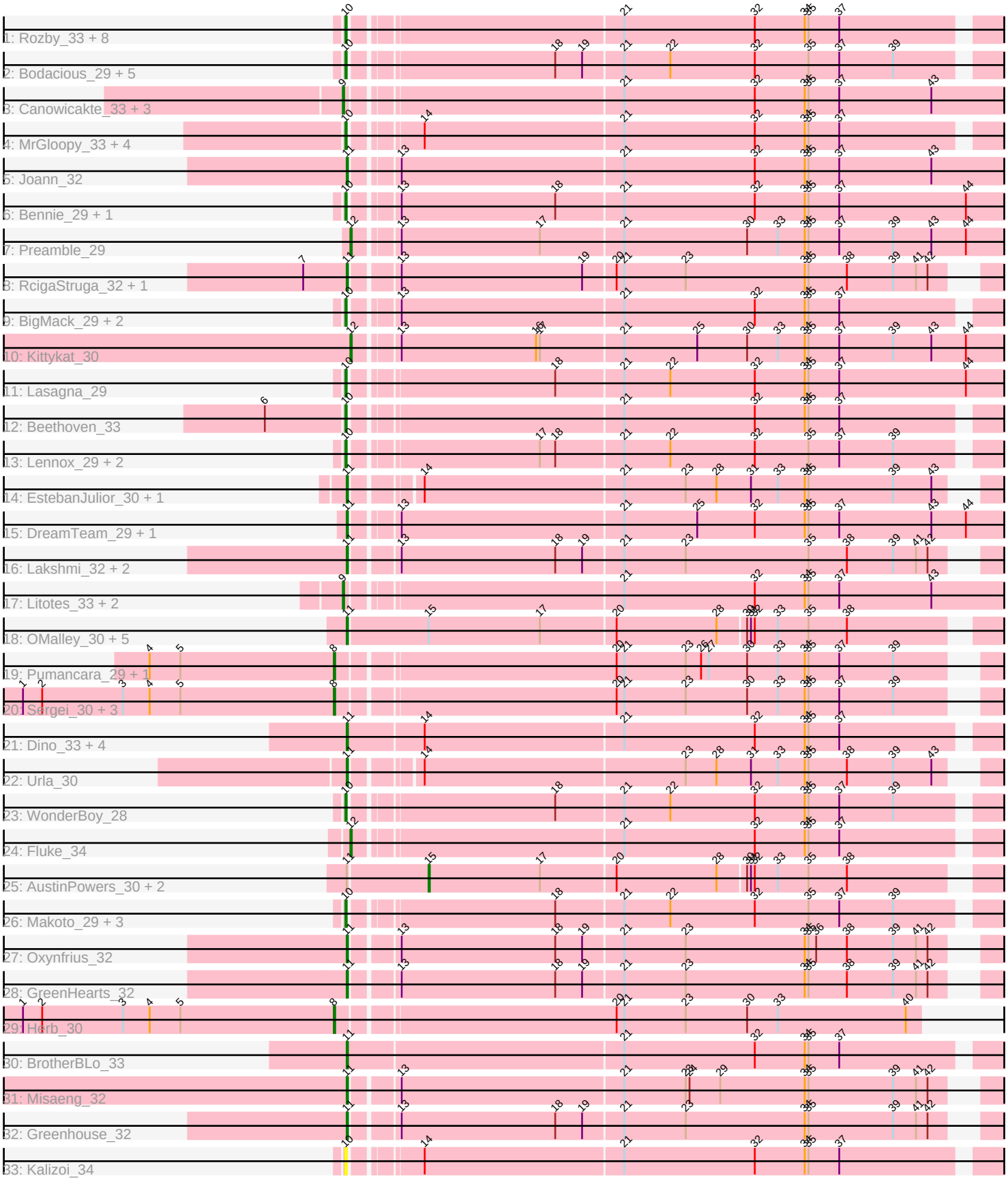
Pham 44621


1: Rozby_33 + 8
2: Bodacious_29 + 5
3: Canowicakte_33 + 3
4: MrGloopy_33 + 4
5: Joann_32
6: Bennie_29 + 1
7: Preamble_29
8: RcigaStruga_32 + 1
9: BigMack_29 + 2
10: Kittykat_30
11: Lasagna_29
12: Beethoven_33
13: Lennox_29 + 2
14: EstebanJulior_30 + 1
15: DreamTeam_29 + 1
16: Lakshmi_32 + 2
17: Litotes_33 + 2
18: OMalley_30 + 5
19: Pumancara_29 + 1
20: Sergei_30 + 3
21: Dino_33 + 4
22: Urla_30
23: WonderBoy_28
24: Fluke_34
25: AustinPowers_30 + 2
26: Makoto_29 + 3
27: Oxynfrius_32
28: GreenHearts_32
29: Herb_30
30: BrotherBLo_33
31: Misaeng_32
32: Greenhouse_32
33: Kalizoi_34

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 44621 Report

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

Pham number 44621 has 83 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Rozby_33, Potatoes_33, Glenn_33, Riverdale_33, Cholula_33, Carpal_33, TattModd_33, Immaculata_33, Vallejo_33
• Track 2 : Bodacious_29, LilStuart_29, Nancia_29, CristinaYang_29, ChewChew_29, Pterodactyl_29
• Track 3 : Canowicakte_33, CallieOMalley_33, Wayne_33, Suppi_33
• Track 4 : MrGloopy_33, MeganNoll_32, Jumboset_33, RAP15_33, Savage2526_33
• Track 5 : Joann_32
• Track 6 : Bennie_29, HeadNerd_29
• Track 7 : Preamble_29
• Track 8 : RcigaStruga_32, Huntingdon_32
• Track 9 : BigMack_29, Huckleberry_29, Moki_29
• Track 10 : Kittykat_30
• Track 11 : Lasagna_29
• Track 12 : Beethoven_33
• Track 13 : Lennox_29, DrRobert_29, Christian_29
• Track 14 : EstebanJulior_30, MamaPearl_30
• Track 15 : DreamTeam_29, Gisselle_29
• Track 16 : Lakshmi_32, Albanese_32, Nubia_32
• Track 17 : Litotes_33, PartyCup_35, AppleCider_33
• Track 18 : OMalley_30, Riovina_30, Eunoia_30, Aledel_30, Supakev_30, Chridison_29
• Track 19 : Pumancara_29, PinkFriday_29
• Track 20 : Sergei_30, Daiboju_30, KingBob_30, Temper16_30
• Track 21 : Dino_33, Korra_33, Wawa_33, Zorro_33, Scuttle_33
• Track 22 : Urla_30
• Track 23 : WonderBoy_28
• Track 24 : Fluke_34
• Track 25 : AustinPowers_30, Vulture_30, HunterDalle_30
• Track 26 : Makoto_29, OurGirlNessie_29, PitaDog_29, Lucy_29
• Track 27 : Oxynfrius_32
• Track 28 : GreenHearts_32
• Track 29 : Herb_30
• Track 30 : BrotherBLo_33
• Track 31 : Misaeng_32
• Track 32 : Greenhouse_32
• Track 33 : Kalizoi_34

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

The start number called the most often in the published annotations is 10, it was called in 35 of the 79 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Beethoven_33, Bennie_29, BigMack_29, Bodacious_29, Carpal_33, ChewChew_29, Cholula_33, Christian_29, CristinaYang_29, DrRobert_29, Glenn_33, HeadNerd_29, Huckleberry_29, Immaculata_33, Jumboset_33, Kalizoi_34, Lasagna_29, Lennox_29, LilStuart_29, Lucy_29, Makoto_29, MeganNoll_32, Moki_29, MrGloopy_33, Nancia_29, OurGirlNessie_29, PitaDog_29, Potatoes_33, Pterodactyl_29, RAP15_33, Riverdale_33, Rozby_33, Savage2526_33, TattModd_33, Vallejo_33, WonderBoy_28,

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

Genes that do not have the "Most Annotated" start:
• Albanese_32, Aledel_30, AppleCider_33, AustinPowers_30, BrotherBLo_33, CallieOMalley_33, Canowicakte_33, Chridison_29, Daiboju_30, Dino_33, DreamTeam_29, EstebanJulior_30, Eunoia_30, Fluke_34, Gisselle_29, GreenHearts_32, Greenhouse_32, Herb_30, HunterDalle_30, Huntingdon_32, Joann_32, KingBob_30, Kittykat_30, Korra_33, Lakshmi_32, Litotes_33, MamaPearl_30, Misaeng_32, Nubia_32, OMalley_30, Oxynfrius_32, PartyCup_35, PinkFriday_29, Preamble_29, Pumancara_29, RcigaStruga_32, Riovina_30, Scuttle_33, Sergei_30, Supakev_30, Suppi_33, Temper16_30, Urla_30, Vulture_30, Wawa_33, Wayne_33, Zorro_33,

Summary by start number:

Start 8:
• Found in 7 of 83 (8.4%) of genes in pham
• Manual Annotations of this start: 6 of 79
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Daiboju_30 (AK), Herb_30 (AK), KingBob_30 (AK), PinkFriday_29 (AK), Pumancara_29 (AK), Sergei_30 (AK), Temper16_30 (AK),

Start 9:
• Found in 7 of 83 (8.4%) of genes in pham
• Manual Annotations of this start: 6 of 79
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AppleCider_33 (AK), CallieOMalley_33 (AK), Canowicakte_33 (AK), Litotes_33 (AK), PartyCup_35 (AK), Suppi_33 (AK), Wayne_33 (AK),

Start 10:
• Found in 36 of 83 (43.4%) of genes in pham
• Manual Annotations of this start: 35 of 79
• Called 100.0% of time when present

• Phage (with cluster) where this start called: Beethoven_33 (AK), Bennie_29 (AK), BigMack_29 (AK), Bodacious_29 (AK), Carpal_33 (AK), ChewChew_29 (AK), Cholula_33 (AK), Christian_29 (AK), CristinaYang_29 (AK), DrRobert_29 (AK), Glenn_33 (AK), HeadNerd_29 (AK), Huckleberry_29 (AK), Immaculata_33 (AK), Jumboset_33 (AK), Kalizoi_34 (AK), Lasagna_29 (AK), Lennox_29 (AK), LilStuart_29 (AK), Lucy_29 (AK), Makoto_29 (AK), MeganNoll_32 (AK), Moki_29 (AK), MrGloopy_33 (AK), Nancia_29 (AK), OurGirlNessie_29 (AK), PitaDog_29 (AK), Potatoes_33 (AK), Pterodactyl_29 (AK), RAP15_33 (AK), Riverdale_33 (AK), Rozby_33 (AK), Savage2526_33 (AK), TattModd_33 (AK), Vallejo_33 (AK), WonderBoy_28 (AK),

Start 11:
• Found in 30 of 83 (36.1%) of genes in pham
• Manual Annotations of this start: 27 of 79
• Called 90.0% of time when present
• Phage (with cluster) where this start called: Albanese_32 (AK), Aledel_30 (AK), BrotherBLo_33 (AK), Chridison_29 (AK), Dino_33 (AK), DreamTeam_29 (AK), EstebanJulior_30 (AK), Eunoia_30 (AK), Gisselle_29 (AK), GreenHearts_32 (AK), Greenhouse_32 (AK), Huntingdon_32 (AK), Joann_32 (AK), Korra_33 (AK), Lakshmi_32 (AK), MamaPearl_30 (AK), Misaeng_32 (AK), Nubia_32 (AK), OMalley_30 (AK), Oxynfrius_32 (AK), RcigaStruga_32 (AK), Riovina_30 (AK), Scuttle_33 (AK), Supakev_30 (AK), Urla_30 (AK), Wawa_33 (AK), Zorro_33 (AK),

Start 12:
• Found in 3 of 83 (3.6%) of genes in pham
• Manual Annotations of this start: 3 of 79
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Fluke_34 (AK), Kittykat_30 (AK), Preamble_29 (AK),

Start 15:
• Found in 9 of 83 (10.8%) of genes in pham
• Manual Annotations of this start: 2 of 79
• Called 33.3% of time when present
• Phage (with cluster) where this start called: AustinPowers_30 (AK), HunterDalle_30 (AK), Vulture_30 (AK),

Summary by clusters:

There is one cluster represented in this pham: AK

Info for manual annotations of cluster AK:
•Start number 8 was manually annotated 6 times for cluster AK.
•Start number 9 was manually annotated 6 times for cluster AK.
•Start number 10 was manually annotated 35 times for cluster AK.
•Start number 11 was manually annotated 27 times for cluster AK.
•Start number 12 was manually annotated 3 times for cluster AK.
•Start number 15 was manually annotated 2 times for cluster AK.

Gene Information:

Gene: Albanese_32 Start: 24689, Stop: 25165, Start Num: 11
Candidate Starts for Albanese_32:
(Start: 11 @24689 has 27 MA's), (13, 24716), (18, 24836), (19, 24857), (21, 24887), (23, 24935), (35, 25031), (38, 25061), (39, 25097), (41, 25115), (42, 25124),

Gene: Aledel_30 Start: 24311, Stop: 24802, Start Num: 11
Candidate Starts for Aledel_30:
(Start: 11 @24311 has 27 MA's), (Start: 15 @24371 has 2 MA's), (17, 24458), (20, 24515), (28, 24593), (30, 24614), (31, 24617), (32, 24620), (33, 24638), (35, 24662), (38, 24692),

Gene: AppleCider_33 Start: 24700, Stop: 25206, Start Num: 9
Candidate Starts for AppleCider_33:
(Start: 9 @24700 has 6 MA's), (21, 24901), (32, 25003), (34, 25042), (35, 25045), (37, 25069), (43, 25141),

Gene: AustinPowers_30 Start: 24369, Stop: 24800, Start Num: 15
Candidate Starts for AustinPowers_30:
(Start: 11 @24309 has 27 MA's), (Start: 15 @24369 has 2 MA's), (17, 24456), (20, 24513), (28, 24591), (30, 24612), (31, 24615), (32, 24618), (33, 24636), (35, 24660), (38, 24690),

Gene: Beethoven_33 Start: 24697, Stop: 25185, Start Num: 10
Candidate Starts for Beethoven_33:
(6, 24637), (Start: 10 @24697 has 35 MA's), (21, 24895), (32, 24997), (34, 25036), (35, 25039), (37, 25063),

Gene: Bennie_29 Start: 23139, Stop: 23642, Start Num: 10
Candidate Starts for Bennie_29:
(Start: 10 @23139 has 35 MA's), (13, 23166), (18, 23286), (21, 23337), (32, 23439), (34, 23478), (35, 23481), (37, 23505), (44, 23604),

Gene: BigMack_29 Start: 23176, Stop: 23664, Start Num: 10
Candidate Starts for BigMack_29:
(Start: 10 @23176 has 35 MA's), (13, 23203), (21, 23374), (32, 23476), (34, 23515), (35, 23518), (37, 23542),

Gene: Bodacious_29 Start: 23162, Stop: 23650, Start Num: 10
Candidate Starts for Bodacious_29:
(Start: 10 @23162 has 35 MA's), (18, 23309), (19, 23330), (21, 23360), (22, 23396), (32, 23462), (35, 23504), (37, 23528), (39, 23570),

Gene: BrotherBLo_33 Start: 24710, Stop: 25210, Start Num: 11
Candidate Starts for BrotherBLo_33:
(Start: 11 @24710 has 27 MA's), (21, 24920), (32, 25022), (34, 25061), (35, 25064), (37, 25088),

Gene: CallieOMalley_33 Start: 24700, Stop: 25206, Start Num: 9
Candidate Starts for CallieOMalley_33:
(Start: 9 @24700 has 6 MA's), (21, 24901), (32, 25003), (34, 25042), (35, 25045), (37, 25069), (43, 25141),

Gene: Canowicakte_33 Start: 24735, Stop: 25241, Start Num: 9
Candidate Starts for Canowicakte_33:
(Start: 9 @24735 has 6 MA's), (21, 24936), (32, 25038), (34, 25077), (35, 25080), (37, 25104), (43, 25176),

Gene: Carpal_33 Start: 24704, Stop: 25192, Start Num: 10
Candidate Starts for Carpal_33:
(Start: 10 @24704 has 35 MA's), (21, 24902), (32, 25004), (34, 25043), (35, 25046), (37, 25070),

Gene: ChewChew_29 Start: 23157, Stop: 23645, Start Num: 10
Candidate Starts for ChewChew_29:
(Start: 10 @23157 has 35 MA's), (18, 23304), (19, 23325), (21, 23355), (22, 23391), (32, 23457), (35, 23499), (37, 23523), (39, 23565),

Gene: Cholula_33 Start: 24750, Stop: 25238, Start Num: 10
Candidate Starts for Cholula_33:
(Start: 10 @24750 has 35 MA's), (21, 24948), (32, 25050), (34, 25089), (35, 25092), (37, 25116),

Gene: Chridison_29 Start: 24309, Stop: 24800, Start Num: 11
Candidate Starts for Chridison_29:
(Start: 11 @24309 has 27 MA's), (Start: 15 @24369 has 2 MA's), (17, 24456), (20, 24513), (28, 24591), (30, 24612), (31, 24615), (32, 24618), (33, 24636), (35, 24660), (38, 24690),

Gene: Christian_29 Start: 23158, Stop: 23646, Start Num: 10
Candidate Starts for Christian_29:
(Start: 10 @23158 has 35 MA's), (17, 23293), (18, 23305), (21, 23356), (22, 23392), (32, 23458), (35, 23500), (37, 23524), (39, 23566),

Gene: CristinaYang_29 Start: 23162, Stop: 23650, Start Num: 10
Candidate Starts for CristinaYang_29:
(Start: 10 @23162 has 35 MA's), (18, 23309), (19, 23330), (21, 23360), (22, 23396), (32, 23462), (35, 23504), (37, 23528), (39, 23570),

Gene: Daiboju_30 Start: 24298, Stop: 24789, Start Num: 8
Candidate Starts for Daiboju_30:
(1, 24055), (2, 24070), (3, 24133), (4, 24154), (5, 24178), (Start: 8 @24298 has 6 MA's), (20, 24505), (21, 24511), (23, 24559), (30, 24607), (33, 24631), (34, 24652), (35, 24655), (37, 24679), (39, 24721),

Gene: Dino_33 Start: 24706, Stop: 25206, Start Num: 11
Candidate Starts for Dino_33:
(Start: 11 @24706 has 27 MA's), (14, 24763), (21, 24916), (32, 25018), (34, 25057), (35, 25060), (37, 25084),

Gene: DrRobert_29 Start: 23158, Stop: 23646, Start Num: 10
Candidate Starts for DrRobert_29:
(Start: 10 @23158 has 35 MA's), (17, 23293), (18, 23305), (21, 23356), (22, 23392), (32, 23458), (35, 23500), (37, 23524), (39, 23566),

Gene: DreamTeam_29 Start: 23238, Stop: 23741, Start Num: 11
Candidate Starts for DreamTeam_29:
(Start: 11 @23238 has 27 MA's), (13, 23265), (21, 23436), (25, 23493), (32, 23538), (34, 23577), (35, 23580), (37, 23604), (43, 23676), (44, 23703),

Gene: EstebanJulior_30 Start: 24363, Stop: 24836, Start Num: 11
Candidate Starts for EstebanJulior_30:
(Start: 11 @24363 has 27 MA's), (14, 24405), (21, 24558), (23, 24606), (28, 24630), (31, 24657), (33, 24678), (34, 24699), (35, 24702), (39, 24768), (43, 24798),

Gene: Eunoia_30 Start: 24311, Stop: 24802, Start Num: 11
Candidate Starts for Eunoia_30:
(Start: 11 @24311 has 27 MA's), (Start: 15 @24371 has 2 MA's), (17, 24458), (20, 24515), (28, 24593), (30, 24614), (31, 24617), (32, 24620), (33, 24638), (35, 24662), (38, 24692),

Gene: Fluke_34 Start: 24859, Stop: 25347, Start Num: 12
Candidate Starts for Fluke_34:
(Start: 12 @24859 has 3 MA's), (21, 25057), (32, 25159), (34, 25198), (35, 25201), (37, 25225),

Gene: Gisselle_29 Start: 23238, Stop: 23741, Start Num: 11
Candidate Starts for Gisselle_29:
(Start: 11 @23238 has 27 MA's), (13, 23265), (21, 23436), (25, 23493), (32, 23538), (34, 23577), (35, 23580), (37, 23604), (43, 23676), (44, 23703),

Gene: Glenn_33 Start: 24754, Stop: 25242, Start Num: 10
Candidate Starts for Glenn_33:
(Start: 10 @24754 has 35 MA's), (21, 24952), (32, 25054), (34, 25093), (35, 25096), (37, 25120),

Gene: GreenHearts_32 Start: 24781, Stop: 25257, Start Num: 11
Candidate Starts for GreenHearts_32:
(Start: 11 @24781 has 27 MA's), (13, 24808), (18, 24928), (19, 24949), (21, 24979), (23, 25027), (34, 25120), (35, 25123), (38, 25153), (39, 25189), (41, 25207), (42, 25216),

Gene: Greenhouse_32 Start: 24695, Stop: 25171, Start Num: 11
Candidate Starts for Greenhouse_32:
(Start: 11 @24695 has 27 MA's), (13, 24722), (18, 24842), (19, 24863), (21, 24893), (23, 24941), (34, 25034), (35, 25037), (39, 25103), (41, 25121), (42, 25130),

Gene: HeadNerd_29 Start: 23139, Stop: 23642, Start Num: 10
Candidate Starts for HeadNerd_29:
(Start: 10 @23139 has 35 MA's), (13, 23166), (18, 23286), (21, 23337), (32, 23439), (34, 23478), (35, 23481), (37, 23505), (44, 23604),

Gene: Herb_30 Start: 24298, Stop: 24741, Start Num: 8
Candidate Starts for Herb_30:
(1, 24055), (2, 24070), (3, 24133), (4, 24154), (5, 24178), (Start: 8 @24298 has 6 MA's), (20, 24505), (21, 24511), (23, 24559), (30, 24607), (33, 24631), (40, 24730),

Gene: Huckleberry_29 Start: 23142, Stop: 23630, Start Num: 10
Candidate Starts for Huckleberry_29:
(Start: 10 @23142 has 35 MA's), (13, 23169), (21, 23340), (32, 23442), (34, 23481), (35, 23484), (37, 23508),

Gene: HunterDalle_30 Start: 24368, Stop: 24799, Start Num: 15
Candidate Starts for HunterDalle_30:
(Start: 11 @24308 has 27 MA's), (Start: 15 @24368 has 2 MA's), (17, 24455), (20, 24512), (28, 24590), (30, 24611), (31, 24614), (32, 24617), (33, 24635), (35, 24659), (38, 24689),

Gene: Huntingdon_32 Start: 24673, Stop: 25149, Start Num: 11
Candidate Starts for Huntingdon_32:
(7, 24640), (Start: 11 @24673 has 27 MA's), (13, 24700), (19, 24841), (20, 24865), (21, 24871), (23, 24919), (34, 25012), (35, 25015), (38, 25045), (39, 25081), (41, 25099), (42, 25108),

Gene: Immaculata_33 Start: 24749, Stop: 25237, Start Num: 10
Candidate Starts for Immaculata_33:
(Start: 10 @24749 has 35 MA's), (21, 24947), (32, 25049), (34, 25088), (35, 25091), (37, 25115),

Gene: Joann_32 Start: 24639, Stop: 25142, Start Num: 11
Candidate Starts for Joann_32:
(Start: 11 @24639 has 27 MA's), (13, 24666), (21, 24837), (32, 24939), (34, 24978), (35, 24981), (37, 25005), (43, 25077),

Gene: Jumboset_33 Start: 24697, Stop: 25185, Start Num: 10
Candidate Starts for Jumboset_33:
(Start: 10 @24697 has 35 MA's), (14, 24742), (21, 24895), (32, 24997), (34, 25036), (35, 25039), (37, 25063),

Gene: Kalizoi_34 Start: 24696, Stop: 25184, Start Num: 10
Candidate Starts for Kalizoi_34:
(Start: 10 @24696 has 35 MA's), (14, 24741), (21, 24894), (32, 24996), (34, 25035), (35, 25038), (37, 25062),

Gene: KingBob_30 Start: 24298, Stop: 24789, Start Num: 8
Candidate Starts for KingBob_30:
(1, 24055), (2, 24070), (3, 24133), (4, 24154), (5, 24178), (Start: 8 @24298 has 6 MA's), (20, 24505), (21, 24511), (23, 24559), (30, 24607), (33, 24631), (34, 24652), (35, 24655), (37, 24679), (39, 24721),

Gene: Kittykat_30 Start: 23340, Stop: 23843, Start Num: 12
Candidate Starts for Kittykat_30:
(Start: 12 @23340 has 3 MA's), (13, 23367), (16, 23472), (17, 23475), (21, 23538), (25, 23595), (30, 23634), (33, 23658), (34, 23679), (35, 23682), (37, 23706), (39, 23748), (43, 23778), (44, 23805),

Gene: Korra_33 Start: 24706, Stop: 25206, Start Num: 11
Candidate Starts for Korra_33:
(Start: 11 @24706 has 27 MA's), (14, 24763), (21, 24916), (32, 25018), (34, 25057), (35, 25060), (37, 25084),

Gene: Lakshmi_32 Start: 24665, Stop: 25141, Start Num: 11
Candidate Starts for Lakshmi_32:
(Start: 11 @24665 has 27 MA's), (13, 24692), (18, 24812), (19, 24833), (21, 24863), (23, 24911), (35, 25007), (38, 25037), (39, 25073), (41, 25091), (42, 25100),

Gene: Lasagna_29 Start: 23158, Stop: 23661, Start Num: 10
Candidate Starts for Lasagna_29:
(Start: 10 @23158 has 35 MA's), (18, 23305), (21, 23356), (22, 23392), (32, 23458), (34, 23497), (35, 23500), (37, 23524), (44, 23623),

Gene: Lennox_29 Start: 23146, Stop: 23634, Start Num: 10
Candidate Starts for Lennox_29:
(Start: 10 @23146 has 35 MA's), (17, 23281), (18, 23293), (21, 23344), (22, 23380), (32, 23446), (35, 23488), (37, 23512), (39, 23554),

Gene: LilStuart_29 Start: 23150, Stop: 23638, Start Num: 10
Candidate Starts for LilStuart_29:

(Start: 10 @23150 has 35 MA's), (18, 23297), (19, 23318), (21, 23348), (22, 23384), (32, 23450), (35, 23492), (37, 23516), (39, 23558),

Gene: Litotes_33 Start: 24685, Stop: 25191, Start Num: 9
Candidate Starts for Litotes_33:
(Start: 9 @24685 has 6 MA's), (21, 24886), (32, 24988), (34, 25027), (35, 25030), (37, 25054), (43, 25126),

Gene: Lucy_29 Start: 23138, Stop: 23626, Start Num: 10
Candidate Starts for Lucy_29:
(Start: 10 @23138 has 35 MA's), (18, 23285), (21, 23336), (22, 23372), (32, 23438), (35, 23480), (37, 23504), (39, 23546),

Gene: Makoto_29 Start: 23158, Stop: 23646, Start Num: 10
Candidate Starts for Makoto_29:
(Start: 10 @23158 has 35 MA's), (18, 23305), (21, 23356), (22, 23392), (32, 23458), (35, 23500), (37, 23524), (39, 23566),

Gene: MamaPearl_30 Start: 24363, Stop: 24836, Start Num: 11
Candidate Starts for MamaPearl_30:
(Start: 11 @24363 has 27 MA's), (14, 24405), (21, 24558), (23, 24606), (28, 24630), (31, 24657), (33, 24678), (34, 24699), (35, 24702), (39, 24768), (43, 24798),

Gene: MeganNoll_32 Start: 24754, Stop: 25242, Start Num: 10
Candidate Starts for MeganNoll_32:
(Start: 10 @24754 has 35 MA's), (14, 24799), (21, 24952), (32, 25054), (34, 25093), (35, 25096), (37, 25120),

Gene: Misaeng_32 Start: 24904, Stop: 25380, Start Num: 11
Candidate Starts for Misaeng_32:
(Start: 11 @24904 has 27 MA's), (13, 24931), (21, 25102), (23, 25150), (24, 25153), (29, 25177), (34, 25243), (35, 25246), (39, 25312), (41, 25330), (42, 25339),

Gene: Moki_29 Start: 23142, Stop: 23630, Start Num: 10
Candidate Starts for Moki_29:
(Start: 10 @23142 has 35 MA's), (13, 23169), (21, 23340), (32, 23442), (34, 23481), (35, 23484), (37, 23508),

Gene: MrGloopy_33 Start: 24688, Stop: 25176, Start Num: 10
Candidate Starts for MrGloopy_33:
(Start: 10 @24688 has 35 MA's), (14, 24733), (21, 24886), (32, 24988), (34, 25027), (35, 25030), (37, 25054),

Gene: Nancia_29 Start: 23162, Stop: 23650, Start Num: 10
Candidate Starts for Nancia_29:
(Start: 10 @23162 has 35 MA's), (18, 23309), (19, 23330), (21, 23360), (22, 23396), (32, 23462), (35, 23504), (37, 23528), (39, 23570),

Gene: Nubia_32 Start: 24614, Stop: 25090, Start Num: 11
Candidate Starts for Nubia_32:
(Start: 11 @24614 has 27 MA's), (13, 24641), (18, 24761), (19, 24782), (21, 24812), (23, 24860), (35, 24956), (38, 24986), (39, 25022), (41, 25040), (42, 25049),

Gene: OMalley_30 Start: 24311, Stop: 24802, Start Num: 11
Candidate Starts for OMalley_30:
(Start: 11 @24311 has 27 MA's), (Start: 15 @24371 has 2 MA's), (17, 24458), (20, 24515), (28, 24593), (30, 24614), (31, 24617), (32, 24620), (33, 24638), (35, 24662), (38, 24692),

Gene: OurGirlNessie_29 Start: 23139, Stop: 23627, Start Num: 10
Candidate Starts for OurGirlNessie_29:
(Start: 10 @23139 has 35 MA's), (18, 23286), (21, 23337), (22, 23373), (32, 23439), (35, 23481), (37, 23505), (39, 23547),

Gene: Oxynfrius_32 Start: 24639, Stop: 25115, Start Num: 11
Candidate Starts for Oxynfrius_32:
(Start: 11 @24639 has 27 MA's), (13, 24666), (18, 24786), (19, 24807), (21, 24837), (23, 24885), (34, 24978), (35, 24981), (36, 24987), (38, 25011), (39, 25047), (41, 25065), (42, 25074),

Gene: PartyCup_35 Start: 24732, Stop: 25238, Start Num: 9
Candidate Starts for PartyCup_35:
(Start: 9 @24732 has 6 MA's), (21, 24933), (32, 25035), (34, 25074), (35, 25077), (37, 25101), (43, 25173),

Gene: PinkFriday_29 Start: 23188, Stop: 23679, Start Num: 8
Candidate Starts for PinkFriday_29:
(4, 23044), (5, 23068), (Start: 8 @23188 has 6 MA's), (20, 23395), (21, 23401), (23, 23449), (26, 23461), (27, 23467), (30, 23497), (33, 23521), (34, 23542), (35, 23545), (37, 23569), (39, 23611),

Gene: PitaDog_29 Start: 23149, Stop: 23637, Start Num: 10
Candidate Starts for PitaDog_29:
(Start: 10 @23149 has 35 MA's), (18, 23296), (21, 23347), (22, 23383), (32, 23449), (35, 23491), (37, 23515), (39, 23557),

Gene: Potatoes_33 Start: 24750, Stop: 25238, Start Num: 10
Candidate Starts for Potatoes_33:
(Start: 10 @24750 has 35 MA's), (21, 24948), (32, 25050), (34, 25089), (35, 25092), (37, 25116),

Gene: Preamble_29 Start: 23194, Stop: 23697, Start Num: 12
Candidate Starts for Preamble_29:
(Start: 12 @23194 has 3 MA's), (13, 23221), (17, 23329), (21, 23392), (30, 23488), (33, 23512), (34, 23533), (35, 23536), (37, 23560), (39, 23602), (43, 23632), (44, 23659),

Gene: Pterodactyl_29 Start: 23140, Stop: 23628, Start Num: 10
Candidate Starts for Pterodactyl_29:
(Start: 10 @23140 has 35 MA's), (18, 23287), (19, 23308), (21, 23338), (22, 23374), (32, 23440), (35, 23482), (37, 23506), (39, 23548),

Gene: Pumancara_29 Start: 23107, Stop: 23598, Start Num: 8
Candidate Starts for Pumancara_29:
(4, 22963), (5, 22987), (Start: 8 @23107 has 6 MA's), (20, 23314), (21, 23320), (23, 23368), (26, 23380), (27, 23386), (30, 23416), (33, 23440), (34, 23461), (35, 23464), (37, 23488), (39, 23530),

Gene: RAP15_33 Start: 24754, Stop: 25242, Start Num: 10
Candidate Starts for RAP15_33:
(Start: 10 @24754 has 35 MA's), (14, 24799), (21, 24952), (32, 25054), (34, 25093), (35, 25096), (37, 25120),

Gene: RcigaStruga_32 Start: 24673, Stop: 25149, Start Num: 11
Candidate Starts for RcigaStruga_32:
(7, 24640), (Start: 11 @24673 has 27 MA's), (13, 24700), (19, 24841), (20, 24865), (21, 24871), (23, 24919), (34, 25012), (35, 25015), (38, 25045), (39, 25081), (41, 25099), (42, 25108),

Gene: Riovina_30 Start: 24311, Stop: 24802, Start Num: 11
Candidate Starts for Riovina_30:
(Start: 11 @24311 has 27 MA's), (Start: 15 @24371 has 2 MA's), (17, 24458), (20, 24515), (28, 24593), (30, 24614), (31, 24617), (32, 24620), (33, 24638), (35, 24662), (38, 24692),

Gene: Riverdale_33 Start: 24684, Stop: 25172, Start Num: 10
Candidate Starts for Riverdale_33:
(Start: 10 @24684 has 35 MA's), (21, 24882), (32, 24984), (34, 25023), (35, 25026), (37, 25050),

Gene: Rozby_33 Start: 24685, Stop: 25173, Start Num: 10
Candidate Starts for Rozby_33:
(Start: 10 @24685 has 35 MA's), (21, 24883), (32, 24985), (34, 25024), (35, 25027), (37, 25051),

Gene: Savage2526_33 Start: 24748, Stop: 25236, Start Num: 10
Candidate Starts for Savage2526_33:
(Start: 10 @24748 has 35 MA's), (14, 24793), (21, 24946), (32, 25048), (34, 25087), (35, 25090), (37, 25114),

Gene: Scuttle_33 Start: 24757, Stop: 25257, Start Num: 11
Candidate Starts for Scuttle_33:
(Start: 11 @24757 has 27 MA's), (14, 24814), (21, 24967), (32, 25069), (34, 25108), (35, 25111), (37, 25135),

Gene: Sergei_30 Start: 24298, Stop: 24789, Start Num: 8
Candidate Starts for Sergei_30:
(1, 24055), (2, 24070), (3, 24133), (4, 24154), (5, 24178), (Start: 8 @24298 has 6 MA's), (20, 24505), (21, 24511), (23, 24559), (30, 24607), (33, 24631), (34, 24652), (35, 24655), (37, 24679), (39, 24721),

Gene: Supakev_30 Start: 24311, Stop: 24802, Start Num: 11
Candidate Starts for Supakev_30:
(Start: 11 @24311 has 27 MA's), (Start: 15 @24371 has 2 MA's), (17, 24458), (20, 24515), (28, 24593), (30, 24614), (31, 24617), (32, 24620), (33, 24638), (35, 24662), (38, 24692),

Gene: Suppi_33 Start: 24735, Stop: 25241, Start Num: 9
Candidate Starts for Suppi_33:
(Start: 9 @24735 has 6 MA's), (21, 24936), (32, 25038), (34, 25077), (35, 25080), (37, 25104), (43, 25176),

Gene: TattModd_33 Start: 24747, Stop: 25235, Start Num: 10
Candidate Starts for TattModd_33:
(Start: 10 @24747 has 35 MA's), (21, 24945), (32, 25047), (34, 25086), (35, 25089), (37, 25113),

Gene: Temper16_30 Start: 24298, Stop: 24789, Start Num: 8
Candidate Starts for Temper16_30:
(1, 24055), (2, 24070), (3, 24133), (4, 24154), (5, 24178), (Start: 8 @24298 has 6 MA's), (20, 24505), (21, 24511), (23, 24559), (30, 24607), (33, 24631), (34, 24652), (35, 24655), (37, 24679), (39, 24721),

Gene: Urla_30 Start: 24370, Stop: 24843, Start Num: 11
Candidate Starts for Urla_30:
(Start: 11 @24370 has 27 MA's), (14, 24412), (23, 24613), (28, 24637), (31, 24664), (33, 24685), (34, 24706), (35, 24709), (38, 24739), (39, 24775), (43, 24805),

Gene: Vallejo_33 Start: 24687, Stop: 25175, Start Num: 10
Candidate Starts for Vallejo_33:
(Start: 10 @24687 has 35 MA's), (21, 24885), (32, 24987), (34, 25026), (35, 25029), (37, 25053),

Gene: Vulture_30 Start: 24368, Stop: 24799, Start Num: 15
Candidate Starts for Vulture_30:
(Start: 11 @24308 has 27 MA's), (Start: 15 @24368 has 2 MA's), (17, 24455), (20, 24512), (28, 24590), (30, 24611), (31, 24614), (32, 24617), (33, 24635), (35, 24659), (38, 24689),

Gene: Wawa_33 Start: 24727, Stop: 25227, Start Num: 11
Candidate Starts for Wawa_33:
(Start: 11 @24727 has 27 MA's), (14, 24784), (21, 24937), (32, 25039), (34, 25078), (35, 25081), (37, 25105),

Gene: Wayne_33 Start: 24781, Stop: 25287, Start Num: 9
Candidate Starts for Wayne_33:
(Start: 9 @24781 has 6 MA's), (21, 24982), (32, 25084), (34, 25123), (35, 25126), (37, 25150), (43, 25222),

Gene: WonderBoy_28 Start: 23130, Stop: 23618, Start Num: 10
Candidate Starts for WonderBoy_28:
(Start: 10 @23130 has 35 MA's), (18, 23277), (21, 23328), (22, 23364), (32, 23430), (34, 23469), (35, 23472), (37, 23496), (39, 23538),

Gene: Zorro_33 Start: 24706, Stop: 25206, Start Num: 11
Candidate Starts for Zorro_33:
(Start: 11 @24706 has 27 MA's), (14, 24763), (21, 24916), (32, 25018), (34, 25057), (35, 25060), (37, 25084),