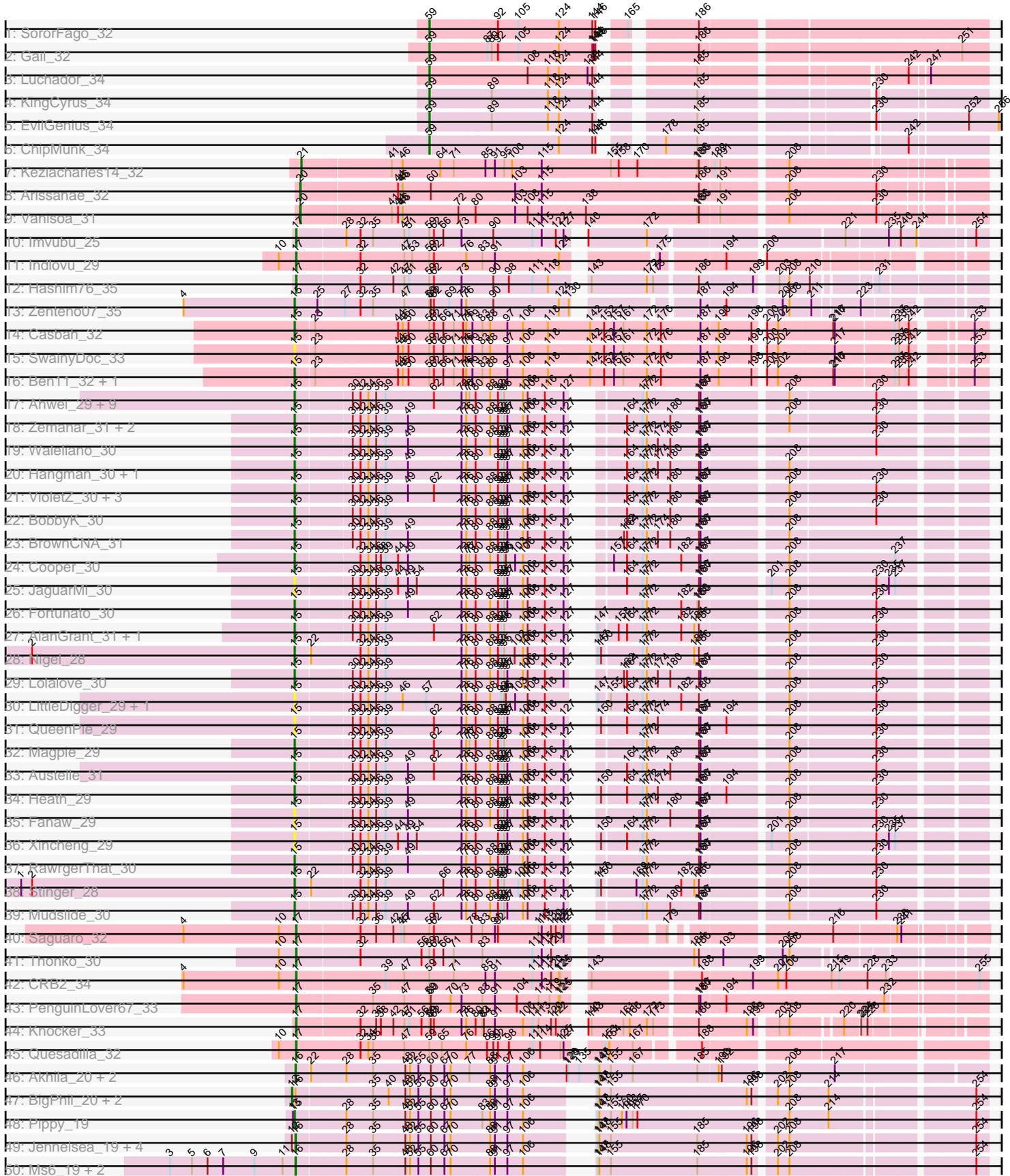# Pham 283571

Pham 283571

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 283571 Report

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

Pham number 283571 has 147 members, 31 are drafts.

Phages represented in each track:
• Track 1 : SororFago_32
• Track 2 : Gail_32
• Track 3 : Luchador_34
• Track 4 : KingCyrus_34
• Track 5 : EvilGenius_34
• Track 6 : ChipMunk_34
• Track 7 : Keziacharles14_32
• Track 8 : Arissanae_32
• Track 9 : Vanisoa_31
• Track 10 : Imvubu_25
• Track 11 : Indlovu_29
• Track 12 : Hashim76_35
• Track 13 : Zenteno07_35
• Track 14 : Casbah_32
• Track 15 : SwainyDoc_33
• Track 16 : Ben11_32, Kronus_32
• Track 17 : Ahwei_29, Poster_29, JAMaL_30, Hally898_29, Antihero_29, Lambano_29, GinPorsche_29, Epah_29, Nanao_29, ChrisnMich_29
• Track 18 : Zemanar_31, Hydro_30, Mithril_30
• Track 19 : Waleliano_30
• Track 20 : Hangman_30, JoyceMaria_30
• Track 21 : VioletZ_30, Prince_30, Apex_30, Frederick_30
• Track 22 : BobbyK_30
• Track 23 : BrownCNA_31
• Track 24 : Cooper_30
• Track 25 : JaguarMi_30
• Track 26 : Fortunato_30
• Track 27 : AlanGrant_31, Vincenzo_31
• Track 28 : Nigel_28
• Track 29 : Lolalove_30
• Track 30 : LittleDigger_29, Renkei_29
• Track 31 : QueenPie_29
• Track 32 : Magpie_29
• Track 33 : Austelle_31
• Track 34 : Heath_29
• Track 35 : Fanaw_29
• Track 36 : Xincheng_29

- Track 37 : RawrgerThat_30
- Track 38 : Stinger_28
- Track 39 : Mudslide_30
- Track 40 : Saguaro_32
- Track 41 : Thonko_30
- Track 42 : CRB2_34
- Track 43 : PenguinLover67_33
- Track 44 : Knocker_33
- Track 45 : Quesadilla_32
- Track 46 : Akhila_20, MilanaBonita_20, Xula_21
- Track 47 : BigPhil_20, Cerasum_20, Velveteen_20
- Track 48 : Pippy_19
- Track 49 : Jennelsea_19, LastJedi_19, Crumble_19, Clifton_19, Koella_19
- Track 50 : Ms6_19, SpongeBob_21, Jamie19_21
- Track 51 : Brocalys_20
- Track 52 : Sarma624_20
- Track 53 : Squirty_20, Fulbright_21
- Track 54 : QueenHazel_22
- Track 55 : Stuck_25
- Track 56 : Poochiewood_21, AvadaKedavra_21, OhShagHennessy_21, Tyson_21, Halena_21, Wamburgrxpress_21, Wyatt2_21, MAckerman_21, Enceladus_21, Acquire49_21, DirkDirk_21, Rose5_21, Silverleaf_21
- Track 57 : Calm_21, Zaria_21
- Track 58 : CicholasNage_21, Appletree2_21, JoeDirt_21, UPIE_21, LeBron_21
- Track 59 : MiniLon_22, Lolly9_22
- Track 60 : TriFive_22, Lumos_22, Nicholas_22, Red305_22, Snenia_22, Kingsolomon_22, Jubie_22, Clautastrophe_22, MsGreen_22, Jobypre_22
- Track 61 : Samty_22, Bellis_22, Finnry_22, Moostard_22
- Track 62 : MiniMac_22
- Track 63 : DuncansLeg_22
- Track 64 : LiyuLake_22
- Track 65 : Whirlwind_23
- Track 66 : KirDoubleO7_20
- Track 67 : Krypton555_22
- Track 68 : Ellson_22
- Track 69 : BourbonZero_21
- Track 70 : PYPDinur_21
- Track 71 : ChutneyChips_21
- Track 72 : Douzhi_21, Sheng711_21, BrainDrainer_22
- Track 73 : RoseMarie_32
- Track 74 : Nanosmite_35
- Track 75 : Nenae_21, Hanako_21, PhancyPhin_21, Redi_21, Spinach_21, BabeRuth_21, ShrimpFriedEgg_21, Purgamenstris_21
- Track 76 : Snekmaggedon_21
- Track 77 : Phloss_21
- Track 78 : GreaseLightnin_22
- Track 79 : P3MA_24

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

The start number called the most often in the published annotations is 21, it was called in 35 of the 116 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acquire49_21, AvadaKedavra_21, Bellis_22, BourbonZero_21, Calm_21, Clautastrophe_22, DirkDirk_21, DuncansLeg_22, Ellson_22, Enceladus_21, Finnry_22, Halena_21, Jobypre_22, Jubie_22, Keziacharles14_32, Kingsolomon_22, KirDoubleO7_20, Krypton555_22, LiyuLake_22, Lolly9_22, Lumos_22, MAckerman_21, MiniLon_22, MiniMac_22, Moostard_22, MsGreen_22, Nanosmite_35, Nicholas_22, OhShagHennessy_21, Poochiewood_21, Red305_22, Rose5_21, RoseMarie_32, Samty_22, Silverleaf_21, Snenia_22, TriFive_22, Tyson_21, Wamburgrxpress_21, Whirlwind_23, Wyatt2_21, Zaria_21,

Genes that have the "Most Annotated" start but do not call it:
• Appletree2_21, ChutneyChips_21, CicholasNage_21, JoeDirt_21, LeBron_21, UPIE_21,

Genes that do not have the "Most Annotated" start:
• Ahwei_29, Akhila_20, AlanGrant_31, Antihero_29, Apex_30, Arissanae_32, Austelle_31, BabeRuth_21, Ben11_32, BigPhil_20, BobbyK_30, BrainDrainer_22, Brocalys_20, BrownCNA_31, CRB2_34, Casbah_32, Cerasum_20, ChipMunk_34, ChrisnMich_29, Clifton_19, Cooper_30, Crumble_19, Douzhi_21, Epah_29, EvilGenius_34, Fanaw_29, Fortunato_30, Frederick_30, Fulbright_21, Gail_32, GinPorsche_29, GreaseLightnin_22, Hally898_29, Hanako_21, Hangman_30, Hashim76_35, Heath_29, Hydro_30, Imvubu_25, Indlovu_29, JAMaL_30, JaguarMi_30, Jamie19_21, Jennelsea_19, JoyceMaria_30, KingCyrus_34, Knocker_33, Koella_19, Kronus_32, Lambano_29, LastJedi_19, LittleDigger_29, Lolalove_30, Luchador_34, Magpie_29, MilanaBonita_20, Mithril_30, Ms6_19, Mudslide_30, Nanao_29, Nenae_21, Nigel_28, P3MA_24, PYPDinur_21, PenguinLover67_33, PhancyPhin_21, Phloss_21, Pippy_19, Poster_29, Prince_30, Purgamenstris_21, QueenHazel_22, QueenPie_29, Quesadilla_32, RawrgerThat_30, Redi_21, Renkei_29, Saguaro_32, Sarma624_20, Sheng711_21, ShrimpFriedEgg_21, Snekmaggedon_21, SororFago_32, Spinach_21, SpongeBob_21, Squirty_20, Stinger_28, Stuck_25, SwainyDoc_33, Thonko_30, Vanisoa_31, Velveteen_20, Vincenzo_31, VioletZ_30, Waleliano_30, Xincheng_29, Xula_21, Zemanar_31, Zenteno07_35,

Summary by start number:

Start 12:
• Found in 9 of 147 (6.1%) of genes in pham
• Manual Annotations of this start: 3 of 116
• Called 33.3% of time when present
• Phage (with cluster) where this start called: BigPhil_20 (F1), Cerasum_20 (F1), Velveteen_20 (F1),

Start 14:
• Found in 4 of 147 (2.7%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BrainDrainer_22 (L4), Douzhi_21 (L4), PYPDinur_21 (L4), Sheng711_21 (L4),

Start 15:
• Found in 47 of 147 (32.0%) of genes in pham
• Manual Annotations of this start: 31 of 116
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ahwei_29 (B4), AlanGrant_31 (B4), Antihero_29 (B4), Apex_30 (B4), Austelle_31 (B4), Ben11_32 (B3), BobbyK_30 (B4), Brocalys_20 (F1), BrownCNA_31 (B4), Casbah_32 (B3), ChrisnMich_29 (B4), Cooper_30 (B4), Epah_29 (B4), Fanaw_29 (B4), Fortunato_30 (B4), Frederick_30 (B4), GinPorsche_29 (B4), Hally898_29 (B4), Hangman_30 (B4), Heath_29 (B4), Hydro_30 (B4), JAMaL_30 (B4), JaguarMi_30 (B4), JoyceMaria_30 (B4), Kronus_32 (B3), Lambano_29 (B4), LittleDigger_29 (B4), Lolalove_30 (B4), Magpie_29 (B4), Mithril_30 (B4), Mudslide_30 (B4), Nanao_29 (B4), Nigel_28 (B4), Pippy_19 (F1), Poster_29 (B4), Prince_30 (B4), QueenPie_29 (B4), RawrgerThat_30 (B4), Renkei_29 (B4), Stinger_28 (B4), SwainyDoc_33 (B3), Vincenzo_31 (B4), VioletZ_30 (B4), Waleliano_30 (B4), Xincheng_29 (B4), Zemanar_31 (B4), Zenteno07_35 (B13),

Start 16:
• Found in 30 of 147 (20.4%) of genes in pham
• Manual Annotations of this start: 23 of 116
• Called 86.7% of time when present
• Phage (with cluster) where this start called: Akhila_20 (F1), BabeRuth_21 (N), Clifton_19 (F1), Crumble_19 (F1), Fulbright_21 (N), GreaseLightnin_22 (P1), Hanako_21 (N), Jamie19_21 (N), Jennelsea_19 (F1), Koella_19 (F1), LastJedi_19 (F1), MilanaBonita_20 (F1), Ms6_19 (F1), Nenae_21 (N), PhancyPhin_21 (N), Phloss_21 (N), Purgamenstris_21 (N), QueenHazel_22 (I1), Redi_21 (N), Sarma624_20 (F1), ShrimpFriedEgg_21 (N), Spinach_21 (N), SpongeBob_21 (N), Squirty_20 (F3), Stuck_25 (I2), Xula_21 (I1),

Start 17:
• Found in 10 of 147 (6.8%) of genes in pham
• Manual Annotations of this start: 10 of 116
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CRB2_34 (B9), Hashim76_35 (B13), Imvubu_25 (B10), Indlovu_29 (B11), Knocker_33 (B9), P3MA_24 (singleton), PenguinLover67_33 (B9), Quesadilla_32 (B9), Saguaro_32 (B7), Thonko_30 (B8),

Start 19:
• Found in 20 of 147 (13.6%) of genes in pham
• Manual Annotations of this start: 5 of 116
• Called 25.0% of time when present
• Phage (with cluster) where this start called: Appletree2_21 (L1), CicholasNage_21 (L1), JoeDirt_21 (L1), LeBron_21 (L1), UPIE_21 (L1),

Start 20:
• Found in 2 of 147 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 116
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Arissanae_32 (A9), Vanisoa_31 (A9),

Start 21:
• Found in 48 of 147 (32.7%) of genes in pham
• Manual Annotations of this start: 35 of 116
• Called 87.5% of time when present

• Phage (with cluster) where this start called: Acquire49_21 (L1), AvadaKedavra_21 (L1), Bellis_22 (L3), BourbonZero_21 (L3), Calm_21 (L1), Clautastrophe_22 (L3), DirkDirk_21 (L1), DuncansLeg_22 (L3), Ellson_22 (L3), Enceladus_21 (L1), Finnry_22 (L3), Halena_21 (L1), Jobypre_22 (L3), Jubie_22 (L3), Keziacharles14_32 (A9), Kingsolomon_22 (L3), KirDoubleO7_20 (L3), Krypton555_22 (L3), LiyuLake_22 (L3), Lolly9_22 (L3), Lumos_22 (L3), MAckerman_21 (L1), MiniLon_22 (L3), MiniMac_22 (L3), Moostard_22 (L3), MsGreen_22 (L3), Nanosmite_35 (M3), Nicholas_22 (L3), OhShagHennessy_21 (L1), Poochiewood_21 (L1), Red305_22 (L3), Rose5_21 (L1), RoseMarie_32 (M1), Samty_22 (L3), Silverleaf_21 (L1), Snenia_22 (L3), TriFive_22 (L3), Tyson_21 (L1), Wamburgrxpress_21 (L1), Whirlwind_23 (L3), Wyatt2_21 (L1), Zaria_21 (L1),

Start 29:
• Found in 1 of 147 (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: ChutneyChips_21 (L4),

Start 35:
• Found in 56 of 147 (38.1%) of genes in pham
• Manual Annotations of this start: 1 of 116
• Called 1.8% of time when present
• Phage (with cluster) where this start called: Snekmaggedon_21 (N),

Start 59:
• Found in 44 of 147 (29.9%) of genes in pham
• Manual Annotations of this start: 6 of 116
• Called 13.6% of time when present
• Phage (with cluster) where this start called: ChipMunk_34 (A2), EvilGenius_34 (A2), Gail_32 (A14), KingCyrus_34 (A2), Luchador_34 (A14), SororFago_32 (A14),

Summary by clusters:

There are 23 clusters represented in this pham: singleton, M3, M1, B13, B10, B11, A14, I1, I2, A2, A9, P1, N, L4, L3, L1, F1, F3, B4, B7, B3, B8, B9,

Info for manual annotations of cluster A14:
•Start number 59 was manually annotated 3 times for cluster A14.

Info for manual annotations of cluster A2:
•Start number 59 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A9:
•Start number 20 was manually annotated 2 times for cluster A9.
•Start number 21 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster B10:
•Start number 17 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:
•Start number 17 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B13:

•Start number 15 was manually annotated 1 time for cluster B13.
•Start number 17 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B3:
•Start number 15 was manually annotated 3 times for cluster B3.

Info for manual annotations of cluster B4:
•Start number 15 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B7:
•Start number 17 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:
•Start number 17 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:
•Start number 17 was manually annotated 4 times for cluster B9.

Info for manual annotations of cluster F1:
•Start number 12 was manually annotated 3 times for cluster F1.
•Start number 15 was manually annotated 2 times for cluster F1.
•Start number 16 was manually annotated 7 times for cluster F1.

Info for manual annotations of cluster F3:
•Start number 16 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster I1:
•Start number 16 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster L1:
•Start number 19 was manually annotated 5 times for cluster L1.
•Start number 21 was manually annotated 14 times for cluster L1.

Info for manual annotations of cluster L3:
•Start number 21 was manually annotated 19 times for cluster L3.

Info for manual annotations of cluster M3:
•Start number 21 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster N:
•Start number 16 was manually annotated 12 times for cluster N.
•Start number 35 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:
•Start number 16 was manually annotated 1 time for cluster P1.

Gene Information:

Gene: Acquire49_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Acquire49_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: Ahwei_29 Start: 31578, Stop: 32735, Start Num: 15
Candidate Starts for Ahwei_29:
(Start: 15 @31578 has 31 MA's), (30, 31671), (32, 31686), (34, 31701), (36, 31713), (39, 31731), (62, 31821), (73, 31872), (76, 31881), (77, 31887), (80, 31899), (88, 31926), (92, 31941), (93, 31947), (95, 31953), (106, 31986), (108, 31995), (116, 32028), (127, 32061), (171, 32151), (172, 32157), (186, 32256), (187, 32259), (208, 32403), (230, 32556),

Gene: Akhila_20 Start: 20281, Stop: 21492, Start Num: 16
Candidate Starts for Akhila_20:
(Start: 16 @20281 has 23 MA's), (22, 20305), (28, 20362), (Start: 35 @20410 has 1 MA's), (48, 20470), (52, 20479), (55, 20494), (60, 20518), (67, 20542), (70, 20554), (77, 20590), (88, 20629), (91, 20638), (97, 20662), (106, 20692), (128, 20776), (129, 20779), (135, 20800), (147, 20836), (148, 20839), (155, 20860), (167, 20902), (185, 21019), (190, 21055), (192, 21061), (208, 21166), (217, 21247),

Gene: AlanGrant_31 Start: 33326, Stop: 34483, Start Num: 15
Candidate Starts for AlanGrant_31:
(Start: 15 @33326 has 31 MA's), (30, 33419), (32, 33434), (34, 33449), (36, 33461), (39, 33479), (62, 33569), (73, 33620), (76, 33629), (80, 33647), (88, 33674), (92, 33689), (93, 33695), (95, 33701), (106, 33734), (108, 33743), (116, 33776), (127, 33809), (147, 33821), (158, 33854), (164, 33869), (171, 33899), (172, 33905), (182, 33971), (184, 33995), (186, 34004), (208, 34151), (230, 34304),

Gene: Antihero_29 Start: 31578, Stop: 32735, Start Num: 15
Candidate Starts for Antihero_29:
(Start: 15 @31578 has 31 MA's), (30, 31671), (32, 31686), (34, 31701), (36, 31713), (39, 31731), (62, 31821), (73, 31872), (76, 31881), (77, 31887), (80, 31899), (88, 31926), (92, 31941), (93, 31947), (95, 31953), (106, 31986), (108, 31995), (116, 32028), (127, 32061), (171, 32151), (172, 32157), (186, 32256), (187, 32259), (208, 32403), (230, 32556),

Gene: Apex_30 Start: 32785, Stop: 33942, Start Num: 15
Candidate Starts for Apex_30:
(Start: 15 @32785 has 31 MA's), (30, 32878), (32, 32893), (34, 32908), (36, 32920), (39, 32938), (49, 32980), (62, 33028), (73, 33079), (76, 33088), (80, 33106), (88, 33133), (92, 33148), (93, 33154), (95, 33160), (97, 33166), (106, 33193), (108, 33202), (116, 33235), (127, 33268), (164, 33328), (171, 33358), (172, 33364), (180, 33409), (186, 33463), (187, 33466), (208, 33610), (230, 33763),

Gene: Appletree2_21 Start: 21628, Stop: 22803, Start Num: 19
Candidate Starts for Appletree2_21:
(Start: 19 @21628 has 5 MA's), (Start: 21 @21631 has 35 MA's), (Start: 35 @21757 has 1 MA's), (43, 21799), (45, 21811), (46, 21814), (56, 21847), (58, 21859), (71, 21907), (74, 21925), (83, 21961), (88, 21976), (105, 22027), (112, 22057), (123, 22099), (131, 22123), (141, 22159), (144, 22165), (160, 22192), (172, 22210), (187, 22303), (188, 22306), (197, 22390), (218, 22528), (222, 22546), (237, 22630),

Gene: Arissanae_32 Start: 24817, Stop: 26022, Start Num: 20
Candidate Starts for Arissanae_32:

(Start: 20 @24817 has 2 MA's), (44, 24994), (45, 25000), (46, 25003), (60, 25054), (103, 25210), (115, 25258), (186, 25552), (191, 25585), (208, 25696), (230, 25852),

Gene: Austelle_31 Start: 33241, Stop: 34398, Start Num: 15
Candidate Starts for Austelle_31:
(Start: 15 @33241 has 31 MA's), (30, 33334), (32, 33349), (34, 33364), (36, 33376), (39, 33394), (49, 33436), (62, 33484), (73, 33535), (76, 33544), (80, 33562), (88, 33589), (92, 33604), (93, 33610), (95, 33616), (97, 33622), (106, 33649), (108, 33658), (116, 33691), (127, 33724), (164, 33784), (171, 33814), (172, 33820), (180, 33865), (186, 33919), (187, 33922), (208, 34066), (230, 34219),

Gene: AvadaKedavra_21 Start: 21698, Stop: 22870, Start Num: 21
Candidate Starts for AvadaKedavra_21:
(Start: 19 @21695 has 5 MA's), (Start: 21 @21698 has 35 MA's), (Start: 35 @21824 has 1 MA's), (43, 21866), (45, 21878), (46, 21881), (56, 21914), (58, 21926), (71, 21974), (74, 21992), (83, 22028), (88, 22043), (105, 22094), (112, 22124), (123, 22166), (131, 22190), (141, 22226), (144, 22232), (160, 22259), (172, 22277), (187, 22370), (188, 22373), (197, 22457), (218, 22595), (222, 22613), (237, 22697),

Gene: BabeRuth_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for BabeRuth_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Bellis_22 Start: 22249, Stop: 23466, Start Num: 21
Candidate Starts for Bellis_22:
(Start: 21 @22249 has 35 MA's), (31, 22351), (33, 22363), (36, 22381), (38, 22390), (45, 22429), (56, 22465), (Start: 59 @22480 has 6 MA's), (61, 22486), (69, 22516), (70, 22519), (77, 22555), (80, 22567), (95, 22618), (96, 22621), (113, 22681), (121, 22708), (125, 22723), (127, 22729), (132, 22741), (151, 22801), (157, 22825), (172, 22885), (186, 22981), (191, 23014), (200, 23086), (204, 23110), (208, 23125), (243, 23338), (245, 23350),

Gene: Ben11_32 Start: 32041, Stop: 33243, Start Num: 15
Candidate Starts for Ben11_32:
(Start: 15 @32041 has 31 MA's), (23, 32074), (44, 32218), (46, 32227), (50, 32236), (Start: 59 @32275 has 6 MA's), (62, 32284), (66, 32302), (71, 32320), (74, 32338), (76, 32344), (79, 32356), (83, 32374), (88, 32389), (97, 32422), (106, 32449), (118, 32494), (142, 32575), (152, 32602), (157, 32620), (161, 32638), (172, 32680), (176, 32704), (187, 32779), (190, 32809), (198, 32869), (200, 32881), (202, 32899), (216, 32998), (217, 33001), (237, 33106), (239, 33112), (242, 33130), (253, 33217),

Gene: BigPhil_20 Start: 20087, Stop: 21244, Start Num: 12
Candidate Starts for BigPhil_20:
(Start: 12 @20087 has 3 MA's), (Start: 16 @20090 has 23 MA's), (Start: 35 @20219 has 1 MA's), (40, 20249), (48, 20279), (52, 20288), (55, 20303), (60, 20327), (67, 20351), (70, 20363), (88, 20438), (91, 20447), (97, 20471), (106, 20501), (147, 20585), (148, 20588), (155, 20609), (196, 20858), (198, 20867), (202, 20897), (208, 20918), (214, 20987), (254, 21221),

Gene: BobbyK_30 Start: 32610, Stop: 33767, Start Num: 15
Candidate Starts for BobbyK_30:
(Start: 15 @32610 has 31 MA's), (30, 32703), (32, 32718), (34, 32733), (36, 32745), (39, 32763), (73, 32904), (76, 32913), (80, 32931), (88, 32958), (92, 32973), (93, 32979), (95, 32985), (97, 32991), (106,

33018), (108, 33027), (116, 33060), (127, 33093), (164, 33153), (171, 33183), (172, 33189), (180, 33234), (186, 33288), (187, 33291), (208, 33435), (230, 33588),

Gene: BourbonZero_21 Start: 22227, Stop: 23426, Start Num: 21
Candidate Starts for BourbonZero_21:
(Start: 21 @22227 has 35 MA's), (31, 22329), (36, 22359), (38, 22368), (45, 22407), (51, 22419), (Start: 59 @22458 has 6 MA's), (69, 22494), (71, 22503), (79, 22539), (92, 22587), (132, 22719), (133, 22725), (167, 22839), (172, 22863), (185, 22956), (191, 22992), (197, 23046), (200, 23064), (230, 23256), (249, 23364),

Gene: BrainDrainer_22 Start: 21566, Stop: 22720, Start Num: 14
Candidate Starts for BrainDrainer_22:
(14, 21566), (31, 21668), (33, 21680), (46, 21749), (71, 21842), (83, 21896), (92, 21926), (94, 21935), (107, 21974), (119, 22022), (126, 22046), (147, 22058), (157, 22082), (177, 22172), (195, 22289), (196, 22325), (198, 22334), (209, 22391), (212, 22430),

Gene: Brocalys_20 Start: 19901, Stop: 21058, Start Num: 15
Candidate Starts for Brocalys_20:
(Start: 15 @19901 has 31 MA's), (32, 20009), (Start: 35 @20030 has 1 MA's), (48, 20090), (55, 20114), (56, 20120), (60, 20138), (63, 20150), (67, 20162), (70, 20174), (83, 20234), (88, 20249), (91, 20258), (97, 20282), (106, 20312), (147, 20396), (148, 20399), (155, 20420), (160, 20441), (163, 20450), (167, 20462), (170, 20471), (208, 20732), (214, 20801), (254, 21035),

Gene: BrownCNA_31 Start: 32871, Stop: 34028, Start Num: 15
Candidate Starts for BrownCNA_31:
(Start: 15 @32871 has 31 MA's), (30, 32964), (32, 32979), (34, 32994), (36, 33006), (39, 33024), (49, 33066), (73, 33165), (76, 33174), (80, 33192), (88, 33219), (92, 33234), (93, 33240), (95, 33246), (97, 33252), (106, 33279), (108, 33288), (116, 33321), (127, 33354), (162, 33408), (164, 33414), (171, 33444), (172, 33450), (174, 33471), (180, 33495), (186, 33549), (187, 33552), (208, 33696),

Gene: CRB2_34 Start: 34225, Stop: 35433, Start Num: 17
Candidate Starts for CRB2_34:
(4, 34009), (10, 34192), (Start: 17 @34225 has 10 MA's), (39, 34387), (47, 34423), (Start: 59 @34471 has 6 MA's), (71, 34516), (85, 34576), (91, 34594), (111, 34660), (115, 34678), (120, 34696), (124, 34711), (125, 34714), (143, 34738), (188, 34933), (199, 35023), (202, 35068), (206, 35083), (215, 35170), (219, 35185), (228, 35236), (233, 35269), (255, 35416),

Gene: Calm_21 Start: 21702, Stop: 22874, Start Num: 21
Candidate Starts for Calm_21:
(Start: 19 @21699 has 5 MA's), (Start: 21 @21702 has 35 MA's), (Start: 35 @21828 has 1 MA's), (43, 21870), (45, 21882), (46, 21885), (56, 21918), (58, 21930), (61, 21939), (71, 21978), (74, 21996), (83, 22032), (88, 22047), (105, 22098), (112, 22128), (123, 22170), (131, 22194), (141, 22230), (144, 22236), (160, 22263), (172, 22281), (187, 22374), (188, 22377), (197, 22461), (218, 22599), (222, 22617), (237, 22701),

Gene: Casbah_32 Start: 32071, Stop: 33273, Start Num: 15
Candidate Starts for Casbah_32:
(Start: 15 @32071 has 31 MA's), (23, 32104), (44, 32248), (46, 32257), (50, 32266), (Start: 59 @32305 has 6 MA's), (62, 32314), (66, 32332), (71, 32350), (74, 32368), (76, 32374), (79, 32386), (83, 32404), (88, 32419), (97, 32452), (106, 32479), (118, 32524), (142, 32605), (152, 32632), (157, 32650), (161, 32668), (172, 32710), (176, 32734), (187, 32809), (190, 32839), (198, 32899), (200, 32911), (202, 32929), (216, 33028), (217, 33031), (237, 33136), (239, 33142), (242, 33160), (253, 33247),

Gene: Cerasum_20 Start: 20087, Stop: 21244, Start Num: 12
Candidate Starts for Cerasum_20:
(Start: 12 @20087 has 3 MA's), (Start: 16 @20090 has 23 MA's), (Start: 35 @20219 has 1 MA's), (40, 20249), (48, 20279), (52, 20288), (55, 20303), (60, 20327), (67, 20351), (70, 20363), (88, 20438), (91, 20447), (97, 20471), (106, 20501), (147, 20585), (148, 20588), (155, 20609), (196, 20858), (198, 20867), (202, 20897), (208, 20918), (214, 20987), (254, 21221),

Gene: ChipMunk_34 Start: 25662, Stop: 26558, Start Num: 59
Candidate Starts for ChipMunk_34:
(Start: 59 @25662 has 6 MA's), (124, 25893), (144, 25956), (146, 25962), (178, 26034), (185, 26088), (242, 26424),

Gene: ChrisnMich_29 Start: 31570, Stop: 32727, Start Num: 15
Candidate Starts for ChrisnMich_29:
(Start: 15 @31570 has 31 MA's), (30, 31663), (32, 31678), (34, 31693), (36, 31705), (39, 31723), (62, 31813), (73, 31864), (76, 31873), (77, 31879), (80, 31891), (88, 31918), (92, 31933), (93, 31939), (95, 31945), (106, 31978), (108, 31987), (116, 32020), (127, 32053), (171, 32143), (172, 32149), (186, 32248), (187, 32251), (208, 32395), (230, 32548),

Gene: ChutneyChips_21 Start: 21798, Stop: 22802, Start Num: 29
Candidate Starts for ChutneyChips_21:
(Start: 21 @21717 has 35 MA's), (29, 21798), (68, 21945), (75, 21969), (81, 21996), (85, 22008), (89, 22020), (99, 22047), (109, 22080), (134, 22158), (159, 22191), (188, 22311), (195, 22353), (200, 22407), (227, 22587), (234, 22620), (240, 22644), (246, 22689),

Gene: CicholasNage_21 Start: 21687, Stop: 22862, Start Num: 19
Candidate Starts for CicholasNage_21:
(Start: 19 @21687 has 5 MA's), (Start: 21 @21690 has 35 MA's), (Start: 35 @21816 has 1 MA's), (43, 21858), (45, 21870), (46, 21873), (56, 21906), (58, 21918), (71, 21966), (74, 21984), (83, 22020), (88, 22035), (105, 22086), (112, 22116), (123, 22158), (131, 22182), (141, 22218), (144, 22224), (160, 22251), (172, 22269), (187, 22362), (188, 22365), (197, 22449), (218, 22587), (222, 22605), (237, 22689),

Gene: Clautastrophe_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for Clautastrophe_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: Clifton_19 Start: 20217, Stop: 21371, Start Num: 16
Candidate Starts for Clifton_19:
(Start: 12 @20214 has 3 MA's), (Start: 16 @20217 has 23 MA's), (28, 20298), (Start: 35 @20346 has 1 MA's), (48, 20406), (52, 20415), (55, 20430), (60, 20454), (67, 20478), (70, 20490), (88, 20565), (91, 20574), (97, 20598), (106, 20628), (147, 20712), (148, 20715), (155, 20736), (185, 20895), (196, 20985), (198, 20994), (202, 21024), (208, 21045), (254, 21348),

Gene: Cooper_30 Start: 31786, Stop: 32946, Start Num: 15
Candidate Starts for Cooper_30:
(Start: 15 @31786 has 31 MA's), (32, 31894), (34, 31909), (36, 31921), (38, 31930), (39, 31939), (44, 31963), (49, 31981), (73, 32080), (76, 32089), (77, 32095), (80, 32107), (88, 32134), (92, 32149), (93, 32155), (95, 32161), (96, 32164), (103, 32182), (106, 32197), (116, 32239), (127, 32272), (157,

32308), (164, 32332), (171, 32362), (172, 32368), (182, 32434), (186, 32467), (187, 32470), (208, 32614), (237, 32803),

Gene: Crumble_19 Start: 20264, Stop: 21418, Start Num: 16
Candidate Starts for Crumble_19:
(Start: 12 @20261 has 3 MA's), (Start: 16 @20264 has 23 MA's), (28, 20345), (Start: 35 @20393 has 1 MA's), (48, 20453), (52, 20462), (55, 20477), (60, 20501), (67, 20525), (70, 20537), (88, 20612), (91, 20621), (97, 20645), (106, 20675), (147, 20759), (148, 20762), (155, 20783), (185, 20942), (196, 21032), (198, 21041), (202, 21071), (208, 21092), (254, 21395),

Gene: DirkDirk_21 Start: 21671, Stop: 22843, Start Num: 21
Candidate Starts for DirkDirk_21:
(Start: 19 @21668 has 5 MA's), (Start: 21 @21671 has 35 MA's), (Start: 35 @21797 has 1 MA's), (43, 21839), (45, 21851), (46, 21854), (56, 21887), (58, 21899), (71, 21947), (74, 21965), (83, 22001), (88, 22016), (105, 22067), (112, 22097), (123, 22139), (131, 22163), (141, 22199), (144, 22205), (160, 22232), (172, 22250), (187, 22343), (188, 22346), (197, 22430), (218, 22568), (222, 22586), (237, 22670),

Gene: Douzhi_21 Start: 21427, Stop: 22581, Start Num: 14
Candidate Starts for Douzhi_21:
(14, 21427), (31, 21529), (33, 21541), (46, 21610), (71, 21703), (83, 21757), (92, 21787), (94, 21796), (107, 21835), (119, 21883), (126, 21907), (147, 21919), (157, 21943), (177, 22033), (195, 22150), (196, 22186), (198, 22195), (209, 22252), (212, 22291),

Gene: DuncansLeg_22 Start: 22232, Stop: 23449, Start Num: 21
Candidate Starts for DuncansLeg_22:
(Start: 21 @22232 has 35 MA's), (24, 22259), (31, 22334), (33, 22346), (36, 22364), (45, 22412), (56, 22448), (Start: 59 @22463 has 6 MA's), (61, 22469), (69, 22499), (70, 22502), (71, 22508), (80, 22550), (91, 22586), (95, 22601), (96, 22604), (97, 22607), (98, 22610), (127, 22712), (132, 22724), (149, 22781), (151, 22784), (157, 22808), (172, 22868), (191, 22997), (248, 23375), (250, 23381),

Gene: Ellson_22 Start: 22237, Stop: 23436, Start Num: 21
Candidate Starts for Ellson_22:
(Start: 21 @22237 has 35 MA's), (31, 22339), (36, 22369), (38, 22378), (45, 22417), (51, 22429), (Start: 59 @22468 has 6 MA's), (69, 22504), (71, 22513), (79, 22549), (92, 22597), (132, 22729), (133, 22735), (172, 22873), (191, 23002), (197, 23056), (200, 23074), (230, 23266), (249, 23374),

Gene: Enceladus_21 Start: 21672, Stop: 22844, Start Num: 21
Candidate Starts for Enceladus_21:
(Start: 19 @21669 has 5 MA's), (Start: 21 @21672 has 35 MA's), (Start: 35 @21798 has 1 MA's), (43, 21840), (45, 21852), (46, 21855), (56, 21888), (58, 21900), (71, 21948), (74, 21966), (83, 22002), (88, 22017), (105, 22068), (112, 22098), (123, 22140), (131, 22164), (141, 22200), (144, 22206), (160, 22233), (172, 22251), (187, 22344), (188, 22347), (197, 22431), (218, 22569), (222, 22587), (237, 22671),

Gene: Epah_29 Start: 31578, Stop: 32735, Start Num: 15
Candidate Starts for Epah_29:
(Start: 15 @31578 has 31 MA's), (30, 31671), (32, 31686), (34, 31701), (36, 31713), (39, 31731), (62, 31821), (73, 31872), (76, 31881), (77, 31887), (80, 31899), (88, 31926), (92, 31941), (93, 31947), (95, 31953), (106, 31986), (108, 31995), (116, 32028), (127, 32061), (171, 32151), (172, 32157), (186, 32256), (187, 32259), (208, 32403), (230, 32556),

Gene: EvilGenius_34 Start: 25671, Stop: 26591, Start Num: 59

Candidate Starts for EvilGenius_34:
(Start: 59 @25671 has 6 MA's), (89, 25779), (118, 25881), (124, 25902), (144, 25965), (185, 26097), (230, 26379), (252, 26529), (256, 26586),

Gene: Fanaw_29 Start: 32276, Stop: 33433, Start Num: 15
Candidate Starts for Fanaw_29:
(Start: 15 @32276 has 31 MA's), (30, 32369), (32, 32384), (34, 32399), (36, 32411), (39, 32429), (49, 32471), (73, 32570), (76, 32579), (80, 32597), (88, 32624), (92, 32639), (93, 32645), (95, 32651), (97, 32657), (106, 32684), (108, 32693), (116, 32726), (127, 32759), (171, 32849), (172, 32855), (180, 32900), (186, 32954), (187, 32957), (208, 33101), (230, 33254),

Gene: Finnry_22 Start: 22251, Stop: 23468, Start Num: 21
Candidate Starts for Finnry_22:
(Start: 21 @22251 has 35 MA's), (31, 22353), (33, 22365), (36, 22383), (38, 22392), (45, 22431), (56, 22467), (Start: 59 @22482 has 6 MA's), (61, 22488), (69, 22518), (70, 22521), (77, 22557), (80, 22569), (95, 22620), (96, 22623), (113, 22683), (121, 22710), (125, 22725), (127, 22731), (132, 22743), (151, 22803), (157, 22827), (172, 22887), (186, 22983), (191, 23016), (200, 23088), (204, 23112), (208, 23127), (243, 23340), (245, 23352),

Gene: Fortunato_30 Start: 32604, Stop: 33761, Start Num: 15
Candidate Starts for Fortunato_30:
(Start: 15 @32604 has 31 MA's), (30, 32697), (32, 32712), (34, 32727), (36, 32739), (39, 32757), (49, 32799), (73, 32898), (76, 32907), (80, 32925), (88, 32952), (92, 32967), (93, 32973), (95, 32979), (97, 32985), (106, 33012), (108, 33021), (116, 33054), (127, 33087), (171, 33177), (172, 33183), (182, 33249), (185, 33279), (186, 33282), (208, 33429), (230, 33582),

Gene: Frederick_30 Start: 32610, Stop: 33767, Start Num: 15
Candidate Starts for Frederick_30:
(Start: 15 @32610 has 31 MA's), (30, 32703), (32, 32718), (34, 32733), (36, 32745), (39, 32763), (49, 32805), (62, 32853), (73, 32904), (76, 32913), (80, 32931), (88, 32958), (92, 32973), (93, 32979), (95, 32985), (97, 32991), (106, 33018), (108, 33027), (116, 33060), (127, 33093), (164, 33153), (171, 33183), (172, 33189), (180, 33234), (186, 33288), (187, 33291), (208, 33435), (230, 33588),

Gene: Fulbright_21 Start: 20200, Stop: 21357, Start Num: 16
Candidate Starts for Fulbright_21:
(Start: 16 @20200 has 23 MA's), (28, 20281), (32, 20308), (Start: 35 @20329 has 1 MA's), (48, 20389), (55, 20413), (56, 20419), (60, 20437), (63, 20449), (67, 20461), (70, 20473), (77, 20509), (83, 20533), (88, 20548), (91, 20557), (97, 20581), (103, 20596), (106, 20611), (147, 20695), (148, 20698), (155, 20719), (160, 20740), (163, 20749), (167, 20761), (170, 20770), (208, 21031), (214, 21100), (254, 21334),

Gene: Gail_32 Start: 24477, Stop: 25421, Start Num: 59
Candidate Starts for Gail_32:
(Start: 59 @24477 has 6 MA's), (87, 24582), (89, 24588), (92, 24600), (105, 24636), (124, 24711), (144, 24774), (145, 24777), (146, 24780), (186, 24915), (251, 25371),

Gene: GinPorsche_29 Start: 31578, Stop: 32735, Start Num: 15
Candidate Starts for GinPorsche_29:
(Start: 15 @31578 has 31 MA's), (30, 31671), (32, 31686), (34, 31701), (36, 31713), (39, 31731), (62, 31821), (73, 31872), (76, 31881), (77, 31887), (80, 31899), (88, 31926), (92, 31941), (93, 31947), (95, 31953), (106, 31986), (108, 31995), (116, 32028), (127, 32061), (171, 32151), (172, 32157), (186, 32256), (187, 32259), (208, 32403), (230, 32556),

Gene: GreaseLightnin_22 Start: 21355, Stop: 22509, Start Num: 16
Candidate Starts for GreaseLightnin_22:
(3, 21118), (5, 21160), (6, 21190), (7, 21220), (8, 21229), (9, 21280), (11, 21334), (Start: 16 @21355 has 23 MA's), (28, 21436), (Start: 35 @21484 has 1 MA's), (48, 21544), (52, 21553), (55, 21568), (60, 21592), (67, 21616), (70, 21628), (88, 21703), (91, 21712), (97, 21736), (106, 21766), (147, 21850), (148, 21853), (155, 21874), (185, 22033), (196, 22123), (198, 22132), (202, 22162), (208, 22183), (254, 22486),

Gene: Halena_21 Start: 21699, Stop: 22871, Start Num: 21
Candidate Starts for Halena_21:
(Start: 19 @21696 has 5 MA's), (Start: 21 @21699 has 35 MA's), (Start: 35 @21825 has 1 MA's), (43, 21867), (45, 21879), (46, 21882), (56, 21915), (58, 21927), (71, 21975), (74, 21993), (83, 22029), (88, 22044), (105, 22095), (112, 22125), (123, 22167), (131, 22191), (141, 22227), (144, 22233), (160, 22260), (172, 22278), (187, 22371), (188, 22374), (197, 22458), (218, 22596), (222, 22614), (237, 22698),

Gene: Hally898_29 Start: 31590, Stop: 32747, Start Num: 15
Candidate Starts for Hally898_29:
(Start: 15 @31590 has 31 MA's), (30, 31683), (32, 31698), (34, 31713), (36, 31725), (39, 31743), (62, 31833), (73, 31884), (76, 31893), (77, 31899), (80, 31911), (88, 31938), (92, 31953), (93, 31959), (95, 31965), (106, 31998), (108, 32007), (116, 32040), (127, 32073), (171, 32163), (172, 32169), (186, 32268), (187, 32271), (208, 32415), (230, 32568),

Gene: Hanako_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Hanako_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Hangman_30 Start: 32602, Stop: 33759, Start Num: 15
Candidate Starts for Hangman_30:
(Start: 15 @32602 has 31 MA's), (30, 32695), (32, 32710), (34, 32725), (36, 32737), (39, 32755), (49, 32797), (73, 32896), (76, 32905), (80, 32923), (92, 32965), (93, 32971), (95, 32977), (97, 32983), (106, 33010), (108, 33019), (116, 33052), (127, 33085), (164, 33145), (171, 33175), (172, 33181), (174, 33202), (180, 33226), (186, 33280), (187, 33283), (208, 33427),

Gene: Hashim76_35 Start: 31239, Stop: 32393, Start Num: 17
Candidate Starts for Hashim76_35:
(Start: 17 @31239 has 10 MA's), (32, 31356), (42, 31416), (47, 31437), (51, 31446), (Start: 59 @31485 has 6 MA's), (62, 31494), (73, 31545), (90, 31605), (98, 31632), (111, 31674), (118, 31704), (143, 31752), (172, 31854), (173, 31866), (186, 31941), (199, 32037), (203, 32067), (208, 32085), (210, 32121), (231, 32223),

Gene: Heath_29 Start: 32206, Stop: 33363, Start Num: 15
Candidate Starts for Heath_29:
(Start: 15 @32206 has 31 MA's), (30, 32299), (32, 32314), (34, 32329), (36, 32341), (39, 32359), (49, 32401), (73, 32500), (76, 32509), (80, 32527), (88, 32554), (92, 32569), (93, 32575), (95, 32581), (97, 32587), (106, 32614), (108, 32623), (116, 32656), (127, 32689), (150, 32707), (164, 32749), (171, 32779), (172, 32785), (174, 32806), (186, 32884), (187, 32887), (194, 32932), (208, 33031), (230, 33184),

Gene: Hydro_30 Start: 32619, Stop: 33776, Start Num: 15
Candidate Starts for Hydro_30:
(Start: 15 @32619 has 31 MA's), (30, 32712), (32, 32727), (34, 32742), (36, 32754), (39, 32772), (49, 32814), (73, 32913), (76, 32922), (80, 32940), (88, 32967), (92, 32982), (93, 32988), (95, 32994), (97, 33000), (106, 33027), (108, 33036), (116, 33069), (127, 33102), (164, 33162), (171, 33192), (172, 33198), (180, 33243), (186, 33297), (187, 33300), (208, 33444), (230, 33597),

Gene: Imvubu_25 Start: 28919, Stop: 30094, Start Num: 17
Candidate Starts for Imvubu_25:
(Start: 17 @28919 has 10 MA's), (28, 29009), (32, 29036), (Start: 35 @29057 has 1 MA's), (47, 29117), (51, 29126), (Start: 59 @29165 has 6 MA's), (62, 29174), (66, 29192), (73, 29225), (90, 29285), (111, 29354), (115, 29372), (122, 29399), (127, 29414), (140, 29426), (172, 29534), (221, 29858), (235, 29933), (240, 29954), (244, 29984), (254, 30071),

Gene: Indlovu_29 Start: 31250, Stop: 32386, Start Num: 17
Candidate Starts for Indlovu_29:
(10, 31217), (Start: 17 @31250 has 10 MA's), (32, 31367), (47, 31448), (53, 31463), (Start: 59 @31496 has 6 MA's), (62, 31505), (76, 31565), (83, 31595), (91, 31619), (124, 31736), (175, 31877), (194, 31985), (200, 32042),

Gene: JAMaL_30 Start: 32789, Stop: 33946, Start Num: 15
Candidate Starts for JAMaL_30:
(Start: 15 @32789 has 31 MA's), (30, 32882), (32, 32897), (34, 32912), (36, 32924), (39, 32942), (62, 33032), (73, 33083), (76, 33092), (77, 33098), (80, 33110), (88, 33137), (92, 33152), (93, 33158), (95, 33164), (106, 33197), (108, 33206), (116, 33239), (127, 33272), (171, 33362), (172, 33368), (186, 33467), (187, 33470), (208, 33614), (230, 33767),

Gene: JaguarMi_30 Start: 32084, Stop: 33241, Start Num: 15
Candidate Starts for JaguarMi_30:
(Start: 15 @32084 has 31 MA's), (30, 32177), (32, 32192), (34, 32207), (36, 32219), (39, 32237), (44, 32261), (49, 32279), (54, 32294), (73, 32378), (76, 32387), (80, 32405), (92, 32447), (93, 32453), (95, 32459), (97, 32465), (106, 32492), (108, 32501), (116, 32534), (127, 32567), (164, 32627), (171, 32657), (172, 32663), (186, 32762), (187, 32765), (201, 32876), (208, 32909), (230, 33062), (235, 33086), (237, 33098),

Gene: Jamie19_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Jamie19_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Jennelsea_19 Start: 20217, Stop: 21371, Start Num: 16
Candidate Starts for Jennelsea_19:
(Start: 12 @20214 has 3 MA's), (Start: 16 @20217 has 23 MA's), (28, 20298), (Start: 35 @20346 has 1 MA's), (48, 20406), (52, 20415), (55, 20430), (60, 20454), (67, 20478), (70, 20490), (88, 20565), (91, 20574), (97, 20598), (106, 20628), (147, 20712), (148, 20715), (155, 20736), (185, 20895), (196, 20985), (198, 20994), (202, 21024), (208, 21045), (254, 21348),

Gene: Jobypre_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for Jobypre_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80,

22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: JoeDirt_21 Start: 21667, Stop: 22842, Start Num: 19
Candidate Starts for JoeDirt_21:
(Start: 19 @21667 has 5 MA's), (Start: 21 @21670 has 35 MA's), (Start: 35 @21796 has 1 MA's), (43, 21838), (45, 21850), (46, 21853), (56, 21886), (58, 21898), (71, 21946), (74, 21964), (83, 22000), (88, 22015), (105, 22066), (112, 22096), (123, 22138), (131, 22162), (141, 22198), (144, 22204), (160, 22231), (172, 22249), (187, 22342), (188, 22345), (197, 22429), (218, 22567), (222, 22585), (237, 22669),

Gene: JoyceMaria_30 Start: 32605, Stop: 33762, Start Num: 15
Candidate Starts for JoyceMaria_30:
(Start: 15 @32605 has 31 MA's), (30, 32698), (32, 32713), (34, 32728), (36, 32740), (39, 32758), (49, 32800), (73, 32899), (76, 32908), (80, 32926), (92, 32968), (93, 32974), (95, 32980), (97, 32986), (106, 33013), (108, 33022), (116, 33055), (127, 33088), (164, 33148), (171, 33178), (172, 33184), (174, 33205), (180, 33229), (186, 33283), (187, 33286), (208, 33430),

Gene: Jubie_22 Start: 22248, Stop: 23465, Start Num: 21
Candidate Starts for Jubie_22:
(Start: 21 @22248 has 35 MA's), (31, 22350), (33, 22362), (36, 22380), (38, 22389), (45, 22428), (56, 22464), (Start: 59 @22479 has 6 MA's), (61, 22485), (69, 22515), (70, 22518), (77, 22554), (80, 22566), (95, 22617), (96, 22620), (113, 22680), (121, 22707), (125, 22722), (127, 22728), (132, 22740), (151, 22800), (157, 22824), (172, 22884), (186, 22980), (191, 23013), (200, 23085), (204, 23109), (243, 23337), (245, 23349),

Gene: Keziacharles14_32 Start: 24883, Stop: 26085, Start Num: 21
Candidate Starts for Keziacharles14_32:
(Start: 21 @24883 has 35 MA's), (41, 25045), (46, 25066), (64, 25135), (71, 25159), (85, 25219), (91, 25237), (95, 25252), (100, 25267), (115, 25321), (155, 25453), (158, 25468), (170, 25504), (185, 25612), (186, 25615), (189, 25642), (191, 25648), (208, 25759),

Gene: KingCyrus_34 Start: 25662, Stop: 26561, Start Num: 59
Candidate Starts for KingCyrus_34:
(Start: 59 @25662 has 6 MA's), (89, 25773), (118, 25875), (124, 25896), (144, 25959), (185, 26091), (230, 26373),

Gene: Kingsolomon_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for Kingsolomon_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: KirDoubleO7_20 Start: 22241, Stop: 23458, Start Num: 21
Candidate Starts for KirDoubleO7_20:
(Start: 21 @22241 has 35 MA's), (24, 22268), (31, 22343), (33, 22355), (36, 22373), (45, 22421), (56, 22457), (Start: 59 @22472 has 6 MA's), (61, 22478), (69, 22508), (80, 22559), (91, 22595), (95, 22610), (96, 22613), (127, 22721), (132, 22733), (151, 22793), (157, 22817), (172, 22877), (191, 23006), (193, 23012), (200, 23078),

Gene: Knocker_33 Start: 33872, Stop: 35014, Start Num: 17
Candidate Starts for Knocker_33:
(Start: 17 @33872 has 10 MA's), (32, 33989), (36, 34016), (38, 34025), (42, 34049), (47, 34070), (51, 34079), (56, 34103), (Start: 59 @34118 has 6 MA's), (60, 34121), (62, 34127), (73, 34178), (76, 34187), (80, 34205), (83, 34217), (84, 34220), (91, 34241), (106, 34292), (111, 34307), (113, 34319), (120, 34343), (122, 34352), (140, 34379), (143, 34385), (161, 34445), (166, 34457), (172, 34487), (173, 34499), (186, 34574), (196, 34658), (199, 34670), (203, 34700), (208, 34718), (220, 34799), (224, 34826), (225, 34829), (228, 34838),

Gene: Koella_19 Start: 20229, Stop: 21383, Start Num: 16
Candidate Starts for Koella_19:
(Start: 12 @20226 has 3 MA's), (Start: 16 @20229 has 23 MA's), (28, 20310), (Start: 35 @20358 has 1 MA's), (48, 20418), (52, 20427), (55, 20442), (60, 20466), (67, 20490), (70, 20502), (88, 20577), (91, 20586), (97, 20610), (106, 20640), (147, 20724), (148, 20727), (155, 20748), (185, 20907), (196, 20997), (198, 21006), (202, 21036), (208, 21057), (254, 21360),

Gene: Kronus_32 Start: 32802, Stop: 34004, Start Num: 15
Candidate Starts for Kronus_32:
(Start: 15 @32802 has 31 MA's), (23, 32835), (44, 32979), (46, 32988), (50, 32997), (Start: 59 @33036 has 6 MA's), (62, 33045), (66, 33063), (71, 33081), (74, 33099), (76, 33105), (79, 33117), (83, 33135), (88, 33150), (97, 33183), (106, 33210), (118, 33255), (142, 33336), (152, 33363), (157, 33381), (161, 33399), (172, 33441), (176, 33465), (187, 33540), (190, 33570), (198, 33630), (200, 33642), (202, 33660), (216, 33759), (217, 33762), (237, 33867), (239, 33873), (242, 33891), (253, 33978),

Gene: Krypton555_22 Start: 22170, Stop: 23369, Start Num: 21
Candidate Starts for Krypton555_22:
(Start: 21 @22170 has 35 MA's), (31, 22272), (33, 22284), (36, 22302), (45, 22350), (57, 22395), (Start: 59 @22401 has 6 MA's), (69, 22437), (77, 22476), (79, 22482), (80, 22488), (92, 22530), (113, 22602), (127, 22650), (132, 22662), (133, 22668), (172, 22806), (181, 22851), (185, 22899), (191, 22935), (197, 22989), (200, 23007), (203, 23028), (226, 23178), (230, 23199), (249, 23307),

Gene: Lambano_29 Start: 31590, Stop: 32747, Start Num: 15
Candidate Starts for Lambano_29:
(Start: 15 @31590 has 31 MA's), (30, 31683), (32, 31698), (34, 31713), (36, 31725), (39, 31743), (62, 31833), (73, 31884), (76, 31893), (77, 31899), (80, 31911), (88, 31938), (92, 31953), (93, 31959), (95, 31965), (106, 31998), (108, 32007), (116, 32040), (127, 32073), (171, 32163), (172, 32169), (186, 32268), (187, 32271), (208, 32415), (230, 32568),

Gene: LastJedi_19 Start: 20260, Stop: 21414, Start Num: 16
Candidate Starts for LastJedi_19:
(Start: 12 @20257 has 3 MA's), (Start: 16 @20260 has 23 MA's), (28, 20341), (Start: 35 @20389 has 1 MA's), (48, 20449), (52, 20458), (55, 20473), (60, 20497), (67, 20521), (70, 20533), (88, 20608), (91, 20617), (97, 20641), (106, 20671), (147, 20755), (148, 20758), (155, 20779), (185, 20938), (196, 21028), (198, 21037), (202, 21067), (208, 21088), (254, 21391),

Gene: LeBron_21 Start: 21711, Stop: 22886, Start Num: 19
Candidate Starts for LeBron_21:
(Start: 19 @21711 has 5 MA's), (Start: 21 @21714 has 35 MA's), (Start: 35 @21840 has 1 MA's), (43, 21882), (45, 21894), (46, 21897), (56, 21930), (58, 21942), (71, 21990), (74, 22008), (83, 22044), (88, 22059), (105, 22110), (112, 22140), (123, 22182), (131, 22206), (141, 22242), (144, 22248), (160, 22275), (172, 22293), (187, 22386), (188, 22389), (197, 22473), (218, 22611), (222, 22629), (237, 22713),

Gene: LittleDigger_29 Start: 31609, Stop: 32769, Start Num: 15
Candidate Starts for LittleDigger_29:
(Start: 15 @31609 has 31 MA's), (30, 31702), (32, 31717), (34, 31732), (36, 31744), (39, 31762), (46, 31795), (57, 31837), (73, 31903), (76, 31912), (80, 31930), (88, 31957), (93, 31978), (95, 31984), (96, 31987), (103, 32005), (108, 32029), (116, 32062), (147, 32107), (155, 32125), (164, 32155), (171, 32185), (172, 32191), (182, 32257), (186, 32290), (208, 32437), (230, 32590),

Gene: LiyuLake_22 Start: 22229, Stop: 23428, Start Num: 21
Candidate Starts for LiyuLake_22:
(Start: 21 @22229 has 35 MA's), (31, 22331), (36, 22361), (38, 22370), (45, 22409), (51, 22421), (Start: 59 @22460 has 6 MA's), (69, 22496), (71, 22505), (79, 22541), (92, 22589), (132, 22721), (133, 22727), (154, 22796), (167, 22841), (172, 22865), (185, 22958), (191, 22994), (197, 23048), (200, 23066), (230, 23258), (249, 23366),

Gene: Lolalove_30 Start: 32616, Stop: 33773, Start Num: 15
Candidate Starts for Lolalove_30:
(Start: 15 @32616 has 31 MA's), (30, 32709), (32, 32724), (34, 32739), (36, 32751), (39, 32769), (73, 32910), (76, 32919), (80, 32937), (88, 32964), (92, 32979), (93, 32985), (95, 32991), (97, 32997), (106, 33024), (108, 33033), (116, 33066), (127, 33099), (162, 33153), (164, 33159), (171, 33189), (172, 33195), (174, 33216), (180, 33240), (186, 33294), (187, 33297), (208, 33441), (230, 33594),

Gene: Lolly9_22 Start: 22045, Stop: 23244, Start Num: 21
Candidate Starts for Lolly9_22:
(Start: 21 @22045 has 35 MA's), (24, 22072), (33, 22159), (36, 22177), (38, 22186), (45, 22225), (Start: 59 @22276 has 6 MA's), (60, 22279), (71, 22321), (77, 22351), (79, 22357), (80, 22363), (92, 22405), (127, 22525), (132, 22537), (133, 22543), (172, 22681), (185, 22774), (191, 22810), (197, 22864), (200, 22882), (230, 23074), (249, 23182),

Gene: Luchador_34 Start: 25731, Stop: 26627, Start Num: 59
Candidate Starts for Luchador_34:
(Start: 59 @25731 has 6 MA's), (108, 25905), (118, 25941), (124, 25962), (139, 26016), (144, 26025), (185, 26157), (242, 26493), (247, 26523),

Gene: Lumos_22 Start: 22244, Stop: 23461, Start Num: 21
Candidate Starts for Lumos_22:
(Start: 21 @22244 has 35 MA's), (31, 22346), (33, 22358), (36, 22376), (38, 22385), (45, 22424), (56, 22460), (Start: 59 @22475 has 6 MA's), (61, 22481), (69, 22511), (70, 22514), (77, 22550), (80, 22562), (95, 22613), (96, 22616), (113, 22676), (121, 22703), (125, 22718), (127, 22724), (132, 22736), (151, 22796), (157, 22820), (172, 22880), (186, 22976), (191, 23009), (200, 23081), (204, 23105), (243, 23333), (245, 23345),

Gene: MAckerman_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for MAckerman_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: Magpie_29 Start: 32448, Stop: 33605, Start Num: 15
Candidate Starts for Magpie_29:
(Start: 15 @32448 has 31 MA's), (30, 32541), (32, 32556), (34, 32571), (36, 32583), (39, 32601), (62, 32691), (73, 32742), (76, 32751), (77, 32757), (80, 32769), (88, 32796), (92, 32811), (93, 32817), (95,

32823), (106, 32856), (108, 32865), (116, 32898), (127, 32931), (171, 33021), (172, 33027), (186, 33126), (187, 33129), (208, 33273), (230, 33426),

Gene: MilanaBonita_20 Start: 20281, Stop: 21492, Start Num: 16
Candidate Starts for MilanaBonita_20:
(Start: 16 @20281 has 23 MA's), (22, 20305), (28, 20362), (Start: 35 @20410 has 1 MA's), (48, 20470), (52, 20479), (55, 20494), (60, 20518), (67, 20542), (70, 20554), (77, 20590), (88, 20629), (91, 20638), (97, 20662), (106, 20692), (128, 20776), (129, 20779), (135, 20800), (147, 20836), (148, 20839), (155, 20860), (167, 20902), (185, 21019), (190, 21055), (192, 21061), (208, 21166), (217, 21247),

Gene: MiniLon_22 Start: 22045, Stop: 23244, Start Num: 21
Candidate Starts for MiniLon_22:
(Start: 21 @22045 has 35 MA's), (24, 22072), (33, 22159), (36, 22177), (38, 22186), (45, 22225), (Start: 59 @22276 has 6 MA's), (60, 22279), (71, 22321), (77, 22351), (79, 22357), (80, 22363), (92, 22405), (127, 22525), (132, 22537), (133, 22543), (172, 22681), (185, 22774), (191, 22810), (197, 22864), (200, 22882), (230, 23074), (249, 23182),

Gene: MiniMac_22 Start: 22046, Stop: 23245, Start Num: 21
Candidate Starts for MiniMac_22:
(Start: 21 @22046 has 35 MA's), (24, 22073), (33, 22160), (36, 22178), (45, 22226), (Start: 59 @22277 has 6 MA's), (60, 22280), (71, 22322), (77, 22352), (79, 22358), (80, 22364), (92, 22406), (127, 22526), (132, 22538), (133, 22544), (172, 22682), (185, 22775), (191, 22811), (197, 22865), (200, 22883), (230, 23075), (249, 23183),

Gene: Mithril_30 Start: 32620, Stop: 33777, Start Num: 15
Candidate Starts for Mithril_30:
(Start: 15 @32620 has 31 MA's), (30, 32713), (32, 32728), (34, 32743), (36, 32755), (39, 32773), (49, 32815), (73, 32914), (76, 32923), (80, 32941), (88, 32968), (92, 32983), (93, 32989), (95, 32995), (97, 33001), (106, 33028), (108, 33037), (116, 33070), (127, 33103), (164, 33163), (171, 33193), (172, 33199), (180, 33244), (186, 33298), (187, 33301), (208, 33445), (230, 33598),

Gene: Moostard_22 Start: 22250, Stop: 23467, Start Num: 21
Candidate Starts for Moostard_22:
(Start: 21 @22250 has 35 MA's), (31, 22352), (33, 22364), (36, 22382), (38, 22391), (45, 22430), (56, 22466), (Start: 59 @22481 has 6 MA's), (61, 22487), (69, 22517), (70, 22520), (77, 22556), (80, 22568), (95, 22619), (96, 22622), (113, 22682), (121, 22709), (125, 22724), (127, 22730), (132, 22742), (151, 22802), (157, 22826), (172, 22886), (186, 22982), (191, 23015), (200, 23087), (204, 23111), (208, 23126), (243, 23339), (245, 23351),

Gene: Ms6_19 Start: 19730, Stop: 20884, Start Num: 16
Candidate Starts for Ms6_19:
(3, 19493), (5, 19535), (6, 19565), (7, 19595), (9, 19655), (11, 19709), (Start: 16 @19730 has 23 MA's), (28, 19811), (Start: 35 @19859 has 1 MA's), (48, 19919), (52, 19928), (55, 19943), (60, 19967), (67, 19991), (70, 20003), (88, 20078), (91, 20087), (97, 20111), (106, 20141), (147, 20225), (148, 20228), (155, 20249), (185, 20408), (196, 20498), (198, 20507), (202, 20537), (208, 20558), (254, 20861),

Gene: MsGreen_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for MsGreen_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: Mudslide_30 Start: 32852, Stop: 34009, Start Num: 15
Candidate Starts for Mudslide_30:
(Start: 15 @32852 has 31 MA's), (30, 32945), (32, 32960), (34, 32975), (36, 32987), (39, 33005), (49, 33047), (62, 33095), (73, 33146), (76, 33155), (80, 33173), (88, 33200), (92, 33215), (93, 33221), (95, 33227), (97, 33233), (106, 33260), (108, 33269), (116, 33302), (127, 33335), (171, 33425), (172, 33431), (180, 33476), (186, 33530), (187, 33533), (208, 33677), (230, 33830),

Gene: Nanao_29 Start: 31577, Stop: 32734, Start Num: 15
Candidate Starts for Nanao_29:
(Start: 15 @31577 has 31 MA's), (30, 31670), (32, 31685), (34, 31700), (36, 31712), (39, 31730), (62, 31820), (73, 31871), (76, 31880), (77, 31886), (80, 31898), (88, 31925), (92, 31940), (93, 31946), (95, 31952), (106, 31985), (108, 31994), (116, 32027), (127, 32060), (171, 32150), (172, 32156), (186, 32255), (187, 32258), (208, 32402), (230, 32555),

Gene: Nanosmite_35 Start: 27723, Stop: 28895, Start Num: 21
Candidate Starts for Nanosmite_35:
(18, 27717), (Start: 21 @27723 has 35 MA's), (31, 27828), (32, 27831), (36, 27858), (66, 27984), (79, 28038), (80, 28044), (82, 28053), (101, 28113), (110, 28146), (118, 28176), (120, 28182), (137, 28242), (160, 28284), (207, 28539), (213, 28593), (229, 28689), (234, 28716), (236, 28722),

Gene: Nenae_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Nenae_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Nicholas_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for Nicholas_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: Nigel_28 Start: 31491, Stop: 32651, Start Num: 15
Candidate Starts for Nigel_28:
(2, 30987), (Start: 15 @31491 has 31 MA's), (22, 31518), (32, 31602), (34, 31617), (36, 31629), (39, 31647), (73, 31788), (76, 31797), (80, 31815), (88, 31842), (92, 31857), (93, 31863), (95, 31869), (102, 31887), (106, 31902), (108, 31911), (116, 31944), (127, 31977), (147, 31989), (150, 31995), (171, 32067), (172, 32073), (184, 32163), (186, 32172), (208, 32319), (230, 32472),

Gene: OhShagHennessy_21 Start: 21653, Stop: 22825, Start Num: 21
Candidate Starts for OhShagHennessy_21:
(Start: 19 @21650 has 5 MA's), (Start: 21 @21653 has 35 MA's), (Start: 35 @21779 has 1 MA's), (43, 21821), (45, 21833), (46, 21836), (56, 21869), (58, 21881), (71, 21929), (74, 21947), (83, 21983), (88, 21998), (105, 22049), (112, 22079), (123, 22121), (131, 22145), (141, 22181), (144, 22187), (160, 22214), (172, 22232), (187, 22325), (188, 22328), (197, 22412), (218, 22550), (222, 22568), (237, 22652),

Gene: P3MA_24 Start: 20823, Stop: 21977, Start Num: 17

Candidate Starts for P3MA_24:
(Start: 17 @20823 has 10 MA's), (36, 20955), (37, 20958), (45, 21003), (46, 21006), (51, 21015), (56, 21039), (64, 21075), (65, 21078), (66, 21081), (80, 21141), (88, 21168), (98, 21201), (105, 21219), (147, 21315), (150, 21321), (156, 21336), (168, 21381), (183, 21471), (184, 21489), (208, 21645), (215, 21711),

Gene: PYPDinur_21 Start: 21427, Stop: 22581, Start Num: 14
Candidate Starts for PYPDinur_21:
(14, 21427), (31, 21529), (33, 21541), (46, 21610), (71, 21703), (83, 21757), (92, 21787), (94, 21796), (107, 21835), (119, 21883), (126, 21907), (147, 21919), (157, 21943), (172, 22003), (177, 22033), (195, 22150), (196, 22186), (198, 22195), (209, 22252), (212, 22291),

Gene: PenguinLover67_33 Start: 33434, Stop: 34648, Start Num: 17
Candidate Starts for PenguinLover67_33:
(Start: 17 @33434 has 10 MA's), (Start: 35 @33572 has 1 MA's), (47, 33632), (Start: 59 @33680 has 6 MA's), (60, 33683), (70, 33719), (73, 33740), (83, 33779), (91, 33803), (104, 33842), (113, 33881), (119, 33902), (124, 33920), (125, 33923), (186, 34136), (187, 34139), (194, 34184), (232, 34478),

Gene: PhancyPhin_21 Start: 19874, Stop: 21028, Start Num: 16
Candidate Starts for PhancyPhin_21:
(3, 19637), (5, 19679), (6, 19709), (7, 19739), (9, 19799), (11, 19853), (Start: 16 @19874 has 23 MA's), (26, 19937), (28, 19955), (Start: 35 @20003 has 1 MA's), (48, 20063), (52, 20072), (55, 20087), (60, 20111), (67, 20135), (70, 20147), (88, 20222), (91, 20231), (97, 20255), (106, 20285), (117, 20330), (118, 20333), (120, 20339), (147, 20369), (148, 20372), (155, 20393), (185, 20552), (196, 20642), (198, 20651), (202, 20681), (208, 20702), (254, 21005),

Gene: Phloss_21 Start: 20203, Stop: 21360, Start Num: 16
Candidate Starts for Phloss_21:
(Start: 16 @20203 has 23 MA's), (28, 20284), (Start: 35 @20332 has 1 MA's), (48, 20392), (52, 20401), (55, 20416), (60, 20440), (67, 20464), (70, 20476), (83, 20536), (88, 20551), (91, 20560), (97, 20584), (103, 20599), (106, 20614), (147, 20698), (148, 20701), (155, 20722), (160, 20743), (163, 20752), (167, 20764), (170, 20773), (208, 21034), (214, 21103), (254, 21337),

Gene: Pippy_19 Start: 20253, Stop: 21410, Start Num: 15
Candidate Starts for Pippy_19:
(13, 20250), (Start: 15 @20253 has 31 MA's), (28, 20334), (Start: 35 @20382 has 1 MA's), (48, 20442), (52, 20451), (55, 20466), (60, 20490), (67, 20514), (70, 20526), (83, 20586), (88, 20601), (91, 20610), (97, 20634), (106, 20664), (147, 20748), (148, 20751), (155, 20772), (160, 20793), (163, 20802), (167, 20814), (170, 20823), (208, 21084), (214, 21153), (254, 21387),

Gene: Poochiewood_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Poochiewood_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: Poster_29 Start: 31578, Stop: 32735, Start Num: 15
Candidate Starts for Poster_29:
(Start: 15 @31578 has 31 MA's), (30, 31671), (32, 31686), (34, 31701), (36, 31713), (39, 31731), (62, 31821), (73, 31872), (76, 31881), (77, 31887), (80, 31899), (88, 31926), (92, 31941), (93, 31947), (95, 31953), (106, 31986), (108, 31995), (116, 32028), (127, 32061), (171, 32151), (172, 32157), (186,

32256), (187, 32259), (208, 32403), (230, 32556),

Gene: Prince_30 Start: 32761, Stop: 33918, Start Num: 15
Candidate Starts for Prince_30:
(Start: 15 @32761 has 31 MA's), (30, 32854), (32, 32869), (34, 32884), (36, 32896), (39, 32914), (49, 32956), (62, 33004), (73, 33055), (76, 33064), (80, 33082), (88, 33109), (92, 33124), (93, 33130), (95, 33136), (97, 33142), (106, 33169), (108, 33178), (116, 33211), (127, 33244), (164, 33304), (171, 33334), (172, 33340), (180, 33385), (186, 33439), (187, 33442), (208, 33586), (230, 33739),

Gene: Purgamenstris_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Purgamenstris_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: QueenHazel_22 Start: 21423, Stop: 22634, Start Num: 16
Candidate Starts for QueenHazel_22:
(3, 21186), (5, 21228), (7, 21288), (9, 21348), (11, 21402), (Start: 16 @21423 has 23 MA's), (28, 21504), (Start: 35 @21552 has 1 MA's), (48, 21612), (52, 21621), (55, 21636), (60, 21660), (67, 21684), (70, 21696), (77, 21732), (88, 21771), (91, 21780), (97, 21804), (106, 21834), (128, 21918), (129, 21921), (135, 21942), (147, 21978), (148, 21981), (155, 22002), (167, 22044), (185, 22161), (190, 22197), (192, 22203), (208, 22308), (217, 22389),

Gene: QueenPie_29 Start: 32702, Stop: 33859, Start Num: 15
Candidate Starts for QueenPie_29:
(Start: 15 @32702 has 31 MA's), (30, 32795), (32, 32810), (34, 32825), (36, 32837), (39, 32855), (62, 32945), (73, 32996), (76, 33005), (80, 33023), (88, 33050), (92, 33065), (93, 33071), (95, 33077), (97, 33083), (106, 33110), (108, 33119), (116, 33152), (127, 33185), (150, 33203), (164, 33245), (171, 33275), (172, 33281), (174, 33302), (186, 33380), (187, 33383), (194, 33428), (208, 33527), (230, 33680),

Gene: Quesadilla_32 Start: 33335, Stop: 34516, Start Num: 17
Candidate Starts for Quesadilla_32:
(10, 33302), (Start: 17 @33335 has 10 MA's), (32, 33452), (34, 33467), (Start: 35 @33473 has 1 MA's), (47, 33533), (Start: 59 @33581 has 6 MA's), (65, 33605), (76, 33650), (86, 33689), (90, 33701), (92, 33710), (98, 33728), (111, 33770), (114, 33785), (125, 33824), (127, 33830), (153, 33875), (154, 33881), (167, 33926), (188, 34028),

Gene: RawrgerThat_30 Start: 32607, Stop: 33764, Start Num: 15
Candidate Starts for RawrgerThat_30:
(Start: 15 @32607 has 31 MA's), (30, 32700), (32, 32715), (34, 32730), (36, 32742), (39, 32760), (49, 32802), (73, 32901), (76, 32910), (80, 32928), (88, 32955), (92, 32970), (93, 32976), (95, 32982), (97, 32988), (106, 33015), (108, 33024), (116, 33057), (127, 33090), (171, 33180), (172, 33186), (186, 33285), (187, 33288), (208, 33432), (230, 33585),

Gene: Red305_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for Red305_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204,

23108), (243, 23336), (245, 23348),

Gene: Redi_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Redi_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Renkei_29 Start: 31609, Stop: 32769, Start Num: 15
Candidate Starts for Renkei_29:
(Start: 15 @31609 has 31 MA's), (30, 31702), (32, 31717), (34, 31732), (36, 31744), (39, 31762), (46, 31795), (57, 31837), (73, 31903), (76, 31912), (80, 31930), (88, 31957), (93, 31978), (95, 31984), (96, 31987), (103, 32005), (108, 32029), (116, 32062), (147, 32107), (155, 32125), (164, 32155), (171, 32185), (172, 32191), (182, 32257), (186, 32290), (208, 32437), (230, 32590),

Gene: Rose5_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Rose5_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: RoseMarie_32 Start: 29180, Stop: 30352, Start Num: 21
Candidate Starts for RoseMarie_32:
(18, 29174), (Start: 21 @29180 has 35 MA's), (32, 29288), (36, 29315), (51, 29375), (55, 29393), (62, 29423), (66, 29441), (70, 29453), (79, 29495), (88, 29528), (97, 29558), (115, 29621), (120, 29639), (136, 29693), (158, 29735), (160, 29741), (165, 29753), (180, 29804), (203, 29981),

Gene: Saguaro_32 Start: 33436, Stop: 34548, Start Num: 17
Candidate Starts for Saguaro_32:
(4, 33223), (10, 33406), (Start: 17 @33436 has 10 MA's), (32, 33550), (36, 33577), (42, 33610), (45, 33625), (47, 33631), (Start: 59 @33679 has 6 MA's), (62, 33688), (78, 33757), (83, 33778), (91, 33802), (92, 33808), (113, 33883), (115, 33889), (120, 33907), (122, 33916), (125, 33925), (127, 33931), (179, 34051), (216, 34303), (238, 34411), (241, 34417),

Gene: Samty_22 Start: 22250, Stop: 23467, Start Num: 21
Candidate Starts for Samty_22:
(Start: 21 @22250 has 35 MA's), (31, 22352), (33, 22364), (36, 22382), (38, 22391), (45, 22430), (56, 22466), (Start: 59 @22481 has 6 MA's), (61, 22487), (69, 22517), (70, 22520), (77, 22556), (80, 22568), (95, 22619), (96, 22622), (113, 22682), (121, 22709), (125, 22724), (127, 22730), (132, 22742), (151, 22802), (157, 22826), (172, 22886), (186, 22982), (191, 23015), (200, 23087), (204, 23111), (208, 23126), (243, 23339), (245, 23351),

Gene: Sarma624_20 Start: 20090, Stop: 21244, Start Num: 16
Candidate Starts for Sarma624_20:
(Start: 12 @20087 has 3 MA's), (Start: 16 @20090 has 23 MA's), (Start: 35 @20219 has 1 MA's), (40, 20249), (48, 20279), (52, 20288), (55, 20303), (60, 20327), (67, 20351), (70, 20363), (88, 20438), (91, 20447), (97, 20471), (106, 20501), (147, 20585), (148, 20588), (155, 20609), (196, 20858), (198, 20867), (202, 20897), (208, 20918), (214, 20987), (254, 21221),

Gene: Sheng711_21 Start: 21427, Stop: 22581, Start Num: 14
Candidate Starts for Sheng711_21:
(14, 21427), (31, 21529), (33, 21541), (46, 21610), (71, 21703), (83, 21757), (92, 21787), (94, 21796), (107, 21835), (119, 21883), (126, 21907), (147, 21919), (157, 21943), (177, 22033), (195, 22150), (196, 22186), (198, 22195), (209, 22252), (212, 22291),

Gene: ShrimpFriedEgg_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for ShrimpFriedEgg_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Silverleaf_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Silverleaf_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: Snekmaggedon_21 Start: 20006, Stop: 21031, Start Num: 35
Candidate Starts for Snekmaggedon_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Snenia_22 Start: 22248, Stop: 23465, Start Num: 21
Candidate Starts for Snenia_22:
(Start: 21 @22248 has 35 MA's), (31, 22350), (33, 22362), (36, 22380), (38, 22389), (45, 22428), (56, 22464), (Start: 59 @22479 has 6 MA's), (61, 22485), (69, 22515), (70, 22518), (77, 22554), (80, 22566), (95, 22617), (96, 22620), (113, 22680), (121, 22707), (125, 22722), (127, 22728), (132, 22740), (151, 22800), (157, 22824), (172, 22884), (186, 22980), (191, 23013), (200, 23085), (204, 23109), (243, 23337), (245, 23349),

Gene: SororFago_32 Start: 24455, Stop: 25399, Start Num: 59
Candidate Starts for SororFago_32:
(Start: 59 @24455 has 6 MA's), (92, 24578), (105, 24614), (124, 24689), (144, 24752), (146, 24758), (165, 24791), (186, 24893),

Gene: Spinach_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for Spinach_21:
(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (26, 19940), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (117, 20333), (118, 20336), (120, 20342), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: SpongeBob_21 Start: 19877, Stop: 21031, Start Num: 16
Candidate Starts for SpongeBob_21:

(3, 19640), (5, 19682), (6, 19712), (7, 19742), (9, 19802), (11, 19856), (Start: 16 @19877 has 23 MA's), (28, 19958), (Start: 35 @20006 has 1 MA's), (48, 20066), (52, 20075), (55, 20090), (60, 20114), (67, 20138), (70, 20150), (88, 20225), (91, 20234), (97, 20258), (106, 20288), (147, 20372), (148, 20375), (155, 20396), (185, 20555), (196, 20645), (198, 20654), (202, 20684), (208, 20705), (254, 21008),

Gene: Squirty_20 Start: 19922, Stop: 21079, Start Num: 16
Candidate Starts for Squirty_20:
(Start: 16 @19922 has 23 MA's), (28, 20003), (32, 20030), (Start: 35 @20051 has 1 MA's), (48, 20111), (55, 20135), (56, 20141), (60, 20159), (63, 20171), (67, 20183), (70, 20195), (77, 20231), (83, 20255), (88, 20270), (91, 20279), (97, 20303), (103, 20318), (106, 20333), (147, 20417), (148, 20420), (155, 20441), (160, 20462), (163, 20471), (167, 20483), (170, 20492), (208, 20753), (214, 20822), (254, 21056),

Gene: Stinger_28 Start: 31182, Stop: 32339, Start Num: 15
Candidate Starts for Stinger_28:
(1, 30657), (2, 30678), (Start: 15 @31182 has 31 MA's), (22, 31209), (32, 31290), (34, 31305), (36, 31317), (39, 31335), (66, 31443), (73, 31476), (76, 31485), (80, 31503), (88, 31530), (92, 31545), (93, 31551), (95, 31557), (105, 31581), (106, 31590), (108, 31599), (116, 31632), (127, 31665), (147, 31677), (150, 31683), (169, 31743), (171, 31755), (172, 31761), (182, 31827), (184, 31851), (186, 31860), (208, 32007), (230, 32160),

Gene: Stuck_25 Start: 21224, Stop: 22435, Start Num: 16
Candidate Starts for Stuck_25:
(Start: 16 @21224 has 23 MA's), (28, 21305), (Start: 35 @21353 has 1 MA's), (40, 21383), (48, 21413), (52, 21422), (55, 21437), (56, 21443), (60, 21461), (67, 21485), (70, 21497), (77, 21533), (88, 21572), (91, 21581), (97, 21605), (105, 21626), (106, 21635), (129, 21722), (135, 21743), (147, 21779), (148, 21782), (155, 21803), (167, 21845), (185, 21962), (190, 21998), (192, 22004), (208, 22109),

Gene: SwainyDoc_33 Start: 32217, Stop: 33419, Start Num: 15
Candidate Starts for SwainyDoc_33:
(Start: 15 @32217 has 31 MA's), (23, 32250), (44, 32394), (46, 32403), (50, 32412), (Start: 59 @32451 has 6 MA's), (62, 32460), (66, 32478), (71, 32496), (74, 32514), (76, 32520), (79, 32532), (83, 32550), (88, 32565), (97, 32598), (106, 32625), (118, 32670), (142, 32751), (152, 32778), (157, 32796), (161, 32814), (172, 32856), (176, 32880), (187, 32955), (190, 32985), (198, 33045), (200, 33057), (202, 33075), (217, 33177), (237, 33282), (239, 33288), (242, 33306), (253, 33393),

Gene: Thonko_30 Start: 29614, Stop: 30771, Start Num: 17
Candidate Starts for Thonko_30:
(10, 29584), (Start: 17 @29614 has 10 MA's), (32, 29728), (56, 29845), (Start: 59 @29860 has 6 MA's), (62, 29869), (66, 29887), (71, 29905), (83, 29959), (111, 30049), (115, 30067), (120, 30085), (184, 30319), (186, 30328), (193, 30370), (205, 30460), (208, 30472),

Gene: TriFive_22 Start: 22247, Stop: 23464, Start Num: 21
Candidate Starts for TriFive_22:
(Start: 21 @22247 has 35 MA's), (31, 22349), (33, 22361), (36, 22379), (38, 22388), (45, 22427), (56, 22463), (Start: 59 @22478 has 6 MA's), (61, 22484), (69, 22514), (70, 22517), (77, 22553), (80, 22565), (95, 22616), (96, 22619), (113, 22679), (121, 22706), (125, 22721), (127, 22727), (132, 22739), (151, 22799), (157, 22823), (172, 22883), (186, 22979), (191, 23012), (200, 23084), (204, 23108), (243, 23336), (245, 23348),

Gene: Tyson_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Tyson_21:

(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: UPIE_21 Start: 21683, Stop: 22858, Start Num: 19
Candidate Starts for UPIE_21:
(Start: 19 @21683 has 5 MA's), (Start: 21 @21686 has 35 MA's), (Start: 35 @21812 has 1 MA's), (43, 21854), (45, 21866), (46, 21869), (56, 21902), (58, 21914), (71, 21962), (74, 21980), (83, 22016), (88, 22031), (105, 22082), (112, 22112), (123, 22154), (131, 22178), (141, 22214), (144, 22220), (160, 22247), (172, 22265), (187, 22358), (188, 22361), (197, 22445), (218, 22583), (222, 22601), (237, 22685),

Gene: Vanisoa_31 Start: 24621, Stop: 25826, Start Num: 20
Candidate Starts for Vanisoa_31:
(Start: 20 @24621 has 2 MA's), (41, 24786), (44, 24798), (45, 24804), (46, 24807), (72, 24909), (80, 24942), (103, 25014), (108, 25038), (115, 25062), (138, 25146), (185, 25353), (186, 25356), (191, 25389), (208, 25500), (230, 25656),

Gene: Velveteen_20 Start: 20087, Stop: 21244, Start Num: 12
Candidate Starts for Velveteen_20:
(Start: 12 @20087 has 3 MA's), (Start: 16 @20090 has 23 MA's), (Start: 35 @20219 has 1 MA's), (40, 20249), (48, 20279), (52, 20288), (55, 20303), (60, 20327), (67, 20351), (70, 20363), (88, 20438), (91, 20447), (97, 20471), (106, 20501), (147, 20585), (148, 20588), (155, 20609), (196, 20858), (198, 20867), (202, 20897), (208, 20918), (214, 20987), (254, 21221),

Gene: Vincenzo_31 Start: 33326, Stop: 34483, Start Num: 15
Candidate Starts for Vincenzo_31:
(Start: 15 @33326 has 31 MA's), (30, 33419), (32, 33434), (34, 33449), (36, 33461), (39, 33479), (62, 33569), (73, 33620), (76, 33629), (80, 33647), (88, 33674), (92, 33689), (93, 33695), (95, 33701), (106, 33734), (108, 33743), (116, 33776), (127, 33809), (147, 33821), (158, 33854), (164, 33869), (171, 33899), (172, 33905), (182, 33971), (184, 33995), (186, 34004), (208, 34151), (230, 34304),

Gene: VioletZ_30 Start: 32678, Stop: 33835, Start Num: 15
Candidate Starts for VioletZ_30:
(Start: 15 @32678 has 31 MA's), (30, 32771), (32, 32786), (34, 32801), (36, 32813), (39, 32831), (49, 32873), (62, 32921), (73, 32972), (76, 32981), (80, 32999), (88, 33026), (92, 33041), (93, 33047), (95, 33053), (97, 33059), (106, 33086), (108, 33095), (116, 33128), (127, 33161), (164, 33221), (171, 33251), (172, 33257), (180, 33302), (186, 33356), (187, 33359), (208, 33503), (230, 33656),

Gene: Waleliano_30 Start: 32605, Stop: 33762, Start Num: 15
Candidate Starts for Waleliano_30:
(Start: 15 @32605 has 31 MA's), (30, 32698), (32, 32713), (34, 32728), (36, 32740), (39, 32758), (49, 32800), (73, 32899), (76, 32908), (80, 32926), (88, 32953), (92, 32968), (93, 32974), (95, 32980), (97, 32986), (106, 33013), (108, 33022), (116, 33055), (127, 33088), (164, 33148), (171, 33178), (172, 33184), (174, 33205), (180, 33229), (186, 33283), (187, 33286), (230, 33583),

Gene: Wamburgrxpress_21 Start: 21701, Stop: 22873, Start Num: 21
Candidate Starts for Wamburgrxpress_21:
(Start: 19 @21698 has 5 MA's), (Start: 21 @21701 has 35 MA's), (Start: 35 @21827 has 1 MA's), (43, 21869), (45, 21881), (46, 21884), (56, 21917), (58, 21929), (71, 21977), (74, 21995), (83, 22031), (88, 22046), (105, 22097), (112, 22127), (123, 22169), (131, 22193), (141, 22229), (144, 22235), (160,

22262), (172, 22280), (187, 22373), (188, 22376), (197, 22460), (218, 22598), (222, 22616), (237, 22700),

Gene: Whirlwind_23 Start: 22004, Stop: 23203, Start Num: 21
Candidate Starts for Whirlwind_23:
(Start: 21 @22004 has 35 MA's), (36, 22136), (45, 22184), (57, 22229), (Start: 59 @22235 has 6 MA's), (69, 22271), (77, 22310), (79, 22316), (80, 22322), (92, 22364), (113, 22436), (127, 22484), (132, 22496), (133, 22502), (154, 22571), (172, 22640), (185, 22733), (191, 22769), (197, 22823), (200, 22841), (230, 23033), (249, 23141),

Gene: Wyatt2_21 Start: 21688, Stop: 22860, Start Num: 21
Candidate Starts for Wyatt2_21:
(Start: 19 @21685 has 5 MA's), (Start: 21 @21688 has 35 MA's), (Start: 35 @21814 has 1 MA's), (43, 21856), (45, 21868), (46, 21871), (56, 21904), (58, 21916), (71, 21964), (74, 21982), (83, 22018), (88, 22033), (105, 22084), (112, 22114), (123, 22156), (131, 22180), (141, 22216), (144, 22222), (160, 22249), (172, 22267), (187, 22360), (188, 22363), (197, 22447), (218, 22585), (222, 22603), (237, 22687),

Gene: Xincheng_29 Start: 32060, Stop: 33217, Start Num: 15
Candidate Starts for Xincheng_29:
(Start: 15 @32060 has 31 MA's), (30, 32153), (32, 32168), (34, 32183), (36, 32195), (39, 32213), (44, 32237), (49, 32255), (54, 32270), (73, 32354), (76, 32363), (80, 32381), (92, 32423), (93, 32429), (95, 32435), (97, 32441), (106, 32468), (108, 32477), (116, 32510), (127, 32543), (150, 32561), (164, 32603), (171, 32633), (172, 32639), (186, 32738), (187, 32741), (201, 32852), (208, 32885), (230, 33038), (235, 33062), (237, 33074),

Gene: Xula_21 Start: 20946, Stop: 22157, Start Num: 16
Candidate Starts for Xula_21:
(Start: 16 @20946 has 23 MA's), (22, 20970), (28, 21027), (Start: 35 @21075 has 1 MA's), (48, 21135), (52, 21144), (55, 21159), (60, 21183), (67, 21207), (70, 21219), (77, 21255), (88, 21294), (91, 21303), (97, 21327), (106, 21357), (128, 21441), (129, 21444), (135, 21465), (147, 21501), (148, 21504), (155, 21525), (167, 21567), (185, 21684), (190, 21720), (192, 21726), (208, 21831), (217, 21912),

Gene: Zaria_21 Start: 21702, Stop: 22874, Start Num: 21
Candidate Starts for Zaria_21:
(Start: 19 @21699 has 5 MA's), (Start: 21 @21702 has 35 MA's), (Start: 35 @21828 has 1 MA's), (43, 21870), (45, 21882), (46, 21885), (56, 21918), (58, 21930), (61, 21939), (71, 21978), (74, 21996), (83, 22032), (88, 22047), (105, 22098), (112, 22128), (123, 22170), (131, 22194), (141, 22230), (144, 22236), (160, 22263), (172, 22281), (187, 22374), (188, 22377), (197, 22461), (218, 22599), (222, 22617), (237, 22701),

Gene: Zemanar_31 Start: 32608, Stop: 33765, Start Num: 15
Candidate Starts for Zemanar_31:
(Start: 15 @32608 has 31 MA's), (30, 32701), (32, 32716), (34, 32731), (36, 32743), (39, 32761), (49, 32803), (73, 32902), (76, 32911), (80, 32929), (88, 32956), (92, 32971), (93, 32977), (95, 32983), (97, 32989), (106, 33016), (108, 33025), (116, 33058), (127, 33091), (164, 33151), (171, 33181), (172, 33187), (180, 33232), (186, 33286), (187, 33289), (208, 33433), (230, 33586),

Gene: Zenteno07_35 Start: 31167, Stop: 32306, Start Num: 15
Candidate Starts for Zenteno07_35:
(4, 30954), (Start: 15 @31167 has 31 MA's), (25, 31209), (27, 31257), (32, 31287), (Start: 35 @31308 has 1 MA's), (47, 31368), (Start: 59 @31416 has 6 MA's), (60, 31419), (62, 31425), (69, 31452), (73, 31476), (76, 31485), (90, 31536), (124, 31656), (130, 31674), (187, 31860), (194, 31905), (205,

31989), (208, 32001), (211, 32040), (223, 32118),