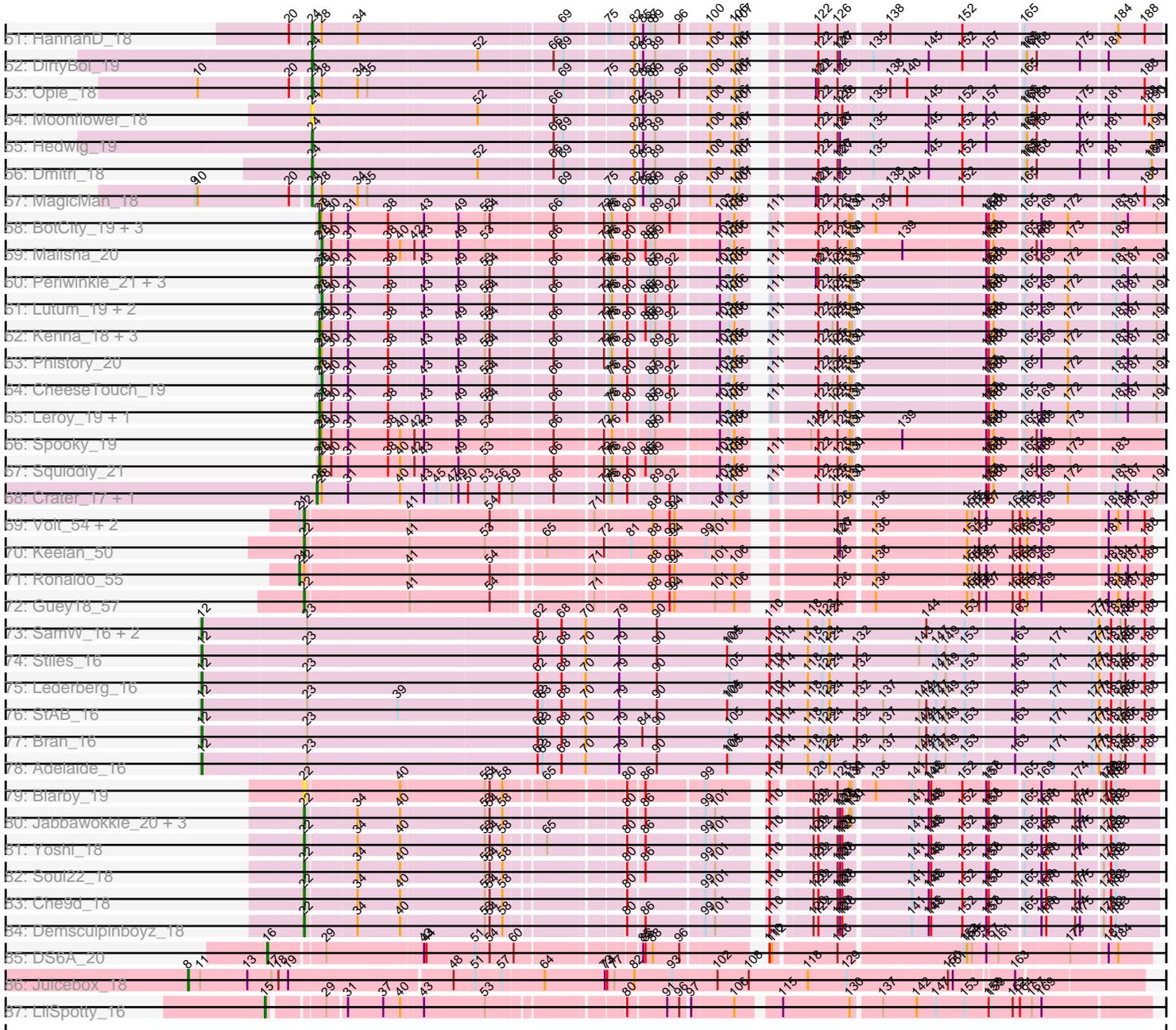# Pham 283560

Pham 283560

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 283560 Report

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

Pham number 283560 has 150 members, 28 are drafts.

Phages represented in each track:
• Track 1 : Eliott_17, Cozz_17, Bubble_17, PsychoKiller_17, GoldHunter_18, Sopespian_17, RADical_18, Burnsey_17
• Track 2 : AikoCarson_16, Emalyn_16
• Track 3 : Agatha_17, Quasar_17, RSchmailzl_18, Starburst_18, Carsonalex_18, Typhonomachy_17, RedBaron_18, Socotra_18, Axym_17, Nina_18
• Track 4 : Bavilard_17, CocoaPuff_16, Vine_18, Yucky_17
• Track 5 : McDazzle_16, ElJefes_16
• Track 6 : Nodigi_19
• Track 7 : Yakult_18
• Track 8 : Orla_19
• Track 9 : ChocoMunchkin_17, CanesSauce_17, CaramelLatte_17
• Track 10 : Gibbous_17, Dre3_17
• Track 11 : Feastonyeet_16, BigChungus_16
• Track 12 : Amok_16
• Track 13 : Mayweather_18, Pons_17
• Track 14 : SweatNTears_19, Biskit_18, Buttrmlkdreams_17, SketchMex_16, Blondies_18
• Track 15 : Margaret_20
• Track 16 : Jamzy_20
• Track 17 : CherryonLim_18
• Track 18 : Yummy_18, Troje_17, Horseradish_18
• Track 19 : Tolls_19, SteamedHams_19, BillDoor_19, Yarn_16, AndPeggy_16
• Track 20 : Button_18
• Track 21 : PotPie_17, Balloona_16, SummitAcademy_16, Lauer_16
• Track 22 : ChickenTender_19
• Track 23 : Zareef_19, Survivors_19, MaVan_19
• Track 24 : KayGee_17, Elinal_18
• Track 25 : Hexbug_19
• Track 26 : MunkgeeRoachy_17
• Track 27 : HippoPololi_19
• Track 28 : Cleo_17
• Track 29 : MAnor_17
• Track 30 : Nibbles_19, Wolfwood_21
• Track 31 : SheckWes_16
• Track 32 : RanchParmCat_20
• Track 33 : GiKK_20
• Track 34 : Fribs8_18

- Track 35 : MScarn_19
- Track 36 : GTE2_15
- Track 37 : Azira_19
- Track 38 : Bowser_18
- Track 39 : BackstagePass_18
- Track 40 : Eyes_18
- Track 41 : Doggs_17
- Track 42 : GEazy_18
- Track 43 : BBQValindra_18
- Track 44 : Kiko_19
- Track 45 : Coriander_18
- Track 46 : Schnabeltier_18
- Track 47 : TaronosaurasRx_18
- Track 48 : ZAYM_18
- Track 49 : RayTheFireFly_18
- Track 50 : Bunker_18
- Track 51 : HannahD_18
- Track 52 : DirtyBoi_19
- Track 53 : Opie_18
- Track 54 : Moonflower_18
- Track 55 : Hedwig_19
- Track 56 : Dmitri_18
- Track 57 : MagicMan_18
- Track 58 : BotCity_19, BENtherdunthat_19, Frickyeah_19, Asapag_19
- Track 59 : Malisha_20
- Track 60 : Periwinkle_21, Getalong_20, Horus_19, Whitney_20
- Track 61 : Lutum_19, Phabuloso_19, Holliday_19
- Track 62 : Kenna_18, Budski_19, LitninMcQueen_19, Kamaru_19
- Track 63 : Phistory_20
- Track 64 : CheeseTouch_19
- Track 65 : Leroy_19, ShawBrad_19
- Track 66 : Spooky_19
- Track 67 : Squiddly_21
- Track 68 : Crater_17, Apricot_18
- Track 69 : Volt_54, Fryberger_52, Ziko_55
- Track 70 : Keelan_50
- Track 71 : Ronaldo_55
- Track 72 : Guey18_57
- Track 73 : SamW_16, Dina_16, Troy_16
- Track 74 : Stiles_16
- Track 75 : Lederberg_16
- Track 76 : StAB_16
- Track 77 : Bran_16
- Track 78 : Adelaide_16
- Track 79 : Blarby_19
- Track 80 : Jabbawokkie_20, Avani_18, SilverChicken_18, Zapner_19
- Track 81 : Yoshi_18
- Track 82 : Soul22_18
- Track 83 : Che9d_18
- Track 84 : Demsculpinboyz_18
- Track 85 : DS6A_20
- Track 86 : Juicebox_18
- Track 87 : LilSpotty_16

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

The start number called the most often in the published annotations is 25, it was called in 59 of the 122 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Agatha_17, AikoCarson_16, Amok_16, AndPeggy_16, Axym_17, Azira_19, Balloona_16, Bavilard_17, BigChungus_16, BillDoor_19, Biskit_18, Blondies_18, Bubble_17, Burnsey_17, Button_18, Buttrmlkdreams_17, CanesSauce_17, CaramelLatte_17, Carsonalex_18, CherryonLim_18, ChickenTender_19, ChocoMunchkin_17, Cleo_17, CocoaPuff_16, Cozz_17, Dre3_17, ElJefes_16, Elinal_18, Eliott_17, Emalyn_16, Feastonyeet_16, Fribs8_18, GiKK_20, Gibbous_17, GoldHunter_18, Hexbug_19, HippoPololi_19, Horseradish_18, Jamzy_20, KayGee_17, Lauer_16, MAnor_17, MScarn_19, MaVan_19, Margaret_20, Mayweather_18, McDazzle_16, MunkgeeRoachy_17, Nibbles_19, Nina_18, Nodigi_19, Orla_19, Pons_17, PotPie_17, PsychoKiller_17, Quasar_17, RADical_18, RSchmailzl_18, RanchParmCat_20, RedBaron_18, SheckWes_16, SketchMex_16, Socotra_18, Sopespian_17, Starburst_18, SteamedHams_19, SummitAcademy_16, Survivors_19, SweatNTears_19, Tolls_19, Troje_17, Typhonomachy_17, Vine_18, Wolfwood_21, Yakult_18, Yarn_16, Yucky_17, Yummy_18, Zareef_19,

Genes that have the "Most Annotated" start but do not call it:
• GTE2_15,

Genes that do not have the "Most Annotated" start:
• Adelaide_16, Apricot_18, Asapag_19, Avani_18, BBQValindra_18, BENtherdunthat_19, BackstagePass_18, Blarby_19, BotCity_19, Bowser_18, Bran_16, Budski_19, Bunker_18, Che9d_18, CheeseTouch_19, Coriander_18, Crater_17, DS6A_20, Demsculpinboyz_18, Dina_16, DirtyBoi_19, Dmitri_18, Doggs_17, Eyes_18, Frickyeah_19, Fryberger_52, GEazy_18, Getalong_20, Guey18_57, HannahD_18, Hedwig_19, Holliday_19, Horus_19, Jabbawokkie_20, Juicebox_18, Kamaru_19, Keelan_50, Kenna_18, Kiko_19, Lederberg_16, Leroy_19, LilSpotty_16, LitninMcQueen_19, Lutum_19, MagicMan_18, Malisha_20, Moonflower_18, Opie_18, Periwinkle_21, Phabuloso_19, Phistory_20, RayTheFireFly_18, Ronaldo_55, SamW_16, Schnabeltier_18, ShawBrad_19, SilverChicken_18, Soul22_18, Spooky_19, Squiddly_21, StAB_16, Stiles_16, TaronosaurasRx_18, Troy_16, Volt_54, Whitney_20, Yoshi_18, ZAYM_18, Zapner_19, Ziko_55,

Summary by start number:

Start 8:
• Found in 1 of 150 (0.7%) of genes in pham
• Manual Annotations of this start: 1 of 122
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Juicebox_18 (singleton),

Start 12:
• Found in 8 of 150 (5.3%) of genes in pham

- Manual Annotations of this start: 8 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adelaide_16 (EP), Bran_16 (EP), Dina_16 (EP), Lederberg_16 (EP), SamW_16 (EP), StAB_16 (EP), Stiles_16 (EP), Troy_16 (EP),

Start 15:
- Found in 1 of 150 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilSpotty_16 (singleton),

Start 16:
- Found in 1 of 150 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_20 (singleton),

Start 21:
- Found in 4 of 150 (2.7%) of genes in pham
- Manual Annotations of this start: 1 of 122
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Ronaldo_55 (DP),

Start 22:
- Found in 15 of 150 (10.0%) of genes in pham
- Manual Annotations of this start: 12 of 122
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Avani_18 (F2), Blarby_19 (F), Che9d_18 (F2), Demsculpinboyz_18 (F2), Fryberger_52 (DP), Guey18_57 (DP), Jabbawokkie_20 (F2), Keelan_50 (DP), SilverChicken_18 (F2), Soul22_18 (F2), Volt_54 (DP), Yoshi_18 (F2), Zapner_19 (F2), Ziko_55 (DP),

Start 24:
- Found in 20 of 150 (13.3%) of genes in pham
- Manual Annotations of this start: 15 of 122
- Called 85.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_18 (DB), BackstagePass_18 (DB), Bowser_18 (DB), Bunker_18 (DB), Coriander_18 (DB), DirtyBoi_19 (DB), Dmitri_18 (DB), Doggs_17 (DB), Eyes_18 (DB), HannahD_18 (DB), Hedwig_19 (DB), Kiko_19 (DB), MagicMan_18 (DB), Moonflower_18 (DB), Opie_18 (DB), RayTheFireFly_18 (DB), TaronosaurasRx_18 (DB),

Start 25:
- Found in 80 of 150 (53.3%) of genes in pham
- Manual Annotations of this start: 59 of 122
- Called 98.8% of time when present
- Phage (with cluster) where this start called: Agatha_17 (CT), AikoCarson_16 (CT), Amok_16 (CT), AndPeggy_16 (CT), Axym_17 (CT), Azira_19 (CT), Balloona_16 (CT), Bavilard_17 (CT), BigChungus_16 (CT), BillDoor_19 (CT), Biskit_18 (CT), Blondies_18 (CT), Bubble_17 (CT), Burnsey_17 (CT), Button_18 (CT), Buttrmlkdreams_17 (CT), CanesSauce_17 (CT), CaramelLatte_17 (CT), Carsonalex_18 (CT), CherryonLim_18 (CT), ChickenTender_19 (CT),

ChocoMunchkin_17 (CT), Cleo_17 (CT), CocoaPuff_16 (CT), Cozz_17 (CT), Dre3_17 (CT), ElJefes_16 (CT), Elinal_18 (CT), Eliott_17 (CT), Emalyn_16 (CT), Feastonyeet_16 (CT), Fribs8_18 (CT), GiKK_20 (CT), Gibbous_17 (CT), GoldHunter_18 (CT), Hexbug_19 (CT), HippoPololi_19 (CT), Horseradish_18 (CT), Jamzy_20 (CT), KayGee_17 (CT), Lauer_16 (CT), MAnor_17 (CT), MScarn_19 (CT), MaVan_19 (CT), Margaret_20 (CT), Mayweather_18 (CT), McDazzle_16 (CT), MunkgeeRoachy_17 (CT), Nibbles_19 (CT), Nina_18 (CT), Nodigi_19 (CT), Orla_19 (CT), Pons_17 (CT), PotPie_17 (CT), PsychoKiller_17 (CT), Quasar_17 (CT), RADical_18 (CT), RSchmailzl_18 (CT), RanchParmCat_20 (CT), RedBaron_18 (CT), SheckWes_16 (CT), SketchMex_16 (CT), Socotra_18 (CT), Sopespian_17 (CT), Starburst_18 (CT), SteamedHams_19 (CT), SummitAcademy_16 (CT), Survivors_19 (CT), SweatNTears_19 (CT), Tolls_19 (CT), Troje_17 (CT), Typhonomachy_17 (CT), Vine_18 (CT), Wolfwood_21 (CT), Yakult_18 (CT), Yarn_16 (CT), Yucky_17 (CT), Yummy_18 (CT), Zareef_19 (CT),

Start 26:
• Found in 2 of 150 (1.3%) of genes in pham
• Manual Annotations of this start: 2 of 122
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Apricot_18 (DN3), Crater_17 (DN3),

Start 27:
• Found in 22 of 150 (14.7%) of genes in pham
• Manual Annotations of this start: 15 of 122
• Called 77.3% of time when present
• Phage (with cluster) where this start called: Asapag_19 (DN1), BENtherdunthat_19 (DN1), BotCity_19 (DN), Budski_19 (DN), Frickyeah_19 (DN1), Getalong_20 (DN1), Horus_19 (DN1), Kamaru_19 (DN1), Kenna_18 (DN1), Leroy_19 (DN1), LitninMcQueen_19 (DN1), Periwinkle_21 (DN1), Phistory_20 (DN1), ShawBrad_19 (DN1), Spooky_19 (DN2), Squiddly_21 (DN2), Whitney_20 (DN1),

Start 28:
• Found in 36 of 150 (24.0%) of genes in pham
• Manual Annotations of this start: 6 of 122
• Called 16.7% of time when present
• Phage (with cluster) where this start called: CheeseTouch_19 (DN1), GEazy_18 (DB), Holliday_19 (DN1), Lutum_19 (DN1), Malisha_20 (DN), Phabuloso_19 (DN1),

Start 32:
• Found in 72 of 150 (48.0%) of genes in pham
• No Manual Annotations of this start.
• Called 1.4% of time when present
• Phage (with cluster) where this start called: GTE2_15 (CT),

Start 35:
• Found in 10 of 150 (6.7%) of genes in pham
• Manual Annotations of this start: 1 of 122
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Schnabeltier_18 (DB), ZAYM_18 (DB),

Summary by clusters:

There are 11 clusters represented in this pham: DN, singleton, F, DB, F2, DN1, DN3, DN2, EP, DP, CT,

Info for manual annotations of cluster CT:
•Start number 25 was manually annotated 59 times for cluster CT.

Info for manual annotations of cluster DB:
•Start number 24 was manually annotated 15 times for cluster DB.
•Start number 28 was manually annotated 1 time for cluster DB.
•Start number 35 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DN:
•Start number 27 was manually annotated 2 times for cluster DN.
•Start number 28 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 27 was manually annotated 11 times for cluster DN1.
•Start number 28 was manually annotated 4 times for cluster DN1.

Info for manual annotations of cluster DN2:
•Start number 27 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:
•Start number 26 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DP:
•Start number 21 was manually annotated 1 time for cluster DP.
•Start number 22 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster EP:
•Start number 12 was manually annotated 8 times for cluster EP.

Info for manual annotations of cluster F2:
•Start number 22 was manually annotated 7 times for cluster F2.

Gene Information:
Gene: Adelaide_16 Start: 15151, Stop: 16317, Start Num: 12
Candidate Starts for Adelaide_16:
(Start: 12 @15151 has 8 MA's), (23, 15280), (62, 15562), (63, 15568), (68, 15592), (70, 15619), (79, 15661), (90, 15706), (104, 15793), (105, 15796), (110, 15844), (114, 15859), (118, 15892), (123, 15910), (124, 15919), (132, 15952), (137, 15985), (143, 16030), (144, 16039), (147, 16051), (149, 16063), (153, 16087), (163, 16144), (171, 16192), (177, 16240), (178, 16249), (182, 16264), (185, 16276), (186, 16282), (188, 16306),

Gene: Agatha_17 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Agatha_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439),

(145, 15466), (148, 15484), (157, 15535), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: AikoCarson_16 Start: 14069, Stop: 15040, Start Num: 25
Candidate Starts for AikoCarson_16:
(Start: 25 @14069 has 59 MA's), (32, 14114), (36, 14135), (40, 14171), (50, 14252), (64, 14330), (66, 14339), (67, 14342), (72, 14396), (78, 14408), (89, 14456), (98, 14498), (106, 14546), (116, 14597), (120, 14627), (126, 14657), (130, 14672), (131, 14675), (145, 14771), (148, 14789), (158, 14843), (159, 14846), (162, 14873), (164, 14882), (167, 14897), (175, 14954), (186, 15002), (188, 15026), (189, 15032),

Gene: Amok_16 Start: 14066, Stop: 15037, Start Num: 25
Candidate Starts for Amok_16:
(Start: 25 @14066 has 59 MA's), (32, 14111), (36, 14132), (40, 14168), (50, 14249), (64, 14327), (66, 14336), (67, 14339), (72, 14393), (78, 14405), (89, 14453), (98, 14495), (106, 14543), (116, 14594), (120, 14624), (126, 14654), (130, 14669), (131, 14672), (145, 14768), (148, 14786), (158, 14840), (159, 14843), (162, 14870), (164, 14879), (167, 14894), (169, 14903), (175, 14951), (186, 14999), (188, 15023), (189, 15029),

Gene: AndPeggy_16 Start: 14429, Stop: 15400, Start Num: 25
Candidate Starts for AndPeggy_16:
(Start: 25 @14429 has 59 MA's), (32, 14474), (36, 14495), (37, 14510), (40, 14531), (46, 14582), (50, 14612), (54, 14639), (64, 14690), (66, 14699), (67, 14702), (72, 14756), (78, 14768), (89, 14816), (106, 14906), (116, 14957), (120, 14987), (126, 15017), (131, 15035), (145, 15131), (148, 15149), (157, 15200), (158, 15203), (162, 15233), (164, 15242), (167, 15257), (175, 15314), (186, 15362), (188, 15386), (189, 15392),

Gene: Apricot_18 Start: 15047, Stop: 15973, Start Num: 26
Candidate Starts for Apricot_18:
(Start: 26 @15047 has 2 MA's), (Start: 28 @15053 has 6 MA's), (31, 15083), (40, 15143), (43, 15167), (45, 15182), (47, 15197), (49, 15206), (50, 15218), (53, 15239), (56, 15257), (59, 15269), (66, 15314), (72, 15368), (75, 15371), (76, 15374), (80, 15386), (89, 15416), (92, 15434), (103, 15488), (105, 15500), (106, 15506), (111, 15527), (122, 15575), (125, 15593), (126, 15599), (130, 15614), (131, 15617), (157, 15770), (158, 15773), (160, 15779), (165, 15812), (169, 15830), (172, 15863), (183, 15914), (187, 15929), (191, 15965),

Gene: Asapag_19 Start: 15508, Stop: 16431, Start Num: 27
Candidate Starts for Asapag_19:
(Start: 27 @15508 has 15 MA's), (Start: 28 @15511 has 6 MA's), (30, 15523), (31, 15541), (38, 15586), (43, 15625), (49, 15664), (53, 15697), (54, 15703), (66, 15772), (72, 15826), (75, 15829), (76, 15832), (80, 15844), (89, 15874), (92, 15892), (103, 15946), (105, 15958), (106, 15964), (111, 15985), (122, 16033), (126, 16057), (130, 16072), (131, 16075), (136, 16096), (157, 16228), (158, 16231), (160, 16237), (165, 16270), (169, 16288), (172, 16321), (183, 16372), (187, 16387), (191, 16423),

Gene: Avani_18 Start: 12813, Stop: 13742, Start Num: 22
Candidate Starts for Avani_18:
(Start: 22 @12813 has 12 MA's), (34, 12873), (40, 12924), (53, 13023), (54, 13029), (58, 13044), (80, 13164), (86, 13182), (99, 13248), (101, 13260), (110, 13305), (120, 13344), (122, 13350), (126, 13374), (127, 13377), (128, 13380), (130, 13389), (131, 13392), (141, 13458), (145, 13479), (146, 13482), (152, 13518), (157, 13545), (158, 13548), (165, 13587), (169, 13605), (170, 13611), (174, 13647), (175, 13653), (179, 13677), (182, 13683), (183, 13689),

Gene: Axym_17 Start: 14764, Stop: 15735, Start Num: 25

Candidate Starts for Axym_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (157, 15535), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Azira_19 Start: 15745, Stop: 16710, Start Num: 25
Candidate Starts for Azira_19:
(Start: 25 @15745 has 59 MA's), (32, 15790), (37, 15826), (40, 15847), (43, 15874), (50, 15928), (64, 16009), (66, 16018), (67, 16021), (78, 16090), (89, 16138), (94, 16162), (106, 16228), (109, 16243), (117, 16282), (145, 16438), (157, 16504), (158, 16507), (159, 16510), (162, 16537), (164, 16546), (169, 16570), (172, 16603), (176, 16621), (185, 16666), (188, 16696), (189, 16702),

Gene: BBQValindra_18 Start: 15702, Stop: 16631, Start Num: 24
Candidate Starts for BBQValindra_18:
(6, 15468), (10, 15567), (20, 15681), (Start: 24 @15702 has 15 MA's), (Start: 28 @15711 has 6 MA's), (34, 15753), (Start: 35 @15765 has 1 MA's), (69, 15987), (82, 16056), (85, 16062), (87, 16071), (89, 16077), (96, 16107), (100, 16137), (106, 16167), (107, 16173), (122, 16236), (126, 16260), (138, 16317), (140, 16338), (152, 16404), (165, 16473), (184, 16578), (188, 16611),

Gene: BENtherdunthat_19 Start: 15508, Stop: 16431, Start Num: 27
Candidate Starts for BENtherdunthat_19:
(Start: 27 @15508 has 15 MA's), (Start: 28 @15511 has 6 MA's), (30, 15523), (31, 15541), (38, 15586), (43, 15625), (49, 15664), (53, 15697), (54, 15703), (66, 15772), (72, 15826), (75, 15829), (76, 15832), (80, 15844), (89, 15874), (92, 15892), (103, 15946), (105, 15958), (106, 15964), (111, 15985), (122, 16033), (126, 16057), (130, 16072), (131, 16075), (136, 16096), (157, 16228), (158, 16231), (160, 16237), (165, 16270), (169, 16288), (172, 16321), (183, 16372), (187, 16387), (191, 16423),

Gene: BackstagePass_18 Start: 15842, Stop: 16771, Start Num: 24
Candidate Starts for BackstagePass_18:
(Start: 24 @15842 has 15 MA's), (Start: 28 @15851 has 6 MA's), (34, 15893), (Start: 35 @15905 has 1 MA's), (53, 16043), (69, 16127), (82, 16196), (85, 16202), (87, 16211), (89, 16217), (96, 16247), (100, 16277), (106, 16307), (107, 16313), (122, 16376), (126, 16400), (138, 16457), (140, 16478), (152, 16544), (165, 16613), (188, 16751),

Gene: Balloona_16 Start: 14468, Stop: 15424, Start Num: 25
Candidate Starts for Balloona_16:
(Start: 25 @14468 has 59 MA's), (32, 14513), (40, 14570), (43, 14597), (50, 14651), (54, 14678), (64, 14729), (65, 14732), (66, 14738), (67, 14741), (72, 14795), (79, 14810), (89, 14855), (94, 14879), (97, 14894), (106, 14945), (126, 15041), (158, 15227), (162, 15257), (164, 15266), (172, 15323), (183, 15374), (188, 15410), (189, 15416),

Gene: Bavilard_17 Start: 15254, Stop: 16210, Start Num: 25
Candidate Starts for Bavilard_17:
(Start: 25 @15254 has 59 MA's), (32, 15299), (40, 15356), (43, 15383), (50, 15437), (54, 15464), (64, 15515), (65, 15518), (66, 15524), (67, 15527), (72, 15581), (79, 15596), (89, 15641), (94, 15665), (97, 15680), (106, 15731), (126, 15827), (158, 16013), (162, 16043), (164, 16052), (169, 16076), (172, 16109), (188, 16196), (189, 16202),

Gene: BigChungus_16 Start: 14508, Stop: 15464, Start Num: 25
Candidate Starts for BigChungus_16:

(Start: 25 @14508 has 59 MA's), (32, 14553), (40, 14610), (43, 14637), (50, 14691), (54, 14718), (64, 14769), (65, 14772), (66, 14778), (67, 14781), (72, 14835), (79, 14850), (89, 14895), (94, 14919), (106, 14985), (126, 15081), (158, 15267), (162, 15297), (164, 15306), (169, 15330), (172, 15363), (188, 15450), (189, 15456),

Gene: BillDoor_19 Start: 14397, Stop: 15368, Start Num: 25
Candidate Starts for BillDoor_19:
(Start: 25 @14397 has 59 MA's), (32, 14442), (36, 14463), (37, 14478), (40, 14499), (46, 14550), (50, 14580), (54, 14607), (64, 14658), (66, 14667), (67, 14670), (72, 14724), (78, 14736), (89, 14784), (106, 14874), (116, 14925), (120, 14955), (126, 14985), (131, 15003), (145, 15099), (148, 15117), (157, 15168), (158, 15171), (162, 15201), (164, 15210), (167, 15225), (175, 15282), (186, 15330), (188, 15354), (189, 15360),

Gene: Biskit_18 Start: 14412, Stop: 15383, Start Num: 25
Candidate Starts for Biskit_18:
(Start: 25 @14412 has 59 MA's), (32, 14457), (36, 14478), (43, 14541), (46, 14565), (50, 14595), (64, 14673), (66, 14682), (67, 14685), (78, 14751), (89, 14799), (98, 14841), (103, 14871), (106, 14889), (116, 14940), (126, 15000), (130, 15015), (131, 15018), (134, 15042), (145, 15114), (148, 15132), (157, 15183), (158, 15186), (162, 15216), (164, 15225), (167, 15240), (175, 15297), (186, 15345), (188, 15369), (189, 15375),

Gene: Blarby_19 Start: 13331, Stop: 14263, Start Num: 22
Candidate Starts for Blarby_19:
(Start: 22 @13331 has 12 MA's), (40, 13442), (53, 13541), (54, 13547), (58, 13562), (65, 13604), (80, 13682), (86, 13700), (99, 13766), (110, 13823), (120, 13862), (126, 13892), (130, 13907), (131, 13910), (136, 13931), (141, 13976), (145, 13997), (146, 14000), (152, 14036), (157, 14063), (158, 14066), (165, 14105), (169, 14123), (174, 14165), (179, 14195), (180, 14198), (182, 14204), (183, 14210),

Gene: Blondies_18 Start: 14395, Stop: 15366, Start Num: 25
Candidate Starts for Blondies_18:
(Start: 25 @14395 has 59 MA's), (32, 14440), (36, 14461), (43, 14524), (46, 14548), (50, 14578), (64, 14656), (66, 14665), (67, 14668), (78, 14734), (89, 14782), (98, 14824), (103, 14854), (106, 14872), (116, 14923), (126, 14983), (130, 14998), (131, 15001), (134, 15025), (145, 15097), (148, 15115), (157, 15166), (158, 15169), (162, 15199), (164, 15208), (167, 15223), (175, 15280), (186, 15328), (188, 15352), (189, 15358),

Gene: BotCity_19 Start: 15506, Stop: 16429, Start Num: 27
Candidate Starts for BotCity_19:
(Start: 27 @15506 has 15 MA's), (Start: 28 @15509 has 6 MA's), (30, 15521), (31, 15539), (38, 15584), (43, 15623), (49, 15662), (53, 15695), (54, 15701), (66, 15770), (72, 15824), (75, 15827), (76, 15830), (80, 15842), (89, 15872), (92, 15890), (103, 15944), (105, 15956), (106, 15962), (111, 15983), (122, 16031), (126, 16055), (130, 16070), (131, 16073), (136, 16094), (157, 16226), (158, 16229), (160, 16235), (165, 16268), (169, 16286), (172, 16319), (183, 16370), (187, 16385), (191, 16421),

Gene: Bowser_18 Start: 15695, Stop: 16621, Start Num: 24
Candidate Starts for Bowser_18:
(1, 15356), (4, 15431), (20, 15677), (Start: 24 @15695 has 15 MA's), (Start: 28 @15704 has 6 MA's), (34, 15746), (Start: 35 @15758 has 1 MA's), (69, 15980), (75, 16025), (82, 16049), (85, 16055), (87, 16064), (89, 16070), (96, 16100), (100, 16130), (106, 16160), (107, 16166), (121, 16226), (122, 16229), (126, 16253), (138, 16310), (140, 16331), (152, 16397), (165, 16466), (173, 16520), (188, 16604),

Gene: Bran_16 Start: 15156, Stop: 16322, Start Num: 12
Candidate Starts for Bran_16:
(Start: 12 @15156 has 8 MA's), (23, 15285), (62, 15567), (63, 15573), (68, 15597), (70, 15624), (79, 15666), (84, 15693), (90, 15711), (105, 15801), (110, 15849), (114, 15864), (118, 15897), (123, 15915), (124, 15924), (132, 15957), (137, 15990), (143, 16035), (144, 16044), (147, 16056), (149, 16068), (153, 16092), (163, 16149), (171, 16197), (177, 16245), (178, 16254), (182, 16269), (185, 16281), (186, 16287), (188, 16311),

Gene: Bubble_17 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Bubble_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Budski_19 Start: 15501, Stop: 16424, Start Num: 27
Candidate Starts for Budski_19:
(Start: 27 @15501 has 15 MA's), (Start: 28 @15504 has 6 MA's), (30, 15516), (31, 15534), (38, 15579), (43, 15618), (49, 15657), (53, 15690), (54, 15696), (66, 15765), (72, 15819), (75, 15822), (76, 15825), (80, 15837), (86, 15855), (87, 15861), (89, 15867), (92, 15885), (103, 15939), (105, 15951), (106, 15957), (111, 15978), (122, 16026), (125, 16044), (126, 16050), (130, 16065), (131, 16068), (157, 16221), (158, 16224), (160, 16230), (165, 16263), (169, 16281), (172, 16314), (183, 16365), (187, 16380), (191, 16416),

Gene: Bunker_18 Start: 15822, Stop: 16751, Start Num: 24
Candidate Starts for Bunker_18:
(5, 15585), (20, 15801), (Start: 24 @15822 has 15 MA's), (Start: 28 @15831 has 6 MA's), (34, 15873), (Start: 35 @15885 has 1 MA's), (69, 16107), (75, 16152), (82, 16176), (85, 16182), (87, 16191), (89, 16197), (96, 16227), (100, 16257), (106, 16287), (107, 16293), (122, 16356), (126, 16380), (138, 16437), (140, 16458), (152, 16524), (165, 16593), (188, 16731),

Gene: Burnsey_17 Start: 14765, Stop: 15736, Start Num: 25
Candidate Starts for Burnsey_17:
(Start: 25 @14765 has 59 MA's), (32, 14810), (36, 14831), (43, 14894), (46, 14918), (50, 14948), (56, 14987), (64, 15026), (66, 15035), (67, 15038), (78, 15104), (89, 15152), (98, 15194), (106, 15242), (116, 15293), (126, 15353), (130, 15368), (131, 15371), (133, 15389), (134, 15395), (140, 15440), (145, 15467), (148, 15485), (158, 15539), (162, 15569), (164, 15578), (167, 15593), (175, 15650), (186, 15698), (188, 15722), (189, 15728),

Gene: Button_18 Start: 13831, Stop: 14790, Start Num: 25
Candidate Starts for Button_18:
(Start: 25 @13831 has 59 MA's), (33, 13879), (34, 13882), (43, 13960), (55, 14047), (66, 14101), (79, 14173), (83, 14197), (89, 14218), (106, 14308), (109, 14323), (113, 14338), (126, 14410), (140, 14497), (157, 14590), (158, 14593), (162, 14623), (164, 14632), (169, 14656), (172, 14689), (174, 14698), (175, 14704), (187, 14755), (188, 14776), (189, 14782),

Gene: Buttrmlkdreams_17 Start: 14394, Stop: 15365, Start Num: 25
Candidate Starts for Buttrmlkdreams_17:
(Start: 25 @14394 has 59 MA's), (32, 14439), (36, 14460), (43, 14523), (46, 14547), (50, 14577), (64, 14655), (66, 14664), (67, 14667), (78, 14733), (89, 14781), (98, 14823), (103, 14853), (106, 14871), (116, 14922), (126, 14982), (130, 14997), (131, 15000), (134, 15024), (145, 15096), (148, 15114), (157, 15165), (158, 15168), (162, 15198), (164, 15207), (167, 15222), (175, 15279), (186, 15327),

(188, 15351), (189, 15357),

Gene: CanesSauce_17 Start: 14430, Stop: 15401, Start Num: 25
Candidate Starts for CanesSauce_17:
(Start: 25 @14430 has 59 MA's), (32, 14475), (36, 14496), (37, 14511), (40, 14532), (46, 14583), (50, 14613), (54, 14640), (64, 14691), (66, 14700), (67, 14703), (72, 14757), (78, 14769), (89, 14817), (95, 14844), (106, 14907), (116, 14958), (120, 14988), (126, 15018), (131, 15036), (145, 15132), (148, 15150), (157, 15201), (158, 15204), (162, 15234), (164, 15243), (167, 15258), (175, 15315), (186, 15363), (188, 15387), (189, 15393),

Gene: CaramelLatte_17 Start: 14430, Stop: 15401, Start Num: 25
Candidate Starts for CaramelLatte_17:
(Start: 25 @14430 has 59 MA's), (32, 14475), (36, 14496), (37, 14511), (40, 14532), (46, 14583), (50, 14613), (54, 14640), (64, 14691), (66, 14700), (67, 14703), (72, 14757), (78, 14769), (89, 14817), (95, 14844), (106, 14907), (116, 14958), (120, 14988), (126, 15018), (131, 15036), (145, 15132), (148, 15150), (157, 15201), (158, 15204), (162, 15234), (164, 15243), (167, 15258), (175, 15315), (186, 15363), (188, 15387), (189, 15393),

Gene: Carsonalex_18 Start: 14822, Stop: 15793, Start Num: 25
Candidate Starts for Carsonalex_18:
(Start: 25 @14822 has 59 MA's), (32, 14867), (36, 14888), (43, 14951), (46, 14975), (50, 15005), (56, 15044), (64, 15083), (66, 15092), (67, 15095), (78, 15161), (89, 15209), (98, 15251), (106, 15299), (116, 15350), (126, 15410), (130, 15425), (131, 15428), (133, 15446), (134, 15452), (140, 15497), (145, 15524), (148, 15542), (157, 15593), (158, 15596), (162, 15626), (164, 15635), (167, 15650), (175, 15707), (186, 15755), (188, 15779), (189, 15785),

Gene: Che9d_18 Start: 12821, Stop: 13750, Start Num: 22
Candidate Starts for Che9d_18:
(Start: 22 @12821 has 12 MA's), (34, 12881), (40, 12932), (53, 13031), (54, 13037), (58, 13052), (80, 13172), (99, 13256), (101, 13268), (110, 13313), (120, 13352), (122, 13358), (126, 13382), (127, 13385), (128, 13388), (141, 13466), (145, 13487), (146, 13490), (152, 13526), (157, 13553), (158, 13556), (165, 13595), (169, 13613), (170, 13619), (174, 13655), (175, 13661), (179, 13685), (182, 13691), (183, 13697),

Gene: CheeseTouch_19 Start: 15504, Stop: 16424, Start Num: 28
Candidate Starts for CheeseTouch_19:
(Start: 27 @15501 has 15 MA's), (Start: 28 @15504 has 6 MA's), (30, 15516), (31, 15534), (38, 15579), (43, 15618), (49, 15657), (53, 15690), (54, 15696), (66, 15765), (75, 15822), (76, 15825), (80, 15837), (87, 15861), (89, 15867), (92, 15885), (103, 15939), (105, 15951), (106, 15957), (111, 15978), (122, 16026), (125, 16044), (126, 16050), (130, 16065), (131, 16068), (157, 16221), (158, 16224), (160, 16230), (165, 16263), (172, 16314), (183, 16365), (187, 16380), (191, 16416),

Gene: CherryonLim_18 Start: 15217, Stop: 16173, Start Num: 25
Candidate Starts for CherryonLim_18:
(Start: 25 @15217 has 59 MA's), (32, 15262), (43, 15346), (50, 15400), (54, 15427), (64, 15478), (65, 15481), (66, 15487), (67, 15490), (79, 15559), (89, 15604), (94, 15628), (106, 15694), (126, 15790), (154, 15952), (157, 15973), (158, 15976), (162, 16006), (164, 16015), (172, 16072), (188, 16159), (189, 16165),

Gene: ChickenTender_19 Start: 14814, Stop: 15800, Start Num: 25
Candidate Starts for ChickenTender_19:
(Start: 25 @14814 has 59 MA's), (30, 14835), (32, 14859), (36, 14880), (37, 14895), (46, 14967), (50, 14997), (64, 15075), (66, 15084), (67, 15087), (72, 15141), (78, 15153), (89, 15201), (92, 15219), (98,

15243), (106, 15291), (116, 15357), (126, 15417), (130, 15432), (131, 15435), (134, 15459), (145, 15531), (148, 15549), (157, 15600), (158, 15603), (162, 15633), (164, 15642), (167, 15657), (175, 15714), (186, 15762), (188, 15786), (189, 15792),

Gene: ChocoMunchkin_17 Start: 14430, Stop: 15401, Start Num: 25
Candidate Starts for ChocoMunchkin_17:
(Start: 25 @14430 has 59 MA's), (32, 14475), (36, 14496), (37, 14511), (40, 14532), (46, 14583), (50, 14613), (54, 14640), (64, 14691), (66, 14700), (67, 14703), (72, 14757), (78, 14769), (89, 14817), (95, 14844), (106, 14907), (116, 14958), (120, 14988), (126, 15018), (131, 15036), (145, 15132), (148, 15150), (157, 15201), (158, 15204), (162, 15234), (164, 15243), (167, 15258), (175, 15315), (186, 15363), (188, 15387), (189, 15393),

Gene: Cleo_17 Start: 15020, Stop: 15991, Start Num: 25
Candidate Starts for Cleo_17:
(14, 14945), (Start: 25 @15020 has 59 MA's), (32, 15065), (43, 15149), (50, 15203), (61, 15260), (64, 15284), (66, 15293), (67, 15296), (72, 15353), (89, 15413), (92, 15431), (106, 15503), (109, 15524), (145, 15719), (158, 15788), (159, 15791), (162, 15818), (164, 15827), (169, 15851), (172, 15884), (176, 15902), (185, 15947), (188, 15977),

Gene: CocoaPuff_16 Start: 14462, Stop: 15418, Start Num: 25
Candidate Starts for CocoaPuff_16:
(Start: 25 @14462 has 59 MA's), (32, 14507), (40, 14564), (43, 14591), (50, 14645), (54, 14672), (64, 14723), (65, 14726), (66, 14732), (67, 14735), (72, 14789), (79, 14804), (89, 14849), (94, 14873), (97, 14888), (106, 14939), (126, 15035), (158, 15221), (162, 15251), (164, 15260), (169, 15284), (172, 15317), (188, 15404), (189, 15410),

Gene: Coriander_18 Start: 16561, Stop: 17508, Start Num: 24
Candidate Starts for Coriander_18:
(Start: 24 @16561 has 15 MA's), (52, 16756), (66, 16837), (69, 16849), (82, 16921), (85, 16927), (89, 16942), (106, 17032), (107, 17038), (122, 17101), (126, 17125), (127, 17128), (128, 17131), (135, 17167), (145, 17236), (152, 17278), (157, 17305), (165, 17347), (166, 17350), (168, 17362), (181, 17437), (190, 17491),

Gene: Cozz_17 Start: 14765, Stop: 15736, Start Num: 25
Candidate Starts for Cozz_17:
(Start: 25 @14765 has 59 MA's), (32, 14810), (36, 14831), (43, 14894), (46, 14918), (50, 14948), (56, 14987), (64, 15026), (66, 15035), (67, 15038), (78, 15104), (89, 15152), (98, 15194), (106, 15242), (116, 15293), (126, 15353), (130, 15368), (131, 15371), (133, 15389), (134, 15395), (140, 15440), (145, 15467), (148, 15485), (158, 15539), (162, 15569), (164, 15578), (167, 15593), (175, 15650), (186, 15698), (188, 15722), (189, 15728),

Gene: Crater_17 Start: 15047, Stop: 15973, Start Num: 26
Candidate Starts for Crater_17:
(Start: 26 @15047 has 2 MA's), (Start: 28 @15053 has 6 MA's), (31, 15083), (40, 15143), (43, 15167), (45, 15182), (47, 15197), (49, 15206), (50, 15218), (53, 15239), (56, 15257), (59, 15269), (66, 15314), (72, 15368), (75, 15371), (76, 15374), (80, 15386), (89, 15416), (92, 15434), (103, 15488), (105, 15500), (106, 15506), (111, 15527), (122, 15575), (125, 15593), (126, 15599), (130, 15614), (131, 15617), (157, 15770), (158, 15773), (160, 15779), (165, 15812), (169, 15830), (172, 15863), (183, 15914), (187, 15929), (191, 15965),

Gene: DS6A_20 Start: 16001, Stop: 16972, Start Num: 16
Candidate Starts for DS6A_20:

(Start: 16 @16001 has 1 MA's), (29, 16064), (43, 16178), (44, 16181), (51, 16241), (54, 16259), (60, 16286), (85, 16415), (86, 16418), (88, 16427), (96, 16460), (110, 16538), (112, 16541), (126, 16613), (153, 16760), (154, 16763), (155, 16769), (157, 16784), (161, 16799), (173, 16880), (181, 16919), (184, 16931),

Gene: Demsculpinboyz_18 Start: 12806, Stop: 13735, Start Num: 22
Candidate Starts for Demsculpinboyz_18:
(Start: 22 @12806 has 12 MA's), (34, 12866), (40, 12917), (53, 13016), (54, 13022), (58, 13037), (80, 13157), (86, 13175), (99, 13241), (101, 13253), (110, 13298), (120, 13337), (122, 13343), (126, 13367), (127, 13370), (128, 13373), (141, 13451), (145, 13472), (146, 13475), (152, 13511), (157, 13538), (158, 13541), (165, 13580), (169, 13598), (170, 13604), (174, 13640), (175, 13646), (179, 13670), (182, 13676), (183, 13682),

Gene: Dina_16 Start: 15119, Stop: 16285, Start Num: 12
Candidate Starts for Dina_16:
(Start: 12 @15119 has 8 MA's), (23, 15248), (62, 15530), (68, 15560), (70, 15587), (79, 15629), (90, 15674), (110, 15812), (118, 15860), (123, 15878), (124, 15887), (144, 16007), (153, 16055), (163, 16112), (177, 16208), (178, 16217), (182, 16232), (185, 16244), (186, 16250), (188, 16274),

Gene: DirtyBoi_19 Start: 16014, Stop: 16961, Start Num: 24
Candidate Starts for DirtyBoi_19:
(Start: 24 @16014 has 15 MA's), (52, 16209), (66, 16290), (69, 16302), (82, 16374), (85, 16380), (89, 16395), (100, 16455), (106, 16485), (107, 16491), (122, 16554), (126, 16578), (127, 16581), (135, 16620), (145, 16689), (152, 16731), (157, 16758), (165, 16800), (166, 16803), (168, 16815), (175, 16866), (181, 16890),

Gene: Dmitri_18 Start: 16558, Stop: 17505, Start Num: 24
Candidate Starts for Dmitri_18:
(Start: 24 @16558 has 15 MA's), (52, 16753), (66, 16834), (69, 16846), (82, 16918), (85, 16924), (89, 16939), (100, 16999), (106, 17029), (107, 17035), (122, 17098), (126, 17122), (127, 17125), (135, 17164), (145, 17233), (152, 17275), (165, 17344), (166, 17347), (168, 17359), (175, 17410), (181, 17434), (189, 17485), (190, 17488),

Gene: Doggs_17 Start: 16261, Stop: 17208, Start Num: 24
Candidate Starts for Doggs_17:
(Start: 24 @16261 has 15 MA's), (52, 16456), (66, 16537), (69, 16549), (82, 16621), (85, 16627), (89, 16642), (100, 16702), (106, 16732), (107, 16738), (122, 16801), (126, 16825), (127, 16828), (135, 16867), (145, 16936), (152, 16978), (157, 17005), (162, 17038), (165, 17047), (166, 17050), (168, 17062), (175, 17113), (181, 17137), (189, 17188), (190, 17191),

Gene: Dre3_17 Start: 14967, Stop: 15938, Start Num: 25
Candidate Starts for Dre3_17:
(14, 14892), (Start: 25 @14967 has 59 MA's), (32, 15012), (43, 15096), (50, 15150), (61, 15207), (64, 15231), (66, 15240), (67, 15243), (72, 15300), (89, 15360), (92, 15378), (106, 15450), (109, 15471), (126, 15552), (145, 15666), (158, 15735), (159, 15738), (162, 15765), (164, 15774), (169, 15798), (172, 15831), (176, 15849), (185, 15894), (188, 15924),

Gene: ElJefes_16 Start: 14940, Stop: 15896, Start Num: 25
Candidate Starts for ElJefes_16:
(Start: 25 @14940 has 59 MA's), (32, 14985), (43, 15069), (50, 15123), (54, 15150), (64, 15201), (65, 15204), (66, 15210), (67, 15213), (72, 15267), (79, 15282), (88, 15324), (89, 15327), (94, 15351), (106, 15417), (126, 15513), (157, 15696), (158, 15699), (162, 15729), (164, 15738), (172, 15795), (183, 15846), (188, 15882), (189, 15888),

Gene: Elinal_18 Start: 14465, Stop: 15421, Start Num: 25
Candidate Starts for Elinal_18:
(Start: 25 @14465 has 59 MA's), (32, 14510), (40, 14567), (43, 14594), (50, 14648), (54, 14675), (64, 14726), (65, 14729), (66, 14735), (67, 14738), (72, 14792), (79, 14807), (88, 14849), (89, 14852), (94, 14876), (97, 14891), (106, 14942), (126, 15038), (158, 15224), (162, 15254), (164, 15263), (169, 15287), (172, 15320), (188, 15407), (189, 15413),

Gene: Eliott_17 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Eliott_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Emalyn_16 Start: 14065, Stop: 15036, Start Num: 25
Candidate Starts for Emalyn_16:
(Start: 25 @14065 has 59 MA's), (32, 14110), (36, 14131), (40, 14167), (50, 14248), (64, 14326), (66, 14335), (67, 14338), (72, 14392), (78, 14404), (89, 14452), (98, 14494), (106, 14542), (116, 14593), (120, 14623), (126, 14653), (130, 14668), (131, 14671), (145, 14767), (148, 14785), (158, 14839), (159, 14842), (162, 14869), (164, 14878), (167, 14893), (175, 14950), (186, 14998), (188, 15022), (189, 15028),

Gene: Eyes_18 Start: 15709, Stop: 16635, Start Num: 24
Candidate Starts for Eyes_18:
(2, 15391), (7, 15490), (10, 15577), (20, 15691), (Start: 24 @15709 has 15 MA's), (Start: 28 @15718 has 6 MA's), (34, 15760), (Start: 35 @15772 has 1 MA's), (69, 15994), (75, 16039), (82, 16063), (85, 16069), (87, 16078), (89, 16084), (96, 16114), (100, 16144), (106, 16174), (107, 16180), (111, 16195), (121, 16240), (122, 16243), (126, 16267), (138, 16324), (140, 16345), (152, 16411), (165, 16480), (173, 16534), (188, 16618),

Gene: Feastonyeet_16 Start: 14508, Stop: 15464, Start Num: 25
Candidate Starts for Feastonyeet_16:
(Start: 25 @14508 has 59 MA's), (32, 14553), (40, 14610), (43, 14637), (50, 14691), (54, 14718), (64, 14769), (65, 14772), (66, 14778), (67, 14781), (72, 14835), (79, 14850), (89, 14895), (94, 14919), (106, 14985), (126, 15081), (158, 15267), (162, 15297), (164, 15306), (169, 15330), (172, 15363), (188, 15450), (189, 15456),

Gene: Fribs8_18 Start: 15556, Stop: 16521, Start Num: 25
Candidate Starts for Fribs8_18:
(Start: 25 @15556 has 59 MA's), (32, 15601), (40, 15658), (43, 15685), (50, 15739), (64, 15820), (66, 15829), (67, 15832), (78, 15901), (89, 15949), (92, 15967), (106, 16039), (109, 16054), (120, 16105), (121, 16108), (145, 16249), (158, 16318), (159, 16321), (162, 16348), (164, 16357), (169, 16381), (172, 16414), (174, 16423), (176, 16432), (185, 16477), (188, 16507), (189, 16513),

Gene: Frickyeah_19 Start: 15508, Stop: 16431, Start Num: 27
Candidate Starts for Frickyeah_19:
(Start: 27 @15508 has 15 MA's), (Start: 28 @15511 has 6 MA's), (30, 15523), (31, 15541), (38, 15586), (43, 15625), (49, 15664), (53, 15697), (54, 15703), (66, 15772), (72, 15826), (75, 15829), (76, 15832), (80, 15844), (89, 15874), (92, 15892), (103, 15946), (105, 15958), (106, 15964), (111, 15985), (122, 16033), (126, 16057), (130, 16072), (131, 16075), (136, 16096), (157, 16228), (158, 16231), (160, 16237), (165, 16270), (169, 16288), (172, 16321), (183, 16372), (187, 16387), (191, 16423),

Gene: Fryberger_52 Start: 26990, Stop: 27934, Start Num: 22
Candidate Starts for Fryberger_52:
(Start: 21 @26987 has 1 MA's), (Start: 22 @26990 has 12 MA's), (41, 27110), (54, 27206), (71, 27308), (88, 27374), (92, 27395), (94, 27401), (101, 27452), (106, 27476), (126, 27569), (136, 27608), (154, 27719), (155, 27725), (156, 27734), (157, 27740), (162, 27773), (164, 27782), (166, 27791), (169, 27806), (181, 27881), (184, 27893), (187, 27905), (188, 27926),

Gene: GEazy_18 Start: 15730, Stop: 16650, Start Num: 28
Candidate Starts for GEazy_18:
(20, 15700), (Start: 24 @15721 has 15 MA's), (Start: 28 @15730 has 6 MA's), (34, 15772), (69, 16006), (75, 16051), (82, 16075), (85, 16081), (87, 16090), (89, 16096), (96, 16126), (100, 16156), (106, 16186), (107, 16192), (122, 16255), (126, 16279), (138, 16336), (152, 16423), (165, 16492), (184, 16597), (188, 16630),

Gene: GTE2_15 Start: 14148, Stop: 15074, Start Num: 32
Candidate Starts for GTE2_15:
(Start: 25 @14103 has 59 MA's), (32, 14148), (36, 14169), (40, 14205), (46, 14256), (50, 14286), (64, 14364), (66, 14373), (67, 14376), (72, 14430), (78, 14442), (89, 14490), (98, 14532), (106, 14580), (116, 14631), (120, 14661), (126, 14691), (130, 14706), (131, 14709), (145, 14805), (148, 14823), (157, 14874), (158, 14877), (162, 14907), (164, 14916), (167, 14931), (175, 14988), (186, 15036), (188, 15060), (189, 15066),

Gene: Getalong_20 Start: 16305, Stop: 17228, Start Num: 27
Candidate Starts for Getalong_20:
(Start: 27 @16305 has 15 MA's), (Start: 28 @16308 has 6 MA's), (30, 16320), (31, 16338), (38, 16383), (43, 16422), (49, 16461), (53, 16494), (54, 16500), (66, 16569), (72, 16623), (75, 16626), (76, 16629), (80, 16641), (87, 16665), (89, 16671), (92, 16689), (103, 16743), (105, 16755), (106, 16761), (111, 16782), (121, 16827), (122, 16830), (125, 16848), (126, 16854), (130, 16869), (131, 16872), (157, 17025), (158, 17028), (160, 17034), (165, 17067), (169, 17085), (172, 17118), (183, 17169), (187, 17184), (191, 17220),

Gene: GiKK_20 Start: 14134, Stop: 15093, Start Num: 25
Candidate Starts for GiKK_20:
(Start: 25 @14134 has 59 MA's), (33, 14182), (34, 14185), (43, 14263), (65, 14398), (66, 14404), (79, 14476), (83, 14500), (89, 14521), (106, 14611), (109, 14626), (113, 14641), (126, 14713), (140, 14800), (158, 14896), (162, 14926), (164, 14935), (169, 14959), (172, 14992), (174, 15001), (175, 15007), (187, 15058), (188, 15079), (189, 15085),

Gene: Gibbous_17 Start: 14967, Stop: 15938, Start Num: 25
Candidate Starts for Gibbous_17:
(14, 14892), (Start: 25 @14967 has 59 MA's), (32, 15012), (43, 15096), (50, 15150), (61, 15207), (64, 15231), (66, 15240), (67, 15243), (72, 15300), (89, 15360), (92, 15378), (106, 15450), (109, 15471), (126, 15552), (145, 15666), (158, 15735), (159, 15738), (162, 15765), (164, 15774), (169, 15798), (172, 15831), (176, 15849), (185, 15894), (188, 15924),

Gene: GoldHunter_18 Start: 14765, Stop: 15736, Start Num: 25
Candidate Starts for GoldHunter_18:
(Start: 25 @14765 has 59 MA's), (32, 14810), (36, 14831), (43, 14894), (46, 14918), (50, 14948), (56, 14987), (64, 15026), (66, 15035), (67, 15038), (78, 15104), (89, 15152), (98, 15194), (106, 15242), (116, 15293), (126, 15353), (130, 15368), (131, 15371), (133, 15389), (134, 15395), (140, 15440), (145, 15467), (148, 15485), (158, 15539), (162, 15569), (164, 15578), (167, 15593), (175, 15650), (186, 15698), (188, 15722), (189, 15728),

Gene: Guey18_57 Start: 28183, Stop: 29127, Start Num: 22
Candidate Starts for Guey18_57:
(Start: 22 @28183 has 12 MA's), (41, 28303), (54, 28399), (71, 28501), (88, 28567), (92, 28588), (94, 28594), (101, 28645), (106, 28669), (126, 28762), (136, 28801), (154, 28912), (155, 28918), (156, 28927), (157, 28933), (162, 28966), (164, 28975), (166, 28984), (169, 28999), (181, 29074), (184, 29086), (187, 29098), (188, 29119),

Gene: HannahD_18 Start: 15721, Stop: 16650, Start Num: 24
Candidate Starts for HannahD_18:
(20, 15700), (Start: 24 @15721 has 15 MA's), (Start: 28 @15730 has 6 MA's), (34, 15772), (69, 16006), (75, 16051), (82, 16075), (85, 16081), (87, 16090), (89, 16096), (96, 16126), (100, 16156), (106, 16186), (107, 16192), (122, 16255), (126, 16279), (138, 16336), (152, 16423), (165, 16492), (184, 16597), (188, 16630),

Gene: Hedwig_19 Start: 16010, Stop: 16957, Start Num: 24
Candidate Starts for Hedwig_19:
(Start: 24 @16010 has 15 MA's), (66, 16286), (69, 16298), (82, 16370), (85, 16376), (89, 16391), (100, 16451), (106, 16481), (107, 16487), (122, 16550), (126, 16574), (127, 16577), (135, 16616), (145, 16685), (152, 16727), (157, 16754), (165, 16796), (166, 16799), (168, 16811), (175, 16862), (181, 16886), (190, 16940),

Gene: Hexbug_19 Start: 14820, Stop: 15779, Start Num: 25
Candidate Starts for Hexbug_19:
(14, 14745), (Start: 25 @14820 has 59 MA's), (30, 14841), (34, 14871), (43, 14949), (66, 15090), (83, 15186), (89, 15207), (98, 15249), (106, 15297), (109, 15312), (119, 15366), (126, 15399), (158, 15582), (159, 15585), (162, 15612), (164, 15621), (165, 15627), (169, 15645), (172, 15678), (174, 15687), (175, 15693), (188, 15765), (189, 15771),

Gene: HippoPololi_19 Start: 15627, Stop: 16592, Start Num: 25
Candidate Starts for HippoPololi_19:
(Start: 25 @15627 has 59 MA's), (32, 15672), (40, 15729), (43, 15756), (50, 15810), (64, 15891), (66, 15900), (67, 15903), (72, 15960), (89, 16020), (92, 16038), (106, 16110), (109, 16125), (120, 16176), (121, 16179), (140, 16293), (145, 16320), (158, 16389), (159, 16392), (162, 16419), (164, 16428), (169, 16452), (172, 16485), (176, 16503), (185, 16548), (188, 16578),

Gene: Holliday_19 Start: 15504, Stop: 16424, Start Num: 28
Candidate Starts for Holliday_19:
(Start: 27 @15501 has 15 MA's), (Start: 28 @15504 has 6 MA's), (30, 15516), (31, 15534), (38, 15579), (43, 15618), (49, 15657), (53, 15690), (54, 15696), (66, 15765), (72, 15819), (75, 15822), (76, 15825), (80, 15837), (86, 15855), (87, 15861), (89, 15867), (92, 15885), (103, 15939), (105, 15951), (106, 15957), (111, 15978), (122, 16026), (125, 16044), (126, 16050), (130, 16065), (131, 16068), (157, 16221), (158, 16224), (160, 16230), (165, 16263), (169, 16281), (172, 16314), (183, 16365), (187, 16380), (191, 16416),

Gene: Horseradish_18 Start: 14308, Stop: 15279, Start Num: 25
Candidate Starts for Horseradish_18:
(Start: 25 @14308 has 59 MA's), (32, 14353), (36, 14374), (37, 14389), (43, 14437), (46, 14461), (50, 14491), (64, 14569), (66, 14578), (67, 14581), (78, 14647), (89, 14695), (98, 14737), (106, 14785), (116, 14836), (126, 14896), (130, 14911), (131, 14914), (134, 14938), (145, 15010), (148, 15028), (157, 15079), (158, 15082), (162, 15112), (164, 15121), (167, 15136), (172, 15178), (175, 15193), (186, 15241), (188, 15265), (189, 15271),

Gene: Horus_19 Start: 15514, Stop: 16437, Start Num: 27
Candidate Starts for Horus_19:
(Start: 27 @15514 has 15 MA's), (Start: 28 @15517 has 6 MA's), (30, 15529), (31, 15547), (38, 15592), (43, 15631), (49, 15670), (53, 15703), (54, 15709), (66, 15778), (72, 15832), (75, 15835), (76, 15838), (80, 15850), (87, 15874), (89, 15880), (92, 15898), (103, 15952), (105, 15964), (106, 15970), (111, 15991), (121, 16036), (122, 16039), (125, 16057), (126, 16063), (130, 16078), (131, 16081), (157, 16234), (158, 16237), (160, 16243), (165, 16276), (169, 16294), (172, 16327), (183, 16378), (187, 16393), (191, 16429),

Gene: Jabbawokkie_20 Start: 13336, Stop: 14265, Start Num: 22
Candidate Starts for Jabbawokkie_20:
(Start: 22 @13336 has 12 MA's), (34, 13396), (40, 13447), (53, 13546), (54, 13552), (58, 13567), (80, 13687), (86, 13705), (99, 13771), (101, 13783), (110, 13828), (120, 13867), (122, 13873), (126, 13897), (127, 13900), (128, 13903), (130, 13912), (131, 13915), (141, 13981), (145, 14002), (146, 14005), (152, 14041), (157, 14068), (158, 14071), (165, 14110), (169, 14128), (170, 14134), (174, 14170), (175, 14176), (179, 14200), (182, 14206), (183, 14212),

Gene: Jamzy_20 Start: 14144, Stop: 15103, Start Num: 25
Candidate Starts for Jamzy_20:
(Start: 25 @14144 has 59 MA's), (33, 14192), (34, 14195), (43, 14273), (65, 14408), (66, 14414), (78, 14483), (79, 14486), (83, 14510), (89, 14531), (97, 14570), (106, 14621), (126, 14723), (140, 14810), (158, 14906), (162, 14936), (164, 14945), (169, 14969), (172, 15002), (174, 15011), (175, 15017), (187, 15068), (188, 15089), (189, 15095),

Gene: Juicebox_18 Start: 16606, Stop: 17736, Start Num: 8
Candidate Starts for Juicebox_18:
(Start: 8 @16606 has 1 MA's), (11, 16621), (13, 16678), (17, 16708), (18, 16717), (19, 16729), (48, 16921), (51, 16948), (57, 16981), (64, 17032), (73, 17107), (74, 17110), (77, 17119), (82, 17143), (93, 17188), (102, 17242), (108, 17281), (118, 17350), (129, 17398), (150, 17521), (151, 17527), (163, 17590),

Gene: Kamaru_19 Start: 15501, Stop: 16424, Start Num: 27
Candidate Starts for Kamaru_19:
(Start: 27 @15501 has 15 MA's), (Start: 28 @15504 has 6 MA's), (30, 15516), (31, 15534), (38, 15579), (43, 15618), (49, 15657), (53, 15690), (54, 15696), (66, 15765), (72, 15819), (75, 15822), (76, 15825), (80, 15837), (86, 15855), (87, 15861), (89, 15867), (92, 15885), (103, 15939), (105, 15951), (106, 15957), (111, 15978), (122, 16026), (125, 16044), (126, 16050), (130, 16065), (131, 16068), (157, 16221), (158, 16224), (160, 16230), (165, 16263), (169, 16281), (172, 16314), (183, 16365), (187, 16380), (191, 16416),

Gene: KayGee_17 Start: 14465, Stop: 15421, Start Num: 25
Candidate Starts for KayGee_17:
(Start: 25 @14465 has 59 MA's), (32, 14510), (40, 14567), (43, 14594), (50, 14648), (54, 14675), (64, 14726), (65, 14729), (66, 14735), (67, 14738), (72, 14792), (79, 14807), (88, 14849), (89, 14852), (94, 14876), (97, 14891), (106, 14942), (126, 15038), (158, 15224), (162, 15254), (164, 15263), (169, 15287), (172, 15320), (188, 15407), (189, 15413),

Gene: Keelan_50 Start: 26977, Stop: 27921, Start Num: 22
Candidate Starts for Keelan_50:
(Start: 22 @26977 has 12 MA's), (41, 27097), (53, 27187), (65, 27247), (72, 27307), (81, 27334), (88, 27361), (92, 27382), (94, 27388), (99, 27427), (101, 27439), (126, 27556), (127, 27559), (136, 27595), (154, 27706), (156, 27721), (162, 27760), (164, 27769), (166, 27778), (169, 27793), (181, 27868), (188, 27913),

Gene: Kenna_18 Start: 15508, Stop: 16431, Start Num: 27
Candidate Starts for Kenna_18:
(Start: 27 @15508 has 15 MA's), (Start: 28 @15511 has 6 MA's), (30, 15523), (31, 15541), (38, 15586), (43, 15625), (49, 15664), (53, 15697), (54, 15703), (66, 15772), (72, 15826), (75, 15829), (76, 15832), (80, 15844), (86, 15862), (87, 15868), (89, 15874), (92, 15892), (103, 15946), (105, 15958), (106, 15964), (111, 15985), (122, 16033), (125, 16051), (126, 16057), (130, 16072), (131, 16075), (157, 16228), (158, 16231), (160, 16237), (165, 16270), (169, 16288), (172, 16321), (183, 16372), (187, 16387), (191, 16423),

Gene: Kiko_19 Start: 15761, Stop: 16708, Start Num: 24
Candidate Starts for Kiko_19:
(Start: 24 @15761 has 15 MA's), (29, 15779), (52, 15956), (66, 16037), (69, 16049), (75, 16094), (82, 16121), (85, 16127), (89, 16142), (100, 16202), (106, 16232), (107, 16238), (122, 16301), (145, 16436), (152, 16478), (157, 16505), (165, 16547), (166, 16550), (168, 16562), (173, 16601), (175, 16613), (181, 16637), (189, 16688),

Gene: Lauer_16 Start: 14514, Stop: 15470, Start Num: 25
Candidate Starts for Lauer_16:
(Start: 25 @14514 has 59 MA's), (32, 14559), (40, 14616), (43, 14643), (50, 14697), (54, 14724), (64, 14775), (65, 14778), (66, 14784), (67, 14787), (72, 14841), (79, 14856), (89, 14901), (94, 14925), (97, 14940), (106, 14991), (126, 15087), (158, 15273), (162, 15303), (164, 15312), (172, 15369), (183, 15420), (188, 15456), (189, 15462),

Gene: Lederberg_16 Start: 15138, Stop: 16304, Start Num: 12
Candidate Starts for Lederberg_16:
(Start: 12 @15138 has 8 MA's), (23, 15267), (62, 15549), (68, 15579), (70, 15606), (79, 15648), (90, 15693), (105, 15783), (110, 15831), (114, 15846), (118, 15879), (123, 15897), (124, 15906), (132, 15939), (147, 16038), (149, 16050), (153, 16074), (163, 16131), (171, 16179), (177, 16227), (178, 16236), (182, 16251), (185, 16263), (186, 16269), (188, 16293),

Gene: Leroy_19 Start: 15515, Stop: 16438, Start Num: 27
Candidate Starts for Leroy_19:
(Start: 27 @15515 has 15 MA's), (Start: 28 @15518 has 6 MA's), (30, 15530), (31, 15548), (38, 15593), (43, 15632), (49, 15671), (53, 15704), (54, 15710), (66, 15779), (75, 15836), (76, 15839), (80, 15851), (87, 15875), (89, 15881), (92, 15899), (103, 15953), (105, 15965), (106, 15971), (111, 15992), (122, 16040), (125, 16058), (126, 16064), (130, 16079), (131, 16082), (157, 16235), (158, 16238), (160, 16244), (165, 16277), (169, 16295), (172, 16328), (183, 16379), (187, 16394), (191, 16430),

Gene: LilSpotty_16 Start: 13314, Stop: 14294, Start Num: 15
Candidate Starts for LilSpotty_16:
(Start: 15 @13314 has 1 MA's), (29, 13371), (31, 13392), (37, 13434), (40, 13455), (43, 13479), (53, 13554), (80, 13695), (91, 13740), (96, 13755), (97, 13764), (106, 13815), (115, 13860), (130, 13941), (137, 13974), (142, 14016), (147, 14040), (153, 14073), (158, 14103), (159, 14106), (162, 14133), (164, 14142), (167, 14157), (169, 14166),

Gene: LitninMcQueen_19 Start: 15502, Stop: 16425, Start Num: 27
Candidate Starts for LitninMcQueen_19:
(Start: 27 @15502 has 15 MA's), (Start: 28 @15505 has 6 MA's), (30, 15517), (31, 15535), (38, 15580), (43, 15619), (49, 15658), (53, 15691), (54, 15697), (66, 15766), (72, 15820), (75, 15823), (76, 15826), (80, 15838), (86, 15856), (87, 15862), (89, 15868), (92, 15886), (103, 15940), (105, 15952), (106, 15958), (111, 15979), (122, 16027), (125, 16045), (126, 16051), (130, 16066), (131, 16069), (157, 16222), (158, 16225), (160, 16231), (165, 16264), (169, 16282), (172, 16315), (183, 16366), (187,

16381), (191, 16417),

Gene: Lutum_19 Start: 15511, Stop: 16431, Start Num: 28
Candidate Starts for Lutum_19:
(Start: 27 @15508 has 15 MA's), (Start: 28 @15511 has 6 MA's), (30, 15523), (31, 15541), (38, 15586),
(43, 15625), (49, 15664), (53, 15697), (54, 15703), (66, 15772), (72, 15826), (75, 15829), (76, 15832),
(80, 15844), (86, 15862), (87, 15868), (89, 15874), (92, 15892), (103, 15946), (105, 15958), (106,
15964), (111, 15985), (122, 16033), (125, 16051), (126, 16057), (130, 16072), (131, 16075), (157,
16228), (158, 16231), (160, 16237), (165, 16270), (169, 16288), (172, 16321), (183, 16372), (187,
16387), (191, 16423),

Gene: MAnor_17 Start: 14472, Stop: 15428, Start Num: 25
Candidate Starts for MAnor_17:
(Start: 25 @14472 has 59 MA's), (32, 14517), (50, 14655), (54, 14682), (64, 14733), (65, 14736), (66,
14742), (67, 14745), (79, 14814), (89, 14859), (94, 14883), (97, 14898), (106, 14949), (126, 15045),
(157, 15228), (158, 15231), (162, 15261), (164, 15270), (172, 15327), (183, 15378), (188, 15414),
(189, 15420),

Gene: MScarn_19 Start: 14397, Stop: 15368, Start Num: 25
Candidate Starts for MScarn_19:
(Start: 25 @14397 has 59 MA's), (32, 14442), (36, 14463), (43, 14526), (46, 14550), (50, 14580), (64,
14658), (66, 14667), (67, 14670), (78, 14736), (89, 14784), (98, 14826), (106, 14874), (116, 14925),
(126, 14985), (130, 15000), (131, 15003), (134, 15027), (145, 15099), (148, 15117), (157, 15168),
(158, 15171), (162, 15201), (164, 15210), (167, 15225), (175, 15282), (186, 15330), (188, 15354),
(189, 15360),

Gene: MaVan_19 Start: 15745, Stop: 16710, Start Num: 25
Candidate Starts for MaVan_19:
(Start: 25 @15745 has 59 MA's), (32, 15790), (37, 15826), (40, 15847), (43, 15874), (50, 15928), (64,
16009), (66, 16018), (67, 16021), (78, 16090), (89, 16138), (106, 16228), (109, 16243), (117, 16282),
(145, 16438), (157, 16504), (158, 16507), (159, 16510), (162, 16537), (164, 16546), (169, 16570),
(172, 16603), (176, 16621), (185, 16666), (188, 16696), (189, 16702),

Gene: MagicMan_18 Start: 16039, Stop: 16965, Start Num: 24
Candidate Starts for MagicMan_18:
(9, 15904), (10, 15907), (20, 16021), (Start: 24 @16039 has 15 MA's), (Start: 28 @16048 has 6 MA's),
(34, 16090), (Start: 35 @16102 has 1 MA's), (69, 16324), (75, 16369), (82, 16393), (85, 16399), (87,
16408), (89, 16414), (96, 16444), (100, 16474), (106, 16504), (107, 16510), (121, 16570), (122,
16573), (126, 16597), (138, 16654), (140, 16675), (152, 16741), (165, 16810), (188, 16948),

Gene: Malisha_20 Start: 17283, Stop: 18203, Start Num: 28
Candidate Starts for Malisha_20:
(Start: 27 @17280 has 15 MA's), (Start: 28 @17283 has 6 MA's), (30, 17295), (31, 17313), (38, 17358),
(40, 17373), (42, 17385), (43, 17397), (49, 17436), (53, 17469), (66, 17544), (72, 17598), (75, 17601),
(76, 17604), (80, 17616), (86, 17634), (87, 17640), (89, 17646), (103, 17718), (105, 17730), (106,
17736), (111, 17757), (122, 17805), (126, 17829), (130, 17844), (131, 17847), (139, 17901), (157,
18000), (158, 18003), (160, 18009), (165, 18042), (168, 18057), (169, 18060), (173, 18096), (183,
18144),

Gene: Margaret_20 Start: 14513, Stop: 15472, Start Num: 25
Candidate Starts for Margaret_20:
(14, 14438), (Start: 25 @14513 has 59 MA's), (30, 14534), (33, 14561), (34, 14564), (66, 14783), (72,
14840), (88, 14897), (89, 14900), (106, 14990), (119, 15059), (126, 15092), (154, 15251), (157,

15272), (158, 15275), (162, 15305), (164, 15314), (165, 15320), (169, 15338), (172, 15371), (174, 15380), (175, 15386), (187, 15437), (188, 15458), (189, 15464),

Gene: Mayweather_18 Start: 15087, Stop: 16043, Start Num: 25
Candidate Starts for Mayweather_18:
(Start: 25 @15087 has 59 MA's), (32, 15132), (43, 15216), (50, 15270), (54, 15297), (64, 15348), (65, 15351), (66, 15357), (67, 15360), (79, 15429), (89, 15474), (94, 15498), (106, 15564), (126, 15660), (157, 15843), (158, 15846), (162, 15876), (164, 15885), (172, 15942), (183, 15993), (188, 16029), (189, 16035),

Gene: McDazzle_16 Start: 14934, Stop: 15890, Start Num: 25
Candidate Starts for McDazzle_16:
(Start: 25 @14934 has 59 MA's), (32, 14979), (43, 15063), (50, 15117), (54, 15144), (64, 15195), (65, 15198), (66, 15204), (67, 15207), (72, 15261), (79, 15276), (88, 15318), (89, 15321), (94, 15345), (106, 15411), (126, 15507), (157, 15690), (158, 15693), (162, 15723), (164, 15732), (172, 15789), (183, 15840), (188, 15876), (189, 15882),

Gene: Moonflower_18 Start: 16305, Stop: 17252, Start Num: 24
Candidate Starts for Moonflower_18:
(Start: 24 @16305 has 15 MA's), (52, 16500), (66, 16581), (82, 16665), (85, 16671), (89, 16686), (100, 16746), (106, 16776), (107, 16782), (122, 16845), (126, 16869), (128, 16875), (135, 16911), (145, 16980), (152, 17022), (157, 17049), (165, 17091), (166, 17094), (168, 17106), (175, 17157), (181, 17181), (188, 17226), (190, 17235),

Gene: MunkgeeRoachy_17 Start: 14812, Stop: 15783, Start Num: 25
Candidate Starts for MunkgeeRoachy_17:
(Start: 25 @14812 has 59 MA's), (32, 14857), (36, 14878), (43, 14941), (46, 14965), (50, 14995), (56, 15034), (64, 15073), (66, 15082), (67, 15085), (78, 15151), (89, 15199), (98, 15241), (106, 15289), (126, 15400), (130, 15415), (131, 15418), (133, 15436), (134, 15442), (140, 15487), (145, 15514), (148, 15532), (157, 15583), (158, 15586), (162, 15616), (164, 15625), (167, 15640), (173, 15685), (175, 15697), (186, 15745), (188, 15769), (189, 15775),

Gene: Nibbles_19 Start: 15745, Stop: 16710, Start Num: 25
Candidate Starts for Nibbles_19:
(Start: 25 @15745 has 59 MA's), (32, 15790), (37, 15826), (40, 15847), (43, 15874), (50, 15928), (61, 15985), (64, 16009), (66, 16018), (67, 16021), (78, 16090), (89, 16138), (106, 16228), (109, 16243), (117, 16282), (145, 16438), (157, 16504), (158, 16507), (159, 16510), (162, 16537), (164, 16546), (169, 16570), (172, 16603), (176, 16621), (185, 16666), (188, 16696), (189, 16702),

Gene: Nina_18 Start: 15806, Stop: 16777, Start Num: 25
Candidate Starts for Nina_18:
(Start: 25 @15806 has 59 MA's), (32, 15851), (36, 15872), (43, 15935), (46, 15959), (50, 15989), (56, 16028), (64, 16067), (66, 16076), (67, 16079), (78, 16145), (89, 16193), (98, 16235), (106, 16283), (116, 16334), (126, 16394), (130, 16409), (131, 16412), (133, 16430), (134, 16436), (140, 16481), (145, 16508), (148, 16526), (157, 16577), (158, 16580), (162, 16610), (164, 16619), (167, 16634), (175, 16691), (186, 16739), (188, 16763), (189, 16769),

Gene: Nodigi_19 Start: 14799, Stop: 15758, Start Num: 25
Candidate Starts for Nodigi_19:
(Start: 25 @14799 has 59 MA's), (30, 14820), (34, 14850), (66, 15069), (83, 15165), (89, 15186), (98, 15228), (106, 15276), (109, 15291), (119, 15345), (126, 15378), (158, 15561), (159, 15564), (162, 15591), (164, 15600), (165, 15606), (169, 15624), (172, 15657), (174, 15666), (175, 15672), (185, 15714), (187, 15723), (188, 15744), (189, 15750),

Gene: Opie_18 Start: 16062, Stop: 16988, Start Num: 24
Candidate Starts for Opie_18:
(10, 15930), (20, 16044), (Start: 24 @16062 has 15 MA's), (Start: 28 @16071 has 6 MA's), (34, 16113), (Start: 35 @16125 has 1 MA's), (69, 16347), (75, 16392), (82, 16416), (85, 16422), (87, 16431), (89, 16437), (96, 16467), (100, 16497), (106, 16527), (107, 16533), (121, 16593), (122, 16596), (126, 16620), (138, 16677), (140, 16698), (165, 16833), (188, 16971),

Gene: Orla_19 Start: 14803, Stop: 15762, Start Num: 25
Candidate Starts for Orla_19:
(14, 14728), (Start: 25 @14803 has 59 MA's), (30, 14824), (34, 14854), (66, 15073), (83, 15169), (89, 15190), (98, 15232), (106, 15280), (109, 15295), (119, 15349), (126, 15382), (158, 15565), (159, 15568), (162, 15595), (164, 15604), (165, 15610), (169, 15628), (172, 15661), (174, 15670), (175, 15676), (188, 15748), (189, 15754),

Gene: Periwinkle_21 Start: 15973, Stop: 16896, Start Num: 27
Candidate Starts for Periwinkle_21:
(Start: 27 @15973 has 15 MA's), (Start: 28 @15976 has 6 MA's), (30, 15988), (31, 16006), (38, 16051), (43, 16090), (49, 16129), (53, 16162), (54, 16168), (66, 16237), (72, 16291), (75, 16294), (76, 16297), (80, 16309), (87, 16333), (89, 16339), (92, 16357), (103, 16411), (105, 16423), (106, 16429), (111, 16450), (121, 16495), (122, 16498), (125, 16516), (126, 16522), (130, 16537), (131, 16540), (157, 16693), (158, 16696), (160, 16702), (165, 16735), (169, 16753), (172, 16786), (183, 16837), (187, 16852), (191, 16888),

Gene: Phabuloso_19 Start: 15505, Stop: 16425, Start Num: 28
Candidate Starts for Phabuloso_19:
(Start: 27 @15502 has 15 MA's), (Start: 28 @15505 has 6 MA's), (30, 15517), (31, 15535), (38, 15580), (43, 15619), (49, 15658), (53, 15691), (54, 15697), (66, 15766), (72, 15820), (75, 15823), (76, 15826), (80, 15838), (86, 15856), (87, 15862), (89, 15868), (92, 15886), (103, 15940), (105, 15952), (106, 15958), (111, 15979), (122, 16027), (125, 16045), (126, 16051), (130, 16066), (131, 16069), (157, 16222), (158, 16225), (160, 16231), (165, 16264), (169, 16282), (172, 16315), (183, 16366), (187, 16381), (191, 16417),

Gene: Phistory_20 Start: 16280, Stop: 17203, Start Num: 27
Candidate Starts for Phistory_20:
(Start: 27 @16280 has 15 MA's), (Start: 28 @16283 has 6 MA's), (30, 16295), (31, 16313), (38, 16358), (43, 16397), (49, 16436), (53, 16469), (54, 16475), (66, 16544), (72, 16598), (75, 16601), (76, 16604), (80, 16616), (89, 16646), (92, 16664), (103, 16718), (105, 16730), (106, 16736), (111, 16757), (122, 16805), (125, 16823), (126, 16829), (130, 16844), (131, 16847), (157, 17000), (158, 17003), (160, 17009), (165, 17042), (169, 17060), (172, 17093), (183, 17144), (187, 17159), (191, 17195),

Gene: Pons_17 Start: 14462, Stop: 15418, Start Num: 25
Candidate Starts for Pons_17:
(Start: 25 @14462 has 59 MA's), (32, 14507), (43, 14591), (50, 14645), (54, 14672), (64, 14723), (65, 14726), (66, 14732), (67, 14735), (79, 14804), (89, 14849), (94, 14873), (106, 14939), (126, 15035), (157, 15218), (158, 15221), (162, 15251), (164, 15260), (172, 15317), (183, 15368), (188, 15404), (189, 15410),

Gene: PotPie_17 Start: 15327, Stop: 16283, Start Num: 25
Candidate Starts for PotPie_17:
(Start: 25 @15327 has 59 MA's), (32, 15372), (40, 15429), (43, 15456), (50, 15510), (54, 15537), (64, 15588), (65, 15591), (66, 15597), (67, 15600), (72, 15654), (79, 15669), (89, 15714), (94, 15738), (97, 15753), (106, 15804), (126, 15900), (158, 16086), (162, 16116), (164, 16125), (172, 16182), (183,

16233), (188, 16269), (189, 16275),

Gene: PsychoKiller_17 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for PsychoKiller_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Quasar_17 Start: 15373, Stop: 16344, Start Num: 25
Candidate Starts for Quasar_17:
(Start: 25 @15373 has 59 MA's), (32, 15418), (36, 15439), (43, 15502), (46, 15526), (50, 15556), (56, 15595), (64, 15634), (66, 15643), (67, 15646), (78, 15712), (89, 15760), (98, 15802), (106, 15850), (116, 15901), (126, 15961), (130, 15976), (131, 15979), (133, 15997), (134, 16003), (140, 16048), (145, 16075), (148, 16093), (157, 16144), (158, 16147), (162, 16177), (164, 16186), (167, 16201), (175, 16258), (186, 16306), (188, 16330), (189, 16336),

Gene: RADical_18 Start: 14765, Stop: 15736, Start Num: 25
Candidate Starts for RADical_18:
(Start: 25 @14765 has 59 MA's), (32, 14810), (36, 14831), (43, 14894), (46, 14918), (50, 14948), (56, 14987), (64, 15026), (66, 15035), (67, 15038), (78, 15104), (89, 15152), (98, 15194), (106, 15242), (116, 15293), (126, 15353), (130, 15368), (131, 15371), (133, 15389), (134, 15395), (140, 15440), (145, 15467), (148, 15485), (158, 15539), (162, 15569), (164, 15578), (167, 15593), (175, 15650), (186, 15698), (188, 15722), (189, 15728),

Gene: RSchmailzl_18 Start: 14908, Stop: 15879, Start Num: 25
Candidate Starts for RSchmailzl_18:
(Start: 25 @14908 has 59 MA's), (32, 14953), (36, 14974), (43, 15037), (46, 15061), (50, 15091), (56, 15130), (64, 15169), (66, 15178), (67, 15181), (78, 15247), (89, 15295), (98, 15337), (106, 15385), (116, 15436), (126, 15496), (130, 15511), (131, 15514), (133, 15532), (134, 15538), (140, 15583), (145, 15610), (148, 15628), (157, 15679), (158, 15682), (162, 15712), (164, 15721), (167, 15736), (175, 15793), (186, 15841), (188, 15865), (189, 15871),

Gene: RanchParmCat_20 Start: 14513, Stop: 15472, Start Num: 25
Candidate Starts for RanchParmCat_20:
(14, 14438), (Start: 25 @14513 has 59 MA's), (30, 14534), (33, 14561), (34, 14564), (65, 14777), (66, 14783), (72, 14840), (88, 14897), (89, 14900), (106, 14990), (119, 15059), (126, 15092), (154, 15251), (157, 15272), (158, 15275), (162, 15305), (164, 15314), (165, 15320), (169, 15338), (172, 15371), (174, 15380), (175, 15386), (187, 15437), (188, 15458), (189, 15464),

Gene: RayTheFireFly_18 Start: 16585, Stop: 17532, Start Num: 24
Candidate Starts for RayTheFireFly_18:
(Start: 24 @16585 has 15 MA's), (52, 16780), (66, 16861), (69, 16873), (82, 16945), (85, 16951), (89, 16966), (106, 17056), (107, 17062), (122, 17125), (126, 17149), (128, 17155), (135, 17191), (145, 17260), (152, 17302), (157, 17329), (165, 17371), (166, 17374), (168, 17386), (175, 17437), (181, 17461), (190, 17515),

Gene: RedBaron_18 Start: 14808, Stop: 15779, Start Num: 25
Candidate Starts for RedBaron_18:
(Start: 25 @14808 has 59 MA's), (32, 14853), (36, 14874), (43, 14937), (46, 14961), (50, 14991), (56, 15030), (64, 15069), (66, 15078), (67, 15081), (78, 15147), (89, 15195), (98, 15237), (106, 15285), (116, 15336), (126, 15396), (130, 15411), (131, 15414), (133, 15432), (134, 15438), (140, 15483),

(145, 15510), (148, 15528), (157, 15579), (158, 15582), (162, 15612), (164, 15621), (167, 15636), (175, 15693), (186, 15741), (188, 15765), (189, 15771),

Gene: Ronaldo_55 Start: 27945, Stop: 28892, Start Num: 21
Candidate Starts for Ronaldo_55:
(Start: 21 @27945 has 1 MA's), (Start: 22 @27948 has 12 MA's), (41, 28068), (54, 28164), (71, 28266), (88, 28332), (92, 28353), (94, 28359), (101, 28410), (106, 28434), (126, 28527), (136, 28566), (154, 28677), (155, 28683), (156, 28692), (157, 28698), (162, 28731), (164, 28740), (166, 28749), (169, 28764), (181, 28839), (184, 28851), (187, 28863), (188, 28884),

Gene: SamW_16 Start: 15117, Stop: 16283, Start Num: 12
Candidate Starts for SamW_16:
(Start: 12 @15117 has 8 MA's), (23, 15246), (62, 15528), (68, 15558), (70, 15585), (79, 15627), (90, 15672), (110, 15810), (118, 15858), (123, 15876), (124, 15885), (144, 16005), (153, 16053), (163, 16110), (177, 16206), (178, 16215), (182, 16230), (185, 16242), (186, 16248), (188, 16272),

Gene: Schnabeltier_18 Start: 16103, Stop: 16966, Start Num: 35
Candidate Starts for Schnabeltier_18:
(9, 15905), (10, 15908), (20, 16022), (Start: 24 @16040 has 15 MA's), (Start: 28 @16049 has 6 MA's), (34, 16091), (Start: 35 @16103 has 1 MA's), (69, 16325), (75, 16370), (82, 16394), (85, 16400), (87, 16409), (89, 16415), (96, 16445), (100, 16475), (106, 16505), (107, 16511), (121, 16571), (122, 16574), (126, 16598), (138, 16655), (140, 16676), (152, 16742), (165, 16811), (188, 16949),

Gene: ShawBrad_19 Start: 15516, Stop: 16439, Start Num: 27
Candidate Starts for ShawBrad_19:
(Start: 27 @15516 has 15 MA's), (Start: 28 @15519 has 6 MA's), (30, 15531), (31, 15549), (38, 15594), (43, 15633), (49, 15672), (53, 15705), (54, 15711), (66, 15780), (75, 15837), (76, 15840), (80, 15852), (87, 15876), (89, 15882), (92, 15900), (103, 15954), (105, 15966), (106, 15972), (111, 15993), (122, 16041), (125, 16059), (126, 16065), (130, 16080), (131, 16083), (157, 16236), (158, 16239), (160, 16245), (165, 16278), (169, 16296), (172, 16329), (183, 16380), (187, 16395), (191, 16431),

Gene: SheckWes_16 Start: 14462, Stop: 15418, Start Num: 25
Candidate Starts for SheckWes_16:
(Start: 25 @14462 has 59 MA's), (32, 14507), (43, 14591), (50, 14645), (54, 14672), (64, 14723), (65, 14726), (66, 14732), (67, 14735), (72, 14789), (79, 14804), (89, 14849), (94, 14873), (97, 14888), (106, 14939), (126, 15035), (157, 15218), (158, 15221), (162, 15251), (164, 15260), (172, 15317), (183, 15368), (188, 15404), (189, 15410),

Gene: SilverChicken_18 Start: 12813, Stop: 13742, Start Num: 22
Candidate Starts for SilverChicken_18:
(Start: 22 @12813 has 12 MA's), (34, 12873), (40, 12924), (53, 13023), (54, 13029), (58, 13044), (80, 13164), (86, 13182), (99, 13248), (101, 13260), (110, 13305), (120, 13344), (122, 13350), (126, 13374), (127, 13377), (128, 13380), (130, 13389), (131, 13392), (141, 13458), (145, 13479), (146, 13482), (152, 13518), (157, 13545), (158, 13548), (165, 13587), (169, 13605), (170, 13611), (174, 13647), (175, 13653), (179, 13677), (182, 13683), (183, 13689),

Gene: SketchMex_16 Start: 14412, Stop: 15383, Start Num: 25
Candidate Starts for SketchMex_16:
(Start: 25 @14412 has 59 MA's), (32, 14457), (36, 14478), (43, 14541), (46, 14565), (50, 14595), (64, 14673), (66, 14682), (67, 14685), (78, 14751), (89, 14799), (98, 14841), (103, 14871), (106, 14889), (116, 14940), (126, 15000), (130, 15015), (131, 15018), (134, 15042), (145, 15114), (148, 15132), (157, 15183), (158, 15186), (162, 15216), (164, 15225), (167, 15240), (175, 15297), (186, 15345), (188, 15369), (189, 15375),

Gene: Socotra_18 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Socotra_18:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (157, 15535), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Sopespian_17 Start: 14765, Stop: 15736, Start Num: 25
Candidate Starts for Sopespian_17:
(Start: 25 @14765 has 59 MA's), (32, 14810), (36, 14831), (43, 14894), (46, 14918), (50, 14948), (56, 14987), (64, 15026), (66, 15035), (67, 15038), (78, 15104), (89, 15152), (98, 15194), (106, 15242), (116, 15293), (126, 15353), (130, 15368), (131, 15371), (133, 15389), (134, 15395), (140, 15440), (145, 15467), (148, 15485), (158, 15539), (162, 15569), (164, 15578), (167, 15593), (175, 15650), (186, 15698), (188, 15722), (189, 15728),

Gene: Soul22_18 Start: 12811, Stop: 13740, Start Num: 22
Candidate Starts for Soul22_18:
(Start: 22 @12811 has 12 MA's), (34, 12871), (40, 12922), (53, 13021), (54, 13027), (58, 13042), (80, 13162), (86, 13180), (99, 13246), (101, 13258), (110, 13303), (120, 13342), (122, 13348), (126, 13372), (127, 13375), (128, 13378), (141, 13456), (145, 13477), (146, 13480), (152, 13516), (157, 13543), (158, 13546), (165, 13585), (169, 13603), (170, 13609), (174, 13645), (179, 13675), (182, 13681), (183, 13687),

Gene: Spooky_19 Start: 15489, Stop: 16412, Start Num: 27
Candidate Starts for Spooky_19:
(Start: 27 @15489 has 15 MA's), (Start: 28 @15492 has 6 MA's), (30, 15504), (31, 15522), (38, 15567), (40, 15582), (42, 15594), (43, 15606), (49, 15645), (53, 15678), (66, 15753), (72, 15807), (76, 15813), (87, 15849), (89, 15855), (103, 15927), (105, 15939), (106, 15945), (119, 16005), (122, 16014), (126, 16038), (130, 16053), (131, 16056), (139, 16110), (157, 16209), (158, 16212), (160, 16218), (165, 16251), (168, 16266), (169, 16269), (173, 16305),

Gene: Squiddly_21 Start: 16901, Stop: 17824, Start Num: 27
Candidate Starts for Squiddly_21:
(Start: 27 @16901 has 15 MA's), (Start: 28 @16904 has 6 MA's), (30, 16916), (31, 16934), (38, 16979), (40, 16994), (42, 17006), (43, 17018), (49, 17057), (53, 17090), (66, 17165), (72, 17219), (75, 17222), (76, 17225), (80, 17237), (86, 17255), (87, 17261), (89, 17267), (103, 17339), (105, 17351), (106, 17357), (111, 17378), (122, 17426), (126, 17450), (130, 17465), (131, 17468), (157, 17621), (158, 17624), (160, 17630), (165, 17663), (168, 17678), (169, 17681), (173, 17717), (183, 17765),

Gene: StAB_16 Start: 15144, Stop: 16310, Start Num: 12
Candidate Starts for StAB_16:
(Start: 12 @15144 has 8 MA's), (23, 15273), (39, 15384), (62, 15555), (63, 15561), (68, 15585), (70, 15612), (79, 15654), (90, 15699), (104, 15786), (105, 15789), (110, 15837), (114, 15852), (118, 15885), (123, 15903), (124, 15912), (132, 15945), (137, 15978), (143, 16023), (144, 16032), (147, 16044), (149, 16056), (153, 16080), (163, 16137), (171, 16185), (177, 16233), (178, 16242), (182, 16257), (185, 16269), (186, 16275), (188, 16299),

Gene: Starburst_18 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Starburst_18:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241),

(116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439),
(145, 15466), (148, 15484), (157, 15535), (158, 15538), (162, 15568), (164, 15577), (167, 15592),
(175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: SteamedHams_19 Start: 14430, Stop: 15401, Start Num: 25
Candidate Starts for SteamedHams_19:
(Start: 25 @14430 has 59 MA's), (32, 14475), (36, 14496), (37, 14511), (40, 14532), (46, 14583), (50,
14613), (54, 14640), (64, 14691), (66, 14700), (67, 14703), (72, 14757), (78, 14769), (89, 14817), (106,
14907), (116, 14958), (120, 14988), (126, 15018), (131, 15036), (145, 15132), (148, 15150), (157,
15201), (158, 15204), (162, 15234), (164, 15243), (167, 15258), (175, 15315), (186, 15363), (188,
15387), (189, 15393),

Gene: Stiles_16 Start: 14922, Stop: 16088, Start Num: 12
Candidate Starts for Stiles_16:
(Start: 12 @14922 has 8 MA's), (23, 15051), (62, 15333), (68, 15363), (70, 15390), (79, 15432), (90,
15477), (104, 15564), (105, 15567), (110, 15615), (114, 15630), (118, 15663), (123, 15681), (124,
15690), (132, 15723), (143, 15801), (147, 15822), (149, 15834), (153, 15858), (163, 15915), (171,
15963), (177, 16011), (178, 16020), (182, 16035), (185, 16047), (186, 16053), (188, 16077),

Gene: SummitAcademy_16 Start: 14542, Stop: 15498, Start Num: 25
Candidate Starts for SummitAcademy_16:
(Start: 25 @14542 has 59 MA's), (32, 14587), (40, 14644), (43, 14671), (50, 14725), (54, 14752), (64,
14803), (65, 14806), (66, 14812), (67, 14815), (72, 14869), (79, 14884), (89, 14929), (94, 14953), (97,
14968), (106, 15019), (126, 15115), (158, 15301), (162, 15331), (164, 15340), (172, 15397), (183,
15448), (188, 15484), (189, 15490),

Gene: Survivors_19 Start: 15594, Stop: 16559, Start Num: 25
Candidate Starts for Survivors_19:
(Start: 25 @15594 has 59 MA's), (32, 15639), (37, 15675), (40, 15696), (43, 15723), (50, 15777), (64,
15858), (66, 15867), (67, 15870), (78, 15939), (89, 15987), (106, 16077), (109, 16092), (117, 16131),
(145, 16287), (157, 16353), (158, 16356), (159, 16359), (162, 16386), (164, 16395), (169, 16419),
(172, 16452), (176, 16470), (185, 16515), (188, 16545), (189, 16551),

Gene: SweatNTears_19 Start: 14923, Stop: 15894, Start Num: 25
Candidate Starts for SweatNTears_19:
(Start: 25 @14923 has 59 MA's), (32, 14968), (36, 14989), (43, 15052), (46, 15076), (50, 15106), (64,
15184), (66, 15193), (67, 15196), (78, 15262), (89, 15310), (98, 15352), (103, 15382), (106, 15400),
(116, 15451), (126, 15511), (130, 15526), (131, 15529), (134, 15553), (145, 15625), (148, 15643),
(157, 15694), (158, 15697), (162, 15727), (164, 15736), (167, 15751), (175, 15808), (186, 15856),
(188, 15880), (189, 15886),

Gene: TaronosaurasRx_18 Start: 16056, Stop: 16982, Start Num: 24
Candidate Starts for TaronosaurasRx_18:
(2, 15741), (3, 15765), (4, 15792), (20, 16038), (Start: 24 @16056 has 15 MA's), (Start: 28 @16065
has 6 MA's), (34, 16107), (Start: 35 @16119 has 1 MA's), (69, 16341), (75, 16386), (82, 16410), (85,
16416), (87, 16425), (89, 16431), (96, 16461), (106, 16521), (107, 16527), (121, 16587), (122, 16590),
(126, 16614), (138, 16671), (152, 16758), (165, 16827), (173, 16881), (188, 16965),

Gene: Tolls_19 Start: 14433, Stop: 15404, Start Num: 25
Candidate Starts for Tolls_19:
(Start: 25 @14433 has 59 MA's), (32, 14478), (36, 14499), (37, 14514), (40, 14535), (46, 14586), (50,
14616), (54, 14643), (64, 14694), (66, 14703), (67, 14706), (72, 14760), (78, 14772), (89, 14820), (106,
14910), (116, 14961), (120, 14991), (126, 15021), (131, 15039), (145, 15135), (148, 15153), (157,

15204), (158, 15207), (162, 15237), (164, 15246), (167, 15261), (175, 15318), (186, 15366), (188, 15390), (189, 15396),

Gene: Troje_17 Start: 14394, Stop: 15365, Start Num: 25
Candidate Starts for Troje_17:
(Start: 25 @14394 has 59 MA's), (32, 14439), (36, 14460), (37, 14475), (43, 14523), (46, 14547), (50, 14577), (64, 14655), (66, 14664), (67, 14667), (78, 14733), (89, 14781), (98, 14823), (106, 14871), (116, 14922), (126, 14982), (130, 14997), (131, 15000), (134, 15024), (145, 15096), (148, 15114), (157, 15165), (158, 15168), (162, 15198), (164, 15207), (167, 15222), (172, 15264), (175, 15279), (186, 15327), (188, 15351), (189, 15357),

Gene: Troy_16 Start: 15117, Stop: 16283, Start Num: 12
Candidate Starts for Troy_16:
(Start: 12 @15117 has 8 MA's), (23, 15246), (62, 15528), (68, 15558), (70, 15585), (79, 15627), (90, 15672), (110, 15810), (118, 15858), (123, 15876), (124, 15885), (144, 16005), (153, 16053), (163, 16110), (177, 16206), (178, 16215), (182, 16230), (185, 16242), (186, 16248), (188, 16272),

Gene: Typhonomachy_17 Start: 14764, Stop: 15735, Start Num: 25
Candidate Starts for Typhonomachy_17:
(Start: 25 @14764 has 59 MA's), (32, 14809), (36, 14830), (43, 14893), (46, 14917), (50, 14947), (56, 14986), (64, 15025), (66, 15034), (67, 15037), (78, 15103), (89, 15151), (98, 15193), (106, 15241), (116, 15292), (126, 15352), (130, 15367), (131, 15370), (133, 15388), (134, 15394), (140, 15439), (145, 15466), (148, 15484), (157, 15535), (158, 15538), (162, 15568), (164, 15577), (167, 15592), (175, 15649), (186, 15697), (188, 15721), (189, 15727),

Gene: Vine_18 Start: 15477, Stop: 16433, Start Num: 25
Candidate Starts for Vine_18:
(Start: 25 @15477 has 59 MA's), (32, 15522), (40, 15579), (43, 15606), (50, 15660), (54, 15687), (64, 15738), (65, 15741), (66, 15747), (67, 15750), (72, 15804), (79, 15819), (89, 15864), (94, 15888), (97, 15903), (106, 15954), (126, 16050), (158, 16236), (162, 16266), (164, 16275), (169, 16299), (172, 16332), (188, 16419), (189, 16425),

Gene: Volt_54 Start: 27948, Stop: 28892, Start Num: 22
Candidate Starts for Volt_54:
(Start: 21 @27945 has 1 MA's), (Start: 22 @27948 has 12 MA's), (41, 28068), (54, 28164), (71, 28266), (88, 28332), (92, 28353), (94, 28359), (101, 28410), (106, 28434), (126, 28527), (136, 28566), (154, 28677), (155, 28683), (156, 28692), (157, 28698), (162, 28731), (164, 28740), (166, 28749), (169, 28764), (181, 28839), (184, 28851), (187, 28863), (188, 28884),

Gene: Whitney_20 Start: 16305, Stop: 17228, Start Num: 27
Candidate Starts for Whitney_20:
(Start: 27 @16305 has 15 MA's), (Start: 28 @16308 has 6 MA's), (30, 16320), (31, 16338), (38, 16383), (43, 16422), (49, 16461), (53, 16494), (54, 16500), (66, 16569), (72, 16623), (75, 16626), (76, 16629), (80, 16641), (87, 16665), (89, 16671), (92, 16689), (103, 16743), (105, 16755), (106, 16761), (111, 16782), (121, 16827), (122, 16830), (125, 16848), (126, 16854), (130, 16869), (131, 16872), (157, 17025), (158, 17028), (160, 17034), (165, 17067), (169, 17085), (172, 17118), (183, 17169), (187, 17184), (191, 17220),

Gene: Wolfwood_21 Start: 15738, Stop: 16703, Start Num: 25
Candidate Starts for Wolfwood_21:
(Start: 25 @15738 has 59 MA's), (32, 15783), (37, 15819), (40, 15840), (43, 15867), (50, 15921), (61, 15978), (64, 16002), (66, 16011), (67, 16014), (78, 16083), (89, 16131), (106, 16221), (109, 16236), (117, 16275), (145, 16431), (157, 16497), (158, 16500), (159, 16503), (162, 16530), (164, 16539),

(169, 16563), (172, 16596), (176, 16614), (185, 16659), (188, 16689), (189, 16695),

Gene: Yakult_18 Start: 14355, Stop: 15323, Start Num: 25
Candidate Starts for Yakult_18:
(14, 14280), (Start: 25 @14355 has 59 MA's), (32, 14400), (33, 14403), (34, 14406), (36, 14421), (37, 14436), (42, 14472), (43, 14484), (64, 14616), (66, 14625), (88, 14739), (89, 14742), (106, 14832), (126, 14943), (140, 15030), (158, 15126), (159, 15129), (162, 15156), (164, 15165), (165, 15171), (169, 15189), (172, 15222), (174, 15231), (188, 15309), (189, 15315),

Gene: Yarn_16 Start: 14423, Stop: 15394, Start Num: 25
Candidate Starts for Yarn_16:
(Start: 25 @14423 has 59 MA's), (32, 14468), (36, 14489), (37, 14504), (40, 14525), (46, 14576), (50, 14606), (54, 14633), (64, 14684), (66, 14693), (67, 14696), (72, 14750), (78, 14762), (89, 14810), (106, 14900), (116, 14951), (120, 14981), (126, 15011), (131, 15029), (145, 15125), (148, 15143), (157, 15194), (158, 15197), (162, 15227), (164, 15236), (167, 15251), (175, 15308), (186, 15356), (188, 15380), (189, 15386),

Gene: Yoshi_18 Start: 12812, Stop: 13741, Start Num: 22
Candidate Starts for Yoshi_18:
(Start: 22 @12812 has 12 MA's), (34, 12872), (40, 12923), (53, 13022), (54, 13028), (58, 13043), (65, 13085), (80, 13163), (86, 13181), (99, 13247), (101, 13259), (110, 13304), (120, 13343), (122, 13349), (126, 13373), (127, 13376), (128, 13379), (141, 13457), (145, 13478), (146, 13481), (152, 13517), (157, 13544), (158, 13547), (165, 13586), (169, 13604), (170, 13610), (174, 13646), (175, 13652), (179, 13676), (182, 13682), (183, 13688),

Gene: Yucky_17 Start: 15337, Stop: 16293, Start Num: 25
Candidate Starts for Yucky_17:
(Start: 25 @15337 has 59 MA's), (32, 15382), (40, 15439), (43, 15466), (50, 15520), (54, 15547), (64, 15598), (65, 15601), (66, 15607), (67, 15610), (72, 15664), (79, 15679), (89, 15724), (94, 15748), (97, 15763), (106, 15814), (126, 15910), (158, 16096), (162, 16126), (164, 16135), (169, 16159), (172, 16192), (188, 16279), (189, 16285),

Gene: Yummy_18 Start: 14308, Stop: 15279, Start Num: 25
Candidate Starts for Yummy_18:
(Start: 25 @14308 has 59 MA's), (32, 14353), (36, 14374), (37, 14389), (43, 14437), (46, 14461), (50, 14491), (64, 14569), (66, 14578), (67, 14581), (78, 14647), (89, 14695), (98, 14737), (106, 14785), (116, 14836), (126, 14896), (130, 14911), (131, 14914), (134, 14938), (145, 15010), (148, 15028), (157, 15079), (158, 15082), (162, 15112), (164, 15121), (167, 15136), (172, 15178), (175, 15193), (186, 15241), (188, 15265), (189, 15271),

Gene: ZAYM_18 Start: 16111, Stop: 16974, Start Num: 35
Candidate Starts for ZAYM_18:
(2, 15733), (4, 15784), (20, 16030), (Start: 24 @16048 has 15 MA's), (Start: 28 @16057 has 6 MA's), (34, 16099), (Start: 35 @16111 has 1 MA's), (69, 16333), (75, 16378), (82, 16402), (85, 16408), (89, 16423), (96, 16453), (106, 16513), (107, 16519), (121, 16579), (122, 16582), (126, 16606), (138, 16663), (152, 16750), (165, 16819), (173, 16873), (188, 16957),

Gene: Zapner_19 Start: 13337, Stop: 14266, Start Num: 22
Candidate Starts for Zapner_19:
(Start: 22 @13337 has 12 MA's), (34, 13397), (40, 13448), (53, 13547), (54, 13553), (58, 13568), (80, 13688), (86, 13706), (99, 13772), (101, 13784), (110, 13829), (120, 13868), (122, 13874), (126, 13898), (127, 13901), (128, 13904), (130, 13913), (131, 13916), (141, 13982), (145, 14003), (146, 14006), (152, 14042), (157, 14069), (158, 14072), (165, 14111), (169, 14129), (170, 14135), (174,

14171), (175, 14177), (179, 14201), (182, 14207), (183, 14213),

Gene: Zareef_19 Start: 15746, Stop: 16711, Start Num: 25
Candidate Starts for Zareef_19:
(Start: 25 @15746 has 59 MA's), (32, 15791), (37, 15827), (40, 15848), (43, 15875), (50, 15929), (64, 16010), (66, 16019), (67, 16022), (78, 16091), (89, 16139), (106, 16229), (109, 16244), (117, 16283), (145, 16439), (157, 16505), (158, 16508), (159, 16511), (162, 16538), (164, 16547), (169, 16571), (172, 16604), (176, 16622), (185, 16667), (188, 16697), (189, 16703),

Gene: Ziko_55 Start: 27888, Stop: 28832, Start Num: 22
Candidate Starts for Ziko_55:
(Start: 21 @27885 has 1 MA's), (Start: 22 @27888 has 12 MA's), (41, 28008), (54, 28104), (71, 28206), (88, 28272), (92, 28293), (94, 28299), (101, 28350), (106, 28374), (126, 28467), (136, 28506), (154, 28617), (155, 28623), (156, 28632), (157, 28638), (162, 28671), (164, 28680), (166, 28689), (169, 28704), (181, 28779), (184, 28791), (187, 28803), (188, 28824),