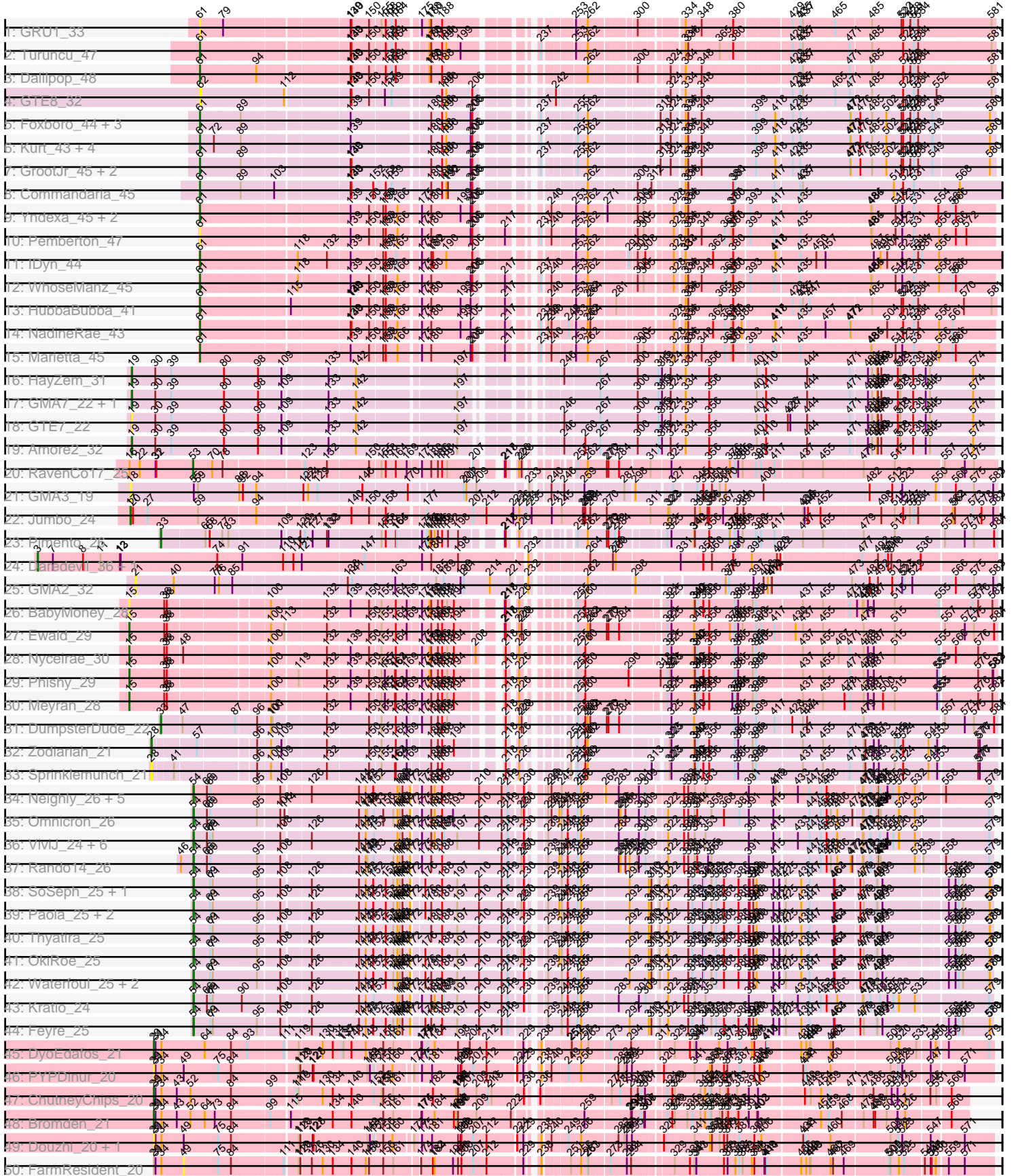
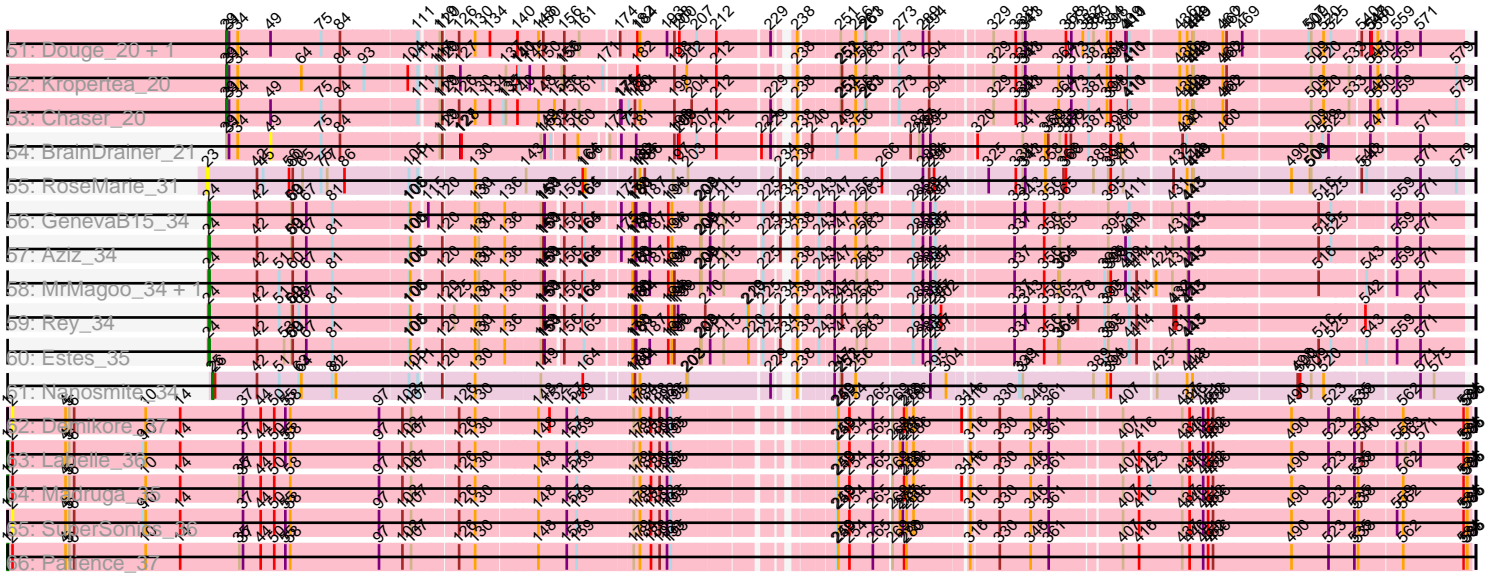


Pham 311435



Pham 311435



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 311435 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311435 has 98 members, 20 are drafts.

Phages represented in each track:

- Track 1 : GRU1_33
- Track 2 : Turuncu_47
- Track 3 : Dalilpop_48
- Track 4 : GTE8_32
- Track 5 : Foxboro_44, Wheezy_43, Tracker_43, Arti_43
- Track 6 : Kurt_43, KidneyBean_43, Jifall16_42, Phomeo_42, Emianna_43
- Track 7 : GrootJr_45, NovumRegina_43, NatB6_43
- Track 8 : Commandaria_45
- Track 9 : Yndexa_45, BiPauneto_46, Sukkupi_45
- Track 10 : Pemberton_47
- Track 11 : IDyn_44
- Track 12 : WhoseManz_45
- Track 13 : HubbaBubba_41
- Track 14 : NadineRae_43
- Track 15 : Marietta_45
- Track 16 : HayZem_31
- Track 17 : GMA7_22, Austin_32
- Track 18 : GTE7_22
- Track 19 : Amore2_32
- Track 20 : RavenCo17_25
- Track 21 : GMA3_19
- Track 22 : Jumbo_24
- Track 23 : Pimento_26
- Track 24 : Daredevil_36, Towmatter_35
- Track 25 : GMA2_32
- Track 26 : BabyMoney_28
- Track 27 : Ewald_29
- Track 28 : Nyceirae_30
- Track 29 : Phishy_29
- Track 30 : Meyran_28
- Track 31 : DumpsterDude_22
- Track 32 : Zodiariah_21
- Track 33 : Sprinklemunch_21
- Track 34 : Neighly_26, Larva_26, Psycho_26, Edugator_25, Dadosky_26, AlleyCat_26
- Track 35 : Omnicron_26

- Track 36 : ViviJ_24, LilDirt_24, Collard_25, BananenDer11_25, DoubleChamp_25, Agent47_25, InvictusManeo_25
- Track 37 : Rando14_26
- Track 38 : SoSeph_25, Heftyboy_25
- Track 39 : Paola_25, Guillsminger_25, Leston_25
- Track 40 : Thyatira_25
- Track 41 : OkiRoe_25
- Track 42 : Waterfoul_25, Miryou_25, Gengar_25
- Track 43 : Kratio_24
- Track 44 : Feyre_25
- Track 45 : DyoEdafos_21
- Track 46 : PYPDinur_20
- Track 47 : ChutneyChips_20
- Track 48 : Bromden_21
- Track 49 : Douzhi_20, Sheng711_20
- Track 50 : FarmResident_20
- Track 51 : Douge_20, Quby_20
- Track 52 : Kropertea_20
- Track 53 : Chaser_20
- Track 54 : BrainDrainer_21
- Track 55 : RoseMarie_31
- Track 56 : GenevaB15_34
- Track 57 : Aziz_34
- Track 58 : MrMagoo_34, GardenSalsa_34
- Track 59 : Rey_34
- Track 60 : Estes_35
- Track 61 : Nanosmite_34
- Track 62 : Demikore_37
- Track 63 : Labelle_36
- Track 64 : Madrugua_35
- Track 65 : SuperSonics_36
- Track 66 : Patience_37

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

The start number called the most often in the published annotations is 54, it was called in 25 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47_25, AlleyCat_26, BananenDer11_25, Collard_25, Dadosky_26, DoubleChamp_25, Edugator_25, Feyre_25, Gengar_25, Guillsminger_25, Heftyboy_25, InvictusManeo_25, Kratio_24, Larva_26, Leston_25, LilDirt_24, Miryou_25, Neighly_26, OkiRoe_25, Omnicron_26, Paola_25, Psycho_26, Rando14_26, SoSeph_25, Thyatira_25, ViviJ_24, Waterfoul_25,

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

-

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

• Amore2_32, Arti_43, Austin_32, Aziz_34, BabyMoney_28, BiPauneto_46, BrainDrainer_21, Bromden_21, Chaser_20, ChutneyChips_20, Commandaria_45, Dalilpop_48, Daredevil_36, Demikore_37, Douge_20, Douzhi_20, DumpsterDude_22, DyoEdafos_21, Emianna_43, Estes_35, Ewald_29, FarmResident_20, Foxboro_44, GMA2_32, GMA3_19, GMA7_22, GRU1_33, GTE7_22, GTE8_32, GardenSalsa_34, GenevaB15_34, GrootJr_45, HayZem_31, HubbaBubba_41, IDyn_44, Jifall16_42, Jumbo_24, KidneyBean_43, Kropertea_20, Kurt_43, Labelle_36, Madruga_35, Marietta_45, Meyran_28, MrMagoo_34, NadineRae_43, Nanosmite_34, NatB6_43, NovumRegina_43, Nyceirae_30, PYPDinur_20, Patience_37, Pemberton_47, Phishy_29, Phomeo_42, Pimento_26, Quby_20, RavenCo17_25, Rey_34, RoseMarie_31, Sheng711_20, Sprinklemunch_21, Sukkupi_45, SuperSonics_36, Towmatter_35, Tracker_43, Turuncu_47, Wheezy_43, WhoseManz_45, Yndexa_45, Zodiariah_21,

Summary by start number:

Start 1:

- Found in 5 of 98 (5.1%) of genes in pham
- Manual Annotations of this start: 3 of 78
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Labelle_36 (U), Madruga_35 (U), Patience_37 (U),

Start 2:

- Found in 5 of 98 (5.1%) of genes in pham
- No Manual Annotations of this start.
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Demikore_37 (U), SuperSonics_36 (U),

Start 3:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daredevil_36 (DL), Towmatter_35 (DL),

Start 15:

- Found in 5 of 98 (5.1%) of genes in pham
- Manual Annotations of this start: 4 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyMoney_28 (DT), Ewald_29 (DT), Meyran_28 (DT), Nyceirae_30 (DT), Phishy_29 (DT),

Start 17:

- Found in 1 of 98 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jumbo_24 (DF3),

Start 18:

- Found in 1 of 98 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA3_19 (DF2),

Start 19:

- Found in 5 of 98 (5.1%) of genes in pham
- Manual Annotations of this start: 3 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amore2_32 (CS1), Austin_32 (CS1), GMA7_22 (CS1), GTE7_22 (CS1), HayZem_31 (CS1),

Start 21:

- Found in 1 of 98 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_32 (DS),

Start 23:

- Found in 1 of 98 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RoseMarie_31 (M1),

Start 24:

- Found in 6 of 98 (6.1%) of genes in pham
- Manual Annotations of this start: 6 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aziz_34 (M2), Estes_35 (M2), GardenSalsa_34 (M2), GenevaB15_34 (M2), MrMagoo_34 (M2), Rey_34 (M2),

Start 25:

- Found in 1 of 98 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nanosmite_34 (M3),

Start 28:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sprinklemunch_21 (DW), Zodiariah_21 (DW),

Start 29:

- Found in 12 of 98 (12.2%) of genes in pham
- Manual Annotations of this start: 6 of 78
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Bromden_21 (L4), Chaser_20 (L4), ChutneyChips_20 (L4), Douge_20 (L4), Douzhi_20 (L4), DyoEdafos_21 (L4), Kropertea_20 (L4), PYPDinur_20 (L4), Quby_20 (L4), Sheng711_20 (L4),

Start 33:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 78
- Called 100.0% of time when present

- Phage (with cluster) where this start called: DumpsterDude_22 (DW), Pimento_26 (DI),

Start 49:

- Found in 8 of 98 (8.2%) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: BrainDrainer_21 (L4), FarmResident_20 (L4),

Start 53:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 50.0% of time when present
- Phage (with cluster) where this start called: RavenCo17_25 (CZ8),

Start 54:

- Found in 27 of 98 (27.6%) of genes in pham
- Manual Annotations of this start: 25 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_25 (K5), AlleyCat_26 (K5), BananenDer11_25 (K5), Collard_25 (K5), Dadosky_26 (K5), DoubleChamp_25 (K5), Edugator_25 (K5), Feyre_25 (K5), Gengar_25 (K5), Guillsminger_25 (K5), Heftyboy_25 (K5), InvictusManeo_25 (K5), Kratio_24 (K5), Larva_26 (K5), Leston_25 (K5), LilDirt_24 (K5), Miryou_25 (K5), Neighly_26 (K3), OkiRoe_25 (K5), Omnicron_26 (K5), Paola_25 (K5), Psycho_26 (K5), Rando14_26 (K5), SoSeph_25 (K5), Thyatira_25 (K5), ViviJ_24 (K5), Waterfoul_25 (K5),

Start 61:

- Found in 25 of 98 (25.5%) of genes in pham
- Manual Annotations of this start: 23 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti_43 (CR2), BiPauneto_46 (CR4), Commandaria_45 (CR2), Dalilpop_48 (CR1), Emianna_43 (CR2), Foxboro_44 (CR2), GRU1_33 (CR1), GrootJr_45 (CR2), HubbaBubba_41 (CR4), IDyn_44 (CR4), Jifall16_42 (CR2), KidneyBean_43 (CR2), Kurt_43 (CR2), Marietta_45 (CR4), NadineRae_43 (CR4), NatB6_43 (CR2), NovumRegina_43 (CR2), Pemberton_47 (CR4), Phomeo_42 (CR2), Sukkupi_45 (CR4), Tracker_43 (CR2), Turuncu_47 (CR1), Wheezy_43 (CR2), WhoseManz_45 (CR4), Yndexa_45 (CR4),

Start 62:

- Found in 1 of 98 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GTE8_32 (CR2),

Summary by clusters:

There are 19 clusters represented in this pham: CR2, DL, CR1, U, CR4, DI, CZ8, DF3, DF2, K3, L4, M1, K5, M2, DW, DT, CS1, DS, M3,

Info for manual annotations of cluster CR1:

- Start number 61 was manually annotated 2 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 61 was manually annotated 13 times for cluster CR2.

Info for manual annotations of cluster CR4:

- Start number 61 was manually annotated 8 times for cluster CR4.

Info for manual annotations of cluster CS1:

- Start number 19 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CZ8:

- Start number 53 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DF3:

- Start number 17 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DI:

- Start number 33 was manually annotated 1 time for cluster DI.

Info for manual annotations of cluster DL:

- Start number 3 was manually annotated 2 times for cluster DL.

Info for manual annotations of cluster DT:

- Start number 15 was manually annotated 4 times for cluster DT.

Info for manual annotations of cluster DW:

- Start number 28 was manually annotated 1 time for cluster DW.
- Start number 33 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster K5:

- Start number 54 was manually annotated 25 times for cluster K5.

Info for manual annotations of cluster L4:

- Start number 29 was manually annotated 6 times for cluster L4.

Info for manual annotations of cluster M2:

- Start number 24 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 25 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster U:

- Start number 1 was manually annotated 3 times for cluster U.

Gene Information:

Gene: Agent47_25 Start: 21256, Stop: 23766, Start Num: 54

Candidate Starts for Agent47_25:

(Start: 54 @21256 has 25 MA's), (66, 21304), (69, 21316), (71, 21325), (108, 21535), (126, 21619), (144, 21772), (148, 21796), (153, 21826), (166, 21907), (167, 21916), (168, 21925), (172, 21952), (175, 21973), (180, 22006), (184, 22018), (188, 22045), (189, 22051), (197, 22096), (210, 22174), (216, 22252), (219, 22273), (230, 22318), (239, 22354), (245, 22390), (248, 22411), (255, 22441), (256, 22453), (283, 22573), (301, 22636), (309, 22660), (322, 22717), (332, 22774), (336, 22789), (341, 22810), (353, 22849), (391, 22990), (415, 23077), (433, 23143), (447, 23179), (453, 23212), (458, 23233), (466, 23269), (478, 23344), (479, 23347), (483, 23371), (495, 23404), (505, 23431), (513, 23452), (520, 23470), (532, 23524), (579, 23752),

Gene: AlleyCat_26 Start: 21193, Stop: 23697, Start Num: 54

Candidate Starts for AlleyCat_26:

(Start: 54 @21193 has 25 MA's), (66, 21241), (69, 21253), (95, 21400), (108, 21469), (126, 21553), (144, 21706), (148, 21730), (152, 21757), (166, 21841), (167, 21850), (168, 21859), (172, 21886), (175, 21907), (180, 21940), (184, 21952), (188, 21979), (210, 22108), (216, 22186), (219, 22207), (230, 22252), (239, 22288), (240, 22300), (245, 22324), (255, 22375), (256, 22387), (268, 22465), (283, 22507), (301, 22570), (309, 22594), (332, 22708), (336, 22723), (341, 22744), (353, 22783), (391, 22924), (415, 23011), (419, 23020), (433, 23077), (447, 23113), (453, 23146), (458, 23167), (478, 23278), (479, 23281), (483, 23305), (491, 23329), (494, 23335), (495, 23338), (505, 23365), (513, 23386), (520, 23404), (532, 23455), (558, 23536), (579, 23683),

Gene: Amore2_32 Start: 33685, Stop: 36453, Start Num: 19

Candidate Starts for Amore2_32:

(Start: 19 @33685 has 3 MA's), (30, 33769), (39, 33826), (80, 34012), (98, 34126), (109, 34198), (133, 34339), (142, 34426), (197, 34738), (246, 34966), (260, 35032), (267, 35086), (300, 35215), (315, 35290), (319, 35302), (324, 35329), (334, 35380), (356, 35464), (401, 35632), (410, 35659), (444, 35803), (471, 35956), (481, 36010), (485, 36025), (490, 36043), (492, 36046), (498, 36058), (518, 36115), (521, 36124), (530, 36166), (541, 36211), (545, 36226), (574, 36379),

Gene: Arti_43 Start: 32595, Stop: 34961, Start Num: 61

Candidate Starts for Arti_43:

(Start: 61 @32595 has 23 MA's), (89, 32724), (139, 33063), (180, 33303), (188, 33342), (190, 33357), (205, 33441), (206, 33447), (237, 33585), (255, 33678), (262, 33714), (318, 33906), (324, 33930), (334, 33960), (336, 33969), (348, 34014), (399, 34182), (418, 34245), (429, 34290), (435, 34314), (471, 34479), (472, 34482), (476, 34515), (485, 34557), (502, 34608), (522, 34659), (524, 34665), (528, 34686), (531, 34695), (534, 34710), (549, 34755), (580, 34941),

Gene: Austin_32 Start: 33685, Stop: 36453, Start Num: 19

Candidate Starts for Austin_32:

(Start: 19 @33685 has 3 MA's), (30, 33769), (39, 33826), (80, 34012), (98, 34126), (109, 34198), (133, 34339), (142, 34426), (197, 34738), (267, 35086), (300, 35215), (315, 35290), (319, 35302), (324, 35329), (334, 35380), (356, 35464), (401, 35632), (410, 35659), (444, 35803), (471, 35956), (481, 36010), (485, 36025), (490, 36043), (492, 36046), (498, 36058), (518, 36115), (521, 36124), (530, 36166), (541, 36211), (545, 36226), (574, 36379),

Gene: Aziz_34 Start: 25208, Stop: 27889, Start Num: 24

Candidate Starts for Aziz_34:

(Start: 24 @25208 has 6 MA's), (42, 25325), (59, 25409), (60, 25412), (67, 25445), (81, 25502), (105, 25676), (106, 25679), (120, 25742), (130, 25808), (131, 25817), (136, 25880), (149, 25961), (150, 25967), (151, 25970), (156, 26003), (164, 26045), (165, 26048), (175, 26111), (178, 26132), (180, 26138), (181, 26141), (187, 26174), (194, 26216), (196, 26225), (208, 26294), (209, 26297), (211, 26318), (215, 26351), (225, 26429), (234, 26459), (238, 26471), (243, 26504), (247, 26534), (256, 26582), (263, 26606), (285, 26699), (289, 26723), (295, 26741), (297, 26747), (337, 26903), (356,

26969), (365, 27005), (395, 27110), (409, 27152), (411, 27161), (431, 27245), (443, 27281), (445, 27284), (516, 27578), (525, 27608), (559, 27731), (571, 27785),

Gene: BabyMoney_28 Start: 23384, Stop: 25951, Start Num: 15

Candidate Starts for BabyMoney_28:

(Start: 15 @23384 has 4 MA's), (36, 23498), (38, 23507), (100, 23810), (132, 23984), (139, 24059), (150, 24119), (155, 24155), (164, 24206), (169, 24245), (175, 24281), (178, 24302), (180, 24308), (186, 24332), (188, 24347), (191, 24365), (194, 24389), (217, 24500), (218, 24503), (226, 24524), (255, 24617), (260, 24638), (321, 24872), (325, 24887), (340, 24968), (342, 24971), (345, 24980), (350, 25001), (356, 25022), (381, 25112), (385, 25124), (395, 25169), (399, 25181), (437, 25331), (455, 25397), (471, 25478), (475, 25502), (478, 25520), (479, 25523), (481, 25538), (487, 25559), (515, 25634), (555, 25769), (573, 25865), (576, 25886), (582, 25937),

Gene: BananenDer11_25 Start: 21217, Stop: 23727, Start Num: 54

Candidate Starts for BananenDer11_25:

(Start: 54 @21217 has 25 MA's), (66, 21265), (69, 21277), (71, 21286), (108, 21496), (126, 21580), (144, 21733), (148, 21757), (153, 21787), (166, 21868), (167, 21877), (168, 21886), (172, 21913), (175, 21934), (180, 21967), (184, 21979), (188, 22006), (189, 22012), (197, 22057), (210, 22135), (216, 22213), (219, 22234), (230, 22279), (239, 22315), (245, 22351), (248, 22372), (255, 22402), (256, 22414), (283, 22534), (301, 22597), (309, 22621), (322, 22678), (332, 22735), (336, 22750), (341, 22771), (353, 22810), (391, 22951), (415, 23038), (433, 23104), (447, 23140), (453, 23173), (458, 23194), (466, 23230), (478, 23305), (479, 23308), (483, 23332), (495, 23365), (505, 23392), (513, 23413), (520, 23431), (532, 23485), (579, 23713),

Gene: BiPauneto_46 Start: 32342, Stop: 34717, Start Num: 61

Candidate Starts for BiPauneto_46:

(Start: 61 @32342 has 23 MA's), (139, 32810), (150, 32870), (156, 32912), (158, 32921), (166, 32963), (175, 33023), (180, 33050), (199, 33152), (205, 33188), (206, 33194), (240, 33356), (253, 33419), (262, 33461), (271, 33521), (300, 33593), (305, 33614), (328, 33683), (334, 33707), (336, 33716), (377, 33860), (380, 33866), (393, 33908), (417, 33989), (435, 34064), (484, 34304), (485, 34307), (516, 34385), (523, 34409), (531, 34442), (554, 34523), (561, 34574), (566, 34583),

Gene: BrainDrainer_21 Start: 19057, Stop: 21555, Start Num: 49

Candidate Starts for BrainDrainer_21:

(Start: 29 @18952 has 6 MA's), (31, 18958), (34, 18979), (49, 19057), (75, 19177), (84, 19216), (119, 19417), (120, 19423), (127, 19456), (128, 19459), (149, 19639), (151, 19648), (153, 19663), (156, 19681), (160, 19711), (173, 19765), (175, 19783), (181, 19813), (198, 19903), (199, 19912), (200, 19915), (207, 19957), (212, 20005), (224, 20098), (229, 20119), (238, 20143), (240, 20167), (249, 20212), (256, 20254), (282, 20365), (287, 20386), (289, 20395), (295, 20413), (320, 20485), (341, 20587), (358, 20638), (360, 20644), (365, 20671), (368, 20686), (372, 20698), (387, 20737), (398, 20785), (406, 20809), (438, 20935), (441, 20944), (460, 21025), (509, 21226), (519, 21253), (523, 21268), (547, 21352), (571, 21451),

Gene: Bromden_21 Start: 19281, Stop: 21821, Start Num: 29

Candidate Starts for Bromden_21:

(Start: 29 @19281 has 6 MA's), (31, 19287), (34, 19308), (43, 19362), (52, 19410), (64, 19458), (73, 19494), (84, 19545), (99, 19665), (115, 19719), (134, 19854), (140, 19914), (156, 20025), (161, 20061), (174, 20139), (175, 20142), (184, 20181), (194, 20247), (196, 20256), (197, 20259), (198, 20262), (209, 20328), (222, 20442), (259, 20613), (293, 20754), (294, 20757), (295, 20760), (303, 20787), (306, 20796), (307, 20799), (321, 20856), (326, 20871), (329, 20880), (335, 20925), (339, 20943), (347, 20970), (352, 20985), (357, 20997), (359, 21003), (365, 21033), (366, 21042), (371, 21057), (374, 21063), (383, 21093), (386, 21096), (391, 21126), (402, 21156), (403, 21159), (454, 21348), (459, 21375), (468, 21420), (479, 21486), (486, 21519), (488, 21525), (503, 21564), (517,

21603), (526, 21630), (560, 21762),

Gene: Chaser_20 Start: 18881, Stop: 21517, Start Num: 29

Candidate Starts for Chaser_20:

(Start: 29 @18881 has 6 MA's), (31, 18887), (34, 18908), (49, 18986), (75, 19106), (84, 19145), (111, 19307), (119, 19346), (120, 19352), (126, 19382), (130, 19418), (134, 19454), (135, 19481), (137, 19487), (140, 19514), (148, 19565), (154, 19604), (156, 19625), (161, 19661), (174, 19739), (175, 19742), (177, 19754), (180, 19769), (184, 19781), (198, 19862), (204, 19904), (212, 19964), (229, 20078), (238, 20102), (251, 20180), (252, 20183), (256, 20213), (261, 20234), (263, 20237), (273, 20300), (294, 20369), (329, 20483), (338, 20537), (341, 20552), (343, 20558), (364, 20636), (373, 20666), (387, 20699), (394, 20738), (398, 20747), (410, 20789), (411, 20792), (436, 20897), (442, 20909), (448, 20921), (449, 20924), (460, 20987), (462, 20996), (509, 21188), (520, 21218), (533, 21275), (547, 21314), (550, 21326), (559, 21359), (579, 21500),

Gene: ChutneyChips_20 Start: 18874, Stop: 21414, Start Num: 29

Candidate Starts for ChutneyChips_20:

(Start: 29 @18874 has 6 MA's), (31, 18880), (34, 18901), (43, 18955), (52, 19003), (84, 19138), (99, 19258), (117, 19330), (119, 19339), (130, 19411), (134, 19447), (140, 19507), (153, 19588), (155, 19612), (156, 19618), (161, 19654), (182, 19768), (196, 19849), (197, 19852), (198, 19855), (201, 19876), (209, 19921), (213, 19957), (215, 19969), (230, 20068), (236, 20086), (275, 20287), (285, 20311), (294, 20350), (300, 20368), (303, 20380), (307, 20392), (321, 20449), (326, 20464), (329, 20473), (347, 20563), (352, 20578), (357, 20590), (359, 20596), (365, 20626), (371, 20650), (374, 20656), (383, 20686), (391, 20719), (403, 20752), (440, 20890), (449, 20911), (454, 20941), (459, 20968), (471, 21040), (479, 21079), (486, 21112), (503, 21157), (511, 21175), (517, 21196), (526, 21223), (546, 21298), (551, 21313), (560, 21355),

Gene: Collard_25 Start: 21217, Stop: 23727, Start Num: 54

Candidate Starts for Collard_25:

(Start: 54 @21217 has 25 MA's), (66, 21265), (69, 21277), (71, 21286), (108, 21496), (126, 21580), (144, 21733), (148, 21757), (153, 21787), (166, 21868), (167, 21877), (168, 21886), (172, 21913), (175, 21934), (180, 21967), (184, 21979), (188, 22006), (189, 22012), (197, 22057), (210, 22135), (216, 22213), (219, 22234), (230, 22279), (239, 22315), (245, 22351), (248, 22372), (255, 22402), (256, 22414), (283, 22534), (301, 22597), (309, 22621), (322, 22678), (332, 22735), (336, 22750), (341, 22771), (353, 22810), (391, 22951), (415, 23038), (433, 23104), (447, 23140), (453, 23173), (458, 23194), (466, 23230), (478, 23305), (479, 23308), (483, 23332), (495, 23365), (505, 23392), (513, 23413), (520, 23431), (532, 23485), (579, 23713),

Gene: Commandaria_45 Start: 33923, Stop: 36313, Start Num: 61

Candidate Starts for Commandaria_45:

(Start: 61 @33923 has 23 MA's), (89, 34052), (103, 34157), (139, 34391), (140, 34394), (152, 34466), (158, 34502), (159, 34523), (180, 34631), (188, 34670), (190, 34685), (192, 34691), (205, 34769), (206, 34775), (262, 35042), (300, 35174), (312, 35216), (334, 35288), (336, 35297), (380, 35447), (381, 35453), (417, 35570), (435, 35645), (437, 35654), (514, 35957), (524, 35990), (531, 36020), (568, 36167),

Gene: Dadosky_26 Start: 21194, Stop: 23698, Start Num: 54

Candidate Starts for Dadosky_26:

(Start: 54 @21194 has 25 MA's), (66, 21242), (69, 21254), (95, 21401), (108, 21470), (126, 21554), (144, 21707), (148, 21731), (152, 21758), (166, 21842), (167, 21851), (168, 21860), (172, 21887), (175, 21908), (180, 21941), (184, 21953), (188, 21980), (210, 22109), (216, 22187), (219, 22208), (230, 22253), (239, 22289), (240, 22301), (245, 22325), (255, 22376), (256, 22388), (268, 22466), (283, 22508), (301, 22571), (309, 22595), (332, 22709), (336, 22724), (341, 22745), (353, 22784), (391, 22925), (415, 23012), (419, 23021), (433, 23078), (447, 23114), (453, 23147), (458, 23168),

(478, 23279), (479, 23282), (483, 23306), (491, 23330), (494, 23336), (495, 23339), (505, 23366), (513, 23387), (520, 23405), (532, 23456), (558, 23537), (579, 23684),

Gene: Dalilpop_48 Start: 34884, Stop: 37253, Start Num: 61

Candidate Starts for Dalilpop_48:

(Start: 61 @34884 has 23 MA's), (94, 35067), (139, 35352), (140, 35355), (150, 35412), (158, 35463), (159, 35484), (164, 35499), (178, 35586), (180, 35592), (188, 35631), (262, 36003), (300, 36135), (324, 36219), (334, 36249), (348, 36303), (429, 36579), (435, 36603), (437, 36612), (471, 36768), (485, 36837), (524, 36945), (528, 36966), (531, 36975), (534, 36990), (581, 37239),

Gene: Daredevil_36 Start: 31430, Stop: 34606, Start Num: 3

Candidate Starts for Daredevil_36:

(Start: 3 @31430 has 2 MA's), (7, 31484), (8, 31592), (11, 31655), (12, 31724), (13, 31727), (74, 32066), (91, 32156), (110, 32297), (116, 32327), (121, 32357), (147, 32573), (175, 32768), (180, 32795), (198, 32891), (232, 33107), (264, 33269), (276, 33341), (280, 33350), (331, 33572), (350, 33653), (360, 33683), (380, 33752), (394, 33809), (420, 33893), (422, 33905), (477, 34151), (492, 34208), (501, 34235), (506, 34244), (510, 34256), (536, 34358),

Gene: Demikore_37 Start: 28751, Stop: 32041, Start Num: 2

Candidate Starts for Demikore_37:

(Start: 1 @28739 has 3 MA's), (2, 28751), (4, 28880), (5, 28889), (6, 28901), (10, 29075), (14, 29159), (37, 29312), (44, 29354), (50, 29387), (55, 29414), (58, 29426), (97, 29642), (102, 29699), (107, 29720), (126, 29825), (130, 29861), (148, 29999), (152, 30026), (157, 30068), (159, 30092), (179, 30218), (184, 30233), (188, 30260), (192, 30281), (193, 30296), (195, 30305), (249, 30611), (250, 30614), (254, 30635), (265, 30692), (269, 30728), (278, 30752), (280, 30758), (286, 30773), (314, 30875), (316, 30881), (330, 30944), (346, 31019), (361, 31061), (407, 31214), (437, 31358), (446, 31376), (451, 31406), (452, 31418), (456, 31430), (490, 31619), (523, 31709), (535, 31769), (538, 31778), (562, 31877), (584, 32024), (585, 32030), (586, 32033),

Gene: DoubleChamp_25 Start: 21217, Stop: 23727, Start Num: 54

Candidate Starts for DoubleChamp_25:

(Start: 54 @21217 has 25 MA's), (66, 21265), (69, 21277), (71, 21286), (108, 21496), (126, 21580), (144, 21733), (148, 21757), (153, 21787), (166, 21868), (167, 21877), (168, 21886), (172, 21913), (175, 21934), (180, 21967), (184, 21979), (188, 22006), (189, 22012), (197, 22057), (210, 22135), (216, 22213), (219, 22234), (230, 22279), (239, 22315), (245, 22351), (248, 22372), (255, 22402), (256, 22414), (283, 22534), (301, 22597), (309, 22621), (322, 22678), (332, 22735), (336, 22750), (341, 22771), (353, 22810), (391, 22951), (415, 23038), (433, 23104), (447, 23140), (453, 23173), (458, 23194), (466, 23230), (478, 23305), (479, 23308), (483, 23332), (495, 23365), (505, 23392), (513, 23413), (520, 23431), (532, 23485), (579, 23713),

Gene: Douge_20 Start: 18822, Stop: 21458, Start Num: 29

Candidate Starts for Douge_20:

(Start: 29 @18822 has 6 MA's), (31, 18828), (34, 18849), (49, 18927), (75, 19047), (84, 19086), (111, 19248), (119, 19287), (120, 19293), (126, 19323), (130, 19359), (134, 19395), (140, 19455), (148, 19506), (150, 19518), (156, 19566), (161, 19602), (174, 19680), (182, 19716), (184, 19722), (193, 19785), (198, 19803), (200, 19815), (207, 19857), (212, 19905), (229, 20019), (238, 20043), (251, 20121), (256, 20154), (261, 20175), (263, 20178), (273, 20241), (289, 20295), (294, 20310), (329, 20424), (338, 20478), (341, 20493), (343, 20499), (368, 20595), (373, 20607), (382, 20628), (387, 20640), (389, 20652), (394, 20679), (398, 20688), (409, 20724), (410, 20730), (411, 20733), (436, 20838), (442, 20850), (448, 20862), (449, 20865), (460, 20928), (462, 20937), (469, 20973), (507, 21123), (509, 21129), (520, 21159), (525, 21177), (540, 21234), (547, 21255), (548, 21258), (550, 21267), (559, 21300), (571, 21354),

Gene: Douzhi_20 Start: 18813, Stop: 21416, Start Num: 29

Candidate Starts for Douzhi_20:

(Start: 29 @18813 has 6 MA's), (31, 18819), (34, 18840), (49, 18918), (75, 19038), (84, 19077), (119, 19278), (120, 19284), (127, 19317), (128, 19320), (149, 19500), (151, 19509), (153, 19524), (156, 19542), (160, 19572), (173, 19626), (175, 19644), (181, 19674), (198, 19764), (199, 19773), (200, 19776), (207, 19818), (212, 19866), (224, 19959), (229, 19980), (238, 20004), (240, 20028), (249, 20073), (256, 20115), (282, 20226), (287, 20247), (289, 20256), (295, 20274), (320, 20346), (341, 20448), (358, 20499), (360, 20505), (365, 20532), (368, 20547), (372, 20559), (387, 20598), (398, 20646), (406, 20670), (438, 20796), (441, 20805), (460, 20886), (509, 21087), (519, 21114), (523, 21129), (547, 21213), (571, 21312),

Gene: DumpsterDude_22 Start: 19471, Stop: 21993, Start Num: 33

Candidate Starts for DumpsterDude_22:

(Start: 33 @19471 has 2 MA's), (47, 19531), (87, 19705), (96, 19774), (100, 19813), (101, 19816), (132, 19987), (150, 20122), (155, 20158), (164, 20209), (169, 20248), (175, 20284), (180, 20311), (186, 20335), (188, 20350), (191, 20368), (218, 20506), (226, 20527), (228, 20536), (255, 20620), (260, 20641), (262, 20650), (264, 20659), (270, 20710), (272, 20716), (284, 20752), (325, 20917), (340, 20998), (381, 21142), (385, 21154), (399, 21211), (417, 21277), (428, 21325), (437, 21361), (444, 21376), (479, 21553), (557, 21814), (571, 21877), (575, 21910), (584, 21982),

Gene: DyoEdafos_21 Start: 19029, Stop: 21665, Start Num: 29

Candidate Starts for DyoEdafos_21:

(Start: 29 @19029 has 6 MA's), (31, 19035), (34, 19056), (64, 19206), (84, 19293), (93, 19347), (111, 19455), (119, 19494), (130, 19566), (134, 19602), (135, 19629), (137, 19635), (140, 19662), (148, 19713), (156, 19773), (161, 19809), (174, 19887), (175, 19890), (177, 19902), (184, 19929), (198, 20010), (204, 20052), (212, 20112), (229, 20226), (238, 20250), (251, 20328), (252, 20331), (256, 20361), (263, 20385), (273, 20448), (294, 20517), (317, 20589), (329, 20631), (338, 20685), (341, 20700), (343, 20706), (364, 20784), (373, 20814), (387, 20847), (394, 20886), (398, 20895), (410, 20937), (411, 20940), (436, 21045), (442, 21057), (448, 21069), (449, 21072), (460, 21135), (462, 21144), (509, 21336), (520, 21366), (533, 21423), (547, 21462), (550, 21474), (559, 21507), (579, 21648),

Gene: Edugator_25 Start: 21193, Stop: 23697, Start Num: 54

Candidate Starts for Edugator_25:

(Start: 54 @21193 has 25 MA's), (66, 21241), (69, 21253), (95, 21400), (108, 21469), (126, 21553), (144, 21706), (148, 21730), (152, 21757), (166, 21841), (167, 21850), (168, 21859), (172, 21886), (175, 21907), (180, 21940), (184, 21952), (188, 21979), (210, 22108), (216, 22186), (219, 22207), (230, 22252), (239, 22288), (240, 22300), (245, 22324), (255, 22375), (256, 22387), (268, 22465), (283, 22507), (301, 22570), (309, 22594), (332, 22708), (336, 22723), (341, 22744), (353, 22783), (391, 22924), (415, 23011), (419, 23020), (433, 23077), (447, 23113), (453, 23146), (458, 23167), (478, 23278), (479, 23281), (483, 23305), (491, 23329), (494, 23335), (495, 23338), (505, 23365), (513, 23386), (520, 23404), (532, 23455), (558, 23536), (579, 23683),

Gene: Emianna_43 Start: 33608, Stop: 35974, Start Num: 61

Candidate Starts for Emianna_43:

(Start: 61 @33608 has 23 MA's), (72, 33650), (89, 33737), (139, 34076), (180, 34316), (188, 34355), (190, 34370), (205, 34454), (206, 34460), (237, 34598), (255, 34691), (262, 34727), (318, 34919), (324, 34943), (334, 34973), (336, 34982), (348, 35027), (399, 35195), (418, 35258), (429, 35303), (435, 35327), (471, 35492), (472, 35495), (476, 35528), (485, 35570), (502, 35621), (522, 35672), (524, 35678), (528, 35699), (531, 35708), (534, 35723), (549, 35768), (580, 35954),

Gene: Estes_35 Start: 25339, Stop: 28020, Start Num: 24

Candidate Starts for Estes_35:

(Start: 24 @25339 has 6 MA's), (42, 25456), (Start: 53 @25522 has 1 MA's), (59, 25540), (60, 25543), (67, 25576), (81, 25633), (105, 25807), (106, 25810), (120, 25873), (130, 25939), (131, 25948), (136, 26011), (149, 26092), (150, 26098), (151, 26101), (156, 26134), (165, 26179), (178, 26263), (180, 26269), (181, 26272), (187, 26305), (194, 26347), (196, 26356), (198, 26362), (208, 26425), (209, 26428), (211, 26449), (215, 26482), (220, 26539), (225, 26560), (234, 26590), (238, 26602), (243, 26635), (247, 26665), (257, 26716), (263, 26737), (285, 26830), (289, 26854), (295, 26872), (297, 26878), (337, 27034), (356, 27100), (364, 27133), (365, 27136), (393, 27232), (395, 27241), (411, 27292), (414, 27310), (431, 27376), (443, 27412), (445, 27415), (516, 27709), (525, 27739), (543, 27808), (559, 27862), (571, 27916),

Gene: Ewald_29 Start: 24069, Stop: 26642, Start Num: 15

Candidate Starts for Ewald_29:

(Start: 15 @24069 has 4 MA's), (36, 24183), (38, 24192), (100, 24495), (113, 24537), (132, 24669), (150, 24804), (155, 24840), (164, 24891), (169, 24930), (175, 24966), (180, 24993), (186, 25017), (188, 25032), (194, 25074), (217, 25185), (218, 25188), (226, 25209), (228, 25218), (255, 25302), (262, 25332), (264, 25341), (270, 25392), (272, 25398), (284, 25434), (321, 25551), (325, 25566), (340, 25647), (356, 25701), (376, 25773), (381, 25791), (385, 25803), (389, 25818), (399, 25860), (405, 25878), (417, 25926), (430, 25986), (437, 26010), (455, 26076), (479, 26202), (515, 26313), (557, 26463), (571, 26526), (575, 26559), (584, 26631),

Gene: FarmResident_20 Start: 18971, Stop: 21502, Start Num: 49

Candidate Starts for FarmResident_20:

(Start: 29 @18866 has 6 MA's), (31, 18872), (34, 18893), (49, 18971), (75, 19091), (84, 19130), (111, 19292), (119, 19331), (120, 19337), (126, 19367), (130, 19403), (134, 19439), (140, 19499), (148, 19550), (150, 19562), (156, 19610), (161, 19646), (174, 19724), (182, 19760), (184, 19766), (193, 19829), (198, 19847), (200, 19859), (207, 19901), (212, 19949), (229, 20063), (238, 20087), (251, 20165), (256, 20198), (261, 20219), (263, 20222), (273, 20285), (289, 20339), (294, 20354), (329, 20468), (338, 20522), (341, 20537), (343, 20543), (368, 20639), (373, 20651), (382, 20672), (387, 20684), (389, 20696), (394, 20723), (398, 20732), (409, 20768), (410, 20774), (411, 20777), (436, 20882), (442, 20894), (448, 20906), (449, 20909), (460, 20972), (462, 20981), (469, 21017), (507, 21167), (509, 21173), (520, 21203), (525, 21221), (540, 21278), (547, 21299), (548, 21302), (550, 21311), (559, 21344), (571, 21398),

Gene: Feyre_25 Start: 21078, Stop: 23576, Start Num: 54

Candidate Starts for Feyre_25:

(Start: 54 @21078 has 25 MA's), (69, 21138), (71, 21147), (95, 21288), (108, 21357), (126, 21441), (144, 21594), (148, 21618), (152, 21645), (158, 21687), (161, 21714), (165, 21726), (166, 21729), (167, 21738), (168, 21747), (172, 21774), (176, 21807), (180, 21828), (188, 21867), (197, 21918), (210, 21996), (216, 22074), (219, 22095), (239, 22176), (245, 22212), (248, 22233), (255, 22263), (256, 22275), (292, 22434), (310, 22494), (312, 22503), (317, 22518), (322, 22539), (336, 22611), (339, 22626), (349, 22656), (351, 22659), (359, 22683), (363, 22698), (368, 22725), (386, 22773), (391, 22803), (392, 22806), (396, 22818), (400, 22830), (415, 22887), (421, 22908), (425, 22920), (436, 22968), (447, 22995), (463, 23073), (464, 23076), (476, 23151), (479, 23163), (489, 23205), (491, 23208), (499, 23220), (559, 23421), (565, 23445), (567, 23454), (569, 23469), (579, 23562), (580, 23565),

Gene: Foxboro_44 Start: 34114, Stop: 36480, Start Num: 61

Candidate Starts for Foxboro_44:

(Start: 61 @34114 has 23 MA's), (89, 34243), (139, 34582), (180, 34822), (188, 34861), (190, 34876), (205, 34960), (206, 34966), (237, 35104), (255, 35197), (262, 35233), (318, 35425), (324, 35449), (334, 35479), (336, 35488), (348, 35533), (399, 35701), (418, 35764), (429, 35809), (435, 35833), (471, 35998), (472, 36001), (476, 36034), (485, 36076), (502, 36127), (522, 36178), (524, 36184), (528, 36205), (531, 36214), (534, 36229), (549, 36274), (580, 36460),

Gene: GMA2_32 Start: 33886, Stop: 36579, Start Num: 21

Candidate Starts for GMA2_32:

(21, 33886), (40, 34003), (73, 34135), (76, 34150), (85, 34198), (138, 34552), (141, 34567), (163, 34699), (185, 34819), (189, 34840), (199, 34897), (201, 34909), (214, 35002), (221, 35071), (232, 35104), (262, 35257), (298, 35407), (370, 35677), (375, 35689), (397, 35767), (408, 35800), (412, 35815), (413, 35827), (414, 35830), (473, 36097), (482, 36157), (492, 36187), (512, 36238), (523, 36271), (525, 36277), (529, 36304), (566, 36442), (575, 36502), (583, 36568),

Gene: GMA3_19 Start: 28749, Stop: 31493, Start Num: 18

Candidate Starts for GMA3_19:

(18, 28749), (55, 28968), (59, 28983), (88, 29127), (92, 29139), (94, 29184), (122, 29328), (124, 29343), (129, 29373), (146, 29514), (170, 29661), (201, 29826), (202, 29835), (209, 29871), (233, 30024), (240, 30069), (246, 30099), (259, 30162), (287, 30294), (298, 30324), (327, 30426), (345, 30498), (350, 30519), (360, 30549), (365, 30576), (370, 30594), (408, 30714), (482, 31071), (512, 31152), (523, 31185), (550, 31299), (566, 31356), (575, 31416), (583, 31482),

Gene: GMA7_22 Start: 27899, Stop: 30667, Start Num: 19

Candidate Starts for GMA7_22:

(Start: 19 @27899 has 3 MA's), (30, 27983), (39, 28040), (80, 28226), (98, 28340), (109, 28412), (133, 28553), (142, 28640), (197, 28952), (267, 29300), (300, 29429), (315, 29504), (319, 29516), (324, 29543), (334, 29594), (356, 29678), (401, 29846), (410, 29873), (444, 30017), (471, 30170), (481, 30224), (485, 30239), (490, 30257), (492, 30260), (498, 30272), (518, 30329), (521, 30338), (530, 30380), (541, 30425), (545, 30440), (574, 30593),

Gene: GRU1_33 Start: 25851, Stop: 28217, Start Num: 61

Candidate Starts for GRU1_33:

(Start: 61 @25851 has 23 MA's), (79, 25920), (139, 26319), (140, 26322), (150, 26379), (155, 26415), (158, 26430), (159, 26451), (164, 26466), (175, 26532), (178, 26553), (180, 26559), (188, 26598), (253, 26928), (262, 26970), (300, 27102), (334, 27216), (348, 27270), (380, 27375), (429, 27546), (435, 27570), (437, 27579), (465, 27687), (485, 27807), (522, 27906), (524, 27912), (528, 27933), (531, 27942), (534, 27957), (581, 28203),

Gene: GTE7_22 Start: 27930, Stop: 30698, Start Num: 19

Candidate Starts for GTE7_22:

(Start: 19 @27930 has 3 MA's), (30, 28014), (39, 28071), (80, 28257), (98, 28371), (109, 28443), (133, 28584), (142, 28671), (197, 28983), (246, 29211), (267, 29331), (300, 29460), (315, 29535), (319, 29547), (324, 29574), (334, 29625), (356, 29709), (401, 29877), (410, 29904), (426, 29979), (427, 29988), (444, 30048), (471, 30201), (481, 30255), (485, 30270), (490, 30288), (492, 30291), (498, 30303), (518, 30360), (521, 30369), (530, 30411), (541, 30456), (545, 30471), (574, 30624),

Gene: GTE8_32 Start: 26866, Stop: 29232, Start Num: 62

Candidate Starts for GTE8_32:

(62, 26866), (112, 27130), (139, 27331), (140, 27334), (150, 27391), (157, 27439), (159, 27463), (188, 27610), (190, 27625), (206, 27715), (242, 27886), (324, 28198), (334, 28228), (348, 28282), (429, 28558), (435, 28582), (437, 28591), (465, 28699), (471, 28750), (485, 28819), (524, 28927), (531, 28957), (534, 28972), (552, 29032), (581, 29218),

Gene: GardenSalsa_34 Start: 25163, Stop: 27844, Start Num: 24

Candidate Starts for GardenSalsa_34:

(Start: 24 @25163 has 6 MA's), (42, 25280), (51, 25334), (60, 25367), (67, 25400), (81, 25457), (105, 25631), (106, 25634), (120, 25697), (130, 25763), (131, 25772), (136, 25835), (149, 25916), (150, 25922), (151, 25925), (156, 25958), (164, 26000), (165, 26003), (178, 26087), (180, 26093), (181,

26096), (187, 26129), (194, 26171), (196, 26180), (198, 26186), (208, 26249), (209, 26252), (211, 26273), (215, 26306), (225, 26384), (238, 26426), (243, 26459), (247, 26489), (257, 26540), (263, 26561), (285, 26654), (289, 26678), (295, 26696), (297, 26702), (337, 26858), (356, 26924), (364, 26957), (365, 26960), (393, 27056), (395, 27065), (398, 27071), (409, 27107), (411, 27116), (414, 27134), (424, 27167), (431, 27200), (443, 27236), (445, 27239), (516, 27533), (543, 27632), (559, 27686), (571, 27740),

Gene: GenevaB15_34 Start: 25208, Stop: 27889, Start Num: 24

Candidate Starts for GenevaB15_34:

(Start: 24 @25208 has 6 MA's), (42, 25325), (59, 25409), (60, 25412), (67, 25445), (81, 25502), (105, 25676), (106, 25679), (115, 25709), (120, 25742), (130, 25808), (131, 25817), (136, 25880), (149, 25961), (150, 25967), (151, 25970), (156, 26003), (164, 26045), (165, 26048), (175, 26111), (178, 26132), (180, 26138), (181, 26141), (187, 26174), (194, 26216), (196, 26225), (208, 26294), (209, 26297), (211, 26318), (215, 26351), (225, 26429), (234, 26459), (238, 26471), (243, 26504), (247, 26534), (256, 26582), (263, 26606), (285, 26699), (289, 26723), (295, 26741), (297, 26747), (337, 26903), (343, 26927), (356, 26969), (365, 27005), (395, 27110), (411, 27161), (431, 27245), (443, 27281), (445, 27284), (516, 27578), (525, 27608), (559, 27731), (571, 27785),

Gene: Gengar_25 Start: 21185, Stop: 23683, Start Num: 54

Candidate Starts for Gengar_25:

(Start: 54 @21185 has 25 MA's), (69, 21245), (71, 21254), (95, 21395), (108, 21464), (126, 21548), (144, 21701), (148, 21725), (152, 21752), (158, 21794), (161, 21821), (165, 21833), (166, 21836), (167, 21845), (168, 21854), (172, 21881), (176, 21914), (180, 21935), (188, 21974), (197, 22025), (210, 22103), (216, 22181), (219, 22202), (230, 22247), (239, 22283), (245, 22319), (248, 22340), (255, 22370), (256, 22382), (292, 22541), (310, 22601), (312, 22610), (317, 22625), (322, 22646), (336, 22718), (339, 22733), (349, 22763), (351, 22766), (359, 22790), (363, 22805), (368, 22832), (386, 22880), (391, 22910), (392, 22913), (396, 22925), (400, 22937), (415, 22994), (421, 23015), (425, 23027), (436, 23075), (447, 23102), (463, 23180), (464, 23183), (476, 23258), (479, 23270), (489, 23312), (491, 23315), (499, 23327), (559, 23528), (565, 23552), (567, 23561), (569, 23576), (579, 23669), (580, 23672),

Gene: GrootJr_45 Start: 32990, Stop: 35356, Start Num: 61

Candidate Starts for GrootJr_45:

(Start: 61 @32990 has 23 MA's), (89, 33119), (139, 33458), (140, 33461), (180, 33698), (188, 33737), (190, 33752), (205, 33836), (206, 33842), (237, 33980), (255, 34073), (262, 34109), (318, 34301), (324, 34325), (334, 34355), (336, 34364), (348, 34409), (399, 34577), (418, 34640), (429, 34685), (435, 34709), (471, 34874), (472, 34877), (476, 34910), (485, 34952), (502, 35003), (522, 35054), (524, 35060), (528, 35081), (531, 35090), (534, 35105), (549, 35150), (580, 35336),

Gene: Guillsminger_25 Start: 21160, Stop: 23658, Start Num: 54

Candidate Starts for Guillsminger_25:

(Start: 54 @21160 has 25 MA's), (69, 21220), (71, 21229), (95, 21370), (108, 21439), (126, 21523), (144, 21676), (148, 21700), (152, 21727), (158, 21769), (161, 21796), (165, 21808), (166, 21811), (167, 21820), (168, 21829), (172, 21856), (176, 21889), (180, 21910), (188, 21949), (197, 22000), (210, 22078), (216, 22156), (227, 22213), (230, 22222), (239, 22258), (244, 22291), (245, 22294), (248, 22315), (255, 22345), (256, 22357), (292, 22516), (310, 22576), (312, 22585), (317, 22600), (322, 22621), (336, 22693), (339, 22708), (349, 22738), (351, 22741), (359, 22765), (363, 22780), (368, 22807), (386, 22855), (391, 22885), (392, 22888), (396, 22900), (400, 22912), (415, 22969), (421, 22990), (425, 23002), (436, 23050), (447, 23077), (463, 23155), (464, 23158), (476, 23233), (479, 23245), (489, 23287), (491, 23290), (499, 23302), (559, 23503), (565, 23527), (567, 23536), (569, 23551), (579, 23644), (580, 23647),

Gene: HayZem_31 Start: 33682, Stop: 36450, Start Num: 19

Candidate Starts for HayZem_31:

(Start: 19 @33682 has 3 MA's), (30, 33766), (39, 33823), (80, 34009), (98, 34123), (109, 34195), (133, 34336), (142, 34423), (197, 34735), (246, 34963), (267, 35083), (300, 35212), (315, 35287), (319, 35299), (324, 35326), (334, 35377), (356, 35461), (401, 35629), (410, 35656), (444, 35800), (471, 35953), (481, 36007), (485, 36022), (490, 36040), (492, 36043), (498, 36055), (518, 36112), (521, 36121), (530, 36163), (541, 36208), (545, 36223), (574, 36376),

Gene: Heftyboy_25 Start: 21308, Stop: 23806, Start Num: 54

Candidate Starts for Heftyboy_25:

(Start: 54 @21308 has 25 MA's), (69, 21368), (71, 21377), (95, 21518), (108, 21587), (126, 21671), (144, 21824), (148, 21848), (152, 21875), (158, 21917), (161, 21944), (165, 21956), (166, 21959), (167, 21968), (168, 21977), (172, 22004), (176, 22037), (188, 22097), (197, 22148), (210, 22226), (216, 22304), (219, 22325), (230, 22370), (239, 22406), (245, 22442), (248, 22463), (255, 22493), (256, 22505), (292, 22664), (310, 22724), (312, 22733), (317, 22748), (322, 22769), (336, 22841), (339, 22856), (349, 22886), (351, 22889), (359, 22913), (363, 22928), (368, 22955), (386, 23003), (391, 23033), (392, 23036), (396, 23048), (400, 23060), (415, 23117), (421, 23138), (425, 23150), (436, 23198), (447, 23225), (463, 23303), (464, 23306), (476, 23381), (479, 23393), (489, 23435), (491, 23438), (499, 23450), (559, 23651), (565, 23675), (567, 23684), (569, 23699), (579, 23792), (580, 23795),

Gene: HubbaBubba_41 Start: 29354, Stop: 31720, Start Num: 61

Candidate Starts for HubbaBubba_41:

(Start: 61 @29354 has 23 MA's), (115, 29633), (139, 29822), (140, 29825), (141, 29828), (150, 29882), (156, 29924), (158, 29933), (166, 29975), (175, 30035), (180, 30062), (199, 30164), (205, 30200), (217, 30284), (240, 30368), (253, 30431), (262, 30473), (264, 30482), (281, 30557), (334, 30719), (336, 30728), (365, 30833), (380, 30878), (429, 31049), (435, 31073), (437, 31082), (447, 31106), (485, 31307), (522, 31406), (524, 31412), (531, 31442), (534, 31457), (570, 31604), (581, 31703),

Gene: IDyn_44 Start: 30750, Stop: 33152, Start Num: 61

Candidate Starts for IDyn_44:

(Start: 61 @30750 has 23 MA's), (118, 31053), (132, 31143), (139, 31218), (156, 31320), (158, 31329), (165, 31368), (175, 31431), (180, 31458), (182, 31464), (190, 31512), (206, 31602), (253, 31827), (262, 31869), (291, 31983), (300, 32001), (308, 32028), (328, 32091), (333, 32112), (334, 32115), (362, 32205), (380, 32274), (417, 32397), (418, 32400), (435, 32472), (450, 32529), (457, 32556), (487, 32721), (496, 32742), (504, 32766), (523, 32817), (531, 32850), (534, 32865), (537, 32877), (556, 32934),

Gene: InvictusManeo_25 Start: 21260, Stop: 23770, Start Num: 54

Candidate Starts for InvictusManeo_25:

(Start: 54 @21260 has 25 MA's), (66, 21308), (69, 21320), (71, 21329), (108, 21539), (126, 21623), (144, 21776), (148, 21800), (153, 21830), (166, 21911), (167, 21920), (168, 21929), (172, 21956), (175, 21977), (180, 22010), (184, 22022), (188, 22049), (189, 22055), (197, 22100), (210, 22178), (216, 22256), (219, 22277), (230, 22322), (239, 22358), (245, 22394), (248, 22415), (255, 22445), (256, 22457), (283, 22577), (301, 22640), (309, 22664), (322, 22721), (332, 22778), (336, 22793), (341, 22814), (353, 22853), (391, 22994), (415, 23081), (433, 23147), (447, 23183), (453, 23216), (458, 23237), (466, 23273), (478, 23348), (479, 23351), (483, 23375), (495, 23408), (505, 23435), (513, 23456), (520, 23474), (532, 23528), (579, 23756),

Gene: Jifall16_42 Start: 33262, Stop: 35628, Start Num: 61

Candidate Starts for Jifall16_42:

(Start: 61 @33262 has 23 MA's), (72, 33304), (89, 33391), (139, 33730), (180, 33970), (188, 34009), (190, 34024), (205, 34108), (206, 34114), (237, 34252), (255, 34345), (262, 34381), (318, 34573), (324, 34597), (334, 34627), (336, 34636), (348, 34681), (399, 34849), (418, 34912), (429, 34957),

(435, 34981), (471, 35146), (472, 35149), (476, 35182), (485, 35224), (502, 35275), (522, 35326), (524, 35332), (528, 35353), (531, 35362), (534, 35377), (549, 35422), (580, 35608),

Gene: Jumbo_24 Start: 33519, Stop: 36377, Start Num: 17

Candidate Starts for Jumbo_24:

(Start: 17 @33519 has 1 MA's), (20, 33528), (27, 33579), (59, 33753), (94, 33948), (140, 34227), (150, 34284), (158, 34335), (177, 34446), (207, 34611), (212, 34659), (223, 34752), (226, 34773), (231, 34800), (235, 34818), (241, 34890), (245, 34926), (258, 35001), (259, 35007), (260, 35010), (264, 35028), (270, 35079), (311, 35232), (322, 35295), (323, 35301), (342, 35391), (346, 35409), (354, 35436), (356, 35442), (367, 35487), (384, 35538), (390, 35559), (437, 35748), (439, 35754), (446, 35766), (452, 35805), (498, 36003), (515, 36051), (524, 36078), (527, 36099), (531, 36114), (534, 36129), (562, 36228), (564, 36231), (573, 36285), (578, 36318), (583, 36360),

Gene: KidneyBean_43 Start: 33386, Stop: 35752, Start Num: 61

Candidate Starts for KidneyBean_43:

(Start: 61 @33386 has 23 MA's), (72, 33428), (89, 33515), (139, 33854), (180, 34094), (188, 34133), (190, 34148), (205, 34232), (206, 34238), (237, 34376), (255, 34469), (262, 34505), (318, 34697), (324, 34721), (334, 34751), (336, 34760), (348, 34805), (399, 34973), (418, 35036), (429, 35081), (435, 35105), (471, 35270), (472, 35273), (476, 35306), (485, 35348), (502, 35399), (522, 35450), (524, 35456), (528, 35477), (531, 35486), (534, 35501), (549, 35546), (580, 35732),

Gene: Kratio_24 Start: 20891, Stop: 23401, Start Num: 54

Candidate Starts for Kratio_24:

(Start: 54 @20891 has 25 MA's), (66, 20939), (69, 20951), (71, 20960), (90, 21059), (108, 21170), (126, 21254), (144, 21407), (148, 21431), (153, 21461), (166, 21542), (167, 21551), (168, 21560), (172, 21587), (175, 21608), (180, 21641), (184, 21653), (188, 21680), (189, 21686), (197, 21731), (210, 21809), (216, 21887), (219, 21908), (230, 21953), (239, 21989), (245, 22025), (248, 22046), (255, 22076), (256, 22088), (283, 22208), (301, 22271), (309, 22295), (322, 22352), (332, 22409), (336, 22424), (341, 22445), (353, 22484), (391, 22625), (415, 22712), (433, 22778), (447, 22814), (453, 22847), (458, 22868), (466, 22904), (478, 22979), (479, 22982), (483, 23006), (495, 23039), (505, 23066), (513, 23087), (520, 23105), (532, 23159), (579, 23387),

Gene: Kropertea_20 Start: 18836, Stop: 21472, Start Num: 29

Candidate Starts for Kropertea_20:

(Start: 29 @18836 has 6 MA's), (31, 18842), (34, 18863), (64, 19013), (84, 19100), (93, 19154), (104, 19241), (111, 19262), (117, 19292), (119, 19301), (120, 19307), (127, 19340), (137, 19442), (140, 19469), (141, 19472), (145, 19499), (150, 19532), (155, 19574), (156, 19580), (171, 19673), (182, 19730), (198, 19817), (202, 19847), (212, 19919), (238, 20057), (251, 20135), (252, 20138), (256, 20168), (263, 20192), (273, 20255), (294, 20324), (329, 20438), (338, 20492), (341, 20507), (343, 20513), (364, 20591), (373, 20621), (387, 20654), (394, 20693), (398, 20702), (410, 20744), (411, 20747), (436, 20852), (442, 20864), (448, 20876), (449, 20879), (460, 20942), (462, 20951), (509, 21143), (520, 21173), (533, 21230), (547, 21269), (550, 21281), (559, 21314), (579, 21455),

Gene: Kurt_43 Start: 33623, Stop: 35989, Start Num: 61

Candidate Starts for Kurt_43:

(Start: 61 @33623 has 23 MA's), (72, 33665), (89, 33752), (139, 34091), (180, 34331), (188, 34370), (190, 34385), (205, 34469), (206, 34475), (237, 34613), (255, 34706), (262, 34742), (318, 34934), (324, 34958), (334, 34988), (336, 34997), (348, 35042), (399, 35210), (418, 35273), (429, 35318), (435, 35342), (471, 35507), (472, 35510), (476, 35543), (485, 35585), (502, 35636), (522, 35687), (524, 35693), (528, 35714), (531, 35723), (534, 35738), (549, 35783), (580, 35969),

Gene: Labelle_36 Start: 28741, Stop: 32043, Start Num: 1

Candidate Starts for Labelle_36:

(Start: 1 @28741 has 3 MA's), (2, 28753), (4, 28882), (5, 28891), (6, 28903), (9, 29071), (10, 29077), (14, 29161), (37, 29314), (44, 29356), (50, 29389), (55, 29416), (58, 29428), (97, 29644), (102, 29701), (107, 29722), (126, 29827), (130, 29863), (148, 30001), (157, 30070), (159, 30094), (179, 30220), (184, 30235), (188, 30262), (192, 30283), (193, 30298), (195, 30307), (249, 30613), (250, 30616), (254, 30637), (265, 30694), (269, 30730), (274, 30748), (277, 30751), (280, 30760), (286, 30775), (316, 30883), (330, 30946), (346, 31021), (361, 31063), (407, 31216), (416, 31255), (437, 31360), (446, 31378), (451, 31408), (452, 31420), (456, 31432), (490, 31621), (523, 31711), (535, 31771), (540, 31789), (559, 31864), (563, 31885), (571, 31921), (584, 32026), (585, 32032), (586, 32035),

Gene: Larva_26 Start: 21061, Stop: 23565, Start Num: 54

Candidate Starts for Larva_26:

(Start: 54 @21061 has 25 MA's), (66, 21109), (69, 21121), (95, 21268), (108, 21337), (126, 21421), (144, 21574), (148, 21598), (152, 21625), (166, 21709), (167, 21718), (168, 21727), (172, 21754), (175, 21775), (180, 21808), (184, 21820), (188, 21847), (210, 21976), (216, 22054), (219, 22075), (230, 22120), (239, 22156), (240, 22168), (245, 22192), (255, 22243), (256, 22255), (268, 22333), (283, 22375), (301, 22438), (309, 22462), (332, 22576), (336, 22591), (341, 22612), (353, 22651), (391, 22792), (415, 22879), (419, 22888), (433, 22945), (447, 22981), (453, 23014), (458, 23035), (478, 23146), (479, 23149), (483, 23173), (491, 23197), (494, 23203), (495, 23206), (505, 23233), (513, 23254), (520, 23272), (532, 23323), (558, 23404), (579, 23551),

Gene: Leston_25 Start: 21290, Stop: 23788, Start Num: 54

Candidate Starts for Leston_25:

(Start: 54 @21290 has 25 MA's), (69, 21350), (71, 21359), (95, 21500), (108, 21569), (126, 21653), (144, 21806), (148, 21830), (152, 21857), (158, 21899), (161, 21926), (165, 21938), (166, 21941), (167, 21950), (168, 21959), (172, 21986), (176, 22019), (180, 22040), (188, 22079), (197, 22130), (210, 22208), (216, 22286), (227, 22343), (230, 22352), (239, 22388), (244, 22421), (245, 22424), (248, 22445), (255, 22475), (256, 22487), (292, 22646), (310, 22706), (312, 22715), (317, 22730), (322, 22751), (336, 22823), (339, 22838), (349, 22868), (351, 22871), (359, 22895), (363, 22910), (368, 22937), (386, 22985), (391, 23015), (392, 23018), (396, 23030), (400, 23042), (415, 23099), (421, 23120), (425, 23132), (436, 23180), (447, 23207), (463, 23285), (464, 23288), (476, 23363), (479, 23375), (489, 23417), (491, 23420), (499, 23432), (559, 23633), (565, 23657), (567, 23666), (569, 23681), (579, 23774), (580, 23777),

Gene: LilDirt_24 Start: 21017, Stop: 23527, Start Num: 54

Candidate Starts for LilDirt_24:

(Start: 54 @21017 has 25 MA's), (66, 21065), (69, 21077), (71, 21086), (108, 21296), (126, 21380), (144, 21533), (148, 21557), (153, 21587), (166, 21668), (167, 21677), (168, 21686), (172, 21713), (175, 21734), (180, 21767), (184, 21779), (188, 21806), (189, 21812), (197, 21857), (210, 21935), (216, 22013), (219, 22034), (230, 22079), (239, 22115), (245, 22151), (248, 22172), (255, 22202), (256, 22214), (283, 22334), (301, 22397), (309, 22421), (322, 22478), (332, 22535), (336, 22550), (341, 22571), (353, 22610), (391, 22751), (415, 22838), (433, 22904), (447, 22940), (453, 22973), (458, 22994), (466, 23030), (478, 23105), (479, 23108), (483, 23132), (495, 23165), (505, 23192), (513, 23213), (520, 23231), (532, 23285), (579, 23513),

Gene: Madruga_35 Start: 28410, Stop: 31712, Start Num: 1

Candidate Starts for Madruga_35:

(Start: 1 @28410 has 3 MA's), (2, 28422), (4, 28551), (5, 28560), (6, 28572), (10, 28746), (14, 28830), (35, 28974), (37, 28983), (44, 29025), (50, 29058), (58, 29097), (97, 29313), (102, 29370), (107, 29391), (126, 29496), (130, 29532), (148, 29670), (157, 29739), (159, 29763), (179, 29889), (184, 29904), (188, 29931), (192, 29952), (193, 29967), (195, 29976), (249, 30282), (250, 30285), (254, 30306), (265, 30363), (269, 30399), (278, 30423), (280, 30429), (286, 30444), (314, 30546), (316, 30552), (330, 30615), (346, 30690), (361, 30732), (407, 30885), (416, 30924), (423, 30951), (437, 31029), (446, 31047), (451, 31077), (452, 31089), (456, 31101), (490, 31290), (523, 31380), (535,

31440), (538, 31449), (562, 31548), (584, 31695), (585, 31701), (586, 31704),

Gene: Marietta_45 Start: 30666, Stop: 33041, Start Num: 61

Candidate Starts for Marietta_45:

(Start: 61 @30666 has 23 MA's), (139, 31134), (150, 31194), (156, 31236), (158, 31245), (166, 31287), (175, 31347), (180, 31374), (205, 31512), (206, 31518), (217, 31596), (237, 31656), (240, 31680), (253, 31743), (262, 31785), (300, 31917), (305, 31938), (328, 32007), (334, 32031), (336, 32040), (348, 32082), (369, 32163), (377, 32184), (380, 32190), (393, 32232), (417, 32313), (435, 32388), (484, 32628), (485, 32631), (516, 32709), (523, 32733), (531, 32766), (556, 32850), (561, 32898), (566, 32907),

Gene: Meyran_28 Start: 24535, Stop: 27102, Start Num: 15

Candidate Starts for Meyran_28:

(Start: 15 @24535 has 4 MA's), (36, 24649), (38, 24658), (100, 24961), (132, 25135), (139, 25210), (150, 25270), (155, 25306), (157, 25318), (162, 25354), (164, 25357), (169, 25396), (175, 25432), (180, 25459), (186, 25483), (188, 25498), (191, 25516), (194, 25540), (218, 25654), (226, 25675), (255, 25768), (260, 25789), (321, 26023), (325, 26038), (340, 26119), (342, 26122), (345, 26131), (350, 26152), (356, 26173), (379, 26254), (381, 26263), (384, 26272), (385, 26275), (395, 26320), (399, 26332), (437, 26482), (455, 26548), (470, 26617), (471, 26629), (479, 26674), (481, 26689), (487, 26710), (500, 26743), (515, 26785), (553, 26914), (555, 26920), (576, 27037), (582, 27088),

Gene: Miryou_25 Start: 21145, Stop: 23643, Start Num: 54

Candidate Starts for Miryou_25:

(Start: 54 @21145 has 25 MA's), (69, 21205), (71, 21214), (95, 21355), (108, 21424), (126, 21508), (144, 21661), (148, 21685), (152, 21712), (158, 21754), (161, 21781), (165, 21793), (166, 21796), (167, 21805), (168, 21814), (172, 21841), (176, 21874), (180, 21895), (188, 21934), (197, 21985), (210, 22063), (216, 22141), (219, 22162), (230, 22207), (239, 22243), (245, 22279), (248, 22300), (255, 22330), (256, 22342), (292, 22501), (310, 22561), (312, 22570), (317, 22585), (322, 22606), (336, 22678), (339, 22693), (349, 22723), (351, 22726), (359, 22750), (363, 22765), (368, 22792), (386, 22840), (391, 22870), (392, 22873), (396, 22885), (400, 22897), (415, 22954), (421, 22975), (425, 22987), (436, 23035), (447, 23062), (463, 23140), (464, 23143), (476, 23218), (479, 23230), (489, 23272), (491, 23275), (499, 23287), (559, 23488), (565, 23512), (567, 23521), (569, 23536), (579, 23629), (580, 23632),

Gene: MrMagoo_34 Start: 25163, Stop: 27844, Start Num: 24

Candidate Starts for MrMagoo_34:

(Start: 24 @25163 has 6 MA's), (42, 25280), (51, 25334), (60, 25367), (67, 25400), (81, 25457), (105, 25631), (106, 25634), (120, 25697), (130, 25763), (131, 25772), (136, 25835), (149, 25916), (150, 25922), (151, 25925), (156, 25958), (164, 26000), (165, 26003), (178, 26087), (180, 26093), (181, 26096), (187, 26129), (194, 26171), (196, 26180), (198, 26186), (208, 26249), (209, 26252), (211, 26273), (215, 26306), (225, 26384), (238, 26426), (243, 26459), (247, 26489), (257, 26540), (263, 26561), (285, 26654), (289, 26678), (295, 26696), (297, 26702), (337, 26858), (356, 26924), (364, 26957), (365, 26960), (393, 27056), (395, 27065), (398, 27071), (409, 27107), (411, 27116), (414, 27134), (424, 27167), (431, 27200), (443, 27236), (445, 27239), (516, 27533), (543, 27632), (559, 27686), (571, 27740),

Gene: NadineRae_43 Start: 29919, Stop: 32300, Start Num: 61

Candidate Starts for NadineRae_43:

(Start: 61 @29919 has 23 MA's), (139, 30387), (140, 30390), (150, 30447), (156, 30489), (158, 30498), (166, 30540), (175, 30600), (180, 30627), (199, 30729), (205, 30765), (217, 30849), (237, 30909), (239, 30921), (240, 30933), (249, 30978), (253, 30996), (262, 31038), (264, 31047), (328, 31260), (334, 31284), (336, 31293), (362, 31374), (369, 31416), (377, 31437), (380, 31443), (388, 31467), (417, 31566), (418, 31569), (435, 31641), (457, 31725), (471, 31806), (472, 31809), (504, 31935),

(524, 31989), (531, 32019), (534, 32034), (556, 32109), (561, 32157),

Gene: Nanosmite_34 Start: 25036, Stop: 27726, Start Num: 25

Candidate Starts for Nanosmite_34:

(Start: 25 @25036 has 1 MA's), (26, 25042), (42, 25144), (51, 25198), (63, 25246), (64, 25252), (81, 25321), (82, 25330), (105, 25495), (111, 25516), (120, 25561), (130, 25630), (149, 25783), (164, 25879), (178, 25969), (180, 25975), (184, 25987), (202, 26098), (203, 26101), (229, 26284), (238, 26308), (247, 26371), (251, 26386), (252, 26389), (256, 26419), (295, 26581), (304, 26611), (339, 26755), (341, 26761), (389, 26920), (394, 26947), (398, 26956), (425, 27055), (442, 27118), (448, 27130), (498, 27364), (500, 27370), (509, 27397), (520, 27427), (571, 27622), (575, 27655),

Gene: NatB6_43 Start: 32659, Stop: 35025, Start Num: 61

Candidate Starts for NatB6_43:

(Start: 61 @32659 has 23 MA's), (89, 32788), (139, 33127), (140, 33130), (180, 33367), (188, 33406), (190, 33421), (205, 33505), (206, 33511), (237, 33649), (255, 33742), (262, 33778), (318, 33970), (324, 33994), (334, 34024), (336, 34033), (348, 34078), (399, 34246), (418, 34309), (429, 34354), (435, 34378), (471, 34543), (472, 34546), (476, 34579), (485, 34621), (502, 34672), (522, 34723), (524, 34729), (528, 34750), (531, 34759), (534, 34774), (549, 34819), (580, 35005),

Gene: Neighly_26 Start: 21060, Stop: 23564, Start Num: 54

Candidate Starts for Neighly_26:

(Start: 54 @21060 has 25 MA's), (66, 21108), (69, 21120), (95, 21267), (108, 21336), (126, 21420), (144, 21573), (148, 21597), (152, 21624), (166, 21708), (167, 21717), (168, 21726), (172, 21753), (175, 21774), (180, 21807), (184, 21819), (188, 21846), (210, 21975), (216, 22053), (219, 22074), (230, 22119), (239, 22155), (240, 22167), (245, 22191), (255, 22242), (256, 22254), (268, 22332), (283, 22374), (301, 22437), (309, 22461), (332, 22575), (336, 22590), (341, 22611), (353, 22650), (391, 22791), (415, 22878), (419, 22887), (433, 22944), (447, 22980), (453, 23013), (458, 23034), (478, 23145), (479, 23148), (483, 23172), (491, 23196), (494, 23202), (495, 23205), (505, 23232), (513, 23253), (520, 23271), (532, 23322), (558, 23403), (579, 23550),

Gene: NovumRegina_43 Start: 32989, Stop: 35355, Start Num: 61

Candidate Starts for NovumRegina_43:

(Start: 61 @32989 has 23 MA's), (89, 33118), (139, 33457), (140, 33460), (180, 33697), (188, 33736), (190, 33751), (205, 33835), (206, 33841), (237, 33979), (255, 34072), (262, 34108), (318, 34300), (324, 34324), (334, 34354), (336, 34363), (348, 34408), (399, 34576), (418, 34639), (429, 34684), (435, 34708), (471, 34873), (472, 34876), (476, 34909), (485, 34951), (502, 35002), (522, 35053), (524, 35059), (528, 35080), (531, 35089), (534, 35104), (549, 35149), (580, 35335),

Gene: Nyceirae_30 Start: 24275, Stop: 26842, Start Num: 15

Candidate Starts for Nyceirae_30:

(Start: 15 @24275 has 4 MA's), (36, 24389), (38, 24398), (48, 24440), (100, 24701), (132, 24875), (139, 24950), (150, 25010), (155, 25046), (164, 25097), (175, 25172), (178, 25193), (180, 25199), (186, 25223), (188, 25238), (191, 25256), (194, 25280), (208, 25346), (218, 25394), (226, 25415), (255, 25508), (260, 25529), (321, 25763), (325, 25778), (340, 25859), (342, 25862), (345, 25871), (356, 25913), (381, 26003), (385, 26015), (395, 26060), (399, 26072), (405, 26090), (437, 26222), (455, 26288), (467, 26336), (471, 26369), (479, 26414), (481, 26429), (487, 26450), (515, 26525), (555, 26660), (566, 26702), (576, 26777),

Gene: OkiRoe_25 Start: 21161, Stop: 23659, Start Num: 54

Candidate Starts for OkiRoe_25:

(Start: 54 @21161 has 25 MA's), (69, 21221), (71, 21230), (95, 21371), (108, 21440), (126, 21524), (144, 21677), (148, 21701), (152, 21728), (158, 21770), (161, 21797), (165, 21809), (166, 21812), (167, 21821), (168, 21830), (172, 21857), (176, 21890), (188, 21950), (197, 22001), (210, 22079),

(216, 22157), (219, 22178), (227, 22214), (230, 22223), (239, 22259), (244, 22292), (245, 22295), (248, 22316), (255, 22346), (256, 22358), (292, 22517), (310, 22577), (312, 22586), (317, 22601), (322, 22622), (336, 22694), (339, 22709), (349, 22739), (351, 22742), (363, 22781), (368, 22808), (386, 22856), (391, 22886), (392, 22889), (396, 22901), (400, 22913), (415, 22970), (421, 22991), (425, 23003), (436, 23051), (447, 23078), (463, 23156), (464, 23159), (476, 23234), (479, 23246), (489, 23288), (491, 23291), (499, 23303), (559, 23504), (565, 23528), (567, 23537), (569, 23552), (579, 23645), (580, 23648),

Gene: Omnicron_26 Start: 19980, Stop: 22484, Start Num: 54

Candidate Starts for Omnicron_26:

(Start: 54 @19980 has 25 MA's), (66, 20028), (69, 20040), (95, 20187), (108, 20256), (114, 20268), (144, 20493), (148, 20517), (149, 20523), (153, 20547), (156, 20580), (161, 20613), (166, 20628), (167, 20637), (168, 20646), (172, 20673), (175, 20694), (180, 20727), (184, 20739), (188, 20766), (193, 20802), (210, 20895), (216, 20973), (219, 20994), (227, 21030), (230, 21039), (239, 21075), (240, 21087), (244, 21108), (245, 21111), (248, 21132), (255, 21162), (256, 21174), (283, 21294), (286, 21300), (288, 21315), (301, 21357), (309, 21381), (322, 21438), (332, 21495), (336, 21510), (341, 21531), (344, 21540), (359, 21588), (368, 21633), (387, 21684), (391, 21711), (415, 21798), (447, 21900), (453, 21933), (458, 21954), (461, 21969), (466, 21990), (474, 22038), (478, 22065), (479, 22068), (483, 22092), (491, 22116), (494, 22122), (495, 22125), (497, 22128), (520, 22191), (532, 22242), (579, 22470),

Gene: PYPDinur_20 Start: 18813, Stop: 21416, Start Num: 29

Candidate Starts for PYPDinur_20:

(Start: 29 @18813 has 6 MA's), (31, 18819), (34, 18840), (49, 18918), (75, 19038), (84, 19077), (119, 19278), (120, 19284), (127, 19317), (128, 19320), (149, 19500), (151, 19509), (153, 19524), (156, 19542), (160, 19572), (173, 19626), (175, 19644), (181, 19674), (198, 19764), (199, 19773), (200, 19776), (207, 19818), (212, 19866), (224, 19959), (229, 19980), (238, 20004), (240, 20028), (249, 20073), (256, 20115), (282, 20226), (287, 20247), (289, 20256), (295, 20274), (320, 20346), (341, 20448), (358, 20499), (360, 20505), (368, 20547), (372, 20559), (387, 20598), (398, 20646), (404, 20664), (406, 20670), (438, 20796), (441, 20805), (460, 20886), (509, 21087), (519, 21114), (523, 21129), (547, 21213), (571, 21312),

Gene: Paola_25 Start: 21160, Stop: 23658, Start Num: 54

Candidate Starts for Paola_25:

(Start: 54 @21160 has 25 MA's), (69, 21220), (71, 21229), (95, 21370), (108, 21439), (126, 21523), (144, 21676), (148, 21700), (152, 21727), (158, 21769), (161, 21796), (165, 21808), (166, 21811), (167, 21820), (168, 21829), (172, 21856), (176, 21889), (180, 21910), (188, 21949), (197, 22000), (210, 22078), (216, 22156), (227, 22213), (230, 22222), (239, 22258), (244, 22291), (245, 22294), (248, 22315), (255, 22345), (256, 22357), (292, 22516), (310, 22576), (312, 22585), (317, 22600), (322, 22621), (336, 22693), (339, 22708), (349, 22738), (351, 22741), (359, 22765), (363, 22780), (368, 22807), (386, 22855), (391, 22885), (392, 22888), (396, 22900), (400, 22912), (415, 22969), (421, 22990), (425, 23002), (436, 23050), (447, 23077), (463, 23155), (464, 23158), (476, 23233), (479, 23245), (489, 23287), (491, 23290), (499, 23302), (559, 23503), (565, 23527), (567, 23536), (569, 23551), (579, 23644), (580, 23647),

Gene: Patience_37 Start: 29291, Stop: 32593, Start Num: 1

Candidate Starts for Patience_37:

(Start: 1 @29291 has 3 MA's), (2, 29303), (4, 29432), (5, 29441), (6, 29453), (10, 29627), (14, 29711), (35, 29855), (37, 29864), (44, 29906), (50, 29939), (55, 29966), (58, 29978), (97, 30194), (102, 30251), (107, 30272), (126, 30377), (130, 30413), (148, 30551), (157, 30620), (159, 30644), (179, 30770), (184, 30785), (188, 30812), (192, 30833), (193, 30848), (195, 30857), (249, 31163), (250, 31166), (254, 31187), (265, 31244), (269, 31280), (278, 31304), (280, 31310), (316, 31433), (330, 31496), (346, 31571), (361, 31613), (407, 31766), (416, 31805), (437, 31910), (446, 31928), (451, 31958),

(452, 31970), (456, 31982), (490, 32171), (523, 32261), (535, 32321), (538, 32330), (562, 32429), (584, 32576), (585, 32582), (586, 32585),

Gene: Pemberton_47 Start: 30659, Stop: 33034, Start Num: 61

Candidate Starts for Pemberton_47:

(Start: 61 @30659 has 23 MA's), (139, 31127), (150, 31187), (156, 31229), (158, 31238), (166, 31280), (175, 31340), (180, 31367), (205, 31505), (206, 31511), (217, 31589), (237, 31649), (240, 31673), (253, 31736), (262, 31778), (300, 31910), (305, 31931), (328, 32000), (334, 32024), (336, 32033), (348, 32075), (369, 32156), (377, 32177), (380, 32183), (393, 32225), (417, 32306), (435, 32381), (484, 32621), (485, 32624), (516, 32702), (523, 32726), (531, 32759), (556, 32843), (566, 32900), (572, 32933),

Gene: Phishy_29 Start: 24193, Stop: 26796, Start Num: 15

Candidate Starts for Phishy_29:

(Start: 15 @24193 has 4 MA's), (36, 24307), (38, 24316), (100, 24619), (119, 24700), (132, 24793), (139, 24868), (150, 24928), (155, 24964), (157, 24976), (162, 25012), (164, 25015), (169, 25054), (175, 25090), (178, 25111), (180, 25117), (186, 25141), (188, 25156), (191, 25174), (194, 25198), (218, 25312), (226, 25333), (255, 25426), (260, 25447), (290, 25591), (318, 25693), (321, 25717), (323, 25726), (325, 25732), (340, 25813), (342, 25816), (345, 25825), (350, 25846), (356, 25867), (381, 25957), (385, 25969), (395, 26014), (399, 26026), (437, 26176), (455, 26242), (471, 26323), (479, 26368), (481, 26383), (487, 26404), (553, 26608), (555, 26614), (576, 26731), (582, 26782), (583, 26785),

Gene: Phomeo_42 Start: 33258, Stop: 35624, Start Num: 61

Candidate Starts for Phomeo_42:

(Start: 61 @33258 has 23 MA's), (72, 33300), (89, 33387), (139, 33726), (180, 33966), (188, 34005), (190, 34020), (205, 34104), (206, 34110), (237, 34248), (255, 34341), (262, 34377), (318, 34569), (324, 34593), (334, 34623), (336, 34632), (348, 34677), (399, 34845), (418, 34908), (429, 34953), (435, 34977), (471, 35142), (472, 35145), (476, 35178), (485, 35220), (502, 35271), (522, 35322), (524, 35328), (528, 35349), (531, 35358), (534, 35373), (549, 35418), (580, 35604),

Gene: Pimento_26 Start: 20304, Stop: 22793, Start Num: 33

Candidate Starts for Pimento_26:

(Start: 33 @20304 has 2 MA's), (65, 20436), (68, 20451), (77, 20496), (83, 20514), (109, 20679), (120, 20733), (123, 20742), (127, 20769), (132, 20820), (133, 20826), (155, 20991), (158, 21006), (164, 21042), (165, 21045), (175, 21117), (177, 21129), (178, 21138), (180, 21144), (184, 21156), (186, 21168), (188, 21183), (192, 21204), (198, 21240), (217, 21336), (218, 21339), (226, 21360), (255, 21453), (262, 21483), (270, 21543), (272, 21549), (279, 21570), (284, 21585), (321, 21702), (325, 21717), (340, 21798), (342, 21801), (356, 21852), (375, 21921), (376, 21924), (381, 21942), (385, 21954), (389, 21969), (399, 22011), (405, 22029), (417, 22077), (437, 22161), (455, 22227), (479, 22353), (515, 22464), (557, 22614), (571, 22677), (575, 22710), (584, 22782),

Gene: Psycho_26 Start: 21191, Stop: 23695, Start Num: 54

Candidate Starts for Psycho_26:

(Start: 54 @21191 has 25 MA's), (66, 21239), (69, 21251), (95, 21398), (108, 21467), (126, 21551), (144, 21704), (148, 21728), (152, 21755), (166, 21839), (167, 21848), (168, 21857), (172, 21884), (175, 21905), (180, 21938), (184, 21950), (188, 21977), (210, 22106), (216, 22184), (219, 22205), (230, 22250), (239, 22286), (240, 22298), (245, 22322), (255, 22373), (256, 22385), (268, 22463), (283, 22505), (301, 22568), (309, 22592), (332, 22706), (336, 22721), (341, 22742), (353, 22781), (391, 22922), (415, 23009), (419, 23018), (433, 23075), (447, 23111), (453, 23144), (458, 23165), (478, 23276), (479, 23279), (483, 23303), (491, 23327), (494, 23333), (495, 23336), (505, 23363), (513, 23384), (520, 23402), (532, 23453), (558, 23534), (579, 23681),

Gene: Quby_20 Start: 18821, Stop: 21457, Start Num: 29

Candidate Starts for Quby_20:

(Start: 29 @18821 has 6 MA's), (31, 18827), (34, 18848), (49, 18926), (75, 19046), (84, 19085), (111, 19247), (119, 19286), (120, 19292), (126, 19322), (130, 19358), (134, 19394), (140, 19454), (148, 19505), (150, 19517), (156, 19565), (161, 19601), (174, 19679), (182, 19715), (184, 19721), (193, 19784), (198, 19802), (200, 19814), (207, 19856), (212, 19904), (229, 20018), (238, 20042), (251, 20120), (256, 20153), (261, 20174), (263, 20177), (273, 20240), (289, 20294), (294, 20309), (329, 20423), (338, 20477), (341, 20492), (343, 20498), (368, 20594), (373, 20606), (382, 20627), (387, 20639), (389, 20651), (394, 20678), (398, 20687), (409, 20723), (410, 20729), (411, 20732), (436, 20837), (442, 20849), (448, 20861), (449, 20864), (460, 20927), (462, 20936), (469, 20972), (507, 21122), (509, 21128), (520, 21158), (525, 21176), (540, 21233), (547, 21254), (548, 21257), (550, 21266), (559, 21299), (571, 21353),

Gene: Rando14_26 Start: 19880, Stop: 22384, Start Num: 54

Candidate Starts for Rando14_26:

(46, 19835), (Start: 54 @19880 has 25 MA's), (66, 19928), (69, 19940), (95, 20087), (108, 20156), (144, 20393), (148, 20417), (149, 20423), (153, 20447), (161, 20513), (166, 20528), (167, 20537), (168, 20546), (172, 20573), (175, 20594), (180, 20627), (188, 20666), (216, 20873), (219, 20894), (227, 20930), (230, 20939), (239, 20975), (244, 21008), (245, 21011), (248, 21032), (255, 21062), (256, 21074), (283, 21194), (286, 21200), (288, 21215), (292, 21230), (299, 21251), (301, 21257), (309, 21281), (322, 21338), (332, 21395), (336, 21410), (341, 21431), (344, 21440), (355, 21479), (359, 21488), (391, 21611), (415, 21698), (447, 21800), (453, 21833), (458, 21854), (461, 21869), (466, 21890), (472, 21932), (474, 21938), (478, 21965), (479, 21968), (483, 21992), (491, 22016), (494, 22022), (495, 22025), (497, 22028), (532, 22142), (539, 22160), (558, 22223), (579, 22370),

Gene: RavenCo17_25 Start: 21406, Stop: 23838, Start Num: 53

Candidate Starts for RavenCo17_25:

(16, 21181), (22, 21217), (31, 21274), (32, 21277), (Start: 53 @21406 has 1 MA's), (70, 21472), (78, 21508), (123, 21754), (132, 21832), (150, 21967), (155, 22003), (158, 22018), (164, 22054), (169, 22093), (175, 22129), (180, 22156), (186, 22180), (188, 22195), (191, 22213), (207, 22294), (217, 22348), (218, 22351), (226, 22372), (228, 22381), (255, 22465), (262, 22495), (270, 22555), (272, 22561), (284, 22597), (311, 22696), (325, 22762), (356, 22897), (376, 22969), (381, 22987), (385, 22999), (389, 23014), (399, 23056), (405, 23074), (417, 23122), (437, 23206), (455, 23272), (479, 23398), (515, 23509), (557, 23659), (571, 23722), (575, 23755),

Gene: Rey_34 Start: 25395, Stop: 28076, Start Num: 24

Candidate Starts for Rey_34:

(Start: 24 @25395 has 6 MA's), (42, 25512), (51, 25566), (59, 25596), (60, 25599), (63, 25614), (67, 25632), (81, 25689), (105, 25863), (106, 25866), (120, 25929), (125, 25950), (130, 25995), (131, 26004), (136, 26067), (149, 26148), (150, 26154), (151, 26157), (156, 26190), (164, 26232), (165, 26235), (178, 26319), (180, 26325), (181, 26328), (184, 26337), (194, 26403), (196, 26412), (198, 26418), (199, 26427), (210, 26493), (219, 26592), (220, 26595), (225, 26616), (234, 26646), (238, 26658), (243, 26691), (247, 26721), (252, 26739), (257, 26772), (263, 26793), (285, 26886), (289, 26910), (295, 26928), (297, 26934), (302, 26946), (337, 27090), (343, 27114), (356, 27156), (365, 27192), (378, 27234), (393, 27288), (395, 27297), (411, 27348), (414, 27366), (432, 27435), (434, 27441), (443, 27468), (445, 27471), (542, 27861), (571, 27972),

Gene: RoseMarie_31 Start: 26484, Stop: 29183, Start Num: 23

Candidate Starts for RoseMarie_31:

(23, 26484), (42, 26604), (45, 26619), (56, 26682), (60, 26691), (65, 26715), (75, 26760), (77, 26769), (86, 26811), (105, 26955), (111, 26976), (130, 27090), (143, 27207), (164, 27339), (166, 27345), (180, 27435), (183, 27444), (184, 27447), (186, 27459), (197, 27525), (203, 27561), (234, 27756), (238, 27768), (266, 27936), (289, 28020), (294, 28035), (296, 28041), (325, 28137), (338, 28203), (341,

28218), (343, 28224), (358, 28272), (366, 28314), (368, 28320), (389, 28377), (395, 28407), (398, 28413), (407, 28443), (432, 28548), (442, 28575), (448, 28587), (449, 28590), (490, 28806), (508, 28851), (509, 28854), (540, 28959), (543, 28971), (571, 29079), (579, 29166),

Gene: Sheng711_20 Start: 18813, Stop: 21416, Start Num: 29

Candidate Starts for Sheng711_20:

(Start: 29 @18813 has 6 MA's), (31, 18819), (34, 18840), (49, 18918), (75, 19038), (84, 19077), (119, 19278), (120, 19284), (127, 19317), (128, 19320), (149, 19500), (151, 19509), (153, 19524), (156, 19542), (160, 19572), (173, 19626), (175, 19644), (181, 19674), (198, 19764), (199, 19773), (200, 19776), (207, 19818), (212, 19866), (224, 19959), (229, 19980), (238, 20004), (240, 20028), (249, 20073), (256, 20115), (282, 20226), (287, 20247), (289, 20256), (295, 20274), (320, 20346), (341, 20448), (358, 20499), (360, 20505), (365, 20532), (368, 20547), (372, 20559), (387, 20598), (398, 20646), (406, 20670), (438, 20796), (441, 20805), (460, 20886), (509, 21087), (519, 21114), (523, 21129), (547, 21213), (571, 21312),

Gene: SoSeph_25 Start: 21308, Stop: 23806, Start Num: 54

Candidate Starts for SoSeph_25:

(Start: 54 @21308 has 25 MA's), (69, 21368), (71, 21377), (95, 21518), (108, 21587), (126, 21671), (144, 21824), (148, 21848), (152, 21875), (158, 21917), (161, 21944), (165, 21956), (166, 21959), (167, 21968), (168, 21977), (172, 22004), (176, 22037), (188, 22097), (197, 22148), (210, 22226), (216, 22304), (219, 22325), (230, 22370), (239, 22406), (245, 22442), (248, 22463), (255, 22493), (256, 22505), (292, 22664), (310, 22724), (312, 22733), (317, 22748), (322, 22769), (336, 22841), (339, 22856), (349, 22886), (351, 22889), (359, 22913), (363, 22928), (368, 22955), (386, 23003), (391, 23033), (392, 23036), (396, 23048), (400, 23060), (415, 23117), (421, 23138), (425, 23150), (436, 23198), (447, 23225), (463, 23303), (464, 23306), (476, 23381), (479, 23393), (489, 23435), (491, 23438), (499, 23450), (559, 23651), (565, 23675), (567, 23684), (569, 23699), (579, 23792), (580, 23795),

Gene: Sprinklemunch_21 Start: 19351, Stop: 21831, Start Num: 28

Candidate Starts for Sprinklemunch_21:

(Start: 28 @19351 has 1 MA's), (41, 19411), (96, 19654), (100, 19693), (109, 19726), (132, 19867), (150, 20002), (155, 20038), (162, 20086), (164, 20089), (169, 20128), (180, 20191), (186, 20215), (188, 20230), (218, 20386), (226, 20407), (251, 20491), (255, 20500), (260, 20521), (262, 20530), (313, 20728), (323, 20761), (325, 20767), (340, 20848), (342, 20851), (345, 20860), (350, 20881), (356, 20902), (381, 20992), (385, 21004), (395, 21049), (399, 21061), (437, 21211), (455, 21277), (471, 21358), (479, 21403), (480, 21409), (487, 21439), (493, 21457), (515, 21514), (524, 21541), (544, 21619), (553, 21643), (576, 21766), (577, 21772),

Gene: Sukkupi_45 Start: 32233, Stop: 34608, Start Num: 61

Candidate Starts for Sukkupi_45:

(Start: 61 @32233 has 23 MA's), (139, 32701), (150, 32761), (156, 32803), (158, 32812), (166, 32854), (175, 32914), (180, 32941), (199, 33043), (205, 33079), (206, 33085), (240, 33247), (253, 33310), (262, 33352), (271, 33412), (300, 33484), (305, 33505), (328, 33574), (334, 33598), (336, 33607), (377, 33751), (380, 33757), (393, 33799), (417, 33880), (435, 33955), (484, 34195), (485, 34198), (516, 34276), (523, 34300), (531, 34333), (554, 34414), (561, 34465), (566, 34474),

Gene: SuperSonics_36 Start: 28479, Stop: 31769, Start Num: 2

Candidate Starts for SuperSonics_36:

(Start: 1 @28467 has 3 MA's), (2, 28479), (4, 28608), (5, 28617), (6, 28629), (9, 28797), (10, 28803), (14, 28887), (37, 29040), (44, 29082), (50, 29115), (55, 29142), (58, 29154), (97, 29370), (102, 29427), (107, 29448), (126, 29553), (130, 29589), (148, 29727), (157, 29796), (159, 29820), (179, 29946), (184, 29961), (188, 29988), (192, 30009), (193, 30024), (195, 30033), (249, 30339), (250, 30342), (254, 30363), (265, 30420), (269, 30456), (274, 30474), (277, 30477), (280, 30486), (286, 30501),

(316, 30609), (330, 30672), (346, 30747), (361, 30789), (407, 30942), (416, 30981), (437, 31086), (446, 31104), (451, 31134), (452, 31146), (456, 31158), (490, 31347), (523, 31437), (535, 31497), (538, 31506), (559, 31590), (562, 31605), (584, 31752), (585, 31758), (586, 31761),

Gene: Thyatira_25 Start: 21160, Stop: 23658, Start Num: 54

Candidate Starts for Thyatira_25:

(Start: 54 @21160 has 25 MA's), (69, 21220), (71, 21229), (95, 21370), (108, 21439), (126, 21523), (144, 21676), (148, 21700), (152, 21727), (158, 21769), (161, 21796), (165, 21808), (166, 21811), (167, 21820), (168, 21829), (172, 21856), (180, 21910), (188, 21949), (197, 22000), (210, 22078), (216, 22156), (219, 22177), (230, 22222), (239, 22258), (245, 22294), (248, 22315), (255, 22345), (256, 22357), (292, 22516), (310, 22576), (312, 22585), (317, 22600), (322, 22621), (336, 22693), (339, 22708), (349, 22738), (351, 22741), (359, 22765), (363, 22780), (368, 22807), (386, 22855), (391, 22885), (392, 22888), (396, 22900), (400, 22912), (415, 22969), (421, 22990), (425, 23002), (436, 23050), (447, 23077), (463, 23155), (464, 23158), (476, 23233), (479, 23245), (489, 23287), (491, 23290), (499, 23302), (559, 23503), (565, 23527), (567, 23536), (569, 23551), (579, 23644), (580, 23647),

Gene: Towmatter_35 Start: 31267, Stop: 34443, Start Num: 3

Candidate Starts for Towmatter_35:

(Start: 3 @31267 has 2 MA's), (7, 31321), (8, 31429), (11, 31492), (12, 31561), (13, 31564), (74, 31903), (91, 31993), (110, 32134), (116, 32164), (121, 32194), (147, 32410), (175, 32605), (180, 32632), (198, 32728), (232, 32944), (264, 33106), (276, 33178), (280, 33187), (331, 33409), (350, 33490), (360, 33520), (380, 33589), (394, 33646), (420, 33730), (422, 33742), (477, 33988), (492, 34045), (501, 34072), (506, 34081), (510, 34093), (536, 34195),

Gene: Tracker_43 Start: 32386, Stop: 34752, Start Num: 61

Candidate Starts for Tracker_43:

(Start: 61 @32386 has 23 MA's), (89, 32515), (139, 32854), (180, 33094), (188, 33133), (190, 33148), (205, 33232), (206, 33238), (237, 33376), (255, 33469), (262, 33505), (318, 33697), (324, 33721), (334, 33751), (336, 33760), (348, 33805), (399, 33973), (418, 34036), (429, 34081), (435, 34105), (471, 34270), (472, 34273), (476, 34306), (485, 34348), (502, 34399), (522, 34450), (524, 34456), (528, 34477), (531, 34486), (534, 34501), (549, 34546), (580, 34732),

Gene: Turuncu_47 Start: 33662, Stop: 36028, Start Num: 61

Candidate Starts for Turuncu_47:

(Start: 61 @33662 has 23 MA's), (139, 34130), (140, 34133), (150, 34190), (158, 34241), (159, 34262), (164, 34277), (178, 34364), (180, 34370), (188, 34409), (190, 34424), (199, 34472), (237, 34652), (253, 34739), (262, 34781), (334, 35027), (336, 35036), (365, 35141), (380, 35186), (429, 35357), (435, 35381), (437, 35390), (471, 35546), (485, 35615), (524, 35723), (531, 35753), (534, 35768), (581, 36014),

Gene: ViviJ_24 Start: 21017, Stop: 23527, Start Num: 54

Candidate Starts for ViviJ_24:

(Start: 54 @21017 has 25 MA's), (66, 21065), (69, 21077), (71, 21086), (108, 21296), (126, 21380), (144, 21533), (148, 21557), (153, 21587), (166, 21668), (167, 21677), (168, 21686), (172, 21713), (175, 21734), (180, 21767), (184, 21779), (188, 21806), (189, 21812), (197, 21857), (210, 21935), (216, 22013), (219, 22034), (230, 22079), (239, 22115), (245, 22151), (248, 22172), (255, 22202), (256, 22214), (283, 22334), (301, 22397), (309, 22421), (322, 22478), (332, 22535), (336, 22550), (341, 22571), (353, 22610), (391, 22751), (415, 22838), (433, 22904), (447, 22940), (453, 22973), (458, 22994), (466, 23030), (478, 23105), (479, 23108), (483, 23132), (495, 23165), (505, 23192), (513, 23213), (520, 23231), (532, 23285), (579, 23513),

Gene: Waterfoul_25 Start: 21181, Stop: 23679, Start Num: 54

Candidate Starts for Waterfoul_25:

(Start: 54 @21181 has 25 MA's), (69, 21241), (71, 21250), (95, 21391), (108, 21460), (126, 21544), (144, 21697), (148, 21721), (152, 21748), (158, 21790), (161, 21817), (165, 21829), (166, 21832), (167, 21841), (168, 21850), (172, 21877), (176, 21910), (180, 21931), (188, 21970), (197, 22021), (210, 22099), (216, 22177), (219, 22198), (230, 22243), (239, 22279), (245, 22315), (248, 22336), (255, 22366), (256, 22378), (292, 22537), (310, 22597), (312, 22606), (317, 22621), (322, 22642), (336, 22714), (339, 22729), (349, 22759), (351, 22762), (359, 22786), (363, 22801), (368, 22828), (386, 22876), (391, 22906), (392, 22909), (396, 22921), (400, 22933), (415, 22990), (421, 23011), (425, 23023), (436, 23071), (447, 23098), (463, 23176), (464, 23179), (476, 23254), (479, 23266), (489, 23308), (491, 23311), (499, 23323), (559, 23524), (565, 23548), (567, 23557), (569, 23572), (579, 23665), (580, 23668),

Gene: Wheezy_43 Start: 32591, Stop: 34957, Start Num: 61

Candidate Starts for Wheezy_43:

(Start: 61 @32591 has 23 MA's), (89, 32720), (139, 33059), (180, 33299), (188, 33338), (190, 33353), (205, 33437), (206, 33443), (237, 33581), (255, 33674), (262, 33710), (318, 33902), (324, 33926), (334, 33956), (336, 33965), (348, 34010), (399, 34178), (418, 34241), (429, 34286), (435, 34310), (471, 34475), (472, 34478), (476, 34511), (485, 34553), (502, 34604), (522, 34655), (524, 34661), (528, 34682), (531, 34691), (534, 34706), (549, 34751), (580, 34937),

Gene: WhoseManz_45 Start: 30279, Stop: 32654, Start Num: 61

Candidate Starts for WhoseManz_45:

(Start: 61 @30279 has 23 MA's), (118, 30582), (139, 30747), (150, 30807), (156, 30849), (158, 30858), (166, 30900), (175, 30960), (180, 30987), (205, 31125), (206, 31131), (217, 31209), (237, 31269), (240, 31293), (253, 31356), (262, 31398), (300, 31530), (305, 31551), (328, 31620), (334, 31644), (336, 31653), (348, 31695), (369, 31776), (377, 31797), (380, 31803), (393, 31845), (417, 31926), (435, 32001), (484, 32241), (485, 32244), (516, 32322), (523, 32346), (531, 32379), (556, 32463), (561, 32511), (566, 32520),

Gene: Yndexa_45 Start: 32233, Stop: 34608, Start Num: 61

Candidate Starts for Yndexa_45:

(Start: 61 @32233 has 23 MA's), (139, 32701), (150, 32761), (156, 32803), (158, 32812), (166, 32854), (175, 32914), (180, 32941), (199, 33043), (205, 33079), (206, 33085), (240, 33247), (253, 33310), (262, 33352), (271, 33412), (300, 33484), (305, 33505), (328, 33574), (334, 33598), (336, 33607), (377, 33751), (380, 33757), (393, 33799), (417, 33880), (435, 33955), (484, 34195), (485, 34198), (516, 34276), (523, 34300), (531, 34333), (554, 34414), (561, 34465), (566, 34474),

Gene: Zodiariah_21 Start: 19427, Stop: 21907, Start Num: 28

Candidate Starts for Zodiariah_21:

(Start: 28 @19427 has 1 MA's), (57, 19550), (96, 19730), (100, 19769), (109, 19802), (132, 19943), (150, 20078), (155, 20114), (164, 20165), (169, 20204), (180, 20267), (186, 20291), (188, 20306), (194, 20348), (218, 20462), (226, 20483), (251, 20567), (255, 20576), (260, 20597), (262, 20606), (323, 20837), (325, 20843), (340, 20924), (342, 20927), (345, 20936), (356, 20978), (381, 21068), (385, 21080), (395, 21125), (399, 21137), (437, 21287), (455, 21353), (471, 21434), (479, 21479), (480, 21485), (487, 21515), (493, 21533), (515, 21590), (519, 21599), (524, 21617), (544, 21695), (553, 21719), (576, 21842), (577, 21848),