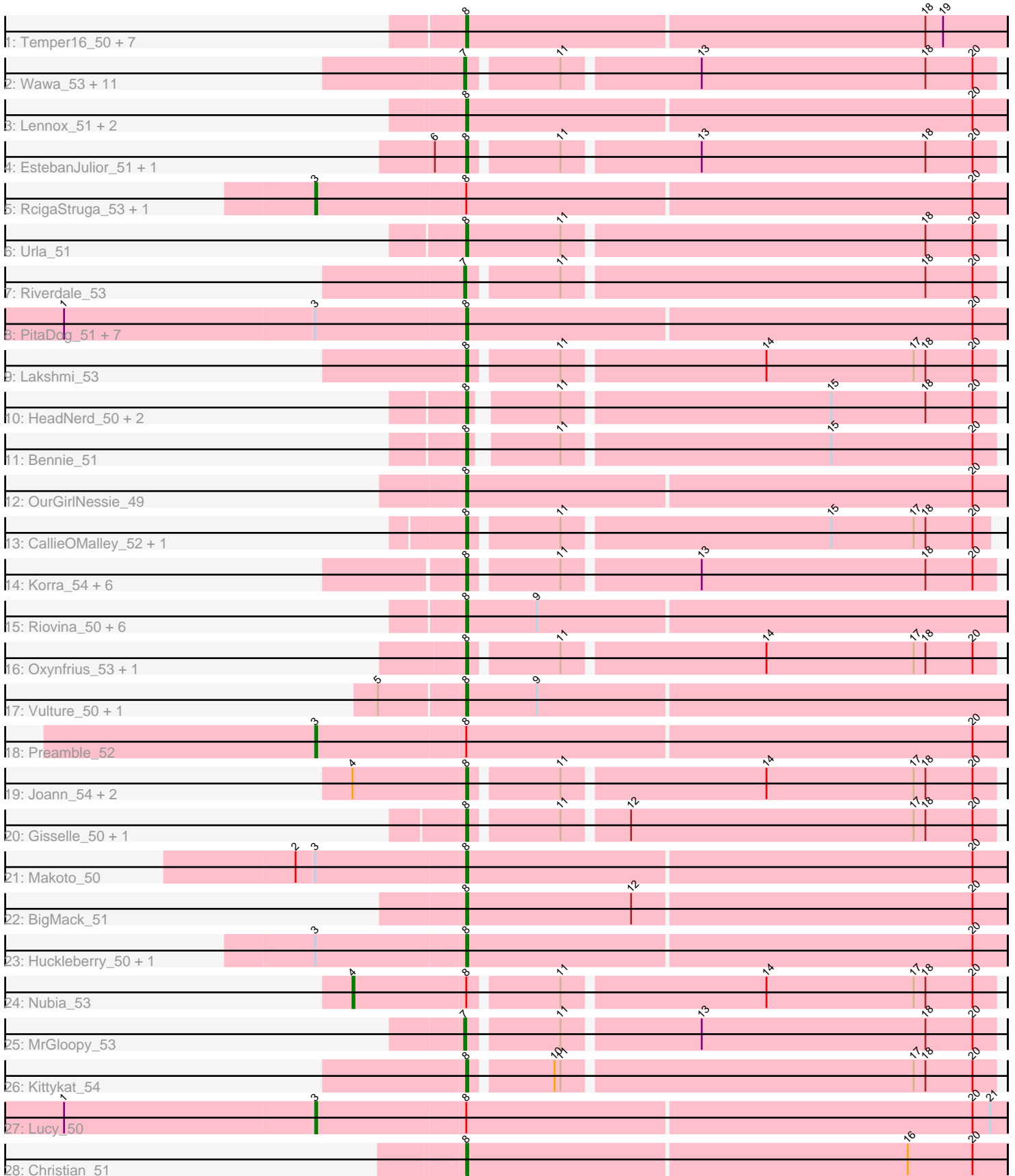


Pham 303308



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 303308 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303308 has 78 members, 0 are drafts.

Phages represented in each track:

- Track 1 : Temper16_50, Pumancara_50, Sergei_50, Daiboju_50, KingBob_50, Herb_50, PinkFriday_51, Maria1952_49
- Track 2 : Wawa_53, TattModd_51, Rozby_52, BrotherBLo_52, Fluke_53, Potatoes_52, Beethoven_52, Cholula_52, Carpal_52, Scuttle_52, Savage2526_53, Immaculata_52
- Track 3 : Lennox_51, Pterodactyl_51, WonderBoy_49
- Track 4 : EstebanJulior_51, MamaPearl_51
- Track 5 : RcigaStruga_53, Huntingdon_53
- Track 6 : Urla_51
- Track 7 : Riverdale_53
- Track 8 : PitaDog_51, ChewChew_51, Lasagna_49, CristinaYang_51, LilStuart_50, Moki_50, Bodacious_51, Nancia_51
- Track 9 : Lakshmi_53
- Track 10 : HeadNerd_50, PartyCup_53, DrRobert_49
- Track 11 : Bennie_51
- Track 12 : OurGirlNessie_49
- Track 13 : CallieOMalley_52, Wayne_54
- Track 14 : Korra_54, Jumboset_54, Dino_53, Glenn_54, Vallejo_53, Zorro_53, Kalizoi_52
- Track 15 : Riovina_50, OMalley_50, Eunoia_50, Eunoia_52, Aledel_50, Supakev_50, AustinPowers_50
- Track 16 : Oxynfrius_53, Greenhouse_54
- Track 17 : Vulture_50, HunterDalle_50
- Track 18 : Preamble_52
- Track 19 : Joann_54, GreenHearts_54, Albanese_53
- Track 20 : Gisselle_50, DreamTeam_50
- Track 21 : Makoto_50
- Track 22 : BigMack_51
- Track 23 : Huckleberry_50, Misaeng_52
- Track 24 : Nubia_53
- Track 25 : MrGloopy_53
- Track 26 : Kittykat_54
- Track 27 : Lucy_50
- Track 28 : Christian_51

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

The start number called the most often in the published annotations is 8, it was called in 59 of the 78 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_53, Aledel_50, AustinPowers_50, Bennie_51, BigMack_51, Bodacious_51, CallieOMalley_52, ChewChew_51, Christian_51, CristinaYang_51, Daiboju_50, Dino_53, DrRobert_49, DreamTeam_50, EstebanJulior_51, Eunoia_50, Eunoia_52, Gisselle_50, Glenn_54, GreenHearts_54, Greenhouse_54, HeadNerd_50, Herb_50, Huckleberry_50, HunterDalle_50, Joann_54, Jumboset_54, Kalizoi_52, KingBob_50, Kittykat_54, Korra_54, Lakshmi_53, Lasagna_49, Lennox_51, LilStuart_50, Makoto_50, MamaPearl_51, Maria1952_49, Misaeng_52, Moki_50, Nancia_51, OMalley_50, OurGirlNessie_49, Oxynfrius_53, PartyCup_53, PinkFriday_51, PitaDog_51, Pterodactyl_51, Pumancara_50, Riovina_50, Sergei_50, Supakev_50, Temper16_50, Urla_51, Vallejo_53, Vulture_50, Wayne_54, WonderBoy_49, Zorro_53,

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

- Huntingdon_53, Lucy_50, Nubia_53, Preamble_52, RcigaStruga_53,

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

- Beethoven_52, BrotherBLo_52, Carpal_52, Cholula_52, Fluke_53, Immaculata_52, MrGloopy_53, Potatoes_52, Riverdale_53, Rozby_52, Savage2526_53, Scuttle_52, TattModd_51, Wawa_53,

Summary by start number:

Start 3:

- Found in 15 of 78 (19.2%) of genes in pham
- Manual Annotations of this start: 4 of 78
- Called 26.7% of time when present
- Phage (with cluster) where this start called: Huntingdon_53 (AK), Lucy_50 (AK), Preamble_52 (AK), RcigaStruga_53 (AK),

Start 4:

- Found in 4 of 78 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 78
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Nubia_53 (AK),

Start 7:

- Found in 14 of 78 (17.9%) of genes in pham
- Manual Annotations of this start: 14 of 78
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beethoven_52 (AK), BrotherBLo_52 (AK), Carpal_52 (AK), Cholula_52 (AK), Fluke_53 (AK), Immaculata_52 (AK), MrGloopy_53 (AK), Potatoes_52 (AK), Riverdale_53 (AK), Rozby_52 (AK), Savage2526_53 (AK), Scuttle_52 (AK), TattModd_51 (AK), Wawa_53 (AK),

Start 8:

- Found in 64 of 78 (82.1%) of genes in pham

- Manual Annotations of this start: 59 of 78
- Called 92.2% of time when present
- Phage (with cluster) where this start called: Albanese_53 (AK), Aledel_50 (AK), AustinPowers_50 (AK), Bennie_51 (AK), BigMack_51 (AK), Bodacious_51 (AK), CallieOMalley_52 (AK), ChewChew_51 (AK), Christian_51 (AK), CristinaYang_51 (AK), Daiboju_50 (AK), Dino_53 (AK), DrRobert_49 (AK), DreamTeam_50 (AK), EstebanJulior_51 (AK), Eunoia_50 (AK), Eunoia_52 (AK), Gisselle_50 (AK), Glenn_54 (AK), GreenHearts_54 (AK), Greenhouse_54 (AK), HeadNerd_50 (AK), Herb_50 (AK), Huckleberry_50 (AK), HunterDalle_50 (AK), Joann_54 (AK), Jumboset_54 (AK), Kalizoi_52 (AK), KingBob_50 (AK), Kittykat_54 (AK), Korra_54 (AK), Lakshmi_53 (AK), Lasagna_49 (AK), Lennox_51 (AK), LilStuart_50 (AK), Makoto_50 (AK), MamaPearl_51 (AK), Maria1952_49 (AK), Misaeng_52 (AK), Moki_50 (AK), Nancia_51 (AK), OMalley_50 (AK), OurGirlNessie_49 (AK), Oxynfrius_53 (AK), PartyCup_53 (AK), PinkFriday_51 (AK), PitaDog_51 (AK), Pterodactyl_51 (AK), Pumancara_50 (AK), Rivovina_50 (AK), Sergei_50 (AK), Supakev_50 (AK), Temper16_50 (AK), Urla_51 (AK), Vallejo_53 (AK), Vulture_50 (AK), Wayne_54 (AK), WonderBoy_49 (AK), Zorro_53 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:

- Start number 3 was manually annotated 4 times for cluster AK.
- Start number 4 was manually annotated 1 time for cluster AK.
- Start number 7 was manually annotated 14 times for cluster AK.
- Start number 8 was manually annotated 59 times for cluster AK.

Gene Information:

Gene: Albanese_53 Start: 39766, Stop: 39509, Start Num: 8

Candidate Starts for Albanese_53:

(Start: 4 @39823 has 1 MA's), (Start: 8 @39766 has 59 MA's), (11, 39724), (14, 39625), (17, 39550), (18, 39544), (20, 39520),

Gene: Aledel_50 Start: 39143, Stop: 38871, Start Num: 8

Candidate Starts for Aledel_50:

(Start: 8 @39143 has 59 MA's), (9, 39107),

Gene: AustinPowers_50 Start: 39166, Stop: 38894, Start Num: 8

Candidate Starts for AustinPowers_50:

(Start: 8 @39166 has 59 MA's), (9, 39130),

Gene: Beethoven_52 Start: 39157, Stop: 38900, Start Num: 7

Candidate Starts for Beethoven_52:

(Start: 7 @39157 has 14 MA's), (11, 39115), (13, 39049), (18, 38935), (20, 38911),

Gene: Bennie_51 Start: 38008, Stop: 37754, Start Num: 8

Candidate Starts for Bennie_51:

(Start: 8 @38008 has 59 MA's), (11, 37969), (15, 37837), (20, 37765),

Gene: BigMack_51 Start: 38493, Stop: 38221, Start Num: 8

Candidate Starts for BigMack_51:

(Start: 8 @38493 has 59 MA's), (12, 38409), (20, 38238),

Gene: Bodacious_51 Start: 38497, Stop: 38225, Start Num: 8

Candidate Starts for Bodacious_51:

(1, 38698), (Start: 3 @38572 has 4 MA's), (Start: 8 @38497 has 59 MA's), (20, 38242),

Gene: BrotherBLo_52 Start: 39206, Stop: 38949, Start Num: 7

Candidate Starts for BrotherBLo_52:

(Start: 7 @39206 has 14 MA's), (11, 39164), (13, 39098), (18, 38984), (20, 38960),

Gene: CallieOMalley_52 Start: 39155, Stop: 38901, Start Num: 8

Candidate Starts for CallieOMalley_52:

(Start: 8 @39155 has 59 MA's), (11, 39113), (15, 38981), (17, 38939), (18, 38933), (20, 38909),

Gene: Carpal_52 Start: 39182, Stop: 38925, Start Num: 7

Candidate Starts for Carpal_52:

(Start: 7 @39182 has 14 MA's), (11, 39140), (13, 39074), (18, 38960), (20, 38936),

Gene: ChewChew_51 Start: 38628, Stop: 38356, Start Num: 8

Candidate Starts for ChewChew_51:

(1, 38829), (Start: 3 @38703 has 4 MA's), (Start: 8 @38628 has 59 MA's), (20, 38373),

Gene: Cholula_52 Start: 39215, Stop: 38958, Start Num: 7

Candidate Starts for Cholula_52:

(Start: 7 @39215 has 14 MA's), (11, 39173), (13, 39107), (18, 38993), (20, 38969),

Gene: Christian_51 Start: 38310, Stop: 38038, Start Num: 8

Candidate Starts for Christian_51:

(Start: 8 @38310 has 59 MA's), (16, 38088), (20, 38055),

Gene: CristinaYang_51 Start: 38624, Stop: 38352, Start Num: 8

Candidate Starts for CristinaYang_51:

(1, 38825), (Start: 3 @38699 has 4 MA's), (Start: 8 @38624 has 59 MA's), (20, 38369),

Gene: Daiboju_50 Start: 39200, Stop: 38928, Start Num: 8

Candidate Starts for Daiboju_50:

(Start: 8 @39200 has 59 MA's), (18, 38969), (19, 38960),

Gene: Dino_53 Start: 39314, Stop: 39057, Start Num: 8

Candidate Starts for Dino_53:

(Start: 8 @39314 has 59 MA's), (11, 39272), (13, 39206), (18, 39092), (20, 39068),

Gene: DrRobert_49 Start: 37861, Stop: 37607, Start Num: 8

Candidate Starts for DrRobert_49:

(Start: 8 @37861 has 59 MA's), (11, 37822), (15, 37690), (18, 37642), (20, 37618),

Gene: DreamTeam_50 Start: 38192, Stop: 37935, Start Num: 8

Candidate Starts for DreamTeam_50:

(Start: 8 @38192 has 59 MA's), (11, 38150), (12, 38120), (17, 37976), (18, 37970), (20, 37946),

Gene: EstebanJulior_51 Start: 39158, Stop: 38901, Start Num: 8

Candidate Starts for EstebanJulior_51:

(6, 39173), (Start: 8 @39158 has 59 MA's), (11, 39116), (13, 39050), (18, 38936), (20, 38912),

Gene: Eunoia_50 Start: 39143, Stop: 38871, Start Num: 8

Candidate Starts for Eunoia_50:

(Start: 8 @39143 has 59 MA's), (9, 39107),

Gene: Eunoia_52 Start: 39820, Stop: 39566, Start Num: 8

Candidate Starts for Eunoia_52:

(Start: 8 @39820 has 59 MA's), (9, 39784),

Gene: Fluke_53 Start: 39430, Stop: 39173, Start Num: 7

Candidate Starts for Fluke_53:

(Start: 7 @39430 has 14 MA's), (11, 39388), (13, 39322), (18, 39208), (20, 39184),

Gene: Gisselle_50 Start: 38192, Stop: 37935, Start Num: 8

Candidate Starts for Gisselle_50:

(Start: 8 @38192 has 59 MA's), (11, 38150), (12, 38120), (17, 37976), (18, 37970), (20, 37946),

Gene: Glenn_54 Start: 39891, Stop: 39634, Start Num: 8

Candidate Starts for Glenn_54:

(Start: 8 @39891 has 59 MA's), (11, 39849), (13, 39783), (18, 39669), (20, 39645),

Gene: GreenHearts_54 Start: 40071, Stop: 39814, Start Num: 8

Candidate Starts for GreenHearts_54:

(Start: 4 @40128 has 1 MA's), (Start: 8 @40071 has 59 MA's), (11, 40029), (14, 39930), (17, 39855), (18, 39849), (20, 39825),

Gene: Greenhouse_54 Start: 39764, Stop: 39507, Start Num: 8

Candidate Starts for Greenhouse_54:

(Start: 8 @39764 has 59 MA's), (11, 39722), (14, 39623), (17, 39548), (18, 39542), (20, 39518),

Gene: HeadNerd_50 Start: 37902, Stop: 37648, Start Num: 8

Candidate Starts for HeadNerd_50:

(Start: 8 @37902 has 59 MA's), (11, 37863), (15, 37731), (18, 37683), (20, 37659),

Gene: Herb_50 Start: 39199, Stop: 38927, Start Num: 8

Candidate Starts for Herb_50:

(Start: 8 @39199 has 59 MA's), (18, 38968), (19, 38959),

Gene: Huckleberry_50 Start: 37903, Stop: 37631, Start Num: 8

Candidate Starts for Huckleberry_50:

(Start: 3 @37978 has 4 MA's), (Start: 8 @37903 has 59 MA's), (20, 37648),

Gene: HunterDalle_50 Start: 39092, Stop: 38820, Start Num: 8

Candidate Starts for HunterDalle_50:

(5, 39134), (Start: 8 @39092 has 59 MA's), (9, 39056),

Gene: Huntingdon_53 Start: 39871, Stop: 39524, Start Num: 3

Candidate Starts for Huntingdon_53:

(Start: 3 @39871 has 4 MA's), (Start: 8 @39796 has 59 MA's), (20, 39541),

Gene: Immaculata_52 Start: 39215, Stop: 38958, Start Num: 7

Candidate Starts for Immaculata_52:

(Start: 7 @39215 has 14 MA's), (11, 39173), (13, 39107), (18, 38993), (20, 38969),

Gene: Joann_54 Start: 39824, Stop: 39567, Start Num: 8

Candidate Starts for Joann_54:

(Start: 4 @39881 has 1 MA's), (Start: 8 @39824 has 59 MA's), (11, 39782), (14, 39683), (17, 39608), (18, 39602), (20, 39578),

Gene: Jumboset_54 Start: 39737, Stop: 39480, Start Num: 8

Candidate Starts for Jumboset_54:

(Start: 8 @39737 has 59 MA's), (11, 39695), (13, 39629), (18, 39515), (20, 39491),

Gene: Kalizoi_52 Start: 39154, Stop: 38897, Start Num: 8

Candidate Starts for Kalizoi_52:

(Start: 8 @39154 has 59 MA's), (11, 39112), (13, 39046), (18, 38932), (20, 38908),

Gene: KingBob_50 Start: 39200, Stop: 38928, Start Num: 8

Candidate Starts for KingBob_50:

(Start: 8 @39200 has 59 MA's), (18, 38969), (19, 38960),

Gene: Kittykat_54 Start: 38802, Stop: 38545, Start Num: 8

Candidate Starts for Kittykat_54:

(Start: 8 @38802 has 59 MA's), (10, 38763), (11, 38760), (17, 38586), (18, 38580), (20, 38556),

Gene: Korra_54 Start: 39165, Stop: 38908, Start Num: 8

Candidate Starts for Korra_54:

(Start: 8 @39165 has 59 MA's), (11, 39123), (13, 39057), (18, 38943), (20, 38919),

Gene: Lakshmi_53 Start: 39827, Stop: 39570, Start Num: 8

Candidate Starts for Lakshmi_53:

(Start: 8 @39827 has 59 MA's), (11, 39785), (14, 39686), (17, 39611), (18, 39605), (20, 39581),

Gene: Lasagna_49 Start: 37860, Stop: 37588, Start Num: 8

Candidate Starts for Lasagna_49:

(1, 38061), (Start: 3 @37935 has 4 MA's), (Start: 8 @37860 has 59 MA's), (20, 37605),

Gene: Lennox_51 Start: 38318, Stop: 38046, Start Num: 8

Candidate Starts for Lennox_51:

(Start: 8 @38318 has 59 MA's), (20, 38063),

Gene: LilStuart_50 Start: 38209, Stop: 37937, Start Num: 8

Candidate Starts for LilStuart_50:

(1, 38410), (Start: 3 @38284 has 4 MA's), (Start: 8 @38209 has 59 MA's), (20, 37954),

Gene: Lucy_50 Start: 38276, Stop: 37929, Start Num: 3

Candidate Starts for Lucy_50:

(1, 38402), (Start: 3 @38276 has 4 MA's), (Start: 8 @38201 has 59 MA's), (20, 37946), (21, 37937),

Gene: Makoto_50 Start: 38075, Stop: 37803, Start Num: 8

Candidate Starts for Makoto_50:

(2, 38159), (Start: 3 @38150 has 4 MA's), (Start: 8 @38075 has 59 MA's), (20, 37820),

Gene: MamaPearl_51 Start: 39158, Stop: 38901, Start Num: 8

Candidate Starts for MamaPearl_51:

(6, 39173), (Start: 8 @39158 has 59 MA's), (11, 39116), (13, 39050), (18, 38936), (20, 38912),

Gene: Maria1952_49 Start: 39199, Stop: 38927, Start Num: 8

Candidate Starts for Maria1952_49:

(Start: 8 @39199 has 59 MA's), (18, 38968), (19, 38959),

Gene: Misaeng_52 Start: 39722, Stop: 39450, Start Num: 8

Candidate Starts for Misaeng_52:

(Start: 3 @39797 has 4 MA's), (Start: 8 @39722 has 59 MA's), (20, 39467),

Gene: Moki_50 Start: 38094, Stop: 37822, Start Num: 8

Candidate Starts for Moki_50:

(1, 38295), (Start: 3 @38169 has 4 MA's), (Start: 8 @38094 has 59 MA's), (20, 37839),

Gene: MrGloopy_53 Start: 39326, Stop: 39069, Start Num: 7

Candidate Starts for MrGloopy_53:

(Start: 7 @39326 has 14 MA's), (11, 39284), (13, 39218), (18, 39104), (20, 39080),

Gene: Nancia_51 Start: 38497, Stop: 38225, Start Num: 8

Candidate Starts for Nancia_51:

(1, 38698), (Start: 3 @38572 has 4 MA's), (Start: 8 @38497 has 59 MA's), (20, 38242),

Gene: Nubia_53 Start: 39753, Stop: 39439, Start Num: 4

Candidate Starts for Nubia_53:

(Start: 4 @39753 has 1 MA's), (Start: 8 @39696 has 59 MA's), (11, 39654), (14, 39555), (17, 39480), (18, 39474), (20, 39450),

Gene: OMalley_50 Start: 39143, Stop: 38871, Start Num: 8

Candidate Starts for OMalley_50:

(Start: 8 @39143 has 59 MA's), (9, 39107),

Gene: OurGirlNessie_49 Start: 37823, Stop: 37551, Start Num: 8

Candidate Starts for OurGirlNessie_49:

(Start: 8 @37823 has 59 MA's), (20, 37568),

Gene: Oxynfrius_53 Start: 39706, Stop: 39449, Start Num: 8

Candidate Starts for Oxynfrius_53:

(Start: 8 @39706 has 59 MA's), (11, 39664), (14, 39565), (17, 39490), (18, 39484), (20, 39460),

Gene: PartyCup_53 Start: 39372, Stop: 39118, Start Num: 8

Candidate Starts for PartyCup_53:

(Start: 8 @39372 has 59 MA's), (11, 39330), (15, 39198), (18, 39150), (20, 39126),

Gene: PinkFriday_51 Start: 38774, Stop: 38502, Start Num: 8

Candidate Starts for PinkFriday_51:

(Start: 8 @38774 has 59 MA's), (18, 38543), (19, 38534),

Gene: PitaDog_51 Start: 38222, Stop: 37950, Start Num: 8

Candidate Starts for PitaDog_51:

(1, 38423), (Start: 3 @38297 has 4 MA's), (Start: 8 @38222 has 59 MA's), (20, 37967),

Gene: Potatoes_52 Start: 39215, Stop: 38958, Start Num: 7

Candidate Starts for Potatoes_52:

(Start: 7 @39215 has 14 MA's), (11, 39173), (13, 39107), (18, 38993), (20, 38969),

Gene: Preamble_52 Start: 38459, Stop: 38112, Start Num: 3

Candidate Starts for Preamble_52:

(Start: 3 @38459 has 4 MA's), (Start: 8 @38384 has 59 MA's), (20, 38129),

Gene: Pterodactyl_51 Start: 38464, Stop: 38192, Start Num: 8

Candidate Starts for Pterodactyl_51:

(Start: 8 @38464 has 59 MA's), (20, 38209),

Gene: Pumancara_50 Start: 38234, Stop: 37962, Start Num: 8

Candidate Starts for Pumancara_50:

(Start: 8 @38234 has 59 MA's), (18, 38003), (19, 37994),

Gene: RcigaStruga_53 Start: 39871, Stop: 39524, Start Num: 3

Candidate Starts for RcigaStruga_53:

(Start: 3 @39871 has 4 MA's), (Start: 8 @39796 has 59 MA's), (20, 39541),

Gene: Riovina_50 Start: 39143, Stop: 38871, Start Num: 8

Candidate Starts for Riovina_50:

(Start: 8 @39143 has 59 MA's), (9, 39107),

Gene: Riverdale_53 Start: 39352, Stop: 39095, Start Num: 7

Candidate Starts for Riverdale_53:

(Start: 7 @39352 has 14 MA's), (11, 39310), (18, 39130), (20, 39106),

Gene: Rozby_52 Start: 39156, Stop: 38899, Start Num: 7

Candidate Starts for Rozby_52:

(Start: 7 @39156 has 14 MA's), (11, 39114), (13, 39048), (18, 38934), (20, 38910),

Gene: Savage2526_53 Start: 39380, Stop: 39123, Start Num: 7

Candidate Starts for Savage2526_53:

(Start: 7 @39380 has 14 MA's), (11, 39338), (13, 39272), (18, 39158), (20, 39134),

Gene: Scuttle_52 Start: 39355, Stop: 39098, Start Num: 7

Candidate Starts for Scuttle_52:

(Start: 7 @39355 has 14 MA's), (11, 39313), (13, 39247), (18, 39133), (20, 39109),

Gene: Sergei_50 Start: 39200, Stop: 38928, Start Num: 8

Candidate Starts for Sergei_50:

(Start: 8 @39200 has 59 MA's), (18, 38969), (19, 38960),

Gene: Supakev_50 Start: 39170, Stop: 38898, Start Num: 8

Candidate Starts for Supakev_50:

(Start: 8 @39170 has 59 MA's), (9, 39134),

Gene: TattModd_51 Start: 39101, Stop: 38844, Start Num: 7

Candidate Starts for TattModd_51:

(Start: 7 @39101 has 14 MA's), (11, 39059), (13, 38993), (18, 38879), (20, 38855),

Gene: Temper16_50 Start: 39200, Stop: 38928, Start Num: 8

Candidate Starts for Temper16_50:

(Start: 8 @39200 has 59 MA's), (18, 38969), (19, 38960),

Gene: Urla_51 Start: 39131, Stop: 38868, Start Num: 8

Candidate Starts for Urla_51:

(Start: 8 @39131 has 59 MA's), (11, 39083), (18, 38903), (20, 38879),

Gene: Vallejo_53 Start: 39355, Stop: 39098, Start Num: 8

Candidate Starts for Vallejo_53:

(Start: 8 @39355 has 59 MA's), (11, 39313), (13, 39247), (18, 39133), (20, 39109),

Gene: Vulture_50 Start: 39092, Stop: 38820, Start Num: 8

Candidate Starts for Vulture_50:

(5, 39134), (Start: 8 @39092 has 59 MA's), (9, 39056),

Gene: Wawa_53 Start: 39605, Stop: 39348, Start Num: 7

Candidate Starts for Wawa_53:

(Start: 7 @39605 has 14 MA's), (11, 39563), (13, 39497), (18, 39383), (20, 39359),

Gene: Wayne_54 Start: 39664, Stop: 39410, Start Num: 8

Candidate Starts for Wayne_54:

(Start: 8 @39664 has 59 MA's), (11, 39622), (15, 39490), (17, 39448), (18, 39442), (20, 39418),

Gene: WonderBoy_49 Start: 38047, Stop: 37775, Start Num: 8

Candidate Starts for WonderBoy_49:

(Start: 8 @38047 has 59 MA's), (20, 37792),

Gene: Zorro_53 Start: 39314, Stop: 39057, Start Num: 8

Candidate Starts for Zorro_53:

(Start: 8 @39314 has 59 MA's), (11, 39272), (13, 39206), (18, 39092), (20, 39068),