

Pham 163533



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 163533 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163533 has 84 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Eunoia_25, Aledel_25, Vulture_25, HunterDalle_25
- Track 2 : Immaculata_28, Potatoes_28, Cholula_28
- Track 3 : Preamble_24
- Track 4 : Dino_28, Zorro_28
- Track 5 : Albanese_28
- Track 6 : DreamTeam_24, Gisselle_24, Kittykat_24
- Track 7 : Vallejo_28, Glenn_28, Carpal_28
- Track 8 : GreenHearts_28
- Track 9 : Bodacious_24, OurGirlNessie_24, LilStuart_24, PitaDog_24, Lennox_24, Nancia_24, ChewChew_24, Christian_24, Pterodactyl_24, Makoto_24
- Track 10 : MeganNoll_28, Wawa_28, Jumboset_28, RAP15_28, Savage2526_28, Korra_29
- Track 11 : EstebanJulior_25, MamaPearl_25
- Track 12 : Lasagna_24
- Track 13 : KingBob_25, Daiboju_25, Herb_25, Maria1952_25, Temper16_25, Sergei_25
- Track 14 : Urla_25
- Track 15 : Supakev_25, Chridison_25
- Track 16 : AppleCider_28
- Track 17 : Nubia_28, Joann_28
- Track 18 : WonderBoy_24, Lucy_24
- Track 19 : Kalizoi_28, MrGloopy_28, Fluke_28
- Track 20 : Greenhouse_28
- Track 21 : Huntingdon_28, RcigaStruga_28
- Track 22 : PinkFriday_24
- Track 23 : DrRobert_24
- Track 24 : BrotherBLo_28
- Track 25 : Lakshmi_28
- Track 26 : Riverdale_28
- Track 27 : Rozby_28
- Track 28 : Pumancara_24
- Track 29 : Suppi_28, Canowicakte_28, Wayne_28, Litotes_28, CallieOMalley_28
- Track 30 : Huckleberry_24
- Track 31 : Beethoven_28, TattModd_28
- Track 32 : Misaeng_28
- Track 33 : Bennie_24
- Track 34 : Oxyfrius_28

- Track 35 : Scuttle_28
- Track 36 : CristinaYang_24
- Track 37 : BigMack_24
- Track 38 : PartyCup_28
- Track 39 : HeadNerd_24
- Track 40 : OMalley_25, Riovina_25
- Track 41 : AustinPowers_25
- Track 42 : Moki_24

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 66 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Albanese_28, Aledel_25, AppleCider_28, Beethoven_28, BigMack_24, Bodacious_24, CallieOMalley_28, Canowicakte_28, Carpal_28, ChewChew_24, Cholula_28, Chridison_25, Christian_24, Daiboju_25, Dino_28, DreamTeam_24, EstebanJulior_25, Eunoia_25, Fluke_28, Gisselle_24, Glenn_28, GreenHearts_28, Herb_25, HunterDalle_25, Huntingdon_28, Immaculata_28, Jumboset_28, Kalizoi_28, KingBob_25, Kittykat_24, Korra_29, Lasagna_24, Lennox_24, LilStuart_24, Litotes_28, Lucy_24, Makoto_24, MamaPearl_25, Maria1952_25, MeganNoll_28, Moki_24, MrGloopy_28, Nancia_24, OurGirlNessie_24, Oxynfrius_28, PitaDog_24, Potatoes_28, Pterodactyl_24, Pumancara_24, RAP15_28, RcigaStruga_28, Riverdale_28, Rozby_28, Savage2526_28, Scuttle_28, Sergei_25, Supakev_25, Suppi_28, TattModd_28, Temper16_25, Urla_25, Vallejo_28, Vulture_25, Wawa_28, Wayne_28, WonderBoy_24, Zorro_28,

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

- AustinPowers_25, Bennie_24, BrotherBLo_28, CristinaYang_24, DrRobert_24, Greenhouse_28, HeadNerd_24, Huckleberry_24, Joann_28, Lakshmi_28, Misaeng_28, Nubia_28, OMalley_25, PartyCup_28, PinkFriday_24, Preamble_24, Riovina_25,

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

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Summary by start number:

Start 6:

- Found in 50 of 84 (59.5%) of genes in pham
- Manual Annotations of this start: 9 of 80
- Called 18.0% of time when present
- Phage (with cluster) where this start called: Bennie_24 (AK), CristinaYang_24 (AK), DrRobert_24 (AK), Greenhouse_28 (AK), HeadNerd_24 (AK), Joann_28 (AK), Lakshmi_28 (AK), Nubia_28 (AK), Preamble_24 (AK),

Start 7:

- Found in 52 of 84 (61.9%) of genes in pham
- Manual Annotations of this start: 3 of 80

- Called 5.8% of time when present
- Phage (with cluster) where this start called: Huckleberry_24 (AK), OMalley_25 (AK), Riovina_25 (AK),

Start 8:

- Found in 84 of 84 (100.0%) of genes in pham
- Manual Annotations of this start: 66 of 80
- Called 79.8% of time when present
- Phage (with cluster) where this start called: Albanese_28 (AK), Aledel_25 (AK), AppleCider_28 (AK), Beethoven_28 (AK), BigMack_24 (AK), Bodacious_24 (AK), CallieOMalley_28 (AK), Canowicakte_28 (AK), Carpal_28 (AK), ChewChew_24 (AK), Cholula_28 (AK), Chridison_25 (AK), Christian_24 (AK), Daiboju_25 (AK), Dino_28 (AK), DreamTeam_24 (AK), EstebanJulior_25 (AK), Eunoia_25 (AK), Fluke_28 (AK), Gisselle_24 (AK), Glenn_28 (AK), GreenHearts_28 (AK), Herb_25 (AK), HunterDalle_25 (AK), Huntingdon_28 (AK), Immaculata_28 (AK), Jumboset_28 (AK), Kalizoi_28 (AK), KingBob_25 (AK), Kittykat_24 (AK), Korra_29 (AK), Lasagna_24 (AK), Lennox_24 (AK), LilStuart_24 (AK), Litotes_28 (AK), Lucy_24 (AK), Makoto_24 (AK), MamaPearl_25 (AK), Maria1952_25 (AK), MeganNoll_28 (AK), Moki_24 (AK), MrGloopy_28 (AK), Nancia_24 (AK), OurGirlNessie_24 (AK), Oxynfrius_28 (AK), PitaDog_24 (AK), Potatoes_28 (AK), Pterodactyl_24 (AK), Pumancara_24 (AK), RAP15_28 (AK), RcigaStruga_28 (AK), Riverdale_28 (AK), Rozby_28 (AK), Savage2526_28 (AK), Scuttle_28 (AK), Sergei_25 (AK), Supakev_25 (AK), Suppi_28 (AK), TattModd_28 (AK), Temper16_25 (AK), Urla_25 (AK), Vallejo_28 (AK), Vulture_25 (AK), Wawa_28 (AK), Wayne_28 (AK), WonderBoy_24 (AK), Zorro_28 (AK),

Start 10:

- Found in 8 of 84 (9.5%) of genes in pham
- No Manual Annotations of this start.
- Called 12.5% of time when present
- Phage (with cluster) where this start called: PinkFriday_24 (AK),

Start 12:

- Found in 84 of 84 (100.0%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 3.6% of time when present
- Phage (with cluster) where this start called: AustinPowers_25 (AK), BrotherBLo_28 (AK), PartyCup_28 (AK),

Start 16:

- Found in 45 of 84 (53.6%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Misaeng_28 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:

- Start number 6 was manually annotated 9 times for cluster AK.
- Start number 7 was manually annotated 3 times for cluster AK.
- Start number 8 was manually annotated 66 times for cluster AK.

- Start number 12 was manually annotated 1 time for cluster AK.
- Start number 16 was manually annotated 1 time for cluster AK.

Gene Information:

Gene: Albanese_28 Start: 21849, Stop: 22175, Start Num: 8

Candidate Starts for Albanese_28:

(3, 21762), (5, 21831), (Start: 6 @21834 has 9 MA's), (Start: 8 @21849 has 66 MA's), (Start: 12 @21915 has 1 MA's), (14, 21933),

Gene: Aledel_25 Start: 21444, Stop: 21752, Start Num: 8

Candidate Starts for Aledel_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: AppleCider_28 Start: 21829, Stop: 22137, Start Num: 8

Candidate Starts for AppleCider_28:

(3, 21742), (Start: 8 @21829 has 66 MA's), (Start: 12 @21895 has 1 MA's), (17, 21961), (25, 22087), (28, 22117),

Gene: AustinPowers_25 Start: 21511, Stop: 21753, Start Num: 12

Candidate Starts for AustinPowers_25:

(Start: 7 @21433 has 3 MA's), (Start: 8 @21445 has 66 MA's), (9, 21472), (Start: 12 @21511 has 1 MA's), (17, 21577), (24, 21688),

Gene: Beethoven_28 Start: 21799, Stop: 22107, Start Num: 8

Candidate Starts for Beethoven_28:

(3, 21712), (4, 21760), (Start: 6 @21784 has 9 MA's), (Start: 7 @21787 has 3 MA's), (Start: 8 @21799 has 66 MA's), (Start: 12 @21865 has 1 MA's), (Start: 16 @21913 has 1 MA's), (18, 21937), (27, 22081),

Gene: Bennie_24 Start: 20250, Stop: 20573, Start Num: 6

Candidate Starts for Bennie_24:

(3, 20178), (Start: 6 @20250 has 9 MA's), (Start: 7 @20253 has 3 MA's), (Start: 8 @20265 has 66 MA's), (Start: 12 @20331 has 1 MA's), (17, 20397), (23, 20502), (24, 20508), (27, 20547),

Gene: BigMack_24 Start: 20259, Stop: 20567, Start Num: 8

Candidate Starts for BigMack_24:

(1, 20142), (2, 20148), (3, 20172), (Start: 6 @20244 has 9 MA's), (Start: 7 @20247 has 3 MA's), (Start: 8 @20259 has 66 MA's), (Start: 12 @20325 has 1 MA's), (Start: 16 @20373 has 1 MA's), (18, 20397), (27, 20541),

Gene: Bodacious_24 Start: 20279, Stop: 20587, Start Num: 8

Candidate Starts for Bodacious_24:

(3, 20192), (Start: 6 @20264 has 9 MA's), (Start: 7 @20267 has 3 MA's), (Start: 8 @20279 has 66 MA's), (Start: 12 @20345 has 1 MA's), (Start: 16 @20393 has 1 MA's), (17, 20411), (24, 20522), (27, 20561),

Gene: BrotherBLo_28 Start: 21871, Stop: 22113, Start Num: 12

Candidate Starts for BrotherBLo_28:

(Start: 6 @21790 has 9 MA's), (Start: 7 @21793 has 3 MA's), (Start: 8 @21805 has 66 MA's), (Start: 12 @21871 has 1 MA's), (Start: 16 @21919 has 1 MA's), (18, 21943), (27, 22087),

Gene: CallieOMalley_28 Start: 21829, Stop: 22137, Start Num: 8

Candidate Starts for CallieOMalley_28:

(3, 21742), (Start: 8 @21829 has 66 MA's), (Start: 12 @21895 has 1 MA's), (17, 21961), (28, 22117),

Gene: Canowicakte_28 Start: 21864, Stop: 22172, Start Num: 8

Candidate Starts for Canowicakte_28:

(3, 21777), (Start: 8 @21864 has 66 MA's), (Start: 12 @21930 has 1 MA's), (17, 21996), (28, 22152),

Gene: Carpal_28 Start: 21806, Stop: 22114, Start Num: 8

Candidate Starts for Carpal_28:

(Start: 6 @21791 has 9 MA's), (Start: 7 @21794 has 3 MA's), (Start: 8 @21806 has 66 MA's), (Start: 12 @21872 has 1 MA's), (Start: 16 @21920 has 1 MA's), (18, 21944), (24, 22049), (27, 22088),

Gene: ChewChew_24 Start: 20274, Stop: 20582, Start Num: 8

Candidate Starts for ChewChew_24:

(3, 20187), (Start: 6 @20259 has 9 MA's), (Start: 7 @20262 has 3 MA's), (Start: 8 @20274 has 66 MA's), (Start: 12 @20340 has 1 MA's), (Start: 16 @20388 has 1 MA's), (17, 20406), (24, 20517), (27, 20556),

Gene: Cholula_28 Start: 21852, Stop: 22160, Start Num: 8

Candidate Starts for Cholula_28:

(3, 21765), (4, 21813), (Start: 7 @21840 has 3 MA's), (Start: 8 @21852 has 66 MA's), (Start: 12 @21918 has 1 MA's), (18, 21990), (27, 22134),

Gene: Chridison_25 Start: 21445, Stop: 21753, Start Num: 8

Candidate Starts for Chridison_25:

(Start: 7 @21433 has 3 MA's), (Start: 8 @21445 has 66 MA's), (Start: 12 @21511 has 1 MA's), (17, 21577), (21, 21643), (24, 21688),

Gene: Christian_24 Start: 20275, Stop: 20583, Start Num: 8

Candidate Starts for Christian_24:

(3, 20188), (Start: 6 @20260 has 9 MA's), (Start: 7 @20263 has 3 MA's), (Start: 8 @20275 has 66 MA's), (Start: 12 @20341 has 1 MA's), (Start: 16 @20389 has 1 MA's), (17, 20407), (24, 20518), (27, 20557),

Gene: CristinaYang_24 Start: 20264, Stop: 20587, Start Num: 6

Candidate Starts for CristinaYang_24:

(3, 20192), (Start: 6 @20264 has 9 MA's), (Start: 7 @20267 has 3 MA's), (Start: 8 @20279 has 66 MA's), (Start: 12 @20345 has 1 MA's), (Start: 16 @20393 has 1 MA's), (17, 20411), (24, 20522), (27, 20561),

Gene: Daiboju_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for Daiboju_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: Dino_28 Start: 21804, Stop: 22112, Start Num: 8

Candidate Starts for Dino_28:

(3, 21717), (4, 21765), (Start: 6 @21789 has 9 MA's), (Start: 7 @21792 has 3 MA's), (Start: 8 @21804 has 66 MA's), (Start: 12 @21870 has 1 MA's), (Start: 16 @21918 has 1 MA's), (18, 21942), (24,

22047), (27, 22086),

Gene: DrRobert_24 Start: 20260, Stop: 20583, Start Num: 6

Candidate Starts for DrRobert_24:

(3, 20188), (Start: 6 @20260 has 9 MA's), (Start: 7 @20263 has 3 MA's), (Start: 8 @20275 has 66 MA's), (Start: 12 @20341 has 1 MA's), (Start: 16 @20389 has 1 MA's), (17, 20407), (27, 20557),

Gene: DreamTeam_24 Start: 20314, Stop: 20622, Start Num: 8

Candidate Starts for DreamTeam_24:

(Start: 6 @20299 has 9 MA's), (Start: 8 @20314 has 66 MA's), (Start: 12 @20380 has 1 MA's), (24, 20557), (27, 20596),

Gene: EstebanJulior_25 Start: 21442, Stop: 21750, Start Num: 8

Candidate Starts for EstebanJulior_25:

(Start: 8 @21442 has 66 MA's), (Start: 12 @21508 has 1 MA's), (15, 21544), (27, 21724),

Gene: Eunoia_25 Start: 21444, Stop: 21752, Start Num: 8

Candidate Starts for Eunoia_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: Fluke_28 Start: 21847, Stop: 22155, Start Num: 8

Candidate Starts for Fluke_28:

(3, 21760), (4, 21808), (Start: 6 @21832 has 9 MA's), (Start: 7 @21835 has 3 MA's), (Start: 8 @21847 has 66 MA's), (Start: 12 @21913 has 1 MA's), (18, 21985), (27, 22129),

Gene: Gisselle_24 Start: 20314, Stop: 20622, Start Num: 8

Candidate Starts for Gisselle_24:

(Start: 6 @20299 has 9 MA's), (Start: 8 @20314 has 66 MA's), (Start: 12 @20380 has 1 MA's), (24, 20557), (27, 20596),

Gene: Glenn_28 Start: 21856, Stop: 22164, Start Num: 8

Candidate Starts for Glenn_28:

(Start: 6 @21841 has 9 MA's), (Start: 7 @21844 has 3 MA's), (Start: 8 @21856 has 66 MA's), (Start: 12 @21922 has 1 MA's), (Start: 16 @21970 has 1 MA's), (18, 21994), (24, 22099), (27, 22138),

Gene: GreenHearts_28 Start: 21941, Stop: 22267, Start Num: 8

Candidate Starts for GreenHearts_28:

(Start: 6 @21926 has 9 MA's), (Start: 8 @21941 has 66 MA's), (Start: 12 @22007 has 1 MA's), (14, 22025),

Gene: Greenhouse_28 Start: 21850, Stop: 22191, Start Num: 6

Candidate Starts for Greenhouse_28:

(3, 21778), (Start: 6 @21850 has 9 MA's), (Start: 8 @21865 has 66 MA's), (Start: 12 @21931 has 1 MA's), (14, 21949),

Gene: HeadNerd_24 Start: 20250, Stop: 20573, Start Num: 6

Candidate Starts for HeadNerd_24:

(3, 20178), (Start: 6 @20250 has 9 MA's), (Start: 7 @20253 has 3 MA's), (Start: 8 @20265 has 66 MA's), (Start: 12 @20331 has 1 MA's), (17, 20397), (23, 20502), (24, 20508), (27, 20547),

Gene: Herb_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for Herb_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: Huckleberry_24 Start: 20253, Stop: 20573, Start Num: 7

Candidate Starts for Huckleberry_24:

(3, 20178), (Start: 6 @20250 has 9 MA's), (Start: 7 @20253 has 3 MA's), (Start: 8 @20265 has 66 MA's), (Start: 12 @20331 has 1 MA's), (17, 20397), (23, 20502), (24, 20508), (27, 20547),

Gene: HunterDalle_25 Start: 21444, Stop: 21752, Start Num: 8

Candidate Starts for HunterDalle_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: Huntingdon_28 Start: 21832, Stop: 22158, Start Num: 8

Candidate Starts for Huntingdon_28:

(3, 21745), (5, 21814), (Start: 8 @21832 has 66 MA's), (Start: 12 @21898 has 1 MA's), (Start: 16 @21946 has 1 MA's),

Gene: Immaculata_28 Start: 21851, Stop: 22159, Start Num: 8

Candidate Starts for Immaculata_28:

(3, 21764), (4, 21812), (Start: 7 @21839 has 3 MA's), (Start: 8 @21851 has 66 MA's), (Start: 12 @21917 has 1 MA's), (18, 21989), (27, 22133),

Gene: Joann_28 Start: 21784, Stop: 22125, Start Num: 6

Candidate Starts for Joann_28:

(3, 21712), (5, 21781), (Start: 6 @21784 has 9 MA's), (Start: 8 @21799 has 66 MA's), (Start: 12 @21865 has 1 MA's), (Start: 16 @21913 has 1 MA's),

Gene: Jumboset_28 Start: 21799, Stop: 22107, Start Num: 8

Candidate Starts for Jumboset_28:

(Start: 6 @21784 has 9 MA's), (Start: 7 @21787 has 3 MA's), (Start: 8 @21799 has 66 MA's), (Start: 12 @21865 has 1 MA's), (Start: 16 @21913 has 1 MA's), (18, 21937), (27, 22081),

Gene: Kalizoi_28 Start: 21798, Stop: 22106, Start Num: 8

Candidate Starts for Kalizoi_28:

(3, 21711), (4, 21759), (Start: 6 @21783 has 9 MA's), (Start: 7 @21786 has 3 MA's), (Start: 8 @21798 has 66 MA's), (Start: 12 @21864 has 1 MA's), (18, 21936), (27, 22080),

Gene: KingBob_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for KingBob_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: Kittykat_24 Start: 20299, Stop: 20607, Start Num: 8

Candidate Starts for Kittykat_24:

(Start: 6 @20284 has 9 MA's), (Start: 8 @20299 has 66 MA's), (Start: 12 @20365 has 1 MA's), (24, 20542), (27, 20581),

Gene: Korra_29 Start: 21804, Stop: 22112, Start Num: 8

Candidate Starts for Korra_29:

(Start: 6 @21789 has 9 MA's), (Start: 7 @21792 has 3 MA's), (Start: 8 @21804 has 66 MA's), (Start: 12 @21870 has 1 MA's), (Start: 16 @21918 has 1 MA's), (18, 21942), (27, 22086),

Gene: Lakshmi_28 Start: 21810, Stop: 22151, Start Num: 6

Candidate Starts for Lakshmi_28:

(3, 21738), (5, 21807), (Start: 6 @21810 has 9 MA's), (Start: 8 @21825 has 66 MA's), (Start: 12 @21891 has 1 MA's), (14, 21909),

Gene: Lasagna_24 Start: 20275, Stop: 20583, Start Num: 8

Candidate Starts for Lasagna_24:

(3, 20188), (Start: 6 @20260 has 9 MA's), (Start: 7 @20263 has 3 MA's), (Start: 8 @20275 has 66 MA's), (Start: 12 @20341 has 1 MA's), (Start: 16 @20389 has 1 MA's), (17, 20407), (24, 20518), (25, 20533), (27, 20557),

Gene: Lennox_24 Start: 20263, Stop: 20571, Start Num: 8

Candidate Starts for Lennox_24:

(3, 20176), (Start: 6 @20248 has 9 MA's), (Start: 7 @20251 has 3 MA's), (Start: 8 @20263 has 66 MA's), (Start: 12 @20329 has 1 MA's), (Start: 16 @20377 has 1 MA's), (17, 20395), (24, 20506), (27, 20545),

Gene: LilStuart_24 Start: 20267, Stop: 20575, Start Num: 8

Candidate Starts for LilStuart_24:

(3, 20180), (Start: 6 @20252 has 9 MA's), (Start: 7 @20255 has 3 MA's), (Start: 8 @20267 has 66 MA's), (Start: 12 @20333 has 1 MA's), (Start: 16 @20381 has 1 MA's), (17, 20399), (24, 20510), (27, 20549),

Gene: Litotes_28 Start: 21814, Stop: 22122, Start Num: 8

Candidate Starts for Litotes_28:

(3, 21727), (Start: 8 @21814 has 66 MA's), (Start: 12 @21880 has 1 MA's), (17, 21946), (28, 22102),

Gene: Lucy_24 Start: 20255, Stop: 20563, Start Num: 8

Candidate Starts for Lucy_24:

(3, 20168), (Start: 6 @20240 has 9 MA's), (Start: 7 @20243 has 3 MA's), (Start: 8 @20255 has 66 MA's), (Start: 12 @20321 has 1 MA's), (Start: 16 @20369 has 1 MA's), (17, 20387), (27, 20537),

Gene: Makoto_24 Start: 20275, Stop: 20583, Start Num: 8

Candidate Starts for Makoto_24:

(3, 20188), (Start: 6 @20260 has 9 MA's), (Start: 7 @20263 has 3 MA's), (Start: 8 @20275 has 66 MA's), (Start: 12 @20341 has 1 MA's), (Start: 16 @20389 has 1 MA's), (17, 20407), (24, 20518), (27, 20557),

Gene: MamaPearl_25 Start: 21442, Stop: 21750, Start Num: 8

Candidate Starts for MamaPearl_25:

(Start: 8 @21442 has 66 MA's), (Start: 12 @21508 has 1 MA's), (15, 21544), (27, 21724),

Gene: Maria1952_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for Maria1952_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: MeganNoll_28 Start: 21856, Stop: 22164, Start Num: 8

Candidate Starts for MeganNoll_28:

(Start: 6 @21841 has 9 MA's), (Start: 7 @21844 has 3 MA's), (Start: 8 @21856 has 66 MA's), (Start: 12 @21922 has 1 MA's), (Start: 16 @21970 has 1 MA's), (18, 21994), (27, 22138),

Gene: Misaeng_28 Start: 22049, Stop: 22261, Start Num: 16

Candidate Starts for Misaeng_28:

(3, 21848), (5, 21917), (Start: 8 @21935 has 66 MA's), (Start: 12 @22001 has 1 MA's), (Start: 16 @22049 has 1 MA's),

Gene: Moki_24 Start: 20265, Stop: 20573, Start Num: 8

Candidate Starts for Moki_24:

(3, 20178), (Start: 6 @20250 has 9 MA's), (Start: 7 @20253 has 3 MA's), (Start: 8 @20265 has 66 MA's), (Start: 12 @20331 has 1 MA's), (17, 20397), (23, 20502), (24, 20508), (27, 20547),

Gene: MrGloopy_28 Start: 21790, Stop: 22098, Start Num: 8

Candidate Starts for MrGloopy_28:

(3, 21703), (4, 21751), (Start: 6 @21775 has 9 MA's), (Start: 7 @21778 has 3 MA's), (Start: 8 @21790 has 66 MA's), (Start: 12 @21856 has 1 MA's), (18, 21928), (27, 22072),

Gene: Nancia_24 Start: 20279, Stop: 20587, Start Num: 8

Candidate Starts for Nancia_24:

(3, 20192), (Start: 6 @20264 has 9 MA's), (Start: 7 @20267 has 3 MA's), (Start: 8 @20279 has 66 MA's), (Start: 12 @20345 has 1 MA's), (Start: 16 @20393 has 1 MA's), (17, 20411), (24, 20522), (27, 20561),

Gene: Nubia_28 Start: 21770, Stop: 22111, Start Num: 6

Candidate Starts for Nubia_28:

(3, 21698), (5, 21767), (Start: 6 @21770 has 9 MA's), (Start: 8 @21785 has 66 MA's), (Start: 12 @21851 has 1 MA's), (Start: 16 @21899 has 1 MA's),

Gene: OMalley_25 Start: 21432, Stop: 21752, Start Num: 7

Candidate Starts for OMalley_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: OurGirlNessie_24 Start: 20255, Stop: 20563, Start Num: 8

Candidate Starts for OurGirlNessie_24:

(3, 20168), (Start: 6 @20240 has 9 MA's), (Start: 7 @20243 has 3 MA's), (Start: 8 @20255 has 66 MA's), (Start: 12 @20321 has 1 MA's), (Start: 16 @20369 has 1 MA's), (17, 20387), (24, 20498), (27, 20537),

Gene: Oxynfrius_28 Start: 21798, Stop: 22124, Start Num: 8

Candidate Starts for Oxynfrius_28:

(3, 21711), (5, 21780), (Start: 6 @21783 has 9 MA's), (Start: 8 @21798 has 66 MA's), (Start: 12 @21864 has 1 MA's), (Start: 16 @21912 has 1 MA's),

Gene: PartyCup_28 Start: 21927, Stop: 22169, Start Num: 12

Candidate Starts for PartyCup_28:

(3, 21774), (Start: 8 @21861 has 66 MA's), (Start: 12 @21927 has 1 MA's), (17, 21993), (28, 22149),

Gene: PinkFriday_24 Start: 20349, Stop: 20621, Start Num: 10

Candidate Starts for PinkFriday_24:

(Start: 8 @20316 has 66 MA's), (10, 20349), (11, 20379), (Start: 12 @20382 has 1 MA's), (13, 20388), (19, 20469), (20, 20502), (22, 20529), (26, 20583), (27, 20595),

Gene: PitaDog_24 Start: 20266, Stop: 20574, Start Num: 8

Candidate Starts for PitaDog_24:

(3, 20179), (Start: 6 @20251 has 9 MA's), (Start: 7 @20254 has 3 MA's), (Start: 8 @20266 has 66 MA's), (Start: 12 @20332 has 1 MA's), (Start: 16 @20380 has 1 MA's), (17, 20398), (24, 20509), (27, 20548),

Gene: Potatoes_28 Start: 21852, Stop: 22160, Start Num: 8

Candidate Starts for Potatoes_28:

(3, 21765), (4, 21813), (Start: 7 @21840 has 3 MA's), (Start: 8 @21852 has 66 MA's), (Start: 12 @21918 has 1 MA's), (18, 21990), (27, 22134),

Gene: Preamble_24 Start: 20261, Stop: 20584, Start Num: 6

Candidate Starts for Preamble_24:

(Start: 6 @20261 has 9 MA's), (Start: 8 @20276 has 66 MA's), (Start: 12 @20342 has 1 MA's), (24, 20519), (27, 20558),

Gene: Pterodactyl_24 Start: 20257, Stop: 20565, Start Num: 8

Candidate Starts for Pterodactyl_24:

(3, 20170), (Start: 6 @20242 has 9 MA's), (Start: 7 @20245 has 3 MA's), (Start: 8 @20257 has 66 MA's), (Start: 12 @20323 has 1 MA's), (Start: 16 @20371 has 1 MA's), (17, 20389), (24, 20500), (27, 20539),

Gene: Pumancara_24 Start: 20298, Stop: 20603, Start Num: 8

Candidate Starts for Pumancara_24:

(Start: 8 @20298 has 66 MA's), (10, 20331), (11, 20361), (Start: 12 @20364 has 1 MA's), (13, 20370), (19, 20451), (20, 20484), (22, 20511), (26, 20565), (27, 20577),

Gene: RAP15_28 Start: 21856, Stop: 22164, Start Num: 8

Candidate Starts for RAP15_28:

(Start: 6 @21841 has 9 MA's), (Start: 7 @21844 has 3 MA's), (Start: 8 @21856 has 66 MA's), (Start: 12 @21922 has 1 MA's), (Start: 16 @21970 has 1 MA's), (18, 21994), (27, 22138),

Gene: RcigaStruga_28 Start: 21832, Stop: 22158, Start Num: 8

Candidate Starts for RcigaStruga_28:

(3, 21745), (5, 21814), (Start: 8 @21832 has 66 MA's), (Start: 12 @21898 has 1 MA's), (Start: 16 @21946 has 1 MA's),

Gene: Riovina_25 Start: 21432, Stop: 21752, Start Num: 7

Candidate Starts for Riovina_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: Riverdale_28 Start: 21786, Stop: 22094, Start Num: 8

Candidate Starts for Riverdale_28:

(3, 21699), (4, 21747), (Start: 6 @21771 has 9 MA's), (Start: 7 @21774 has 3 MA's), (Start: 8 @21786 has 66 MA's), (Start: 12 @21852 has 1 MA's), (18, 21924), (27, 22068),

Gene: Rozby_28 Start: 21787, Stop: 22095, Start Num: 8

Candidate Starts for Rozby_28:

(3, 21700), (4, 21748), (Start: 6 @21772 has 9 MA's), (Start: 7 @21775 has 3 MA's), (Start: 8 @21787 has 66 MA's), (Start: 12 @21853 has 1 MA's), (Start: 16 @21901 has 1 MA's), (18, 21925), (27, 22069),

Gene: Savage2526_28 Start: 21850, Stop: 22158, Start Num: 8

Candidate Starts for Savage2526_28:

(Start: 6 @21835 has 9 MA's), (Start: 7 @21838 has 3 MA's), (Start: 8 @21850 has 66 MA's), (Start: 12 @21916 has 1 MA's), (Start: 16 @21964 has 1 MA's), (18, 21988), (27, 22132),

Gene: Scuttle_28 Start: 21855, Stop: 22163, Start Num: 8

Candidate Starts for Scuttle_28:

(3, 21768), (4, 21816), (Start: 7 @21843 has 3 MA's), (Start: 8 @21855 has 66 MA's), (Start: 12 @21921 has 1 MA's), (Start: 16 @21969 has 1 MA's), (18, 21993), (24, 22098), (27, 22137),

Gene: Sergei_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for Sergei_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: Supakev_25 Start: 21446, Stop: 21754, Start Num: 8

Candidate Starts for Supakev_25:

(Start: 7 @21434 has 3 MA's), (Start: 8 @21446 has 66 MA's), (Start: 12 @21512 has 1 MA's), (17, 21578), (21, 21644), (24, 21689),

Gene: Suppi_28 Start: 21864, Stop: 22172, Start Num: 8

Candidate Starts for Suppi_28:

(3, 21777), (Start: 8 @21864 has 66 MA's), (Start: 12 @21930 has 1 MA's), (17, 21996), (28, 22152),

Gene: TattModd_28 Start: 21849, Stop: 22157, Start Num: 8

Candidate Starts for TattModd_28:

(3, 21762), (4, 21810), (Start: 6 @21834 has 9 MA's), (Start: 7 @21837 has 3 MA's), (Start: 8 @21849 has 66 MA's), (Start: 12 @21915 has 1 MA's), (Start: 16 @21963 has 1 MA's), (18, 21987), (27, 22131),

Gene: Temper16_25 Start: 21434, Stop: 21739, Start Num: 8

Candidate Starts for Temper16_25:

(Start: 8 @21434 has 66 MA's), (10, 21467), (11, 21497), (Start: 12 @21500 has 1 MA's), (13, 21506), (Start: 16 @21548 has 1 MA's), (19, 21587), (26, 21701), (27, 21713),

Gene: Urla_25 Start: 21444, Stop: 21752, Start Num: 8

Candidate Starts for Urla_25:

(Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (Start: 16 @21558 has 1 MA's), (27, 21726),

Gene: Vallejo_28 Start: 21788, Stop: 22096, Start Num: 8

Candidate Starts for Vallejo_28:

(Start: 6 @21773 has 9 MA's), (Start: 7 @21776 has 3 MA's), (Start: 8 @21788 has 66 MA's), (Start: 12 @21854 has 1 MA's), (Start: 16 @21902 has 1 MA's), (18, 21926), (24, 22031), (27, 22070),

Gene: Vulture_25 Start: 21444, Stop: 21752, Start Num: 8

Candidate Starts for Vulture_25:

(Start: 7 @21432 has 3 MA's), (Start: 8 @21444 has 66 MA's), (Start: 12 @21510 has 1 MA's), (17, 21576), (24, 21687),

Gene: Wawa_28 Start: 21825, Stop: 22133, Start Num: 8

Candidate Starts for Wawa_28:

(Start: 6 @21810 has 9 MA's), (Start: 7 @21813 has 3 MA's), (Start: 8 @21825 has 66 MA's), (Start: 12 @21891 has 1 MA's), (Start: 16 @21939 has 1 MA's), (18, 21963), (27, 22107),

Gene: Wayne_28 Start: 21910, Stop: 22218, Start Num: 8

Candidate Starts for Wayne_28:

(3, 21823), (Start: 8 @21910 has 66 MA's), (Start: 12 @21976 has 1 MA's), (17, 22042), (28, 22198),

Gene: WonderBoy_24 Start: 20256, Stop: 20555, Start Num: 8

Candidate Starts for WonderBoy_24:

(3, 20169), (Start: 6 @20241 has 9 MA's), (Start: 7 @20244 has 3 MA's), (Start: 8 @20256 has 66 MA's), (Start: 12 @20322 has 1 MA's), (Start: 16 @20370 has 1 MA's), (17, 20388), (27, 20529),

Gene: Zorro_28 Start: 21804, Stop: 22112, Start Num: 8

Candidate Starts for Zorro_28:

(3, 21717), (4, 21765), (Start: 6 @21789 has 9 MA's), (Start: 7 @21792 has 3 MA's), (Start: 8 @21804 has 66 MA's), (Start: 12 @21870 has 1 MA's), (Start: 16 @21918 has 1 MA's), (18, 21942), (24, 22047), (27, 22086),