

Pham 214258



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 214258 Report

This analysis was run 02/22/25 on database version 588.

Pham number 214258 has 69 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Ilzat_31, Sedgewig_31, SonOfLevi_31, AranulaLuti_31, Calix_31, Chamuel_31, Nattles_31, Gubbabump_31, Winzigespinne_31, Exploradora_32, Gelo_31, JeriBeth_32, Klimt_31, Etta_31, KannH_31, Benjalauren_32, Christoph_31, StingRay_31, Erla_31, RosieMae_32, Papafritta_31, Duocatuli_31, Clancy_31, Symere_32, Baines_31, Bonino_31, JasperRussell_31, Kale_31, StirfryIV_31, Chako_31, Jerbirus_32, HankSprout_32, HungryHenry_31, Rog141_31, Pocket_31, HanSolo_31, Garey24_31
- Track 2 : ManRay_31, Asta_31, Gershwin_31, TeddyBear_31, Tenda_31, Oats_31, Espinosa_31, Aubergine_31
- Track 3 : Janus167_31
- Track 4 : Carostasia_29, Mandalorian_29, Nucci_29
- Track 5 : Quartz_29
- Track 6 : HairyMan_30
- Track 7 : Bustleton_30, Sinatra_30, Pherbot_30
- Track 8 : Kauala_30, PrincePhergus_30, BouleyBill_30, Koji_30, RenegadeRaider_31
- Track 9 : Golden_30, Lucky3_30, Guetzie_30, SirVictor_30
- Track 10 : Jingles_30
- Track 11 : Theresita_28
- Track 12 : Schubert_30
- Track 13 : Cheeto1_33
- Track 14 : GaeCeo_33, ChickenKing_32

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

The start number called the most often in the published annotations is 6, it was called in 41 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AranulaLuti_31, Asta_31, Aubergine_31, Baines_31, Benjalauren_32, Bonino_31, Calix_31, Chako_31, Chamuel_31, Christoph_31, Clancy_31, Duocatuli_31, Erla_31, Espinosa_31, Etta_31, Exploradora_32, Garey24_31, Gelo_31, Gershwin_31, Gubbabump_31, HanSolo_31, HankSprout_32, HungryHenry_31, Ilzat_31, Janus167_31, JasperRussell_31, Jerbirus_32, JeriBeth_32, Kale_31, KannH_31,

Klimt_31, ManRay_31, Nattles_31, Oats_31, Papafritta_31, Pocket_31, Rog141_31, RosieMae_32, Sedgewig_31, SonOfLevi_31, StingRay_31, StirfryIV_31, Symere_32, TeddyBear_31, Tenda_31, Winzigespinne_31,

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

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

• BouleyBill_30, Bustleton_30, Carostasia_29, Cheeto1_33, ChickenKing_32, GaeCeo_33, Golden_30, Guetzie_30, HairyMan_30, Jingles_30, Kauala_30, Koji_30, Lucky3_30, Mandalorian_29, Nucci_29, Pherbot_30, PrincePhergus_30, Quartz_29, RenegadeRaider_31, Schubert_30, Sinatra_30, SirVictor_30, Theresita_28,

Summary by start number:

Start 5:

- Found in 23 of 69 (33.3%) of genes in pham
- Manual Annotations of this start: 20 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BouleyBill_30 (EA4), Bustleton_30 (EA4), Carostasia_29 (EA10), Cheeto1_33 (EA9), ChickenKing_32 (EA9), GaeCeo_33 (EA9), Golden_30 (EA4), Guetzie_30 (EA4), HairyMan_30 (EA10), Jingles_30 (EA4), Kauala_30 (EA4), Koji_30 (EA4), Lucky3_30 (EA4), Mandalorian_29 (EA10), Nucci_29 (EA10), Pherbot_30 (EA4), PrincePhergus_30 (EA4), Quartz_29 (EA10), RenegadeRaider_31 (EA4), Schubert_30 (EA8), Sinatra_30 (EA4), SirVictor_30 (EA4), Theresita_28 (EA7),

Start 6:

- Found in 46 of 69 (66.7%) of genes in pham
- Manual Annotations of this start: 41 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AranulaLuti_31 (EA1), Asta_31 (EA1), Aubergine_31 (EA1), Baines_31 (EA1), Benjal Lauren_32 (EA1), Bonino_31 (EA1), Calix_31 (EA1), Chako_31 (EA1), Chamuel_31 (EA1), Christoph_31 (EA1), Clancy_31 (EA1), Duocatuli_31 (EA1), Erla_31 (EA1), Espinosa_31 (EA1), Etta_31 (EA1), Exploradora_32 (UNK), Garey24_31 (EA1), Gelo_31 (EA1), Gershwin_31 (EA1), Gubbabump_31 (EA1), HanSolo_31 (EA1), HankSprout_32 (EA1), HungryHenry_31 (EA1), Ilzat_31 (EA1), Janus167_31 (EA1), JasperRussell_31 (EA1), Jerbirus_32 (EA1), JeriBeth_32 (EA1), Kale_31 (EA1), KannH_31 (EA1), Klimt_31 (EA1), ManRay_31 (EA1), Nattles_31 (EA1), Oats_31 (EA1), Papafritta_31 (EA1), Pocket_31 (EA1), Rog141_31 (EA1), RosieMae_32 (EA1), Sedgewig_31 (EA1), SonOfLevi_31 (EA1), StingRay_31 (EA1), StirfryIV_31 (EA1), Symere_32 (EA1), TeddyBear_31 (EA1), Tenda_31 (EA1), Winzigespinne_31 (EA1),

Summary by clusters:

There are 7 clusters represented in this pham: EA10, EA9, EA8, EA1, UNK, EA4, EA7,

Info for manual annotations of cluster EA1:

- Start number 6 was manually annotated 41 times for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 5 was manually annotated 4 times for cluster EA10.

Info for manual annotations of cluster EA4:

- Start number 5 was manually annotated 11 times for cluster EA4.

Info for manual annotations of cluster EA7:

- Start number 5 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EA8:

- Start number 5 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:

- Start number 5 was manually annotated 3 times for cluster EA9.

Gene Information:

Gene: AranulaLuti_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for AranulaLuti_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Asta_31 Start: 21919, Stop: 21656, Start Num: 6

Candidate Starts for Asta_31:

(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Aubergine_31 Start: 21919, Stop: 21656, Start Num: 6

Candidate Starts for Aubergine_31:

(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Baines_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Baines_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Benjalauren_32 Start: 21916, Stop: 21653, Start Num: 6

Candidate Starts for Benjalauren_32:

(Start: 6 @21916 has 41 MA's), (8, 21859), (9, 21826), (11, 21808), (16, 21781), (18, 21769), (20, 21763), (23, 21748), (25, 21703),

Gene: Bonino_31 Start: 21895, Stop: 21632, Start Num: 6

Candidate Starts for Bonino_31:

(Start: 6 @21895 has 41 MA's), (8, 21838), (9, 21805), (11, 21787), (16, 21760), (18, 21748), (20, 21742), (23, 21727), (25, 21682),

Gene: BouleyBill_30 Start: 21998, Stop: 21723, Start Num: 5

Candidate Starts for BouleyBill_30:

(Start: 5 @21998 has 20 MA's), (7, 21971), (10, 21887), (13, 21872), (15, 21854), (17, 21848), (18, 21839), (22, 21827),

Gene: Bustleton_30 Start: 21998, Stop: 21723, Start Num: 5

Candidate Starts for Bustleton_30:

(Start: 5 @21998 has 20 MA's), (7, 21971), (10, 21887), (13, 21872), (15, 21854), (17, 21848), (18, 21839), (22, 21827),

Gene: Calix_31 Start: 21899, Stop: 21636, Start Num: 6

Candidate Starts for Calix_31:

(Start: 6 @21899 has 41 MA's), (8, 21842), (9, 21809), (11, 21791), (16, 21764), (18, 21752), (20, 21746), (23, 21731), (25, 21686),

Gene: Carostasia_29 Start: 21669, Stop: 21406, Start Num: 5

Candidate Starts for Carostasia_29:

(1, 21705), (2, 21696), (3, 21690), (Start: 5 @21669 has 20 MA's), (12, 21549), (14, 21540), (15, 21528), (16, 21525), (26, 21447), (32, 21414),

Gene: Chako_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Chako_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Chamuel_31 Start: 21901, Stop: 21638, Start Num: 6

Candidate Starts for Chamuel_31:

(Start: 6 @21901 has 41 MA's), (8, 21844), (9, 21811), (11, 21793), (16, 21766), (18, 21754), (20, 21748), (23, 21733), (25, 21688),

Gene: Cheeto1_33 Start: 22587, Stop: 22306, Start Num: 5

Candidate Starts for Cheeto1_33:

(Start: 5 @22587 has 20 MA's), (10, 22473), (17, 22434), (21, 22416), (22, 22413), (28, 22341),

Gene: ChickenKing_32 Start: 22500, Stop: 22219, Start Num: 5

Candidate Starts for ChickenKing_32:

(Start: 5 @22500 has 20 MA's), (10, 22386), (17, 22347), (21, 22329), (22, 22326), (25, 22272), (31, 22239),

Gene: Christoph_31 Start: 21917, Stop: 21654, Start Num: 6

Candidate Starts for Christoph_31:

(Start: 6 @21917 has 41 MA's), (8, 21860), (9, 21827), (11, 21809), (16, 21782), (18, 21770), (20, 21764), (23, 21749), (25, 21704),

Gene: Clancy_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Clancy_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Duocatuli_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Duocatuli_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Erla_31 Start: 21899, Stop: 21636, Start Num: 6

Candidate Starts for Erla_31:

(Start: 6 @21899 has 41 MA's), (8, 21842), (9, 21809), (11, 21791), (16, 21764), (18, 21752), (20, 21746), (23, 21731), (25, 21686),

Gene: Espinosa_31 Start: 21917, Stop: 21654, Start Num: 6

Candidate Starts for Espinosa_31:

(Start: 6 @21917 has 41 MA's), (8, 21860), (11, 21809), (16, 21782), (18, 21770), (20, 21764), (23, 21749), (25, 21704),

Gene: Etta_31 Start: 21903, Stop: 21640, Start Num: 6

Candidate Starts for Etta_31:

(Start: 6 @21903 has 41 MA's), (8, 21846), (9, 21813), (11, 21795), (16, 21768), (18, 21756), (20, 21750), (23, 21735), (25, 21690),

Gene: Exploradora_32 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Exploradora_32:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: GaeCeo_33 Start: 22736, Stop: 22455, Start Num: 5

Candidate Starts for GaeCeo_33:

(Start: 5 @22736 has 20 MA's), (10, 22622), (17, 22583), (21, 22565), (22, 22562), (25, 22508), (31, 22475),

Gene: Garey24_31 Start: 21882, Stop: 21619, Start Num: 6

Candidate Starts for Garey24_31:

(Start: 6 @21882 has 41 MA's), (8, 21825), (9, 21792), (11, 21774), (16, 21747), (18, 21735), (20, 21729), (23, 21714), (25, 21669),

Gene: Gelo_31 Start: 21903, Stop: 21640, Start Num: 6

Candidate Starts for Gelo_31:

(Start: 6 @21903 has 41 MA's), (8, 21846), (9, 21813), (11, 21795), (16, 21768), (18, 21756), (20, 21750), (23, 21735), (25, 21690),

Gene: Gershwin_31 Start: 21919, Stop: 21656, Start Num: 6

Candidate Starts for Gershwin_31:

(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Golden_30 Start: 22099, Stop: 21827, Start Num: 5

Candidate Starts for Golden_30:

(Start: 5 @22099 has 20 MA's), (11, 21979), (13, 21973), (15, 21955), (17, 21949), (18, 21940), (22, 21928), (27, 21862),

Gene: Gubbabump_31 Start: 21908, Stop: 21645, Start Num: 6

Candidate Starts for Gubbabump_31:

(Start: 6 @21908 has 41 MA's), (8, 21851), (9, 21818), (11, 21800), (16, 21773), (18, 21761), (20, 21755), (23, 21740), (25, 21695),

Gene: Guetzie_30 Start: 22087, Stop: 21815, Start Num: 5

Candidate Starts for Guetzie_30:

(Start: 5 @22087 has 20 MA's), (11, 21967), (13, 21961), (15, 21943), (17, 21937), (18, 21928), (22, 21916), (27, 21850),

Gene: HairyMan_30 Start: 21239, Stop: 20982, Start Num: 5
Candidate Starts for HairyMan_30:
(Start: 5 @21239 has 20 MA's), (11, 21119), (14, 21107), (19, 21077), (20, 21074), (29, 20996),

Gene: HanSolo_31 Start: 21906, Stop: 21643, Start Num: 6
Candidate Starts for HanSolo_31:
(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: HankSprout_32 Start: 21786, Stop: 21523, Start Num: 6
Candidate Starts for HankSprout_32:
(Start: 6 @21786 has 41 MA's), (8, 21729), (9, 21696), (11, 21678), (16, 21651), (18, 21639), (20, 21633), (23, 21618), (25, 21573),

Gene: HungryHenry_31 Start: 21917, Stop: 21654, Start Num: 6
Candidate Starts for HungryHenry_31:
(Start: 6 @21917 has 41 MA's), (8, 21860), (9, 21827), (11, 21809), (16, 21782), (18, 21770), (20, 21764), (23, 21749), (25, 21704),

Gene: Ilzat_31 Start: 21916, Stop: 21653, Start Num: 6
Candidate Starts for Ilzat_31:
(Start: 6 @21916 has 41 MA's), (8, 21859), (9, 21826), (11, 21808), (16, 21781), (18, 21769), (20, 21763), (23, 21748), (25, 21703),

Gene: Janus167_31 Start: 21906, Stop: 21643, Start Num: 6
Candidate Starts for Janus167_31:
(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: JasperRussell_31 Start: 21906, Stop: 21643, Start Num: 6
Candidate Starts for JasperRussell_31:
(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Jerbirus_32 Start: 21906, Stop: 21643, Start Num: 6
Candidate Starts for Jerbirus_32:
(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: JeriBeth_32 Start: 21763, Stop: 21500, Start Num: 6
Candidate Starts for JeriBeth_32:
(Start: 6 @21763 has 41 MA's), (8, 21706), (9, 21673), (11, 21655), (16, 21628), (18, 21616), (20, 21610), (23, 21595), (25, 21550),

Gene: Jingles_30 Start: 22005, Stop: 21730, Start Num: 5
Candidate Starts for Jingles_30:
(Start: 5 @22005 has 20 MA's), (7, 21978), (10, 21894), (13, 21879), (15, 21861), (17, 21855), (18, 21846), (22, 21834), (30, 21750),

Gene: Kale_31 Start: 21921, Stop: 21658, Start Num: 6
Candidate Starts for Kale_31:
(Start: 6 @21921 has 41 MA's), (8, 21864), (9, 21831), (11, 21813), (16, 21786), (18, 21774), (20, 21768), (23, 21753), (25, 21708),

Gene: KannH_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for KannH_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Kauala_30 Start: 21991, Stop: 21719, Start Num: 5

Candidate Starts for Kauala_30:

(Start: 5 @21991 has 20 MA's), (7, 21964), (10, 21880), (13, 21865), (15, 21847), (17, 21841), (18, 21832), (22, 21820),

Gene: Klimt_31 Start: 21901, Stop: 21638, Start Num: 6

Candidate Starts for Klimt_31:

(Start: 6 @21901 has 41 MA's), (8, 21844), (9, 21811), (11, 21793), (16, 21766), (18, 21754), (20, 21748), (23, 21733), (25, 21688),

Gene: Koji_30 Start: 22126, Stop: 21851, Start Num: 5

Candidate Starts for Koji_30:

(Start: 5 @22126 has 20 MA's), (7, 22099), (10, 22015), (13, 22000), (15, 21982), (17, 21976), (18, 21967), (22, 21955),

Gene: Lucky3_30 Start: 22099, Stop: 21827, Start Num: 5

Candidate Starts for Lucky3_30:

(Start: 5 @22099 has 20 MA's), (11, 21979), (13, 21973), (15, 21955), (17, 21949), (18, 21940), (22, 21928), (27, 21862),

Gene: ManRay_31 Start: 21919, Stop: 21656, Start Num: 6

Candidate Starts for ManRay_31:

(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Mandalorian_29 Start: 21667, Stop: 21404, Start Num: 5

Candidate Starts for Mandalorian_29:

(1, 21703), (2, 21694), (3, 21688), (Start: 5 @21667 has 20 MA's), (12, 21547), (14, 21538), (15, 21526), (16, 21523), (26, 21445), (32, 21412),

Gene: Nattles_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Nattles_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Nucci_29 Start: 21656, Stop: 21393, Start Num: 5

Candidate Starts for Nucci_29:

(1, 21692), (2, 21683), (3, 21677), (Start: 5 @21656 has 20 MA's), (12, 21536), (14, 21527), (15, 21515), (16, 21512), (26, 21434), (32, 21401),

Gene: Oats_31 Start: 21919, Stop: 21656, Start Num: 6

Candidate Starts for Oats_31:

(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Papafritta_31 Start: 21915, Stop: 21652, Start Num: 6

Candidate Starts for Papafritta_31:

(Start: 6 @21915 has 41 MA's), (8, 21858), (9, 21825), (11, 21807), (16, 21780), (18, 21768), (20, 21762), (23, 21747), (25, 21702),

Gene: Pherbot_30 Start: 21997, Stop: 21722, Start Num: 5

Candidate Starts for Pherbot_30:

(Start: 5 @21997 has 20 MA's), (7, 21970), (10, 21886), (13, 21871), (15, 21853), (17, 21847), (18, 21838), (22, 21826),

Gene: Pocket_31 Start: 21904, Stop: 21641, Start Num: 6

Candidate Starts for Pocket_31:

(Start: 6 @21904 has 41 MA's), (8, 21847), (9, 21814), (11, 21796), (16, 21769), (18, 21757), (20, 21751), (23, 21736), (25, 21691),

Gene: PrincePhergus_30 Start: 22000, Stop: 21725, Start Num: 5

Candidate Starts for PrincePhergus_30:

(Start: 5 @22000 has 20 MA's), (7, 21973), (10, 21889), (13, 21874), (15, 21856), (17, 21850), (18, 21841), (22, 21829),

Gene: Quartz_29 Start: 21669, Stop: 21406, Start Num: 5

Candidate Starts for Quartz_29:

(1, 21705), (4, 21678), (Start: 5 @21669 has 20 MA's), (12, 21549), (14, 21540), (15, 21528), (16, 21525), (26, 21447), (32, 21414),

Gene: RenegadeRaider_31 Start: 21843, Stop: 21568, Start Num: 5

Candidate Starts for RenegadeRaider_31:

(Start: 5 @21843 has 20 MA's), (7, 21816), (10, 21732), (13, 21717), (15, 21699), (17, 21693), (18, 21684), (22, 21672),

Gene: Rog141_31 Start: 21906, Stop: 21643, Start Num: 6

Candidate Starts for Rog141_31:

(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: RosieMae_32 Start: 21916, Stop: 21653, Start Num: 6

Candidate Starts for RosieMae_32:

(Start: 6 @21916 has 41 MA's), (8, 21859), (9, 21826), (11, 21808), (16, 21781), (18, 21769), (20, 21763), (23, 21748), (25, 21703),

Gene: Schubert_30 Start: 22008, Stop: 21727, Start Num: 5

Candidate Starts for Schubert_30:

(Start: 5 @22008 has 20 MA's), (8, 21936), (11, 21891), (15, 21867), (17, 21861), (18, 21852), (24, 21801),

Gene: Sedgewig_31 Start: 21898, Stop: 21635, Start Num: 6

Candidate Starts for Sedgewig_31:

(Start: 6 @21898 has 41 MA's), (8, 21841), (9, 21808), (11, 21790), (16, 21763), (18, 21751), (20, 21745), (23, 21730), (25, 21685),

Gene: Sinatra_30 Start: 21996, Stop: 21721, Start Num: 5

Candidate Starts for Sinatra_30:

(Start: 5 @21996 has 20 MA's), (7, 21969), (10, 21885), (13, 21870), (15, 21852), (17, 21846), (18, 21837), (22, 21825),

Gene: SirVictor_30 Start: 22087, Stop: 21815, Start Num: 5
Candidate Starts for SirVictor_30:
(Start: 5 @22087 has 20 MA's), (11, 21967), (13, 21961), (15, 21943), (17, 21937), (18, 21928), (22, 21916), (27, 21850),

Gene: SonOfLevi_31 Start: 21901, Stop: 21638, Start Num: 6
Candidate Starts for SonOfLevi_31:
(Start: 6 @21901 has 41 MA's), (8, 21844), (9, 21811), (11, 21793), (16, 21766), (18, 21754), (20, 21748), (23, 21733), (25, 21688),

Gene: StingRay_31 Start: 21916, Stop: 21653, Start Num: 6
Candidate Starts for StingRay_31:
(Start: 6 @21916 has 41 MA's), (8, 21859), (9, 21826), (11, 21808), (16, 21781), (18, 21769), (20, 21763), (23, 21748), (25, 21703),

Gene: StirfryIV_31 Start: 21906, Stop: 21643, Start Num: 6
Candidate Starts for StirfryIV_31:
(Start: 6 @21906 has 41 MA's), (8, 21849), (9, 21816), (11, 21798), (16, 21771), (18, 21759), (20, 21753), (23, 21738), (25, 21693),

Gene: Symere_32 Start: 21896, Stop: 21633, Start Num: 6
Candidate Starts for Symere_32:
(Start: 6 @21896 has 41 MA's), (8, 21839), (9, 21806), (11, 21788), (16, 21761), (18, 21749), (20, 21743), (23, 21728), (25, 21683),

Gene: TeddyBear_31 Start: 21919, Stop: 21656, Start Num: 6
Candidate Starts for TeddyBear_31:
(Start: 6 @21919 has 41 MA's), (8, 21862), (11, 21811), (16, 21784), (18, 21772), (20, 21766), (23, 21751), (25, 21706),

Gene: Tenda_31 Start: 21917, Stop: 21654, Start Num: 6
Candidate Starts for Tenda_31:
(Start: 6 @21917 has 41 MA's), (8, 21860), (11, 21809), (16, 21782), (18, 21770), (20, 21764), (23, 21749), (25, 21704),

Gene: Theresita_28 Start: 20735, Stop: 20466, Start Num: 5
Candidate Starts for Theresita_28:
(Start: 5 @20735 has 20 MA's), (11, 20615), (17, 20585), (22, 20564), (24, 20525),

Gene: Winzigespinne_31 Start: 21905, Stop: 21642, Start Num: 6
Candidate Starts for Winzigespinne_31:
(Start: 6 @21905 has 41 MA's), (8, 21848), (9, 21815), (11, 21797), (16, 21770), (18, 21758), (20, 21752), (23, 21737), (25, 21692),