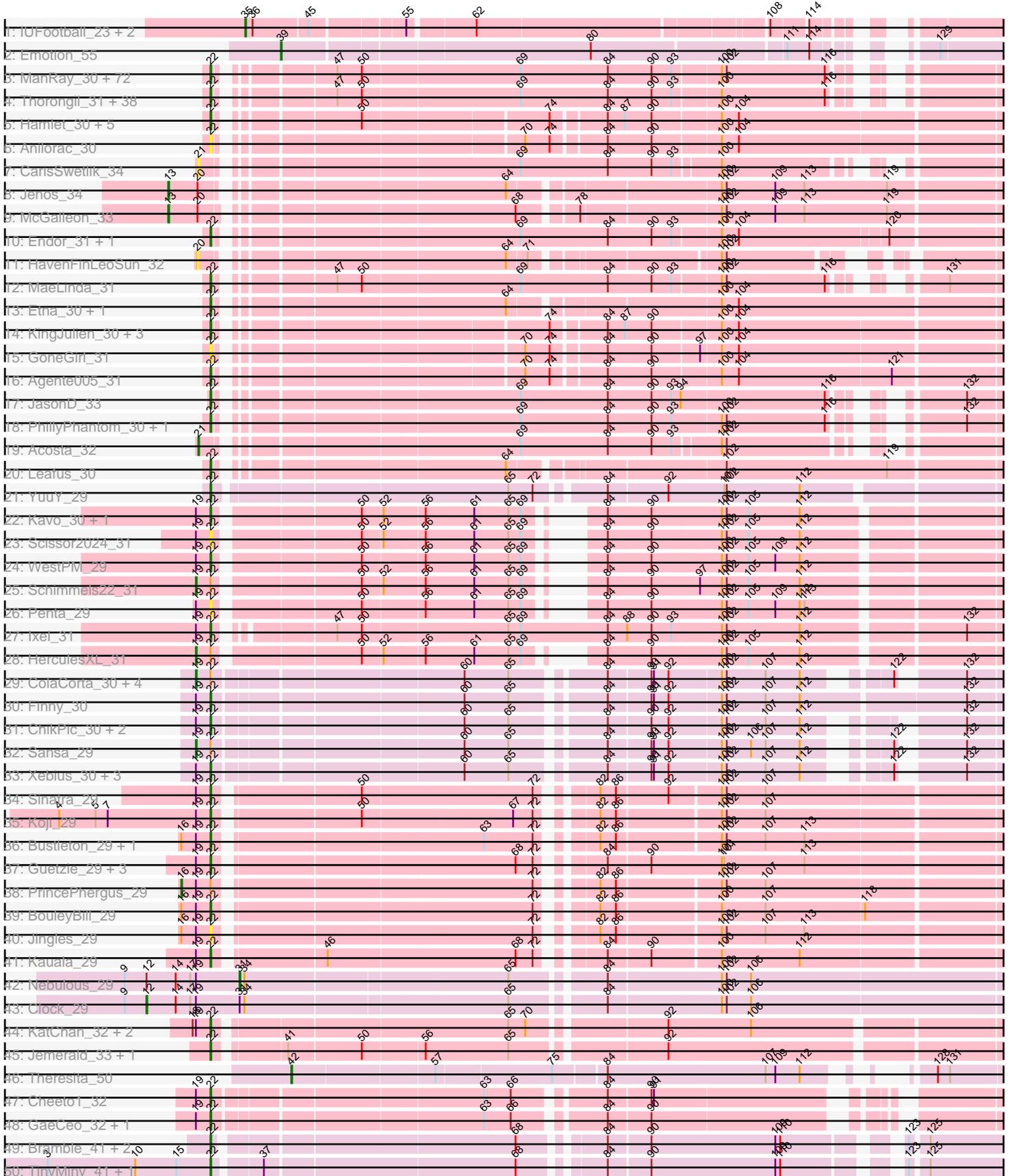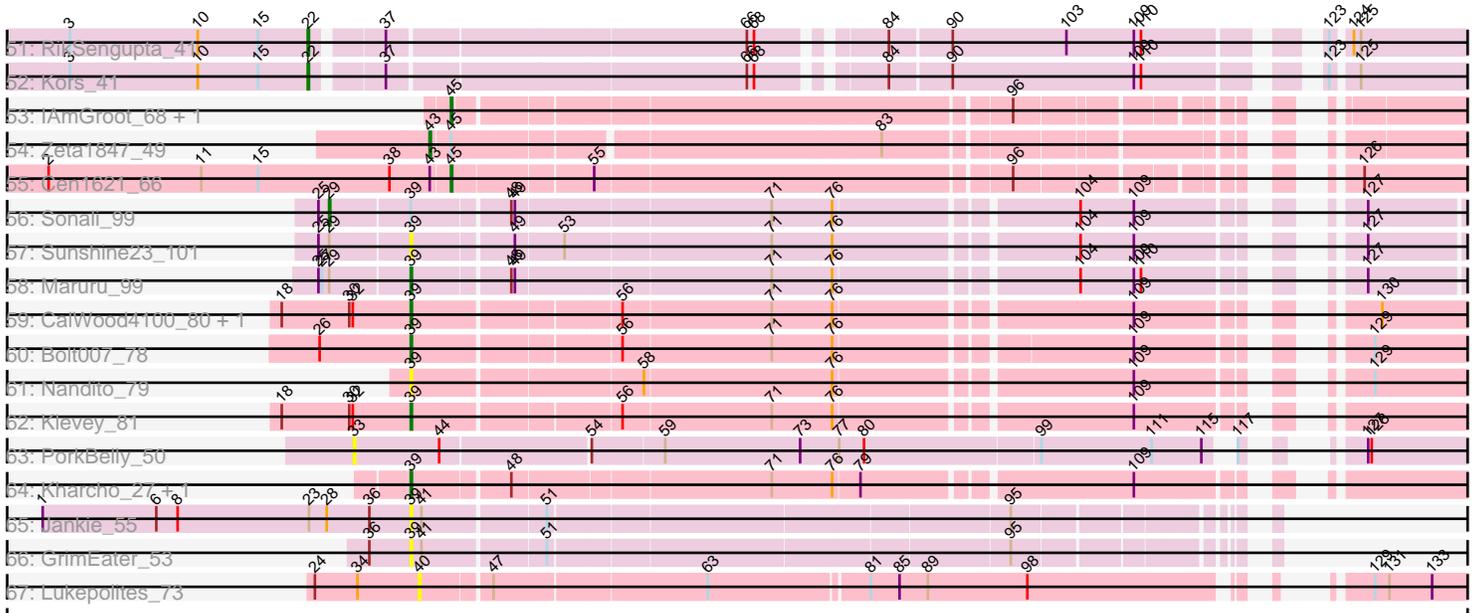# Pham 286833

Pham 286833

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 286833 Report

This analysis was run 03/28/26 on database version 641.

Pham number 286833 has 214 members, 26 are drafts.

Phages represented in each track:
• Track 1 : IUFootball_23, Liebe_23, Maureen_23
• Track 2 : Emotion_55
• Track 3 : ManRay_30, SonOfLevi_30, Strathdee_31, Asta_30, KannH_30, TeddyBear_30, Etta_30, BeautPeep30_31, BonesMcCoy_31, Phiderman_31, Christoph_30, Erla_30, MrWorldwide_31, Inventa_31, Phireproof_31, Espinosa_30, CoraRita_31, MillyPhilly_31, Nattles_30, HankSprout_31, StirfryIV_30, Jerbirus_31, Robinson_31, AranulaLuti_30, BigRedClifford_31, TatarkaPM_31, TinSulphur_31, Janus167_30, Gershwin_30, Clancy_30, GoingMerry_31, Kouch_30, ParleG_31, Dothraki_31, Aubergine_30, Pherferi_31, SolidSnake_32, Byron23_31, Gargoyle_31, Rog141_30, Rapheph_31, HanSolo_30, Shee_31, KellyGreen_31, Blage_31, Calix_30, Winzigespinne_30, Stanktossa_31, Kurt1_31, Tenda_30, NickSell_31, Baines_30, Chamuel_30, Martin_32, Raptor_31, Convict_31, Kale_30, Chako_30, Duocatuli_30, Pocket_30, Bonino_30, Exploradora_30, Gelo_30, Klimt_30, Ioannes_31, PhredFlintston_31, Thompsone_31, Knox_31, Oats_30, Gubbabump_30, JasperRussell_30, Garey24_30, Figueroism_31
• Track 4 : Thorongil_31, Ludgate_31, Benjalauren_31, Velene_31, Oxtober96_31, Alyxandracam_31, Ilzat_30, Antoinette_31, HungryHenry_30, Symere_30, JeriBeth_31, AxiPup_31, Phriends_31, Teagan_31, Superfresh_31, RosieMae_30, Nagem_31, ShaiHulud_31, PuppyEggo_31, Vispistious_31, Peep_31, Delphidian_31, AlexAdler_31, Papafritta_30, OldNelly_31, Bandik_31, Dave_31, Sedgewig_30, SJay_31, Den3_31, WildNOut_31, Riyhil_31, StingRay_30, Lovelyunicorn_31, Greys_31, Merida02_32, Zada_31, SoilGremlin_31, Renzie_31
• Track 5 : Hamlet_30, Peppino_30, Redfield_30, Balsa_30, BeeBee8_31, Schnapsidee_30
• Track 6 : Anilorac_30
• Track 7 : CarisSwetlik_34
• Track 8 : Jenos_34
• Track 9 : McGalleon_33
• Track 10 : Endor_31, MonChoix_29
• Track 11 : HavenFinLeoSun_32
• Track 12 : MaeLinda_31
• Track 13 : Etna_30, FarmerDoug_30
• Track 14 : KingJulien_30, Stormbreaker8_30, Soror1_30, GardenB_30
• Track 15 : GoneGirl_31
• Track 16 : Agente005_31
• Track 17 : JasonD_33
• Track 18 : PhillyPhantom_30, Raccoon_30

- Track 19 : Acosta_32
- Track 20 : Leafus_30
- Track 21 : YuuY_29
- Track 22 : Kavo_30, Tinyman4_31
- Track 23 : Scissor2024_31
- Track 24 : WestPM_29
- Track 25 : Schimmels22_31
- Track 26 : Penta_29
- Track 27 : Ixel_31
- Track 28 : HerculesXL_31
- Track 29 : ColaCorta_30, Andromedas_30, Eleri_30, Glamour_29, PSirce_30
- Track 30 : Finny_30
- Track 31 : ChikPic_30, MCubed_30, Phanita_30
- Track 32 : Sansa_29
- Track 33 : Xebius_30, Saratos_30, Zenitsu_30, Shamu_30
- Track 34 : Sinatra_29
- Track 35 : Koji_29
- Track 36 : Bustleton_29, Pherbot_29
- Track 37 : Guetzie_29, Lucky3_29, SirVictor_29, Golden_29
- Track 38 : PrincePhergus_29
- Track 39 : BouleyBill_29
- Track 40 : Jingles_29
- Track 41 : Kauala_29
- Track 42 : Nebulous_29
- Track 43 : Clock_29
- Track 44 : KatChan_32, Luna18_32, Chepli_32
- Track 45 : Jemerald_33, Juicer_33
- Track 46 : Theresita_50
- Track 47 : Cheeto1_32
- Track 48 : GaeCeo_32, ChickenKing_31
- Track 49 : Bramble_41, LordBart_41, Ajin_41
- Track 50 : TinyMiny_41, Sparcetus_41
- Track 51 : RikSengupta_41
- Track 52 : Kors_41
- Track 53 : IAmGroot_68, GardenState_69
- Track 54 : Zeta1847_49
- Track 55 : Cen1621_66
- Track 56 : Sonali_99
- Track 57 : Sunshine23_101
- Track 58 : Maruru_99
- Track 59 : CalWood4100_80, Lilmac1015_80
- Track 60 : Bolt007_78
- Track 61 : Nandito_79
- Track 62 : Klevey_81
- Track 63 : PorkBelly_50
- Track 64 : Kharcho_27, Ottawa_27
- Track 65 : Jankie_55
- Track 66 : GrimEater_53
- Track 67 : Lukepolites_73

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

The start number called the most often in the published annotations is 22, it was called in 159 of the 188 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Agente005_31, Ajin_41, AlexAdler_31, Alyxandracam_31, Anilorac_30, Antoinette_31, AranulaLuti_30, Asta_30, Aubergine_30, AxiPup_31, Baines_30, Balsa_30, Bandik_31, BeautPeep30_31, BeeBee8_31, Benjalauren_31, BigRedClifford_31, Blage_31, BonesMcCoy_31, Bonino_30, BouleyBill_29, Bramble_41, Bustleton_29, Byron23_31, Calix_30, Chako_30, Chamuel_30, Cheeto1_32, Chepli_32, ChickenKing_31, ChikPic_30, Christoph_30, Clancy_30, Convict_31, CoraRita_31, Dave_31, Delphidian_31, Den3_31, Dothraki_31, Duocatuli_30, Endor_31, Erla_30, Espinosa_30, Etna_30, Etta_30, Exploradora_30, FarmerDoug_30, Figueroism_31, Finny_30, GaeCeo_32, GardenB_30, Garey24_30, Gargoyle_31, Gelo_30, Gershwin_30, GoingMerry_31, Golden_29, GoneGirl_31, Greys_31, Gubbabump_30, Guetzie_29, Hamlet_30, HanSolo_30, HankSprout_31, HungryHenry_30, Ilzat_30, Inventa_31, Ioannes_31, Ixel_31, Janus167_30, JasonD_33, JasperRussell_30, Jemerald_33, Jerbirus_31, JeriBeth_31, Jingles_29, Juicer_33, Kale_30, KannH_30, KatChan_32, Kauala_29, Kavo_30, KellyGreen_31, KingJulien_30, Klimt_30, Knox_31, Koji_29, Kors_41, Kouch_30, Kurt1_31, Leafus_30, LordBart_41, Lovelyunicorn_31, Lucky3_29, Ludgate_31, Luna18_32, MCubed_30, MaeLinda_31, ManRay_30, Martin_32, Merida02_32, MillyPhilly_31, MonChoix_29, MrWorldwide_31, Nagem_31, Nattles_30, NickSell_31, Oats_30, OldNelly_31, Oxtober96_31, Papafritta_30, ParleG_31, Peep_31, Penta_29, Peppino_30, Phanita_30, Pherbot_29, Pherferi_31, Phiderman_31, PhillyPhantom_30, Phireproof_31, PhredFlintston_31, Phriends_31, Pocket_30, PuppyEggo_31, Raccoon_30, Rapheph_31, Raptor_31, Redfield_30, Renzie_31, RikSengupta_41, Riyhil_31, Robinson_31, Rog141_30, RosieMae_30, SJay_31, Saratos_30, Schnapsidee_30, Scissor2024_31, Sedgewig_30, ShaiHulud_31, Shamu_30, Shee_31, Sinatra_29, SirVictor_29, SoilGremlin_31, SolidSnake_32, SonOfLevi_30, Soror1_30, Sparcetus_41, Stanktossa_31, StingRay_30, StirfryIV_30, Stormbreaker8_30, Strathdee_31, Superfresh_31, Symere_30, TatarkaPM_31, Teagan_31, TeddyBear_30, Tenda_30, Thompsone_31, Thorongil_31, TinSulphur_31, TinyMiny_41, Tinyman4_31, Velene_31, Vispistious_31, WestPM_29, WildNOut_31, Winzigespinne_30, Xebius_30, YuuY_29, Zada_31, Zenitsu_30,

Genes that have the "Most Annotated" start but do not call it:
• Andromedas_30, ColaCorta_30, Eleri_30, Glamour_29, HerculesXL_31, PSirce_30, PrincePhergus_29, Sansa_29, Schimmels22_31,

Genes that do not have the "Most Annotated" start:
• Acosta_32, Bolt007_78, CalWood4100_80, CarisSwetlik_34, Cen1621_66, Clock_29, Emotion_55, GardenState_69, GrimEater_53, HavenFinLeoSun_32, IAmGroot_68, IUFootball_23, Jankie_55, Jenos_34, Kharcho_27, Klevey_81, Liebe_23, Lilmac1015_80, Lukepolites_73, Maruru_99, Maureen_23, McGalleon_33, Nandito_79, Nebulous_29, Ottawa_27, PorkBelly_50, Sonali_99, Sunshine23_101, Theresita_50, Zeta1847_49,

Summary by start number:

Start 12:
• Found in 2 of 214 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 188

• Called 50.0% of time when present
• Phage (with cluster) where this start called: Clock_29 (EA5),

Start 13:
• Found in 2 of 214 (0.9%) of genes in pham
• Manual Annotations of this start: 2 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jenos_34 (EA1), McGalleon_33 (EA1),

Start 16:
• Found in 5 of 214 (2.3%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 20.0% of time when present
• Phage (with cluster) where this start called: PrincePhergus_29 (EA4),

Start 19:
• Found in 42 of 214 (19.6%) of genes in pham
• Manual Annotations of this start: 8 of 188
• Called 19.0% of time when present
• Phage (with cluster) where this start called: Andromedas_30 (EA2), ColaCorta_30 (EA2), Eleri_30 (EA2), Glamour_29 (EA2), HerculesXL_31 (EA11), PSirce_30 (EA2), Sansa_29 (EA2), Schimmels22_31 (EA11),

Start 20:
• Found in 3 of 214 (1.4%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: HavenFinLeoSun_32 (EA1),

Start 21:
• Found in 2 of 214 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acosta_32 (EA1), CarisSwetlik_34 (EA1),

Start 22:
• Found in 184 of 214 (86.0%) of genes in pham
• Manual Annotations of this start: 159 of 188
• Called 95.1% of time when present
• Phage (with cluster) where this start called: Agente005_31 (EA1), Ajin_41 (EF), AlexAdler_31 (EA1), Alyxandracam_31 (EA1), Anilorac_30 (EA1), Antoinette_31 (EA1), AranulaLuti_30 (EA1), Asta_30 (EA1), Aubergine_30 (EA1), AxiPup_31 (EA1), Baines_30 (EA1), Balsa_30 (EA1), Bandik_31 (EA1), BeautPeep30_31 (EA1), BeeBee8_31 (EA1), Benjalauren_31 (EA1), BigRedClifford_31 (EA1), Blage_31 (EA1), BonesMcCoy_31 (EA1), Bonino_30 (EA1), BouleyBill_29 (EA4), Bramble_41 (EF), Bustleton_29 (EA4), Byron23_31 (EA1), Calix_30 (EA1), Chako_30 (EA1), Chamuel_30 (EA1), Cheeto1_32 (EA9), Chepli_32 (EA6), ChickenKing_31 (EA9), ChikPic_30 (EA2), Christoph_30 (EA1), Clancy_30 (EA1), Convict_31 (EA1), CoraRita_31 (EA1), Dave_31 (EA1), Delphidian_31 (EA1), Den3_31 (EA1), Dothraki_31 (EA1), Duocatuli_30 (EA1), Endor_31 (EA1), Erla_30 (EA1), Espinosa_30 (EA1), Etna_30 (EA1), Etta_30 (EA1), Exploradora_30 (EA1), FarmerDoug_30 (EA1), Figueroism_31 (EA1), Finny_30 (EA2), GaeCeo_32 (EA9),

GardenB_30 (EA1), Garey24_30 (EA1), Gargoyle_31 (EA1), Gelo_30 (EA1), Gershwin_30 (EA1), GoingMerry_31 (EA1), Golden_29 (EA4), GoneGirl_31 (EA1), Greys_31 (EA1), Gubbabump_30 (EA1), Guetzie_29 (EA4), Hamlet_30 (EA1), HanSolo_30 (EA1), HankSprout_31 (EA1), HungryHenry_30 (EA1), Ilzat_30 (EA1), Inventa_31 (EA1), Ioannes_31 (EA1), Ixel_31 (EA11), Janus167_30 (EA1), JasonD_33 (EA1), JasperRussell_30 (EA1), Jemerald_33 (EA6), Jerbirus_31 (EA1), JeriBeth_31 (EA1), Jingles_29 (EA4), Juicer_33 (EA6), Kale_30 (EA1), KannH_30 (EA1), KatChan_32 (EA6), Kauala_29 (EA4), Kavo_30 (EA11), KellyGreen_31 (EA1), KingJulien_30 (EA1), Klimt_30 (EA1), Knox_31 (EA1), Koji_29 (EA4), Kors_41 (EF), Kouch_30 (EA1), Kurt1_31 (EA1), Leafus_30 (EA1), LordBart_41 (EF), Lovelyunicorn_31 (EA1), Lucky3_29 (EA4), Ludgate_31 (EA1), Luna18_32 (EA6), MCubed_30 (EA2), MaeLinda_31 (EA1), ManRay_30 (EA1), Martin_32 (EA1), Merida02_32 (EA1), MillyPhilly_31 (EA1), MonChoix_29 (EA1), MrWorldwide_31 (EA1), Nagem_31 (EA1), Nattles_30 (EA1), NickSell_31 (EA1), Oats_30 (EA1), OldNelly_31 (EA1), Oxtober96_31 (EA1), Papafritta_30 (EA1), ParleG_31 (EA1), Peep_31 (EA1), Penta_29 (EA11), Peppino_30 (EA1), Phanita_30 (EA2), Pherbot_29 (EA4), Pherferi_31 (EA1), Phiderman_31 (EA1), PhillyPhantom_30 (EA1), Phireproof_31 (EA1), PhredFlintston_31 (EA1), Phriends_31 (EA1), Pocket_30 (EA1), PuppyEggo_31 (EA1), Raccoon_30 (EA1), Rapheph_31 (EA1), Raptor_31 (EA1), Redfield_30 (EA1), Renzie_31 (EA1), RikSengupta_41 (EF), Riyhil_31 (EA1), Robinson_31 (EA1), Rog141_30 (EA1), RosieMae_30 (EA1), SJay_31 (EA1), Saratos_30 (EA2), Schnapsidee_30 (EA1), Scissor2024_31 (EA1), Sedgewig_30 (EA1), ShaiHulud_31 (EA1), Shamu_30 (EA2), Shee_31 (EA1), Sinatra_29 (EA4), SirVictor_29 (EA4), SoilGremlin_31 (EA1), SolidSnake_32 (EA1), SonOfLevi_30 (EA1), Soror1_30 (EA1), Sparcetus_41 (EF), Stanktossa_31 (EA1), StingRay_30 (EA1), StirfryIV_30 (EA1), Stormbreaker8_30 (EA1), Strathdee_31 (EA1), Superfresh_31 (EA1), Symere_30 (EA1), TatarkaPM_31 (EA1), Teagan_31 (EA1), TeddyBear_30 (EA1), Tenda_30 (EA1), Thompsone_31 (EA1), Thorongil_31 (EA1), TinSulphur_31 (EA1), TinyMiny_41 (EF), Tinyman4_31 (EA11), Velene_31 (EA1), Vispistious_31 (EA1), WestPM_29 (EA11), WildNOut_31 (EA1), Winzigespinne_30 (EA1), Xebius_30 (EA2), YuuY_29 (EA10), Zada_31 (EA1), Zenitsu_30 (EA2),

Start 29:
• Found in 3 of 214 (1.4%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Sonali_99 (FG),

Start 31:
• Found in 2 of 214 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Nebulous_29 (EA5),

Start 33:
• Found in 1 of 214 (0.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: PorkBelly_50 (FJ),

Start 35:
• Found in 3 of 214 (1.4%) of genes in pham
• Manual Annotations of this start: 2 of 188

• Called 100.0% of time when present
• Phage (with cluster) where this start called: IUFootball_23 (AZ2), Liebe_23 (AZ2), Maureen_23 (AZ2),

Start 39:
• Found in 13 of 214 (6.1%) of genes in pham
• Manual Annotations of this start: 7 of 188
• Called 92.3% of time when present
• Phage (with cluster) where this start called: Bolt007_78 (FH), CalWood4100_80 (FH), Emotion_55 (AZ4), GrimEater_53 (FP), Jankie_55 (FP), Kharcho_27 (FM), Klevey_81 (FH), Lilmac1015_80 (FH), Maruru_99 (FG), Nandito_79 (FH), Ottawa_27 (FM), Sunshine23_101 (FG),

Start 40:
• Found in 1 of 214 (0.5%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lukepolites_73 (singleton),

Start 42:
• Found in 1 of 214 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Theresita_50 (EA7),

Start 43:
• Found in 2 of 214 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 188
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Zeta1847_49 (EH),

Start 45:
• Found in 7 of 214 (3.3%) of genes in pham
• Manual Annotations of this start: 3 of 188
• Called 42.9% of time when present
• Phage (with cluster) where this start called: Cen1621_66 (EH), GardenState_69 (EH), IAmGroot_68 (EH),

Summary by clusters:

There are 19 clusters represented in this pham: FP, singleton, EA11, EH, AZ4, EF, EA10, FM, EA9, FH, FG, EA1, FJ, AZ2, EA2, EA5, EA4, EA7, EA6,

Info for manual annotations of cluster AZ2:
•Start number 35 was manually annotated 2 times for cluster AZ2.

Info for manual annotations of cluster AZ4:
•Start number 39 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster EA1:
•Start number 13 was manually annotated 2 times for cluster EA1.
•Start number 21 was manually annotated 1 time for cluster EA1.
•Start number 22 was manually annotated 123 times for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 22 was manually annotated 1 time for cluster EA10.

Info for manual annotations of cluster EA11:
•Start number 19 was manually annotated 2 times for cluster EA11.
•Start number 22 was manually annotated 3 times for cluster EA11.

Info for manual annotations of cluster EA2:
•Start number 19 was manually annotated 6 times for cluster EA2.
•Start number 22 was manually annotated 7 times for cluster EA2.

Info for manual annotations of cluster EA4:
•Start number 16 was manually annotated 1 time for cluster EA4.
•Start number 22 was manually annotated 10 times for cluster EA4.

Info for manual annotations of cluster EA5:
•Start number 12 was manually annotated 1 time for cluster EA5.
•Start number 31 was manually annotated 1 time for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 22 was manually annotated 5 times for cluster EA6.

Info for manual annotations of cluster EA7:
•Start number 42 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EA9:
•Start number 22 was manually annotated 3 times for cluster EA9.

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

Info for manual annotations of cluster EH:
•Start number 43 was manually annotated 1 time for cluster EH.
•Start number 45 was manually annotated 3 times for cluster EH.

Info for manual annotations of cluster FG:
•Start number 29 was manually annotated 1 time for cluster FG.
•Start number 39 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster FH:
•Start number 39 was manually annotated 3 times for cluster FH.

Info for manual annotations of cluster FM:
•Start number 39 was manually annotated 2 times for cluster FM.

Gene Information:
Gene: Acosta_32 Start: 22079, Stop: 21225, Start Num: 21

Candidate Starts for Acosta_32:
(Start: 21 @22079 has 1 MA's), (69, 21731), (84, 21623), (90, 21572), (93, 21548), (100, 21494), (102, 21488),

Gene: Agente005_31 Start: 22035, Stop: 21148, Start Num: 22
Candidate Starts for Agente005_31:
(Start: 22 @22035 has 159 MA's), (70, 21705), (74, 21678), (84, 21618), (90, 21564), (100, 21486), (104, 21465), (121, 21279),

Gene: Ajin_41 Start: 25676, Stop: 26536, Start Num: 22
Candidate Starts for Ajin_41:
(Start: 22 @25676 has 159 MA's), (68, 26015), (84, 26102), (90, 26150), (109, 26303), (110, 26309), (123, 26423), (125, 26441),

Gene: AlexAdler_31 Start: 21787, Stop: 20945, Start Num: 22
Candidate Starts for AlexAdler_31:
(Start: 22 @21787 has 159 MA's), (47, 21673), (50, 21643), (69, 21454), (84, 21346), (90, 21295), (93, 21271), (100, 21217), (116, 21094),

Gene: Alyxandracam_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Alyxandracam_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Andromedas_30 Start: 21852, Stop: 20983, Start Num: 19
Candidate Starts for Andromedas_30:
(Start: 19 @21852 has 8 MA's), (Start: 22 @21834 has 159 MA's), (60, 21549), (65, 21495), (84, 21396), (90, 21348), (91, 21345), (92, 21327), (100, 21264), (102, 21258), (107, 21210), (112, 21168), (122, 21093), (132, 21030),

Gene: Anilorac_30 Start: 21879, Stop: 20992, Start Num: 22
Candidate Starts for Anilorac_30:
(Start: 22 @21879 has 159 MA's), (70, 21549), (74, 21522), (84, 21462), (90, 21408), (100, 21330), (104, 21309),

Gene: Antoinette_31 Start: 21784, Stop: 20942, Start Num: 22
Candidate Starts for Antoinette_31:
(Start: 22 @21784 has 159 MA's), (47, 21670), (50, 21640), (69, 21451), (84, 21343), (90, 21292), (93, 21268), (100, 21214), (116, 21091),

Gene: AranulaLuti_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for AranulaLuti_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Asta_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for Asta_30:
(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: Aubergine_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for Aubergine_30:

(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: AxiPup_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for AxiPup_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Baines_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Baines_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Balsa_30 Start: 21873, Stop: 20986, Start Num: 22
Candidate Starts for Balsa_30:
(Start: 22 @21873 has 159 MA's), (50, 21729), (74, 21516), (84, 21456), (87, 21435), (90, 21402), (100, 21324), (104, 21303),

Gene: Bandik_31 Start: 21792, Stop: 20950, Start Num: 22
Candidate Starts for Bandik_31:
(Start: 22 @21792 has 159 MA's), (47, 21678), (50, 21648), (69, 21459), (84, 21351), (90, 21300), (93, 21276), (100, 21222), (116, 21099),

Gene: BeautPeep30_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for BeautPeep30_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: BeeBee8_31 Start: 22040, Stop: 21153, Start Num: 22
Candidate Starts for BeeBee8_31:
(Start: 22 @22040 has 159 MA's), (50, 21896), (74, 21683), (84, 21623), (87, 21602), (90, 21569), (100, 21491), (104, 21470),

Gene: Benjalauren_31 Start: 21608, Stop: 20766, Start Num: 22
Candidate Starts for Benjalauren_31:
(Start: 22 @21608 has 159 MA's), (47, 21494), (50, 21464), (69, 21275), (84, 21167), (90, 21116), (93, 21092), (100, 21038), (116, 20915),

Gene: BigRedClifford_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for BigRedClifford_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Blage_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Blage_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Bolt007_78 Start: 49680, Stop: 48901, Start Num: 39
Candidate Starts for Bolt007_78:
(26, 49755), (Start: 39 @49680 has 7 MA's), (56, 49521), (71, 49398), (76, 49347), (109, 49119), (129, 48990),

Gene: BonesMcCoy_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for BonesMcCoy_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Bonino_30 Start: 21587, Stop: 20745, Start Num: 22
Candidate Starts for Bonino_30:
(Start: 22 @21587 has 159 MA's), (47, 21473), (50, 21443), (69, 21254), (84, 21146), (90, 21095), (93, 21071), (100, 21017), (102, 21011), (116, 20894),

Gene: BouleyBill_29 Start: 21683, Stop: 20790, Start Num: 22
Candidate Starts for BouleyBill_29:
(Start: 16 @21719 has 1 MA's), (Start: 19 @21701 has 8 MA's), (Start: 22 @21683 has 159 MA's), (72, 21317), (82, 21266), (86, 21248), (100, 21131), (107, 21077), (118, 20957),

Gene: Bramble_41 Start: 25636, Stop: 26496, Start Num: 22
Candidate Starts for Bramble_41:
(Start: 22 @25636 has 159 MA's), (68, 25975), (84, 26062), (90, 26110), (109, 26263), (110, 26269), (123, 26383), (125, 26401),

Gene: Bustleton_29 Start: 21683, Stop: 20790, Start Num: 22
Candidate Starts for Bustleton_29:
(Start: 16 @21719 has 1 MA's), (Start: 19 @21701 has 8 MA's), (Start: 22 @21683 has 159 MA's), (63, 21377), (72, 21317), (82, 21266), (86, 21248), (100, 21131), (102, 21125), (107, 21077), (113, 21029),

Gene: Byron23_31 Start: 21801, Stop: 20959, Start Num: 22
Candidate Starts for Byron23_31:
(Start: 22 @21801 has 159 MA's), (47, 21687), (50, 21657), (69, 21468), (84, 21360), (90, 21309), (93, 21285), (100, 21231), (102, 21225), (116, 21108),

Gene: CalWood4100_80 Start: 49859, Stop: 49071, Start Num: 39
Candidate Starts for CalWood4100_80:
(18, 49967), (30, 49910), (32, 49907), (Start: 39 @49859 has 7 MA's), (56, 49700), (71, 49577), (76, 49526), (109, 49295), (130, 49157),

Gene: Calix_30 Start: 21591, Stop: 20749, Start Num: 22
Candidate Starts for Calix_30:
(Start: 22 @21591 has 159 MA's), (47, 21477), (50, 21447), (69, 21258), (84, 21150), (90, 21099), (93, 21075), (100, 21021), (102, 21015), (116, 20898),

Gene: CarisSwetlik_34 Start: 22575, Stop: 21721, Start Num: 21
Candidate Starts for CarisSwetlik_34:
(Start: 21 @22575 has 1 MA's), (69, 22227), (84, 22119), (90, 22068), (93, 22044), (100, 21990),

Gene: Cen1621_66 Start: 44317, Stop: 45051, Start Num: 45
Candidate Starts for Cen1621_66:
(2, 43984), (11, 44113), (15, 44161), (38, 44272), (Start: 43 @44302 has 1 MA's), (Start: 45 @44317 has 3 MA's), (55, 44425), (96, 44752), (126, 44953),

Gene: Chako_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Chako_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Chamuel_30 Start: 21593, Stop: 20751, Start Num: 22
Candidate Starts for Chamuel_30:
(Start: 22 @21593 has 159 MA's), (47, 21479), (50, 21449), (69, 21260), (84, 21152), (90, 21101), (93, 21077), (100, 21023), (102, 21017), (116, 20900),

Gene: Cheeto1_32 Start: 22256, Stop: 21414, Start Num: 22
Candidate Starts for Cheeto1_32:
(Start: 19 @22274 has 8 MA's), (Start: 22 @22256 has 159 MA's), (63, 21947), (66, 21914), (84, 21818), (90, 21770), (91, 21767),

Gene: Chepli_32 Start: 21461, Stop: 20565, Start Num: 22
Candidate Starts for Chepli_32:
(18, 21482), (Start: 19 @21479 has 8 MA's), (Start: 22 @21461 has 159 MA's), (65, 21125), (70, 21104), (92, 20954), (106, 20855),

Gene: ChickenKing_31 Start: 22169, Stop: 21327, Start Num: 22
Candidate Starts for ChickenKing_31:
(Start: 19 @22187 has 8 MA's), (Start: 22 @22169 has 159 MA's), (63, 21860), (66, 21827), (84, 21731), (90, 21683),

Gene: ChikPic_30 Start: 21850, Stop: 20999, Start Num: 22
Candidate Starts for ChikPic_30:
(Start: 19 @21868 has 8 MA's), (Start: 22 @21850 has 159 MA's), (60, 21565), (65, 21511), (84, 21412), (90, 21364), (92, 21343), (100, 21280), (102, 21274), (107, 21226), (112, 21184), (132, 21046),

Gene: Christoph_30 Start: 21609, Stop: 20767, Start Num: 22
Candidate Starts for Christoph_30:
(Start: 22 @21609 has 159 MA's), (47, 21495), (50, 21465), (69, 21276), (84, 21168), (90, 21117), (93, 21093), (100, 21039), (102, 21033), (116, 20916),

Gene: Clancy_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Clancy_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Clock_29 Start: 22434, Stop: 21424, Start Num: 12
Candidate Starts for Clock_29:
(9, 22461), (Start: 12 @22434 has 1 MA's), (14, 22398), (17, 22380), (Start: 19 @22374 has 8 MA's), (Start: 31 @22323 has 1 MA's), (34, 22317), (65, 22005), (84, 21903), (100, 21771), (102, 21765), (106, 21735),

Gene: ColaCorta_30 Start: 21852, Stop: 20983, Start Num: 19
Candidate Starts for ColaCorta_30:
(Start: 19 @21852 has 8 MA's), (Start: 22 @21834 has 159 MA's), (60, 21549), (65, 21495), (84, 21396), (90, 21348), (91, 21345), (92, 21327), (100, 21264), (102, 21258), (107, 21210), (112, 21168), (122, 21093), (132, 21030),

Gene: Convict_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Convict_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: CoraRita_31 Start: 21607, Stop: 20765, Start Num: 22
Candidate Starts for CoraRita_31:
(Start: 22 @21607 has 159 MA's), (47, 21493), (50, 21463), (69, 21274), (84, 21166), (90, 21115), (93, 21091), (100, 21037), (102, 21031), (116, 20914),

Gene: Dave_31 Start: 21784, Stop: 20942, Start Num: 22
Candidate Starts for Dave_31:
(Start: 22 @21784 has 159 MA's), (47, 21670), (50, 21640), (69, 21451), (84, 21343), (90, 21292), (93, 21268), (100, 21214), (116, 21091),

Gene: Delphidian_31 Start: 21795, Stop: 20953, Start Num: 22
Candidate Starts for Delphidian_31:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (116, 21102),

Gene: Den3_31 Start: 21800, Stop: 20958, Start Num: 22
Candidate Starts for Den3_31:
(Start: 22 @21800 has 159 MA's), (47, 21686), (50, 21656), (69, 21467), (84, 21359), (90, 21308), (93, 21284), (100, 21230), (116, 21107),

Gene: Dothraki_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Dothraki_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Duocatuli_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Duocatuli_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Eleri_30 Start: 21865, Stop: 20996, Start Num: 19
Candidate Starts for Eleri_30:
(Start: 19 @21865 has 8 MA's), (Start: 22 @21847 has 159 MA's), (60, 21562), (65, 21508), (84, 21409), (90, 21361), (91, 21358), (92, 21340), (100, 21277), (102, 21271), (107, 21223), (112, 21181), (122, 21106), (132, 21043),

Gene: Emotion_55 Start: 37527, Stop: 38288, Start Num: 39
Candidate Starts for Emotion_55:
(Start: 39 @37527 has 7 MA's), (80, 37878), (111, 38100), (114, 38127), (129, 38211),

Gene: Endor_31 Start: 22097, Stop: 21195, Start Num: 22
Candidate Starts for Endor_31:
(Start: 22 @22097 has 159 MA's), (69, 21764), (84, 21656), (90, 21605), (93, 21581), (100, 21527), (104, 21506), (120, 21329),

Gene: Erla_30 Start: 21591, Stop: 20749, Start Num: 22
Candidate Starts for Erla_30:
(Start: 22 @21591 has 159 MA's), (47, 21477), (50, 21447), (69, 21258), (84, 21150), (90, 21099), (93, 21075), (100, 21021), (102, 21015), (116, 20898),

Gene: Espinosa_30 Start: 21609, Stop: 20767, Start Num: 22
Candidate Starts for Espinosa_30:

(Start: 22 @21609 has 159 MA's), (47, 21495), (50, 21465), (69, 21276), (84, 21168), (90, 21117), (93, 21093), (100, 21039), (102, 21033), (116, 20916),

Gene: Etna_30 Start: 21878, Stop: 20988, Start Num: 22
Candidate Starts for Etna_30:
(Start: 22 @21878 has 159 MA's), (64, 21563), (100, 21329), (104, 21308),

Gene: Etta_30 Start: 21595, Stop: 20753, Start Num: 22
Candidate Starts for Etta_30:
(Start: 22 @21595 has 159 MA's), (47, 21481), (50, 21451), (69, 21262), (84, 21154), (90, 21103), (93, 21079), (100, 21025), (102, 21019), (116, 20902),

Gene: Exploradora_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Exploradora_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: FarmerDoug_30 Start: 21737, Stop: 20847, Start Num: 22
Candidate Starts for FarmerDoug_30:
(Start: 22 @21737 has 159 MA's), (64, 21422), (100, 21188), (104, 21167),

Gene: Figueroism_31 Start: 21783, Stop: 20941, Start Num: 22
Candidate Starts for Figueroism_31:
(Start: 22 @21783 has 159 MA's), (47, 21669), (50, 21639), (69, 21450), (84, 21342), (90, 21291), (93, 21267), (100, 21213), (102, 21207), (116, 21090),

Gene: Finny_30 Start: 21887, Stop: 20979, Start Num: 22
Candidate Starts for Finny_30:
(Start: 19 @21905 has 8 MA's), (Start: 22 @21887 has 159 MA's), (60, 21602), (65, 21548), (84, 21449), (90, 21401), (91, 21398), (92, 21380), (100, 21317), (102, 21311), (107, 21263), (112, 21221), (132, 21026),

Gene: GaeCeo_32 Start: 22405, Stop: 21563, Start Num: 22
Candidate Starts for GaeCeo_32:
(Start: 19 @22423 has 8 MA's), (Start: 22 @22405 has 159 MA's), (63, 22096), (66, 22063), (84, 21967), (90, 21919),

Gene: GardenB_30 Start: 21876, Stop: 20989, Start Num: 22
Candidate Starts for GardenB_30:
(Start: 22 @21876 has 159 MA's), (74, 21519), (84, 21459), (87, 21438), (90, 21405), (100, 21327), (104, 21306),

Gene: GardenState_69 Start: 42002, Stop: 42718, Start Num: 45
Candidate Starts for GardenState_69:
(Start: 45 @42002 has 3 MA's), (96, 42431),

Gene: Garey24_30 Start: 21574, Stop: 20732, Start Num: 22
Candidate Starts for Garey24_30:
(Start: 22 @21574 has 159 MA's), (47, 21460), (50, 21430), (69, 21241), (84, 21133), (90, 21082), (93, 21058), (100, 21004), (102, 20998), (116, 20881),

Gene: Gargoyle_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Gargoyle_31:

(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Gelo_30 Start: 21595, Stop: 20753, Start Num: 22
Candidate Starts for Gelo_30:
(Start: 22 @21595 has 159 MA's), (47, 21481), (50, 21451), (69, 21262), (84, 21154), (90, 21103), (93, 21079), (100, 21025), (102, 21019), (116, 20902),

Gene: Gershwin_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for Gershwin_30:
(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: Glamour_29 Start: 21853, Stop: 20984, Start Num: 19
Candidate Starts for Glamour_29:
(Start: 19 @21853 has 8 MA's), (Start: 22 @21835 has 159 MA's), (60, 21550), (65, 21496), (84, 21397), (90, 21349), (91, 21346), (92, 21328), (100, 21265), (102, 21259), (107, 21211), (112, 21169), (122, 21094), (132, 21031),

Gene: GoingMerry_31 Start: 21806, Stop: 20964, Start Num: 22
Candidate Starts for GoingMerry_31:
(Start: 22 @21806 has 159 MA's), (47, 21692), (50, 21662), (69, 21473), (84, 21365), (90, 21314), (93, 21290), (100, 21236), (102, 21230), (116, 21113),

Gene: Golden_29 Start: 21794, Stop: 20895, Start Num: 22
Candidate Starts for Golden_29:
(Start: 19 @21812 has 8 MA's), (Start: 22 @21794 has 159 MA's), (68, 21449), (72, 21428), (84, 21368), (90, 21320), (100, 21236), (101, 21233), (113, 21134),

Gene: GoneGirl_31 Start: 21925, Stop: 21038, Start Num: 22
Candidate Starts for GoneGirl_31:
(Start: 22 @21925 has 159 MA's), (70, 21595), (74, 21568), (84, 21508), (90, 21454), (97, 21400), (100, 21376), (104, 21355),

Gene: Greys_31 Start: 21793, Stop: 20951, Start Num: 22
Candidate Starts for Greys_31:
(Start: 22 @21793 has 159 MA's), (47, 21679), (50, 21649), (69, 21460), (84, 21352), (90, 21301), (93, 21277), (100, 21223), (116, 21100),

Gene: GrimEater_53 Start: 36520, Stop: 37155, Start Num: 39
Candidate Starts for GrimEater_53:
(36, 36487), (Start: 39 @36520 has 7 MA's), (41, 36529), (51, 36625), (95, 36988),

Gene: Gubbabump_30 Start: 21600, Stop: 20758, Start Num: 22
Candidate Starts for Gubbabump_30:
(Start: 22 @21600 has 159 MA's), (47, 21486), (50, 21456), (69, 21267), (84, 21159), (90, 21108), (93, 21084), (100, 21030), (102, 21024), (116, 20907),

Gene: Guetzie_29 Start: 21782, Stop: 20883, Start Num: 22
Candidate Starts for Guetzie_29:
(Start: 19 @21800 has 8 MA's), (Start: 22 @21782 has 159 MA's), (68, 21437), (72, 21416), (84, 21356), (90, 21308), (100, 21224), (101, 21221), (113, 21122),

Gene: Hamlet_30 Start: 21873, Stop: 20986, Start Num: 22
Candidate Starts for Hamlet_30:
(Start: 22 @21873 has 159 MA's), (50, 21729), (74, 21516), (84, 21456), (87, 21435), (90, 21402),
(100, 21324), (104, 21303),

Gene: HanSolo_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for HanSolo_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93,
21082), (100, 21028), (102, 21022), (116, 20905),

Gene: HankSprout_31 Start: 21478, Stop: 20636, Start Num: 22
Candidate Starts for HankSprout_31:
(Start: 22 @21478 has 159 MA's), (47, 21364), (50, 21334), (69, 21145), (84, 21037), (90, 20986), (93,
20962), (100, 20908), (102, 20902), (116, 20785),

Gene: HavenFinLeoSun_32 Start: 22031, Stop: 21207, Start Num: 20
Candidate Starts for HavenFinLeoSun_32:
(20, 22031), (64, 21701), (71, 21677), (100, 21476), (102, 21470),

Gene: HerculesXL_31 Start: 20731, Stop: 19856, Start Num: 19
Candidate Starts for HerculesXL_31:
(Start: 19 @20731 has 8 MA's), (Start: 22 @20713 has 159 MA's), (50, 20551), (52, 20527), (56,
20479), (61, 20419), (65, 20377), (69, 20362), (84, 20317), (90, 20266), (100, 20182), (102, 20176),
(105, 20149), (112, 20086),

Gene: HungryHenry_30 Start: 21609, Stop: 20767, Start Num: 22
Candidate Starts for HungryHenry_30:
(Start: 22 @21609 has 159 MA's), (47, 21495), (50, 21465), (69, 21276), (84, 21168), (90, 21117), (93,
21093), (100, 21039), (116, 20916),

Gene: IAmGroot_68 Start: 42211, Stop: 42927, Start Num: 45
Candidate Starts for IAmGroot_68:
(Start: 45 @42211 has 3 MA's), (96, 42640),

Gene: IUFootball_23 Start: 19676, Stop: 20467, Start Num: 35
Candidate Starts for IUFootball_23:
(Start: 35 @19676 has 2 MA's), (36, 19685), (Start: 45 @19748 has 3 MA's), (55, 19850), (62, 19925),
(108, 20258), (114, 20297),

Gene: Ilzat_30 Start: 21608, Stop: 20766, Start Num: 22
Candidate Starts for Ilzat_30:
(Start: 22 @21608 has 159 MA's), (47, 21494), (50, 21464), (69, 21275), (84, 21167), (90, 21116), (93,
21092), (100, 21038), (116, 20915),

Gene: Inventa_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Inventa_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93,
21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Ioannes_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Ioannes_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93,
21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Ixel_31 Start: 20664, Stop: 19759, Start Num: 22
Candidate Starts for Ixel_31:
(Start: 19 @20682 has 8 MA's), (Start: 22 @20664 has 159 MA's), (47, 20547), (50, 20517), (65, 20343), (69, 20328), (84, 20220), (88, 20199), (90, 20169), (93, 20145), (100, 20085), (102, 20079), (112, 19989), (132, 19806),

Gene: Jankie_55 Start: 36702, Stop: 37337, Start Num: 39
Candidate Starts for Jankie_55:
(1, 36393), (6, 36489), (8, 36507), (23, 36618), (28, 36633), (36, 36669), (Start: 39 @36702 has 7 MA's), (41, 36711), (51, 36807), (95, 37170),

Gene: Janus167_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Janus167_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: JasonD_33 Start: 22235, Stop: 21387, Start Num: 22
Candidate Starts for JasonD_33:
(Start: 22 @22235 has 159 MA's), (69, 21902), (84, 21794), (90, 21743), (93, 21719), (94, 21707), (116, 21536), (132, 21434),

Gene: JasperRussell_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for JasperRussell_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Jemerald_33 Start: 22738, Stop: 21842, Start Num: 22
Candidate Starts for Jemerald_33:
(Start: 22 @22738 has 159 MA's), (41, 22663), (50, 22576), (56, 22504), (65, 22402), (92, 22231),

Gene: Jenos_34 Start: 22908, Stop: 21967, Start Num: 13
Candidate Starts for Jenos_34:
(Start: 13 @22908 has 2 MA's), (20, 22872), (64, 22542), (100, 22308), (102, 22302), (109, 22242), (113, 22206), (119, 22104),

Gene: Jerbirus_31 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Jerbirus_31:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: JeriBeth_31 Start: 21455, Stop: 20613, Start Num: 22
Candidate Starts for JeriBeth_31:
(Start: 22 @21455 has 159 MA's), (47, 21341), (50, 21311), (69, 21122), (84, 21014), (90, 20963), (93, 20939), (100, 20885), (116, 20762),

Gene: Jingles_29 Start: 21690, Stop: 20797, Start Num: 22
Candidate Starts for Jingles_29:
(Start: 16 @21726 has 1 MA's), (Start: 19 @21708 has 8 MA's), (Start: 22 @21690 has 159 MA's), (72, 21324), (82, 21273), (86, 21255), (100, 21138), (102, 21132), (107, 21084), (113, 21036),

Gene: Juicer_33 Start: 22738, Stop: 21842, Start Num: 22
Candidate Starts for Juicer_33:

(Start: 22 @22738 has 159 MA's), (41, 22663), (50, 22576), (56, 22504), (65, 22402), (92, 22231),

Gene: Kale_30 Start: 21613, Stop: 20771, Start Num: 22
Candidate Starts for Kale_30:
(Start: 22 @21613 has 159 MA's), (47, 21499), (50, 21469), (69, 21280), (84, 21172), (90, 21121), (93, 21097), (100, 21043), (102, 21037), (116, 20920),

Gene: KannH_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for KannH_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: KatChan_32 Start: 21467, Stop: 20571, Start Num: 22
Candidate Starts for KatChan_32:
(18, 21488), (Start: 19 @21485 has 8 MA's), (Start: 22 @21467 has 159 MA's), (65, 21131), (70, 21110), (92, 20960), (106, 20861),

Gene: Kauala_29 Start: 21686, Stop: 20793, Start Num: 22
Candidate Starts for Kauala_29:
(Start: 19 @21704 has 8 MA's), (Start: 22 @21686 has 159 MA's), (46, 21566), (68, 21341), (72, 21320), (84, 21260), (90, 21212), (100, 21134), (112, 21038),

Gene: Kavo_30 Start: 20550, Stop: 19693, Start Num: 22
Candidate Starts for Kavo_30:
(Start: 19 @20568 has 8 MA's), (Start: 22 @20550 has 159 MA's), (50, 20388), (52, 20364), (56, 20316), (61, 20256), (65, 20214), (69, 20199), (84, 20154), (90, 20103), (100, 20019), (102, 20013), (105, 19986), (112, 19923),

Gene: KellyGreen_31 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for KellyGreen_31:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Kharcho_27 Start: 10163, Stop: 10948, Start Num: 39
Candidate Starts for Kharcho_27:
(Start: 39 @10163 has 7 MA's), (48, 10238), (71, 10445), (76, 10496), (79, 10517), (109, 10727),

Gene: KingJulien_30 Start: 21869, Stop: 20982, Start Num: 22
Candidate Starts for KingJulien_30:
(Start: 22 @21869 has 159 MA's), (74, 21512), (84, 21452), (87, 21431), (90, 21398), (100, 21320), (104, 21299),

Gene: Klevey_81 Start: 49956, Stop: 49168, Start Num: 39
Candidate Starts for Klevey_81:
(18, 50064), (30, 50007), (32, 50004), (Start: 39 @49956 has 7 MA's), (56, 49797), (71, 49674), (76, 49623), (109, 49392),

Gene: Klimt_30 Start: 21593, Stop: 20751, Start Num: 22
Candidate Starts for Klimt_30:
(Start: 22 @21593 has 159 MA's), (47, 21479), (50, 21449), (69, 21260), (84, 21152), (90, 21101), (93, 21077), (100, 21023), (102, 21017), (116, 20900),

Gene: Knox_31 Start: 21796, Stop: 20954, Start Num: 22

Candidate Starts for Knox_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Koji_29 Start: 21812, Stop: 20919, Start Num: 22
Candidate Starts for Koji_29:
(4, 21998), (5, 21953), (7, 21938), (Start: 19 @21830 has 8 MA's), (Start: 22 @21812 has 159 MA's), (50, 21650), (67, 21470), (72, 21446), (82, 21395), (86, 21377), (100, 21260), (102, 21254), (107, 21206),

Gene: Kors_41 Start: 25717, Stop: 26583, Start Num: 22
Candidate Starts for Kors_41:
(3, 25516), (10, 25624), (15, 25675), (Start: 22 @25717 has 159 MA's), (37, 25768), (66, 26056), (68, 26062), (84, 26149), (90, 26197), (109, 26350), (110, 26356), (123, 26470), (125, 26488),

Gene: Kouch_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Kouch_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Kurt1_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Kurt1_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Leafus_30 Start: 22011, Stop: 21124, Start Num: 22
Candidate Starts for Leafus_30:
(Start: 22 @22011 has 159 MA's), (64, 21696), (102, 21459), (119, 21261),

Gene: Liebe_23 Start: 19676, Stop: 20467, Start Num: 35
Candidate Starts for Liebe_23:
(Start: 35 @19676 has 2 MA's), (36, 19685), (Start: 45 @19748 has 3 MA's), (55, 19850), (62, 19925), (108, 20258), (114, 20297),

Gene: Lilmac1015_80 Start: 49859, Stop: 49071, Start Num: 39
Candidate Starts for Lilmac1015_80:
(18, 49967), (30, 49910), (32, 49907), (Start: 39 @49859 has 7 MA's), (56, 49700), (71, 49577), (76, 49526), (109, 49295), (130, 49157),

Gene: LordBart_41 Start: 25632, Stop: 26492, Start Num: 22
Candidate Starts for LordBart_41:
(Start: 22 @25632 has 159 MA's), (68, 25971), (84, 26058), (90, 26106), (109, 26259), (110, 26265), (123, 26379), (125, 26397),

Gene: Lovelyunicorn_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Lovelyunicorn_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Lucky3_29 Start: 21794, Stop: 20895, Start Num: 22
Candidate Starts for Lucky3_29:
(Start: 19 @21812 has 8 MA's), (Start: 22 @21794 has 159 MA's), (68, 21449), (72, 21428), (84, 21368), (90, 21320), (100, 21236), (101, 21233), (113, 21134),

Gene: Ludgate_31 Start: 21792, Stop: 20950, Start Num: 22
Candidate Starts for Ludgate_31:
(Start: 22 @21792 has 159 MA's), (47, 21678), (50, 21648), (69, 21459), (84, 21351), (90, 21300), (93, 21276), (100, 21222), (116, 21099),

Gene: Lukepolites_73 Start: 47056, Stop: 46286, Start Num: 40
Candidate Starts for Lukepolites_73:
(24, 47143), (34, 47107), (40, 47056), (47, 47002), (63, 46831), (81, 46702), (85, 46678), (89, 46654), (98, 46570), (129, 46372), (131, 46360), (133, 46324),

Gene: Luna18_32 Start: 21467, Stop: 20571, Start Num: 22
Candidate Starts for Luna18_32:
(18, 21488), (Start: 19 @21485 has 8 MA's), (Start: 22 @21467 has 159 MA's), (65, 21131), (70, 21110), (92, 20960), (106, 20861),

Gene: MCubed_30 Start: 21857, Stop: 21006, Start Num: 22
Candidate Starts for MCubed_30:
(Start: 19 @21875 has 8 MA's), (Start: 22 @21857 has 159 MA's), (60, 21572), (65, 21518), (84, 21419), (90, 21371), (92, 21350), (100, 21287), (102, 21281), (107, 21233), (112, 21191), (132, 21053),

Gene: MaeLinda_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for MaeLinda_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105), (131, 21024),

Gene: ManRay_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for ManRay_30:
(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: Martin_32 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Martin_32:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Maruru_99 Start: 60098, Stop: 59316, Start Num: 39
Candidate Starts for Maruru_99:
(25, 60170), (27, 60167), (Start: 29 @60161 has 1 MA's), (Start: 39 @60098 has 7 MA's), (48, 60023), (49, 60020), (71, 59813), (76, 59762), (104, 59576), (109, 59531), (110, 59525), (127, 59405),

Gene: Maureen_23 Start: 19676, Stop: 20467, Start Num: 35
Candidate Starts for Maureen_23:
(Start: 35 @19676 has 2 MA's), (36, 19685), (Start: 45 @19748 has 3 MA's), (55, 19850), (62, 19925), (108, 20258), (114, 20297),

Gene: McGalleon_33 Start: 23130, Stop: 22183, Start Num: 13
Candidate Starts for McGalleon_33:
(Start: 13 @23130 has 2 MA's), (20, 23094), (68, 22749), (78, 22686), (100, 22524), (102, 22518), (109, 22458), (113, 22422), (119, 22320),

Gene: Merida02_32 Start: 21795, Stop: 20953, Start Num: 22

Candidate Starts for Merida02_32:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (116, 21102),

Gene: MillyPhilly_31 Start: 21795, Stop: 20953, Start Num: 22
Candidate Starts for MillyPhilly_31:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (102, 21219), (116, 21102),

Gene: MonChoix_29 Start: 21781, Stop: 20879, Start Num: 22
Candidate Starts for MonChoix_29:
(Start: 22 @21781 has 159 MA's), (69, 21448), (84, 21340), (90, 21289), (93, 21265), (100, 21211), (104, 21190), (120, 21013),

Gene: MrWorldwide_31 Start: 21799, Stop: 20957, Start Num: 22
Candidate Starts for MrWorldwide_31:
(Start: 22 @21799 has 159 MA's), (47, 21685), (50, 21655), (69, 21466), (84, 21358), (90, 21307), (93, 21283), (100, 21229), (102, 21223), (116, 21106),

Gene: Nagem_31 Start: 21792, Stop: 20950, Start Num: 22
Candidate Starts for Nagem_31:
(Start: 22 @21792 has 159 MA's), (47, 21678), (50, 21648), (69, 21459), (84, 21351), (90, 21300), (93, 21276), (100, 21222), (116, 21099),

Gene: Nandito_79 Start: 50159, Stop: 49368, Start Num: 39
Candidate Starts for Nandito_79:
(Start: 39 @50159 has 7 MA's), (58, 49976), (76, 49820), (109, 49589), (129, 49457),

Gene: Nattles_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Nattles_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Nebulous_29 Start: 22504, Stop: 21605, Start Num: 31
Candidate Starts for Nebulous_29:
(9, 22642), (Start: 12 @22615 has 1 MA's), (14, 22579), (17, 22561), (Start: 19 @22555 has 8 MA's), (Start: 31 @22504 has 1 MA's), (34, 22498), (65, 22186), (84, 22084), (100, 21952), (102, 21946), (106, 21916),

Gene: NickSell_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for NickSell_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Oats_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for Oats_30:
(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: OldNelly_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for OldNelly_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (116, 21105),

Gene: Ottawa_27 Start: 10163, Stop: 10948, Start Num: 39
Candidate Starts for Ottawa_27:
(Start: 39 @10163 has 7 MA's), (48, 10238), (71, 10445), (76, 10496), (79, 10517), (109, 10727),

Gene: Oxtober96_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Oxtober96_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: PSirce_30 Start: 21868, Stop: 20999, Start Num: 19
Candidate Starts for PSirce_30:
(Start: 19 @21868 has 8 MA's), (Start: 22 @21850 has 159 MA's), (60, 21565), (65, 21511), (84, 21412), (90, 21364), (91, 21361), (92, 21343), (100, 21280), (102, 21274), (107, 21226), (112, 21184), (122, 21109), (132, 21046),

Gene: Papafritta_30 Start: 21607, Stop: 20765, Start Num: 22
Candidate Starts for Papafritta_30:
(Start: 22 @21607 has 159 MA's), (47, 21493), (50, 21463), (69, 21274), (84, 21166), (90, 21115), (93, 21091), (100, 21037), (116, 20914),

Gene: ParleG_31 Start: 21799, Stop: 20957, Start Num: 22
Candidate Starts for ParleG_31:
(Start: 22 @21799 has 159 MA's), (47, 21685), (50, 21655), (69, 21466), (84, 21358), (90, 21307), (93, 21283), (100, 21229), (102, 21223), (116, 21106),

Gene: Peep_31 Start: 21784, Stop: 20942, Start Num: 22
Candidate Starts for Peep_31:
(Start: 22 @21784 has 159 MA's), (47, 21670), (50, 21640), (69, 21451), (84, 21343), (90, 21292), (93, 21268), (100, 21214), (116, 21091),

Gene: Penta_29 Start: 20407, Stop: 19550, Start Num: 22
Candidate Starts for Penta_29:
(Start: 19 @20425 has 8 MA's), (Start: 22 @20407 has 159 MA's), (50, 20245), (56, 20173), (61, 20113), (65, 20071), (69, 20056), (84, 20011), (90, 19960), (100, 19876), (102, 19870), (105, 19843), (109, 19810), (112, 19780), (113, 19774),

Gene: Peppino_30 Start: 21865, Stop: 20978, Start Num: 22
Candidate Starts for Peppino_30:
(Start: 22 @21865 has 159 MA's), (50, 21721), (74, 21508), (84, 21448), (87, 21427), (90, 21394), (100, 21316), (104, 21295),

Gene: Phanita_30 Start: 21830, Stop: 20979, Start Num: 22
Candidate Starts for Phanita_30:
(Start: 19 @21848 has 8 MA's), (Start: 22 @21830 has 159 MA's), (60, 21545), (65, 21491), (84, 21392), (90, 21344), (92, 21323), (100, 21260), (102, 21254), (107, 21206), (112, 21164), (132, 21026),

Gene: Pherbot_29 Start: 21682, Stop: 20789, Start Num: 22
Candidate Starts for Pherbot_29:
(Start: 16 @21718 has 1 MA's), (Start: 19 @21700 has 8 MA's), (Start: 22 @21682 has 159 MA's), (63, 21376), (72, 21316), (82, 21265), (86, 21247), (100, 21130), (102, 21124), (107, 21076), (113, 21028),

Gene: Pherferi_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Pherferi_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Phiderman_31 Start: 21795, Stop: 20953, Start Num: 22
Candidate Starts for Phiderman_31:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (102, 21219), (116, 21102),

Gene: PhillyPhantom_30 Start: 21846, Stop: 20998, Start Num: 22
Candidate Starts for PhillyPhantom_30:
(Start: 22 @21846 has 159 MA's), (69, 21513), (84, 21405), (90, 21354), (93, 21330), (100, 21270), (102, 21264), (116, 21147), (132, 21045),

Gene: Phireproof_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Phireproof_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: PhredFlintston_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for PhredFlintston_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Phriends_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Phriends_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (116, 21105),

Gene: Pocket_30 Start: 21596, Stop: 20754, Start Num: 22
Candidate Starts for Pocket_30:
(Start: 22 @21596 has 159 MA's), (47, 21482), (50, 21452), (69, 21263), (84, 21155), (90, 21104), (93, 21080), (100, 21026), (102, 21020), (116, 20903),

Gene: PorkBelly_50 Start: 38512, Stop: 37673, Start Num: 33
Candidate Starts for PorkBelly_50:
(33, 38512), (44, 38440), (54, 38320), (59, 38263), (73, 38149), (77, 38116), (80, 38095), (99, 37954), (111, 37861), (115, 37819), (117, 37810), (127, 37771), (128, 37768),

Gene: PrincePhergus_29 Start: 21721, Stop: 20792, Start Num: 16
Candidate Starts for PrincePhergus_29:
(Start: 16 @21721 has 1 MA's), (Start: 19 @21703 has 8 MA's), (Start: 22 @21685 has 159 MA's), (72, 21319), (82, 21268), (86, 21250), (100, 21133), (102, 21127), (107, 21079),

Gene: PuppyEggo_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for PuppyEggo_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Raccoon_30 Start: 21834, Stop: 20986, Start Num: 22
Candidate Starts for Raccoon_30:

(Start: 22 @21834 has 159 MA's), (69, 21501), (84, 21393), (90, 21342), (93, 21318), (100, 21258), (102, 21252), (116, 21135), (132, 21033),

Gene: Rapheph_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Rapheph_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Raptor_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Raptor_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Redfield_30 Start: 21872, Stop: 20985, Start Num: 22
Candidate Starts for Redfield_30:
(Start: 22 @21872 has 159 MA's), (50, 21728), (74, 21515), (84, 21455), (87, 21434), (90, 21401), (100, 21323), (104, 21302),

Gene: Renzie_31 Start: 21784, Stop: 20942, Start Num: 22
Candidate Starts for Renzie_31:
(Start: 22 @21784 has 159 MA's), (47, 21670), (50, 21640), (69, 21451), (84, 21343), (90, 21292), (93, 21268), (100, 21214), (116, 21091),

Gene: RikSengupta_41 Start: 25754, Stop: 26620, Start Num: 22
Candidate Starts for RikSengupta_41:
(3, 25553), (10, 25661), (15, 25712), (Start: 22 @25754 has 159 MA's), (37, 25805), (66, 26093), (68, 26099), (84, 26186), (90, 26234), (103, 26330), (109, 26387), (110, 26393), (123, 26507), (124, 26519), (125, 26525),

Gene: Riyhil_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Riyhil_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (116, 21105),

Gene: Robinson_31 Start: 21790, Stop: 20948, Start Num: 22
Candidate Starts for Robinson_31:
(Start: 22 @21790 has 159 MA's), (47, 21676), (50, 21646), (69, 21457), (84, 21349), (90, 21298), (93, 21274), (100, 21220), (102, 21214), (116, 21097),

Gene: Rog141_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for Rog141_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: RosieMae_30 Start: 21608, Stop: 20766, Start Num: 22
Candidate Starts for RosieMae_30:
(Start: 22 @21608 has 159 MA's), (47, 21494), (50, 21464), (69, 21275), (84, 21167), (90, 21116), (93, 21092), (100, 21038), (116, 20915),

Gene: SJay_31 Start: 21793, Stop: 20951, Start Num: 22
Candidate Starts for SJay_31:
(Start: 22 @21793 has 159 MA's), (47, 21679), (50, 21649), (69, 21460), (84, 21352), (90, 21301), (93, 21277), (100, 21223), (116, 21100),

Gene: Sansa_29 Start: 21875, Stop: 21006, Start Num: 19
Candidate Starts for Sansa_29:
(Start: 19 @21875 has 8 MA's), (Start: 22 @21857 has 159 MA's), (60, 21572), (65, 21518), (84, 21419), (90, 21371), (91, 21368), (92, 21350), (100, 21287), (102, 21281), (106, 21251), (107, 21233), (112, 21191), (122, 21116), (132, 21053),

Gene: Saratos_30 Start: 21832, Stop: 20981, Start Num: 22
Candidate Starts for Saratos_30:
(Start: 19 @21850 has 8 MA's), (Start: 22 @21832 has 159 MA's), (60, 21547), (65, 21493), (84, 21394), (90, 21346), (91, 21343), (92, 21325), (100, 21262), (102, 21256), (107, 21208), (112, 21166), (122, 21091), (132, 21028),

Gene: Schimmels22_31 Start: 21105, Stop: 20230, Start Num: 19
Candidate Starts for Schimmels22_31:
(Start: 19 @21105 has 8 MA's), (Start: 22 @21087 has 159 MA's), (50, 20925), (52, 20901), (56, 20853), (61, 20793), (65, 20751), (69, 20736), (84, 20691), (90, 20640), (97, 20583), (100, 20556), (102, 20550), (105, 20523), (112, 20460),

Gene: Schnapsidee_30 Start: 21866, Stop: 20979, Start Num: 22
Candidate Starts for Schnapsidee_30:
(Start: 22 @21866 has 159 MA's), (50, 21722), (74, 21509), (84, 21449), (87, 21428), (90, 21395), (100, 21317), (104, 21296),

Gene: Scissor2024_31 Start: 20723, Stop: 19866, Start Num: 22
Candidate Starts for Scissor2024_31:
(Start: 19 @20741 has 8 MA's), (Start: 22 @20723 has 159 MA's), (50, 20561), (52, 20537), (56, 20489), (61, 20429), (65, 20387), (69, 20372), (84, 20327), (90, 20276), (100, 20192), (102, 20186), (105, 20159), (112, 20096),

Gene: Sedgewig_30 Start: 21590, Stop: 20748, Start Num: 22
Candidate Starts for Sedgewig_30:
(Start: 22 @21590 has 159 MA's), (47, 21476), (50, 21446), (69, 21257), (84, 21149), (90, 21098), (93, 21074), (100, 21020), (116, 20897),

Gene: ShaiHulud_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for ShaiHulud_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Shamu_30 Start: 21847, Stop: 20996, Start Num: 22
Candidate Starts for Shamu_30:
(Start: 19 @21865 has 8 MA's), (Start: 22 @21847 has 159 MA's), (60, 21562), (65, 21508), (84, 21409), (90, 21361), (91, 21358), (92, 21340), (100, 21277), (102, 21271), (107, 21223), (112, 21181), (122, 21106), (132, 21043),

Gene: Shee_31 Start: 21795, Stop: 20953, Start Num: 22
Candidate Starts for Shee_31:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (102, 21219), (116, 21102),

Gene: Sinatra_29 Start: 21682, Stop: 20789, Start Num: 22
Candidate Starts for Sinatra_29:

(Start: 19 @21700 has 8 MA's), (Start: 22 @21682 has 159 MA's), (50, 21520), (72, 21316), (82, 21265), (86, 21247), (92, 21187), (100, 21130), (102, 21124), (107, 21076),

Gene: SirVictor_29 Start: 21782, Stop: 20883, Start Num: 22
Candidate Starts for SirVictor_29:
(Start: 19 @21800 has 8 MA's), (Start: 22 @21782 has 159 MA's), (68, 21437), (72, 21416), (84, 21356), (90, 21308), (100, 21224), (101, 21221), (113, 21122),

Gene: SoilGremlin_31 Start: 21795, Stop: 20953, Start Num: 22
Candidate Starts for SoilGremlin_31:
(Start: 22 @21795 has 159 MA's), (47, 21681), (50, 21651), (69, 21462), (84, 21354), (90, 21303), (93, 21279), (100, 21225), (116, 21102),

Gene: SolidSnake_32 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for SolidSnake_32:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: SonOfLevi_30 Start: 21593, Stop: 20751, Start Num: 22
Candidate Starts for SonOfLevi_30:
(Start: 22 @21593 has 159 MA's), (47, 21479), (50, 21449), (69, 21260), (84, 21152), (90, 21101), (93, 21077), (100, 21023), (102, 21017), (116, 20900),

Gene: Sonali_99 Start: 61044, Stop: 60199, Start Num: 29
Candidate Starts for Sonali_99:
(25, 61053), (Start: 29 @61044 has 1 MA's), (Start: 39 @60981 has 7 MA's), (48, 60906), (49, 60903), (71, 60696), (76, 60645), (104, 60459), (109, 60414), (127, 60288),

Gene: Soror1_30 Start: 21878, Stop: 20991, Start Num: 22
Candidate Starts for Soror1_30:
(Start: 22 @21878 has 159 MA's), (74, 21521), (84, 21461), (87, 21440), (90, 21407), (100, 21329), (104, 21308),

Gene: Sparcetus_41 Start: 25633, Stop: 26499, Start Num: 22
Candidate Starts for Sparcetus_41:
(3, 25432), (10, 25540), (15, 25591), (Start: 22 @25633 has 159 MA's), (37, 25684), (68, 25978), (84, 26065), (90, 26113), (109, 26266), (110, 26272), (123, 26386), (125, 26404),

Gene: Stanktossa_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for Stanktossa_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: StingRay_30 Start: 21608, Stop: 20766, Start Num: 22
Candidate Starts for StingRay_30:
(Start: 22 @21608 has 159 MA's), (47, 21494), (50, 21464), (69, 21275), (84, 21167), (90, 21116), (93, 21092), (100, 21038), (116, 20915),

Gene: StirfryIV_30 Start: 21598, Stop: 20756, Start Num: 22
Candidate Starts for StirfryIV_30:
(Start: 22 @21598 has 159 MA's), (47, 21484), (50, 21454), (69, 21265), (84, 21157), (90, 21106), (93, 21082), (100, 21028), (102, 21022), (116, 20905),

Gene: Stormbreaker8_30 Start: 21869, Stop: 20982, Start Num: 22
Candidate Starts for Stormbreaker8_30:
(Start: 22 @21869 has 159 MA's), (74, 21512), (84, 21452), (87, 21431), (90, 21398), (100, 21320), (104, 21299),

Gene: Strathdee_31 Start: 21797, Stop: 20955, Start Num: 22
Candidate Starts for Strathdee_31:
(Start: 22 @21797 has 159 MA's), (47, 21683), (50, 21653), (69, 21464), (84, 21356), (90, 21305), (93, 21281), (100, 21227), (102, 21221), (116, 21104),

Gene: Sunshine23_101 Start: 60790, Stop: 60005, Start Num: 39
Candidate Starts for Sunshine23_101:
(25, 60862), (Start: 29 @60853 has 1 MA's), (Start: 39 @60790 has 7 MA's), (49, 60712), (53, 60673), (71, 60505), (76, 60454), (104, 60265), (109, 60220), (127, 60094),

Gene: Superfresh_31 Start: 21784, Stop: 20942, Start Num: 22
Candidate Starts for Superfresh_31:
(Start: 22 @21784 has 159 MA's), (47, 21670), (50, 21640), (69, 21451), (84, 21343), (90, 21292), (93, 21268), (100, 21214), (116, 21091),

Gene: Symere_30 Start: 21588, Stop: 20746, Start Num: 22
Candidate Starts for Symere_30:
(Start: 22 @21588 has 159 MA's), (47, 21474), (50, 21444), (69, 21255), (84, 21147), (90, 21096), (93, 21072), (100, 21018), (116, 20895),

Gene: TatarkaPM_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for TatarkaPM_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: Teagan_31 Start: 21792, Stop: 20950, Start Num: 22
Candidate Starts for Teagan_31:
(Start: 22 @21792 has 159 MA's), (47, 21678), (50, 21648), (69, 21459), (84, 21351), (90, 21300), (93, 21276), (100, 21222), (116, 21099),

Gene: TeddyBear_30 Start: 21611, Stop: 20769, Start Num: 22
Candidate Starts for TeddyBear_30:
(Start: 22 @21611 has 159 MA's), (47, 21497), (50, 21467), (69, 21278), (84, 21170), (90, 21119), (93, 21095), (100, 21041), (102, 21035), (116, 20918),

Gene: Tenda_30 Start: 21609, Stop: 20767, Start Num: 22
Candidate Starts for Tenda_30:
(Start: 22 @21609 has 159 MA's), (47, 21495), (50, 21465), (69, 21276), (84, 21168), (90, 21117), (93, 21093), (100, 21039), (102, 21033), (116, 20916),

Gene: Theresita_50 Start: 33880, Stop: 33122, Start Num: 42
Candidate Starts for Theresita_50:
(Start: 42 @33880 has 1 MA's), (57, 33712), (75, 33574), (84, 33514), (107, 33319), (109, 33307), (112, 33277), (128, 33208), (131, 33193),

Gene: Thompsone_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Thompsone_31:

(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (102, 21220), (116, 21103),

Gene: Thorongil_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Thorongil_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: TinSulphur_31 Start: 21798, Stop: 20956, Start Num: 22
Candidate Starts for TinSulphur_31:
(Start: 22 @21798 has 159 MA's), (47, 21684), (50, 21654), (69, 21465), (84, 21357), (90, 21306), (93, 21282), (100, 21228), (102, 21222), (116, 21105),

Gene: TinyMiny_41 Start: 25652, Stop: 26518, Start Num: 22
Candidate Starts for TinyMiny_41:
(3, 25451), (10, 25559), (15, 25610), (Start: 22 @25652 has 159 MA's), (37, 25703), (68, 25997), (84, 26084), (90, 26132), (109, 26285), (110, 26291), (123, 26405), (125, 26423),

Gene: Tinyman4_31 Start: 20713, Stop: 19856, Start Num: 22
Candidate Starts for Tinyman4_31:
(Start: 19 @20731 has 8 MA's), (Start: 22 @20713 has 159 MA's), (50, 20551), (52, 20527), (56, 20479), (61, 20419), (65, 20377), (69, 20362), (84, 20317), (90, 20266), (100, 20182), (102, 20176), (105, 20149), (112, 20086),

Gene: Velene_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Velene_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Vispistious_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for Vispistious_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: WestPM_29 Start: 20570, Stop: 19713, Start Num: 22
Candidate Starts for WestPM_29:
(Start: 19 @20588 has 8 MA's), (Start: 22 @20570 has 159 MA's), (50, 20408), (56, 20336), (61, 20276), (65, 20234), (69, 20219), (84, 20174), (90, 20123), (100, 20039), (102, 20033), (105, 20006), (109, 19973), (112, 19943),

Gene: WildNOut_31 Start: 21796, Stop: 20954, Start Num: 22
Candidate Starts for WildNOut_31:
(Start: 22 @21796 has 159 MA's), (47, 21682), (50, 21652), (69, 21463), (84, 21355), (90, 21304), (93, 21280), (100, 21226), (116, 21103),

Gene: Winzigespinne_30 Start: 21597, Stop: 20755, Start Num: 22
Candidate Starts for Winzigespinne_30:
(Start: 22 @21597 has 159 MA's), (47, 21483), (50, 21453), (69, 21264), (84, 21156), (90, 21105), (93, 21081), (100, 21027), (102, 21021), (116, 20904),

Gene: Xebius_30 Start: 21835, Stop: 20984, Start Num: 22
Candidate Starts for Xebius_30:

(Start: 19 @21853 has 8 MA's), (Start: 22 @21835 has 159 MA's), (60, 21550), (65, 21496), (84, 21397), (90, 21349), (91, 21346), (92, 21328), (100, 21265), (102, 21259), (107, 21211), (112, 21169), (122, 21094), (132, 21031),

Gene: YuuY_29 Start: 21987, Stop: 21088, Start Num: 22
Candidate Starts for YuuY_29:
(Start: 22 @21987 has 159 MA's), (65, 21648), (72, 21618), (84, 21546), (92, 21477), (101, 21411), (102, 21408), (112, 21318),

Gene: Zada_31 Start: 21777, Stop: 20935, Start Num: 22
Candidate Starts for Zada_31:
(Start: 22 @21777 has 159 MA's), (47, 21663), (50, 21633), (69, 21444), (84, 21336), (90, 21285), (93, 21261), (100, 21207), (116, 21084),

Gene: Zenitsu_30 Start: 21862, Stop: 21011, Start Num: 22
Candidate Starts for Zenitsu_30:
(Start: 19 @21880 has 8 MA's), (Start: 22 @21862 has 159 MA's), (60, 21577), (65, 21523), (84, 21424), (90, 21376), (91, 21373), (92, 21355), (100, 21292), (102, 21286), (107, 21238), (112, 21196), (122, 21121), (132, 21058),

Gene: Zeta1847_49 Start: 35401, Stop: 36153, Start Num: 43
Candidate Starts for Zeta1847_49:
(Start: 43 @35401 has 1 MA's), (Start: 45 @35416 has 3 MA's), (83, 35752),