

51: ENK_98	24	43	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
52: Andromeda_48	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
53: EIG_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
54: Quasar_48	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
55: BIRD_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
56: Bag_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
57: Wolf_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
58: Yaki_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
59: Chien_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
60: Nod_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
61: But_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
62: May_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
63: L_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
64: L_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
65: Cle_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
66: Pon_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
67: Ran_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
68: Car_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
69: Ret_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
70: Mur_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
71: Star_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
72: Ins_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
73: Guw_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
74: Shre_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306
75: Magn_98	38	48	58	66	78	90	98	108	112	120	125	128	146	159	167	171	180	199	206	216	222	231	233	258	264	270	278	289	306

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 330698 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330698 has 98 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Maco6_42
- Track 2 : LongHai_45, Salvus_45
- Track 3 : FF47_43
- Track 4 : 8UZL_44
- Track 5 : Muddy_44
- Track 6 : NoShow_52
- Track 7 : JacoRen57_40
- Track 8 : Zuko_78
- Track 9 : KimJongPhill_80
- Track 10 : Creature_82
- Track 11 : MAnor_46
- Track 12 : ChickenTender_45
- Track 13 : Jamzy_48
- Track 14 : Yummy_45, SketchMex_43, Horseradish_45, Biskit_45, SweatNTears_44
- Track 15 : PotPie_44
- Track 16 : RADical_44
- Track 17 : Tarnish_45
- Track 18 : Balloona_44, SummitAcademy_44, Vine_47
- Track 19 : Troje_45
- Track 20 : Zareef_40, Azira_40, Nibbles_39
- Track 21 : HippoPololi_40
- Track 22 : Survivors_40
- Track 23 : SheckWes_48, McDazzle_47
- Track 24 : GTE2_35
- Track 25 : RSchmailzl_44
- Track 26 : BigChungus_44, Feastonyeet_44
- Track 27 : Yarn_40
- Track 28 : Fribs8_39
- Track 29 : Sopespian_42, Elliott_43, PsychoKiller_42
- Track 30 : Typhonomachy_42
- Track 31 : Buttrmlkdreams_45
- Track 32 : Dre3_38, Gibbous_38
- Track 33 : MScarn_47
- Track 34 : Burnsey_43, Bubble_41, Socotra_44
- Track 35 : Elinal_48, KayGee_46
- Track 36 : Emalyn_42
- Track 37 : Blondies_46

- Track 38 : Yucky_47
- Track 39 : AikoCarson_44
- Track 40 : Agatha_43, Cozz_41, Nina_42
- Track 41 : GoldHunter_43
- Track 42 : SteamedHams_43
- Track 43 : CanesSauce_42, CaramelLatte_42, ChocoMunchkin_42
- Track 44 : CocoaPuff_45
- Track 45 : Amok_44
- Track 46 : Axym_42
- Track 47 : Lauer_41
- Track 48 : Malvina_41
- Track 49 : MaVan_40
- Track 50 : Margaret_49
- Track 51 : GiKK_48
- Track 52 : AndPeggy_40
- Track 53 : ElJefes_46
- Track 54 : Quasar_43
- Track 55 : BillDoor_43
- Track 56 : Bavidard_44
- Track 57 : Wolfwood_40, Wallaby_42
- Track 58 : Yakult_46
- Track 59 : CherryonLim_46
- Track 60 : Nodigi_51
- Track 61 : Button_46
- Track 62 : Mayweather_49
- Track 63 : Orla_51, Hexbug_51
- Track 64 : Tolls_44
- Track 65 : Cleo_38
- Track 66 : Pons_46
- Track 67 : RanchParmCat_48
- Track 68 : Carsonalex_46
- Track 69 : RedBaron_47
- Track 70 : MunkgeeRoachy_41
- Track 71 : Starburst_43
- Track 72 : Triscuit_70
- Track 73 : Huwbert_71
- Track 74 : Shrew_79
- Track 75 : Magritte_69

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 34 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Agatha_43, Axym_42, Azira_40, BillDoor_43, Biskit_45, Blondies_46, Bubble_41, Burnsey_43, Buttrmilkdreams_45, Carsonalex_46, ChickenTender_45, Cleo_38, Cozz_41, Dre3_38, Elliott_43, Fribs8_39, GTE2_35, Gibbous_38, GoldHunter_43, Horseradish_45, MScarn_47, MaVan_40, MunkgeeRoachy_41, Nibbles_39, Nina_42, PsychoKiller_42, Quasar_43, RADical_44, RSchmailzl_44, RedBaron_47,

SketchMex_43, Socotra_44, Sopespian_42, Starburst_43, Survivors_40, SweatNTears_44, Troje_45, Typhonomachy_42, Wallaby_42, Wolfwood_40, Yummy_45, Zareef_40,

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

-

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

- 8UZL_44, AikoCarson_44, Amok_44, AndPeggy_40, Balloona_44, Bavidard_44, BigChungus_44, Button_46, CanesSauce_42, CaramelLatte_42, CherryonLim_46, ChocoMunchkin_42, CocoaPuff_45, Creature_82, ElJefes_46, Elinal_48, Emalyn_42, FF47_43, Feastonyet_44, GiKK_48, Hexbug_51, HippoPololi_40, Huwbert_71, JacoRen57_40, Jamzy_48, KayGee_46, KimJongPhill_80, Lauer_41, LongHai_45, MAnor_46, Maco6_42, Magritte_69, Malvina_41, Margaret_49, Mayweather_49, McDazzle_47, Muddy_44, NoShow_52, Nodigi_51, Orla_51, Pons_46, PotPie_44, RanchParmCat_48, Salvus_45, SheckWes_48, Shrew_79, SteamedHams_43, SummitAcademy_44, Tarnish_45, Tolls_44, Triscuit_70, Vine_47, Yakult_46, Yarn_40, Yucky_47, Zuko_78,

Summary by start number:

Start 2:

- Found in 3 of 98 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Creature_82 (BR), Zuko_78 (BR),

Start 7:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 2 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Huwbert_71 (GG), Triscuit_70 (GG),

Start 9:

- Found in 1 of 98 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shrew_79 (singleton),

Start 16:

- Found in 3 of 98 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 33.3% of time when present
- Phage (with cluster) where this start called: KimJongPhill_80 (BR),

Start 20:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HippoPololi_40 (CT),

Start 21:

- Found in 42 of 98 (42.9%) of genes in pham

- Manual Annotations of this start: 34 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha_43 (CT), Axym_42 (CT), Azira_40 (CT), BillDoor_43 (CT), Biskit_45 (CT), Blondies_46 (CT), Bubble_41 (CT), Burnsey_43 (CT), Buttrmlkdreams_45 (CT), Carsonalex_46 (CT), ChickenTender_45 (CT), Cleo_38 (CT), Cozz_41 (CT), Dre3_38 (CT), Elliott_43 (CT), Fribs8_39 (CT), GTE2_35 (CT), Gibbous_38 (CT), GoldHunter_43 (CT), Horseradish_45 (CT), MScarn_47 (CT), MaVan_40 (CT), MunkgeeRoachy_41 (CT), Nibbles_39 (CT), Nina_42 (CT), PsychoKiller_42 (CT), Quasar_43 (CT), RADical_44 (CT), RSchmailzl_44 (CT), RedBaron_47 (CT), SketchMex_43 (CT), Socotra_44 (CT), Sopespian_42 (CT), Starburst_43 (CT), Survivors_40 (CT), SweatNTears_44 (CT), Troje_45 (CT), Typhonmarchy_42 (CT), Wallaby_42 (CT), Wolfwood_40 (CT), Yummy_45 (CT), Zareef_40 (CT),

Start 22:

- Found in 10 of 98 (10.2%) of genes in pham
- Manual Annotations of this start: 7 of 77
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AikoCarson_44 (CT), Amok_44 (CT), AndPeggy_40 (CT), CanesSauce_42 (CT), CaramelLatte_42 (CT), ChocoMunchkin_42 (CT), Emalyn_42 (CT), SteamedHams_43 (CT), Tolls_44 (CT), Yarn_40 (CT),

Start 23:

- Found in 6 of 98 (6.1%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: FF47_43 (AB), LongHai_45 (AB), Salvus_45 (AB),

Start 24:

- Found in 11 of 98 (11.2%) of genes in pham
- Manual Annotations of this start: 9 of 77
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Button_46 (CT), GiKK_48 (CT), Hexbug_51 (CT), Jamzy_48 (CT), Margaret_49 (CT), Nodigi_51 (CT), Orla_51 (CT), RanchParmCat_48 (CT), Yakult_46 (CT),

Start 25:

- Found in 20 of 98 (20.4%) of genes in pham
- Manual Annotations of this start: 16 of 77
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Balloona_44 (CT), Bavidard_44 (CT), BigChungus_44 (CT), CherryonLim_46 (CT), CocoaPuff_45 (CT), Elinal_48 (CT), Feastonyeet_44 (CT), KayGee_46 (CT), Lauer_41 (CT), MANor_46 (CT), Mayweather_49 (CT), McDazzle_47 (CT), Pons_46 (CT), PotPie_44 (CT), SheckWes_48 (CT), SummitAcademy_44 (CT), Tarnish_45 (CT), Vine_47 (CT), Yucky_47 (CT),

Start 29:

- Found in 25 of 98 (25.5%) of genes in pham
- No Manual Annotations of this start.
- Called 4.0% of time when present

- Phage (with cluster) where this start called: Malvina_41 (CT),

Start 30:

- Found in 3 of 98 (3.1%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 33.3% of time when present
- Phage (with cluster) where this start called: NoShow_52 (AB),

Start 34:

- Found in 28 of 98 (28.6%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 3.6% of time when present
- Phage (with cluster) where this start called: JacoRen57_40 (AB),

Start 35:

- Found in 30 of 98 (30.6%) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: ElJefes_46 (CT),

Start 36:

- Found in 8 of 98 (8.2%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 25.0% of time when present
- Phage (with cluster) where this start called: 8UZL_44 (AB), Muddy_44 (AB),

Start 40:

- Found in 11 of 98 (11.2%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Maco6_42 (AB),

Start 44:

- Found in 6 of 98 (6.1%) of genes in pham
- Manual Annotations of this start: 1 of 77
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Magritte_69 (singleton),

Summary by clusters:

There are 5 clusters represented in this pham: GG, singleton, AB, BR, CT,

Info for manual annotations of cluster AB:

- Start number 30 was manually annotated 1 time for cluster AB.
- Start number 34 was manually annotated 1 time for cluster AB.
- Start number 36 was manually annotated 1 time for cluster AB.
- Start number 40 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster BR:

- Start number 2 was manually annotated 1 time for cluster BR.
- Start number 16 was manually annotated 1 time for cluster BR.

Info for manual annotations of cluster CT:

- Start number 20 was manually annotated 1 time for cluster CT.
- Start number 21 was manually annotated 34 times for cluster CT.
- Start number 22 was manually annotated 7 times for cluster CT.
- Start number 24 was manually annotated 9 times for cluster CT.
- Start number 25 was manually annotated 16 times for cluster CT.

Info for manual annotations of cluster GG:

- Start number 7 was manually annotated 2 times for cluster GG.

Gene Information:

Gene: 8UZL_44 Start: 34273, Stop: 31928, Start Num: 36

Candidate Starts for 8UZL_44:

(23, 34339), (27, 34330), (Start: 34 @34285 has 1 MA's), (Start: 36 @34273 has 1 MA's), (Start: 40 @34234 has 1 MA's), (46, 34177), (59, 34075), (61, 34045), (65, 34015), (89, 33847), (107, 33727), (122, 33625), (128, 33544), (134, 33484), (142, 33418), (159, 33286), (166, 33238), (178, 33166), (179, 33157), (180, 33145), (193, 33076), (214, 32863), (216, 32809), (224, 32728), (227, 32695), (233, 32629), (234, 32623), (235, 32617), (236, 32611), (238, 32587), (242, 32554), (243, 32539), (244, 32530), (256, 32371), (258, 32359), (284, 32131), (289, 32104), (299, 32035),

Gene: Agatha_43 Start: 32554, Stop: 30161, Start Num: 21

Candidate Starts for Agatha_43:

(Start: 21 @32554 has 34 MA's), (26, 32548), (Start: 34 @32500 has 1 MA's), (39, 32458), (43, 32434), (58, 32308), (59, 32284), (65, 32239), (68, 32188), (71, 32173), (75, 32152), (82, 32104), (88, 32071), (90, 32062), (98, 31987), (101, 31975), (112, 31906), (116, 31879), (117, 31873), (120, 31858), (124, 31804), (125, 31801), (127, 31783), (128, 31762), (134, 31702), (149, 31579), (150, 31573), (159, 31504), (164, 31462), (179, 31375), (182, 31351), (186, 31345), (188, 31321), (189, 31312), (191, 31297), (193, 31285), (198, 31243), (199, 31240), (200, 31237), (204, 31201), (213, 31090), (217, 31021), (218, 31015), (222, 30979), (226, 30922), (231, 30886), (233, 30850), (234, 30844), (235, 30838), (236, 30832), (242, 30775), (244, 30751), (247, 30706), (289, 30325), (296, 30280), (297, 30271), (304, 30211), (306, 30193),

Gene: AikoCarson_44 Start: 32796, Stop: 30409, Start Num: 22

Candidate Starts for AikoCarson_44:

(1, 32943), (5, 32901), (8, 32868), (11, 32853), (Start: 22 @32796 has 7 MA's), (27, 32787), (29, 32781), (39, 32700), (49, 32604), (55, 32580), (58, 32553), (59, 32529), (75, 32397), (78, 32370), (81, 32355), (90, 32307), (94, 32277), (98, 32232), (101, 32220), (112, 32154), (120, 32106), (124, 32052), (127, 32031), (128, 32010), (129, 31995), (134, 31950), (149, 31827), (156, 31767), (159, 31752), (164, 31710), (179, 31623), (182, 31599), (186, 31593), (188, 31569), (189, 31560), (198, 31491), (199, 31488), (200, 31485), (209, 31389), (213, 31338), (217, 31269), (218, 31263), (231, 31134), (233, 31098), (234, 31092), (235, 31086), (236, 31080), (238, 31056), (242, 31023), (244, 30999), (247, 30954), (267, 30741), (270, 30720), (274, 30702), (275, 30699), (289, 30573), (296, 30528), (297, 30519),

Gene: Amok_44 Start: 32820, Stop: 30433, Start Num: 22

Candidate Starts for Amok_44:

(5, 32925), (8, 32892), (11, 32877), (Start: 22 @32820 has 7 MA's), (27, 32811), (29, 32805), (39, 32724), (49, 32628), (55, 32604), (58, 32577), (59, 32553), (75, 32421), (78, 32394), (81, 32379), (90, 32331), (94, 32301), (98, 32256), (101, 32244), (112, 32178), (120, 32130), (124, 32076), (127, 32055), (128, 32034), (129, 32019), (134, 31974), (149, 31851), (156, 31791), (159, 31776), (164, 31734), (179, 31647), (182, 31623), (186, 31617), (188, 31593), (189, 31584), (198, 31515), (199,

31512), (200, 31509), (209, 31413), (213, 31362), (217, 31293), (218, 31287), (231, 31158), (233, 31122), (234, 31116), (235, 31110), (236, 31104), (238, 31080), (242, 31047), (244, 31023), (247, 30978), (267, 30765), (270, 30744), (274, 30726), (275, 30723), (289, 30597), (296, 30552), (297, 30543),

Gene: AndPeggy_40 Start: 32151, Stop: 29764, Start Num: 22

Candidate Starts for AndPeggy_40:

(8, 32223), (11, 32208), (Start: 22 @32151 has 7 MA's), (27, 32142), (29, 32136), (39, 32055), (55, 31935), (59, 31884), (75, 31752), (78, 31725), (94, 31632), (98, 31587), (110, 31527), (112, 31509), (120, 31461), (124, 31407), (125, 31404), (127, 31386), (128, 31365), (132, 31314), (134, 31305), (135, 31302), (143, 31227), (149, 31182), (156, 31122), (159, 31107), (171, 31023), (179, 30978), (182, 30954), (186, 30948), (188, 30924), (198, 30846), (199, 30843), (200, 30840), (213, 30693), (217, 30624), (226, 30525), (231, 30489), (233, 30453), (234, 30447), (235, 30441), (236, 30435), (238, 30411), (242, 30378), (244, 30354), (247, 30309), (251, 30249), (267, 30096), (270, 30075), (274, 30057), (275, 30054), (289, 29928), (296, 29883), (297, 29874),

Gene: Axym_42 Start: 32451, Stop: 30058, Start Num: 21

Candidate Starts for Axym_42:

(Start: 21 @32451 has 34 MA's), (26, 32445), (Start: 34 @32397 has 1 MA's), (39, 32355), (43, 32331), (58, 32205), (59, 32181), (65, 32136), (68, 32085), (71, 32070), (75, 32049), (82, 32001), (90, 31959), (98, 31884), (101, 31872), (112, 31803), (116, 31776), (117, 31770), (120, 31755), (124, 31701), (125, 31698), (127, 31680), (128, 31659), (134, 31599), (149, 31476), (150, 31470), (159, 31401), (164, 31359), (179, 31272), (182, 31248), (186, 31242), (188, 31218), (189, 31209), (191, 31194), (193, 31182), (198, 31140), (199, 31137), (200, 31134), (213, 30987), (217, 30918), (218, 30912), (222, 30876), (231, 30783), (233, 30747), (234, 30741), (235, 30735), (236, 30729), (242, 30672), (244, 30648), (247, 30603), (288, 30225), (289, 30222), (296, 30177), (297, 30168), (304, 30108),

Gene: Azira_40 Start: 32021, Stop: 29664, Start Num: 21

Candidate Starts for Azira_40:

(17, 32030), (Start: 21 @32021 has 34 MA's), (29, 32006), (33, 31970), (51, 31835), (59, 31772), (64, 31730), (66, 31718), (78, 31616), (79, 31613), (92, 31538), (96, 31499), (98, 31478), (108, 31427), (114, 31385), (120, 31355), (124, 31301), (127, 31280), (128, 31259), (135, 31196), (151, 31061), (153, 31046), (155, 31019), (159, 31001), (171, 30917), (178, 30881), (193, 30788), (198, 30746), (199, 30743), (200, 30740), (202, 30716), (204, 30704), (206, 30692), (215, 30551), (217, 30524), (231, 30389), (233, 30353), (234, 30347), (235, 30341), (236, 30335), (238, 30311), (242, 30278), (244, 30254), (247, 30209), (249, 30203), (253, 30143), (264, 30035), (272, 29966), (275, 29954), (277, 29930), (285, 29852), (289, 29828), (299, 29759),

Gene: Balloona_44 Start: 33879, Stop: 31498, Start Num: 25

Candidate Starts for Balloona_44:

(Start: 25 @33879 has 16 MA's), (35, 33819), (42, 33777), (45, 33738), (59, 33618), (60, 33597), (65, 33573), (73, 33495), (74, 33489), (75, 33486), (79, 33456), (87, 33408), (92, 33381), (93, 33378), (98, 33321), (107, 33282), (110, 33261), (115, 33219), (120, 33195), (121, 33186), (122, 33180), (123, 33174), (124, 33141), (127, 33120), (128, 33099), (149, 32916), (159, 32841), (164, 32799), (179, 32712), (186, 32688), (188, 32664), (189, 32655), (192, 32634), (199, 32583), (200, 32580), (201, 32565), (203, 32544), (214, 32418), (216, 32370), (217, 32361), (222, 32319), (231, 32226), (233, 32190), (234, 32184), (235, 32178), (236, 32172), (242, 32115), (244, 32091), (251, 31986), (252, 31983), (261, 31890), (264, 31872), (267, 31833), (275, 31791), (277, 31767), (280, 31737), (285, 31689), (289, 31665), (296, 31620), (303, 31554), (306, 31533), (307, 31527), (308, 31521),

Gene: Bavilard_44 Start: 33694, Stop: 31319, Start Num: 25

Candidate Starts for Bavilard_44:

(Start: 25 @33694 has 16 MA's), (35, 33634), (42, 33592), (45, 33553), (59, 33433), (60, 33412), (65, 33388), (73, 33310), (74, 33304), (75, 33301), (79, 33271), (82, 33253), (85, 33235), (92, 33196), (93, 33193), (98, 33136), (104, 33112), (107, 33097), (115, 33034), (120, 33010), (121, 33001), (122, 32995), (123, 32989), (124, 32956), (127, 32935), (128, 32914), (149, 32731), (150, 32725), (159, 32656), (164, 32614), (179, 32527), (186, 32503), (188, 32479), (192, 32449), (199, 32398), (200, 32395), (201, 32380), (203, 32359), (216, 32185), (217, 32176), (220, 32146), (222, 32134), (231, 32041), (233, 32005), (234, 31999), (235, 31993), (236, 31987), (242, 31930), (244, 31906), (251, 31801), (252, 31798), (261, 31705), (264, 31687), (267, 31648), (270, 31627), (275, 31606), (277, 31582), (285, 31504), (289, 31480), (306, 31348),

Gene: BigChungus_44 Start: 33868, Stop: 31490, Start Num: 25

Candidate Starts for BigChungus_44:

(Start: 25 @33868 has 16 MA's), (35, 33808), (42, 33766), (45, 33727), (57, 33637), (59, 33607), (60, 33586), (65, 33562), (73, 33484), (74, 33478), (75, 33475), (79, 33445), (82, 33427), (85, 33409), (92, 33370), (93, 33367), (98, 33310), (104, 33286), (107, 33271), (115, 33208), (120, 33184), (121, 33175), (122, 33169), (123, 33163), (124, 33130), (127, 33109), (128, 33088), (149, 32905), (159, 32830), (164, 32788), (179, 32701), (186, 32677), (188, 32653), (189, 32644), (192, 32623), (199, 32572), (200, 32569), (201, 32554), (203, 32533), (214, 32407), (216, 32359), (217, 32350), (222, 32308), (231, 32215), (233, 32179), (234, 32173), (235, 32167), (236, 32161), (242, 32104), (244, 32080), (251, 31975), (252, 31972), (261, 31879), (264, 31861), (267, 31822), (275, 31780), (277, 31756), (280, 31726), (285, 31678), (289, 31654), (291, 31630), (296, 31609), (306, 31522), (308, 31510),

Gene: BillDoor_43 Start: 31825, Stop: 29438, Start Num: 21

Candidate Starts for BillDoor_43:

(Start: 21 @31825 has 34 MA's), (35, 31762), (43, 31705), (58, 31582), (59, 31558), (75, 31426), (78, 31399), (94, 31306), (98, 31261), (110, 31201), (112, 31183), (120, 31135), (124, 31081), (125, 31078), (127, 31060), (128, 31039), (132, 30988), (134, 30979), (135, 30976), (149, 30856), (156, 30796), (159, 30781), (171, 30697), (179, 30652), (182, 30628), (186, 30622), (188, 30598), (198, 30520), (199, 30517), (200, 30514), (202, 30490), (213, 30367), (217, 30298), (218, 30292), (226, 30199), (231, 30163), (233, 30127), (234, 30121), (235, 30115), (236, 30109), (238, 30085), (242, 30052), (244, 30028), (247, 29983), (251, 29923), (267, 29770), (274, 29731), (275, 29728), (289, 29602), (296, 29557), (297, 29548), (304, 29488),

Gene: Biskit_45 Start: 32515, Stop: 30125, Start Num: 21

Candidate Starts for Biskit_45:

(Start: 21 @32515 has 34 MA's), (35, 32452), (38, 32434), (39, 32419), (45, 32365), (46, 32353), (47, 32332), (55, 32299), (58, 32272), (59, 32248), (63, 32221), (75, 32116), (82, 32068), (98, 31951), (112, 31870), (116, 31843), (120, 31822), (124, 31768), (125, 31765), (127, 31747), (128, 31726), (134, 31666), (159, 31468), (164, 31426), (179, 31339), (182, 31315), (186, 31309), (192, 31255), (193, 31249), (198, 31207), (199, 31204), (200, 31201), (213, 31054), (215, 31012), (217, 30985), (222, 30943), (231, 30850), (233, 30814), (234, 30808), (235, 30802), (236, 30796), (238, 30772), (242, 30739), (244, 30715), (247, 30670), (251, 30610), (267, 30457), (289, 30289), (296, 30244), (297, 30235), (298, 30226),

Gene: Blondies_46 Start: 32832, Stop: 30442, Start Num: 21

Candidate Starts for Blondies_46:

(Start: 21 @32832 has 34 MA's), (35, 32769), (39, 32736), (45, 32682), (46, 32670), (47, 32649), (55, 32616), (58, 32589), (59, 32565), (63, 32538), (75, 32433), (82, 32385), (98, 32268), (112, 32187), (116, 32160), (120, 32139), (124, 32085), (125, 32082), (127, 32064), (128, 32043), (134, 31983), (159, 31785), (164, 31743), (179, 31656), (182, 31632), (186, 31626), (192, 31572), (193, 31566), (198, 31524), (199, 31521), (200, 31518), (213, 31371), (215, 31329), (217, 31302), (222, 31260), (231, 31167), (233, 31131), (234, 31125), (235, 31119), (236, 31113), (238, 31089), (242, 31056),

(244, 31032), (247, 30987), (267, 30774), (289, 30606), (296, 30561), (297, 30552), (298, 30543),

Gene: Bubble_41 Start: 32141, Stop: 29748, Start Num: 21

Candidate Starts for Bubble_41:

(Start: 21 @32141 has 34 MA's), (26, 32135), (Start: 34 @32087 has 1 MA's), (39, 32045), (43, 32021), (58, 31895), (59, 31871), (65, 31826), (68, 31775), (71, 31760), (75, 31739), (82, 31691), (90, 31649), (98, 31574), (101, 31562), (112, 31493), (117, 31460), (120, 31445), (124, 31391), (125, 31388), (127, 31370), (128, 31349), (134, 31289), (149, 31166), (150, 31160), (159, 31091), (164, 31049), (179, 30962), (182, 30938), (186, 30932), (188, 30908), (189, 30899), (191, 30884), (193, 30872), (198, 30830), (199, 30827), (200, 30824), (213, 30677), (217, 30608), (218, 30602), (222, 30566), (231, 30473), (233, 30437), (234, 30431), (235, 30425), (236, 30419), (242, 30362), (244, 30338), (247, 30293), (289, 29912), (296, 29867), (297, 29858), (304, 29798),

Gene: Burnsey_43 Start: 32545, Stop: 30152, Start Num: 21

Candidate Starts for Burnsey_43:

(Start: 21 @32545 has 34 MA's), (26, 32539), (Start: 34 @32491 has 1 MA's), (39, 32449), (43, 32425), (58, 32299), (59, 32275), (65, 32230), (68, 32179), (71, 32164), (75, 32143), (82, 32095), (90, 32053), (98, 31978), (101, 31966), (112, 31897), (117, 31864), (120, 31849), (124, 31795), (125, 31792), (127, 31774), (128, 31753), (134, 31693), (149, 31570), (150, 31564), (159, 31495), (164, 31453), (179, 31366), (182, 31342), (186, 31336), (188, 31312), (189, 31303), (191, 31288), (193, 31276), (198, 31234), (199, 31231), (200, 31228), (213, 31081), (217, 31012), (218, 31006), (222, 30970), (231, 30877), (233, 30841), (234, 30835), (235, 30829), (236, 30823), (242, 30766), (244, 30742), (247, 30697), (289, 30316), (296, 30271), (297, 30262), (304, 30202),

Gene: Button_46 Start: 32802, Stop: 30418, Start Num: 24

Candidate Starts for Button_46:

(Start: 24 @32802 has 9 MA's), (43, 32688), (45, 32658), (59, 32550), (60, 32529), (78, 32391), (81, 32376), (90, 32328), (98, 32253), (100, 32247), (101, 32241), (102, 32235), (112, 32166), (115, 32142), (119, 32121), (120, 32118), (121, 32109), (127, 32043), (128, 32022), (146, 31875), (159, 31761), (166, 31713), (167, 31704), (169, 31683), (171, 31677), (188, 31584), (190, 31572), (199, 31500), (204, 31458), (206, 31446), (215, 31305), (216, 31281), (218, 31266), (222, 31230), (231, 31137), (233, 31101), (234, 31095), (235, 31089), (236, 31083), (242, 31026), (243, 31011), (244, 31002), (256, 30843), (259, 30822), (264, 30783), (267, 30744), (270, 30723), (275, 30702), (276, 30690), (278, 30672), (283, 30609), (284, 30603), (289, 30576), (291, 30552), (296, 30531), (306, 30444),

Gene: Buttrmlkdreams_45 Start: 32962, Stop: 30572, Start Num: 21

Candidate Starts for Buttrmlkdreams_45:

(Start: 21 @32962 has 34 MA's), (35, 32899), (38, 32881), (39, 32866), (45, 32812), (46, 32800), (47, 32779), (55, 32746), (58, 32719), (59, 32695), (63, 32668), (75, 32563), (82, 32515), (98, 32398), (112, 32317), (116, 32290), (120, 32269), (125, 32212), (127, 32194), (128, 32173), (134, 32113), (149, 31990), (150, 31984), (159, 31915), (164, 31873), (179, 31786), (182, 31762), (186, 31756), (188, 31732), (189, 31723), (191, 31708), (193, 31696), (198, 31654), (199, 31651), (200, 31648), (213, 31501), (217, 31432), (218, 31426), (222, 31390), (231, 31297), (233, 31261), (234, 31255), (235, 31249), (236, 31243), (242, 31186), (244, 31162), (247, 31117), (289, 30736), (296, 30691), (297, 30682), (304, 30622),

Gene: CanesSauce_42 Start: 32324, Stop: 29937, Start Num: 22

Candidate Starts for CanesSauce_42:

(8, 32396), (11, 32381), (Start: 22 @32324 has 7 MA's), (27, 32315), (29, 32309), (39, 32228), (55, 32108), (59, 32057), (75, 31925), (78, 31898), (81, 31883), (90, 31835), (94, 31805), (98, 31760), (110, 31700), (112, 31682), (120, 31634), (124, 31580), (125, 31577), (127, 31559), (128, 31538), (132, 31487), (134, 31478), (135, 31475), (143, 31400), (149, 31355), (156, 31295), (159, 31280), (171,

31196), (179, 31151), (182, 31127), (186, 31121), (188, 31097), (198, 31019), (199, 31016), (200, 31013), (213, 30866), (217, 30797), (226, 30698), (231, 30662), (233, 30626), (234, 30620), (235, 30614), (236, 30608), (238, 30584), (242, 30551), (244, 30527), (247, 30482), (251, 30422), (267, 30269), (274, 30230), (275, 30227), (289, 30101), (296, 30056), (297, 30047),

Gene: CaramellLatte_42 Start: 32324, Stop: 29937, Start Num: 22

Candidate Starts for CaramellLatte_42:

(8, 32396), (11, 32381), (Start: 22 @32324 has 7 MA's), (27, 32315), (29, 32309), (39, 32228), (55, 32108), (59, 32057), (75, 31925), (78, 31898), (81, 31883), (90, 31835), (94, 31805), (98, 31760), (110, 31700), (112, 31682), (120, 31634), (124, 31580), (125, 31577), (127, 31559), (128, 31538), (132, 31487), (134, 31478), (135, 31475), (143, 31400), (149, 31355), (156, 31295), (159, 31280), (171, 31196), (179, 31151), (182, 31127), (186, 31121), (188, 31097), (198, 31019), (199, 31016), (200, 31013), (213, 30866), (217, 30797), (226, 30698), (231, 30662), (233, 30626), (234, 30620), (235, 30614), (236, 30608), (238, 30584), (242, 30551), (244, 30527), (247, 30482), (251, 30422), (267, 30269), (274, 30230), (275, 30227), (289, 30101), (296, 30056), (297, 30047),

Gene: Carsonalex_46 Start: 32513, Stop: 30120, Start Num: 21

Candidate Starts for Carsonalex_46:

(Start: 21 @32513 has 34 MA's), (26, 32507), (Start: 34 @32459 has 1 MA's), (39, 32417), (43, 32393), (58, 32267), (59, 32243), (65, 32198), (68, 32147), (71, 32132), (75, 32111), (82, 32063), (88, 32030), (90, 32021), (98, 31946), (101, 31934), (112, 31865), (116, 31838), (117, 31832), (120, 31817), (124, 31763), (125, 31760), (127, 31742), (128, 31721), (134, 31661), (149, 31538), (150, 31532), (159, 31463), (164, 31421), (179, 31334), (182, 31310), (186, 31304), (188, 31280), (189, 31271), (191, 31256), (193, 31244), (198, 31202), (199, 31199), (200, 31196), (204, 31160), (213, 31049), (217, 30980), (218, 30974), (222, 30938), (231, 30845), (233, 30809), (234, 30803), (235, 30797), (236, 30791), (242, 30734), (243, 30719), (244, 30710), (247, 30665), (254, 30572), (289, 30284), (296, 30239), (297, 30230), (304, 30170),

Gene: CherryonLim_46 Start: 35452, Stop: 33086, Start Num: 25

Candidate Starts for CherryonLim_46:

(Start: 25 @35452 has 16 MA's), (35, 35392), (39, 35365), (42, 35350), (45, 35311), (59, 35206), (65, 35161), (73, 35083), (74, 35077), (75, 35074), (78, 35047), (79, 35044), (85, 35008), (86, 35005), (87, 34996), (92, 34969), (93, 34966), (98, 34909), (107, 34870), (115, 34807), (120, 34783), (123, 34762), (124, 34729), (125, 34726), (127, 34708), (128, 34687), (134, 34627), (149, 34504), (159, 34429), (161, 34408), (164, 34387), (179, 34300), (188, 34252), (192, 34222), (193, 34216), (199, 34171), (200, 34168), (201, 34153), (203, 34132), (206, 34117), (209, 34069), (210, 34048), (216, 33958), (217, 33949), (219, 33934), (220, 33919), (222, 33907), (231, 33814), (233, 33778), (234, 33772), (235, 33766), (236, 33760), (242, 33703), (244, 33679), (251, 33574), (252, 33571), (261, 33478), (264, 33460), (275, 33379), (277, 33355), (280, 33325), (285, 33277), (286, 33268), (289, 33253), (291, 33229), (296, 33208), (303, 33142), (306, 33121), (307, 33115), (308, 33109),

Gene: ChickenTender_45 Start: 32093, Stop: 29700, Start Num: 21

Candidate Starts for ChickenTender_45:

(14, 32120), (Start: 21 @32093 has 34 MA's), (Start: 34 @32039 has 1 MA's), (43, 31973), (59, 31823), (65, 31778), (71, 31712), (75, 31691), (81, 31649), (90, 31601), (98, 31526), (101, 31514), (112, 31445), (117, 31412), (120, 31397), (124, 31343), (125, 31340), (127, 31322), (128, 31301), (134, 31241), (135, 31238), (149, 31118), (155, 31061), (156, 31058), (159, 31043), (169, 30965), (179, 30914), (182, 30890), (186, 30884), (188, 30860), (189, 30851), (193, 30824), (198, 30782), (199, 30779), (200, 30776), (213, 30629), (217, 30560), (218, 30554), (222, 30518), (231, 30425), (233, 30389), (234, 30383), (235, 30377), (236, 30371), (238, 30347), (242, 30314), (244, 30290), (247, 30245), (289, 29864), (296, 29819), (297, 29810), (304, 29750),

Gene: ChocoMunchkin_42 Start: 32324, Stop: 29937, Start Num: 22

Candidate Starts for ChocoMunchkin_42:

(8, 32396), (11, 32381), (Start: 22 @32324 has 7 MA's), (27, 32315), (29, 32309), (39, 32228), (55, 32108), (59, 32057), (75, 31925), (78, 31898), (81, 31883), (90, 31835), (94, 31805), (98, 31760), (110, 31700), (112, 31682), (120, 31634), (124, 31580), (125, 31577), (127, 31559), (128, 31538), (132, 31487), (134, 31478), (135, 31475), (143, 31400), (149, 31355), (156, 31295), (159, 31280), (171, 31196), (179, 31151), (182, 31127), (186, 31121), (188, 31097), (198, 31019), (199, 31016), (200, 31013), (213, 30866), (217, 30797), (226, 30698), (231, 30662), (233, 30626), (234, 30620), (235, 30614), (236, 30608), (238, 30584), (242, 30551), (244, 30527), (247, 30482), (251, 30422), (267, 30269), (274, 30230), (275, 30227), (289, 30101), (296, 30056), (297, 30047),

Gene: Cleo_38 Start: 31604, Stop: 29244, Start Num: 21

Candidate Starts for Cleo_38:

(15, 31628), (Start: 21 @31604 has 34 MA's), (29, 31589), (33, 31553), (51, 31421), (58, 31382), (59, 31358), (64, 31316), (90, 31139), (93, 31121), (98, 31064), (107, 31025), (120, 30938), (124, 30884), (127, 30863), (128, 30842), (151, 30644), (155, 30602), (159, 30584), (171, 30500), (178, 30464), (193, 30371), (199, 30326), (202, 30299), (204, 30287), (206, 30275), (215, 30134), (222, 30065), (225, 30014), (229, 29990), (231, 29972), (233, 29936), (234, 29930), (235, 29924), (236, 29918), (238, 29894), (242, 29861), (244, 29837), (247, 29792), (248, 29789), (253, 29726), (254, 29699), (264, 29618), (272, 29549), (275, 29537), (277, 29513), (284, 29438), (285, 29435), (289, 29411), (291, 29387), (296, 29366), (299, 29342), (304, 29297), (306, 29279),

Gene: CocoaPuff_45 Start: 33873, Stop: 31495, Start Num: 25

Candidate Starts for CocoaPuff_45:

(Start: 25 @33873 has 16 MA's), (35, 33813), (42, 33771), (45, 33732), (59, 33612), (60, 33591), (65, 33567), (73, 33489), (74, 33483), (75, 33480), (79, 33450), (87, 33402), (92, 33375), (93, 33372), (98, 33315), (107, 33276), (110, 33255), (115, 33213), (120, 33189), (121, 33180), (122, 33174), (123, 33168), (124, 33135), (127, 33114), (128, 33093), (149, 32910), (159, 32835), (164, 32793), (179, 32706), (186, 32682), (188, 32658), (189, 32649), (192, 32628), (199, 32577), (200, 32574), (201, 32559), (203, 32538), (214, 32412), (216, 32364), (217, 32355), (222, 32313), (231, 32220), (233, 32184), (234, 32178), (235, 32172), (236, 32166), (242, 32109), (244, 32085), (251, 31980), (252, 31977), (261, 31884), (264, 31866), (267, 31827), (275, 31785), (277, 31761), (280, 31731), (285, 31683), (289, 31659), (291, 31635), (296, 31614), (306, 31527), (308, 31515),

Gene: Cozz_41 Start: 32142, Stop: 29749, Start Num: 21

Candidate Starts for Cozz_41:

(Start: 21 @32142 has 34 MA's), (26, 32136), (Start: 34 @32088 has 1 MA's), (39, 32046), (43, 32022), (58, 31896), (59, 31872), (65, 31827), (68, 31776), (71, 31761), (75, 31740), (82, 31692), (88, 31659), (90, 31650), (98, 31575), (101, 31563), (112, 31494), (116, 31467), (117, 31461), (120, 31446), (124, 31392), (125, 31389), (127, 31371), (128, 31350), (134, 31290), (149, 31167), (150, 31161), (159, 31092), (164, 31050), (179, 30963), (182, 30939), (186, 30933), (188, 30909), (189, 30900), (191, 30885), (193, 30873), (198, 30831), (199, 30828), (200, 30825), (204, 30789), (213, 30678), (217, 30609), (218, 30603), (222, 30567), (226, 30510), (231, 30474), (233, 30438), (234, 30432), (235, 30426), (236, 30420), (242, 30363), (244, 30339), (247, 30294), (289, 29913), (296, 29868), (297, 29859), (304, 29799), (306, 29781),

Gene: Creature_82 Start: 56975, Stop: 59575, Start Num: 2

Candidate Starts for Creature_82:

(Start: 2 @56975 has 1 MA's), (6, 57017), (12, 57047), (Start: 16 @57080 has 1 MA's), (39, 57209), (Start: 40 @57215 has 1 MA's), (42, 57224), (52, 57320), (56, 57338), (67, 57482), (70, 57515), (93, 57659), (101, 57728), (105, 57749), (108, 57782), (124, 57908), (126, 57923), (128, 57950), (132, 58001), (137, 58022), (144, 58070), (159, 58187), (176, 58316), (183, 58376), (191, 58424), (193, 58436), (197, 58487), (199, 58502), (200, 58505), (206, 58553), (212, 58640), (224, 58796), (225, 58817), (231, 58859), (233, 58895), (234, 58901), (235, 58907), (236, 58913), (242, 58970), (244,

58994), (254, 59132), (256, 59153), (270, 59273), (274, 59291), (277, 59318), (283, 59387), (284, 59393), (286, 59405), (289, 59420), (293, 59453),

Gene: Dre3_38 Start: 31347, Stop: 28987, Start Num: 21

Candidate Starts for Dre3_38:

(15, 31371), (Start: 21 @31347 has 34 MA's), (29, 31332), (33, 31296), (58, 31125), (59, 31101), (93, 30864), (98, 30807), (107, 30768), (110, 30747), (120, 30681), (124, 30627), (127, 30606), (128, 30585), (151, 30387), (155, 30345), (159, 30327), (160, 30309), (168, 30264), (170, 30246), (171, 30243), (178, 30207), (193, 30114), (199, 30069), (202, 30042), (204, 30030), (206, 30018), (215, 29877), (222, 29808), (225, 29757), (229, 29733), (231, 29715), (232, 29706), (233, 29679), (234, 29673), (235, 29667), (236, 29661), (242, 29604), (244, 29580), (247, 29535), (248, 29532), (253, 29469), (264, 29361), (272, 29292), (275, 29280), (277, 29256), (284, 29181), (285, 29178), (289, 29154), (291, 29130), (296, 29109), (299, 29085), (304, 29040), (306, 29022),

Gene: ElJefes_46 Start: 34328, Stop: 32013, Start Num: 35

Candidate Starts for ElJefes_46:

(Start: 25 @34388 has 16 MA's), (35, 34328), (45, 34247), (59, 34127), (65, 34082), (73, 34004), (74, 33998), (75, 33995), (79, 33965), (82, 33947), (87, 33917), (92, 33890), (93, 33887), (98, 33830), (103, 33809), (107, 33791), (115, 33728), (120, 33704), (121, 33695), (123, 33683), (124, 33650), (127, 33629), (128, 33608), (149, 33425), (159, 33350), (161, 33329), (164, 33308), (179, 33221), (188, 33173), (192, 33143), (193, 33137), (199, 33092), (200, 33089), (201, 33074), (203, 33053), (204, 33050), (210, 32969), (213, 32939), (216, 32879), (217, 32870), (219, 32855), (220, 32840), (222, 32828), (231, 32735), (233, 32699), (234, 32693), (235, 32687), (236, 32681), (242, 32624), (244, 32600), (251, 32495), (252, 32492), (256, 32441), (261, 32399), (264, 32381), (267, 32342), (275, 32300), (277, 32276), (280, 32246), (285, 32198), (286, 32189), (289, 32174), (291, 32150), (296, 32129), (302, 32075), (306, 32042),

Gene: Elinal_48 Start: 34208, Stop: 31833, Start Num: 25

Candidate Starts for Elinal_48:

(Start: 25 @34208 has 16 MA's), (35, 34148), (42, 34106), (45, 34067), (59, 33947), (60, 33926), (65, 33902), (73, 33824), (74, 33818), (75, 33815), (79, 33785), (82, 33767), (85, 33749), (92, 33710), (93, 33707), (98, 33650), (104, 33626), (107, 33611), (115, 33548), (120, 33524), (121, 33515), (122, 33509), (123, 33503), (124, 33470), (127, 33449), (128, 33428), (149, 33245), (159, 33170), (164, 33128), (186, 33017), (188, 32993), (192, 32963), (199, 32912), (200, 32909), (201, 32894), (203, 32873), (216, 32699), (217, 32690), (220, 32660), (231, 32555), (233, 32519), (234, 32513), (235, 32507), (236, 32501), (242, 32444), (244, 32420), (251, 32315), (252, 32312), (261, 32219), (264, 32201), (267, 32162), (275, 32120), (277, 32096), (280, 32066), (285, 32018), (289, 31994), (296, 31949), (306, 31862),

Gene: Eliott_43 Start: 32440, Stop: 30047, Start Num: 21

Candidate Starts for Eliott_43:

(Start: 21 @32440 has 34 MA's), (26, 32434), (Start: 34 @32386 has 1 MA's), (39, 32344), (43, 32320), (58, 32194), (59, 32170), (65, 32125), (68, 32074), (71, 32059), (75, 32038), (82, 31990), (88, 31957), (90, 31948), (98, 31873), (101, 31861), (112, 31792), (116, 31765), (117, 31759), (120, 31744), (124, 31690), (125, 31687), (127, 31669), (128, 31648), (134, 31588), (149, 31465), (150, 31459), (159, 31390), (164, 31348), (179, 31261), (182, 31237), (186, 31231), (188, 31207), (189, 31198), (191, 31183), (193, 31171), (198, 31129), (199, 31126), (200, 31123), (213, 30976), (215, 30934), (217, 30907), (218, 30901), (231, 30772), (233, 30736), (234, 30730), (235, 30724), (236, 30718), (242, 30661), (244, 30637), (247, 30592), (288, 30214), (289, 30211), (296, 30166), (297, 30157), (304, 30097),

Gene: Emalyn_42 Start: 31612, Stop: 29225, Start Num: 22

Candidate Starts for Emalyn_42:

(1, 31759), (5, 31717), (8, 31684), (11, 31669), (Start: 22 @31612 has 7 MA's), (27, 31603), (29, 31597), (39, 31516), (49, 31420), (55, 31396), (58, 31369), (59, 31345), (75, 31213), (78, 31186), (81, 31171), (90, 31123), (94, 31093), (98, 31048), (101, 31036), (112, 30970), (120, 30922), (124, 30868), (127, 30847), (128, 30826), (129, 30811), (134, 30766), (149, 30643), (156, 30583), (159, 30568), (164, 30526), (179, 30439), (182, 30415), (186, 30409), (188, 30385), (189, 30376), (198, 30307), (199, 30304), (200, 30301), (209, 30205), (213, 30154), (217, 30085), (218, 30079), (231, 29950), (233, 29914), (234, 29908), (235, 29902), (236, 29896), (242, 29839), (244, 29815), (247, 29770), (251, 29710), (267, 29557), (274, 29518), (275, 29515), (289, 29389), (296, 29344), (297, 29335),

Gene: FF47_43 Start: 34250, Stop: 31839, Start Num: 23

Candidate Starts for FF47_43:

(23, 34250), (27, 34241), (Start: 34 @34196 has 1 MA's), (Start: 36 @34184 has 1 MA's), (Start: 40 @34145 has 1 MA's), (59, 33986), (61, 33956), (65, 33926), (89, 33758), (107, 33638), (122, 33536), (128, 33455), (134, 33395), (142, 33329), (159, 33197), (166, 33149), (178, 33077), (179, 33068), (180, 33056), (193, 32987), (214, 32774), (216, 32720), (224, 32639), (227, 32606), (233, 32540), (234, 32534), (235, 32528), (236, 32522), (238, 32498), (242, 32465), (243, 32450), (244, 32441), (256, 32282), (258, 32270), (284, 32042), (289, 32015), (299, 31946),

Gene: Feastonyeet_44 Start: 33868, Stop: 31490, Start Num: 25

Candidate Starts for Feastonyeet_44:

(Start: 25 @33868 has 16 MA's), (35, 33808), (42, 33766), (45, 33727), (57, 33637), (59, 33607), (60, 33586), (65, 33562), (73, 33484), (74, 33478), (75, 33475), (79, 33445), (82, 33427), (85, 33409), (92, 33370), (93, 33367), (98, 33310), (104, 33286), (107, 33271), (115, 33208), (120, 33184), (121, 33175), (122, 33169), (123, 33163), (124, 33130), (127, 33109), (128, 33088), (149, 32905), (159, 32830), (164, 32788), (179, 32701), (186, 32677), (188, 32653), (189, 32644), (192, 32623), (199, 32572), (200, 32569), (201, 32554), (203, 32533), (214, 32407), (216, 32359), (217, 32350), (222, 32308), (231, 32215), (233, 32179), (234, 32173), (235, 32167), (236, 32161), (242, 32104), (244, 32080), (251, 31975), (252, 31972), (261, 31879), (264, 31861), (267, 31822), (275, 31780), (277, 31756), (280, 31726), (285, 31678), (289, 31654), (291, 31630), (296, 31609), (306, 31522), (308, 31510),

Gene: Fribs8_39 Start: 31749, Stop: 29392, Start Num: 21

Candidate Starts for Fribs8_39:

(Start: 21 @31749 has 34 MA's), (29, 31734), (33, 31698), (51, 31563), (59, 31500), (64, 31458), (66, 31446), (78, 31344), (92, 31266), (98, 31206), (114, 31113), (120, 31083), (124, 31029), (128, 30987), (135, 30924), (151, 30789), (159, 30729), (160, 30711), (171, 30645), (178, 30609), (193, 30516), (199, 30471), (202, 30444), (204, 30432), (206, 30420), (215, 30279), (225, 30159), (229, 30135), (231, 30117), (232, 30108), (233, 30081), (234, 30075), (235, 30069), (236, 30063), (238, 30039), (242, 30006), (244, 29982), (247, 29937), (253, 29871), (264, 29763), (272, 29694), (277, 29658), (284, 29583), (285, 29580), (289, 29556), (299, 29487), (306, 29424),

Gene: GTE2_35 Start: 32210, Stop: 29823, Start Num: 21

Candidate Starts for GTE2_35:

(Start: 21 @32210 has 34 MA's), (35, 32147), (43, 32090), (58, 31967), (59, 31943), (75, 31811), (78, 31784), (98, 31646), (112, 31568), (120, 31520), (124, 31466), (125, 31463), (127, 31445), (128, 31424), (129, 31409), (132, 31373), (134, 31364), (135, 31361), (149, 31241), (156, 31181), (159, 31166), (171, 31082), (179, 31037), (182, 31013), (186, 31007), (188, 30983), (189, 30974), (198, 30905), (199, 30902), (200, 30899), (213, 30752), (217, 30683), (218, 30677), (222, 30641), (231, 30548), (232, 30539), (233, 30512), (234, 30506), (235, 30500), (236, 30494), (238, 30470), (242, 30437), (243, 30422), (244, 30413), (247, 30368), (251, 30308), (254, 30275), (267, 30155), (274, 30116), (275, 30113), (289, 29987), (296, 29942), (297, 29933), (304, 29873),

Gene: GiKK_48 Start: 33132, Stop: 30748, Start Num: 24

Candidate Starts for GiKK_48:

(Start: 24 @33132 has 9 MA's), (43, 33018), (45, 32988), (58, 32904), (59, 32880), (66, 32826), (78, 32721), (81, 32706), (90, 32658), (98, 32583), (100, 32577), (101, 32571), (102, 32565), (112, 32496), (115, 32472), (120, 32448), (125, 32391), (127, 32373), (128, 32352), (146, 32205), (159, 32091), (167, 32034), (169, 32013), (171, 32007), (188, 31914), (190, 31902), (199, 31830), (204, 31788), (206, 31776), (215, 31635), (216, 31611), (222, 31560), (231, 31467), (233, 31431), (234, 31425), (235, 31419), (236, 31413), (242, 31356), (243, 31341), (244, 31332), (256, 31173), (259, 31152), (264, 31113), (267, 31074), (270, 31053), (275, 31032), (276, 31020), (278, 31002), (283, 30939), (284, 30933), (289, 30906), (291, 30882), (296, 30861), (306, 30774),

Gene: Gibbous_38 Start: 31347, Stop: 28987, Start Num: 21

Candidate Starts for Gibbous_38:

(15, 31371), (Start: 21 @31347 has 34 MA's), (29, 31332), (33, 31296), (58, 31125), (59, 31101), (93, 30864), (98, 30807), (107, 30768), (110, 30747), (120, 30681), (124, 30627), (127, 30606), (128, 30585), (151, 30387), (155, 30345), (159, 30327), (160, 30309), (168, 30264), (170, 30246), (171, 30243), (178, 30207), (193, 30114), (199, 30069), (202, 30042), (204, 30030), (206, 30018), (215, 29877), (222, 29808), (225, 29757), (229, 29733), (231, 29715), (232, 29706), (233, 29679), (234, 29673), (235, 29667), (236, 29661), (242, 29604), (244, 29580), (247, 29535), (248, 29532), (253, 29469), (264, 29361), (272, 29292), (275, 29280), (277, 29256), (284, 29181), (285, 29178), (289, 29154), (291, 29130), (296, 29109), (299, 29085), (304, 29040), (306, 29022),

Gene: GoldHunter_43 Start: 32554, Stop: 30161, Start Num: 21

Candidate Starts for GoldHunter_43:

(Start: 21 @32554 has 34 MA's), (26, 32548), (Start: 34 @32500 has 1 MA's), (39, 32458), (43, 32434), (58, 32308), (59, 32284), (65, 32239), (68, 32188), (71, 32173), (75, 32152), (82, 32104), (88, 32071), (90, 32062), (98, 31987), (101, 31975), (112, 31906), (117, 31873), (120, 31858), (124, 31804), (125, 31801), (127, 31783), (128, 31762), (134, 31702), (149, 31579), (150, 31573), (159, 31504), (164, 31462), (179, 31375), (182, 31351), (186, 31345), (188, 31321), (189, 31312), (191, 31297), (193, 31285), (198, 31243), (199, 31240), (200, 31237), (213, 31090), (217, 31021), (218, 31015), (222, 30979), (231, 30886), (233, 30850), (234, 30844), (235, 30838), (236, 30832), (242, 30775), (244, 30751), (247, 30706), (289, 30325), (296, 30280), (304, 30211),

Gene: Hexbug_51 Start: 35224, Stop: 32828, Start Num: 24

Candidate Starts for Hexbug_51:

(3, 35353), (4, 35344), (Start: 24 @35224 has 9 MA's), (Start: 44 @35092 has 1 MA's), (45, 35080), (50, 35035), (59, 34972), (60, 34951), (66, 34918), (71, 34861), (78, 34813), (81, 34798), (90, 34750), (98, 34675), (100, 34669), (101, 34663), (102, 34657), (112, 34588), (115, 34564), (120, 34540), (127, 34465), (128, 34444), (131, 34396), (134, 34384), (140, 34339), (157, 34183), (159, 34177), (179, 34048), (188, 34000), (190, 33988), (199, 33916), (204, 33874), (213, 33763), (215, 33721), (216, 33697), (217, 33688), (222, 33646), (231, 33553), (233, 33517), (234, 33511), (235, 33505), (236, 33499), (242, 33442), (244, 33418), (246, 33400), (253, 33307), (259, 33238), (264, 33199), (267, 33160), (270, 33139), (276, 33106), (278, 33088), (289, 32992), (291, 32968), (298, 32929), (306, 32860),

Gene: HippoPololi_40 Start: 31759, Stop: 29405, Start Num: 20

Candidate Starts for HippoPololi_40:

(13, 31786), (Start: 20 @31759 has 1 MA's), (29, 31744), (33, 31708), (59, 31513), (87, 31306), (93, 31276), (98, 31219), (107, 31183), (108, 31168), (114, 31126), (115, 31120), (120, 31096), (124, 31042), (128, 31000), (151, 30802), (155, 30760), (159, 30742), (178, 30622), (193, 30529), (194, 30520), (199, 30484), (204, 30445), (206, 30433), (215, 30292), (219, 30250), (231, 30130), (233, 30094), (234, 30088), (235, 30082), (236, 30076), (238, 30052), (242, 30019), (244, 29995), (247, 29950), (253, 29884), (264, 29776), (272, 29707), (275, 29695), (277, 29671), (285, 29593), (287, 29581), (289, 29569), (291, 29545), (296, 29524), (299, 29500), (304, 29455), (306, 29437),

Gene: Horseradish_45 Start: 32448, Stop: 30058, Start Num: 21

Candidate Starts for Horseradish_45:

(Start: 21 @32448 has 34 MA's), (35, 32385), (38, 32367), (39, 32352), (45, 32298), (46, 32286), (47, 32265), (55, 32232), (58, 32205), (59, 32181), (63, 32154), (75, 32049), (82, 32001), (98, 31884), (112, 31803), (116, 31776), (120, 31755), (124, 31701), (125, 31698), (127, 31680), (128, 31659), (134, 31599), (159, 31401), (164, 31359), (179, 31272), (182, 31248), (186, 31242), (192, 31188), (193, 31182), (198, 31140), (199, 31137), (200, 31134), (213, 30987), (215, 30945), (217, 30918), (222, 30876), (231, 30783), (233, 30747), (234, 30741), (235, 30735), (236, 30729), (238, 30705), (242, 30672), (244, 30648), (247, 30603), (251, 30543), (267, 30390), (289, 30222), (296, 30177), (297, 30168), (298, 30159),

Gene: Huwbert_71 Start: 43958, Stop: 46630, Start Num: 7

Candidate Starts for Huwbert_71:

(Start: 7 @43958 has 2 MA's), (27, 44048), (28, 44051), (29, 44054), (37, 44114), (48, 44231), (65, 44360), (88, 44537), (91, 44549), (95, 44594), (97, 44609), (103, 44636), (117, 44735), (122, 44765), (124, 44804), (128, 44846), (133, 44903), (137, 44918), (145, 44972), (159, 45083), (171, 45224), (184, 45353), (189, 45398), (190, 45401), (192, 45419), (197, 45476), (204, 45536), (209, 45596), (224, 45791), (231, 45854), (237, 45917), (244, 45992), (250, 46073), (253, 46103), (260, 46181), (264, 46211), (267, 46250), (271, 46277), (273, 46286), (280, 46352), (289, 46424), (290, 46433), (294, 46463), (309, 46589), (311, 46607),

Gene: JacoRen57_40 Start: 35060, Stop: 32673, Start Num: 34

Candidate Starts for JacoRen57_40:

(18, 35138), (Start: 24 @35114 has 9 MA's), (Start: 30 @35084 has 1 MA's), (Start: 34 @35060 has 1 MA's), (Start: 40 @35009 has 1 MA's), (41, 35003), (56, 34895), (57, 34880), (59, 34850), (61, 34823), (65, 34793), (69, 34739), (71, 34727), (72, 34718), (96, 34562), (121, 34406), (130, 34277), (134, 34259), (147, 34154), (149, 34136), (151, 34121), (159, 34061), (175, 33944), (179, 33932), (180, 33920), (194, 33842), (202, 33773), (214, 33638), (224, 33503), (226, 33476), (227, 33470), (232, 33431), (233, 33404), (234, 33398), (235, 33392), (236, 33386), (242, 33329), (244, 33305), (265, 33083), (283, 32912), (289, 32879), (296, 32834), (299, 32810), (312, 32684),

Gene: Jamzy_48 Start: 33115, Stop: 30731, Start Num: 24

Candidate Starts for Jamzy_48:

(Start: 24 @33115 has 9 MA's), (43, 33001), (45, 32971), (58, 32887), (59, 32863), (66, 32809), (78, 32704), (81, 32689), (90, 32641), (98, 32566), (100, 32560), (101, 32554), (102, 32548), (112, 32479), (115, 32455), (120, 32431), (125, 32374), (127, 32356), (128, 32335), (146, 32188), (159, 32074), (167, 32017), (169, 31996), (171, 31990), (188, 31897), (190, 31885), (199, 31813), (206, 31759), (215, 31618), (216, 31594), (222, 31543), (231, 31450), (233, 31414), (234, 31408), (235, 31402), (236, 31396), (242, 31339), (244, 31315), (256, 31156), (259, 31135), (264, 31096), (267, 31057), (270, 31036), (275, 31015), (276, 31003), (278, 30985), (283, 30922), (284, 30916), (289, 30889), (291, 30865), (296, 30844), (306, 30757),

Gene: KayGee_46 Start: 34208, Stop: 31833, Start Num: 25

Candidate Starts for KayGee_46:

(Start: 25 @34208 has 16 MA's), (35, 34148), (42, 34106), (45, 34067), (59, 33947), (60, 33926), (65, 33902), (73, 33824), (74, 33818), (75, 33815), (79, 33785), (82, 33767), (85, 33749), (92, 33710), (93, 33707), (98, 33650), (104, 33626), (107, 33611), (115, 33548), (120, 33524), (121, 33515), (122, 33509), (123, 33503), (124, 33470), (127, 33449), (128, 33428), (149, 33245), (159, 33170), (164, 33128), (186, 33017), (188, 32993), (192, 32963), (199, 32912), (200, 32909), (201, 32894), (203, 32873), (216, 32699), (217, 32690), (220, 32660), (231, 32555), (233, 32519), (234, 32513), (235, 32507), (236, 32501), (242, 32444), (244, 32420), (251, 32315), (252, 32312), (261, 32219), (264, 32201), (267, 32162), (275, 32120), (277, 32096), (280, 32066), (285, 32018), (289, 31994), (296,

31949), (306, 31862),

Gene: KimJongPhill_80 Start: 57331, Stop: 59844, Start Num: 16

Candidate Starts for KimJongPhill_80:

(Start: 2 @57226 has 1 MA's), (6, 57268), (12, 57298), (Start: 16 @57331 has 1 MA's), (39, 57460), (Start: 40 @57466 has 1 MA's), (42, 57475), (52, 57571), (56, 57589), (67, 57733), (70, 57766), (75, 57796), (90, 57892), (93, 57910), (101, 57979), (124, 58159), (126, 58174), (128, 58201), (137, 58273), (144, 58321), (159, 58438), (176, 58567), (199, 58753), (200, 58756), (202, 58780), (206, 58804), (212, 58891), (224, 59047), (225, 59068), (231, 59110), (233, 59146), (234, 59152), (235, 59158), (236, 59164), (244, 59245), (254, 59383), (256, 59404), (270, 59524), (274, 59542), (277, 59569), (283, 59638), (284, 59644), (286, 59656), (289, 59671), (293, 59704), (302, 59770),

Gene: Lauer_41 Start: 35269, Stop: 32888, Start Num: 25

Candidate Starts for Lauer_41:

(Start: 25 @35269 has 16 MA's), (35, 35209), (42, 35167), (45, 35128), (57, 35038), (59, 35008), (60, 34987), (65, 34963), (73, 34885), (74, 34879), (75, 34876), (79, 34846), (87, 34798), (92, 34771), (93, 34768), (98, 34711), (104, 34687), (107, 34672), (110, 34651), (115, 34609), (120, 34585), (121, 34576), (122, 34570), (123, 34564), (124, 34531), (127, 34510), (128, 34489), (149, 34306), (159, 34231), (164, 34189), (179, 34102), (192, 34024), (193, 34018), (199, 33973), (200, 33970), (201, 33955), (203, 33934), (214, 33808), (216, 33760), (217, 33751), (220, 33721), (222, 33709), (231, 33616), (233, 33580), (234, 33574), (235, 33568), (236, 33562), (242, 33505), (244, 33481), (251, 33376), (252, 33373), (261, 33280), (264, 33262), (267, 33223), (275, 33181), (277, 33157), (280, 33127), (285, 33079), (286, 33070), (289, 33055), (296, 33010), (303, 32944), (306, 32923), (307, 32917), (308, 32911),

Gene: LongHai_45 Start: 34648, Stop: 32237, Start Num: 23

Candidate Starts for LongHai_45:

(23, 34648), (27, 34639), (Start: 34 @34594 has 1 MA's), (Start: 36 @34582 has 1 MA's), (Start: 40 @34543 has 1 MA's), (59, 34384), (61, 34354), (65, 34324), (89, 34156), (107, 34036), (122, 33934), (128, 33853), (134, 33793), (142, 33727), (159, 33595), (166, 33547), (178, 33475), (179, 33466), (193, 33385), (221, 33076), (224, 33037), (226, 33010), (227, 33004), (234, 32932), (235, 32926), (236, 32920), (238, 32896), (242, 32863), (243, 32848), (244, 32839), (256, 32680), (260, 32650), (284, 32440), (289, 32413), (299, 32344),

Gene: MAnor_46 Start: 34598, Stop: 32220, Start Num: 25

Candidate Starts for MAnor_46:

(Start: 25 @34598 has 16 MA's), (35, 34538), (45, 34457), (59, 34337), (65, 34292), (73, 34214), (74, 34208), (75, 34205), (76, 34202), (79, 34175), (86, 34136), (87, 34127), (93, 34097), (98, 34040), (107, 34001), (110, 33980), (115, 33938), (117, 33929), (120, 33914), (121, 33905), (123, 33893), (124, 33860), (125, 33857), (127, 33839), (128, 33818), (149, 33635), (159, 33560), (164, 33518), (179, 33431), (192, 33353), (193, 33347), (199, 33302), (200, 33299), (201, 33284), (203, 33263), (210, 33179), (213, 33149), (216, 33089), (217, 33080), (219, 33065), (220, 33050), (222, 33038), (231, 32945), (233, 32909), (234, 32903), (235, 32897), (236, 32891), (242, 32834), (244, 32810), (251, 32705), (252, 32702), (256, 32651), (261, 32609), (264, 32591), (267, 32552), (275, 32510), (277, 32486), (285, 32408), (289, 32384), (291, 32360), (296, 32339), (302, 32285), (306, 32252), (308, 32240),

Gene: MScarn_47 Start: 32630, Stop: 30240, Start Num: 21

Candidate Starts for MScarn_47:

(Start: 21 @32630 has 34 MA's), (38, 32549), (39, 32534), (45, 32480), (46, 32468), (47, 32447), (55, 32414), (58, 32387), (59, 32363), (63, 32336), (75, 32231), (82, 32183), (98, 32066), (112, 31985), (116, 31958), (120, 31937), (124, 31883), (125, 31880), (127, 31862), (128, 31841), (134, 31781), (159, 31583), (164, 31541), (179, 31454), (182, 31430), (186, 31424), (192, 31370), (193, 31364),

(198, 31322), (199, 31319), (200, 31316), (213, 31169), (217, 31100), (218, 31094), (222, 31058), (231, 30965), (233, 30929), (234, 30923), (235, 30917), (236, 30911), (242, 30854), (244, 30830), (247, 30785), (289, 30404), (296, 30359), (297, 30350), (304, 30290),

Gene: MaVan_40 Start: 32050, Stop: 29693, Start Num: 21

Candidate Starts for MaVan_40:

(17, 32059), (Start: 21 @32050 has 34 MA's), (29, 32035), (33, 31999), (51, 31864), (59, 31801), (64, 31759), (66, 31747), (78, 31645), (79, 31642), (92, 31567), (96, 31528), (98, 31507), (108, 31456), (114, 31414), (120, 31384), (124, 31330), (127, 31309), (128, 31288), (135, 31225), (151, 31090), (153, 31075), (159, 31030), (171, 30946), (178, 30910), (193, 30817), (198, 30775), (199, 30772), (200, 30769), (202, 30745), (204, 30733), (206, 30721), (215, 30580), (217, 30553), (231, 30418), (233, 30382), (234, 30376), (235, 30370), (236, 30364), (238, 30340), (242, 30307), (244, 30283), (247, 30238), (249, 30232), (253, 30172), (264, 30064), (271, 29998), (272, 29995), (275, 29983), (277, 29959), (285, 29881), (289, 29857), (299, 29788),

Gene: Maco6_42 Start: 33485, Stop: 31179, Start Num: 40

Candidate Starts for Maco6_42:

(23, 33590), (27, 33581), (Start: 34 @33536 has 1 MA's), (Start: 36 @33524 has 1 MA's), (Start: 40 @33485 has 1 MA's), (46, 33428), (59, 33326), (61, 33296), (65, 33266), (89, 33098), (107, 32978), (122, 32876), (128, 32795), (134, 32735), (136, 32729), (142, 32669), (159, 32537), (166, 32489), (178, 32417), (179, 32408), (180, 32396), (193, 32327), (220, 32021), (221, 32018), (224, 31979), (226, 31952), (227, 31946), (233, 31880), (234, 31874), (235, 31868), (236, 31862), (238, 31838), (242, 31805), (243, 31790), (244, 31781), (256, 31622), (260, 31592), (284, 31382), (289, 31355), (299, 31286),

Gene: Magritte_69 Start: 57483, Stop: 60149, Start Num: 44

Candidate Starts for Magritte_69:

(31, 57381), (32, 57384), (Start: 44 @57483 has 1 MA's), (53, 57561), (61, 57648), (77, 57801), (84, 57840), (97, 57936), (99, 57945), (109, 58011), (113, 58035), (120, 58077), (138, 58266), (139, 58278), (141, 58284), (145, 58326), (154, 58404), (162, 58467), (163, 58470), (165, 58491), (172, 58602), (177, 58632), (181, 58698), (187, 58740), (196, 58818), (202, 58884), (207, 58926), (211, 58980), (223, 59178), (230, 59244), (233, 59298), (238, 59340), (239, 59352), (240, 59355), (245, 59412), (257, 59565), (263, 59613), (266, 59622), (269, 59667), (279, 59751), (281, 59775), (292, 59859), (296, 59871), (300, 59922), (302, 59931), (310, 59997), (313, 60063), (314, 60138),

Gene: Malvina_41 Start: 31742, Stop: 29403, Start Num: 29

Candidate Starts for Malvina_41:

(13, 31784), (Start: 20 @31757 has 1 MA's), (29, 31742), (33, 31706), (59, 31511), (93, 31274), (98, 31217), (107, 31181), (108, 31166), (114, 31124), (115, 31118), (120, 31094), (124, 31040), (128, 30998), (151, 30800), (155, 30758), (159, 30740), (178, 30620), (193, 30527), (194, 30518), (199, 30482), (204, 30443), (206, 30431), (215, 30290), (219, 30248), (231, 30128), (233, 30092), (234, 30086), (235, 30080), (236, 30074), (238, 30050), (242, 30017), (244, 29993), (247, 29948), (253, 29882), (264, 29774), (272, 29705), (273, 29699), (275, 29693), (277, 29669), (285, 29591), (287, 29579), (289, 29567), (291, 29543), (296, 29522), (299, 29498), (304, 29453), (306, 29435),

Gene: Margaret_49 Start: 33864, Stop: 31474, Start Num: 24

Candidate Starts for Margaret_49:

(3, 33993), (4, 33984), (Start: 24 @33864 has 9 MA's), (Start: 36 @33798 has 1 MA's), (Start: 44 @33732 has 1 MA's), (50, 33675), (58, 33636), (59, 33612), (60, 33591), (64, 33570), (71, 33501), (78, 33453), (81, 33438), (90, 33390), (100, 33309), (102, 33297), (112, 33228), (115, 33204), (120, 33180), (127, 33105), (128, 33084), (134, 33024), (140, 32979), (146, 32931), (157, 32823), (159, 32817), (170, 32736), (179, 32688), (190, 32628), (199, 32556), (204, 32514), (206, 32502), (215, 32361), (216, 32337), (218, 32322), (222, 32286), (231, 32193), (233, 32157), (234, 32151), (236,

32139), (238, 32115), (244, 32058), (246, 32040), (253, 31947), (259, 31878), (262, 31851), (264, 31839), (265, 31836), (267, 31800), (270, 31779), (276, 31746), (278, 31728), (284, 31659), (289, 31632), (291, 31608), (306, 31500), (308, 31488),

Gene: Mayweather_49 Start: 35337, Stop: 32956, Start Num: 25

Candidate Starts for Mayweather_49:

(Start: 25 @35337 has 16 MA's), (35, 35277), (45, 35196), (59, 35076), (65, 35031), (73, 34953), (74, 34947), (75, 34944), (79, 34914), (86, 34875), (87, 34866), (93, 34836), (98, 34779), (107, 34740), (110, 34719), (115, 34677), (117, 34668), (120, 34653), (121, 34644), (123, 34632), (124, 34599), (125, 34596), (127, 34578), (128, 34557), (149, 34374), (159, 34299), (164, 34257), (179, 34170), (188, 34122), (192, 34092), (193, 34086), (199, 34041), (200, 34038), (201, 34023), (203, 34002), (210, 33918), (213, 33888), (216, 33828), (217, 33819), (219, 33804), (220, 33789), (222, 33777), (231, 33684), (233, 33648), (234, 33642), (235, 33636), (236, 33630), (242, 33573), (244, 33549), (251, 33444), (252, 33441), (256, 33390), (261, 33348), (264, 33330), (267, 33291), (275, 33249), (277, 33225), (285, 33147), (289, 33123), (296, 33078), (303, 33012), (306, 32991), (307, 32985), (308, 32979),

Gene: McDazzle_47 Start: 34382, Stop: 32007, Start Num: 25

Candidate Starts for McDazzle_47:

(Start: 25 @34382 has 16 MA's), (35, 34322), (45, 34241), (59, 34121), (65, 34076), (73, 33998), (74, 33992), (75, 33989), (79, 33959), (82, 33941), (87, 33911), (92, 33884), (93, 33881), (98, 33824), (103, 33803), (107, 33785), (115, 33722), (120, 33698), (121, 33689), (123, 33677), (124, 33644), (127, 33623), (128, 33602), (149, 33419), (159, 33344), (161, 33323), (164, 33302), (179, 33215), (188, 33167), (192, 33137), (193, 33131), (199, 33086), (200, 33083), (201, 33068), (203, 33047), (204, 33044), (210, 32963), (213, 32933), (216, 32873), (217, 32864), (219, 32849), (220, 32834), (222, 32822), (231, 32729), (233, 32693), (234, 32687), (235, 32681), (236, 32675), (242, 32618), (244, 32594), (251, 32489), (252, 32486), (256, 32435), (261, 32393), (264, 32375), (267, 32336), (275, 32294), (277, 32270), (280, 32240), (285, 32192), (286, 32183), (289, 32168), (291, 32144), (296, 32123), (302, 32069), (306, 32036),

Gene: Muddy_44 Start: 34756, Stop: 32411, Start Num: 36

Candidate Starts for Muddy_44:

(23, 34822), (27, 34813), (Start: 34 @34768 has 1 MA's), (Start: 36 @34756 has 1 MA's), (Start: 40 @34717 has 1 MA's), (59, 34558), (61, 34528), (65, 34498), (89, 34330), (107, 34210), (122, 34108), (128, 34027), (134, 33967), (142, 33901), (159, 33769), (178, 33649), (179, 33640), (180, 33628), (193, 33559), (214, 33346), (216, 33292), (224, 33211), (227, 33178), (233, 33112), (234, 33106), (235, 33100), (236, 33094), (238, 33070), (242, 33037), (243, 33022), (244, 33013), (256, 32854), (260, 32824), (270, 32734), (284, 32614), (289, 32587), (299, 32518),

Gene: MunkgeeRoachy_41 Start: 31903, Stop: 29510, Start Num: 21

Candidate Starts for MunkgeeRoachy_41:

(Start: 21 @31903 has 34 MA's), (Start: 34 @31849 has 1 MA's), (39, 31807), (43, 31783), (58, 31657), (59, 31633), (65, 31588), (68, 31537), (71, 31522), (75, 31501), (82, 31453), (90, 31411), (98, 31336), (101, 31324), (112, 31255), (117, 31222), (120, 31207), (124, 31153), (125, 31150), (127, 31132), (128, 31111), (129, 31096), (134, 31051), (149, 30928), (150, 30922), (159, 30853), (164, 30811), (179, 30724), (182, 30700), (186, 30694), (188, 30670), (189, 30661), (191, 30646), (193, 30634), (198, 30592), (199, 30589), (200, 30586), (209, 30490), (213, 30439), (214, 30427), (217, 30370), (218, 30364), (222, 30328), (226, 30271), (231, 30235), (233, 30199), (234, 30193), (235, 30187), (236, 30181), (242, 30124), (244, 30100), (247, 30055), (259, 29920), (288, 29677), (289, 29674), (296, 29629), (297, 29620), (304, 29560),

Gene: Nibbles_39 Start: 31737, Stop: 29380, Start Num: 21

Candidate Starts for Nibbles_39:

(17, 31746), (Start: 21 @31737 has 34 MA's), (29, 31722), (33, 31686), (51, 31551), (59, 31488), (64, 31446), (66, 31434), (78, 31332), (79, 31329), (92, 31254), (96, 31215), (98, 31194), (108, 31143), (114, 31101), (120, 31071), (124, 31017), (127, 30996), (128, 30975), (135, 30912), (151, 30777), (153, 30762), (155, 30735), (159, 30717), (171, 30633), (178, 30597), (193, 30504), (198, 30462), (199, 30459), (200, 30456), (202, 30432), (204, 30420), (206, 30408), (215, 30267), (217, 30240), (231, 30105), (233, 30069), (234, 30063), (235, 30057), (236, 30051), (238, 30027), (242, 29994), (244, 29970), (247, 29925), (249, 29919), (253, 29859), (264, 29751), (272, 29682), (275, 29670), (277, 29646), (285, 29568), (289, 29544), (299, 29475),

Gene: Nina_42 Start: 32678, Stop: 30285, Start Num: 21

Candidate Starts for Nina_42:

(Start: 21 @32678 has 34 MA's), (26, 32672), (Start: 34 @32624 has 1 MA's), (39, 32582), (43, 32558), (58, 32432), (59, 32408), (65, 32363), (68, 32312), (71, 32297), (75, 32276), (82, 32228), (88, 32195), (90, 32186), (98, 32111), (101, 32099), (112, 32030), (116, 32003), (117, 31997), (120, 31982), (124, 31928), (125, 31925), (127, 31907), (128, 31886), (134, 31826), (149, 31703), (150, 31697), (159, 31628), (164, 31586), (179, 31499), (182, 31475), (186, 31469), (188, 31445), (189, 31436), (191, 31421), (193, 31409), (198, 31367), (199, 31364), (200, 31361), (204, 31325), (213, 31214), (217, 31145), (218, 31139), (222, 31103), (226, 31046), (231, 31010), (233, 30974), (234, 30968), (235, 30962), (236, 30956), (242, 30899), (244, 30875), (247, 30830), (289, 30449), (296, 30404), (297, 30395), (304, 30335), (306, 30317),

Gene: NoShow_52 Start: 37810, Stop: 35447, Start Num: 30

Candidate Starts for NoShow_52:

(19, 37861), (Start: 24 @37840 has 9 MA's), (Start: 30 @37810 has 1 MA's), (Start: 34 @37786 has 1 MA's), (39, 37741), (Start: 40 @37735 has 1 MA's), (54, 37630), (56, 37621), (59, 37576), (65, 37531), (68, 37480), (71, 37465), (75, 37444), (118, 37165), (124, 37099), (134, 36997), (147, 36892), (149, 36874), (151, 36859), (158, 36802), (159, 36799), (160, 36781), (164, 36757), (166, 36751), (175, 36682), (178, 36679), (179, 36670), (194, 36580), (195, 36571), (202, 36511), (203, 36502), (205, 36496), (220, 36283), (221, 36280), (224, 36241), (227, 36208), (233, 36142), (234, 36136), (235, 36130), (236, 36124), (242, 36067), (244, 36043), (268, 35776), (280, 35689), (285, 35641), (289, 35617), (299, 35548),

Gene: Nodigi_51 Start: 35275, Stop: 32885, Start Num: 24

Candidate Starts for Nodigi_51:

(3, 35404), (4, 35395), (Start: 24 @35275 has 9 MA's), (Start: 44 @35143 has 1 MA's), (45, 35131), (50, 35086), (59, 35023), (60, 35002), (66, 34969), (71, 34912), (78, 34864), (81, 34849), (90, 34801), (98, 34726), (100, 34720), (101, 34714), (102, 34708), (112, 34639), (115, 34615), (120, 34591), (127, 34516), (128, 34495), (131, 34447), (134, 34435), (140, 34390), (157, 34234), (159, 34228), (179, 34099), (188, 34051), (190, 34039), (199, 33967), (204, 33925), (213, 33814), (215, 33772), (216, 33748), (217, 33739), (222, 33697), (231, 33604), (233, 33568), (234, 33562), (235, 33556), (236, 33550), (242, 33493), (244, 33469), (246, 33451), (253, 33358), (259, 33289), (264, 33250), (267, 33211), (270, 33190), (276, 33157), (278, 33139), (289, 33043), (291, 33019), (306, 32911),

Gene: Orla_51 Start: 35183, Stop: 32787, Start Num: 24

Candidate Starts for Orla_51:

(3, 35312), (4, 35303), (Start: 24 @35183 has 9 MA's), (Start: 44 @35051 has 1 MA's), (45, 35039), (50, 34994), (59, 34931), (60, 34910), (66, 34877), (71, 34820), (78, 34772), (81, 34757), (90, 34709), (98, 34634), (100, 34628), (101, 34622), (102, 34616), (112, 34547), (115, 34523), (120, 34499), (127, 34424), (128, 34403), (131, 34355), (134, 34343), (140, 34298), (157, 34142), (159, 34136), (179, 34007), (188, 33959), (190, 33947), (199, 33875), (204, 33833), (213, 33722), (215, 33680), (216, 33656), (217, 33647), (222, 33605), (231, 33512), (233, 33476), (234, 33470), (235, 33464), (236, 33458), (242, 33401), (244, 33377), (246, 33359), (253, 33266), (259, 33197), (264, 33158), (267, 33119), (270, 33098), (276, 33065), (278, 33047), (289, 32951), (291, 32927), (298, 32888), (306,

32819),

Gene: Pons_46 Start: 34228, Stop: 31850, Start Num: 25

Candidate Starts for Pons_46:

(Start: 25 @34228 has 16 MA's), (35, 34168), (45, 34087), (59, 33967), (65, 33922), (73, 33844), (74, 33838), (75, 33835), (79, 33805), (86, 33766), (87, 33757), (92, 33730), (93, 33727), (98, 33670), (107, 33631), (115, 33568), (120, 33544), (121, 33535), (123, 33523), (124, 33490), (125, 33487), (127, 33469), (128, 33448), (134, 33388), (149, 33265), (159, 33190), (164, 33148), (179, 33061), (188, 33013), (192, 32983), (193, 32977), (199, 32932), (200, 32929), (201, 32914), (203, 32893), (209, 32830), (213, 32779), (216, 32719), (217, 32710), (219, 32695), (220, 32680), (222, 32668), (231, 32575), (233, 32539), (234, 32533), (235, 32527), (236, 32521), (242, 32464), (244, 32440), (251, 32335), (252, 32332), (256, 32281), (261, 32239), (264, 32221), (267, 32182), (275, 32140), (277, 32116), (280, 32086), (285, 32038), (286, 32029), (289, 32014), (296, 31969), (302, 31915), (306, 31882), (308, 31870),

Gene: PotPie_44 Start: 34903, Stop: 32528, Start Num: 25

Candidate Starts for PotPie_44:

(Start: 25 @34903 has 16 MA's), (35, 34843), (42, 34801), (45, 34762), (59, 34642), (60, 34621), (65, 34597), (73, 34519), (74, 34513), (75, 34510), (79, 34480), (87, 34432), (92, 34405), (93, 34402), (98, 34345), (107, 34306), (110, 34285), (115, 34243), (120, 34219), (121, 34210), (122, 34204), (123, 34198), (124, 34165), (127, 34144), (128, 34123), (149, 33940), (159, 33865), (164, 33823), (179, 33736), (186, 33712), (188, 33688), (189, 33679), (192, 33658), (199, 33607), (200, 33604), (201, 33589), (203, 33568), (214, 33442), (216, 33394), (217, 33385), (222, 33343), (231, 33250), (233, 33214), (234, 33208), (235, 33202), (236, 33196), (242, 33139), (244, 33115), (251, 33010), (252, 33007), (261, 32914), (264, 32896), (267, 32857), (275, 32815), (277, 32791), (280, 32761), (285, 32713), (289, 32689), (296, 32644), (306, 32557),

Gene: PsychoKiller_42 Start: 32441, Stop: 30048, Start Num: 21

Candidate Starts for PsychoKiller_42:

(Start: 21 @32441 has 34 MA's), (26, 32435), (Start: 34 @32387 has 1 MA's), (39, 32345), (43, 32321), (58, 32195), (59, 32171), (65, 32126), (68, 32075), (71, 32060), (75, 32039), (82, 31991), (88, 31958), (90, 31949), (98, 31874), (101, 31862), (112, 31793), (116, 31766), (117, 31760), (120, 31745), (124, 31691), (125, 31688), (127, 31670), (128, 31649), (134, 31589), (149, 31466), (150, 31460), (159, 31391), (164, 31349), (179, 31262), (182, 31238), (186, 31232), (188, 31208), (189, 31199), (191, 31184), (193, 31172), (198, 31130), (199, 31127), (200, 31124), (213, 30977), (215, 30935), (217, 30908), (218, 30902), (231, 30773), (233, 30737), (234, 30731), (235, 30725), (236, 30719), (242, 30662), (244, 30638), (247, 30593), (288, 30215), (289, 30212), (296, 30167), (297, 30158), (304, 30098),

Gene: Quasar_43 Start: 33103, Stop: 30710, Start Num: 21

Candidate Starts for Quasar_43:

(Start: 21 @33103 has 34 MA's), (26, 33097), (Start: 34 @33049 has 1 MA's), (39, 33007), (43, 32983), (58, 32857), (59, 32833), (65, 32788), (68, 32737), (71, 32722), (75, 32701), (82, 32653), (88, 32620), (90, 32611), (98, 32536), (101, 32524), (112, 32455), (116, 32428), (117, 32422), (120, 32407), (124, 32353), (125, 32350), (127, 32332), (128, 32311), (134, 32251), (149, 32128), (150, 32122), (159, 32053), (164, 32011), (179, 31924), (182, 31900), (186, 31894), (188, 31870), (189, 31861), (191, 31846), (193, 31834), (198, 31792), (199, 31789), (200, 31786), (204, 31750), (213, 31639), (217, 31570), (218, 31564), (222, 31528), (231, 31435), (232, 31426), (233, 31399), (234, 31393), (235, 31387), (236, 31381), (242, 31324), (243, 31309), (244, 31300), (247, 31255), (288, 30877), (289, 30874), (296, 30829), (297, 30820), (304, 30760),

Gene: RADical_44 Start: 32435, Stop: 30042, Start Num: 21

Candidate Starts for RADical_44:

(Start: 21 @32435 has 34 MA's), (26, 32429), (Start: 34 @32381 has 1 MA's), (39, 32339), (43, 32315), (58, 32189), (59, 32165), (65, 32120), (68, 32069), (71, 32054), (75, 32033), (82, 31985), (90, 31943), (98, 31868), (101, 31856), (112, 31787), (117, 31754), (120, 31739), (124, 31685), (125, 31682), (127, 31664), (128, 31643), (134, 31583), (149, 31460), (150, 31454), (159, 31385), (164, 31343), (179, 31256), (182, 31232), (186, 31226), (188, 31202), (189, 31193), (191, 31178), (193, 31166), (198, 31124), (199, 31121), (200, 31118), (213, 30971), (217, 30902), (218, 30896), (222, 30860), (226, 30803), (231, 30767), (233, 30731), (234, 30725), (235, 30719), (236, 30713), (242, 30656), (244, 30632), (247, 30587), (288, 30209), (289, 30206), (296, 30161), (297, 30152), (304, 30092),

Gene: RSchmailzl_44 Start: 32591, Stop: 30198, Start Num: 21

Candidate Starts for RSchmailzl_44:

(Start: 21 @32591 has 34 MA's), (26, 32585), (Start: 34 @32537 has 1 MA's), (39, 32495), (43, 32471), (58, 32345), (59, 32321), (65, 32276), (68, 32225), (71, 32210), (75, 32189), (88, 32108), (90, 32099), (98, 32024), (101, 32012), (112, 31943), (120, 31895), (124, 31841), (125, 31838), (127, 31820), (128, 31799), (134, 31739), (149, 31616), (150, 31610), (159, 31541), (164, 31499), (179, 31412), (182, 31388), (186, 31382), (188, 31358), (189, 31349), (191, 31334), (193, 31322), (198, 31280), (199, 31277), (200, 31274), (213, 31127), (217, 31058), (218, 31052), (231, 30923), (233, 30887), (234, 30881), (235, 30875), (236, 30869), (242, 30812), (244, 30788), (247, 30743), (289, 30362), (296, 30317), (297, 30308), (304, 30248),

Gene: RanchParmCat_48 Start: 34005, Stop: 31612, Start Num: 24

Candidate Starts for RanchParmCat_48:

(3, 34134), (4, 34125), (Start: 24 @34005 has 9 MA's), (Start: 36 @33939 has 1 MA's), (Start: 44 @33873 has 1 MA's), (50, 33816), (58, 33777), (59, 33753), (60, 33732), (71, 33642), (78, 33594), (81, 33579), (90, 33531), (94, 33501), (100, 33450), (101, 33444), (102, 33438), (112, 33366), (115, 33342), (120, 33318), (127, 33243), (128, 33222), (134, 33162), (140, 33117), (146, 33069), (157, 32961), (159, 32955), (170, 32874), (179, 32826), (190, 32766), (199, 32694), (204, 32652), (206, 32640), (215, 32499), (216, 32475), (217, 32466), (222, 32424), (231, 32331), (233, 32295), (234, 32289), (236, 32277), (238, 32253), (242, 32220), (244, 32196), (246, 32178), (253, 32085), (262, 31989), (264, 31977), (265, 31974), (267, 31938), (270, 31917), (276, 31884), (278, 31866), (284, 31797), (289, 31770), (291, 31746), (306, 31638), (308, 31626),

Gene: RedBaron_47 Start: 32770, Stop: 30377, Start Num: 21

Candidate Starts for RedBaron_47:

(Start: 21 @32770 has 34 MA's), (26, 32764), (Start: 34 @32716 has 1 MA's), (39, 32674), (43, 32650), (58, 32524), (59, 32500), (65, 32455), (68, 32404), (71, 32389), (75, 32368), (82, 32320), (90, 32278), (98, 32203), (101, 32191), (112, 32122), (117, 32089), (120, 32074), (124, 32020), (125, 32017), (127, 31999), (128, 31978), (134, 31918), (149, 31795), (150, 31789), (159, 31720), (164, 31678), (179, 31591), (182, 31567), (186, 31561), (188, 31537), (189, 31528), (191, 31513), (193, 31501), (198, 31459), (199, 31456), (200, 31453), (213, 31306), (217, 31237), (218, 31231), (222, 31195), (231, 31102), (232, 31093), (233, 31066), (234, 31060), (235, 31054), (236, 31048), (242, 30991), (244, 30967), (247, 30922), (288, 30544), (289, 30541), (296, 30496), (297, 30487), (304, 30427),

Gene: Salvus_45 Start: 34648, Stop: 32237, Start Num: 23

Candidate Starts for Salvus_45:

(23, 34648), (27, 34639), (Start: 34 @34594 has 1 MA's), (Start: 36 @34582 has 1 MA's), (Start: 40 @34543 has 1 MA's), (59, 34384), (61, 34354), (65, 34324), (89, 34156), (107, 34036), (122, 33934), (128, 33853), (134, 33793), (142, 33727), (159, 33595), (166, 33547), (178, 33475), (179, 33466), (193, 33385), (221, 33076), (224, 33037), (226, 33010), (227, 33004), (234, 32932), (235, 32926), (236, 32920), (238, 32896), (242, 32863), (243, 32848), (244, 32839), (256, 32680), (260, 32650), (284, 32440), (289, 32413), (299, 32344),

Gene: SheckWes_48 Start: 33927, Stop: 31552, Start Num: 25

Candidate Starts for SheckWes_48:

(Start: 25 @33927 has 16 MA's), (35, 33867), (45, 33786), (59, 33666), (65, 33621), (73, 33543), (74, 33537), (75, 33534), (79, 33504), (82, 33486), (87, 33456), (92, 33429), (93, 33426), (98, 33369), (103, 33348), (107, 33330), (115, 33267), (120, 33243), (121, 33234), (123, 33222), (124, 33189), (127, 33168), (128, 33147), (149, 32964), (159, 32889), (161, 32868), (164, 32847), (179, 32760), (188, 32712), (192, 32682), (193, 32676), (199, 32631), (200, 32628), (201, 32613), (203, 32592), (204, 32589), (210, 32508), (213, 32478), (216, 32418), (217, 32409), (219, 32394), (220, 32379), (222, 32367), (231, 32274), (233, 32238), (234, 32232), (235, 32226), (236, 32220), (242, 32163), (244, 32139), (251, 32034), (252, 32031), (256, 31980), (261, 31938), (264, 31920), (267, 31881), (275, 31839), (277, 31815), (280, 31785), (285, 31737), (286, 31728), (289, 31713), (291, 31689), (296, 31668), (302, 31614), (306, 31581),

Gene: Shrew_79 Start: 46522, Stop: 49053, Start Num: 9

Candidate Starts for Shrew_79:

(Start: 9 @46522 has 1 MA's), (41, 46708), (59, 46867), (70, 46969), (74, 46996), (75, 46999), (80, 47047), (88, 47089), (97, 47167), (103, 47194), (106, 47215), (111, 47251), (125, 47365), (128, 47404), (133, 47461), (145, 47530), (148, 47563), (159, 47641), (185, 47848), (189, 47887), (197, 47965), (198, 47977), (200, 47983), (202, 48007), (204, 48019), (216, 48193), (218, 48208), (219, 48217), (228, 48316), (231, 48337), (237, 48400), (241, 48439), (244, 48475), (254, 48613), (259, 48655), (264, 48694), (267, 48733), (273, 48769), (280, 48829), (289, 48901), (290, 48910), (294, 48940), (298, 48967), (305, 49033),

Gene: SketchMex_43 Start: 32515, Stop: 30125, Start Num: 21

Candidate Starts for SketchMex_43:

(Start: 21 @32515 has 34 MA's), (35, 32452), (38, 32434), (39, 32419), (45, 32365), (46, 32353), (47, 32332), (55, 32299), (58, 32272), (59, 32248), (63, 32221), (75, 32116), (82, 32068), (98, 31951), (112, 31870), (116, 31843), (120, 31822), (124, 31768), (125, 31765), (127, 31747), (128, 31726), (134, 31666), (159, 31468), (164, 31426), (179, 31339), (182, 31315), (186, 31309), (192, 31255), (193, 31249), (198, 31207), (199, 31204), (200, 31201), (213, 31054), (215, 31012), (217, 30985), (222, 30943), (231, 30850), (233, 30814), (234, 30808), (235, 30802), (236, 30796), (238, 30772), (242, 30739), (244, 30715), (247, 30670), (251, 30610), (267, 30457), (289, 30289), (296, 30244), (297, 30235), (298, 30226),

Gene: Socotra_44 Start: 32553, Stop: 30160, Start Num: 21

Candidate Starts for Socotra_44:

(Start: 21 @32553 has 34 MA's), (26, 32547), (Start: 34 @32499 has 1 MA's), (39, 32457), (43, 32433), (58, 32307), (59, 32283), (65, 32238), (68, 32187), (71, 32172), (75, 32151), (82, 32103), (90, 32061), (98, 31986), (101, 31974), (112, 31905), (117, 31872), (120, 31857), (124, 31803), (125, 31800), (127, 31782), (128, 31761), (134, 31701), (149, 31578), (150, 31572), (159, 31503), (164, 31461), (179, 31374), (182, 31350), (186, 31344), (188, 31320), (189, 31311), (191, 31296), (193, 31284), (198, 31242), (199, 31239), (200, 31236), (213, 31089), (217, 31020), (218, 31014), (222, 30978), (231, 30885), (233, 30849), (234, 30843), (235, 30837), (236, 30831), (242, 30774), (244, 30750), (247, 30705), (289, 30324), (296, 30279), (297, 30270), (304, 30210),

Gene: Sopespian_42 Start: 32442, Stop: 30049, Start Num: 21

Candidate Starts for Sopespian_42:

(Start: 21 @32442 has 34 MA's), (26, 32436), (Start: 34 @32388 has 1 MA's), (39, 32346), (43, 32322), (58, 32196), (59, 32172), (65, 32127), (68, 32076), (71, 32061), (75, 32040), (82, 31992), (88, 31959), (90, 31950), (98, 31875), (101, 31863), (112, 31794), (116, 31767), (117, 31761), (120, 31746), (124, 31692), (125, 31689), (127, 31671), (128, 31650), (134, 31590), (149, 31467), (150, 31461), (159, 31392), (164, 31350), (179, 31263), (182, 31239), (186, 31233), (188, 31209), (189, 31200), (191, 31185), (193, 31173), (198, 31131), (199, 31128), (200, 31125), (213, 30978), (215, 30936), (217, 30909), (218, 30903), (231, 30774), (233, 30738), (234, 30732), (235, 30726), (236, 30720), (242,

30663), (244, 30639), (247, 30594), (288, 30216), (289, 30213), (296, 30168), (297, 30159), (304, 30099),

Gene: Starburst_43 Start: 32435, Stop: 30042, Start Num: 21

Candidate Starts for Starburst_43:

(Start: 21 @32435 has 34 MA's), (26, 32429), (Start: 34 @32381 has 1 MA's), (39, 32339), (43, 32315), (58, 32189), (59, 32165), (65, 32120), (68, 32069), (71, 32054), (75, 32033), (82, 31985), (90, 31943), (98, 31868), (101, 31856), (112, 31787), (116, 31760), (117, 31754), (120, 31739), (124, 31685), (125, 31682), (127, 31664), (128, 31643), (134, 31583), (149, 31460), (150, 31454), (159, 31385), (164, 31343), (179, 31256), (182, 31232), (186, 31226), (188, 31202), (189, 31193), (191, 31178), (193, 31166), (198, 31124), (199, 31121), (200, 31118), (213, 30971), (217, 30902), (218, 30896), (222, 30860), (226, 30803), (231, 30767), (233, 30731), (234, 30725), (235, 30719), (236, 30713), (242, 30656), (244, 30632), (247, 30587), (288, 30209), (289, 30206), (296, 30161), (297, 30152), (304, 30092),

Gene: SteamedHams_43 Start: 32003, Stop: 29616, Start Num: 22

Candidate Starts for SteamedHams_43:

(8, 32075), (11, 32060), (Start: 22 @32003 has 7 MA's), (27, 31994), (29, 31988), (39, 31907), (55, 31787), (59, 31736), (75, 31604), (78, 31577), (81, 31562), (90, 31514), (94, 31484), (98, 31439), (112, 31361), (120, 31313), (124, 31259), (125, 31256), (127, 31238), (128, 31217), (132, 31166), (134, 31157), (135, 31154), (143, 31079), (149, 31034), (156, 30974), (159, 30959), (171, 30875), (179, 30830), (182, 30806), (186, 30800), (188, 30776), (198, 30698), (199, 30695), (200, 30692), (213, 30545), (217, 30476), (226, 30377), (231, 30341), (233, 30305), (234, 30299), (235, 30293), (236, 30287), (238, 30263), (242, 30230), (244, 30206), (247, 30161), (251, 30101), (267, 29948), (274, 29909), (275, 29906), (289, 29780), (296, 29735), (297, 29726),

Gene: SummitAcademy_44 Start: 33992, Stop: 31611, Start Num: 25

Candidate Starts for SummitAcademy_44:

(Start: 25 @33992 has 16 MA's), (35, 33932), (42, 33890), (45, 33851), (59, 33731), (60, 33710), (65, 33686), (73, 33608), (74, 33602), (75, 33599), (79, 33569), (87, 33521), (92, 33494), (93, 33491), (98, 33434), (107, 33395), (110, 33374), (115, 33332), (120, 33308), (121, 33299), (122, 33293), (123, 33287), (124, 33254), (127, 33233), (128, 33212), (149, 33029), (159, 32954), (164, 32912), (179, 32825), (186, 32801), (188, 32777), (189, 32768), (192, 32747), (199, 32696), (200, 32693), (201, 32678), (203, 32657), (214, 32531), (216, 32483), (217, 32474), (222, 32432), (231, 32339), (233, 32303), (234, 32297), (235, 32291), (236, 32285), (242, 32228), (244, 32204), (251, 32099), (252, 32096), (261, 32003), (264, 31985), (267, 31946), (275, 31904), (277, 31880), (280, 31850), (285, 31802), (289, 31778), (296, 31733), (303, 31667), (306, 31646), (307, 31640), (308, 31634),

Gene: Survivors_40 Start: 31946, Stop: 29589, Start Num: 21

Candidate Starts for Survivors_40:

(17, 31955), (Start: 21 @31946 has 34 MA's), (29, 31931), (33, 31895), (51, 31760), (59, 31697), (66, 31643), (78, 31541), (79, 31538), (92, 31463), (98, 31403), (108, 31352), (114, 31310), (120, 31280), (124, 31226), (127, 31205), (128, 31184), (135, 31121), (151, 30986), (153, 30971), (155, 30944), (159, 30926), (171, 30842), (178, 30806), (193, 30713), (198, 30671), (199, 30668), (200, 30665), (202, 30641), (204, 30629), (206, 30617), (215, 30476), (217, 30449), (231, 30314), (233, 30278), (234, 30272), (235, 30266), (236, 30260), (238, 30236), (242, 30203), (244, 30179), (247, 30134), (249, 30128), (253, 30068), (264, 29960), (271, 29894), (272, 29891), (275, 29879), (277, 29855), (285, 29777), (289, 29753), (299, 29684),

Gene: SweatNTears_44 Start: 32451, Stop: 30061, Start Num: 21

Candidate Starts for SweatNTears_44:

(Start: 21 @32451 has 34 MA's), (35, 32388), (38, 32370), (39, 32355), (45, 32301), (46, 32289), (47, 32268), (55, 32235), (58, 32208), (59, 32184), (63, 32157), (75, 32052), (82, 32004), (98, 31887), (112,

31806), (116, 31779), (120, 31758), (124, 31704), (125, 31701), (127, 31683), (128, 31662), (134, 31602), (159, 31404), (164, 31362), (179, 31275), (182, 31251), (186, 31245), (192, 31191), (193, 31185), (198, 31143), (199, 31140), (200, 31137), (213, 30990), (215, 30948), (217, 30921), (222, 30879), (231, 30786), (233, 30750), (234, 30744), (235, 30738), (236, 30732), (238, 30708), (242, 30675), (244, 30651), (247, 30606), (251, 30546), (267, 30393), (289, 30225), (296, 30180), (297, 30171), (298, 30162),

Gene: Tarnish_45 Start: 34452, Stop: 32071, Start Num: 25

Candidate Starts for Tarnish_45:

(Start: 25 @34452 has 16 MA's), (35, 34392), (42, 34350), (45, 34311), (57, 34221), (59, 34191), (60, 34170), (65, 34146), (73, 34068), (74, 34062), (75, 34059), (79, 34029), (82, 34011), (85, 33993), (92, 33954), (93, 33951), (98, 33894), (107, 33855), (110, 33834), (115, 33792), (120, 33768), (121, 33759), (122, 33753), (123, 33747), (124, 33714), (127, 33693), (128, 33672), (149, 33489), (159, 33414), (164, 33372), (179, 33285), (186, 33261), (188, 33237), (189, 33228), (192, 33207), (199, 33156), (200, 33153), (201, 33138), (203, 33117), (214, 32991), (216, 32943), (217, 32934), (222, 32892), (231, 32799), (233, 32763), (234, 32757), (235, 32751), (236, 32745), (242, 32688), (244, 32664), (251, 32559), (252, 32556), (261, 32463), (264, 32445), (267, 32406), (275, 32364), (277, 32340), (280, 32310), (285, 32262), (289, 32238), (296, 32193), (303, 32127), (306, 32106), (307, 32100), (308, 32094),

Gene: Tolls_44 Start: 32396, Stop: 30009, Start Num: 22

Candidate Starts for Tolls_44:

(8, 32468), (11, 32453), (Start: 22 @32396 has 7 MA's), (27, 32387), (29, 32381), (39, 32300), (55, 32180), (59, 32129), (75, 31997), (78, 31970), (94, 31877), (98, 31832), (112, 31754), (120, 31706), (124, 31652), (125, 31649), (127, 31631), (128, 31610), (132, 31559), (134, 31550), (135, 31547), (143, 31472), (149, 31427), (156, 31367), (159, 31352), (171, 31268), (179, 31223), (182, 31199), (186, 31193), (188, 31169), (198, 31091), (199, 31088), (200, 31085), (213, 30938), (217, 30869), (226, 30770), (231, 30734), (233, 30698), (234, 30692), (235, 30686), (236, 30680), (238, 30656), (242, 30623), (244, 30599), (247, 30554), (251, 30494), (267, 30341), (274, 30302), (275, 30299), (289, 30173), (296, 30128), (297, 30119),

Gene: Triscuit_70 Start: 43915, Stop: 46587, Start Num: 7

Candidate Starts for Triscuit_70:

(Start: 7 @43915 has 2 MA's), (27, 44005), (28, 44008), (29, 44011), (37, 44071), (65, 44317), (88, 44494), (91, 44506), (95, 44551), (97, 44566), (103, 44593), (117, 44692), (122, 44722), (124, 44761), (128, 44803), (133, 44860), (137, 44875), (145, 44929), (159, 45040), (171, 45181), (173, 45205), (189, 45355), (190, 45358), (192, 45376), (197, 45433), (204, 45493), (209, 45553), (224, 45748), (231, 45811), (237, 45874), (244, 45949), (250, 46030), (253, 46060), (258, 46120), (264, 46168), (267, 46207), (271, 46234), (273, 46243), (279, 46306), (280, 46309), (289, 46381), (290, 46390), (294, 46420), (308, 46528), (309, 46546), (311, 46564),

Gene: Troje_45 Start: 32853, Stop: 30463, Start Num: 21

Candidate Starts for Troje_45:

(Start: 21 @32853 has 34 MA's), (35, 32790), (38, 32772), (39, 32757), (45, 32703), (46, 32691), (47, 32670), (55, 32637), (58, 32610), (59, 32586), (63, 32559), (75, 32454), (82, 32406), (98, 32289), (112, 32208), (116, 32181), (120, 32160), (124, 32106), (125, 32103), (127, 32085), (128, 32064), (134, 32004), (159, 31806), (164, 31764), (179, 31677), (182, 31653), (186, 31647), (192, 31593), (193, 31587), (198, 31545), (199, 31542), (200, 31539), (213, 31392), (215, 31350), (217, 31323), (222, 31281), (231, 31188), (233, 31152), (234, 31146), (235, 31140), (236, 31134), (238, 31110), (242, 31077), (244, 31053), (247, 31008), (259, 30873), (288, 30630), (289, 30627), (296, 30582), (297, 30573), (304, 30513),

Gene: Typhonomachy_42 Start: 32264, Stop: 29871, Start Num: 21

Candidate Starts for Typhonomachy_42:

(Start: 21 @32264 has 34 MA's), (26, 32258), (Start: 34 @32210 has 1 MA's), (39, 32168), (43, 32144), (58, 32018), (59, 31994), (65, 31949), (68, 31898), (71, 31883), (75, 31862), (82, 31814), (90, 31772), (98, 31697), (101, 31685), (112, 31616), (116, 31589), (117, 31583), (120, 31568), (124, 31514), (125, 31511), (127, 31493), (128, 31472), (149, 31289), (150, 31283), (159, 31214), (164, 31172), (179, 31085), (182, 31061), (186, 31055), (188, 31031), (189, 31022), (191, 31007), (193, 30995), (198, 30953), (199, 30950), (200, 30947), (213, 30800), (217, 30731), (218, 30725), (222, 30689), (231, 30596), (232, 30587), (233, 30560), (234, 30554), (235, 30548), (236, 30542), (242, 30485), (244, 30461), (247, 30416), (289, 30035), (296, 29990), (297, 29981), (304, 29921),

Gene: Vine_47 Start: 34669, Stop: 32288, Start Num: 25

Candidate Starts for Vine_47:

(Start: 25 @34669 has 16 MA's), (35, 34609), (42, 34567), (45, 34528), (59, 34408), (60, 34387), (65, 34363), (73, 34285), (74, 34279), (75, 34276), (79, 34246), (87, 34198), (92, 34171), (93, 34168), (98, 34111), (107, 34072), (110, 34051), (115, 34009), (120, 33985), (121, 33976), (122, 33970), (123, 33964), (124, 33931), (127, 33910), (128, 33889), (149, 33706), (159, 33631), (164, 33589), (179, 33502), (186, 33478), (188, 33454), (189, 33445), (192, 33424), (199, 33373), (200, 33370), (201, 33355), (203, 33334), (214, 33208), (216, 33160), (217, 33151), (222, 33109), (231, 33016), (233, 32980), (234, 32974), (235, 32968), (236, 32962), (242, 32905), (244, 32881), (251, 32776), (252, 32773), (261, 32680), (264, 32662), (267, 32623), (275, 32581), (277, 32557), (280, 32527), (285, 32479), (289, 32455), (296, 32410), (303, 32344), (306, 32323), (307, 32317), (308, 32311),

Gene: Wallaby_42 Start: 32047, Stop: 29690, Start Num: 21

Candidate Starts for Wallaby_42:

(17, 32056), (Start: 21 @32047 has 34 MA's), (29, 32032), (33, 31996), (51, 31861), (59, 31798), (66, 31744), (78, 31642), (79, 31639), (92, 31564), (98, 31504), (108, 31453), (114, 31411), (120, 31381), (121, 31372), (124, 31327), (127, 31306), (128, 31285), (135, 31222), (151, 31087), (153, 31072), (159, 31027), (171, 30943), (178, 30907), (193, 30814), (198, 30772), (199, 30769), (200, 30766), (202, 30742), (204, 30730), (206, 30718), (209, 30670), (215, 30577), (217, 30550), (231, 30415), (233, 30379), (234, 30373), (235, 30367), (236, 30361), (238, 30337), (242, 30304), (244, 30280), (247, 30235), (249, 30229), (253, 30169), (264, 30061), (271, 29995), (272, 29992), (275, 29980), (277, 29956), (285, 29878), (289, 29854), (299, 29785),

Gene: Wolfwood_40 Start: 32018, Stop: 29661, Start Num: 21

Candidate Starts for Wolfwood_40:

(17, 32027), (Start: 21 @32018 has 34 MA's), (29, 32003), (33, 31967), (51, 31832), (59, 31769), (66, 31715), (78, 31613), (79, 31610), (92, 31535), (98, 31475), (108, 31424), (114, 31382), (120, 31352), (121, 31343), (124, 31298), (127, 31277), (128, 31256), (135, 31193), (151, 31058), (153, 31043), (159, 30998), (171, 30914), (178, 30878), (193, 30785), (198, 30743), (199, 30740), (200, 30737), (202, 30713), (204, 30701), (206, 30689), (209, 30641), (215, 30548), (217, 30521), (231, 30386), (233, 30350), (234, 30344), (235, 30338), (236, 30332), (238, 30308), (242, 30275), (244, 30251), (247, 30206), (249, 30200), (253, 30140), (264, 30032), (271, 29966), (272, 29963), (275, 29951), (277, 29927), (285, 29849), (289, 29825), (299, 29756),

Gene: Yakult_46 Start: 33938, Stop: 31554, Start Num: 24

Candidate Starts for Yakult_46:

(Start: 24 @33938 has 9 MA's), (Start: 30 @33908 has 1 MA's), (43, 33824), (45, 33794), (59, 33686), (60, 33665), (78, 33527), (81, 33512), (90, 33464), (98, 33389), (100, 33383), (101, 33377), (102, 33371), (112, 33302), (115, 33278), (119, 33257), (120, 33254), (121, 33245), (127, 33179), (128, 33158), (132, 33107), (146, 33011), (152, 32957), (159, 32897), (161, 32876), (169, 32819), (171, 32813), (179, 32768), (188, 32720), (190, 32708), (199, 32636), (204, 32594), (206, 32582), (213, 32483), (215, 32441), (216, 32417), (222, 32366), (231, 32273), (233, 32237), (234, 32231), (235, 32225), (236, 32219), (242, 32162), (244, 32138), (256, 31979), (259, 31958), (264, 31919), (267,

31880), (270, 31859), (275, 31838), (276, 31826), (278, 31808), (282, 31760), (289, 31712), (291, 31688), (296, 31667), (306, 31580),

Gene: Yarn_40 Start: 32156, Stop: 29769, Start Num: 22

Candidate Starts for Yarn_40:

(8, 32228), (11, 32213), (Start: 22 @32156 has 7 MA's), (27, 32147), (29, 32141), (39, 32060), (55, 31940), (59, 31889), (75, 31757), (78, 31730), (94, 31637), (98, 31592), (112, 31514), (120, 31466), (124, 31412), (125, 31409), (127, 31391), (128, 31370), (132, 31319), (134, 31310), (135, 31307), (143, 31232), (149, 31187), (156, 31127), (159, 31112), (171, 31028), (179, 30983), (182, 30959), (186, 30953), (188, 30929), (189, 30920), (198, 30851), (199, 30848), (200, 30845), (213, 30698), (217, 30629), (226, 30530), (231, 30494), (233, 30458), (234, 30452), (235, 30446), (236, 30440), (238, 30416), (242, 30383), (244, 30359), (247, 30314), (251, 30254), (274, 30062), (275, 30059), (289, 29933), (296, 29888), (297, 29879),

Gene: Yucky_47 Start: 34461, Stop: 32086, Start Num: 25

Candidate Starts for Yucky_47:

(Start: 25 @34461 has 16 MA's), (35, 34401), (42, 34359), (45, 34320), (59, 34200), (60, 34179), (65, 34155), (73, 34077), (74, 34071), (75, 34068), (79, 34038), (87, 33990), (92, 33963), (93, 33960), (98, 33903), (107, 33864), (110, 33843), (115, 33801), (120, 33777), (121, 33768), (122, 33762), (123, 33756), (124, 33723), (127, 33702), (128, 33681), (149, 33498), (150, 33492), (159, 33423), (164, 33381), (179, 33294), (186, 33270), (188, 33246), (192, 33216), (199, 33165), (200, 33162), (201, 33147), (203, 33126), (214, 33000), (216, 32952), (217, 32943), (222, 32901), (231, 32808), (233, 32772), (234, 32766), (235, 32760), (236, 32754), (242, 32697), (244, 32673), (251, 32568), (252, 32565), (261, 32472), (264, 32454), (267, 32415), (275, 32373), (277, 32349), (280, 32319), (285, 32271), (289, 32247), (306, 32115),

Gene: Yummy_45 Start: 32562, Stop: 30172, Start Num: 21

Candidate Starts for Yummy_45:

(Start: 21 @32562 has 34 MA's), (35, 32499), (38, 32481), (39, 32466), (45, 32412), (46, 32400), (47, 32379), (55, 32346), (58, 32319), (59, 32295), (63, 32268), (75, 32163), (82, 32115), (98, 31998), (112, 31917), (116, 31890), (120, 31869), (124, 31815), (125, 31812), (127, 31794), (128, 31773), (134, 31713), (159, 31515), (164, 31473), (179, 31386), (182, 31362), (186, 31356), (192, 31302), (193, 31296), (198, 31254), (199, 31251), (200, 31248), (213, 31101), (215, 31059), (217, 31032), (222, 30990), (231, 30897), (233, 30861), (234, 30855), (235, 30849), (236, 30843), (238, 30819), (242, 30786), (244, 30762), (247, 30717), (251, 30657), (267, 30504), (289, 30336), (296, 30291), (297, 30282), (298, 30273),

Gene: Zareef_40 Start: 32040, Stop: 29683, Start Num: 21

Candidate Starts for Zareef_40:

(17, 32049), (Start: 21 @32040 has 34 MA's), (29, 32025), (33, 31989), (51, 31854), (59, 31791), (64, 31749), (66, 31737), (78, 31635), (79, 31632), (92, 31557), (96, 31518), (98, 31497), (108, 31446), (114, 31404), (120, 31374), (124, 31320), (127, 31299), (128, 31278), (135, 31215), (151, 31080), (153, 31065), (155, 31038), (159, 31020), (171, 30936), (178, 30900), (193, 30807), (198, 30765), (199, 30762), (200, 30759), (202, 30735), (204, 30723), (206, 30711), (215, 30570), (217, 30543), (231, 30408), (233, 30372), (234, 30366), (235, 30360), (236, 30354), (238, 30330), (242, 30297), (244, 30273), (247, 30228), (249, 30222), (253, 30162), (264, 30054), (272, 29985), (275, 29973), (277, 29949), (285, 29871), (289, 29847), (299, 29778),

Gene: Zuko_78 Start: 57486, Stop: 60083, Start Num: 2

Candidate Starts for Zuko_78:

(Start: 2 @57486 has 1 MA's), (6, 57528), (10, 57549), (12, 57558), (Start: 16 @57591 has 1 MA's), (39, 57720), (Start: 40 @57726 has 1 MA's), (56, 57849), (62, 57927), (67, 57990), (70, 58023), (71, 58032), (83, 58110), (84, 58122), (93, 58167), (101, 58236), (105, 58257), (124, 58416), (126, 58431),

(128, 58458), (134, 58518), (137, 58530), (144, 58578), (159, 58695), (174, 58815), (197, 58995),
(199, 59010), (200, 59013), (208, 59103), (212, 59148), (217, 59232), (224, 59304), (227, 59337),
(231, 59367), (233, 59403), (234, 59409), (235, 59415), (236, 59421), (242, 59478), (244, 59502),
(255, 59643), (259, 59682), (270, 59781), (274, 59799), (277, 59826), (283, 59895), (286, 59913),
(289, 59928), (295, 59967), (296, 59973), (301, 60021),