56422), (315, 56431), (322, 56461), (323, 56467), (332, 56503), (335, 56518), (337, 56533), (340, 56554),

Gene: Sapo_34 Start: 32116, Stop: 30710, Start Num: 61

Candidate Starts for Sapo_34:

(20, 32353), (22, 32350), (30, 32239), (33, 32224), (Start: 61 @32116 has 12 MA's), (76, 32038), (80, 32011), (86, 31981), (87, 31978), (126, 31771), (128, 31738), (169, 31531), (199, 31384), (203, 31369), (238, 31228), (267, 31093), (273, 31063), (274, 31060), (284, 30991), (285, 30988), (290, 30967), (296, 30931), (297, 30928), (307, 30841), (311, 30829), (327, 30742),

Gene: Savage2526_29 Start: 22151, Stop: 23551, Start Num: 55

Candidate Starts for Savage2526_29:

(Start: 55 @22151 has 72 MA's), (71, 22214), (90, 22319), (91, 22322), (105, 22406), (112, 22439), (122, 22490), (124, 22496), (137, 22577), (138, 22580), (139, 22586), (145, 22622), (151, 22640), (152, 22643), (157, 22697), (168, 22748), (186, 22829), (191, 22856), (198, 22886), (199, 22895), (206, 22922), (210, 22955), (212, 22970), (227, 23024), (234, 23045), (239, 23057), (244, 23069), (286, 23291), (288, 23300), (289, 23306), (295, 23342), (303, 23402), (305, 23429), (327, 23519),

Gene: Scuttle_29 Start: 22156, Stop: 23556, Start Num: 55

Candidate Starts for Scuttle_29:

(Start: 55 @22156 has 72 MA's), (71, 22219), (90, 22324), (91, 22327), (105, 22411), (112, 22444), (122, 22495), (124, 22501), (137, 22582), (138, 22585), (139, 22591), (145, 22627), (151, 22645), (152, 22648), (154, 22681), (157, 22702), (168, 22753), (186, 22834), (191, 22861), (199, 22900), (206, 22927), (210, 22960), (212, 22975), (227, 23029), (234, 23050), (239, 23062), (244, 23074), (267, 23188), (286, 23296), (288, 23305), (289, 23311), (295, 23347), (303, 23407), (305, 23434), (327, 23524),

Gene: Sergei_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for Sergei_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Shrooms_93 Start: 54534, Stop: 56189, Start Num: 28

Candidate Starts for Shrooms_93:

(Start: 28 @54534 has 8 MA's), (39, 54597), (42, 54606), (46, 54627), (66, 54690), (89, 54828), (94, 54858), (112, 54951), (120, 54987), (126, 55041), (133, 55092), (138, 55116), (140, 55128), (144, 55155), (150, 55176), (152, 55182), (155, 55224), (182, 55341), (193, 55419), (198, 55437), (208, 55488), (212, 55521), (222, 55554), (237, 55602), (246, 55638), (251, 55680), (272, 55791), (275, 55809), (281, 55836), (283, 55863), (301, 55965), (313, 56046), (315, 56055), (316, 56058), (322, 56085), (323, 56091), (332, 56127), (335, 56142), (340, 56178),

Gene: Sixama_168 Start: 96248, Stop: 94338, Start Num: 6

Candidate Starts for Sixama_168:

(Start: 6 @96248 has 6 MA's), (11, 96227), (12, 96218), (13, 96200), (19, 96155), (23, 96140), (24, 96116), (26, 96086), (37, 95996), (49, 95951), (51, 95939), (70, 95870), (87, 95753), (93, 95726), (116, 95597), (133, 95480), (143, 95432), (154, 95363), (185, 95201), (190, 95165), (192, 95156), (195, 95141), (198, 95129), (206, 95093), (210, 95060), (220, 94985), (224, 94973), (234, 94934), (243, 94883), (268, 94721), (301, 94526), (308, 94469), (317, 94424),

Gene: Stuff_42 Start: 31323, Stop: 32717, Start Num: 61

Candidate Starts for Stuff_42:

(Start: 61 @31323 has 12 MA's), (Start: 62 @31326 has 3 MA's), (76, 31401), (79, 31425), (81, 31431), (86, 31455), (90, 31470), (91, 31473), (92, 31476), (103, 31545), (109, 31560), (115, 31596), (132, 31695), (137, 31716), (148, 31773), (169, 31896), (195, 32031), (200, 32058), (206, 32079), (221, 32157), (229, 32190), (232, 32199), (245, 32241), (255, 32307), (261, 32331), (267, 32349), (270, 32367), (281, 32421), (284, 32451), (295, 32508), (296, 32511), (302, 32559), (306, 32598), (311, 32613), (325, 32682), (329, 32700), (331, 32709),

Gene: Sucha_30 Start: 20665, Stop: 22092, Start Num: 60

Candidate Starts for Sucha_30:

(50, 20644), (Start: 60 @20665 has 13 MA's), (122, 21019), (123, 21022), (126, 21043), (142, 21130), (152, 21172), (203, 21454), (206, 21466), (209, 21487), (212, 21514), (220, 21541), (221, 21544), (227, 21571), (229, 21577), (242, 21613), (261, 21712), (275, 21775), (281, 21796), (290, 21850), (295, 21883), (298, 21895), (302, 21934), (305, 21970), (307, 21976), (311, 21988), (318, 22021), (324, 22051),

Gene: Suppi_29 Start: 22165, Stop: 23559, Start Num: 55

Candidate Starts for Suppi_29:

(Start: 55 @22165 has 72 MA's), (71, 22222), (90, 22327), (105, 22414), (122, 22498), (123, 22501), (124, 22504), (139, 22594), (145, 22630), (147, 22639), (151, 22648), (157, 22705), (160, 22723), (168, 22756), (173, 22768), (186, 22837), (191, 22864), (197, 22888), (206, 22930), (210, 22963), (212, 22978), (214, 22987), (244, 23077), (254, 23146), (261, 23173), (267, 23191), (269, 23203), (284, 23293), (286, 23299), (288, 23308), (289, 23314), (295, 23350), (305, 23437), (318, 23488), (327, 23527), (331, 23551),

Gene: TMaxx_40 Start: 26999, Stop: 25191, Start Num: 9

Candidate Starts for TMaxx_40:

(4, 27044), (9, 26999), (17, 26939), (24, 26876), (43, 26738), (76, 26609), (89, 26525), (114, 26387), (142, 26201), (156, 26108), (159, 26087), (192, 25916), (195, 25901), (206, 25853), (221, 25784), (223, 25778), (226, 25763), (239, 25724), (242, 25715), (251, 25661), (252, 25658), (253, 25640), (258, 25622), (287, 25466), (293, 25433), (298, 25406), (300, 25385), (320, 25268), (329, 25217),

Gene: Talia1610_101 Start: 80103, Stop: 81941, Start Num: 8

Candidate Starts for Talia1610_101:

(Start: 8 @80103 has 3 MA's), (18, 80184), (26, 80262), (39, 80358), (69, 80418), (74, 80448), (93, 80568), (100, 80619), (113, 80679), (170, 81018), (184, 81075), (185, 81096), (192, 81141), (204, 81198), (206, 81204), (210, 81237), (211, 81249), (214, 81261), (221, 81306), (230, 81345), (246, 81402), (248, 81408), (252, 81441), (265, 81510), (281, 81594), (299, 81711), (330, 81885), (338, 81927),

Gene: TattModd_29 Start: 22150, Stop: 23550, Start Num: 55

Candidate Starts for TattModd_29:

(Start: 55 @22150 has 72 MA's), (71, 22213), (90, 22318), (91, 22321), (105, 22405), (112, 22438), (122, 22489), (124, 22495), (137, 22576), (138, 22579), (139, 22585), (145, 22621), (151, 22639), (152, 22642), (154, 22675), (157, 22696), (160, 22714), (168, 22747), (186, 22828), (191, 22855), (198, 22885), (199, 22894), (206, 22921), (210, 22954), (212, 22969), (227, 23023), (234, 23044), (239, 23056), (244, 23068), (286, 23290), (288, 23299), (289, 23305), (295, 23341), (303, 23401), (305, 23428), (327, 23518),

Gene: Temper16_26 Start: 21732, Stop: 23129, Start Num: 55

Candidate Starts for Temper16_26:

(Start: 55 @21732 has 72 MA's), (71, 21792), (85, 21879), (90, 21897), (91, 21900), (105, 21984), (106, 21990), (112, 22017), (122, 22068), (124, 22074), (128, 22125), (132, 22134), (137, 22155), (139, 22164), (145, 22200), (152, 22221), (154, 22254), (157, 22275), (160, 22293), (161, 22299), (168, 22326), (173, 22338), (177, 22353), (186, 22407), (197, 22458), (198, 22464), (199, 22473), (200, 22479), (206, 22500), (210, 22533), (212, 22548), (214, 22557), (249, 22680), (255, 22719), (261, 22743), (264, 22755), (284, 22863), (286, 22869), (288, 22878), (289, 22884), (295, 22920), (305, 23007), (327, 23097), (331, 23121),

Gene: Theresita_31 Start: 21253, Stop: 22665, Start Num: 60

Candidate Starts for Theresita_31:

(Start: 60 @21253 has 13 MA's), (87, 21397), (92, 21415), (107, 21505), (135, 21664), (138, 21682), (139, 21688), (142, 21703), (145, 21724), (152, 21745), (188, 21955), (195, 21991), (206, 22039), (209, 22060), (210, 22072), (212, 22087), (220, 22114), (225, 22129), (242, 22186), (255, 22261), (261, 22285), (269, 22315), (271, 22327), (281, 22369), (284, 22399), (295, 22456), (298, 22468), (307, 22549), (308, 22552), (313, 22576), (318, 22594), (324, 22624),

Gene: TurboVicky_33 Start: 23252, Stop: 24679, Start Num: 60

Candidate Starts for TurboVicky_33:

(48, 23210), (Start: 60 @23252 has 13 MA's), (119, 23570), (142, 23717), (145, 23738), (195, 24005), (206, 24053), (209, 24074), (221, 24131), (229, 24164), (242, 24200), (256, 24278), (261, 24299), (280, 24380), (281, 24383), (295, 24470), (298, 24482), (302, 24521), (305, 24557), (307, 24563), (311, 24575), (324, 24638),

Gene: Typher_35 Start: 23381, Stop: 24808, Start Num: 60

Candidate Starts for Typher_35:

(48, 23339), (Start: 60 @23381 has 13 MA's), (119, 23699), (132, 23801), (142, 23846), (145, 23867), (195, 24134), (206, 24182), (209, 24203), (221, 24260), (229, 24293), (242, 24329), (256, 24407), (261, 24428), (280, 24509), (281, 24512), (295, 24599), (298, 24611), (302, 24650), (305, 24686), (311, 24704), (324, 24767),

Gene: UNTPL_44 Start: 31380, Stop: 32774, Start Num: 61

Candidate Starts for UNTPL_44:

(Start: 61 @31380 has 12 MA's), (Start: 62 @31383 has 3 MA's), (76, 31458), (79, 31482), (86, 31512), (90, 31527), (109, 31617), (115, 31653), (132, 31752), (134, 31761), (148, 31830), (169, 31953), (195, 32088), (200, 32115), (206, 32136), (221, 32214), (229, 32247), (232, 32256), (245, 32298), (255, 32364), (261, 32388), (267, 32406), (270, 32424), (281, 32478), (284, 32508), (295, 32565), (296, 32568), (302, 32616), (306, 32655), (311, 32670), (325, 32739), (329, 32757), (331, 32766),

Gene: Urla_26 Start: 21745, Stop: 23142, Start Num: 55

Candidate Starts for Urla_26:

(Start: 55 @21745 has 72 MA's), (71, 21805), (90, 21910), (105, 21997), (112, 22030), (122, 22081), (124, 22087), (137, 22168), (139, 22177), (145, 22213), (151, 22231), (152, 22234), (154, 22267), (157, 22288), (179, 22369), (186, 22420), (191, 22447), (198, 22477), (199, 22486), (204, 22507), (206, 22513), (210, 22546), (212, 22561), (214, 22570), (229, 22621), (240, 22651), (255, 22732), (267, 22774), (274, 22807), (282, 22870), (288, 22891), (289, 22897), (292, 22912), (295, 22933), (305, 23020), (320, 23077), (327, 23110),

Gene: Vallejo_29 Start: 22089, Stop: 23489, Start Num: 55

Candidate Starts for Vallejo_29:

(Start: 55 @22089 has 72 MA's), (71, 22152), (90, 22257), (91, 22260), (105, 22344), (112, 22377), (122, 22428), (124, 22434), (137, 22515), (138, 22518), (139, 22524), (145, 22560), (151, 22578), (152, 22581), (154, 22614), (157, 22635), (160, 22653), (168, 22686), (186, 22767), (191, 22794), (198, 22824), (199, 22833), (206, 22860), (210, 22893), (212, 22908), (227, 22962), (234, 22983), (239, 22995), (244, 23007), (286, 23229), (288, 23238), (289, 23244), (295, 23280), (303, 23340), (305, 23367), (327, 23457),

Gene: Vulture_26 Start: 21745, Stop: 23139, Start Num: 55

Candidate Starts for Vulture_26:

(Start: 55 @21745 has 72 MA's), (71, 21802), (85, 21889), (90, 21907), (91, 21910), (105, 21994), (112, 22027), (122, 22078), (124, 22084), (132, 22144), (139, 22174), (145, 22210), (151, 22228), (154, 22264), (157, 22285), (160, 22303), (161, 22309), (168, 22336), (186, 22417), (191, 22444), (197, 22468), (199, 22483), (206, 22510), (210, 22543), (212, 22558), (254, 22726), (261, 22753), (264, 22765), (269, 22783), (284, 22873), (286, 22879), (289, 22894), (290, 22897), (295, 22930), (303, 22990), (305, 23017), (320, 23074), (327, 23107), (331, 23131),

Gene: Waltz_91 Start: 53322, Stop: 54977, Start Num: 28

Candidate Starts for Waltz_91:

(Start: 28 @53322 has 8 MA's), (39, 53385), (42, 53394), (66, 53478), (94, 53646), (112, 53739), (120, 53775), (126, 53829), (133, 53880), (140, 53916), (144, 53943), (152, 53970), (154, 54003), (155, 54012), (182, 54129), (193, 54207), (198, 54225), (208, 54276), (212, 54309), (222, 54342), (237,

54390), (246, 54426), (251, 54468), (272, 54579), (275, 54597), (281, 54624), (283, 54651), (298, 54726), (301, 54753), (311, 54819), (313, 54834), (315, 54843), (316, 54846), (322, 54873), (323, 54879), (335, 54930), (339, 54951), (340, 54966),

Gene: Wawa_29 Start: 22126, Stop: 23526, Start Num: 55

Candidate Starts for Wawa_29:

(Start: 55 @22126 has 72 MA's), (71, 22189), (90, 22294), (91, 22297), (105, 22381), (112, 22414), (122, 22465), (124, 22471), (137, 22552), (138, 22555), (139, 22561), (145, 22597), (151, 22615), (152, 22618), (154, 22651), (157, 22672), (160, 22690), (168, 22723), (186, 22804), (191, 22831), (198, 22861), (199, 22870), (206, 22897), (210, 22930), (212, 22945), (227, 22999), (234, 23020), (239, 23032), (244, 23044), (267, 23158), (286, 23266), (288, 23275), (289, 23281), (295, 23317), (303, 23377), (305, 23404), (327, 23494),

Gene: Wayne_29 Start: 22211, Stop: 23605, Start Num: 55

Candidate Starts for Wayne_29:

(Start: 55 @22211 has 72 MA's), (71, 22268), (90, 22373), (105, 22460), (122, 22544), (123, 22547), (124, 22550), (139, 22640), (145, 22676), (147, 22685), (151, 22694), (157, 22751), (160, 22769), (168, 22802), (173, 22814), (186, 22883), (191, 22910), (197, 22934), (206, 22976), (210, 23009), (212, 23024), (214, 23033), (244, 23123), (254, 23192), (261, 23219), (267, 23237), (269, 23249), (284, 23339), (286, 23345), (288, 23354), (289, 23360), (295, 23396), (305, 23483), (318, 23534), (327, 23573), (331, 23597),

Gene: Wheelbite_90 Start: 54992, Stop: 56656, Start Num: 28

Candidate Starts for Wheelbite_90:

(Start: 28 @54992 has 8 MA's), (39, 55055), (42, 55064), (67, 55151), (73, 55196), (94, 55316), (112, 55409), (117, 55433), (120, 55445), (126, 55499), (133, 55550), (140, 55586), (144, 55613), (150, 55634), (152, 55640), (155, 55682), (182, 55799), (193, 55877), (198, 55895), (208, 55946), (212, 55979), (222, 56012), (239, 56069), (246, 56096), (251, 56138), (267, 56219), (272, 56249), (275, 56267), (281, 56294), (283, 56321), (298, 56396), (301, 56423), (302, 56435), (313, 56504), (314, 56510), (315, 56513), (316, 56516), (322, 56543), (323, 56549), (332, 56585), (335, 56600), (337, 56615), (340, 56636),

Gene: WonderBoy_25 Start: 20548, Stop: 21942, Start Num: 55

Candidate Starts for WonderBoy_25:

(Start: 55 @20548 has 72 MA's), (71, 20605), (90, 20710), (105, 20797), (112, 20830), (122, 20881), (124, 20887), (137, 20968), (138, 20971), (139, 20977), (145, 21013), (151, 21031), (152, 21034), (154, 21067), (157, 21088), (186, 21220), (191, 21247), (199, 21286), (204, 21307), (206, 21313), (210, 21346), (212, 21361), (214, 21370), (227, 21415), (240, 21451), (249, 21493), (261, 21556), (267, 21574), (284, 21676), (285, 21679), (289, 21697), (290, 21700), (294, 21724), (295, 21733), (305, 21820), (327, 21910), (331, 21934),

Gene: Zanella_33 Start: 23260, Stop: 24687, Start Num: 60

Candidate Starts for Zanella_33:

(48, 23218), (Start: 60 @23260 has 13 MA's), (119, 23578), (142, 23725), (145, 23746), (195, 24013), (206, 24061), (209, 24082), (221, 24139), (229, 24172), (242, 24208), (256, 24286), (261, 24307), (280, 24388), (281, 24391), (295, 24478), (298, 24490), (302, 24529), (305, 24565), (307, 24571), (308, 24574), (311, 24583), (324, 24646),

Gene: Zorro_29 Start: 22105, Stop: 23505, Start Num: 55

Candidate Starts for Zorro_29:

(Start: 55 @22105 has 72 MA's), (71, 22168), (90, 22273), (91, 22276), (105, 22360), (112, 22393), (122, 22444), (124, 22450), (137, 22531), (138, 22534), (139, 22540), (145, 22576), (151, 22594), (152, 22597), (154, 22630), (157, 22651), (168, 22702), (186, 22783), (191, 22810), (198, 22840),

(199, 22849), (206, 22876), (210, 22909), (212, 22924), (227, 22978), (234, 22999), (239, 23011),
(244, 23023), (286, 23245), (288, 23254), (289, 23260), (295, 23296), (303, 23356), (305, 23383),
(327, 23473),