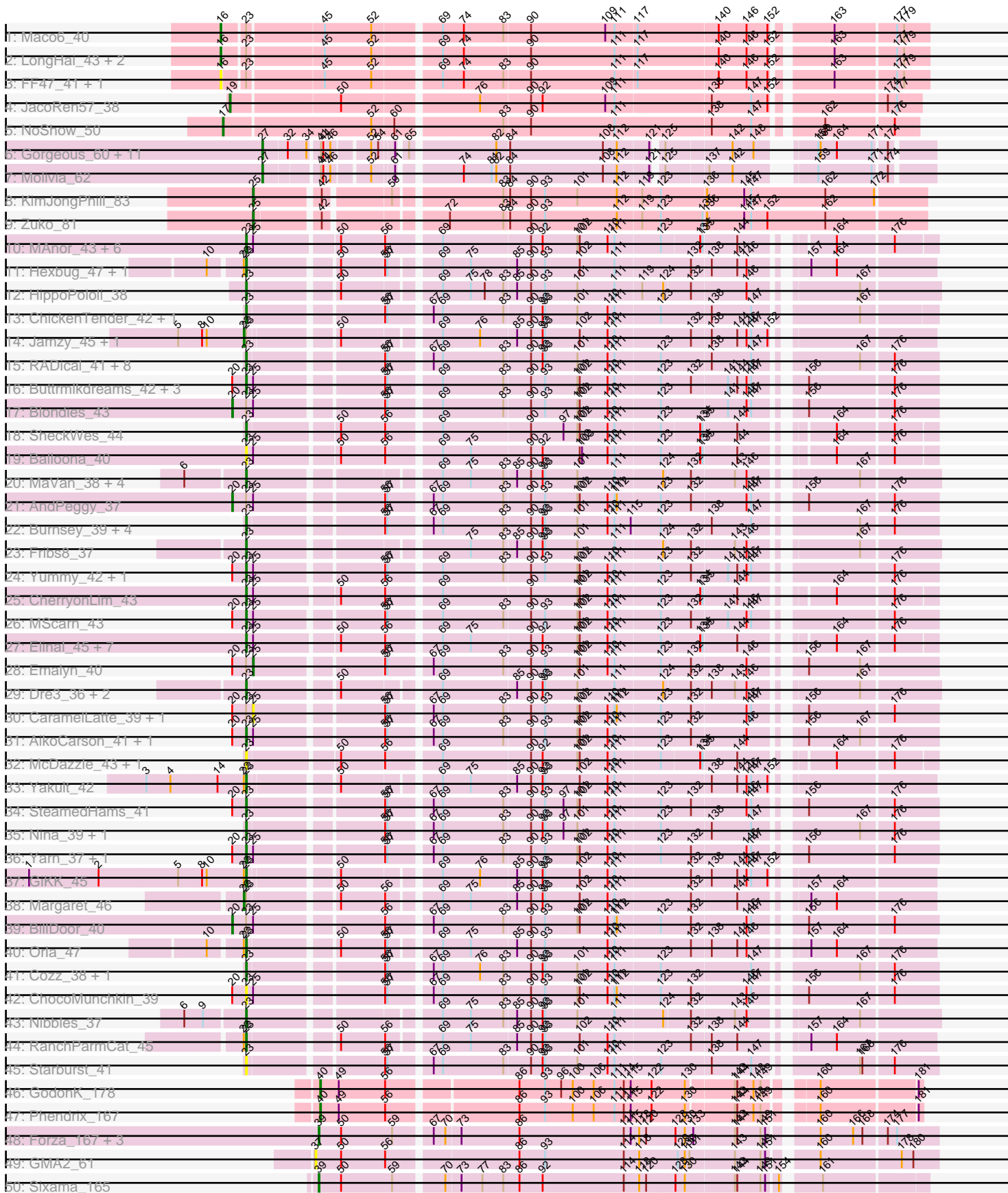
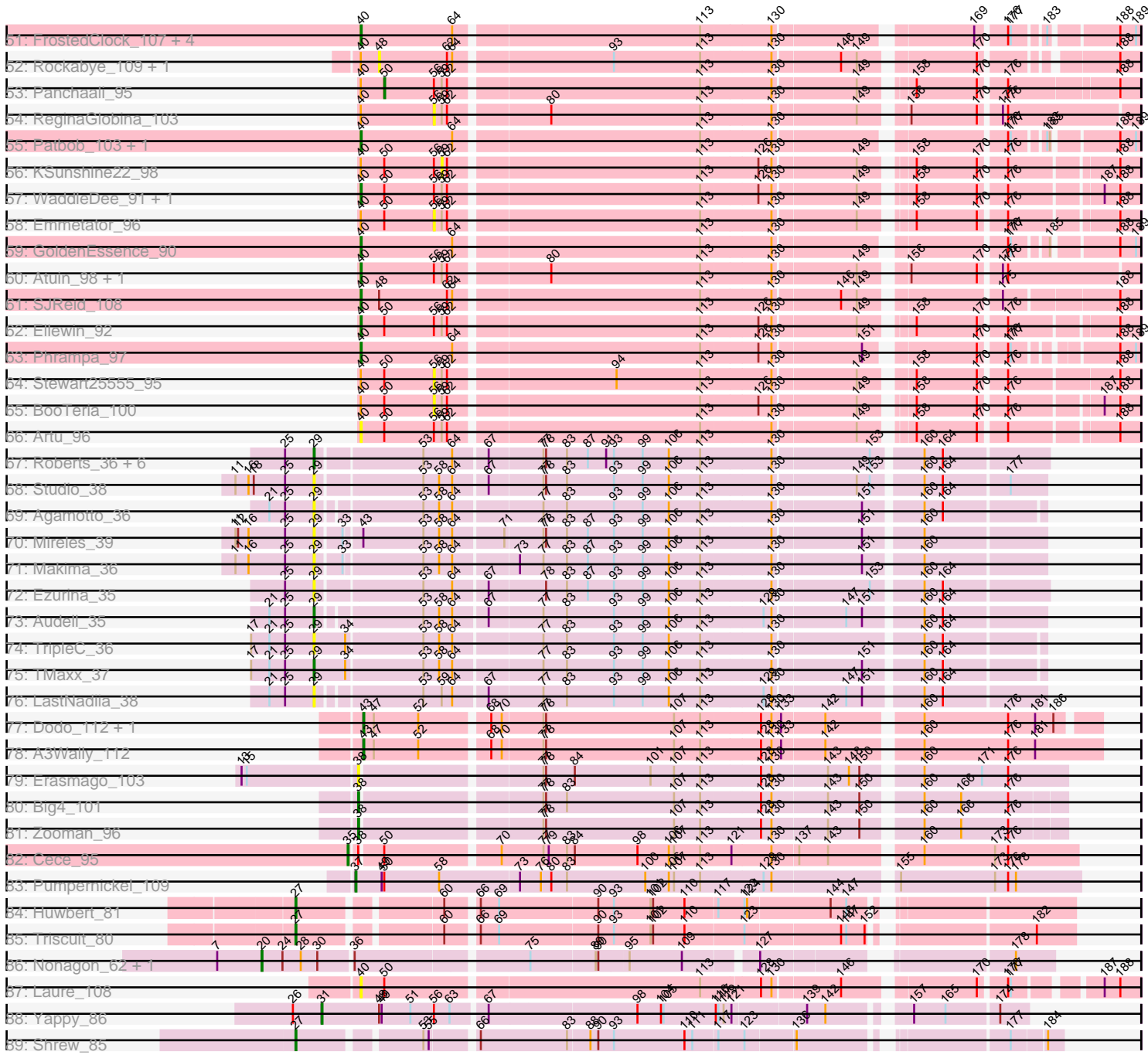


Pham 294478



Pham 294478



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 294478 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294478 has 166 members, 54 are drafts.

Phages represented in each track:

- Track 1 : Maco6_40
- Track 2 : LongHai_43, Salvus_43, Muddy_42
- Track 3 : FF47_41, 8UZL_42
- Track 4 : JacoRen57_38
- Track 5 : NoShow_50
- Track 6 : Gorgeous_60, Rings_61, Jaek_60, Boersma_63, Heylee_63, SorJuana_60, Amavida_62, Yeezus_60, Amigo_61, Ichor_60, Thunderclap_60, Anansi_60
- Track 7 : Molivia_62
- Track 8 : KimJongPhill_83
- Track 9 : Zuko_81
- Track 10 : MAnor_43, PotPie_42, Feastonyeet_41, SummitAcademy_41, BigChungus_41, CocoaPuff_42, Mayweather_45
- Track 11 : Hexbug_47, Nodigi_47
- Track 12 : HippoPololi_38
- Track 13 : ChickenTender_42, MunkgeeRoachy_38
- Track 14 : Jamzy_45, Button_43
- Track 15 : RADical_41, GoldHunter_41, Axym_39, RSchmailzl_41, Sopespian_39, PsychoKiller_39, Quasar_40, Elliott_40, Carsonalex_43
- Track 16 : Buttrmlkdreams_42, Troje_42, SketchMex_40, Biskit_42
- Track 17 : Blondies_43
- Track 18 : SheckWes_44
- Track 19 : Balloona_40
- Track 20 : MaVan_38, Azira_38, Wolfwood_40, Zareef_38, Survivors_38
- Track 21 : AndPeggy_37
- Track 22 : Burnsey_39, RedBaron_42, Typhonmarchy_38, Socotra_41, Bubble_38
- Track 23 : Fribs8_37
- Track 24 : Yummy_42, Horseradish_42
- Track 25 : CherryonLim_43
- Track 26 : MScarn_43
- Track 27 : Elinal_45, Yucky_44, Tarnish_41, Vine_44, Bavidard_41, Lauer_38, KayGee_43, Pons_43
- Track 28 : Emalyn_40
- Track 29 : Dre3_36, Gibbous_36, Cleo_36
- Track 30 : CaramelLatte_39, CanesSauce_39
- Track 31 : AikoCarson_41, Amok_41
- Track 32 : McDazzle_43, ElJefes_42

- Track 33 : Yakult_42
- Track 34 : SteamedHams_41
- Track 35 : Nina_39, SweatNTears_41
- Track 36 : Yarn_37, Tolls_41
- Track 37 : GiKK_45
- Track 38 : Margaret_46
- Track 39 : BillDoor_40
- Track 40 : Orla_47
- Track 41 : Cozz_38, Agatha_39
- Track 42 : ChocoMunchkin_39
- Track 43 : Nibbles_37
- Track 44 : RanchParmCat_45
- Track 45 : Starburst_41
- Track 46 : GodonK_178
- Track 47 : Phendrix_167
- Track 48 : Forza_167, Mareelih_164, Boopy_166, BlueNGold_163
- Track 49 : GMA2_61
- Track 50 : Sixama_165
- Track 51 : FrostedClock_107, Bloom_108, Mimi_104, Racecar_105, Talia1610_104
- Track 52 : Rockabye_109, Chilliams_103
- Track 53 : Panchaali_95
- Track 54 : ReginaGlobina_103
- Track 55 : Patbob_103, FloraSnap32_104
- Track 56 : KSunshine22_98
- Track 57 : WaddleDee_91, DunneganBoMo_93
- Track 58 : Emmetator_96
- Track 59 : GoldenEssence_90
- Track 60 : Atuin_98, LeoJr_103
- Track 61 : SJReid_108
- Track 62 : Ellewin_92
- Track 63 : Phrampa_97
- Track 64 : Stewart25555_95
- Track 65 : BooTeria_100
- Track 66 : Artu_96
- Track 67 : Roberts_36, ChamoyPickle_38, Gerri43_37, AnnabelLee_36, CardboardBox_37, Neuville_36, ChipsNGuac_37
- Track 68 : Studio_38
- Track 69 : Agamoto_36
- Track 70 : Mireles_39
- Track 71 : Makima_36
- Track 72 : Ezurina_35
- Track 73 : Audell_35
- Track 74 : TripleC_36
- Track 75 : TMaxx_37
- Track 76 : LastNadiia_38
- Track 77 : Dodo_112, PauloDiaboli_112
- Track 78 : A3Wally_112
- Track 79 : Erasmago_103
- Track 80 : Big4_101
- Track 81 : Zooman_96
- Track 82 : Cece_95
- Track 83 : Pumpnickel_109
- Track 84 : Huwbert_81

- Track 85 : Triscuit_80
- Track 86 : Nonagon_62, Commonplace_63
- Track 87 : Laure_108
- Track 88 : Yappy_86
- Track 89 : Shrew_85

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

The start number called the most often in the published annotations is 23, it was called in 52 of the 112 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha_39, AikoCarson_41, Amok_41, Axym_39, Azira_38, Balloona_40, Bavailard_41, BigChungus_41, Biskit_42, Bubble_38, Burnsey_39, Buttrmilkdreams_42, Carsonalex_43, CherryonLim_43, ChickenTender_42, ChocoMunchkin_39, Cleo_36, CocoaPuff_42, Cozz_38, Dre3_36, ElJefes_42, Elinal_45, Elliott_40, Feastonyeet_41, Fribs8_37, GiKK_45, Gibbous_36, GoldHunter_41, Hexbug_47, HippoPololi_38, Horseradish_42, KayGee_43, Lauer_38, MAnor_43, MScarn_43, MaVan_38, Mayweather_45, McDazzle_43, MunkgeeRoachy_38, Nibbles_37, Nina_39, Nodigi_47, Orla_47, Pons_43, PotPie_42, PsychoKiller_39, Quasar_40, RADical_41, RSchmailzl_41, RanchParmCat_45, RedBaron_42, SheckWes_44, SketchMex_40, Socotra_41, Sopespian_39, Starburst_41, SteamedHams_41, SummitAcademy_41, Survivors_38, SweatNTears_41, Tarnish_41, Tolls_41, Troje_42, Typhonmarchy_38, Vine_44, Wolfwood_40, Yakult_42, Yarn_37, Yucky_44, Yummy_42, Zareef_38,

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

- 8UZL_42, AndPeggy_37, BillDoor_40, Blondies_43, Button_43, CanesSauce_39, CaramelLatte_39, Emalyn_40, FF47_41, Jamzy_45, LongHai_43, Maco6_40, Margaret_46, Muddy_42, Salvus_43,

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

- A3Wally_112, Agamoto_36, Amavida_62, Amigo_61, Anansi_60, AnnabelLee_36, Artu_96, Atuin_98, Audell_35, Big4_101, Bloom_108, BlueNGold_163, Boersma_63, BooTeria_100, Boopy_166, CardboardBox_37, Cece_95, ChamoyPickle_38, Chilliams_103, ChipsNGuac_37, Commonplace_63, Dodo_112, DunneganBoMo_93, Ellewin_92, Emmetator_96, Erasmago_103, Ezurina_35, FloraSnap32_104, Forza_167, FrostedClock_107, GMA2_61, Gerri43_37, GodonK_178, GoldenEssence_90, Gorgeous_60, Heylee_63, Huwburt_81, Ichor_60, JacoRen57_38, Jaek_60, KSunshine22_98, KimJongPhill_83, LastNadiia_38, Laure_108, LeoJr_103, Makima_36, Mareelih_164, Mimi_104, Mireles_39, Molivia_62, Neuville_36, NoShow_50, Nonagon_62, Panchaali_95, Patbob_103, PauloDiaboli_112, Phendrix_167, Phrampa_97, Pumpnickel_109, Racecar_105, ReginaGlobina_103, Rings_61, Roberts_36, Rockabye_109, SJReid_108, Shrew_85, Sixama_165, SorJuana_60, Stewart25555_95, Studio_38, TMaxx_37, Talia1610_104, Thunderclap_60, TripleC_36, Triscuit_80, WaddleDee_91, Yappy_86, Yeezus_60, Zooman_96, Zuko_81,

Summary by start number:

Start 16:

- Found in 9 of 166 (5.4%) of genes in pham
- Manual Annotations of this start: 2 of 112
- Called 66.7% of time when present
- Phage (with cluster) where this start called: 8UZL_42 (AB), FF47_41 (AB), LongHai_43 (AB), Maco6_40 (AB), Muddy_42 (AB), Salvus_43 (AB),

Start 17:

- Found in 3 of 166 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 33.3% of time when present
- Phage (with cluster) where this start called: NoShow_50 (AB),

Start 19:

- Found in 1 of 166 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JacoRen57_38 (AB),

Start 20:

- Found in 21 of 166 (12.7%) of genes in pham
- Manual Annotations of this start: 5 of 112
- Called 23.8% of time when present
- Phage (with cluster) where this start called: AndPeggy_37 (CT), BillDoor_40 (CT), Blondies_43 (CT), Commonplace_63 (JD), Nonagon_62 (JD),

Start 22:

- Found in 9 of 166 (5.4%) of genes in pham
- Manual Annotations of this start: 3 of 112
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Button_43 (CT), Jamzy_45 (CT), Margaret_46 (CT),

Start 23:

- Found in 86 of 166 (51.8%) of genes in pham
- Manual Annotations of this start: 52 of 112
- Called 82.6% of time when present
- Phage (with cluster) where this start called: Agatha_39 (CT), AikoCarson_41 (CT), Amok_41 (CT), Axym_39 (CT), Azira_38 (CT), Balloona_40 (CT), Bavidard_41 (CT), BigChungus_41 (CT), Biskit_42 (CT), Bubble_38 (CT), Burnsey_39 (CT), Buttrmlkdreams_42 (CT), Carsonalex_43 (CT), CherryonLim_43 (CT), ChickenTender_42 (CT), ChocoMunchkin_39 (CT), Cleo_36 (CT), CocoaPuff_42 (CT), Cozz_38 (CT), Dre3_36 (CT), ElJefes_42 (CT), Elinal_45 (CT), Elliott_40 (CT), Feastonyeet_41 (CT), Fribs8_37 (CT), GiKK_45 (CT), Gibbous_36 (CT), GoldHunter_41 (CT), Hexbug_47 (CT), HippoPololi_38 (CT), Horseradish_42 (CT), KayGee_43 (CT), Lauer_38 (CT), MAnor_43 (CT), MScarn_43 (CT), MaVan_38 (CT), Mayweather_45 (CT), McDazzle_43 (CT), MunkgeeRoachy_38 (CT), Nibbles_37 (CT), Nina_39 (CT), Nodigi_47 (CT), Orla_47 (CT), Pons_43 (CT), PotPie_42 (CT), PsychoKiller_39 (CT), Quasar_40 (CT), RADical_41 (CT), RSchmailzl_41 (CT), RanchParmCat_45 (CT), RedBaron_42 (CT), SheckWes_44 (CT), SketchMex_40 (CT), Socotra_41 (CT), Sopespian_39 (CT), Starburst_41 (CT), SteamedHams_41 (CT), SummitAcademy_41 (CT), Survivors_38 (CT), SweatNTears_41 (CT), Tarnish_41 (CT), Tolls_41 (CT), Troje_42 (CT), Typhonmacy_38 (CT), Vine_44

(CT), Wolfwood_40 (CT), Yakult_42 (CT), Yarn_37 (CT), Yucky_44 (CT), Yummy_42 (CT), Zareef_38 (CT),

Start 25:

- Found in 53 of 166 (31.9%) of genes in pham
- Manual Annotations of this start: 3 of 112
- Called 9.4% of time when present
- Phage (with cluster) where this start called: CanesSauce_39 (CT), CaramelLatte_39 (CT), Emalyn_40 (CT), KimJongPhill_83 (BR), Zuko_81 (BR),

Start 27:

- Found in 16 of 166 (9.6%) of genes in pham
- Manual Annotations of this start: 16 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amavida_62 (AQ), Amigo_61 (AQ), Anansi_60 (AQ), Boersma_63 (AQ), Gorgeous_60 (AQ), Heylee_63 (AQ), Huwbert_81 (GG), Ichor_60 (AQ), Jaek_60 (AQ), Molivia_62 (AQ), Rings_61 (AQ), Shrew_85 (singleton), SorJuana_60 (AQ), Thunderclap_60 (AQ), Triscuit_80 (GG), Yeezus_60 (AQ),

Start 29:

- Found in 16 of 166 (9.6%) of genes in pham
- Manual Annotations of this start: 3 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agamoto_36 (FR), AnnabelLee_36 (FR), Audell_35 (FR), CardboardBox_37 (FR), ChamoyPickle_38 (FR), ChipsNGuac_37 (FR), Ezurina_35 (FR), Gerri43_37 (FR), LastNadiia_38 (FR), Makima_36 (FR), Mireles_39 (FR), Neuville_36 (FR), Roberts_36 (FR), Studio_38 (FR), TMaxx_37 (FR), TripleC_36 (FR),

Start 31:

- Found in 1 of 166 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yappy_86 (singleton),

Start 35:

- Found in 1 of 166 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece_95 (GD3),

Start 37:

- Found in 2 of 166 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_61 (DS), Pumpnickel_109 (GD4),

Start 38:

- Found in 4 of 166 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 112
- Called 75.0% of time when present

- Phage (with cluster) where this start called: Big4_101 (GD2), Erasmago_103 (GD2), Zooman_96 (GD2),

Start 39:

- Found in 5 of 166 (3.0%) of genes in pham
- Manual Annotations of this start: 5 of 112
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueNGold_163 (DS), Boopy_166 (DS), Forza_167 (DS), Mareelih_164 (DS), Sixama_165 (DS),

Start 40:

- Found in 27 of 166 (16.3%) of genes in pham
- Manual Annotations of this start: 13 of 112
- Called 70.4% of time when present
- Phage (with cluster) where this start called: Artu_96 (FC), Atuin_98 (FC), Bloom_108 (FC), DunneganBoMo_93 (FC), Ellewin_92 (FC), FloraSnap32_104 (FC), FrostedClock_107 (FC), GodonK_178 (DK), GoldenEssence_90 (FC), Laure_108 (UNK), LeoJr_103 (FC), Mimi_104 (FC), Patbob_103 (FC), Phendrix_167 (DK), Phrampa_97 (FC), Racecar_105 (FC), SJReid_108 (FC), Talia1610_104 (FC), WaddleDee_91 (FC),

Start 43:

- Found in 4 of 166 (2.4%) of genes in pham
- Manual Annotations of this start: 2 of 112
- Called 75.0% of time when present
- Phage (with cluster) where this start called: A3Wally_112 (GD1), Dodo_112 (GD1), PauloDiaboli_112 (GD1),

Start 48:

- Found in 4 of 166 (2.4%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Chilliams_103 (FC), Rockabye_109 (FC),

Start 50:

- Found in 52 of 166 (31.3%) of genes in pham
- Manual Annotations of this start: 1 of 112
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Panchaali_95 (FC),

Start 56:

- Found in 81 of 166 (48.8%) of genes in pham
- No Manual Annotations of this start.
- Called 4.9% of time when present
- Phage (with cluster) where this start called: BooTeria_100 (FC), Emmetator_96 (FC), ReginaGlobina_103 (FC), Stewart25555_95 (FC),

Start 59:

- Found in 19 of 166 (11.4%) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: KSunshine22_98 (FC),

Summary by clusters:

There are 16 clusters represented in this pham: AQ, FR, AB, GD4, DK, GD1, GD2, GG, FC, BR, JD, singleton, UNK, DS, GD3, CT,

Info for manual annotations of cluster AB:

- Start number 16 was manually annotated 2 times for cluster AB.
- Start number 17 was manually annotated 1 time for cluster AB.
- Start number 19 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AQ:

- Start number 27 was manually annotated 13 times for cluster AQ.

Info for manual annotations of cluster BR:

- Start number 25 was manually annotated 2 times for cluster BR.

Info for manual annotations of cluster CT:

- Start number 20 was manually annotated 3 times for cluster CT.
- Start number 22 was manually annotated 3 times for cluster CT.
- Start number 23 was manually annotated 52 times for cluster CT.
- Start number 25 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster DK:

- Start number 40 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:

- Start number 39 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster FC:

- Start number 40 was manually annotated 11 times for cluster FC.
- Start number 50 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster FR:

- Start number 29 was manually annotated 3 times for cluster FR.

Info for manual annotations of cluster GD1:

- Start number 43 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 38 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 35 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 37 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster GG:

- Start number 27 was manually annotated 2 times for cluster GG.

Info for manual annotations of cluster JD:

- Start number 20 was manually annotated 2 times for cluster JD.

Gene Information:

Gene: 8UZL_42 Start: 30925, Stop: 30080, Start Num: 16

Candidate Starts for 8UZL_42:

(Start: 16 @30925 has 2 MA's), (Start: 23 @30901 has 52 MA's), (45, 30808), (52, 30748), (69, 30670), (74, 30643), (83, 30592), (90, 30559), (111, 30451), (117, 30424), (140, 30322), (146, 30286), (152, 30259), (163, 30196), (177, 30121), (179, 30112),

Gene: A3Wally_112 Start: 76409, Stop: 75603, Start Num: 43

Candidate Starts for A3Wally_112:

(Start: 43 @76409 has 2 MA's), (47, 76397), (52, 76346), (68, 76274), (70, 76262), (77, 76217), (78, 76214), (107, 76067), (113, 76037), (128, 75971), (130, 75959), (133, 75950), (142, 75902), (160, 75806), (176, 75710), (181, 75680),

Gene: Agamoto_36 Start: 26402, Stop: 25623, Start Num: 29

Candidate Starts for Agamoto_36:

(21, 26453), (Start: 25 @26435 has 3 MA's), (Start: 29 @26402 has 3 MA's), (53, 26294), (58, 26276), (64, 26261), (77, 26165), (83, 26138), (93, 26084), (99, 26051), (106, 26021), (113, 25985), (130, 25907), (151, 25811), (160, 25751), (164, 25730),

Gene: Agatha_39 Start: 28608, Stop: 27790, Start Num: 23

Candidate Starts for Agatha_39:

(Start: 23 @28608 has 52 MA's), (56, 28452), (57, 28449), (67, 28401), (69, 28389), (76, 28341), (83, 28311), (90, 28278), (92, 28263), (93, 28260), (101, 28218), (110, 28179), (111, 28170), (123, 28113), (147, 27999), (167, 27885), (176, 27846),

Gene: AikoCarson_41 Start: 28965, Stop: 28147, Start Num: 23

Candidate Starts for AikoCarson_41:

(Start: 20 @28983 has 5 MA's), (Start: 23 @28965 has 52 MA's), (Start: 25 @28959 has 3 MA's), (56, 28809), (57, 28806), (67, 28758), (69, 28746), (83, 28668), (90, 28635), (93, 28617), (101, 28575), (102, 28572), (110, 28536), (111, 28527), (123, 28470), (132, 28431), (146, 28362), (156, 28308), (167, 28242),

Gene: Amavida_62 Start: 40997, Stop: 40257, Start Num: 27

Candidate Starts for Amavida_62:

(Start: 27 @40997 has 16 MA's), (32, 40967), (34, 40943), (41, 40931), (44, 40928), (46, 40922), (52, 40880), (54, 40871), (61, 40856), (65, 40847), (82, 40748), (84, 40733), (108, 40613), (112, 40595), (121, 40556), (125, 40547), (142, 40466), (148, 40439), (159, 40394), (160, 40391), (164, 40370), (171, 40325), (174, 40310),

Gene: Amigo_61 Start: 41212, Stop: 40472, Start Num: 27

Candidate Starts for Amigo_61:

(Start: 27 @41212 has 16 MA's), (32, 41182), (34, 41158), (41, 41146), (44, 41143), (46, 41137), (52, 41095), (54, 41086), (61, 41071), (65, 41062), (82, 40963), (84, 40948), (108, 40828), (112, 40810), (121, 40771), (125, 40762), (142, 40681), (148, 40654), (159, 40609), (160, 40606), (164, 40585), (171, 40540), (174, 40525),

Gene: Amok_41 Start: 28989, Stop: 28171, Start Num: 23

Candidate Starts for Amok_41:

(Start: 20 @29007 has 5 MA's), (Start: 23 @28989 has 52 MA's), (Start: 25 @28983 has 3 MA's), (56, 28833), (57, 28830), (67, 28782), (69, 28770), (83, 28692), (90, 28659), (93, 28641), (101, 28599), (102, 28596), (110, 28560), (111, 28551), (123, 28494), (132, 28455), (146, 28386), (156, 28332), (167, 28266),

Gene: Anansi_60 Start: 40819, Stop: 40079, Start Num: 27

Candidate Starts for Anansi_60:

(Start: 27 @40819 has 16 MA's), (32, 40789), (34, 40765), (41, 40753), (44, 40750), (46, 40744), (52, 40702), (54, 40693), (61, 40678), (65, 40669), (82, 40570), (84, 40555), (108, 40435), (112, 40417), (121, 40378), (125, 40369), (142, 40288), (148, 40261), (159, 40216), (160, 40213), (164, 40192), (171, 40147), (174, 40132),

Gene: AndPeggy_37 Start: 28407, Stop: 27571, Start Num: 20

Candidate Starts for AndPeggy_37:

(Start: 20 @28407 has 5 MA's), (Start: 23 @28389 has 52 MA's), (Start: 25 @28383 has 3 MA's), (56, 28233), (57, 28230), (67, 28182), (69, 28170), (83, 28092), (90, 28059), (93, 28041), (101, 27999), (102, 27996), (110, 27960), (111, 27951), (112, 27948), (123, 27894), (132, 27855), (146, 27786), (147, 27780), (156, 27732), (176, 27627),

Gene: AnnabelLee_36 Start: 23600, Stop: 22806, Start Num: 29

Candidate Starts for AnnabelLee_36:

(Start: 25 @23633 has 3 MA's), (Start: 29 @23600 has 3 MA's), (53, 23486), (64, 23453), (67, 23417), (77, 23357), (78, 23354), (83, 23330), (87, 23306), (91, 23285), (93, 23276), (99, 23243), (106, 23213), (113, 23177), (130, 23099), (153, 22994), (160, 22943), (164, 22922),

Gene: Artu_96 Start: 80843, Stop: 81661, Start Num: 40

Candidate Starts for Artu_96:

(Start: 40 @80843 has 13 MA's), (Start: 50 @80870 has 1 MA's), (56, 80927), (59, 80936), (62, 80942), (113, 81218), (130, 81296), (149, 81386), (158, 81431), (170, 81500), (176, 81527), (188, 81638),

Gene: Atuin_98 Start: 84308, Stop: 85141, Start Num: 40

Candidate Starts for Atuin_98:

(Start: 40 @84308 has 13 MA's), (56, 84392), (59, 84401), (62, 84407), (80, 84512), (113, 84683), (130, 84761), (149, 84851), (156, 84893), (170, 84968), (175, 84989), (176, 84995),

Gene: Audell_35 Start: 25989, Stop: 25204, Start Num: 29

Candidate Starts for Audell_35:

(21, 26040), (Start: 25 @26022 has 3 MA's), (Start: 29 @25989 has 3 MA's), (53, 25881), (58, 25863), (64, 25848), (67, 25812), (77, 25752), (83, 25725), (93, 25671), (99, 25638), (106, 25608), (113, 25572), (129, 25503), (130, 25494), (147, 25416), (151, 25398), (160, 25338), (164, 25317),

Gene: Axym_39 Start: 28586, Stop: 27768, Start Num: 23

Candidate Starts for Axym_39:

(Start: 23 @28586 has 52 MA's), (56, 28430), (57, 28427), (67, 28379), (69, 28367), (83, 28289), (90, 28256), (92, 28241), (93, 28238), (101, 28196), (110, 28157), (111, 28148), (123, 28091), (138, 28028), (147, 27977), (167, 27863), (176, 27824),

Gene: Azira_38 Start: 28635, Stop: 27823, Start Num: 23

Candidate Starts for Azira_38:

(6, 28707), (Start: 23 @28635 has 52 MA's), (69, 28419), (75, 28383), (83, 28341), (85, 28326), (90, 28308), (92, 28293), (93, 28290), (101, 28248), (111, 28200), (124, 28140), (132, 28107), (143, 28053), (146, 28038), (167, 27921),

Gene: Balloona_40 Start: 29790, Stop: 28984, Start Num: 23

Candidate Starts for Balloona_40:

(Start: 23 @29790 has 52 MA's), (Start: 25 @29784 has 3 MA's), (Start: 50 @29682 has 1 MA's), (56, 29628), (69, 29565), (75, 29529), (90, 29454), (92, 29439), (102, 29391), (103, 29388), (110, 29355), (111, 29346), (123, 29289), (134, 29241), (135, 29238), (144, 29196), (164, 29103), (176, 29034),

Gene: Bavilard_41 Start: 30011, Stop: 29205, Start Num: 23

Candidate Starts for Bavilard_41:

(Start: 23 @30011 has 52 MA's), (Start: 25 @30005 has 3 MA's), (Start: 50 @29903 has 1 MA's), (56, 29849), (69, 29786), (75, 29750), (90, 29675), (92, 29660), (101, 29615), (102, 29612), (110, 29576), (111, 29567), (123, 29510), (134, 29462), (135, 29459), (144, 29417), (164, 29324), (176, 29255),

Gene: Big4_101 Start: 75498, Stop: 74737, Start Num: 38

Candidate Starts for Big4_101:

(Start: 38 @75498 has 2 MA's), (77, 75306), (78, 75303), (83, 75279), (107, 75156), (113, 75126), (128, 75060), (130, 75048), (143, 74988), (150, 74952), (160, 74895), (166, 74853), (176, 74799),

Gene: BigChungus_41 Start: 30191, Stop: 29385, Start Num: 23

Candidate Starts for BigChungus_41:

(Start: 23 @30191 has 52 MA's), (Start: 25 @30185 has 3 MA's), (Start: 50 @30083 has 1 MA's), (56, 30029), (69, 29966), (90, 29855), (92, 29840), (101, 29795), (102, 29792), (110, 29756), (111, 29747), (123, 29690), (134, 29642), (135, 29639), (144, 29597), (164, 29504), (176, 29435),

Gene: BillDoor_40 Start: 28078, Stop: 27242, Start Num: 20

Candidate Starts for BillDoor_40:

(Start: 20 @28078 has 5 MA's), (Start: 23 @28060 has 52 MA's), (Start: 25 @28054 has 3 MA's), (56, 27904), (67, 27853), (69, 27841), (83, 27763), (90, 27730), (93, 27712), (101, 27670), (102, 27667), (110, 27631), (111, 27622), (112, 27619), (123, 27565), (132, 27526), (146, 27457), (147, 27451), (156, 27403), (176, 27298),

Gene: Biskit_42 Start: 28753, Stop: 27935, Start Num: 23

Candidate Starts for Biskit_42:

(Start: 20 @28771 has 5 MA's), (Start: 23 @28753 has 52 MA's), (Start: 25 @28747 has 3 MA's), (56, 28597), (57, 28594), (69, 28534), (83, 28456), (90, 28423), (93, 28405), (101, 28363), (102, 28360), (110, 28324), (111, 28315), (123, 28258), (132, 28219), (141, 28174), (144, 28162), (146, 28150), (147, 28144), (156, 28096), (176, 27991),

Gene: Blondies_43 Start: 29087, Stop: 28251, Start Num: 20

Candidate Starts for Blondies_43:

(Start: 20 @29087 has 5 MA's), (Start: 23 @29069 has 52 MA's), (Start: 25 @29063 has 3 MA's), (56, 28913), (57, 28910), (69, 28850), (83, 28772), (90, 28739), (93, 28721), (101, 28679), (102, 28676), (110, 28640), (111, 28631), (123, 28574), (141, 28490), (146, 28466), (147, 28460), (156, 28412), (176, 28307),

Gene: Bloom_108 Start: 84483, Stop: 85292, Start Num: 40

Candidate Starts for Bloom_108:

(Start: 40 @84483 has 13 MA's), (64, 84588), (113, 84858), (130, 84936), (169, 85137), (176, 85167), (177, 85170), (183, 85200), (188, 85269), (189, 85287),

Gene: BlueNGold_163 Start: 93500, Stop: 92757, Start Num: 39

Candidate Starts for BlueNGold_163:

(Start: 39 @93500 has 5 MA's), (Start: 50 @93473 has 1 MA's), (59, 93407), (67, 93365), (70, 93350), (73, 93332), (86, 93257), (114, 93122), (115, 93113), (118, 93104), (120, 93095), (128, 93059), (130,

93047), (133, 93038), (143, 92987), (144, 92984), (149, 92954), (151, 92948), (160, 92900), (166, 92858), (168, 92846), (174, 92819), (177, 92807),

Gene: Boersma_63 Start: 41212, Stop: 40472, Start Num: 27

Candidate Starts for Boersma_63:

(Start: 27 @41212 has 16 MA's), (32, 41182), (34, 41158), (41, 41146), (44, 41143), (46, 41137), (52, 41095), (54, 41086), (61, 41071), (65, 41062), (82, 40963), (84, 40948), (108, 40828), (112, 40810), (121, 40771), (125, 40762), (142, 40681), (148, 40654), (159, 40609), (160, 40606), (164, 40585), (171, 40540), (174, 40525),

Gene: BooTeria_100 Start: 81040, Stop: 81774, Start Num: 56

Candidate Starts for BooTeria_100:

(Start: 40 @80956 has 13 MA's), (Start: 50 @80983 has 1 MA's), (56, 81040), (59, 81049), (62, 81055), (113, 81331), (126, 81394), (130, 81409), (149, 81499), (158, 81544), (170, 81613), (176, 81640), (187, 81736), (188, 81751),

Gene: Boopy_166 Start: 93511, Stop: 92768, Start Num: 39

Candidate Starts for Boopy_166:

(Start: 39 @93511 has 5 MA's), (Start: 50 @93484 has 1 MA's), (59, 93418), (67, 93376), (70, 93361), (73, 93343), (86, 93268), (114, 93133), (115, 93124), (118, 93115), (120, 93106), (128, 93070), (130, 93058), (133, 93049), (143, 92998), (144, 92995), (149, 92965), (151, 92959), (160, 92911), (166, 92869), (168, 92857), (174, 92830), (177, 92818),

Gene: Bubble_38 Start: 28195, Stop: 27377, Start Num: 23

Candidate Starts for Bubble_38:

(Start: 23 @28195 has 52 MA's), (56, 28039), (57, 28036), (67, 27988), (69, 27976), (83, 27898), (90, 27865), (92, 27850), (93, 27847), (101, 27805), (110, 27766), (111, 27757), (115, 27736), (123, 27700), (138, 27637), (147, 27586), (167, 27472), (176, 27433),

Gene: Burnsey_39 Start: 28599, Stop: 27781, Start Num: 23

Candidate Starts for Burnsey_39:

(Start: 23 @28599 has 52 MA's), (56, 28443), (57, 28440), (67, 28392), (69, 28380), (83, 28302), (90, 28269), (92, 28254), (93, 28251), (101, 28209), (110, 28170), (111, 28161), (115, 28140), (123, 28104), (138, 28041), (147, 27990), (167, 27876), (176, 27837),

Gene: Button_43 Start: 29230, Stop: 28424, Start Num: 22

Candidate Starts for Button_43:

(5, 29314), (8, 29284), (10, 29278), (Start: 22 @29230 has 3 MA's), (Start: 23 @29227 has 52 MA's), (Start: 50 @29128 has 1 MA's), (69, 29017), (76, 28969), (85, 28924), (90, 28906), (92, 28891), (93, 28888), (102, 28843), (110, 28807), (111, 28798), (132, 28702), (138, 28678), (144, 28645), (146, 28633), (147, 28627), (152, 28606),

Gene: Buttrmilkdreams_42 Start: 29086, Stop: 28268, Start Num: 23

Candidate Starts for Buttrmilkdreams_42:

(Start: 20 @29104 has 5 MA's), (Start: 23 @29086 has 52 MA's), (Start: 25 @29080 has 3 MA's), (56, 28930), (57, 28927), (69, 28867), (83, 28789), (90, 28756), (93, 28738), (101, 28696), (102, 28693), (110, 28657), (111, 28648), (123, 28591), (132, 28552), (141, 28507), (144, 28495), (146, 28483), (147, 28477), (156, 28429), (176, 28324),

Gene: CanesSauce_39 Start: 28556, Stop: 27744, Start Num: 25

Candidate Starts for CanesSauce_39:

(Start: 20 @28580 has 5 MA's), (Start: 23 @28562 has 52 MA's), (Start: 25 @28556 has 3 MA's), (56, 28406), (57, 28403), (67, 28355), (69, 28343), (83, 28265), (90, 28232), (93, 28214), (101, 28172),

(102, 28169), (110, 28133), (111, 28124), (112, 28121), (123, 28067), (132, 28028), (146, 27959), (147, 27953), (156, 27905), (176, 27800),

Gene: CaramellLatte_39 Start: 28556, Stop: 27744, Start Num: 25

Candidate Starts for CaramellLatte_39:

(Start: 20 @28580 has 5 MA's), (Start: 23 @28562 has 52 MA's), (Start: 25 @28556 has 3 MA's), (56, 28406), (57, 28403), (67, 28355), (69, 28343), (83, 28265), (90, 28232), (93, 28214), (101, 28172), (102, 28169), (110, 28133), (111, 28124), (112, 28121), (123, 28067), (132, 28028), (146, 27959), (147, 27953), (156, 27905), (176, 27800),

Gene: CardboardBox_37 Start: 23603, Stop: 22809, Start Num: 29

Candidate Starts for CardboardBox_37:

(Start: 25 @23636 has 3 MA's), (Start: 29 @23603 has 3 MA's), (53, 23489), (64, 23456), (67, 23420), (77, 23360), (78, 23357), (83, 23333), (87, 23309), (91, 23288), (93, 23279), (99, 23246), (106, 23216), (113, 23180), (130, 23102), (153, 22997), (160, 22946), (164, 22925),

Gene: Carsonalex_43 Start: 28636, Stop: 27818, Start Num: 23

Candidate Starts for Carsonalex_43:

(Start: 23 @28636 has 52 MA's), (56, 28480), (57, 28477), (67, 28429), (69, 28417), (83, 28339), (90, 28306), (92, 28291), (93, 28288), (101, 28246), (110, 28207), (111, 28198), (123, 28141), (138, 28078), (147, 28027), (167, 27913), (176, 27874),

Gene: Cece_95 Start: 78538, Stop: 77750, Start Num: 35

Candidate Starts for Cece_95:

(Start: 35 @78538 has 1 MA's), (Start: 38 @78532 has 2 MA's), (Start: 50 @78508 has 1 MA's), (70, 78385), (77, 78337), (79, 78331), (83, 78310), (84, 78301), (98, 78229), (106, 78193), (107, 78187), (113, 78157), (121, 78124), (130, 78079), (137, 78052), (143, 78019), (160, 77926), (173, 77845), (176, 77830),

Gene: ChamoyPickle_38 Start: 24143, Stop: 23349, Start Num: 29

Candidate Starts for ChamoyPickle_38:

(Start: 25 @24176 has 3 MA's), (Start: 29 @24143 has 3 MA's), (53, 24029), (64, 23996), (67, 23960), (77, 23900), (78, 23897), (83, 23873), (87, 23849), (91, 23828), (93, 23819), (99, 23786), (106, 23756), (113, 23720), (130, 23642), (153, 23537), (160, 23486), (164, 23465),

Gene: CherryonLim_43 Start: 31329, Stop: 30523, Start Num: 23

Candidate Starts for CherryonLim_43:

(Start: 23 @31329 has 52 MA's), (Start: 25 @31323 has 3 MA's), (Start: 50 @31221 has 1 MA's), (56, 31167), (69, 31104), (90, 30993), (101, 30933), (102, 30930), (110, 30894), (111, 30885), (123, 30828), (134, 30780), (135, 30777), (144, 30735), (164, 30642), (176, 30573),

Gene: ChickenTender_42 Start: 28367, Stop: 27552, Start Num: 23

Candidate Starts for ChickenTender_42:

(Start: 23 @28367 has 52 MA's), (56, 28211), (57, 28208), (67, 28160), (69, 28148), (83, 28070), (90, 28037), (92, 28022), (93, 28019), (101, 27977), (110, 27938), (111, 27929), (123, 27872), (138, 27809), (147, 27758), (167, 27644),

Gene: Chilliams_103 Start: 77303, Stop: 78091, Start Num: 48

Candidate Starts for Chilliams_103:

(Start: 40 @77282 has 13 MA's), (48, 77303), (62, 77381), (64, 77387), (93, 77558), (113, 77657), (130, 77735), (146, 77807), (149, 77825), (170, 77942), (188, 78068),

Gene: ChipsNGuac_37 Start: 23603, Stop: 22809, Start Num: 29

Candidate Starts for ChipsNGuac_37:

(Start: 25 @23636 has 3 MA's), (Start: 29 @23603 has 3 MA's), (53, 23489), (64, 23456), (67, 23420), (77, 23360), (78, 23357), (83, 23333), (87, 23309), (91, 23288), (93, 23279), (99, 23246), (106, 23216), (113, 23180), (130, 23102), (153, 22997), (160, 22946), (164, 22925),

Gene: ChocoMunchkin_39 Start: 28562, Stop: 27744, Start Num: 23

Candidate Starts for ChocoMunchkin_39:

(Start: 20 @28580 has 5 MA's), (Start: 23 @28562 has 52 MA's), (Start: 25 @28556 has 3 MA's), (56, 28406), (57, 28403), (67, 28355), (69, 28343), (83, 28265), (90, 28232), (93, 28214), (101, 28172), (102, 28169), (110, 28133), (111, 28124), (112, 28121), (123, 28067), (132, 28028), (146, 27959), (147, 27953), (156, 27905), (176, 27800),

Gene: Cleo_36 Start: 28180, Stop: 27371, Start Num: 23

Candidate Starts for Cleo_36:

(Start: 23 @28180 has 52 MA's), (Start: 50 @28078 has 1 MA's), (69, 27967), (85, 27874), (90, 27856), (92, 27841), (93, 27838), (101, 27796), (111, 27748), (124, 27688), (132, 27655), (138, 27631), (143, 27601), (146, 27586), (167, 27469),

Gene: CocoaPuff_42 Start: 30196, Stop: 29390, Start Num: 23

Candidate Starts for CocoaPuff_42:

(Start: 23 @30196 has 52 MA's), (Start: 25 @30190 has 3 MA's), (Start: 50 @30088 has 1 MA's), (56, 30034), (69, 29971), (90, 29860), (92, 29845), (101, 29800), (102, 29797), (110, 29761), (111, 29752), (123, 29695), (134, 29647), (135, 29644), (144, 29602), (164, 29509), (176, 29440),

Gene: Commonplace_63 Start: 41846, Stop: 41034, Start Num: 20

Candidate Starts for Commonplace_63:

(7, 41897), (Start: 20 @41846 has 5 MA's), (24, 41822), (28, 41801), (30, 41783), (36, 41747), (75, 41564), (89, 41492), (90, 41489), (95, 41456), (109, 41396), (127, 41321), (178, 41078),

Gene: Cozz_38 Start: 28196, Stop: 27378, Start Num: 23

Candidate Starts for Cozz_38:

(Start: 23 @28196 has 52 MA's), (56, 28040), (57, 28037), (67, 27989), (69, 27977), (76, 27929), (83, 27899), (90, 27866), (92, 27851), (93, 27848), (101, 27806), (110, 27767), (111, 27758), (123, 27701), (147, 27587), (167, 27473), (176, 27434),

Gene: Dodo_112 Start: 76719, Stop: 75925, Start Num: 43

Candidate Starts for Dodo_112:

(Start: 43 @76719 has 2 MA's), (47, 76707), (52, 76656), (68, 76584), (70, 76572), (77, 76527), (78, 76524), (107, 76377), (113, 76347), (128, 76281), (130, 76269), (133, 76260), (142, 76212), (160, 76116), (176, 76020), (181, 75990), (186, 75969),

Gene: Dre3_36 Start: 27923, Stop: 27114, Start Num: 23

Candidate Starts for Dre3_36:

(Start: 23 @27923 has 52 MA's), (Start: 50 @27821 has 1 MA's), (69, 27710), (85, 27617), (90, 27599), (92, 27584), (93, 27581), (101, 27539), (111, 27491), (124, 27431), (132, 27398), (138, 27374), (143, 27344), (146, 27329), (167, 27212),

Gene: DunneganBoMo_93 Start: 80225, Stop: 81043, Start Num: 40

Candidate Starts for DunneganBoMo_93:

(Start: 40 @80225 has 13 MA's), (Start: 50 @80252 has 1 MA's), (56, 80309), (59, 80318), (62, 80324), (113, 80600), (126, 80663), (130, 80678), (149, 80768), (158, 80813), (170, 80882), (176, 80909), (187, 81005), (188, 81020),

Gene: ElJefes_42 Start: 30536, Stop: 29730, Start Num: 23

Candidate Starts for ElJefes_42:

(Start: 23 @30536 has 52 MA's), (Start: 50 @30428 has 1 MA's), (56, 30374), (69, 30311), (90, 30200), (92, 30185), (101, 30140), (102, 30137), (110, 30101), (111, 30092), (123, 30035), (134, 29987), (135, 29984), (144, 29942), (164, 29849), (176, 29780),

Gene: Elinal_45 Start: 30579, Stop: 29773, Start Num: 23

Candidate Starts for Elinal_45:

(Start: 23 @30579 has 52 MA's), (Start: 25 @30573 has 3 MA's), (Start: 50 @30471 has 1 MA's), (56, 30417), (69, 30354), (75, 30318), (90, 30243), (92, 30228), (101, 30183), (102, 30180), (110, 30144), (111, 30135), (123, 30078), (134, 30030), (135, 30027), (144, 29985), (164, 29892), (176, 29823),

Gene: Elliott_40 Start: 28607, Stop: 27789, Start Num: 23

Candidate Starts for Elliott_40:

(Start: 23 @28607 has 52 MA's), (56, 28451), (57, 28448), (67, 28400), (69, 28388), (83, 28310), (90, 28277), (92, 28262), (93, 28259), (101, 28217), (110, 28178), (111, 28169), (123, 28112), (138, 28049), (147, 27998), (167, 27884), (176, 27845),

Gene: Ellewin_92 Start: 79636, Stop: 80454, Start Num: 40

Candidate Starts for Ellewin_92:

(Start: 40 @79636 has 13 MA's), (Start: 50 @79663 has 1 MA's), (56, 79720), (59, 79729), (62, 79735), (113, 80011), (126, 80074), (130, 80089), (149, 80179), (158, 80224), (170, 80293), (176, 80320), (188, 80431),

Gene: Emalyn_40 Start: 28151, Stop: 27339, Start Num: 25

Candidate Starts for Emalyn_40:

(Start: 20 @28175 has 5 MA's), (Start: 23 @28157 has 52 MA's), (Start: 25 @28151 has 3 MA's), (56, 28001), (57, 27998), (67, 27950), (69, 27938), (83, 27860), (90, 27827), (93, 27809), (101, 27767), (102, 27764), (110, 27728), (111, 27719), (123, 27662), (132, 27623), (146, 27554), (156, 27500), (167, 27434),

Gene: Emmetator_96 Start: 80264, Stop: 80998, Start Num: 56

Candidate Starts for Emmetator_96:

(Start: 40 @80180 has 13 MA's), (Start: 50 @80207 has 1 MA's), (56, 80264), (59, 80273), (62, 80279), (113, 80555), (130, 80633), (149, 80723), (158, 80768), (170, 80837), (176, 80864), (188, 80975),

Gene: Erasmago_103 Start: 73184, Stop: 72417, Start Num: 38

Candidate Starts for Erasmago_103:

(13, 73313), (15, 73307), (Start: 38 @73184 has 2 MA's), (77, 72992), (78, 72989), (84, 72956), (101, 72869), (107, 72842), (113, 72812), (128, 72746), (130, 72734), (143, 72674), (148, 72650), (150, 72638), (160, 72581), (171, 72515), (176, 72485),

Gene: Ezurina_35 Start: 24660, Stop: 23866, Start Num: 29

Candidate Starts for Ezurina_35:

(Start: 25 @24693 has 3 MA's), (Start: 29 @24660 has 3 MA's), (53, 24546), (64, 24513), (67, 24477), (78, 24414), (83, 24390), (87, 24366), (93, 24336), (99, 24303), (106, 24273), (113, 24237), (130, 24159), (153, 24054), (160, 24003), (164, 23982),

Gene: FF47_41 Start: 30836, Stop: 29991, Start Num: 16

Candidate Starts for FF47_41:

(Start: 16 @30836 has 2 MA's), (Start: 23 @30812 has 52 MA's), (45, 30719), (52, 30659), (69, 30581), (74, 30554), (83, 30503), (90, 30470), (111, 30362), (117, 30335), (140, 30233), (146, 30197), (152, 30170), (163, 30107), (177, 30032), (179, 30023),

Gene: Feastonyeet_41 Start: 30191, Stop: 29385, Start Num: 23

Candidate Starts for Feastonyeet_41:

(Start: 23 @30191 has 52 MA's), (Start: 25 @30185 has 3 MA's), (Start: 50 @30083 has 1 MA's), (56, 30029), (69, 29966), (90, 29855), (92, 29840), (101, 29795), (102, 29792), (110, 29756), (111, 29747), (123, 29690), (134, 29642), (135, 29639), (144, 29597), (164, 29504), (176, 29435),

Gene: FloraSnap32_104 Start: 83380, Stop: 84189, Start Num: 40

Candidate Starts for FloraSnap32_104:

(Start: 40 @83380 has 13 MA's), (64, 83485), (113, 83755), (130, 83833), (176, 84064), (177, 84067), (183, 84097), (185, 84100), (188, 84166), (189, 84184),

Gene: Forza_167 Start: 93428, Stop: 92685, Start Num: 39

Candidate Starts for Forza_167:

(Start: 39 @93428 has 5 MA's), (Start: 50 @93401 has 1 MA's), (59, 93335), (67, 93293), (70, 93278), (73, 93260), (86, 93185), (114, 93050), (115, 93041), (118, 93032), (120, 93023), (128, 92987), (130, 92975), (133, 92966), (143, 92915), (144, 92912), (149, 92882), (151, 92876), (160, 92828), (166, 92786), (168, 92774), (174, 92747), (177, 92735),

Gene: Fribs8_37 Start: 28362, Stop: 27550, Start Num: 23

Candidate Starts for Fribs8_37:

(Start: 23 @28362 has 52 MA's), (75, 28110), (83, 28068), (85, 28053), (90, 28035), (92, 28020), (93, 28017), (101, 27975), (111, 27927), (124, 27867), (132, 27834), (143, 27780), (146, 27765), (167, 27648),

Gene: FrostedClock_107 Start: 84680, Stop: 85489, Start Num: 40

Candidate Starts for FrostedClock_107:

(Start: 40 @84680 has 13 MA's), (64, 84785), (113, 85055), (130, 85133), (169, 85334), (176, 85364), (177, 85367), (183, 85397), (188, 85466), (189, 85484),

Gene: GMA2_61 Start: 64314, Stop: 63565, Start Num: 37

Candidate Starts for GMA2_61:

(Start: 37 @64314 has 1 MA's), (Start: 50 @64284 has 1 MA's), (56, 64227), (86, 64068), (93, 64035), (114, 63933), (118, 63915), (129, 63867), (130, 63858), (131, 63852), (143, 63798), (149, 63765), (151, 63759), (160, 63711), (178, 63612), (180, 63597),

Gene: Gerri43_37 Start: 23603, Stop: 22809, Start Num: 29

Candidate Starts for Gerri43_37:

(Start: 25 @23636 has 3 MA's), (Start: 29 @23603 has 3 MA's), (53, 23489), (64, 23456), (67, 23420), (77, 23360), (78, 23357), (83, 23333), (87, 23309), (91, 23288), (93, 23279), (99, 23246), (106, 23216), (113, 23180), (130, 23102), (153, 22997), (160, 22946), (164, 22925),

Gene: GiKK_45 Start: 29557, Stop: 28754, Start Num: 23

Candidate Starts for GiKK_45:

(1, 29836), (2, 29746), (5, 29644), (8, 29614), (10, 29608), (Start: 22 @29560 has 3 MA's), (Start: 23 @29557 has 52 MA's), (Start: 50 @29458 has 1 MA's), (69, 29347), (76, 29299), (85, 29254), (90, 29236), (92, 29221), (93, 29218), (102, 29173), (110, 29137), (111, 29128), (132, 29032), (138, 29008), (144, 28975), (146, 28963), (147, 28957), (152, 28936),

Gene: Gibbous_36 Start: 27923, Stop: 27114, Start Num: 23

Candidate Starts for Gibbous_36:

(Start: 23 @27923 has 52 MA's), (Start: 50 @27821 has 1 MA's), (69, 27710), (85, 27617), (90, 27599), (92, 27584), (93, 27581), (101, 27539), (111, 27491), (124, 27431), (132, 27398), (138, 27374), (143,

27344), (146, 27329), (167, 27212),

Gene: GodonK_178 Start: 89500, Stop: 88790, Start Num: 40

Candidate Starts for GodonK_178:

(Start: 40 @89500 has 13 MA's), (49, 89479), (56, 89419), (86, 89263), (93, 89230), (96, 89209), (100, 89194), (106, 89167), (111, 89140), (114, 89128), (115, 89119), (122, 89095), (130, 89053), (143, 88996), (144, 88993), (148, 88972), (149, 88963), (160, 88912), (181, 88795),

Gene: GoldHunter_41 Start: 28608, Stop: 27790, Start Num: 23

Candidate Starts for GoldHunter_41:

(Start: 23 @28608 has 52 MA's), (56, 28452), (57, 28449), (67, 28401), (69, 28389), (83, 28311), (90, 28278), (92, 28263), (93, 28260), (101, 28218), (110, 28179), (111, 28170), (123, 28113), (138, 28050), (147, 27999), (167, 27885), (176, 27846),

Gene: GoldenEssence_90 Start: 78275, Stop: 79084, Start Num: 40

Candidate Starts for GoldenEssence_90:

(Start: 40 @78275 has 13 MA's), (64, 78380), (113, 78650), (130, 78728), (176, 78959), (177, 78962), (185, 78995), (188, 79061), (189, 79079),

Gene: Gorgeous_60 Start: 40819, Stop: 40079, Start Num: 27

Candidate Starts for Gorgeous_60:

(Start: 27 @40819 has 16 MA's), (32, 40789), (34, 40765), (41, 40753), (44, 40750), (46, 40744), (52, 40702), (54, 40693), (61, 40678), (65, 40669), (82, 40570), (84, 40555), (108, 40435), (112, 40417), (121, 40378), (125, 40369), (142, 40288), (148, 40261), (159, 40216), (160, 40213), (164, 40192), (171, 40147), (174, 40132),

Gene: Hexbug_47 Start: 31341, Stop: 30535, Start Num: 23

Candidate Starts for Hexbug_47:

(10, 31383), (Start: 22 @31344 has 3 MA's), (Start: 23 @31341 has 52 MA's), (Start: 50 @31239 has 1 MA's), (56, 31185), (57, 31182), (69, 31128), (75, 31092), (85, 31035), (90, 31017), (93, 30999), (102, 30954), (111, 30909), (132, 30813), (138, 30789), (144, 30756), (146, 30744), (157, 30690), (164, 30657),

Gene: Heylee_63 Start: 40997, Stop: 40257, Start Num: 27

Candidate Starts for Heylee_63:

(Start: 27 @40997 has 16 MA's), (32, 40967), (34, 40943), (41, 40931), (44, 40928), (46, 40922), (52, 40880), (54, 40871), (61, 40856), (65, 40847), (82, 40748), (84, 40733), (108, 40613), (112, 40595), (121, 40556), (125, 40547), (142, 40466), (148, 40439), (159, 40394), (160, 40391), (164, 40370), (171, 40325), (174, 40310),

Gene: HippoPololi_38 Start: 28375, Stop: 27566, Start Num: 23

Candidate Starts for HippoPololi_38:

(Start: 23 @28375 has 52 MA's), (Start: 50 @28273 has 1 MA's), (69, 28162), (75, 28126), (78, 28108), (83, 28084), (85, 28069), (90, 28051), (93, 28033), (101, 27991), (111, 27943), (119, 27910), (124, 27883), (132, 27850), (146, 27781), (167, 27664),

Gene: Horseradish_42 Start: 28614, Stop: 27796, Start Num: 23

Candidate Starts for Horseradish_42:

(Start: 20 @28632 has 5 MA's), (Start: 23 @28614 has 52 MA's), (Start: 25 @28608 has 3 MA's), (56, 28458), (57, 28455), (69, 28395), (83, 28317), (90, 28284), (93, 28266), (101, 28224), (102, 28221), (110, 28185), (111, 28176), (123, 28119), (132, 28080), (141, 28035), (144, 28023), (146, 28011), (147, 28005), (176, 27852),

Gene: Huwbert_81 Start: 49790, Stop: 50599, Start Num: 27

Candidate Starts for Huwbert_81:

(Start: 27 @49790 has 16 MA's), (60, 49937), (66, 49967), (69, 49988), (90, 50099), (93, 50117), (101, 50159), (102, 50162), (110, 50198), (117, 50234), (123, 50264), (124, 50267), (144, 50360), (147, 50378),

Gene: Ichor_60 Start: 41212, Stop: 40472, Start Num: 27

Candidate Starts for Ichor_60:

(Start: 27 @41212 has 16 MA's), (32, 41182), (34, 41158), (41, 41146), (44, 41143), (46, 41137), (52, 41095), (54, 41086), (61, 41071), (65, 41062), (82, 40963), (84, 40948), (108, 40828), (112, 40810), (121, 40771), (125, 40762), (142, 40681), (148, 40654), (159, 40609), (160, 40606), (164, 40585), (171, 40540), (174, 40525),

Gene: JacoRen57_38 Start: 31703, Stop: 30873, Start Num: 19

Candidate Starts for JacoRen57_38:

(Start: 19 @31703 has 1 MA's), (Start: 50 @31568 has 1 MA's), (76, 31403), (90, 31340), (92, 31325), (109, 31244), (111, 31232), (138, 31112), (147, 31061), (152, 31040), (174, 30914), (177, 30902),

Gene: Jaek_60 Start: 41212, Stop: 40472, Start Num: 27

Candidate Starts for Jaek_60:

(Start: 27 @41212 has 16 MA's), (32, 41182), (34, 41158), (41, 41146), (44, 41143), (46, 41137), (52, 41095), (54, 41086), (61, 41071), (65, 41062), (82, 40963), (84, 40948), (108, 40828), (112, 40810), (121, 40771), (125, 40762), (142, 40681), (148, 40654), (159, 40609), (160, 40606), (164, 40585), (171, 40540), (174, 40525),

Gene: Jamzy_45 Start: 29543, Stop: 28737, Start Num: 22

Candidate Starts for Jamzy_45:

(5, 29627), (8, 29597), (10, 29591), (Start: 22 @29543 has 3 MA's), (Start: 23 @29540 has 52 MA's), (Start: 50 @29441 has 1 MA's), (69, 29330), (76, 29282), (85, 29237), (90, 29219), (92, 29204), (93, 29201), (102, 29156), (110, 29120), (111, 29111), (132, 29015), (138, 28991), (144, 28958), (146, 28946), (147, 28940), (152, 28919),

Gene: KSunshine22_98 Start: 81330, Stop: 82055, Start Num: 59

Candidate Starts for KSunshine22_98:

(Start: 40 @81237 has 13 MA's), (Start: 50 @81264 has 1 MA's), (56, 81321), (59, 81330), (62, 81336), (113, 81612), (126, 81675), (130, 81690), (149, 81780), (158, 81825), (170, 81894), (176, 81921), (188, 82032),

Gene: KayGee_43 Start: 30579, Stop: 29773, Start Num: 23

Candidate Starts for KayGee_43:

(Start: 23 @30579 has 52 MA's), (Start: 25 @30573 has 3 MA's), (Start: 50 @30471 has 1 MA's), (56, 30417), (69, 30354), (75, 30318), (90, 30243), (92, 30228), (101, 30183), (102, 30180), (110, 30144), (111, 30135), (123, 30078), (134, 30030), (135, 30027), (144, 29985), (164, 29892), (176, 29823),

Gene: KimJongPhill_83 Start: 61930, Stop: 62745, Start Num: 25

Candidate Starts for KimJongPhill_83:

(Start: 25 @61930 has 3 MA's), (42, 62008), (59, 62086), (83, 62212), (84, 62218), (90, 62245), (93, 62263), (101, 62305), (112, 62356), (119, 62386), (123, 62410), (136, 62467), (145, 62515), (147, 62524), (162, 62620), (172, 62683),

Gene: LastNadiia_38 Start: 25948, Stop: 25163, Start Num: 29

Candidate Starts for LastNadiia_38:

(21, 25999), (Start: 25 @25981 has 3 MA's), (Start: 29 @25948 has 3 MA's), (53, 25840), (59, 25819), (64, 25807), (67, 25771), (77, 25711), (83, 25684), (93, 25630), (99, 25597), (106, 25567), (113, 25531), (129, 25462), (130, 25453), (147, 25375), (151, 25357), (160, 25297), (164, 25276),

Gene: Lauer_38 Start: 31388, Stop: 30582, Start Num: 23

Candidate Starts for Lauer_38:

(Start: 23 @31388 has 52 MA's), (Start: 25 @31382 has 3 MA's), (Start: 50 @31280 has 1 MA's), (56, 31226), (69, 31163), (75, 31127), (90, 31052), (92, 31037), (101, 30992), (102, 30989), (110, 30953), (111, 30944), (123, 30887), (134, 30839), (135, 30836), (144, 30794), (164, 30701), (176, 30632),

Gene: Laure_108 Start: 77202, Stop: 78011, Start Num: 40

Candidate Starts for Laure_108:

(Start: 40 @77202 has 13 MA's), (Start: 50 @77229 has 1 MA's), (113, 77577), (128, 77640), (130, 77652), (146, 77724), (170, 77859), (176, 77886), (177, 77889), (187, 77970), (188, 77988),

Gene: LeoJr_103 Start: 84544, Stop: 85377, Start Num: 40

Candidate Starts for LeoJr_103:

(Start: 40 @84544 has 13 MA's), (56, 84628), (59, 84637), (62, 84643), (80, 84748), (113, 84919), (130, 84997), (149, 85087), (156, 85129), (170, 85204), (175, 85225), (176, 85231),

Gene: LongHai_43 Start: 31234, Stop: 30389, Start Num: 16

Candidate Starts for LongHai_43:

(Start: 16 @31234 has 2 MA's), (Start: 23 @31210 has 52 MA's), (45, 31117), (52, 31057), (69, 30979), (74, 30952), (90, 30868), (111, 30760), (117, 30733), (140, 30631), (146, 30595), (152, 30568), (163, 30505), (177, 30430), (179, 30421),

Gene: MAnor_43 Start: 30921, Stop: 30115, Start Num: 23

Candidate Starts for MAnor_43:

(Start: 23 @30921 has 52 MA's), (Start: 25 @30915 has 3 MA's), (Start: 50 @30813 has 1 MA's), (56, 30759), (69, 30696), (90, 30585), (92, 30570), (101, 30525), (102, 30522), (110, 30486), (111, 30477), (123, 30420), (134, 30372), (135, 30369), (144, 30327), (164, 30234), (176, 30165),

Gene: MScarn_43 Start: 28754, Stop: 27936, Start Num: 23

Candidate Starts for MScarn_43:

(Start: 20 @28772 has 5 MA's), (Start: 23 @28754 has 52 MA's), (Start: 25 @28748 has 3 MA's), (56, 28598), (57, 28595), (69, 28535), (83, 28457), (90, 28424), (93, 28406), (101, 28364), (102, 28361), (110, 28325), (111, 28316), (123, 28259), (132, 28220), (141, 28175), (146, 28151), (147, 28145), (176, 27992),

Gene: MaVan_38 Start: 28664, Stop: 27852, Start Num: 23

Candidate Starts for MaVan_38:

(6, 28736), (Start: 23 @28664 has 52 MA's), (69, 28448), (75, 28412), (83, 28370), (85, 28355), (90, 28337), (92, 28322), (93, 28319), (101, 28277), (111, 28229), (124, 28169), (132, 28136), (143, 28082), (146, 28067), (167, 27950),

Gene: Maco6_40 Start: 30176, Stop: 29331, Start Num: 16

Candidate Starts for Maco6_40:

(Start: 16 @30176 has 2 MA's), (Start: 23 @30152 has 52 MA's), (45, 30059), (52, 29999), (69, 29921), (74, 29894), (83, 29843), (90, 29810), (109, 29714), (111, 29702), (117, 29675), (140, 29573), (146, 29537), (152, 29510), (163, 29447), (177, 29372), (179, 29363),

Gene: Makima_36 Start: 25073, Stop: 24285, Start Num: 29

Candidate Starts for Makima_36:

(11, 25163), (Start: 16 @25148 has 2 MA's), (Start: 25 @25106 has 3 MA's), (Start: 29 @25073 has 3 MA's), (33, 25046), (53, 24962), (58, 24944), (64, 24929), (73, 24860), (77, 24833), (83, 24806), (87, 24782), (93, 24752), (99, 24719), (106, 24689), (113, 24653), (130, 24575), (151, 24479), (160, 24419),

Gene: Mareelih_164 Start: 92946, Stop: 92203, Start Num: 39

Candidate Starts for Mareelih_164:

(Start: 39 @92946 has 5 MA's), (Start: 50 @92919 has 1 MA's), (59, 92853), (67, 92811), (70, 92796), (73, 92778), (86, 92703), (114, 92568), (115, 92559), (118, 92550), (120, 92541), (128, 92505), (130, 92493), (133, 92484), (143, 92433), (144, 92430), (149, 92400), (151, 92394), (160, 92346), (166, 92304), (168, 92292), (174, 92265), (177, 92253),

Gene: Margaret_46 Start: 30292, Stop: 29483, Start Num: 22

Candidate Starts for Margaret_46:

(Start: 22 @30292 has 3 MA's), (Start: 23 @30289 has 52 MA's), (Start: 50 @30187 has 1 MA's), (56, 30133), (69, 30076), (75, 30040), (85, 29983), (90, 29965), (92, 29950), (93, 29947), (102, 29902), (110, 29866), (111, 29857), (132, 29761), (144, 29704), (157, 29638), (164, 29605),

Gene: Mayweather_45 Start: 31200, Stop: 30394, Start Num: 23

Candidate Starts for Mayweather_45:

(Start: 23 @31200 has 52 MA's), (Start: 25 @31194 has 3 MA's), (Start: 50 @31092 has 1 MA's), (56, 31038), (69, 30975), (90, 30864), (92, 30849), (101, 30804), (102, 30801), (110, 30765), (111, 30756), (123, 30699), (134, 30651), (135, 30648), (144, 30606), (164, 30513), (176, 30444),

Gene: McDazzle_43 Start: 30530, Stop: 29724, Start Num: 23

Candidate Starts for McDazzle_43:

(Start: 23 @30530 has 52 MA's), (Start: 50 @30422 has 1 MA's), (56, 30368), (69, 30305), (90, 30194), (92, 30179), (101, 30134), (102, 30131), (110, 30095), (111, 30086), (123, 30029), (134, 29981), (135, 29978), (144, 29936), (164, 29843), (176, 29774),

Gene: Mimi_104 Start: 83830, Stop: 84639, Start Num: 40

Candidate Starts for Mimi_104:

(Start: 40 @83830 has 13 MA's), (64, 83935), (113, 84205), (130, 84283), (169, 84484), (176, 84514), (177, 84517), (183, 84547), (188, 84616), (189, 84634),

Gene: Mireles_39 Start: 24631, Stop: 23843, Start Num: 29

Candidate Starts for Mireles_39:

(11, 24721), (12, 24718), (Start: 16 @24706 has 2 MA's), (Start: 25 @24664 has 3 MA's), (Start: 29 @24631 has 3 MA's), (33, 24604), (Start: 43 @24589 has 2 MA's), (53, 24520), (58, 24502), (64, 24487), (71, 24433), (77, 24391), (78, 24388), (83, 24364), (87, 24340), (93, 24310), (99, 24277), (106, 24247), (113, 24211), (130, 24133), (151, 24037), (160, 23977),

Gene: Molivia_62 Start: 39615, Stop: 38878, Start Num: 27

Candidate Starts for Molivia_62:

(Start: 27 @39615 has 16 MA's), (41, 39552), (44, 39549), (46, 39543), (52, 39501), (61, 39477), (74, 39411), (81, 39375), (82, 39369), (84, 39354), (108, 39234), (112, 39216), (121, 39177), (125, 39168), (137, 39117), (142, 39087), (159, 39015), (171, 38946), (174, 38931),

Gene: Muddy_42 Start: 31408, Stop: 30563, Start Num: 16

Candidate Starts for Muddy_42:

(Start: 16 @31408 has 2 MA's), (Start: 23 @31384 has 52 MA's), (45, 31291), (52, 31231), (69, 31153), (74, 31126), (90, 31042), (111, 30934), (117, 30907), (140, 30805), (146, 30769), (152, 30742), (163, 30679), (177, 30604), (179, 30595),

Gene: MunkgeeRoachy_38 Start: 28070, Stop: 27252, Start Num: 23

Candidate Starts for MunkgeeRoachy_38:

(Start: 23 @28070 has 52 MA's), (56, 27914), (57, 27911), (67, 27863), (69, 27851), (83, 27773), (90, 27740), (92, 27725), (93, 27722), (101, 27680), (110, 27641), (111, 27632), (123, 27575), (138, 27512), (147, 27461), (167, 27347),

Gene: Neuville_36 Start: 23603, Stop: 22809, Start Num: 29

Candidate Starts for Neuville_36:

(Start: 25 @23636 has 3 MA's), (Start: 29 @23603 has 3 MA's), (53, 23489), (64, 23456), (67, 23420), (77, 23360), (78, 23357), (83, 23333), (87, 23309), (91, 23288), (93, 23279), (99, 23246), (106, 23216), (113, 23180), (130, 23102), (153, 22997), (160, 22946), (164, 22925),

Gene: Nibbles_37 Start: 28351, Stop: 27539, Start Num: 23

Candidate Starts for Nibbles_37:

(6, 28423), (9, 28399), (Start: 23 @28351 has 52 MA's), (69, 28135), (75, 28099), (83, 28057), (85, 28042), (90, 28024), (92, 28009), (93, 28006), (101, 27964), (111, 27916), (124, 27856), (132, 27823), (143, 27769), (146, 27754), (167, 27637),

Gene: Nina_39 Start: 28732, Stop: 27914, Start Num: 23

Candidate Starts for Nina_39:

(Start: 23 @28732 has 52 MA's), (56, 28576), (57, 28573), (67, 28525), (69, 28513), (83, 28435), (90, 28402), (92, 28387), (93, 28384), (97, 28360), (101, 28342), (110, 28303), (111, 28294), (123, 28237), (138, 28174), (147, 28123), (167, 28009), (176, 27970),

Gene: NoShow_50 Start: 34311, Stop: 33472, Start Num: 17

Candidate Starts for NoShow_50:

(Start: 17 @34311 has 1 MA's), (52, 34125), (60, 34098), (83, 33969), (90, 33936), (111, 33828), (138, 33708), (147, 33657), (162, 33585), (176, 33501),

Gene: Nodigi_47 Start: 31327, Stop: 30521, Start Num: 23

Candidate Starts for Nodigi_47:

(10, 31369), (Start: 22 @31330 has 3 MA's), (Start: 23 @31327 has 52 MA's), (Start: 50 @31225 has 1 MA's), (56, 31171), (57, 31168), (69, 31114), (75, 31078), (85, 31021), (90, 31003), (93, 30985), (102, 30940), (111, 30895), (132, 30799), (138, 30775), (144, 30742), (146, 30730), (157, 30676), (164, 30643),

Gene: Nonagon_62 Start: 41552, Stop: 40740, Start Num: 20

Candidate Starts for Nonagon_62:

(7, 41603), (Start: 20 @41552 has 5 MA's), (24, 41528), (28, 41507), (30, 41489), (36, 41453), (75, 41270), (89, 41198), (90, 41195), (95, 41162), (109, 41102), (127, 41027), (178, 40784),

Gene: Orla_47 Start: 31300, Stop: 30494, Start Num: 23

Candidate Starts for Orla_47:

(10, 31342), (Start: 22 @31303 has 3 MA's), (Start: 23 @31300 has 52 MA's), (Start: 50 @31198 has 1 MA's), (56, 31144), (57, 31141), (69, 31087), (75, 31051), (85, 30994), (90, 30976), (93, 30958), (110, 30877), (111, 30868), (132, 30772), (138, 30748), (144, 30715), (146, 30703), (157, 30649), (164, 30616),

Gene: Panchaali_95 Start: 81223, Stop: 82020, Start Num: 50

Candidate Starts for Panchaali_95:

(Start: 40 @81196 has 13 MA's), (Start: 50 @81223 has 1 MA's), (56, 81280), (59, 81289), (62, 81295), (113, 81571), (130, 81649), (149, 81739), (158, 81784), (170, 81853), (176, 81880), (188, 81997),

Gene: Patbob_103 Start: 84565, Stop: 85374, Start Num: 40

Candidate Starts for Patbob_103:

(Start: 40 @84565 has 13 MA's), (64, 84670), (113, 84940), (130, 85018), (176, 85249), (177, 85252), (183, 85282), (185, 85285), (188, 85351), (189, 85369),

Gene: PauloDiaboli_112 Start: 75754, Stop: 74960, Start Num: 43

Candidate Starts for PauloDiaboli_112:

(Start: 43 @75754 has 2 MA's), (47, 75742), (52, 75691), (68, 75619), (70, 75607), (77, 75562), (78, 75559), (107, 75412), (113, 75382), (128, 75316), (130, 75304), (133, 75295), (142, 75247), (160, 75151), (176, 75055), (181, 75025), (186, 75004),

Gene: Phendrix_167 Start: 88597, Stop: 87887, Start Num: 40

Candidate Starts for Phendrix_167:

(Start: 40 @88597 has 13 MA's), (49, 88576), (56, 88516), (86, 88360), (93, 88327), (100, 88291), (106, 88264), (111, 88237), (114, 88225), (115, 88216), (122, 88192), (130, 88150), (143, 88093), (144, 88090), (148, 88069), (149, 88060), (160, 88009), (181, 87892),

Gene: Phrampa_97 Start: 85968, Stop: 86774, Start Num: 40

Candidate Starts for Phrampa_97:

(Start: 40 @85968 has 13 MA's), (64, 86073), (113, 86343), (126, 86406), (130, 86421), (151, 86517), (170, 86625), (176, 86652), (177, 86655), (188, 86751), (189, 86769),

Gene: Pons_43 Start: 30551, Stop: 29745, Start Num: 23

Candidate Starts for Pons_43:

(Start: 23 @30551 has 52 MA's), (Start: 25 @30545 has 3 MA's), (Start: 50 @30443 has 1 MA's), (56, 30389), (69, 30326), (75, 30290), (90, 30215), (92, 30200), (101, 30155), (102, 30152), (110, 30116), (111, 30107), (123, 30050), (134, 30002), (135, 29999), (144, 29957), (164, 29864), (176, 29795),

Gene: PotPie_42 Start: 31482, Stop: 30676, Start Num: 23

Candidate Starts for PotPie_42:

(Start: 23 @31482 has 52 MA's), (Start: 25 @31476 has 3 MA's), (Start: 50 @31374 has 1 MA's), (56, 31320), (69, 31257), (90, 31146), (92, 31131), (101, 31086), (102, 31083), (110, 31047), (111, 31038), (123, 30981), (134, 30933), (135, 30930), (144, 30888), (164, 30795), (176, 30726),

Gene: PsychoKiller_39 Start: 28608, Stop: 27790, Start Num: 23

Candidate Starts for PsychoKiller_39:

(Start: 23 @28608 has 52 MA's), (56, 28452), (57, 28449), (67, 28401), (69, 28389), (83, 28311), (90, 28278), (92, 28263), (93, 28260), (101, 28218), (110, 28179), (111, 28170), (123, 28113), (138, 28050), (147, 27999), (167, 27885), (176, 27846),

Gene: Pumpernickel_109 Start: 77313, Stop: 76510, Start Num: 37

Candidate Starts for Pumpernickel_109:

(Start: 37 @77313 has 1 MA's), (49, 77283), (Start: 50 @77280 has 1 MA's), (58, 77217), (73, 77127), (76, 77103), (80, 77091), (83, 77073), (100, 76983), (106, 76956), (107, 76950), (113, 76920), (129, 76851), (130, 76842), (155, 76716), (173, 76608), (176, 76593), (178, 76584),

Gene: Quasar_40 Start: 29156, Stop: 28338, Start Num: 23

Candidate Starts for Quasar_40:

(Start: 23 @29156 has 52 MA's), (56, 29000), (57, 28997), (67, 28949), (69, 28937), (83, 28859), (90, 28826), (92, 28811), (93, 28808), (101, 28766), (110, 28727), (111, 28718), (123, 28661), (138, 28598), (147, 28547), (167, 28433), (176, 28394),

Gene: RADical_41 Start: 28602, Stop: 27784, Start Num: 23

Candidate Starts for RADical_41:

(Start: 23 @28602 has 52 MA's), (56, 28446), (57, 28443), (67, 28395), (69, 28383), (83, 28305), (90, 28272), (92, 28257), (93, 28254), (101, 28212), (110, 28173), (111, 28164), (123, 28107), (138, 28044), (147, 27993), (167, 27879), (176, 27840),

Gene: RSchmailzl_41 Start: 28645, Stop: 27827, Start Num: 23

Candidate Starts for RSchmailzl_41:

(Start: 23 @28645 has 52 MA's), (56, 28489), (57, 28486), (67, 28438), (69, 28426), (83, 28348), (90, 28315), (92, 28300), (93, 28297), (101, 28255), (110, 28216), (111, 28207), (123, 28150), (138, 28087), (147, 28036), (167, 27922), (176, 27883),

Gene: Racecar_105 Start: 84483, Stop: 85292, Start Num: 40

Candidate Starts for Racecar_105:

(Start: 40 @84483 has 13 MA's), (64, 84588), (113, 84858), (130, 84936), (169, 85137), (176, 85167), (177, 85170), (183, 85200), (188, 85269), (189, 85287),

Gene: RanchParmCat_45 Start: 30427, Stop: 29621, Start Num: 23

Candidate Starts for RanchParmCat_45:

(Start: 22 @30430 has 3 MA's), (Start: 23 @30427 has 52 MA's), (Start: 50 @30325 has 1 MA's), (56, 30271), (69, 30214), (75, 30178), (85, 30121), (90, 30103), (92, 30088), (93, 30085), (102, 30040), (110, 30004), (111, 29995), (132, 29899), (138, 29875), (144, 29842), (157, 29776), (164, 29743),

Gene: RedBaron_42 Start: 28845, Stop: 28027, Start Num: 23

Candidate Starts for RedBaron_42:

(Start: 23 @28845 has 52 MA's), (56, 28689), (57, 28686), (67, 28638), (69, 28626), (83, 28548), (90, 28515), (92, 28500), (93, 28497), (101, 28455), (110, 28416), (111, 28407), (115, 28386), (123, 28350), (138, 28287), (147, 28236), (167, 28122), (176, 28083),

Gene: ReginaGlobina_103 Start: 84193, Stop: 84942, Start Num: 56

Candidate Starts for ReginaGlobina_103:

(Start: 40 @84109 has 13 MA's), (56, 84193), (59, 84202), (62, 84208), (80, 84313), (113, 84484), (130, 84562), (149, 84652), (156, 84694), (170, 84769), (175, 84790), (176, 84796),

Gene: Rings_61 Start: 41260, Stop: 40520, Start Num: 27

Candidate Starts for Rings_61:

(Start: 27 @41260 has 16 MA's), (32, 41230), (34, 41206), (41, 41194), (44, 41191), (46, 41185), (52, 41143), (54, 41134), (61, 41119), (65, 41110), (82, 41011), (84, 40996), (108, 40876), (112, 40858), (121, 40819), (125, 40810), (142, 40729), (148, 40702), (159, 40657), (160, 40654), (164, 40633), (171, 40588), (174, 40573),

Gene: Roberts_36 Start: 23603, Stop: 22809, Start Num: 29

Candidate Starts for Roberts_36:

(Start: 25 @23636 has 3 MA's), (Start: 29 @23603 has 3 MA's), (53, 23489), (64, 23456), (67, 23420), (77, 23360), (78, 23357), (83, 23333), (87, 23309), (91, 23288), (93, 23279), (99, 23246), (106, 23216), (113, 23180), (130, 23102), (153, 22997), (160, 22946), (164, 22925),

Gene: Rockabye_109 Start: 77741, Stop: 78529, Start Num: 48

Candidate Starts for Rockabye_109:

(Start: 40 @77720 has 13 MA's), (48, 77741), (62, 77819), (64, 77825), (93, 77996), (113, 78095), (130, 78173), (146, 78245), (149, 78263), (170, 78380), (188, 78506),

Gene: SJReid_108 Start: 76738, Stop: 77565, Start Num: 40

Candidate Starts for SJReid_108:

(Start: 40 @76738 has 13 MA's), (48, 76759), (62, 76837), (64, 76843), (113, 77113), (130, 77191), (146, 77263), (149, 77281), (175, 77419), (188, 77542),

Gene: Salvus_43 Start: 31234, Stop: 30389, Start Num: 16

Candidate Starts for Salvus_43:

(Start: 16 @31234 has 2 MA's), (Start: 23 @31210 has 52 MA's), (45, 31117), (52, 31057), (69, 30979), (74, 30952), (90, 30868), (111, 30760), (117, 30733), (140, 30631), (146, 30595), (152, 30568), (163, 30505), (177, 30430), (179, 30421),

Gene: SheckWes_44 Start: 30075, Stop: 29269, Start Num: 23

Candidate Starts for SheckWes_44:

(Start: 23 @30075 has 52 MA's), (Start: 50 @29967 has 1 MA's), (56, 29913), (69, 29850), (90, 29739), (97, 29697), (101, 29679), (102, 29676), (110, 29640), (111, 29631), (123, 29574), (134, 29526), (135, 29523), (144, 29481), (164, 29388), (176, 29319),

Gene: Shrew_85 Start: 51163, Stop: 51948, Start Num: 27

Candidate Starts for Shrew_85:

(Start: 27 @51163 has 16 MA's), (53, 51289), (55, 51295), (66, 51340), (83, 51439), (88, 51463), (90, 51472), (93, 51490), (110, 51571), (111, 51580), (117, 51607), (123, 51637), (136, 51691), (177, 51895), (184, 51931),

Gene: Sixama_165 Start: 92948, Stop: 92217, Start Num: 39

Candidate Starts for Sixama_165:

(Start: 39 @92948 has 5 MA's), (Start: 50 @92921 has 1 MA's), (59, 92855), (70, 92798), (73, 92780), (77, 92753), (83, 92726), (86, 92705), (92, 92675), (114, 92570), (118, 92552), (120, 92543), (128, 92507), (130, 92495), (143, 92435), (144, 92432), (149, 92402), (151, 92396), (154, 92384), (161, 92345),

Gene: SketchMex_40 Start: 28753, Stop: 27935, Start Num: 23

Candidate Starts for SketchMex_40:

(Start: 20 @28771 has 5 MA's), (Start: 23 @28753 has 52 MA's), (Start: 25 @28747 has 3 MA's), (56, 28597), (57, 28594), (69, 28534), (83, 28456), (90, 28423), (93, 28405), (101, 28363), (102, 28360), (110, 28324), (111, 28315), (123, 28258), (132, 28219), (141, 28174), (144, 28162), (146, 28150), (147, 28144), (156, 28096), (176, 27991),

Gene: Socotra_41 Start: 28607, Stop: 27789, Start Num: 23

Candidate Starts for Socotra_41:

(Start: 23 @28607 has 52 MA's), (56, 28451), (57, 28448), (67, 28400), (69, 28388), (83, 28310), (90, 28277), (92, 28262), (93, 28259), (101, 28217), (110, 28178), (111, 28169), (115, 28148), (123, 28112), (138, 28049), (147, 27998), (167, 27884), (176, 27845),

Gene: Sopespian_39 Start: 28609, Stop: 27791, Start Num: 23

Candidate Starts for Sopespian_39:

(Start: 23 @28609 has 52 MA's), (56, 28453), (57, 28450), (67, 28402), (69, 28390), (83, 28312), (90, 28279), (92, 28264), (93, 28261), (101, 28219), (110, 28180), (111, 28171), (123, 28114), (138, 28051), (147, 28000), (167, 27886), (176, 27847),

Gene: SorJuana_60 Start: 40819, Stop: 40079, Start Num: 27

Candidate Starts for SorJuana_60:

(Start: 27 @40819 has 16 MA's), (32, 40789), (34, 40765), (41, 40753), (44, 40750), (46, 40744), (52, 40702), (54, 40693), (61, 40678), (65, 40669), (82, 40570), (84, 40555), (108, 40435), (112, 40417), (121, 40378), (125, 40369), (142, 40288), (148, 40261), (159, 40216), (160, 40213), (164, 40192),

(171, 40147), (174, 40132),

Gene: Starburst_41 Start: 28602, Stop: 27784, Start Num: 23

Candidate Starts for Starburst_41:

(Start: 23 @28602 has 52 MA's), (56, 28446), (57, 28443), (67, 28395), (69, 28383), (83, 28305), (90, 28272), (92, 28257), (93, 28254), (101, 28212), (110, 28173), (111, 28164), (123, 28107), (138, 28044), (147, 27993), (167, 27879), (168, 27876), (176, 27840),

Gene: SteamedHams_41 Start: 28529, Stop: 27711, Start Num: 23

Candidate Starts for SteamedHams_41:

(Start: 20 @28547 has 5 MA's), (Start: 23 @28529 has 52 MA's), (56, 28373), (57, 28370), (67, 28322), (69, 28310), (83, 28232), (90, 28199), (93, 28181), (97, 28157), (101, 28139), (102, 28136), (110, 28100), (111, 28091), (123, 28034), (132, 27995), (146, 27926), (147, 27920), (156, 27872), (176, 27767),

Gene: Stewart25555_95 Start: 81038, Stop: 81781, Start Num: 56

Candidate Starts for Stewart25555_95:

(Start: 40 @80954 has 13 MA's), (Start: 50 @80981 has 1 MA's), (56, 81038), (59, 81047), (62, 81053), (94, 81233), (113, 81329), (130, 81407), (149, 81497), (158, 81545), (170, 81614), (176, 81641), (188, 81758),

Gene: Studio_38 Start: 24966, Stop: 24175, Start Num: 29

Candidate Starts for Studio_38:

(11, 25056), (Start: 16 @25041 has 2 MA's), (18, 25035), (Start: 25 @24999 has 3 MA's), (Start: 29 @24966 has 3 MA's), (53, 24852), (58, 24834), (64, 24819), (67, 24783), (77, 24723), (78, 24720), (83, 24696), (93, 24642), (99, 24609), (106, 24579), (113, 24543), (130, 24465), (149, 24375), (153, 24360), (160, 24309), (164, 24288), (177, 24216),

Gene: SummitAcademy_41 Start: 30111, Stop: 29305, Start Num: 23

Candidate Starts for SummitAcademy_41:

(Start: 23 @30111 has 52 MA's), (Start: 25 @30105 has 3 MA's), (Start: 50 @30003 has 1 MA's), (56, 29949), (69, 29886), (90, 29775), (92, 29760), (101, 29715), (102, 29712), (110, 29676), (111, 29667), (123, 29610), (134, 29562), (135, 29559), (144, 29517), (164, 29424), (176, 29355),

Gene: Survivors_38 Start: 28560, Stop: 27748, Start Num: 23

Candidate Starts for Survivors_38:

(6, 28632), (Start: 23 @28560 has 52 MA's), (69, 28344), (75, 28308), (83, 28266), (85, 28251), (90, 28233), (92, 28218), (93, 28215), (101, 28173), (111, 28125), (124, 28065), (132, 28032), (143, 27978), (146, 27963), (167, 27846),

Gene: SweatNTears_41 Start: 28505, Stop: 27687, Start Num: 23

Candidate Starts for SweatNTears_41:

(Start: 23 @28505 has 52 MA's), (56, 28349), (57, 28346), (67, 28298), (69, 28286), (83, 28208), (90, 28175), (92, 28160), (93, 28157), (97, 28133), (101, 28115), (110, 28076), (111, 28067), (123, 28010), (138, 27947), (147, 27896), (167, 27782), (176, 27743),

Gene: TMaxx_37 Start: 24246, Stop: 23455, Start Num: 29

Candidate Starts for TMaxx_37:

(Start: 17 @24318 has 1 MA's), (21, 24297), (Start: 25 @24279 has 3 MA's), (Start: 29 @24246 has 3 MA's), (34, 24210), (53, 24126), (58, 24108), (64, 24093), (77, 23997), (83, 23970), (93, 23916), (99, 23883), (106, 23853), (113, 23817), (130, 23739), (151, 23643), (160, 23583), (164, 23562),

Gene: Talia1610_104 Start: 83848, Stop: 84657, Start Num: 40

Candidate Starts for Talia1610_104:

(Start: 40 @83848 has 13 MA's), (64, 83953), (113, 84223), (130, 84301), (169, 84502), (176, 84532), (177, 84535), (183, 84565), (188, 84634), (189, 84652),

Gene: Tarnish_41 Start: 30621, Stop: 29815, Start Num: 23

Candidate Starts for Tarnish_41:

(Start: 23 @30621 has 52 MA's), (Start: 25 @30615 has 3 MA's), (Start: 50 @30513 has 1 MA's), (56, 30459), (69, 30396), (75, 30360), (90, 30285), (92, 30270), (101, 30225), (102, 30222), (110, 30186), (111, 30177), (123, 30120), (134, 30072), (135, 30069), (144, 30027), (164, 29934), (176, 29865),

Gene: Thunderclap_60 Start: 41241, Stop: 40501, Start Num: 27

Candidate Starts for Thunderclap_60:

(Start: 27 @41241 has 16 MA's), (32, 41211), (34, 41187), (41, 41175), (44, 41172), (46, 41166), (52, 41124), (54, 41115), (61, 41100), (65, 41091), (82, 40992), (84, 40977), (108, 40857), (112, 40839), (121, 40800), (125, 40791), (142, 40710), (148, 40683), (159, 40638), (160, 40635), (164, 40614), (171, 40569), (174, 40554),

Gene: Tolls_41 Start: 28634, Stop: 27816, Start Num: 23

Candidate Starts for Tolls_41:

(Start: 20 @28652 has 5 MA's), (Start: 23 @28634 has 52 MA's), (Start: 25 @28628 has 3 MA's), (56, 28478), (57, 28475), (67, 28427), (69, 28415), (83, 28337), (90, 28304), (93, 28286), (101, 28244), (102, 28241), (110, 28205), (111, 28196), (123, 28139), (132, 28100), (146, 28031), (147, 28025), (156, 27977), (176, 27872),

Gene: TripleC_36 Start: 26597, Stop: 25806, Start Num: 29

Candidate Starts for TripleC_36:

(Start: 17 @26669 has 1 MA's), (21, 26648), (Start: 25 @26630 has 3 MA's), (Start: 29 @26597 has 3 MA's), (34, 26561), (53, 26477), (58, 26459), (64, 26444), (77, 26348), (83, 26321), (93, 26267), (99, 26234), (106, 26204), (113, 26168), (130, 26090), (160, 25934), (164, 25913),

Gene: Triscuit_80 Start: 49756, Stop: 50565, Start Num: 27

Candidate Starts for Triscuit_80:

(Start: 27 @49756 has 16 MA's), (60, 49903), (66, 49933), (69, 49954), (90, 50065), (93, 50083), (101, 50125), (102, 50128), (110, 50164), (123, 50230), (146, 50335), (147, 50341), (152, 50362), (182, 50521),

Gene: Troje_42 Start: 29091, Stop: 28273, Start Num: 23

Candidate Starts for Troje_42:

(Start: 20 @29109 has 5 MA's), (Start: 23 @29091 has 52 MA's), (Start: 25 @29085 has 3 MA's), (56, 28935), (57, 28932), (69, 28872), (83, 28794), (90, 28761), (93, 28743), (101, 28701), (102, 28698), (110, 28662), (111, 28653), (123, 28596), (132, 28557), (141, 28512), (144, 28500), (146, 28488), (147, 28482), (156, 28434), (176, 28329),

Gene: Typhonomachy_38 Start: 28227, Stop: 27409, Start Num: 23

Candidate Starts for Typhonomachy_38:

(Start: 23 @28227 has 52 MA's), (56, 28071), (57, 28068), (67, 28020), (69, 28008), (83, 27930), (90, 27897), (92, 27882), (93, 27879), (101, 27837), (110, 27798), (111, 27789), (115, 27768), (123, 27732), (138, 27669), (147, 27618), (167, 27504), (176, 27465),

Gene: Vine_44 Start: 30838, Stop: 30032, Start Num: 23

Candidate Starts for Vine_44:

(Start: 23 @30838 has 52 MA's), (Start: 25 @30832 has 3 MA's), (Start: 50 @30730 has 1 MA's), (56, 30676), (69, 30613), (75, 30577), (90, 30502), (92, 30487), (101, 30442), (102, 30439), (110, 30403),

(111, 30394), (123, 30337), (134, 30289), (135, 30286), (144, 30244), (164, 30151), (176, 30082),

Gene: WaddleDee_91 Start: 79411, Stop: 80229, Start Num: 40

Candidate Starts for WaddleDee_91:

(Start: 40 @79411 has 13 MA's), (Start: 50 @79438 has 1 MA's), (56, 79495), (59, 79504), (62, 79510), (113, 79786), (126, 79849), (130, 79864), (149, 79954), (158, 79999), (170, 80068), (176, 80095), (187, 80191), (188, 80206),

Gene: Wolfwood_40 Start: 28632, Stop: 27820, Start Num: 23

Candidate Starts for Wolfwood_40:

(6, 28704), (Start: 23 @28632 has 52 MA's), (69, 28416), (75, 28380), (83, 28338), (85, 28323), (90, 28305), (92, 28290), (93, 28287), (101, 28245), (111, 28197), (124, 28137), (132, 28104), (143, 28050), (146, 28035), (167, 27918),

Gene: Yakult_42 Start: 29373, Stop: 28570, Start Num: 23

Candidate Starts for Yakult_42:

(3, 29496), (4, 29466), (14, 29409), (Start: 22 @29376 has 3 MA's), (Start: 23 @29373 has 52 MA's), (Start: 50 @29274 has 1 MA's), (69, 29163), (75, 29127), (85, 29070), (90, 29052), (92, 29037), (93, 29034), (102, 28989), (110, 28953), (111, 28944), (138, 28824), (144, 28791), (146, 28779), (147, 28773), (152, 28752),

Gene: Yappy_86 Start: 44513, Stop: 43758, Start Num: 31

Candidate Starts for Yappy_86:

(26, 44546), (Start: 31 @44513 has 1 MA's), (48, 44447), (49, 44444), (51, 44411), (56, 44387), (63, 44369), (67, 44333), (98, 44168), (104, 44141), (105, 44138), (116, 44078), (117, 44075), (119, 44069), (121, 44060), (139, 43979), (142, 43958), (157, 43883), (165, 43847), (174, 43790),

Gene: Yarn_37 Start: 28394, Stop: 27576, Start Num: 23

Candidate Starts for Yarn_37:

(Start: 20 @28412 has 5 MA's), (Start: 23 @28394 has 52 MA's), (Start: 25 @28388 has 3 MA's), (56, 28238), (57, 28235), (67, 28187), (69, 28175), (83, 28097), (90, 28064), (93, 28046), (101, 28004), (102, 28001), (110, 27965), (111, 27956), (123, 27899), (132, 27860), (146, 27791), (147, 27785), (156, 27737), (176, 27632),

Gene: Yeezus_60 Start: 41211, Stop: 40471, Start Num: 27

Candidate Starts for Yeezus_60:

(Start: 27 @41211 has 16 MA's), (32, 41181), (34, 41157), (41, 41145), (44, 41142), (46, 41136), (52, 41094), (54, 41085), (61, 41070), (65, 41061), (82, 40962), (84, 40947), (108, 40827), (112, 40809), (121, 40770), (125, 40761), (142, 40680), (148, 40653), (159, 40608), (160, 40605), (164, 40584), (171, 40539), (174, 40524),

Gene: Yucky_44 Start: 30778, Stop: 29972, Start Num: 23

Candidate Starts for Yucky_44:

(Start: 23 @30778 has 52 MA's), (Start: 25 @30772 has 3 MA's), (Start: 50 @30670 has 1 MA's), (56, 30616), (69, 30553), (75, 30517), (90, 30442), (92, 30427), (101, 30382), (102, 30379), (110, 30343), (111, 30334), (123, 30277), (134, 30229), (135, 30226), (144, 30184), (164, 30091), (176, 30022),

Gene: Yummy_42 Start: 28728, Stop: 27910, Start Num: 23

Candidate Starts for Yummy_42:

(Start: 20 @28746 has 5 MA's), (Start: 23 @28728 has 52 MA's), (Start: 25 @28722 has 3 MA's), (56, 28572), (57, 28569), (69, 28509), (83, 28431), (90, 28398), (93, 28380), (101, 28338), (102, 28335), (110, 28299), (111, 28290), (123, 28233), (132, 28194), (141, 28149), (144, 28137), (146, 28125), (147, 28119), (176, 27966),

Gene: Zareef_38 Start: 28654, Stop: 27842, Start Num: 23

Candidate Starts for Zareef_38:

(6, 28726), (Start: 23 @28654 has 52 MA's), (69, 28438), (75, 28402), (83, 28360), (85, 28345), (90, 28327), (92, 28312), (93, 28309), (101, 28267), (111, 28219), (124, 28159), (132, 28126), (143, 28072), (146, 28057), (167, 27940),

Gene: Zooman_96 Start: 73343, Stop: 72582, Start Num: 38

Candidate Starts for Zooman_96:

(Start: 38 @73343 has 2 MA's), (77, 73151), (78, 73148), (107, 73001), (113, 72971), (128, 72905), (130, 72893), (143, 72833), (150, 72797), (160, 72740), (166, 72698), (176, 72644),

Gene: Zuko_81 Start: 61795, Stop: 62607, Start Num: 25

Candidate Starts for Zuko_81:

(Start: 25 @61795 has 3 MA's), (42, 61870), (72, 62005), (83, 62074), (84, 62080), (90, 62107), (93, 62125), (112, 62218), (119, 62248), (123, 62272), (135, 62326), (136, 62329), (145, 62377), (147, 62386), (152, 62407), (162, 62482),