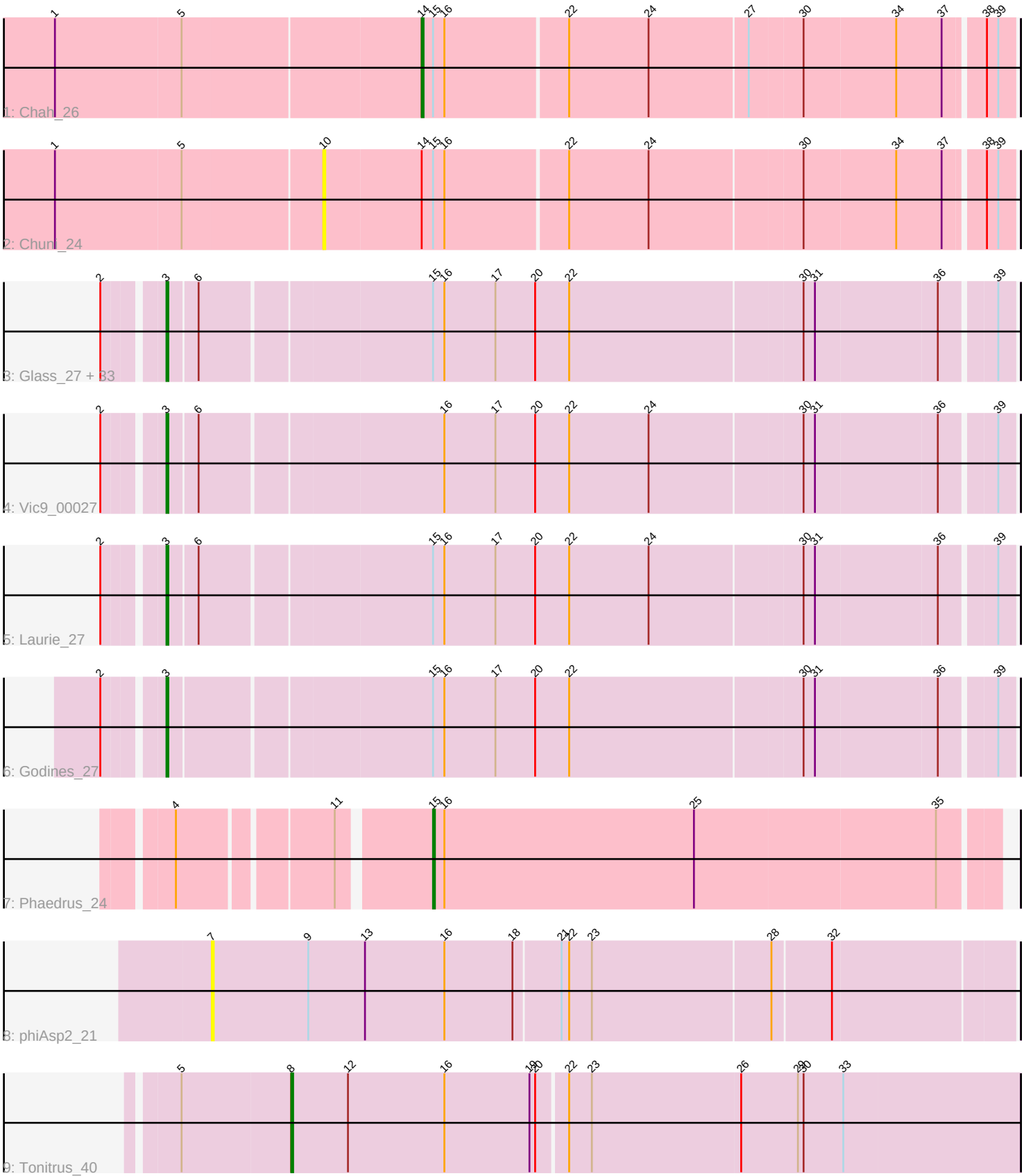
Pham 291307


1: Chah_26
2: Chunt_24
3: Glass_27 + 33
4: Vic9_00027
5: Laurie_27
6: Godines_27
7: Phaedrus_24
8: phiAsp2_21
9: Tonitrus_40

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 291307 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291307 has 42 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Chah_26
• Track 2 : Chuni_24
• Track 3 : Glass_27, Kaleb_27, Brownie5_27, Lephleur_27, Eaglehorse_27, Phantasmagoria_27, Calamitous_27, West99_27, Allegro_27, Sabella_27, LizLemon_27, Arbiter_27, Coffee_27, Kheth_27, Blocker23_27, Kolhan_27, MasterPo_27, Faze9_27, TA17A_28, LilSmirk_27, Opia_27, Tres_27, Qyrzula_25, Rosebush_27, Ares_27, ItsyBitsy1_27, PrinceCharming_27, Lars_27, Tinciduntsolum_28, Hedgerow_27, Holeinone_27, FrenchFry_27, Rhinoforte_27, Bananafish_27
• Track 4 : Vic9_00027
• Track 5 : Laurie_27
• Track 6 : Godines_27
• Track 7 : Phaedrus_24
• Track 8 : phiAsp2_21
• Track 9 : Tonitrus_40

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

The start number called the most often in the published annotations is 3, it was called in 36 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Allegro_27, Arbiter_27, Ares_27, Bananafish_27, Blocker23_27, Brownie5_27, Calamitous_27, Coffee_27, Eaglehorse_27, Faze9_27, FrenchFry_27, Glass_27, Godines_27, Hedgerow_27, Holeinone_27, ItsyBitsy1_27, Kaleb_27, Kheth_27, Kolhan_27, Lars_27, Laurie_27, Lephleur_27, LilSmirk_27, LizLemon_27, MasterPo_27, Opia_27, Phantasmagoria_27, PrinceCharming_27, Qyrzula_25, Rhinoforte_27, Rosebush_27, Sabella_27, TA17A_28, Tinciduntsolum_28, Tres_27, Vic9_00027, West99_27,

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

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

• Chah_26, Chuni_24, Phaedrus_24, Tonitrus_40, phiAsp2_21,

Summary by start number:

Start 3:
• Found in 37 of 42 (88.1%) of genes in pham
• Manual Annotations of this start: 36 of 39
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Allegro_27 (B2), Arbiter_27 (B2), Ares_27 (B2), Bananafish_27 (B2), Blocker23_27 (B2), Brownie5_27 (B2), Calamitous_27 (B2), Coffee_27 (B2), Eaglehorse_27 (B2), Faze9_27 (B2), FrenchFry_27 (B2), Glass_27 (B2), Godines_27 (B2), Hedgerow_27 (B2), Holeinone_27 (B2), ItsyBitsy1_27 (B2), Kaleb_27 (B2), Kheth_27 (B2), Kolhan_27 (B2), Lars_27 (B2), Laurie_27 (B2), Lephleur_27 (B2), LilSmirk_27 (B2), LizLemon_27 (B2), MasterPo_27 (B2), Opia_27 (B2), Phantasmagoria_27 (B2), PrinceCharming_27 (B2), Qyrzula_25 (B2), Rhinoforte_27 (B2), Rosebush_27 (B2), Sabella_27 (B2), TA17A_28 (B2), Tinciduntsolum_28 (B2), Tres_27 (B2), Vic9_00027 (B2), West99_27 (B2),

Start 7:
• Found in 1 of 42 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: phiAsp2_21 (singleton),

Start 8:
• Found in 1 of 42 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 39
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Tonitrus_40 (singleton),

Start 10:
• Found in 1 of 42 (2.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chuni_24 (B1),

Start 14:
• Found in 2 of 42 (4.8%) of genes in pham
• Manual Annotations of this start: 1 of 39
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Chah_26 (B1),

Start 15:
• Found in 39 of 42 (92.9%) of genes in pham
• Manual Annotations of this start: 1 of 39
• Called 2.6% of time when present
• Phage (with cluster) where this start called: Phaedrus_24 (B3),

Summary by clusters:

There are 4 clusters represented in this pham: singleton, B1, B2, B3,

Info for manual annotations of cluster B1:
•Start number 14 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B2:
•Start number 3 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:
•Start number 15 was manually annotated 1 time for cluster B3.

Gene Information:

Gene: Allegro_27 Start: 20836, Stop: 21264, Start Num: 3
Candidate Starts for Allegro_27:
(2, 20809), (Start: 3 @20836 has 36 MA's), (6, 20851), (Start: 15 @20968 has 1 MA's), (16, 20974), (17, 21001), (20, 21022), (22, 21040), (30, 21160), (31, 21166), (36, 21229), (39, 21256),

Gene: Arbiter_27 Start: 20921, Stop: 21349, Start Num: 3
Candidate Starts for Arbiter_27:
(2, 20894), (Start: 3 @20921 has 36 MA's), (6, 20936), (Start: 15 @21053 has 1 MA's), (16, 21059), (17, 21086), (20, 21107), (22, 21125), (30, 21245), (31, 21251), (36, 21314), (39, 21341),

Gene: Ares_27 Start: 20837, Stop: 21265, Start Num: 3
Candidate Starts for Ares_27:
(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 15 @20969 has 1 MA's), (16, 20975), (17, 21002), (20, 21023), (22, 21041), (30, 21161), (31, 21167), (36, 21230), (39, 21257),

Gene: Bananafish_27 Start: 20833, Stop: 21261, Start Num: 3
Candidate Starts for Bananafish_27:
(2, 20806), (Start: 3 @20833 has 36 MA's), (6, 20848), (Start: 15 @20965 has 1 MA's), (16, 20971), (17, 20998), (20, 21019), (22, 21037), (30, 21157), (31, 21163), (36, 21226), (39, 21253),

Gene: Blocker23_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for Blocker23_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: Brownie5_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for Brownie5_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: Calamitous_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for Calamitous_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: Chah_26 Start: 18818, Stop: 19117, Start Num: 14
Candidate Starts for Chah_26:
(1, 18629), (5, 18695), (Start: 14 @18818 has 1 MA's), (Start: 15 @18824 has 1 MA's), (16, 18830), (22, 18893), (24, 18935), (27, 18986), (30, 19013), (34, 19061), (37, 19085), (38, 19103), (39, 19109),

Gene: Chuni_24 Start: 18765, Stop: 19115, Start Num: 10
Candidate Starts for Chuni_24:
(1, 18627), (5, 18693), (10, 18765), (Start: 14 @18816 has 1 MA's), (Start: 15 @18822 has 1 MA's), (16, 18828), (22, 18891), (24, 18933), (30, 19011), (34, 19059), (37, 19083), (38, 19101), (39, 19107),

Gene: Coffee_27 Start: 20947, Stop: 21375, Start Num: 3
Candidate Starts for Coffee_27:
(2, 20920), (Start: 3 @20947 has 36 MA's), (6, 20962), (Start: 15 @21079 has 1 MA's), (16, 21085), (17, 21112), (20, 21133), (22, 21151), (30, 21271), (31, 21277), (36, 21340), (39, 21367),

Gene: Eaglehorse_27 Start: 20855, Stop: 21283, Start Num: 3
Candidate Starts for Eaglehorse_27:
(2, 20828), (Start: 3 @20855 has 36 MA's), (6, 20870), (Start: 15 @20987 has 1 MA's), (16, 20993), (17, 21020), (20, 21041), (22, 21059), (30, 21179), (31, 21185), (36, 21248), (39, 21275),

Gene: Faze9_27 Start: 20951, Stop: 21379, Start Num: 3
Candidate Starts for Faze9_27:
(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 15 @21083 has 1 MA's), (16, 21089), (17, 21116), (20, 21137), (22, 21155), (30, 21275), (31, 21281), (36, 21344), (39, 21371),

Gene: FrenchFry_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for FrenchFry_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: Glass_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for Glass_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: Godines_27 Start: 20847, Stop: 21275, Start Num: 3
Candidate Starts for Godines_27:
(2, 20820), (Start: 3 @20847 has 36 MA's), (Start: 15 @20979 has 1 MA's), (16, 20985), (17, 21012), (20, 21033), (22, 21051), (30, 21171), (31, 21177), (36, 21240), (39, 21267),

Gene: Hedgerow_27 Start: 20936, Stop: 21364, Start Num: 3
Candidate Starts for Hedgerow_27:
(2, 20909), (Start: 3 @20936 has 36 MA's), (6, 20951), (Start: 15 @21068 has 1 MA's), (16, 21074), (17, 21101), (20, 21122), (22, 21140), (30, 21260), (31, 21266), (36, 21329), (39, 21356),

Gene: Holeinone_27 Start: 20832, Stop: 21260, Start Num: 3
Candidate Starts for Holeinone_27:
(2, 20805), (Start: 3 @20832 has 36 MA's), (6, 20847), (Start: 15 @20964 has 1 MA's), (16, 20970), (17, 20997), (20, 21018), (22, 21036), (30, 21156), (31, 21162), (36, 21225), (39, 21252),

Gene: ItsyBitsy1_27 Start: 20825, Stop: 21253, Start Num: 3
Candidate Starts for ItsyBitsy1_27:
(2, 20798), (Start: 3 @20825 has 36 MA's), (6, 20840), (Start: 15 @20957 has 1 MA's), (16, 20963), (17, 20990), (20, 21011), (22, 21029), (30, 21149), (31, 21155), (36, 21218), (39, 21245),

Gene: Kaleb_27 Start: 20951, Stop: 21379, Start Num: 3
Candidate Starts for Kaleb_27:

(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 15 @21083 has 1 MA's), (16, 21089), (17, 21116), (20, 21137), (22, 21155), (30, 21275), (31, 21281), (36, 21344), (39, 21371),

Gene: Kheth_27 Start: 20837, Stop: 21265, Start Num: 3
Candidate Starts for Kheth_27:
(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 15 @20969 has 1 MA's), (16, 20975), (17, 21002), (20, 21023), (22, 21041), (30, 21161), (31, 21167), (36, 21230), (39, 21257),

Gene: Kolhan_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for Kolhan_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: Lars_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for Lars_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: Laurie_27 Start: 20832, Stop: 21260, Start Num: 3
Candidate Starts for Laurie_27:
(2, 20805), (Start: 3 @20832 has 36 MA's), (6, 20847), (Start: 15 @20964 has 1 MA's), (16, 20970), (17, 20997), (20, 21018), (22, 21036), (24, 21078), (30, 21156), (31, 21162), (36, 21225), (39, 21252),

Gene: Lephleur_27 Start: 20837, Stop: 21265, Start Num: 3
Candidate Starts for Lephleur_27:
(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 15 @20969 has 1 MA's), (16, 20975), (17, 21002), (20, 21023), (22, 21041), (30, 21161), (31, 21167), (36, 21230), (39, 21257),

Gene: LilSmirk_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for LilSmirk_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: LizLemon_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for LizLemon_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: MasterPo_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for MasterPo_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: Opia_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for Opia_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: Phaedrus_24 Start: 19399, Stop: 19692, Start Num: 15
Candidate Starts for Phaedrus_24:
(4, 19279), (11, 19354), (Start: 15 @19399 has 1 MA's), (16, 19405), (25, 19537), (35, 19663),

Gene: Phantasmagoria_27 Start: 20830, Stop: 21258, Start Num: 3

Candidate Starts for Phantasmagoria_27:
(2, 20803), (Start: 3 @20830 has 36 MA's), (6, 20845), (Start: 15 @20962 has 1 MA's), (16, 20968), (17, 20995), (20, 21016), (22, 21034), (30, 21154), (31, 21160), (36, 21223), (39, 21250),

Gene: PrinceCharming_27 Start: 20950, Stop: 21378, Start Num: 3
Candidate Starts for PrinceCharming_27:
(2, 20923), (Start: 3 @20950 has 36 MA's), (6, 20965), (Start: 15 @21082 has 1 MA's), (16, 21088), (17, 21115), (20, 21136), (22, 21154), (30, 21274), (31, 21280), (36, 21343), (39, 21370),

Gene: Qyrzula_25 Start: 20920, Stop: 21348, Start Num: 3
Candidate Starts for Qyrzula_25:
(2, 20893), (Start: 3 @20920 has 36 MA's), (6, 20935), (Start: 15 @21052 has 1 MA's), (16, 21058), (17, 21085), (20, 21106), (22, 21124), (30, 21244), (31, 21250), (36, 21313), (39, 21340),

Gene: Rhinoforte_27 Start: 20951, Stop: 21379, Start Num: 3
Candidate Starts for Rhinoforte_27:
(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 15 @21083 has 1 MA's), (16, 21089), (17, 21116), (20, 21137), (22, 21155), (30, 21275), (31, 21281), (36, 21344), (39, 21371),

Gene: Rosebush_27 Start: 20951, Stop: 21379, Start Num: 3
Candidate Starts for Rosebush_27:
(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 15 @21083 has 1 MA's), (16, 21089), (17, 21116), (20, 21137), (22, 21155), (30, 21275), (31, 21281), (36, 21344), (39, 21371),

Gene: Sabella_27 Start: 20837, Stop: 21265, Start Num: 3
Candidate Starts for Sabella_27:
(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 15 @20969 has 1 MA's), (16, 20975), (17, 21002), (20, 21023), (22, 21041), (30, 21161), (31, 21167), (36, 21230), (39, 21257),

Gene: TA17A_28 Start: 20831, Stop: 21259, Start Num: 3
Candidate Starts for TA17A_28:
(2, 20804), (Start: 3 @20831 has 36 MA's), (6, 20846), (Start: 15 @20963 has 1 MA's), (16, 20969), (17, 20996), (20, 21017), (22, 21035), (30, 21155), (31, 21161), (36, 21224), (39, 21251),

Gene: Tinciduntsolum_28 Start: 20953, Stop: 21381, Start Num: 3
Candidate Starts for Tinciduntsolum_28:
(2, 20926), (Start: 3 @20953 has 36 MA's), (6, 20968), (Start: 15 @21085 has 1 MA's), (16, 21091), (17, 21118), (20, 21139), (22, 21157), (30, 21277), (31, 21283), (36, 21346), (39, 21373),

Gene: Tonitrus_40 Start: 27403, Stop: 27783, Start Num: 8
Candidate Starts for Tonitrus_40:
(5, 27346), (Start: 8 @27403 has 1 MA's), (12, 27433), (16, 27484), (19, 27529), (20, 27532), (22, 27547), (23, 27559), (26, 27637), (29, 27667), (30, 27670), (33, 27691),

Gene: Tres_27 Start: 20834, Stop: 21262, Start Num: 3
Candidate Starts for Tres_27:
(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 15 @20966 has 1 MA's), (16, 20972), (17, 20999), (20, 21020), (22, 21038), (30, 21158), (31, 21164), (36, 21227), (39, 21254),

Gene: Vic9_00027 Start: 21282, Stop: 21710, Start Num: 3
Candidate Starts for Vic9_00027:
(2, 21255), (Start: 3 @21282 has 36 MA's), (6, 21297), (16, 21420), (17, 21447), (20, 21468), (22, 21486), (24, 21528), (30, 21606), (31, 21612), (36, 21675), (39, 21702),

Gene: West99_27 Start: 20954, Stop: 21382, Start Num: 3
Candidate Starts for West99_27:
(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 15 @21086 has 1 MA's), (16, 21092), (17, 21119), (20, 21140), (22, 21158), (30, 21278), (31, 21284), (36, 21347), (39, 21374),

Gene: phiAsp2_21 Start: 13673, Stop: 14086, Start Num: 7
Candidate Starts for phiAsp2_21:
(7, 13673), (9, 13724), (13, 13754), (16, 13796), (18, 13832), (21, 13856), (22, 13859), (23, 13871), (28, 13964), (32, 13994),