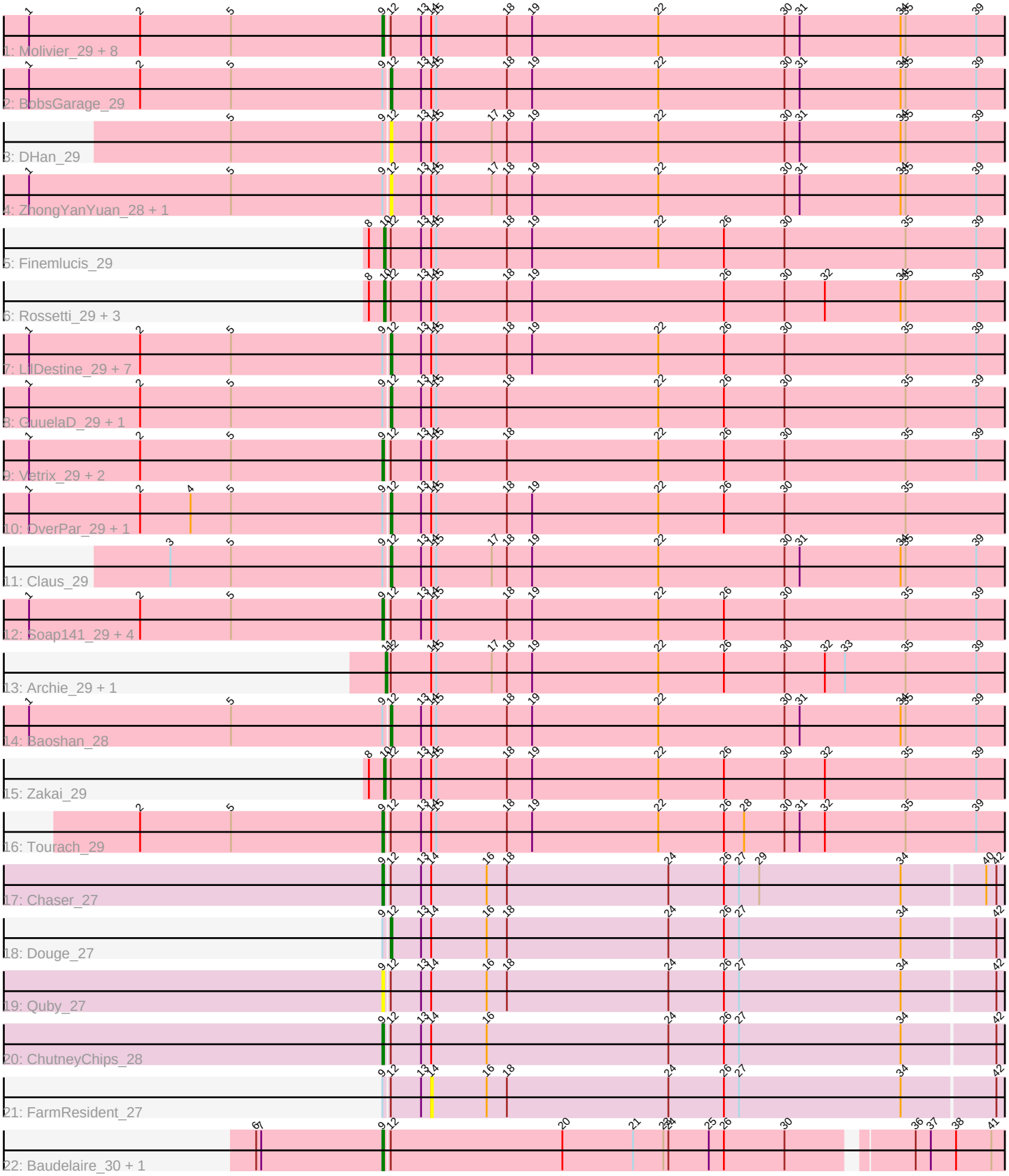
Zoomed Pham 347706



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 347706 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347706 has 51 members, 14 are drafts.

Phages represented in each track:
• Track 1 : Molivier_29, Miley16_29, Faith1_29, Winky_29, Itos_29, BigCheese_29, Netyap_29, Breezona_29, DrSeegs_29
• Track 2 : BobsGarage_29
• Track 3 : DHan_29
• Track 4 : ZhongYanYuan_28, DanBing_28
• Track 5 : Finemlucis_29
• Track 6 : Rossetti_29, Rumpelstiltskin_29, Gabriela_29, SoJulia_30
• Track 7 : LilDestine_29, Lynnae_29, Nicholasp3_29, ChengKai98_29, Kahlid_29, Sarshaun_29, Wigglewiggle_29, Hafay_29
• Track 8 : GuuelaD_29, Crossroads_29
• Track 9 : Vetrix_29, Lewan_29, Hiraya_29
• Track 10 : OverPar_29, Loadrie_29
• Track 11 : Claus_29
• Track 12 : Soap141_29, Gardann_29, Wilder_29, MkaliMitinis3_29, Underpass_29
• Track 13 : Archie_29, Bazzle_29
• Track 14 : Baoshan_28
• Track 15 : Zakai_29
• Track 16 : Tourach_29
• Track 17 : Chaser_27
• Track 18 : Douge_27
• Track 19 : Quby_27
• Track 20 : ChutneyChips_28
• Track 21 : FarmResident_27
• Track 22 : Baudelaire_30, Aegeus_30

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

The start number called the most often in the published annotations is 9, it was called in 19 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aegeus_30, Baudelaire_30, BigCheese_29, Breezona_29, Chaser_27, ChutneyChips_28, DrSeegs_29, Faith1_29, Gardann_29, Hiraya_29, Itos_29, Lewan_29, Miley16_29, MkaliMitinis3_29, Molivier_29, Netyap_29, Quby_27,

Soap141_29, Tourach_29, Underpass_29, Vetrix_29, Wilder_29, Winky_29,

Genes that have the "Most Annotated" start but do not call it:
• Baoshan_28, BobsGarage_29, ChengKai98_29, Claus_29, Crossroads_29, DHan_29, DanBing_28, Douge_27, FarmResident_27, GuuelaD_29, Hafay_29, Kahlid_29, LilDestine_29, Loadrie_29, Lynnae_29, Nicholasp3_29, OverPar_29, Sarshaun_29, Wigglewiggle_29, ZhongYanYuan_28,

Genes that do not have the "Most Annotated" start:
• Archie_29, Bazzle_29, Finemlucis_29, Gabriela_29, Rossetti_29, Rumpelstiltskin_29, SoJulia_30, Zakai_29,

Summary by start number:

Start 9:
• Found in 43 of 51 (84.3%) of genes in pham
• Manual Annotations of this start: 19 of 37
• Called 53.5% of time when present
• Phage (with cluster) where this start called: Aegeus_30 (L5), Baudelaire_30 (L5), BigCheese_29 (L2), Breezona_29 (L2), Chaser_27 (L4), ChutneyChips_28 (L4), DrSeegs_29 (L2), Faith1_29 (L2), Gardann_29 (L2), Hiraya_29 (L2), Itos_29 (L2), Lewan_29 (L2), Miley16_29 (L2), MkaliMitinis3_29 (L2), Molivier_29 (L2), Netyap_29 (L2), Quby_27 (L4), Soap141_29 (L2), Tourach_29 (L2), Underpass_29 (L2), Vetrix_29 (L2), Wilder_29 (L2), Winky_29 (L2),

Start 10:
• Found in 6 of 51 (11.8%) of genes in pham
• Manual Annotations of this start: 4 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Finemlucis_29 (L2), Gabriela_29 (L2), Rossetti_29 (L2), Rumpelstiltskin_29 (L2), SoJulia_30 (L2), Zakai_29 (L2),

Start 11:
• Found in 2 of 51 (3.9%) of genes in pham
• Manual Annotations of this start: 2 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Archie_29 (L2), Bazzle_29 (L2),

Start 12:
• Found in 51 of 51 (100.0%) of genes in pham
• Manual Annotations of this start: 12 of 37
• Called 37.3% of time when present
• Phage (with cluster) where this start called: Baoshan_28 (L2), BobsGarage_29 (L2), ChengKai98_29 (L2), Claus_29 (L2), Crossroads_29 (L2), DHan_29 (L2), DanBing_28 (L2), Douge_27 (L4), GuuelaD_29 (L2), Hafay_29 (L2), Kahlid_29 (L2), LilDestine_29 (L2), Loadrie_29 (L2), Lynnae_29 (L2), Nicholasp3_29 (L2), OverPar_29 (L2), Sarshaun_29 (L2), Wigglewiggle_29 (L2), ZhongYanYuan_28 (L2),

Start 14:
• Found in 49 of 51 (96.1%) of genes in pham
• No Manual Annotations of this start.
• Called 2.0% of time when present
• Phage (with cluster) where this start called: FarmResident_27 (L4),

Summary by clusters:

There are 3 clusters represented in this pham: L4, L5, L2,

Info for manual annotations of cluster L2:
•Start number 9 was manually annotated 15 times for cluster L2.
•Start number 10 was manually annotated 4 times for cluster L2.
•Start number 11 was manually annotated 2 times for cluster L2.
•Start number 12 was manually annotated 11 times for cluster L2.

Info for manual annotations of cluster L4:
•Start number 9 was manually annotated 2 times for cluster L4.
•Start number 12 was manually annotated 1 time for cluster L4.

Info for manual annotations of cluster L5:
•Start number 9 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Aegeus_30 Start: 26730, Stop: 27143, Start Num: 9
Candidate Starts for Aegeus_30:
(6, 26655), (7, 26658), (Start: 9 @26730 has 19 MA's), (Start: 12 @26733 has 12 MA's), (20, 26835), (21, 26877), (23, 26895), (24, 26898), (25, 26922), (26, 26931), (30, 26967), (36, 27033), (37, 27042), (38, 27057), (41, 27078), (43, 27096),

Gene: Archie_29 Start: 27765, Stop: 28241, Start Num: 11
Candidate Starts for Archie_29:
(Start: 11 @27765 has 2 MA's), (Start: 12 @27768 has 12 MA's), (14, 27792), (15, 27795), (17, 27828), (18, 27837), (19, 27852), (22, 27927), (26, 27966), (30, 28002), (32, 28026), (33, 28038), (35, 28074), (39, 28116), (46, 28224),

Gene: Baoshan_28 Start: 27103, Stop: 27573, Start Num: 12
Candidate Starts for Baoshan_28:
(1, 26890), (5, 27010), (Start: 9 @27100 has 19 MA's), (Start: 12 @27103 has 12 MA's), (13, 27121), (14, 27127), (15, 27130), (18, 27172), (19, 27187), (22, 27262), (30, 27337), (31, 27346), (34, 27406), (35, 27409), (39, 27451), (46, 27556),

Gene: Baudelaire_30 Start: 26730, Stop: 27143, Start Num: 9
Candidate Starts for Baudelaire_30:
(6, 26655), (7, 26658), (Start: 9 @26730 has 19 MA's), (Start: 12 @26733 has 12 MA's), (20, 26835), (21, 26877), (23, 26895), (24, 26898), (25, 26922), (26, 26931), (30, 26967), (36, 27033), (37, 27042), (38, 27057), (41, 27078), (43, 27096),

Gene: Bazzle_29 Start: 27514, Stop: 27990, Start Num: 11
Candidate Starts for Bazzle_29:
(Start: 11 @27514 has 2 MA's), (Start: 12 @27517 has 12 MA's), (14, 27541), (15, 27544), (17, 27577), (18, 27586), (19, 27601), (22, 27676), (26, 27715), (30, 27751), (32, 27775), (33, 27787), (35, 27823), (39, 27865), (46, 27973),

Gene: BigCheese_29 Start: 27279, Stop: 27752, Start Num: 9

Candidate Starts for BigCheese_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: BobsGarage_29 Start: 27282, Stop: 27752, Start Num: 12
Candidate Starts for BobsGarage_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Breezona_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Breezona_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Chaser_27 Start: 26350, Stop: 26802, Start Num: 9
Candidate Starts for Chaser_27:
(Start: 9 @26350 has 19 MA's), (Start: 12 @26353 has 12 MA's), (13, 26371), (14, 26377), (16, 26410), (18, 26422), (24, 26518), (26, 26551), (27, 26560), (29, 26572), (34, 26656), (40, 26704), (42, 26710), (44, 26734),

Gene: ChengKai98_29 Start: 27284, Stop: 27754, Start Num: 12
Candidate Starts for ChengKai98_29:
(1, 27071), (2, 27137), (5, 27191), (Start: 9 @27281 has 19 MA's), (Start: 12 @27284 has 12 MA's), (13, 27302), (14, 27308), (15, 27311), (18, 27353), (19, 27368), (22, 27443), (26, 27482), (30, 27518), (35, 27590), (39, 27632), (43, 27662), (46, 27737),

Gene: ChutneyChips_28 Start: 26533, Stop: 26985, Start Num: 9
Candidate Starts for ChutneyChips_28:
(Start: 9 @26533 has 19 MA's), (Start: 12 @26536 has 12 MA's), (13, 26554), (14, 26560), (16, 26593), (24, 26701), (26, 26734), (27, 26743), (34, 26839), (42, 26893), (44, 26917), (45, 26938),

Gene: Claus_29 Start: 27259, Stop: 27729, Start Num: 12
Candidate Starts for Claus_29:
(3, 27130), (5, 27166), (Start: 9 @27256 has 19 MA's), (Start: 12 @27259 has 12 MA's), (13, 27277), (14, 27283), (15, 27286), (17, 27319), (18, 27328), (19, 27343), (22, 27418), (30, 27493), (31, 27502), (34, 27562), (35, 27565), (39, 27607), (46, 27712),

Gene: Crossroads_29 Start: 27282, Stop: 27752, Start Num: 12
Candidate Starts for Crossroads_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (22, 27441), (26, 27480), (30, 27516), (35, 27588), (39, 27630), (43, 27660), (46, 27735),

Gene: DHan_29 Start: 27195, Stop: 27665, Start Num: 12
Candidate Starts for DHan_29:
(5, 27102), (Start: 9 @27192 has 19 MA's), (Start: 12 @27195 has 12 MA's), (13, 27213), (14, 27219), (15, 27222), (17, 27255), (18, 27264), (19, 27279), (22, 27354), (30, 27429), (31, 27438), (34, 27498), (35, 27501), (39, 27543), (46, 27648),

Gene: DanBing_28 Start: 27099, Stop: 27569, Start Num: 12

Candidate Starts for DanBing_28:
(1, 26886), (5, 27006), (Start: 9 @27096 has 19 MA's), (Start: 12 @27099 has 12 MA's), (13, 27117), (14, 27123), (15, 27126), (17, 27159), (18, 27168), (19, 27183), (22, 27258), (30, 27333), (31, 27342), (34, 27402), (35, 27405), (39, 27447), (46, 27552),

Gene: Douge_27 Start: 26291, Stop: 26740, Start Num: 12
Candidate Starts for Douge_27:
(Start: 9 @26288 has 19 MA's), (Start: 12 @26291 has 12 MA's), (13, 26309), (14, 26315), (16, 26348), (18, 26360), (24, 26456), (26, 26489), (27, 26498), (34, 26594), (42, 26648), (44, 26672),

Gene: DrSeegs_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for DrSeegs_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Faith1_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Faith1_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: FarmResident_27 Start: 26359, Stop: 26784, Start Num: 14
Candidate Starts for FarmResident_27:
(Start: 9 @26332 has 19 MA's), (Start: 12 @26335 has 12 MA's), (13, 26353), (14, 26359), (16, 26392), (18, 26404), (24, 26500), (26, 26533), (27, 26542), (34, 26638), (42, 26692), (44, 26716),

Gene: Finemlucis_29 Start: 27555, Stop: 28028, Start Num: 10
Candidate Starts for Finemlucis_29:
(8, 27546), (Start: 10 @27555 has 4 MA's), (Start: 12 @27558 has 12 MA's), (13, 27576), (14, 27582), (15, 27585), (18, 27627), (19, 27642), (22, 27717), (26, 27756), (30, 27792), (35, 27864), (39, 27906), (43, 27936), (46, 28011),

Gene: Gabriela_29 Start: 27547, Stop: 28014, Start Num: 10
Candidate Starts for Gabriela_29:
(8, 27538), (Start: 10 @27547 has 4 MA's), (Start: 12 @27550 has 12 MA's), (13, 27568), (14, 27574), (15, 27577), (18, 27619), (19, 27634), (26, 27748), (30, 27784), (32, 27808), (34, 27853), (35, 27856), (39, 27898), (43, 27928), (46, 27997),

Gene: Gardann_29 Start: 27281, Stop: 27754, Start Num: 9
Candidate Starts for Gardann_29:
(1, 27071), (2, 27137), (5, 27191), (Start: 9 @27281 has 19 MA's), (Start: 12 @27284 has 12 MA's), (13, 27302), (14, 27308), (15, 27311), (18, 27353), (19, 27368), (22, 27443), (26, 27482), (30, 27518), (35, 27590), (39, 27632), (43, 27662), (46, 27737),

Gene: GuuelaD_29 Start: 27316, Stop: 27786, Start Num: 12
Candidate Starts for GuuelaD_29:
(1, 27103), (2, 27169), (5, 27223), (Start: 9 @27313 has 19 MA's), (Start: 12 @27316 has 12 MA's), (13, 27334), (14, 27340), (15, 27343), (18, 27385), (22, 27475), (26, 27514), (30, 27550), (35, 27622), (39, 27664), (43, 27694), (46, 27769),

Gene: Hafay_29 Start: 27315, Stop: 27785, Start Num: 12
Candidate Starts for Hafay_29:

(1, 27102), (2, 27168), (5, 27222), (Start: 9 @27312 has 19 MA's), (Start: 12 @27315 has 12 MA's), (13, 27333), (14, 27339), (15, 27342), (18, 27384), (19, 27399), (22, 27474), (26, 27513), (30, 27549), (35, 27621), (39, 27663), (43, 27693), (46, 27768),

Gene: Hiraya_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Hiraya_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (22, 27441), (26, 27480), (30, 27516), (35, 27588), (39, 27630), (43, 27660), (46, 27735),

Gene: Itos_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Itos_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Kahlid_29 Start: 27287, Stop: 27757, Start Num: 12
Candidate Starts for Kahlid_29:
(1, 27074), (2, 27140), (5, 27194), (Start: 9 @27284 has 19 MA's), (Start: 12 @27287 has 12 MA's), (13, 27305), (14, 27311), (15, 27314), (18, 27356), (19, 27371), (22, 27446), (26, 27485), (30, 27521), (35, 27593), (39, 27635), (43, 27665), (46, 27740),

Gene: Lewan_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Lewan_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (22, 27441), (26, 27480), (30, 27516), (35, 27588), (39, 27630), (43, 27660), (46, 27735),

Gene: LilDestine_29 Start: 27281, Stop: 27751, Start Num: 12
Candidate Starts for LilDestine_29:
(1, 27068), (2, 27134), (5, 27188), (Start: 9 @27278 has 19 MA's), (Start: 12 @27281 has 12 MA's), (13, 27299), (14, 27305), (15, 27308), (18, 27350), (19, 27365), (22, 27440), (26, 27479), (30, 27515), (35, 27587), (39, 27629), (43, 27659), (46, 27734),

Gene: Loadrie_29 Start: 27314, Stop: 27784, Start Num: 12
Candidate Starts for Loadrie_29:
(1, 27101), (2, 27167), (4, 27197), (5, 27221), (Start: 9 @27311 has 19 MA's), (Start: 12 @27314 has 12 MA's), (13, 27332), (14, 27338), (15, 27341), (18, 27383), (19, 27398), (22, 27473), (26, 27512), (30, 27548), (35, 27620), (43, 27692), (46, 27767),

Gene: Lynnae_29 Start: 27270, Stop: 27740, Start Num: 12
Candidate Starts for Lynnae_29:
(1, 27057), (2, 27123), (5, 27177), (Start: 9 @27267 has 19 MA's), (Start: 12 @27270 has 12 MA's), (13, 27288), (14, 27294), (15, 27297), (18, 27339), (19, 27354), (22, 27429), (26, 27468), (30, 27504), (35, 27576), (39, 27618), (43, 27648), (46, 27723),

Gene: Miley16_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Miley16_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: MkaliMitinis3_29 Start: 27279, Stop: 27752, Start Num: 9

Candidate Starts for MkaliMitinis3_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (26, 27480), (30, 27516), (35, 27588), (39, 27630), (43, 27660), (46, 27735),

Gene: Molivier_29 Start: 27276, Stop: 27749, Start Num: 9
Candidate Starts for Molivier_29:
(1, 27066), (2, 27132), (5, 27186), (Start: 9 @27276 has 19 MA's), (Start: 12 @27279 has 12 MA's), (13, 27297), (14, 27303), (15, 27306), (18, 27348), (19, 27363), (22, 27438), (30, 27513), (31, 27522), (34, 27582), (35, 27585), (39, 27627), (46, 27732),

Gene: Netyap_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Netyap_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Nicholasp3_29 Start: 27284, Stop: 27754, Start Num: 12
Candidate Starts for Nicholasp3_29:
(1, 27071), (2, 27137), (5, 27191), (Start: 9 @27281 has 19 MA's), (Start: 12 @27284 has 12 MA's), (13, 27302), (14, 27308), (15, 27311), (18, 27353), (19, 27368), (22, 27443), (26, 27482), (30, 27518), (35, 27590), (39, 27632), (43, 27662), (46, 27737),

Gene: OverPar_29 Start: 27314, Stop: 27784, Start Num: 12
Candidate Starts for OverPar_29:
(1, 27101), (2, 27167), (4, 27197), (5, 27221), (Start: 9 @27311 has 19 MA's), (Start: 12 @27314 has 12 MA's), (13, 27332), (14, 27338), (15, 27341), (18, 27383), (19, 27398), (22, 27473), (26, 27512), (30, 27548), (35, 27620), (43, 27692), (46, 27767),

Gene: Quby_27 Start: 26287, Stop: 26739, Start Num: 9
Candidate Starts for Quby_27:
(Start: 9 @26287 has 19 MA's), (Start: 12 @26290 has 12 MA's), (13, 26308), (14, 26314), (16, 26347), (18, 26359), (24, 26455), (26, 26488), (27, 26497), (34, 26593), (42, 26647), (44, 26671),

Gene: Rossetti_29 Start: 27557, Stop: 28024, Start Num: 10
Candidate Starts for Rossetti_29:
(8, 27548), (Start: 10 @27557 has 4 MA's), (Start: 12 @27560 has 12 MA's), (13, 27578), (14, 27584), (15, 27587), (18, 27629), (19, 27644), (26, 27758), (30, 27794), (32, 27818), (34, 27863), (35, 27866), (39, 27908), (43, 27938), (46, 28007),

Gene: Rumpelstiltskin_29 Start: 27553, Stop: 28020, Start Num: 10
Candidate Starts for Rumpelstiltskin_29:
(8, 27544), (Start: 10 @27553 has 4 MA's), (Start: 12 @27556 has 12 MA's), (13, 27574), (14, 27580), (15, 27583), (18, 27625), (19, 27640), (26, 27754), (30, 27790), (32, 27814), (34, 27859), (35, 27862), (39, 27904), (43, 27934), (46, 28003),

Gene: Sarshaun_29 Start: 27315, Stop: 27785, Start Num: 12
Candidate Starts for Sarshaun_29:
(1, 27102), (2, 27168), (5, 27222), (Start: 9 @27312 has 19 MA's), (Start: 12 @27315 has 12 MA's), (13, 27333), (14, 27339), (15, 27342), (18, 27384), (19, 27399), (22, 27474), (26, 27513), (30, 27549), (35, 27621), (39, 27663), (43, 27693), (46, 27768),

Gene: SoJulia_30 Start: 27546, Stop: 28013, Start Num: 10

Candidate Starts for SoJulia_30:
(8, 27537), (Start: 10 @27546 has 4 MA's), (Start: 12 @27549 has 12 MA's), (13, 27567), (14, 27573), (15, 27576), (18, 27618), (19, 27633), (26, 27747), (30, 27783), (32, 27807), (34, 27852), (35, 27855), (39, 27897), (43, 27927), (46, 27996),

Gene: Soap141_29 Start: 27312, Stop: 27785, Start Num: 9
Candidate Starts for Soap141_29:
(1, 27102), (2, 27168), (5, 27222), (Start: 9 @27312 has 19 MA's), (Start: 12 @27315 has 12 MA's), (13, 27333), (14, 27339), (15, 27342), (18, 27384), (19, 27399), (22, 27474), (26, 27513), (30, 27549), (35, 27621), (39, 27663), (43, 27693), (46, 27768),

Gene: Tourach_29 Start: 27276, Stop: 27743, Start Num: 9
Candidate Starts for Tourach_29:
(2, 27132), (5, 27186), (Start: 9 @27276 has 19 MA's), (Start: 12 @27279 has 12 MA's), (13, 27297), (14, 27303), (15, 27306), (18, 27348), (19, 27363), (22, 27438), (26, 27477), (28, 27489), (30, 27513), (31, 27522), (32, 27537), (35, 27585), (39, 27627), (43, 27657), (46, 27726),

Gene: Underpass_29 Start: 27281, Stop: 27754, Start Num: 9
Candidate Starts for Underpass_29:
(1, 27071), (2, 27137), (5, 27191), (Start: 9 @27281 has 19 MA's), (Start: 12 @27284 has 12 MA's), (13, 27302), (14, 27308), (15, 27311), (18, 27353), (19, 27368), (22, 27443), (26, 27482), (30, 27518), (35, 27590), (39, 27632), (43, 27662), (46, 27737),

Gene: Vetrix_29 Start: 27285, Stop: 27758, Start Num: 9
Candidate Starts for Vetrix_29:
(1, 27075), (2, 27141), (5, 27195), (Start: 9 @27285 has 19 MA's), (Start: 12 @27288 has 12 MA's), (13, 27306), (14, 27312), (15, 27315), (18, 27357), (22, 27447), (26, 27486), (30, 27522), (35, 27594), (39, 27636), (43, 27666), (46, 27741),

Gene: Wigglewiggle_29 Start: 27314, Stop: 27784, Start Num: 12
Candidate Starts for Wigglewiggle_29:
(1, 27101), (2, 27167), (5, 27221), (Start: 9 @27311 has 19 MA's), (Start: 12 @27314 has 12 MA's), (13, 27332), (14, 27338), (15, 27341), (18, 27383), (19, 27398), (22, 27473), (26, 27512), (30, 27548), (35, 27620), (39, 27662), (43, 27692), (46, 27767),

Gene: Wilder_29 Start: 27284, Stop: 27757, Start Num: 9
Candidate Starts for Wilder_29:
(1, 27074), (2, 27140), (5, 27194), (Start: 9 @27284 has 19 MA's), (Start: 12 @27287 has 12 MA's), (13, 27305), (14, 27311), (15, 27314), (18, 27356), (19, 27371), (22, 27446), (26, 27485), (30, 27521), (35, 27593), (39, 27635), (43, 27665), (46, 27740),

Gene: Winky_29 Start: 27279, Stop: 27752, Start Num: 9
Candidate Starts for Winky_29:
(1, 27069), (2, 27135), (5, 27189), (Start: 9 @27279 has 19 MA's), (Start: 12 @27282 has 12 MA's), (13, 27300), (14, 27306), (15, 27309), (18, 27351), (19, 27366), (22, 27441), (30, 27516), (31, 27525), (34, 27585), (35, 27588), (39, 27630), (46, 27735),

Gene: Zakai_29 Start: 27541, Stop: 28008, Start Num: 10
Candidate Starts for Zakai_29:
(8, 27532), (Start: 10 @27541 has 4 MA's), (Start: 12 @27544 has 12 MA's), (13, 27562), (14, 27568), (15, 27571), (18, 27613), (19, 27628), (22, 27703), (26, 27742), (30, 27778), (32, 27802), (35, 27850), (39, 27892), (43, 27922), (46, 27991),

Gene: ZhongYanYuan_28 Start: 27103, Stop: 27573, Start Num: 12
Candidate Starts for ZhongYanYuan_28:
(1, 26890), (5, 27010), (Start: 9 @27100 has 19 MA's), (Start: 12 @27103 has 12 MA's), (13, 27121), (14, 27127), (15, 27130), (17, 27163), (18, 27172), (19, 27187), (22, 27262), (30, 27337), (31, 27346), (34, 27406), (35, 27409), (39, 27451), (46, 27556),