

Pham 211007



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 211007 Report

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

Pham number 211007 has 89 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Maria1952_31, Daiboju_32, KingBob_32, Temper16_32, Herb_32, Sergei_32
- Track 2 : MamaPearl_32, Huckleberry_31, HeadNerd_31, EstebanJulior_32, Moki_31, Bennie_31, Urla_32
- Track 3 : Lennox_32, ChewChew_32, WonderBoy_31, PitaDog_32, Bodacious_32, Nancia_32, Makoto_32, BigMack_31, CristinaYang_32, Lucy_32, LilStuart_32, Christian_32
- Track 4 : Wayne_35, CallieOMalley_35, Canowicakte_35, Suppi_35, Litotes_35, PartyCup_37
- Track 5 : Joann_34, Nubia_34, Albanese_34
- Track 6 : DrRobert_31, OurGirlNessie_31, Lasagna_31
- Track 7 : Lakshmi_34, GreenHearts_34
- Track 8 : Korra_35, Zorro_35, Wawa_35, Pterodactyl_32
- Track 9 : Fluke_36
- Track 10 : Immaculata_35, Carpal_35, Potatoes_35, Cholula_35
- Track 11 : Jumboset_35, Oxynfrius_34, MeganNoll_34, BrotherBLo_35, Savage2526_35, Scuttle_35, RAP15_35
- Track 12 : AppleCider_35
- Track 13 : Glenn_35, Gisselle_32, DreamTeam_32, Rozby_35, Preamble_31, Riverdale_35, Beethoven_35, Kittykat_32, Vallejo_35, TattModd_35
- Track 14 : Kalizoi_35, Dino_35
- Track 15 : Supakev_32, AustinPowers_32, Vulture_32, HunterDalle_32, Chridison_31
- Track 16 : Eunoia_32, Riovina_32, OMalley_32, Aledel_32
- Track 17 : MrGloopy_35
- Track 18 : Pumancara_31
- Track 19 : PinkFriday_31
- Track 20 : Laroye_61, LiSara_58
- Track 21 : Kovu_59
- Track 22 : ApoKipo_61
- Track 23 : Salgado_61
- Track 24 : Wheelbite_57
- Track 25 : Edmundo_60
- Track 26 : Waltz_58
- Track 27 : Shrooms_59

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

The start number called the most often in the published annotations is 13, it was called in 72 of the 87 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aledel_32, AppleCider_35, AustinPowers_32, Beethoven_35, Bennie_31, BigMack_31, Bodacious_32, BrotherBLo_35, CallieOMalley_35, Canowicakte_35, Carpal_35, ChewChew_32, Cholula_35, Chridison_31, Christian_32, CristinaYang_32, Daiboju_32, DrRobert_31, DreamTeam_32, EstebanJulior_32, Eunoia_32, Gisselle_32, Glenn_35, GreenHearts_34, HeadNerd_31, Herb_32, Huckleberry_31, HunterDalle_32, Immaculata_35, Jumboset_35, KingBob_32, Kittykat_32, Korra_35, Lakshmi_34, Lasagna_31, Lennox_32, LilStuart_32, Litotes_35, Lucy_32, Makoto_32, MamaPearl_32, Maria1952_31, MeganNoll_34, Moki_31, Nancia_32, OMalley_32, OurGirlNessie_31, Oxynfrius_34, PartyCup_37, PinkFriday_31, PitaDog_32, Potatoes_35, Preamble_31, Pterodactyl_32, Pumancara_31, RAP15_35, Riovina_32, Riverdale_35, Rozby_35, Savage2526_35, Scuttle_35, Sergei_32, Supakev_32, Suppi_35, TattModd_35, Temper16_32, Urla_32, Vallejo_35, Vulture_32, Wawa_35, Wayne_35, WonderBoy_31, Zorro_35,

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

- Albanese_34, Dino_35, Fluke_36, Joann_34, Kalizoi_35, Nubia_34,

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

- ApoKipo_61, Edmundo_60, Kovu_59, Laroye_61, LiSara_58, MrGloopy_35, Salgado_61, Shrooms_59, Waltz_58, Wheelbite_57,

Summary by start number:

Start 8:

- Found in 1 of 89 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kovu_59 (AL),

Start 11:

- Found in 7 of 89 (7.9%) of genes in pham
- Manual Annotations of this start: 7 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo_60 (AL), Laroye_61 (AL), LiSara_58 (AL), Salgado_61 (AL), Shrooms_59 (AL), Waltz_58 (AL), Wheelbite_57 (AL),

Start 12:

- Found in 32 of 89 (36.0%) of genes in pham
- Manual Annotations of this start: 6 of 87
- Called 18.8% of time when present
- Phage (with cluster) where this start called: Albanese_34 (AK), Dino_35 (AK), Fluke_36 (AK), Joann_34 (AK), Kalizoi_35 (AK), Nubia_34 (AK),

Start 13:

- Found in 79 of 89 (88.8%) of genes in pham

- Manual Annotations of this start: 72 of 87
- Called 92.4% of time when present
- Phage (with cluster) where this start called: Aledel_32 (AK), AppleCider_35 (AK), AustinPowers_32 (AK), Beethoven_35 (AK), Bennie_31 (AK), BigMack_31 (AK), Bodacious_32 (AK), BrotherBLo_35 (AK), CallieOMalley_35 (AK), Canowicakte_35 (AK), Carpal_35 (AK), ChewChew_32 (AK), Cholula_35 (AK), Chridison_31 (AK), Christian_32 (AK), CristinaYang_32 (AK), Daiboju_32 (AK), DrRobert_31 (AK), DreamTeam_32 (AK), EstebanJulior_32 (AK), Eunoia_32 (AK), Gisselle_32 (AK), Glenn_35 (AK), GreenHearts_34 (AK), HeadNerd_31 (AK), Herb_32 (AK), Huckleberry_31 (AK), HunterDalle_32 (AK), Immaculata_35 (AK), Jumboset_35 (AK), KingBob_32 (AK), Kittykat_32 (AK), Korra_35 (AK), Lakshmi_34 (AK), Lasagna_31 (AK), Lennox_32 (AK), LilStuart_32 (AK), Litotes_35 (AK), Lucy_32 (AK), Makoto_32 (AK), MamaPearl_32 (AK), Maria1952_31 (AK), MeganNoll_34 (AK), Moki_31 (AK), Nancia_32 (AK), OMalley_32 (AK), OurGirlNessie_31 (AK), Oxyfrius_34 (AK), PartyCup_37 (AK), PinkFriday_31 (AK), PitaDog_32 (AK), Potatoes_35 (AK), Preamble_31 (AK), Pterodactyl_32 (AK), Pumancara_31 (AK), RAP15_35 (AK), Rivovina_32 (AK), Riverdale_35 (AK), Rozby_35 (AK), Savage2526_35 (AK), Scuttle_35 (AK), Sergei_32 (AK), Supakev_32 (AK), Suppi_35 (AK), TattModd_35 (AK), Temper16_32 (AK), Urla_32 (AK), Vallejo_35 (AK), Vulture_32 (AK), Wawa_35 (AK), Wayne_35 (AK), WonderBoy_31 (AK), Zorro_35 (AK),

Start 14:

- Found in 1 of 89 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MrGloopy_35 (AK),

Start 15:

- Found in 2 of 89 (2.2%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ApoKipo_61 (AL),

Summary by clusters:

There are 2 clusters represented in this pham: AK, AL,

Info for manual annotations of cluster AK:

- Start number 12 was manually annotated 6 times for cluster AK.
- Start number 13 was manually annotated 72 times for cluster AK.
- Start number 14 was manually annotated 1 time for cluster AK.

Info for manual annotations of cluster AL:

- Start number 8 was manually annotated 1 time for cluster AL.
- Start number 11 was manually annotated 7 times for cluster AL.

Gene Information:

Gene: Albanese_34 Start: 25713, Stop: 25970, Start Num: 12

Candidate Starts for Albanese_34:

(Start: 12 @25713 has 6 MA's), (Start: 13 @25755 has 72 MA's), (21, 25881), (22, 25887),

Gene: Aledel_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Aledel_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: ApoKipo_61 Start: 33630, Stop: 33848, Start Num: 15

Candidate Starts for ApoKipo_61:

(7, 33531), (9, 33549), (15, 33630), (18, 33693), (22, 33750),

Gene: AppleCider_35 Start: 25796, Stop: 26020, Start Num: 13

Candidate Starts for AppleCider_35:

(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (19, 25895), (20, 25910), (22, 25928),

Gene: AustinPowers_32 Start: 25406, Stop: 25621, Start Num: 13

Candidate Starts for AustinPowers_32:

(Start: 13 @25406 has 72 MA's), (21, 25532), (22, 25538),

Gene: Beethoven_35 Start: 25775, Stop: 25990, Start Num: 13

Candidate Starts for Beethoven_35:

(Start: 13 @25775 has 72 MA's), (16, 25814), (22, 25907), (23, 25922),

Gene: Bennie_31 Start: 24232, Stop: 24453, Start Num: 13

Candidate Starts for Bennie_31:

(Start: 13 @24232 has 72 MA's), (16, 24271), (22, 24367),

Gene: BigMack_31 Start: 24254, Stop: 24469, Start Num: 13

Candidate Starts for BigMack_31:

(Start: 12 @24212 has 6 MA's), (Start: 13 @24254 has 72 MA's), (16, 24293), (17, 24317), (22, 24386),

Gene: Bodacious_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for Bodacious_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: BrotherBLo_35 Start: 25800, Stop: 26024, Start Num: 13

Candidate Starts for BrotherBLo_35:

(Start: 12 @25758 has 6 MA's), (Start: 13 @25800 has 72 MA's), (16, 25839), (22, 25935),

Gene: CallieOMalley_35 Start: 25796, Stop: 26020, Start Num: 13

Candidate Starts for CallieOMalley_35:

(Start: 13 @25796 has 72 MA's), (16, 25835), (19, 25895), (20, 25910), (22, 25928),

Gene: Canowicakte_35 Start: 25831, Stop: 26055, Start Num: 13

Candidate Starts for Canowicakte_35:

(Start: 13 @25831 has 72 MA's), (16, 25870), (19, 25930), (20, 25945), (22, 25963),

Gene: Carpal_35 Start: 25783, Stop: 26004, Start Num: 13

Candidate Starts for Carpal_35:

(10, 25720), (Start: 13 @25783 has 72 MA's), (16, 25822), (22, 25915), (23, 25930),

Gene: ChewChew_32 Start: 24472, Stop: 24687, Start Num: 13

Candidate Starts for ChewChew_32:

(Start: 12 @24430 has 6 MA's), (Start: 13 @24472 has 72 MA's), (16, 24511), (17, 24535), (22, 24604),

Gene: Cholula_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for Cholula_35:

(10, 25766), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25961), (23, 25976),

Gene: Chridison_31 Start: 25406, Stop: 25621, Start Num: 13

Candidate Starts for Chridison_31:

(Start: 13 @25406 has 72 MA's), (21, 25532), (22, 25538),

Gene: Christian_32 Start: 24473, Stop: 24688, Start Num: 13

Candidate Starts for Christian_32:

(Start: 12 @24431 has 6 MA's), (Start: 13 @24473 has 72 MA's), (16, 24512), (17, 24536), (22, 24605),

Gene: CristinaYang_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for CristinaYang_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: Daiboju_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Daiboju_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Dino_35 Start: 25754, Stop: 26011, Start Num: 12

Candidate Starts for Dino_35:

(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),

Gene: DrRobert_31 Start: 24236, Stop: 24451, Start Num: 13

Candidate Starts for DrRobert_31:

(Start: 13 @24236 has 72 MA's), (16, 24275), (17, 24299), (22, 24368),

Gene: DreamTeam_32 Start: 24568, Stop: 24783, Start Num: 13

Candidate Starts for DreamTeam_32:

(Start: 13 @24568 has 72 MA's), (16, 24607), (22, 24700), (23, 24715),

Gene: Edmundo_60 Start: 34342, Stop: 34614, Start Num: 11

Candidate Starts for Edmundo_60:

(Start: 11 @34342 has 7 MA's), (16, 34423), (22, 34519), (24, 34570), (25, 34585),

Gene: EstebanJulior_32 Start: 25426, Stop: 25641, Start Num: 13

Candidate Starts for EstebanJulior_32:

(Start: 13 @25426 has 72 MA's), (16, 25465), (22, 25558),

Gene: Eunoia_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Eunoia_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Fluke_36 Start: 25895, Stop: 26161, Start Num: 12

Candidate Starts for Fluke_36:

(Start: 12 @25895 has 6 MA's), (Start: 13 @25937 has 72 MA's), (16, 25976), (22, 26072),

Gene: Gisselle_32 Start: 24568, Stop: 24783, Start Num: 13

Candidate Starts for Gisselle_32:

(Start: 13 @24568 has 72 MA's), (16, 24607), (22, 24700), (23, 24715),

Gene: Glenn_35 Start: 25832, Stop: 26047, Start Num: 13
Candidate Starts for Glenn_35:
(Start: 13 @25832 has 72 MA's), (16, 25871), (22, 25964), (23, 25979),

Gene: GreenHearts_34 Start: 25847, Stop: 26062, Start Num: 13
Candidate Starts for GreenHearts_34:
(Start: 12 @25805 has 6 MA's), (Start: 13 @25847 has 72 MA's), (21, 25973), (22, 25979),

Gene: HeadNerd_31 Start: 24232, Stop: 24453, Start Num: 13
Candidate Starts for HeadNerd_31:
(Start: 13 @24232 has 72 MA's), (16, 24271), (22, 24367),

Gene: Herb_32 Start: 25394, Stop: 25609, Start Num: 13
Candidate Starts for Herb_32:
(Start: 13 @25394 has 72 MA's), (19, 25493), (22, 25526),

Gene: Huckleberry_31 Start: 24220, Stop: 24435, Start Num: 13
Candidate Starts for Huckleberry_31:
(Start: 13 @24220 has 72 MA's), (16, 24259), (22, 24352),

Gene: HunterDalle_32 Start: 25405, Stop: 25620, Start Num: 13
Candidate Starts for HunterDalle_32:
(Start: 13 @25405 has 72 MA's), (21, 25531), (22, 25537),

Gene: Immaculata_35 Start: 25828, Stop: 26049, Start Num: 13
Candidate Starts for Immaculata_35:
(10, 25765), (Start: 13 @25828 has 72 MA's), (16, 25867), (22, 25960), (23, 25975),

Gene: Joann_34 Start: 25690, Stop: 25947, Start Num: 12
Candidate Starts for Joann_34:
(Start: 12 @25690 has 6 MA's), (Start: 13 @25732 has 72 MA's), (21, 25858), (22, 25864),

Gene: Jumboset_35 Start: 25772, Stop: 25993, Start Num: 13
Candidate Starts for Jumboset_35:
(Start: 12 @25730 has 6 MA's), (Start: 13 @25772 has 72 MA's), (16, 25811), (22, 25907),

Gene: Kalizoi_35 Start: 25732, Stop: 25989, Start Num: 12
Candidate Starts for Kalizoi_35:
(Start: 12 @25732 has 6 MA's), (Start: 13 @25774 has 72 MA's), (16, 25813), (22, 25906), (23, 25921),

Gene: KingBob_32 Start: 25395, Stop: 25610, Start Num: 13
Candidate Starts for KingBob_32:
(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Kittykat_32 Start: 24433, Stop: 24648, Start Num: 13
Candidate Starts for Kittykat_32:
(Start: 13 @24433 has 72 MA's), (16, 24472), (22, 24565), (23, 24580),

Gene: Korra_35 Start: 25796, Stop: 26017, Start Num: 13
Candidate Starts for Korra_35:
(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),

Gene: Kovu_59 Start: 33848, Stop: 34150, Start Num: 8

Candidate Starts for Kovu_59:

(1, 33404), (2, 33584), (3, 33596), (5, 33758), (7, 33833), (Start: 8 @33848 has 1 MA's), (9, 33851), (15, 33932), (18, 33995), (22, 34061),

Gene: Lakshmi_34 Start: 25731, Stop: 25946, Start Num: 13

Candidate Starts for Lakshmi_34:

(Start: 12 @25689 has 6 MA's), (Start: 13 @25731 has 72 MA's), (21, 25857), (22, 25863),

Gene: Laroye_61 Start: 33745, Stop: 34017, Start Num: 11

Candidate Starts for Laroye_61:

(Start: 11 @33745 has 7 MA's), (22, 33922), (24, 33973), (25, 33988), (26, 33994),

Gene: Lasagna_31 Start: 24251, Stop: 24466, Start Num: 13

Candidate Starts for Lasagna_31:

(Start: 13 @24251 has 72 MA's), (16, 24290), (17, 24314), (22, 24383),

Gene: Lennox_32 Start: 24461, Stop: 24676, Start Num: 13

Candidate Starts for Lennox_32:

(Start: 12 @24419 has 6 MA's), (Start: 13 @24461 has 72 MA's), (16, 24500), (17, 24524), (22, 24593),

Gene: LiSara_58 Start: 33907, Stop: 34179, Start Num: 11

Candidate Starts for LiSara_58:

(Start: 11 @33907 has 7 MA's), (22, 34084), (24, 34135), (25, 34150), (26, 34156),

Gene: LilStuart_32 Start: 24465, Stop: 24680, Start Num: 13

Candidate Starts for LilStuart_32:

(Start: 12 @24423 has 6 MA's), (Start: 13 @24465 has 72 MA's), (16, 24504), (17, 24528), (22, 24597),

Gene: Litotes_35 Start: 25781, Stop: 26005, Start Num: 13

Candidate Starts for Litotes_35:

(Start: 13 @25781 has 72 MA's), (16, 25820), (19, 25880), (20, 25895), (22, 25913),

Gene: Lucy_32 Start: 24453, Stop: 24668, Start Num: 13

Candidate Starts for Lucy_32:

(Start: 12 @24411 has 6 MA's), (Start: 13 @24453 has 72 MA's), (16, 24492), (17, 24516), (22, 24585),

Gene: Makoto_32 Start: 24473, Stop: 24688, Start Num: 13

Candidate Starts for Makoto_32:

(Start: 12 @24431 has 6 MA's), (Start: 13 @24473 has 72 MA's), (16, 24512), (17, 24536), (22, 24605),

Gene: MamaPearl_32 Start: 25426, Stop: 25641, Start Num: 13

Candidate Starts for MamaPearl_32:

(Start: 13 @25426 has 72 MA's), (16, 25465), (22, 25558),

Gene: Maria1952_31 Start: 25394, Stop: 25609, Start Num: 13

Candidate Starts for Maria1952_31:

(Start: 13 @25394 has 72 MA's), (19, 25493), (22, 25526),

Gene: MeganNoll_34 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for MeganNoll_34:

(Start: 12 @25787 has 6 MA's), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25964),

Gene: Moki_31 Start: 24220, Stop: 24435, Start Num: 13

Candidate Starts for Moki_31:

(Start: 13 @24220 has 72 MA's), (16, 24259), (22, 24352),

Gene: MrGloopy_35 Start: 25764, Stop: 25979, Start Num: 14

Candidate Starts for MrGloopy_35:

(Start: 14 @25764 has 1 MA's), (16, 25803), (22, 25896), (23, 25911),

Gene: Nancia_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for Nancia_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: Nubia_34 Start: 25638, Stop: 25895, Start Num: 12

Candidate Starts for Nubia_34:

(Start: 12 @25638 has 6 MA's), (Start: 13 @25680 has 72 MA's), (21, 25806), (22, 25812),

Gene: OMalley_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for OMalley_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: OurGirlNessie_31 Start: 24217, Stop: 24432, Start Num: 13

Candidate Starts for OurGirlNessie_31:

(Start: 13 @24217 has 72 MA's), (16, 24256), (17, 24280), (22, 24349),

Gene: Oxynfrius_34 Start: 25705, Stop: 25923, Start Num: 13

Candidate Starts for Oxynfrius_34:

(Start: 12 @25663 has 6 MA's), (Start: 13 @25705 has 72 MA's), (16, 25744), (22, 25840),

Gene: PartyCup_37 Start: 25828, Stop: 26043, Start Num: 13

Candidate Starts for PartyCup_37:

(Start: 13 @25828 has 72 MA's), (16, 25867), (19, 25927), (20, 25942), (22, 25960),

Gene: PinkFriday_31 Start: 24285, Stop: 24500, Start Num: 13

Candidate Starts for PinkFriday_31:

(Start: 13 @24285 has 72 MA's), (19, 24384), (22, 24417),

Gene: PitaDog_32 Start: 24464, Stop: 24679, Start Num: 13

Candidate Starts for PitaDog_32:

(Start: 12 @24422 has 6 MA's), (Start: 13 @24464 has 72 MA's), (16, 24503), (17, 24527), (22, 24596),

Gene: Potatoes_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for Potatoes_35:

(10, 25766), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25961), (23, 25976),

Gene: Preamble_31 Start: 24287, Stop: 24502, Start Num: 13

Candidate Starts for Preamble_31:

(Start: 13 @24287 has 72 MA's), (16, 24326), (22, 24419), (23, 24434),

Gene: Pterodactyl_32 Start: 24455, Stop: 24670, Start Num: 13

Candidate Starts for Pterodactyl_32:

(Start: 12 @24413 has 6 MA's), (Start: 13 @24455 has 72 MA's), (16, 24494), (22, 24587), (23, 24602),

Gene: Pumancara_31 Start: 24204, Stop: 24419, Start Num: 13

Candidate Starts for Pumancara_31:

(Start: 13 @24204 has 72 MA's), (19, 24303), (20, 24318), (22, 24336),

Gene: RAP15_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for RAP15_35:

(Start: 12 @25787 has 6 MA's), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25964),

Gene: Riovina_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Riovina_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Riverdale_35 Start: 25762, Stop: 25977, Start Num: 13

Candidate Starts for Riverdale_35:

(Start: 13 @25762 has 72 MA's), (16, 25801), (22, 25894), (23, 25909),

Gene: Rozby_35 Start: 25763, Stop: 25978, Start Num: 13

Candidate Starts for Rozby_35:

(Start: 13 @25763 has 72 MA's), (16, 25802), (22, 25895), (23, 25910),

Gene: Salgado_61 Start: 33561, Stop: 33833, Start Num: 11

Candidate Starts for Salgado_61:

(Start: 11 @33561 has 7 MA's), (16, 33642), (22, 33738), (24, 33789), (25, 33804), (26, 33810),

Gene: Savage2526_35 Start: 25823, Stop: 26044, Start Num: 13

Candidate Starts for Savage2526_35:

(Start: 12 @25781 has 6 MA's), (Start: 13 @25823 has 72 MA's), (16, 25862), (22, 25958),

Gene: Scuttle_35 Start: 25847, Stop: 26071, Start Num: 13

Candidate Starts for Scuttle_35:

(Start: 12 @25805 has 6 MA's), (Start: 13 @25847 has 72 MA's), (16, 25886), (22, 25982),

Gene: Sergei_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Sergei_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Shrooms_59 Start: 31690, Stop: 31962, Start Num: 11

Candidate Starts for Shrooms_59:

(Start: 11 @31690 has 7 MA's), (16, 31771), (22, 31867), (24, 31918), (25, 31933),

Gene: Supakev_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Supakev_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Suppi_35 Start: 25831, Stop: 26055, Start Num: 13

Candidate Starts for Suppi_35:

(Start: 13 @25831 has 72 MA's), (16, 25870), (19, 25930), (20, 25945), (22, 25963),

Gene: TattModd_35 Start: 25825, Stop: 26046, Start Num: 13

Candidate Starts for TattModd_35:

(Start: 13 @25825 has 72 MA's), (16, 25864), (22, 25957), (23, 25972),

Gene: Temper16_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Temper16_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Urla_32 Start: 25433, Stop: 25654, Start Num: 13
Candidate Starts for Urla_32:
(Start: 13 @25433 has 72 MA's), (16, 25472), (22, 25568),

Gene: Vallejo_35 Start: 25765, Stop: 25980, Start Num: 13
Candidate Starts for Vallejo_35:
(Start: 13 @25765 has 72 MA's), (16, 25804), (22, 25897), (23, 25912),

Gene: Vulture_32 Start: 25405, Stop: 25620, Start Num: 13
Candidate Starts for Vulture_32:
(Start: 13 @25405 has 72 MA's), (21, 25531), (22, 25537),

Gene: Waltz_58 Start: 31979, Stop: 32251, Start Num: 11
Candidate Starts for Waltz_58:
(Start: 11 @31979 has 7 MA's), (16, 32060), (22, 32156), (24, 32207),

Gene: Wawa_35 Start: 25817, Stop: 26038, Start Num: 13
Candidate Starts for Wawa_35:
(Start: 12 @25775 has 6 MA's), (Start: 13 @25817 has 72 MA's), (16, 25856), (22, 25949), (23, 25964),

Gene: Wayne_35 Start: 25877, Stop: 26101, Start Num: 13
Candidate Starts for Wayne_35:
(Start: 13 @25877 has 72 MA's), (16, 25916), (19, 25976), (20, 25991), (22, 26009),

Gene: Wheelbite_57 Start: 33697, Stop: 33981, Start Num: 11
Candidate Starts for Wheelbite_57:
(4, 33538), (6, 33616), (Start: 11 @33697 has 7 MA's), (16, 33790), (22, 33886), (24, 33937), (25, 33952),

Gene: WonderBoy_31 Start: 24445, Stop: 24660, Start Num: 13
Candidate Starts for WonderBoy_31:
(Start: 12 @24403 has 6 MA's), (Start: 13 @24445 has 72 MA's), (16, 24484), (17, 24508), (22, 24577),

Gene: Zorro_35 Start: 25796, Stop: 26011, Start Num: 13
Candidate Starts for Zorro_35:
(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),