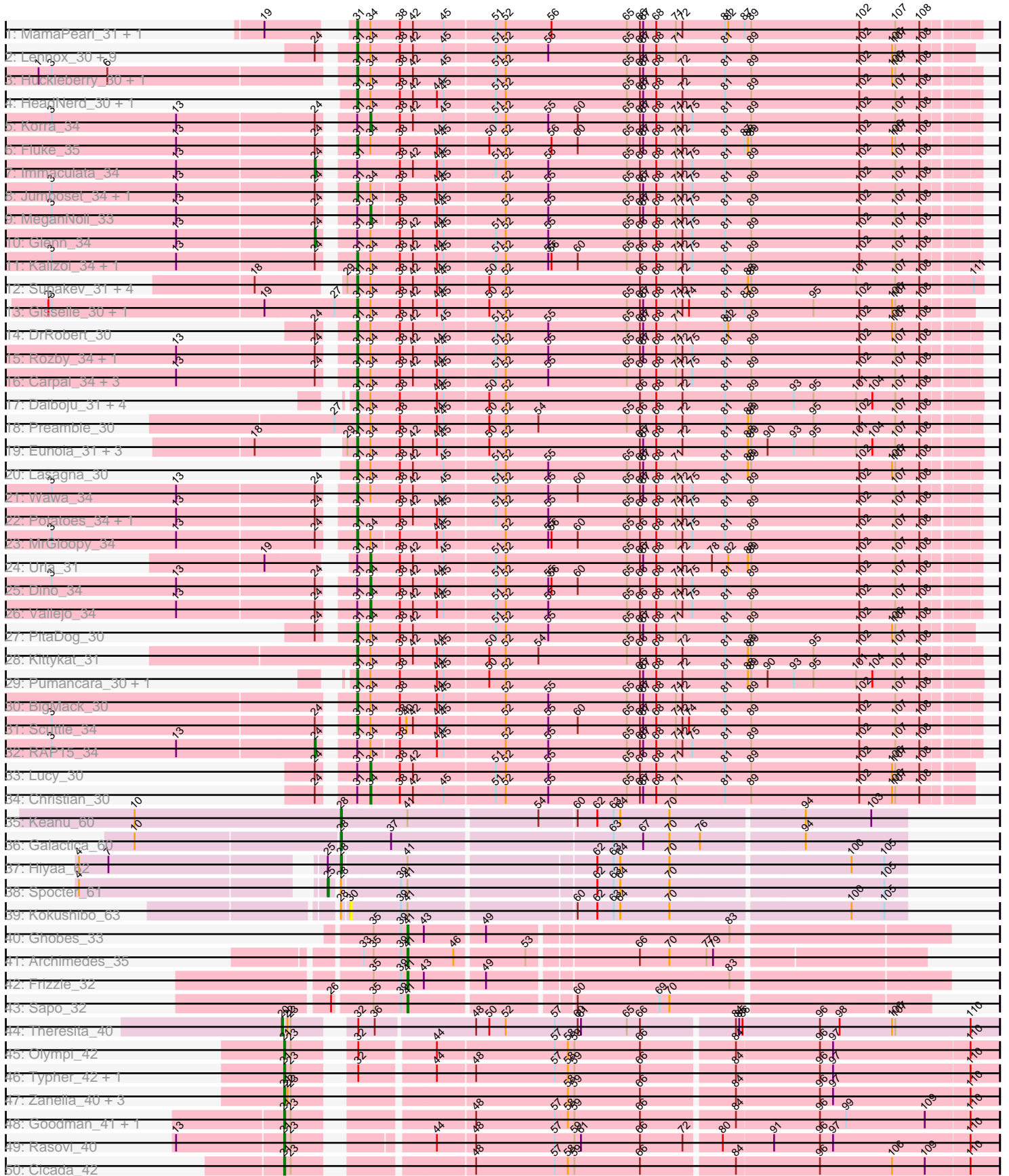
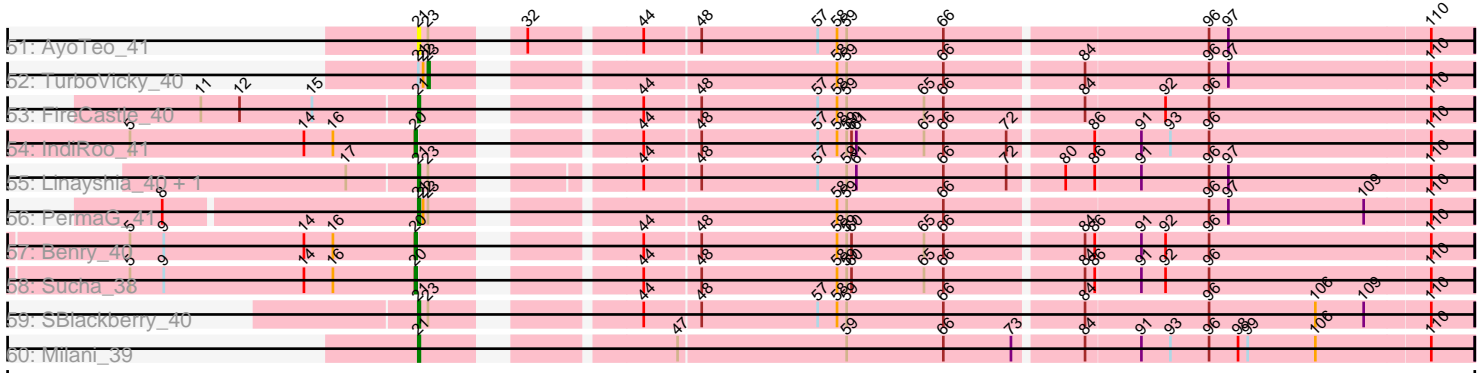


Pham 296430



Pham 296430



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 296430 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296430 has 98 members, 5 are drafts.

Phages represented in each track:

- Track 1 : MamaPearl_31, EstebanJulior_31
- Track 2 : Lennox_30, ChewChew_30, WonderBoy_29, Bodacious_30, Pterodactyl_30, Nancia_30, Makoto_30, CristinaYang_30, LilStuart_30, OurGirlNessie_30
- Track 3 : Huckleberry_30, Moki_30
- Track 4 : HeadNerd_30, Bennie_30
- Track 5 : Korra_34
- Track 6 : Fluke_35
- Track 7 : Immaculata_34
- Track 8 : Jumboset_34, Savage2526_34
- Track 9 : MeganNoll_33
- Track 10 : Glenn_34
- Track 11 : Kalizoi_34, Zorro_34
- Track 12 : Supakev_31, AustinPowers_31, Vulture_31, HunterDalle_31, Chridison_30
- Track 13 : Gisselle_30, DreamTeam_30
- Track 14 : DrRobert_30
- Track 15 : Rozby_34, BrotherBLo_34
- Track 16 : Carpal_34, Riverdale_34, Beethoven_34, TattModd_34
- Track 17 : Daiboju_31, Temper16_31, Herb_31, Sergei_31, KingBob_31
- Track 18 : Preamble_30
- Track 19 : Eunoia_31, Riovina_31, OMalley_31, Aledel_31
- Track 20 : Lasagna_30
- Track 21 : Wawa_34
- Track 22 : Potatoes_34, Cholula_34
- Track 23 : MrGloopy_34
- Track 24 : Urla_31
- Track 25 : Dino_34
- Track 26 : Vallejo_34
- Track 27 : PitaDog_30
- Track 28 : Kittykat_31
- Track 29 : Pumancara_30, PinkFriday_30
- Track 30 : BigMack_30
- Track 31 : Scuttle_34
- Track 32 : RAP15_34
- Track 33 : Lucy_30
- Track 34 : Christian_30

- Track 35 : Keanu_60
- Track 36 : Galactica_60
- Track 37 : Hiyaa_62
- Track 38 : Spocter_61
- Track 39 : Kokushibo_63
- Track 40 : Ghobes_33
- Track 41 : Archimedes_35
- Track 42 : Frizzle_32
- Track 43 : Sapo_32
- Track 44 : Theresita_40
- Track 45 : Olympi_42
- Track 46 : Typher_42, Labella_42
- Track 47 : Zanella_40, Rootkit7_40, Jera_41, Alove_40
- Track 48 : Goodman_41, Johann_41
- Track 49 : Rasovi_40
- Track 50 : Cicada_42
- Track 51 : AyoTeo_41
- Track 52 : TurboVicky_40
- Track 53 : FireCastle_40
- Track 54 : IndiRoo_41
- Track 55 : Linayshia_40, Htur_40
- Track 56 : PermaG_41
- Track 57 : Benry_40
- Track 58 : Sucha_38
- Track 59 : SBlackberry_40
- Track 60 : Milani_39

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

The start number called the most often in the published annotations is 31, it was called in 56 of the 93 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Aledel_31, AustinPowers_31, Beethoven_34, Bennie_30, BigMack_30, Bodacious_30, BrotherBLo_34, Carpal_34, ChewChew_30, Cholula_34, Chridison_30, CristinaYang_30, Daiboju_31, DrRobert_30, DreamTeam_30, EstebanJulior_31, Eunoia_31, Fluke_35, Gisselle_30, HeadNerd_30, Herb_31, Huckleberry_30, HunterDalle_31, Jumboset_34, Kalizoi_34, KingBob_31, Kittykat_31, Lasagna_30, Lennox_30, LilStuart_30, Makoto_30, MamaPearl_31, Moki_30, MrGloopy_34, Nancia_30, OMalley_31, OurGirlNessie_30, PinkFriday_30, PitaDog_30, Potatoes_34, Preamble_30, Pterodactyl_30, Pumancara_30, Rivovina_31, Riverdale_34, Rozby_34, Savage2526_34, Scuttle_34, Sergei_31, Supakev_31, TattModd_34, Temper16_31, Vulture_31, Wawa_34, WonderBoy_29, Zorro_34,

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

• Christian_30, Dino_34, Glenn_34, Immaculata_34, Korra_34, Lucy_30, MeganNoll_33, RAP15_34, Urla_31, Vallejo_34,

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

- Alove_40, Archimedes_35, AyoTeo_41, Benry_40, Cicada_42, FireCastle_40, Frizzle_32, Galactica_60, Ghobes_33, Goodman_41, Hiyaa_62, Htur_40, IndiRoo_41, Jera_41, Johann_41, Keanu_60, Kokushibo_63, Labella_42, Linayshia_40, Milani_39, Olympi_42, PermaG_41, Rasovi_40, Rootkit7_40, SBlackberry_40, Sapo_32, Spocter_61, Sucha_38, Theresita_40, TurboVicky_40, Typher_42, Zanella_40,

Summary by start number:

Start 20:

- Found in 4 of 98 (4.1%) of genes in pham
- Manual Annotations of this start: 4 of 93
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Benry_40 (EJ), IndiRoo_41 (EJ), Sucha_38 (EJ), Theresita_40 (EA7),

Start 21:

- Found in 19 of 98 (19.4%) of genes in pham
- Manual Annotations of this start: 14 of 93
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Alove_40 (EJ), AyoTeo_41 (EJ), Cicada_42 (EJ), FireCastle_40 (EJ), Goodman_41 (EJ), Htur_40 (EJ), Jera_41 (EJ), Johann_41 (EJ), Labella_42 (EJ), Linayshia_40 (EJ), Milani_39 (EJ), Olympi_42 (EJ), PermaG_41 (EJ), Rasovi_40 (EJ), Rootkit7_40 (EJ), SBlackberry_40 (EJ), Typher_42 (EJ), Zanella_40 (EJ),

Start 23:

- Found in 18 of 98 (18.4%) of genes in pham
- Manual Annotations of this start: 1 of 93
- Called 5.6% of time when present
- Phage (with cluster) where this start called: TurboVicky_40 (EJ),

Start 24:

- Found in 37 of 98 (37.8%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 8.1% of time when present
- Phage (with cluster) where this start called: Glenn_34 (AK), Immaculata_34 (AK), RAP15_34 (AK),

Start 25:

- Found in 2 of 98 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 93
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Spocter_61 (BQ),

Start 28:

- Found in 5 of 98 (5.1%) of genes in pham
- Manual Annotations of this start: 3 of 93
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Galactica_60 (BQ), Hiyaa_62 (BQ), Keanu_60 (BQ),

Start 30:

- Found in 1 of 98 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kokushibo_63 (BQ),

Start 31:

- Found in 66 of 98 (67.3%) of genes in pham
- Manual Annotations of this start: 56 of 93
- Called 84.8% of time when present
- Phage (with cluster) where this start called: Aledel_31 (AK), AustinPowers_31 (AK), Beethoven_34 (AK), Bennie_30 (AK), BigMack_30 (AK), Bodacious_30 (AK), BrotherBLo_34 (AK), Carpal_34 (AK), ChewChew_30 (AK), Cholula_34 (AK), Chridison_30 (AK), CristinaYang_30 (AK), Daiboju_31 (AK), DrRobert_30 (AK), DreamTeam_30 (AK), EstebanJulior_31 (AK), Eunoia_31 (AK), Fluke_35 (AK), Gisselle_30 (AK), HeadNerd_30 (AK), Herb_31 (AK), Huckleberry_30 (AK), HunterDalle_31 (AK), Jumboset_34 (AK), Kalizoi_34 (AK), KingBob_31 (AK), Kittykat_31 (AK), Lasagna_30 (AK), Lennox_30 (AK), LilStuart_30 (AK), Makoto_30 (AK), MamaPearl_31 (AK), Moki_30 (AK), MrGloopy_34 (AK), Nancia_30 (AK), OMalley_31 (AK), OurGirlNessie_30 (AK), PinkFriday_30 (AK), PitaDog_30 (AK), Potatoes_34 (AK), Preamble_30 (AK), Pterodactyl_30 (AK), Pumancara_30 (AK), Rivovina_31 (AK), Riverdale_34 (AK), Rozby_34 (AK), Savage2526_34 (AK), Scuttle_34 (AK), Sergei_31 (AK), Supakev_31 (AK), TattModd_34 (AK), Temper16_31 (AK), Vulture_31 (AK), Wawa_34 (AK), WonderBoy_29 (AK), Zorro_34 (AK),

Start 34:

- Found in 63 of 98 (64.3%) of genes in pham
- Manual Annotations of this start: 7 of 93
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Christian_30 (AK), Dino_34 (AK), Korra_34 (AK), Lucy_30 (AK), MeganNoll_33 (AK), Urla_31 (AK), Vallejo_34 (AK),

Start 41:

- Found in 8 of 98 (8.2%) of genes in pham
- Manual Annotations of this start: 4 of 93
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Archimedes_35 (DA), Frizzle_32 (DA), Ghobes_33 (DA), Sapo_32 (DA),

Summary by clusters:

There are 5 clusters represented in this pham: AK, DA, BQ, EA7, EJ,

Info for manual annotations of cluster AK:

- Start number 24 was manually annotated 3 times for cluster AK.
- Start number 31 was manually annotated 56 times for cluster AK.
- Start number 34 was manually annotated 7 times for cluster AK.

Info for manual annotations of cluster BQ:

- Start number 25 was manually annotated 1 time for cluster BQ.
- Start number 28 was manually annotated 3 times for cluster BQ.

Info for manual annotations of cluster DA:

- Start number 41 was manually annotated 4 times for cluster DA.

Info for manual annotations of cluster EA7:

- Start number 20 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EJ:

- Start number 20 was manually annotated 3 times for cluster EJ.
- Start number 21 was manually annotated 14 times for cluster EJ.
- Start number 23 was manually annotated 1 time for cluster EJ.

Gene Information:

Gene: Aledel_31 Start: 24783, Stop: 25343, Start Num: 31

Candidate Starts for Aledel_31:

(18, 24711), (29, 24774), (Start: 31 @24783 has 56 MA's), (Start: 34 @24795 has 7 MA's), (38, 24822), (42, 24834), (44, 24855), (45, 24861), (50, 24900), (52, 24915), (66, 25038), (67, 25041), (68, 25053), (72, 25077), (81, 25116), (88, 25137), (89, 25140), (90, 25155), (93, 25179), (95, 25197), (101, 25236), (104, 25251), (107, 25272), (108, 25293),

Gene: Alove_40 Start: 26528, Stop: 27136, Start Num: 21

Candidate Starts for Alove_40:

(Start: 21 @26528 has 14 MA's), (22, 26531), (Start: 23 @26534 has 1 MA's), (58, 26753), (59, 26759), (66, 26819), (84, 26900), (96, 26975), (97, 26987), (110, 27110),

Gene: Archimedes_35 Start: 31428, Stop: 30985, Start Num: 41

Candidate Starts for Archimedes_35:

(33, 31467), (35, 31458), (39, 31434), (Start: 41 @31428 has 4 MA's), (46, 31386), (53, 31326), (66, 31233), (70, 31206), (77, 31173), (79, 31167),

Gene: AustinPowers_31 Start: 24781, Stop: 25341, Start Num: 31

Candidate Starts for AustinPowers_31:

(18, 24709), (29, 24772), (Start: 31 @24781 has 56 MA's), (Start: 34 @24793 has 7 MA's), (38, 24820), (42, 24832), (44, 24853), (45, 24859), (50, 24898), (52, 24913), (66, 25036), (68, 25051), (72, 25075), (81, 25114), (88, 25135), (89, 25138), (101, 25234), (107, 25270), (108, 25291), (111, 25333),

Gene: AyoTeo_41 Start: 26653, Stop: 27261, Start Num: 21

Candidate Starts for AyoTeo_41:

(Start: 21 @26653 has 14 MA's), (Start: 23 @26659 has 1 MA's), (32, 26698), (44, 26761), (48, 26794), (57, 26866), (58, 26878), (59, 26884), (66, 26944), (96, 27100), (97, 27112), (110, 27235),

Gene: Beethoven_34 Start: 25166, Stop: 25723, Start Num: 31

Candidate Starts for Beethoven_34:

(13, 25019), (Start: 24 @25142 has 3 MA's), (Start: 31 @25166 has 56 MA's), (Start: 34 @25178 has 7 MA's), (38, 25205), (42, 25217), (44, 25238), (45, 25244), (51, 25289), (52, 25298), (55, 25337), (65, 25409), (66, 25421), (68, 25436), (71, 25454), (72, 25460), (75, 25469), (81, 25499), (89, 25523), (102, 25622), (107, 25655), (108, 25676),

Gene: Bennie_30 Start: 23623, Stop: 24180, Start Num: 31

Candidate Starts for Bennie_30:

(Start: 31 @23623 has 56 MA's), (Start: 34 @23635 has 7 MA's), (38, 23662), (42, 23674), (44, 23695), (45, 23701), (51, 23746), (52, 23755), (65, 23866), (66, 23878), (67, 23881), (68, 23893), (72, 23917),

(81, 23956), (89, 23980), (102, 24079), (107, 24112), (108, 24133),

Gene: Benry_40 Start: 25022, Stop: 25630, Start Num: 20

Candidate Starts for Benry_40:

(5, 24845), (9, 24866), (14, 24953), (16, 24971), (Start: 20 @25022 has 4 MA's), (44, 25130), (48, 25163), (58, 25247), (59, 25253), (60, 25256), (65, 25301), (66, 25313), (84, 25394), (86, 25400), (91, 25427), (92, 25442), (96, 25469), (110, 25604),

Gene: BigMack_30 Start: 23645, Stop: 24202, Start Num: 31

Candidate Starts for BigMack_30:

(Start: 31 @23645 has 56 MA's), (Start: 34 @23657 has 7 MA's), (38, 23684), (44, 23717), (45, 23723), (52, 23777), (55, 23816), (65, 23888), (66, 23900), (67, 23903), (68, 23915), (71, 23933), (72, 23939), (81, 23978), (89, 24002), (102, 24101), (107, 24134), (108, 24155),

Gene: Bodacious_30 Start: 23631, Stop: 24182, Start Num: 31

Candidate Starts for Bodacious_30:

(Start: 24 @23607 has 3 MA's), (Start: 31 @23631 has 56 MA's), (Start: 34 @23643 has 7 MA's), (38, 23670), (42, 23682), (45, 23709), (51, 23754), (52, 23763), (55, 23802), (65, 23874), (66, 23886), (67, 23889), (68, 23901), (71, 23919), (81, 23964), (89, 23988), (102, 24087), (106, 24117), (107, 24120), (108, 24141),

Gene: BrotherBLo_34 Start: 25191, Stop: 25748, Start Num: 31

Candidate Starts for BrotherBLo_34:

(13, 25044), (Start: 24 @25167 has 3 MA's), (Start: 31 @25191 has 56 MA's), (Start: 34 @25203 has 7 MA's), (38, 25230), (42, 25242), (44, 25263), (45, 25269), (51, 25314), (52, 25323), (55, 25362), (65, 25434), (66, 25446), (67, 25449), (68, 25461), (71, 25479), (72, 25485), (75, 25494), (81, 25524), (89, 25548), (102, 25647), (107, 25680), (108, 25701),

Gene: Carpal_34 Start: 25173, Stop: 25730, Start Num: 31

Candidate Starts for Carpal_34:

(13, 25026), (Start: 24 @25149 has 3 MA's), (Start: 31 @25173 has 56 MA's), (Start: 34 @25185 has 7 MA's), (38, 25212), (42, 25224), (44, 25245), (45, 25251), (51, 25296), (52, 25305), (55, 25344), (65, 25416), (66, 25428), (68, 25443), (71, 25461), (72, 25467), (75, 25476), (81, 25506), (89, 25530), (102, 25629), (107, 25662), (108, 25683),

Gene: ChewChew_30 Start: 23626, Stop: 24177, Start Num: 31

Candidate Starts for ChewChew_30:

(Start: 24 @23602 has 3 MA's), (Start: 31 @23626 has 56 MA's), (Start: 34 @23638 has 7 MA's), (38, 23665), (42, 23677), (45, 23704), (51, 23749), (52, 23758), (55, 23797), (65, 23869), (66, 23881), (67, 23884), (68, 23896), (71, 23914), (81, 23959), (89, 23983), (102, 24082), (106, 24112), (107, 24115), (108, 24136),

Gene: Cholula_34 Start: 25219, Stop: 25776, Start Num: 31

Candidate Starts for Cholula_34:

(13, 25072), (Start: 24 @25195 has 3 MA's), (Start: 31 @25219 has 56 MA's), (38, 25258), (42, 25270), (44, 25291), (45, 25297), (51, 25342), (52, 25351), (55, 25390), (65, 25462), (66, 25474), (68, 25489), (71, 25507), (72, 25513), (75, 25522), (81, 25552), (89, 25576), (102, 25675), (107, 25708), (108, 25729),

Gene: Chridison_30 Start: 24781, Stop: 25341, Start Num: 31

Candidate Starts for Chridison_30:

(18, 24709), (29, 24772), (Start: 31 @24781 has 56 MA's), (Start: 34 @24793 has 7 MA's), (38, 24820), (42, 24832), (44, 24853), (45, 24859), (50, 24898), (52, 24913), (66, 25036), (68, 25051), (72, 25075),

(81, 25114), (88, 25135), (89, 25138), (101, 25234), (107, 25270), (108, 25291), (111, 25333),

Gene: Christian_30 Start: 23639, Stop: 24178, Start Num: 34

Candidate Starts for Christian_30:

(Start: 24 @23603 has 3 MA's), (Start: 31 @23627 has 56 MA's), (Start: 34 @23639 has 7 MA's), (38, 23666), (42, 23678), (45, 23705), (51, 23750), (52, 23759), (55, 23798), (65, 23870), (66, 23882), (67, 23885), (68, 23897), (71, 23915), (81, 23960), (89, 23984), (102, 24083), (106, 24113), (107, 24116), (108, 24137),

Gene: Cicada_42 Start: 26852, Stop: 27460, Start Num: 21

Candidate Starts for Cicada_42:

(Start: 21 @26852 has 14 MA's), (Start: 23 @26858 has 1 MA's), (48, 26993), (57, 27065), (58, 27077), (59, 27083), (66, 27143), (84, 27224), (96, 27299), (106, 27365), (109, 27395), (110, 27434),

Gene: CristinaYang_30 Start: 23631, Stop: 24182, Start Num: 31

Candidate Starts for CristinaYang_30:

(Start: 24 @23607 has 3 MA's), (Start: 31 @23631 has 56 MA's), (Start: 34 @23643 has 7 MA's), (38, 23670), (42, 23682), (45, 23709), (51, 23754), (52, 23763), (55, 23802), (65, 23874), (66, 23886), (67, 23889), (68, 23901), (71, 23919), (81, 23964), (89, 23988), (102, 24087), (106, 24117), (107, 24120), (108, 24141),

Gene: Daiboju_31 Start: 24770, Stop: 25330, Start Num: 31

Candidate Starts for Daiboju_31:

(Start: 31 @24770 has 56 MA's), (Start: 34 @24782 has 7 MA's), (38, 24809), (44, 24842), (45, 24848), (50, 24887), (52, 24902), (66, 25025), (68, 25040), (72, 25064), (81, 25103), (89, 25127), (93, 25166), (95, 25184), (101, 25223), (104, 25238), (107, 25259), (108, 25280),

Gene: Dino_34 Start: 25199, Stop: 25744, Start Num: 34

Candidate Starts for Dino_34:

(3, 24926), (13, 25040), (Start: 24 @25163 has 3 MA's), (Start: 31 @25187 has 56 MA's), (Start: 34 @25199 has 7 MA's), (38, 25226), (42, 25238), (44, 25259), (45, 25265), (51, 25310), (52, 25319), (55, 25358), (56, 25361), (60, 25385), (65, 25430), (66, 25442), (68, 25457), (71, 25475), (72, 25481), (75, 25490), (81, 25520), (89, 25544), (102, 25643), (107, 25676), (108, 25697),

Gene: DrRobert_30 Start: 23627, Stop: 24184, Start Num: 31

Candidate Starts for DrRobert_30:

(Start: 24 @23603 has 3 MA's), (Start: 31 @23627 has 56 MA's), (Start: 34 @23639 has 7 MA's), (38, 23666), (42, 23678), (45, 23705), (51, 23750), (52, 23759), (55, 23798), (65, 23870), (66, 23882), (67, 23885), (68, 23897), (71, 23915), (81, 23960), (82, 23963), (89, 23984), (102, 24083), (106, 24113), (107, 24116), (108, 24137),

Gene: DreamTeam_30 Start: 23722, Stop: 24273, Start Num: 31

Candidate Starts for DreamTeam_30:

(2, 23443), (3, 23446), (19, 23638), (27, 23701), (Start: 31 @23722 has 56 MA's), (Start: 34 @23734 has 7 MA's), (38, 23761), (42, 23773), (44, 23794), (45, 23800), (50, 23839), (52, 23854), (65, 23965), (66, 23977), (67, 23980), (68, 23992), (71, 24010), (72, 24016), (74, 24022), (81, 24055), (87, 24073), (89, 24079), (95, 24136), (102, 24178), (106, 24208), (107, 24211), (108, 24232),

Gene: EstebanJulior_31 Start: 24817, Stop: 25374, Start Num: 31

Candidate Starts for EstebanJulior_31:

(19, 24760), (Start: 31 @24817 has 56 MA's), (Start: 34 @24829 has 7 MA's), (38, 24856), (42, 24868), (45, 24895), (51, 24940), (52, 24949), (56, 24991), (65, 25060), (66, 25072), (67, 25075), (68, 25087), (71, 25105), (72, 25111), (81, 25150), (82, 25153), (87, 25168), (89, 25174), (102, 25273), (107,

25306), (108, 25327),

Gene: Eunoia_31 Start: 24783, Stop: 25343, Start Num: 31

Candidate Starts for Eunoia_31:

(18, 24711), (29, 24774), (Start: 31 @24783 has 56 MA's), (Start: 34 @24795 has 7 MA's), (38, 24822), (42, 24834), (44, 24855), (45, 24861), (50, 24900), (52, 24915), (66, 25038), (67, 25041), (68, 25053), (72, 25077), (81, 25116), (88, 25137), (89, 25140), (90, 25155), (93, 25179), (95, 25197), (101, 25236), (104, 25251), (107, 25272), (108, 25293),

Gene: FireCastle_40 Start: 26550, Stop: 27158, Start Num: 21

Candidate Starts for FireCastle_40:

(11, 26418), (12, 26442), (15, 26487), (Start: 21 @26550 has 14 MA's), (44, 26658), (48, 26691), (57, 26763), (58, 26775), (59, 26781), (65, 26829), (66, 26841), (84, 26922), (92, 26970), (96, 26997), (110, 27132),

Gene: Fluke_35 Start: 25328, Stop: 25885, Start Num: 31

Candidate Starts for Fluke_35:

(13, 25181), (Start: 24 @25304 has 3 MA's), (Start: 31 @25328 has 56 MA's), (Start: 34 @25340 has 7 MA's), (38, 25367), (44, 25400), (45, 25406), (50, 25445), (52, 25460), (56, 25502), (60, 25526), (65, 25571), (66, 25583), (67, 25586), (68, 25598), (71, 25616), (72, 25622), (81, 25661), (87, 25679), (88, 25682), (89, 25685), (102, 25784), (106, 25814), (107, 25817), (108, 25838),

Gene: Frizzle_32 Start: 30551, Stop: 30084, Start Num: 41

Candidate Starts for Frizzle_32:

(35, 30581), (39, 30557), (Start: 41 @30551 has 4 MA's), (43, 30536), (49, 30485), (83, 30275),

Gene: Galactica_60 Start: 45960, Stop: 46460, Start Num: 28

Candidate Starts for Galactica_60:

(10, 45777), (Start: 28 @45960 has 3 MA's), (37, 46005), (63, 46200), (67, 46227), (70, 46251), (76, 46278), (94, 46368),

Gene: Ghobes_33 Start: 30552, Stop: 30085, Start Num: 41

Candidate Starts for Ghobes_33:

(35, 30582), (39, 30558), (Start: 41 @30552 has 4 MA's), (43, 30537), (49, 30486), (83, 30276),

Gene: Gisselle_30 Start: 23722, Stop: 24273, Start Num: 31

Candidate Starts for Gisselle_30:

(2, 23443), (3, 23446), (19, 23638), (27, 23701), (Start: 31 @23722 has 56 MA's), (Start: 34 @23734 has 7 MA's), (38, 23761), (42, 23773), (44, 23794), (45, 23800), (50, 23839), (52, 23854), (65, 23965), (66, 23977), (67, 23980), (68, 23992), (71, 24010), (72, 24016), (74, 24022), (81, 24055), (87, 24073), (89, 24079), (95, 24136), (102, 24178), (106, 24208), (107, 24211), (108, 24232),

Gene: Glenn_34 Start: 25199, Stop: 25780, Start Num: 24

Candidate Starts for Glenn_34:

(13, 25076), (Start: 24 @25199 has 3 MA's), (Start: 31 @25223 has 56 MA's), (Start: 34 @25235 has 7 MA's), (38, 25262), (42, 25274), (44, 25295), (45, 25301), (51, 25346), (52, 25355), (55, 25394), (65, 25466), (66, 25478), (68, 25493), (71, 25511), (72, 25517), (75, 25526), (81, 25556), (89, 25580), (102, 25679), (107, 25712), (108, 25733),

Gene: Goodman_41 Start: 26757, Stop: 27365, Start Num: 21

Candidate Starts for Goodman_41:

(Start: 21 @26757 has 14 MA's), (Start: 23 @26763 has 1 MA's), (48, 26898), (57, 26970), (58, 26982), (59, 26988), (66, 27048), (84, 27129), (96, 27204), (99, 27228), (109, 27300), (110, 27339),

Gene: HeadNerd_30 Start: 23623, Stop: 24180, Start Num: 31

Candidate Starts for HeadNerd_30:

(Start: 31 @23623 has 56 MA's), (Start: 34 @23635 has 7 MA's), (38, 23662), (42, 23674), (44, 23695), (45, 23701), (51, 23746), (52, 23755), (65, 23866), (66, 23878), (67, 23881), (68, 23893), (72, 23917), (81, 23956), (89, 23980), (102, 24079), (107, 24112), (108, 24133),

Gene: Herb_31 Start: 24769, Stop: 25329, Start Num: 31

Candidate Starts for Herb_31:

(Start: 31 @24769 has 56 MA's), (Start: 34 @24781 has 7 MA's), (38, 24808), (44, 24841), (45, 24847), (50, 24886), (52, 24901), (66, 25024), (68, 25039), (72, 25063), (81, 25102), (89, 25126), (93, 25165), (95, 25183), (101, 25222), (104, 25237), (107, 25258), (108, 25279),

Gene: Hiyaa_62 Start: 47242, Stop: 47736, Start Num: 28

Candidate Starts for Hiyaa_62:

(4, 47035), (7, 47062), (Start: 25 @47236 has 1 MA's), (Start: 28 @47242 has 3 MA's), (Start: 41 @47299 has 4 MA's), (62, 47461), (63, 47476), (64, 47482), (70, 47527), (100, 47686), (105, 47716),

Gene: Htur_40 Start: 26856, Stop: 27461, Start Num: 21

Candidate Starts for Htur_40:

(17, 26814), (Start: 21 @26856 has 14 MA's), (Start: 23 @26862 has 1 MA's), (44, 26961), (48, 26994), (57, 27066), (59, 27084), (61, 27090), (66, 27144), (72, 27183), (80, 27213), (86, 27231), (91, 27258), (96, 27300), (97, 27312), (110, 27435),

Gene: Huckleberry_30 Start: 23611, Stop: 24168, Start Num: 31

Candidate Starts for Huckleberry_30:

(1, 23338), (3, 23350), (6, 23401), (Start: 31 @23611 has 56 MA's), (Start: 34 @23623 has 7 MA's), (38, 23650), (42, 23662), (45, 23689), (51, 23734), (52, 23743), (65, 23854), (66, 23866), (67, 23869), (68, 23881), (72, 23905), (81, 23944), (89, 23968), (102, 24067), (106, 24097), (107, 24100), (108, 24121),

Gene: HunterDalle_31 Start: 24780, Stop: 25340, Start Num: 31

Candidate Starts for HunterDalle_31:

(18, 24708), (29, 24771), (Start: 31 @24780 has 56 MA's), (Start: 34 @24792 has 7 MA's), (38, 24819), (42, 24831), (44, 24852), (45, 24858), (50, 24897), (52, 24912), (66, 25035), (68, 25050), (72, 25074), (81, 25113), (88, 25134), (89, 25137), (101, 25233), (107, 25269), (108, 25290), (111, 25332),

Gene: Immaculata_34 Start: 25194, Stop: 25775, Start Num: 24

Candidate Starts for Immaculata_34:

(13, 25071), (Start: 24 @25194 has 3 MA's), (Start: 31 @25218 has 56 MA's), (38, 25257), (42, 25269), (44, 25290), (45, 25296), (51, 25341), (52, 25350), (55, 25389), (65, 25461), (66, 25473), (68, 25488), (71, 25506), (72, 25512), (75, 25521), (81, 25551), (89, 25575), (102, 25674), (107, 25707), (108, 25728),

Gene: IndiRoo_41 Start: 25292, Stop: 25900, Start Num: 20

Candidate Starts for IndiRoo_41:

(5, 25115), (14, 25223), (16, 25241), (Start: 20 @25292 has 4 MA's), (44, 25400), (48, 25433), (57, 25505), (58, 25517), (59, 25523), (60, 25526), (61, 25529), (65, 25571), (66, 25583), (72, 25622), (86, 25670), (91, 25697), (93, 25715), (96, 25739), (110, 25874),

Gene: Jera_41 Start: 25784, Stop: 26392, Start Num: 21

Candidate Starts for Jera_41:

(Start: 21 @25784 has 14 MA's), (22, 25787), (Start: 23 @25790 has 1 MA's), (58, 26009), (59, 26015), (66, 26075), (84, 26156), (96, 26231), (97, 26243), (110, 26366),

Gene: Johann_41 Start: 26757, Stop: 27365, Start Num: 21

Candidate Starts for Johann_41:

(Start: 21 @26757 has 14 MA's), (Start: 23 @26763 has 1 MA's), (48, 26898), (57, 26970), (58, 26982), (59, 26988), (66, 27048), (84, 27129), (96, 27204), (99, 27228), (109, 27300), (110, 27339),

Gene: Jumboset_34 Start: 25166, Stop: 25720, Start Num: 31

Candidate Starts for Jumboset_34:

(3, 24905), (13, 25019), (Start: 24 @25142 has 3 MA's), (Start: 31 @25166 has 56 MA's), (Start: 34 @25178 has 7 MA's), (38, 25202), (44, 25235), (45, 25241), (52, 25295), (55, 25334), (65, 25406), (66, 25418), (67, 25421), (68, 25433), (71, 25451), (72, 25457), (75, 25466), (81, 25496), (89, 25520), (102, 25619), (107, 25652), (108, 25673),

Gene: Kalizoi_34 Start: 25165, Stop: 25722, Start Num: 31

Candidate Starts for Kalizoi_34:

(3, 24904), (13, 25018), (Start: 24 @25141 has 3 MA's), (Start: 31 @25165 has 56 MA's), (Start: 34 @25177 has 7 MA's), (38, 25204), (42, 25216), (44, 25237), (45, 25243), (51, 25288), (52, 25297), (55, 25336), (56, 25339), (60, 25363), (65, 25408), (66, 25420), (68, 25435), (71, 25453), (72, 25459), (75, 25468), (81, 25498), (89, 25522), (102, 25621), (107, 25654), (108, 25675),

Gene: Keanu_60 Start: 46991, Stop: 47491, Start Num: 28

Candidate Starts for Keanu_60:

(10, 46808), (Start: 28 @46991 has 3 MA's), (Start: 41 @47051 has 4 MA's), (54, 47165), (60, 47198), (62, 47216), (63, 47231), (64, 47237), (70, 47282), (94, 47399), (103, 47459),

Gene: KingBob_31 Start: 24770, Stop: 25330, Start Num: 31

Candidate Starts for KingBob_31:

(Start: 31 @24770 has 56 MA's), (Start: 34 @24782 has 7 MA's), (38, 24809), (44, 24842), (45, 24848), (50, 24887), (52, 24902), (66, 25025), (68, 25040), (72, 25064), (81, 25103), (89, 25127), (93, 25166), (95, 25184), (101, 25223), (104, 25238), (107, 25259), (108, 25280),

Gene: Kittykat_31 Start: 23824, Stop: 24381, Start Num: 31

Candidate Starts for Kittykat_31:

(Start: 31 @23824 has 56 MA's), (Start: 34 @23836 has 7 MA's), (38, 23863), (42, 23875), (44, 23896), (45, 23902), (50, 23941), (52, 23956), (54, 23986), (65, 24067), (66, 24079), (68, 24094), (72, 24118), (81, 24157), (88, 24178), (89, 24181), (95, 24238), (102, 24280), (107, 24313), (108, 24334),

Gene: Kokushibo_63 Start: 47323, Stop: 47811, Start Num: 30

Candidate Starts for Kokushibo_63:

(Start: 28 @47317 has 3 MA's), (30, 47323), (39, 47368), (Start: 41 @47374 has 4 MA's), (60, 47518), (62, 47536), (63, 47551), (64, 47557), (70, 47602), (100, 47761), (105, 47791),

Gene: Korra_34 Start: 25199, Stop: 25744, Start Num: 34

Candidate Starts for Korra_34:

(3, 24926), (13, 25040), (Start: 24 @25163 has 3 MA's), (Start: 31 @25187 has 56 MA's), (Start: 34 @25199 has 7 MA's), (38, 25226), (42, 25238), (45, 25265), (51, 25310), (52, 25319), (55, 25358), (60, 25385), (65, 25430), (66, 25442), (67, 25445), (68, 25457), (71, 25475), (72, 25481), (75, 25490), (81, 25520), (89, 25544), (102, 25643), (107, 25676), (108, 25697),

Gene: Labella_42 Start: 26650, Stop: 27258, Start Num: 21

Candidate Starts for Labella_42:

(Start: 21 @26650 has 14 MA's), (Start: 23 @26656 has 1 MA's), (32, 26695), (44, 26758), (48, 26791), (57, 26863), (58, 26875), (59, 26881), (66, 26941), (84, 27022), (96, 27097), (97, 27109), (110, 27232),

Gene: Lasagna_30 Start: 23642, Stop: 24199, Start Num: 31

Candidate Starts for Lasagna_30:

(Start: 31 @23642 has 56 MA's), (Start: 34 @23654 has 7 MA's), (38, 23681), (42, 23693), (45, 23720), (51, 23765), (52, 23774), (55, 23813), (65, 23885), (66, 23897), (67, 23900), (68, 23912), (71, 23930), (81, 23975), (88, 23996), (89, 23999), (102, 24098), (106, 24128), (107, 24131), (108, 24152),

Gene: Lennox_30 Start: 23615, Stop: 24166, Start Num: 31

Candidate Starts for Lennox_30:

(Start: 24 @23591 has 3 MA's), (Start: 31 @23615 has 56 MA's), (Start: 34 @23627 has 7 MA's), (38, 23654), (42, 23666), (45, 23693), (51, 23738), (52, 23747), (55, 23786), (65, 23858), (66, 23870), (67, 23873), (68, 23885), (71, 23903), (81, 23948), (89, 23972), (102, 24071), (106, 24101), (107, 24104), (108, 24125),

Gene: LilStuart_30 Start: 23619, Stop: 24170, Start Num: 31

Candidate Starts for LilStuart_30:

(Start: 24 @23595 has 3 MA's), (Start: 31 @23619 has 56 MA's), (Start: 34 @23631 has 7 MA's), (38, 23658), (42, 23670), (45, 23697), (51, 23742), (52, 23751), (55, 23790), (65, 23862), (66, 23874), (67, 23877), (68, 23889), (71, 23907), (81, 23952), (89, 23976), (102, 24075), (106, 24105), (107, 24108), (108, 24129),

Gene: Linayshia_40 Start: 26824, Stop: 27429, Start Num: 21

Candidate Starts for Linayshia_40:

(17, 26782), (Start: 21 @26824 has 14 MA's), (Start: 23 @26830 has 1 MA's), (44, 26929), (48, 26962), (57, 27034), (59, 27052), (61, 27058), (66, 27112), (72, 27151), (80, 27181), (86, 27199), (91, 27226), (96, 27268), (97, 27280), (110, 27403),

Gene: Lucy_30 Start: 23619, Stop: 24158, Start Num: 34

Candidate Starts for Lucy_30:

(Start: 24 @23583 has 3 MA's), (Start: 31 @23607 has 56 MA's), (Start: 34 @23619 has 7 MA's), (38, 23646), (42, 23658), (51, 23730), (52, 23739), (55, 23778), (65, 23850), (66, 23862), (68, 23877), (71, 23895), (81, 23940), (89, 23964), (102, 24063), (106, 24093), (107, 24096), (108, 24117),

Gene: Makoto_30 Start: 23627, Stop: 24178, Start Num: 31

Candidate Starts for Makoto_30:

(Start: 24 @23603 has 3 MA's), (Start: 31 @23627 has 56 MA's), (Start: 34 @23639 has 7 MA's), (38, 23666), (42, 23678), (45, 23705), (51, 23750), (52, 23759), (55, 23798), (65, 23870), (66, 23882), (67, 23885), (68, 23897), (71, 23915), (81, 23960), (89, 23984), (102, 24083), (106, 24113), (107, 24116), (108, 24137),

Gene: MamaPearl_31 Start: 24817, Stop: 25374, Start Num: 31

Candidate Starts for MamaPearl_31:

(19, 24760), (Start: 31 @24817 has 56 MA's), (Start: 34 @24829 has 7 MA's), (38, 24856), (42, 24868), (45, 24895), (51, 24940), (52, 24949), (56, 24991), (65, 25060), (66, 25072), (67, 25075), (68, 25087), (71, 25105), (72, 25111), (81, 25150), (82, 25153), (87, 25168), (89, 25174), (102, 25273), (107, 25306), (108, 25327),

Gene: MeganNoll_33 Start: 25235, Stop: 25777, Start Num: 34

Candidate Starts for MeganNoll_33:

(3, 24962), (13, 25076), (Start: 24 @25199 has 3 MA's), (Start: 31 @25223 has 56 MA's), (Start: 34 @25235 has 7 MA's), (38, 25259), (44, 25292), (45, 25298), (52, 25352), (55, 25391), (65, 25463), (66,

25475), (67, 25478), (68, 25490), (71, 25508), (72, 25514), (75, 25523), (81, 25553), (89, 25577), (102, 25676), (107, 25709), (108, 25730),

Gene: Milani_39 Start: 25369, Stop: 25977, Start Num: 21

Candidate Starts for Milani_39:

(Start: 21 @25369 has 14 MA's), (47, 25498), (59, 25600), (66, 25660), (73, 25702), (84, 25741), (91, 25774), (93, 25792), (96, 25816), (98, 25834), (99, 25840), (106, 25882), (110, 25951),

Gene: Moki_30 Start: 23611, Stop: 24168, Start Num: 31

Candidate Starts for Moki_30:

(1, 23338), (3, 23350), (6, 23401), (Start: 31 @23611 has 56 MA's), (Start: 34 @23623 has 7 MA's), (38, 23650), (42, 23662), (45, 23689), (51, 23734), (52, 23743), (65, 23854), (66, 23866), (67, 23869), (68, 23881), (72, 23905), (81, 23944), (89, 23968), (102, 24067), (106, 24097), (107, 24100), (108, 24121),

Gene: MrGloopy_34 Start: 25157, Stop: 25711, Start Num: 31

Candidate Starts for MrGloopy_34:

(3, 24896), (13, 25010), (Start: 24 @25133 has 3 MA's), (Start: 31 @25157 has 56 MA's), (Start: 34 @25169 has 7 MA's), (38, 25193), (44, 25226), (45, 25232), (52, 25286), (55, 25325), (56, 25328), (60, 25352), (65, 25397), (66, 25409), (68, 25424), (71, 25442), (72, 25448), (75, 25457), (81, 25487), (89, 25511), (102, 25610), (107, 25643), (108, 25664),

Gene: Nancia_30 Start: 23631, Stop: 24182, Start Num: 31

Candidate Starts for Nancia_30:

(Start: 24 @23607 has 3 MA's), (Start: 31 @23631 has 56 MA's), (Start: 34 @23643 has 7 MA's), (38, 23670), (42, 23682), (45, 23709), (51, 23754), (52, 23763), (55, 23802), (65, 23874), (66, 23886), (67, 23889), (68, 23901), (71, 23919), (81, 23964), (89, 23988), (102, 24087), (106, 24117), (107, 24120), (108, 24141),

Gene: OMalley_31 Start: 24783, Stop: 25343, Start Num: 31

Candidate Starts for OMalley_31:

(18, 24711), (29, 24774), (Start: 31 @24783 has 56 MA's), (Start: 34 @24795 has 7 MA's), (38, 24822), (42, 24834), (44, 24855), (45, 24861), (50, 24900), (52, 24915), (66, 25038), (67, 25041), (68, 25053), (72, 25077), (81, 25116), (88, 25137), (89, 25140), (90, 25155), (93, 25179), (95, 25197), (101, 25236), (104, 25251), (107, 25272), (108, 25293),

Gene: Olympi_42 Start: 26627, Stop: 27235, Start Num: 21

Candidate Starts for Olympi_42:

(Start: 21 @26627 has 14 MA's), (Start: 23 @26633 has 1 MA's), (32, 26672), (44, 26735), (57, 26840), (58, 26852), (59, 26858), (66, 26918), (84, 26999), (96, 27074), (97, 27086), (110, 27209),

Gene: OurGirlNessie_30 Start: 23608, Stop: 24165, Start Num: 31

Candidate Starts for OurGirlNessie_30:

(Start: 24 @23584 has 3 MA's), (Start: 31 @23608 has 56 MA's), (Start: 34 @23620 has 7 MA's), (38, 23647), (42, 23659), (45, 23686), (51, 23731), (52, 23740), (55, 23779), (65, 23851), (66, 23863), (67, 23866), (68, 23878), (71, 23896), (81, 23941), (89, 23965), (102, 24064), (106, 24094), (107, 24097), (108, 24118),

Gene: PermaG_41 Start: 26661, Stop: 27269, Start Num: 21

Candidate Starts for PermaG_41:

(8, 26508), (Start: 21 @26661 has 14 MA's), (22, 26664), (Start: 23 @26667 has 1 MA's), (58, 26886), (59, 26892), (66, 26952), (96, 27108), (97, 27120), (109, 27204), (110, 27243),

Gene: PinkFriday_30 Start: 23660, Stop: 24220, Start Num: 31

Candidate Starts for PinkFriday_30:

(Start: 31 @23660 has 56 MA's), (Start: 34 @23672 has 7 MA's), (38, 23699), (44, 23732), (45, 23738), (50, 23777), (52, 23792), (66, 23915), (67, 23918), (68, 23930), (72, 23954), (81, 23993), (88, 24014), (89, 24017), (90, 24032), (93, 24056), (95, 24074), (101, 24113), (104, 24128), (107, 24149), (108, 24170),

Gene: PitaDog_30 Start: 23618, Stop: 24169, Start Num: 31

Candidate Starts for PitaDog_30:

(Start: 24 @23594 has 3 MA's), (Start: 31 @23618 has 56 MA's), (Start: 34 @23630 has 7 MA's), (38, 23657), (42, 23669), (51, 23741), (52, 23750), (55, 23789), (65, 23861), (66, 23873), (67, 23876), (68, 23888), (71, 23906), (81, 23951), (89, 23975), (102, 24074), (106, 24104), (107, 24107), (108, 24128),

Gene: Potatoes_34 Start: 25219, Stop: 25776, Start Num: 31

Candidate Starts for Potatoes_34:

(13, 25072), (Start: 24 @25195 has 3 MA's), (Start: 31 @25219 has 56 MA's), (38, 25258), (42, 25270), (44, 25291), (45, 25297), (51, 25342), (52, 25351), (55, 25390), (65, 25462), (66, 25474), (68, 25489), (71, 25507), (72, 25513), (75, 25522), (81, 25552), (89, 25576), (102, 25675), (107, 25708), (108, 25729),

Gene: Preamble_30 Start: 23678, Stop: 24235, Start Num: 31

Candidate Starts for Preamble_30:

(27, 23657), (Start: 31 @23678 has 56 MA's), (Start: 34 @23690 has 7 MA's), (38, 23717), (44, 23750), (45, 23756), (50, 23795), (52, 23810), (54, 23840), (65, 23921), (66, 23933), (68, 23948), (72, 23972), (81, 24011), (88, 24032), (89, 24035), (95, 24092), (102, 24134), (107, 24167), (108, 24188),

Gene: Pterodactyl_30 Start: 23609, Stop: 24160, Start Num: 31

Candidate Starts for Pterodactyl_30:

(Start: 24 @23585 has 3 MA's), (Start: 31 @23609 has 56 MA's), (Start: 34 @23621 has 7 MA's), (38, 23648), (42, 23660), (45, 23687), (51, 23732), (52, 23741), (55, 23780), (65, 23852), (66, 23864), (67, 23867), (68, 23879), (71, 23897), (81, 23942), (89, 23966), (102, 24065), (106, 24095), (107, 24098), (108, 24119),

Gene: Pumancara_30 Start: 23579, Stop: 24139, Start Num: 31

Candidate Starts for Pumancara_30:

(Start: 31 @23579 has 56 MA's), (Start: 34 @23591 has 7 MA's), (38, 23618), (44, 23651), (45, 23657), (50, 23696), (52, 23711), (66, 23834), (67, 23837), (68, 23849), (72, 23873), (81, 23912), (88, 23933), (89, 23936), (90, 23951), (93, 23975), (95, 23993), (101, 24032), (104, 24047), (107, 24068), (108, 24089),

Gene: RAP15_34 Start: 25199, Stop: 25777, Start Num: 24

Candidate Starts for RAP15_34:

(3, 24962), (13, 25076), (Start: 24 @25199 has 3 MA's), (Start: 31 @25223 has 56 MA's), (Start: 34 @25235 has 7 MA's), (38, 25259), (44, 25292), (45, 25298), (52, 25352), (55, 25391), (65, 25463), (66, 25475), (67, 25478), (68, 25490), (71, 25508), (72, 25514), (75, 25523), (81, 25553), (89, 25577), (102, 25676), (107, 25709), (108, 25730),

Gene: Rasovi_40 Start: 26856, Stop: 27461, Start Num: 21

Candidate Starts for Rasovi_40:

(13, 26760), (Start: 21 @26856 has 14 MA's), (Start: 23 @26862 has 1 MA's), (44, 26961), (48, 26994), (57, 27066), (59, 27084), (61, 27090), (66, 27144), (72, 27183), (80, 27213), (91, 27258), (96, 27300), (97, 27312), (110, 27435),

Gene: Riovina_31 Start: 24783, Stop: 25343, Start Num: 31

Candidate Starts for Riovina_31:

(18, 24711), (29, 24774), (Start: 31 @24783 has 56 MA's), (Start: 34 @24795 has 7 MA's), (38, 24822), (42, 24834), (44, 24855), (45, 24861), (50, 24900), (52, 24915), (66, 25038), (67, 25041), (68, 25053), (72, 25077), (81, 25116), (88, 25137), (89, 25140), (90, 25155), (93, 25179), (95, 25197), (101, 25236), (104, 25251), (107, 25272), (108, 25293),

Gene: Riverdale_34 Start: 25153, Stop: 25710, Start Num: 31

Candidate Starts for Riverdale_34:

(13, 25006), (Start: 24 @25129 has 3 MA's), (Start: 31 @25153 has 56 MA's), (Start: 34 @25165 has 7 MA's), (38, 25192), (42, 25204), (44, 25225), (45, 25231), (51, 25276), (52, 25285), (55, 25324), (65, 25396), (66, 25408), (68, 25423), (71, 25441), (72, 25447), (75, 25456), (81, 25486), (89, 25510), (102, 25609), (107, 25642), (108, 25663),

Gene: Rootkit7_40 Start: 26528, Stop: 27136, Start Num: 21

Candidate Starts for Rootkit7_40:

(Start: 21 @26528 has 14 MA's), (22, 26531), (Start: 23 @26534 has 1 MA's), (58, 26753), (59, 26759), (66, 26819), (84, 26900), (96, 26975), (97, 26987), (110, 27110),

Gene: Rozby_34 Start: 25154, Stop: 25711, Start Num: 31

Candidate Starts for Rozby_34:

(13, 25007), (Start: 24 @25130 has 3 MA's), (Start: 31 @25154 has 56 MA's), (Start: 34 @25166 has 7 MA's), (38, 25193), (42, 25205), (44, 25226), (45, 25232), (51, 25277), (52, 25286), (55, 25325), (65, 25397), (66, 25409), (67, 25412), (68, 25424), (71, 25442), (72, 25448), (75, 25457), (81, 25487), (89, 25511), (102, 25610), (107, 25643), (108, 25664),

Gene: SBlackberry_40 Start: 26630, Stop: 27238, Start Num: 21

Candidate Starts for SBlackberry_40:

(Start: 21 @26630 has 14 MA's), (Start: 23 @26636 has 1 MA's), (44, 26738), (48, 26771), (57, 26843), (58, 26855), (59, 26861), (66, 26921), (84, 27002), (96, 27077), (106, 27143), (109, 27173), (110, 27212),

Gene: Sapo_32 Start: 30573, Stop: 30124, Start Num: 41

Candidate Starts for Sapo_32:

(26, 30636), (35, 30603), (39, 30579), (Start: 41 @30573 has 4 MA's), (60, 30435), (69, 30360), (70, 30351),

Gene: Savage2526_34 Start: 25217, Stop: 25771, Start Num: 31

Candidate Starts for Savage2526_34:

(3, 24956), (13, 25070), (Start: 24 @25193 has 3 MA's), (Start: 31 @25217 has 56 MA's), (Start: 34 @25229 has 7 MA's), (38, 25253), (44, 25286), (45, 25292), (52, 25346), (55, 25385), (65, 25457), (66, 25469), (67, 25472), (68, 25484), (71, 25502), (72, 25508), (75, 25517), (81, 25547), (89, 25571), (102, 25670), (107, 25703), (108, 25724),

Gene: Scuttle_34 Start: 25238, Stop: 25795, Start Num: 31

Candidate Starts for Scuttle_34:

(3, 24977), (Start: 24 @25214 has 3 MA's), (Start: 31 @25238 has 56 MA's), (Start: 34 @25250 has 7 MA's), (38, 25277), (40, 25283), (42, 25289), (44, 25310), (45, 25316), (52, 25370), (55, 25409), (60, 25436), (65, 25481), (66, 25493), (67, 25496), (68, 25508), (71, 25526), (72, 25532), (74, 25538), (81, 25571), (89, 25595), (102, 25694), (107, 25727), (108, 25748),

Gene: Sergei_31 Start: 24770, Stop: 25330, Start Num: 31

Candidate Starts for Sergei_31:

(Start: 31 @24770 has 56 MA's), (Start: 34 @24782 has 7 MA's), (38, 24809), (44, 24842), (45, 24848), (50, 24887), (52, 24902), (66, 25025), (68, 25040), (72, 25064), (81, 25103), (89, 25127), (93, 25166), (95, 25184), (101, 25223), (104, 25238), (107, 25259), (108, 25280),

Gene: Spocter_61 Start: 47277, Stop: 47777, Start Num: 25

Candidate Starts for Spocter_61:

(4, 47076), (Start: 25 @47277 has 1 MA's), (Start: 28 @47283 has 3 MA's), (39, 47334), (Start: 41 @47340 has 4 MA's), (62, 47502), (63, 47517), (64, 47523), (70, 47568), (105, 47757),

Gene: Sucha_38 Start: 24242, Stop: 24850, Start Num: 20

Candidate Starts for Sucha_38:

(5, 24065), (9, 24086), (14, 24173), (16, 24191), (Start: 20 @24242 has 4 MA's), (44, 24350), (48, 24383), (58, 24467), (59, 24473), (60, 24476), (65, 24521), (66, 24533), (84, 24614), (86, 24620), (91, 24647), (92, 24662), (96, 24689), (110, 24824),

Gene: Supakev_31 Start: 24783, Stop: 25343, Start Num: 31

Candidate Starts for Supakev_31:

(18, 24711), (29, 24774), (Start: 31 @24783 has 56 MA's), (Start: 34 @24795 has 7 MA's), (38, 24822), (42, 24834), (44, 24855), (45, 24861), (50, 24900), (52, 24915), (66, 25038), (68, 25053), (72, 25077), (81, 25116), (88, 25137), (89, 25140), (101, 25236), (107, 25272), (108, 25293), (111, 25335),

Gene: TattModd_34 Start: 25216, Stop: 25773, Start Num: 31

Candidate Starts for TattModd_34:

(13, 25069), (Start: 24 @25192 has 3 MA's), (Start: 31 @25216 has 56 MA's), (Start: 34 @25228 has 7 MA's), (38, 25255), (42, 25267), (44, 25288), (45, 25294), (51, 25339), (52, 25348), (55, 25387), (65, 25459), (66, 25471), (68, 25486), (71, 25504), (72, 25510), (75, 25519), (81, 25549), (89, 25573), (102, 25672), (107, 25705), (108, 25726),

Gene: Temper16_31 Start: 24770, Stop: 25330, Start Num: 31

Candidate Starts for Temper16_31:

(Start: 31 @24770 has 56 MA's), (Start: 34 @24782 has 7 MA's), (38, 24809), (44, 24842), (45, 24848), (50, 24887), (52, 24902), (66, 25025), (68, 25040), (72, 25064), (81, 25103), (89, 25127), (93, 25166), (95, 25184), (101, 25223), (104, 25238), (107, 25259), (108, 25280),

Gene: Theresita_40 Start: 25288, Stop: 25905, Start Num: 20

Candidate Starts for Theresita_40:

(Start: 20 @25288 has 4 MA's), (22, 25291), (Start: 23 @25294 has 1 MA's), (32, 25333), (36, 25348), (48, 25435), (50, 25447), (52, 25462), (57, 25507), (60, 25528), (61, 25531), (65, 25573), (66, 25585), (84, 25666), (85, 25669), (86, 25672), (96, 25741), (98, 25759), (106, 25807), (107, 25810), (110, 25879),

Gene: TurboVicky_40 Start: 26538, Stop: 27140, Start Num: 23

Candidate Starts for TurboVicky_40:

(Start: 21 @26532 has 14 MA's), (22, 26535), (Start: 23 @26538 has 1 MA's), (58, 26757), (59, 26763), (66, 26823), (84, 26904), (96, 26979), (97, 26991), (110, 27114),

Gene: Typher_42 Start: 26650, Stop: 27258, Start Num: 21

Candidate Starts for Typher_42:

(Start: 21 @26650 has 14 MA's), (Start: 23 @26656 has 1 MA's), (32, 26695), (44, 26758), (48, 26791), (57, 26863), (58, 26875), (59, 26881), (66, 26941), (84, 27022), (96, 27097), (97, 27109), (110, 27232),

Gene: Urla_31 Start: 24836, Stop: 25381, Start Num: 34

Candidate Starts for Urla_31:

(19, 24767), (Start: 31 @24824 has 56 MA's), (Start: 34 @24836 has 7 MA's), (38, 24863), (42, 24875), (45, 24902), (51, 24947), (52, 24956), (65, 25067), (66, 25079), (67, 25082), (68, 25094), (72, 25118), (78, 25145), (82, 25160), (88, 25178), (89, 25181), (102, 25280), (107, 25313), (108, 25334),

Gene: Vallejo_34 Start: 25168, Stop: 25713, Start Num: 34

Candidate Starts for Vallejo_34:

(13, 25009), (Start: 24 @25132 has 3 MA's), (Start: 31 @25156 has 56 MA's), (Start: 34 @25168 has 7 MA's), (38, 25195), (42, 25207), (44, 25228), (45, 25234), (51, 25279), (52, 25288), (55, 25327), (65, 25399), (66, 25411), (68, 25426), (71, 25444), (72, 25450), (75, 25459), (81, 25489), (89, 25513), (102, 25612), (107, 25645), (108, 25666),

Gene: Vulture_31 Start: 24780, Stop: 25340, Start Num: 31

Candidate Starts for Vulture_31:

(18, 24708), (29, 24771), (Start: 31 @24780 has 56 MA's), (Start: 34 @24792 has 7 MA's), (38, 24819), (42, 24831), (44, 24852), (45, 24858), (50, 24897), (52, 24912), (66, 25035), (68, 25050), (72, 25074), (81, 25113), (88, 25134), (89, 25137), (101, 25233), (107, 25269), (108, 25290), (111, 25332),

Gene: Wawa_34 Start: 25208, Stop: 25765, Start Num: 31

Candidate Starts for Wawa_34:

(3, 24947), (13, 25061), (Start: 24 @25184 has 3 MA's), (Start: 31 @25208 has 56 MA's), (Start: 34 @25220 has 7 MA's), (38, 25247), (42, 25259), (45, 25286), (51, 25331), (52, 25340), (55, 25379), (60, 25406), (65, 25451), (66, 25463), (67, 25466), (68, 25478), (71, 25496), (72, 25502), (75, 25511), (81, 25541), (89, 25565), (102, 25664), (107, 25697), (108, 25718),

Gene: WonderBoy_29 Start: 23599, Stop: 24150, Start Num: 31

Candidate Starts for WonderBoy_29:

(Start: 24 @23575 has 3 MA's), (Start: 31 @23599 has 56 MA's), (Start: 34 @23611 has 7 MA's), (38, 23638), (42, 23650), (45, 23677), (51, 23722), (52, 23731), (55, 23770), (65, 23842), (66, 23854), (67, 23857), (68, 23869), (71, 23887), (81, 23932), (89, 23956), (102, 24055), (106, 24085), (107, 24088), (108, 24109),

Gene: Zanella_40 Start: 26530, Stop: 27138, Start Num: 21

Candidate Starts for Zanella_40:

(Start: 21 @26530 has 14 MA's), (22, 26533), (Start: 23 @26536 has 1 MA's), (58, 26755), (59, 26761), (66, 26821), (84, 26902), (96, 26977), (97, 26989), (110, 27112),

Gene: Zorro_34 Start: 25187, Stop: 25744, Start Num: 31

Candidate Starts for Zorro_34:

(3, 24926), (13, 25040), (Start: 24 @25163 has 3 MA's), (Start: 31 @25187 has 56 MA's), (Start: 34 @25199 has 7 MA's), (38, 25226), (42, 25238), (44, 25259), (45, 25265), (51, 25310), (52, 25319), (55, 25358), (56, 25361), (60, 25385), (65, 25430), (66, 25442), (68, 25457), (71, 25475), (72, 25481), (75, 25490), (81, 25520), (89, 25544), (102, 25643), (107, 25676), (108, 25697),