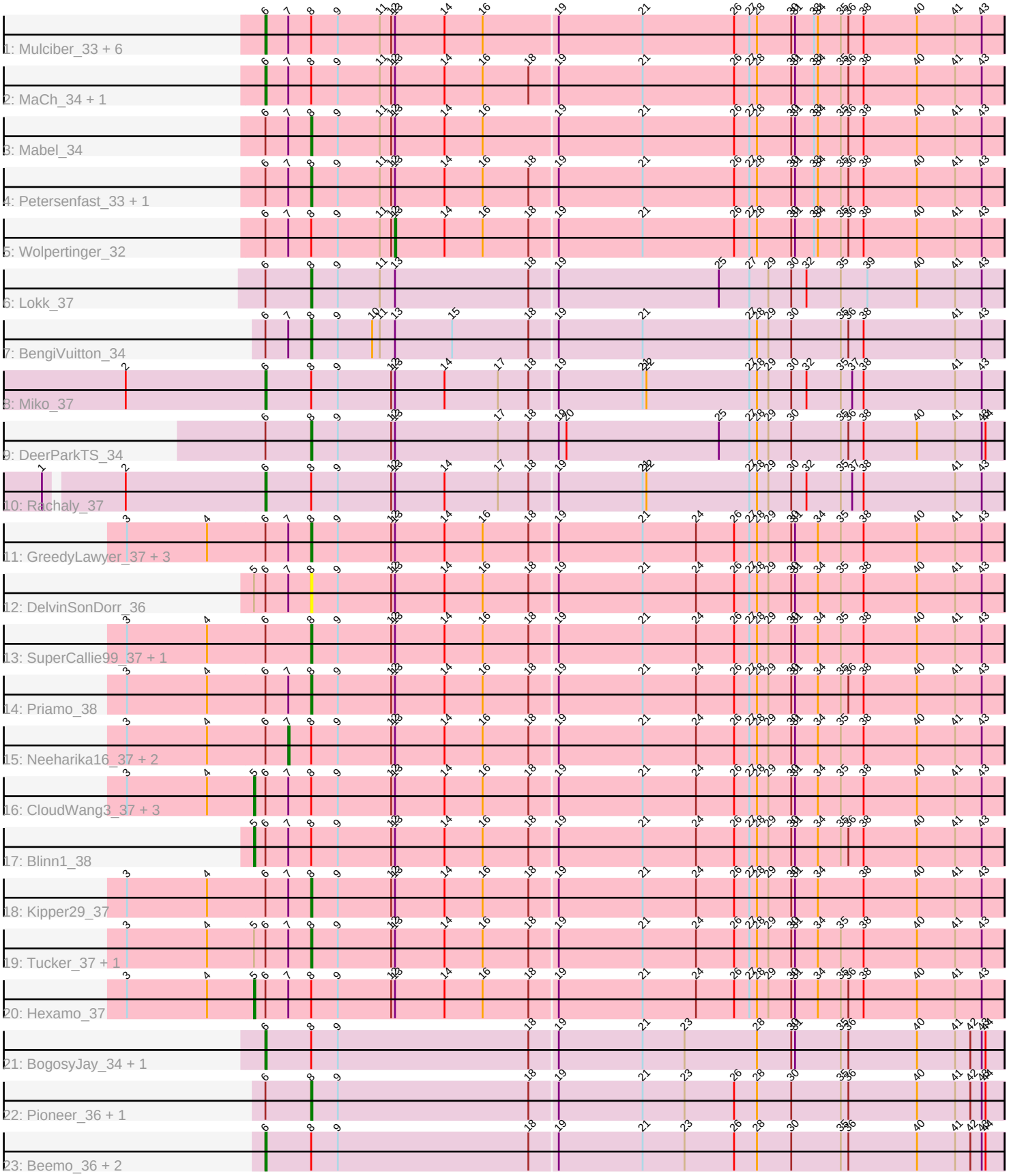
Pham 347763


1: Mulciber_33 + 6
2: MaCh_34 + 1
3: Mabel_34
4: Petersenfast_33 + 1
5: Wolpertinger_32
6: Lokk_37
7: BengiVuitton_34
8: Miko_37
9: DeerParkTS_34
10: Rachaly_37
11: GreedyLawyer_37 + 3
12: DelvinSonDorr_36
13: SuperCallie99_37 + 1
14: Priamo_38
15: Neeharika16_37 + 2
16: CloudWang3_37 + 3
17: Blinn1_38
18: Kipper29_37
19: Tucker_37 + 1
20: Hexamo_37
21: BogosyJay_34 + 1
22: Pioneer_36 + 1
23: Beemo_36 + 2

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 347763 Report

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

Pham number 347763 has 45 members, 2 are drafts.

Phages represented in each track:
• Track 1 : Mulciber_33, Joselito_34, Timothy_34, Salz_34, Orange_33, Ebony_34, Snape_33
• Track 2 : MaCh_34, Gilberta_34
• Track 3 : Mabel_34
• Track 4 : Petersenfast_33, Bachome_35
• Track 5 : Wolpertinger_32
• Track 6 : Lokk_37
• Track 7 : BengiVuitton_34
• Track 8 : Miko_37
• Track 9 : DeerParkTS_34
• Track 10 : Rachaly_37
• Track 11 : GreedyLawyer_37, Garak_38, BlessJoy_37, ToneTone_34
• Track 12 : DelvinSonDorr_36
• Track 13 : SuperCallie99_37, Gruunaga_37
• Track 14 : Priamo_38
• Track 15 : Neeharika16_37, DaVinci_37, SmellyB_37
• Track 16 : CloudWang3_37, Artemis2UCLA_37, Zaka_37, Yokurt_37
• Track 17 : Blinn1_38
• Track 18 : Kipper29_37
• Track 19 : Tucker_37, Wiks_36
• Track 20 : Hexamo_37
• Track 21 : BogosyJay_34, Maminiaina_34
• Track 22 : Pioneer_36, ExplosioNervosa_36
• Track 23 : Beemo_36, Phonnegut_36, Ayanochan_35

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 17 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bachome_35, BengiVuitton_34, BlessJoy_37, DeerParkTS_34, DelvinSonDorr_36, ExplosioNervosa_36, Garak_38, GreedyLawyer_37, Gruunaga_37, Kipper29_37, Lokk_37, Mabel_34, Petersenfast_33, Pioneer_36, Priamo_38, SuperCallie99_37,

ToneTone_34, Tucker_37, Wiks_36,

Genes that have the "Most Annotated" start but do not call it:
• Artemis2UCLA_37, Ayanochan_35, Beemo_36, Blinn1_38, BogosyJay_34, CloudWang3_37, DaVinci_37, Ebony_34, Gilberta_34, Hexamo_37, Joselito_34, MaCh_34, Maminiaina_34, Miko_37, Mulciber_33, Neeharika16_37, Orange_33, Phonnegut_36, Rachaly_37, Salz_34, SmellyB_37, Snape_33, Timothy_34, Wolpertinger_32, Yokurt_37, Zaka_37,

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

Summary by start number:

Start 5:
• Found in 9 of 45 (20.0%) of genes in pham
• Manual Annotations of this start: 6 of 43
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Artemis2UCLA_37 (A6), Blinn1_38 (A6), CloudWang3_37 (A6), Hexamo_37 (A6), Yokurt_37 (A6), Zaka_37 (A6),

Start 6:
• Found in 45 of 45 (100.0%) of genes in pham
• Manual Annotations of this start: 16 of 43
• Called 35.6% of time when present
• Phage (with cluster) where this start called: Ayanochan_35 (A9), Beemo_36 (A9), BogosyJay_34 (A9), Ebony_34 (A11), Gilberta_34 (A11), Joselito_34 (A11), MaCh_34 (A11), Maminiaina_34 (A9), Miko_37 (A2), Mulciber_33 (A11), Orange_33 (A11), Phonnegut_36 (A9), Rachaly_37 (A2), Salz_34 (A11), Snape_33 (A11), Timothy_34 (A11),

Start 7:
• Found in 32 of 45 (71.1%) of genes in pham
• Manual Annotations of this start: 3 of 43
• Called 9.4% of time when present
• Phage (with cluster) where this start called: DaVinci_37 (A6), Neeharika16_37 (A6), SmellyB_37 (A6),

Start 8:
• Found in 45 of 45 (100.0%) of genes in pham
• Manual Annotations of this start: 17 of 43
• Called 42.2% of time when present
• Phage (with cluster) where this start called: Bachome_35 (A11), BengiVuitton_34 (A2), BlessJoy_37 (A6), DeerParkTS_34 (A2), DelvinSonDorr_36 (A6), ExplosioNervosa_36 (A9), Garak_38 (A6), GreedyLawyer_37 (A6), Gruunaga_37 (A6), Kipper29_37 (A6), Lokk_37 (A2), Mabel_34 (A11), Petersenfast_33 (A11), Pioneer_36 (A9), Priamo_38 (A6), SuperCallie99_37 (A6), ToneTone_34 (A6), Tucker_37 (A6), Wiks_36 (A6),

Start 13:
• Found in 38 of 45 (84.4%) of genes in pham
• Manual Annotations of this start: 1 of 43
• Called 2.6% of time when present

• Phage (with cluster) where this start called: Wolpertinger_32 (A11),

Summary by clusters:

There are 4 clusters represented in this pham: A9, A2, A11, A6,

Info for manual annotations of cluster A11:
•Start number 6 was manually annotated 9 times for cluster A11.
•Start number 8 was manually annotated 3 times for cluster A11.
•Start number 13 was manually annotated 1 time for cluster A11.

Info for manual annotations of cluster A2:
•Start number 6 was manually annotated 2 times for cluster A2.
•Start number 8 was manually annotated 3 times for cluster A2.

Info for manual annotations of cluster A6:
•Start number 5 was manually annotated 6 times for cluster A6.
•Start number 7 was manually annotated 3 times for cluster A6.
•Start number 8 was manually annotated 9 times for cluster A6.

Info for manual annotations of cluster A9:
•Start number 6 was manually annotated 5 times for cluster A9.
•Start number 8 was manually annotated 2 times for cluster A9.

Gene Information:

Gene: Artemis2UCLA_37 Start: 24740, Stop: 25327, Start Num: 5
Candidate Starts for Artemis2UCLA_37:
(3, 24641), (4, 24704), (Start: 5 @24740 has 6 MA's), (Start: 6 @24749 has 16 MA's), (Start: 7 @24767 has 3 MA's), (Start: 8 @24785 has 17 MA's), (9, 24806), (12, 24848), (Start: 13 @24851 has 1 MA's), (14, 24890), (16, 24920), (18, 24956), (19, 24977), (21, 25043), (24, 25085), (26, 25115), (27, 25127), (28, 25133), (29, 25142), (30, 25160), (31, 25163), (34, 25181), (35, 25199), (38, 25217), (40, 25259), (41, 25289), (43, 25310),

Gene: Ayanochan_35 Start: 27040, Stop: 27618, Start Num: 6
Candidate Starts for Ayanochan_35:
(Start: 6 @27040 has 16 MA's), (Start: 8 @27076 has 17 MA's), (9, 27097), (18, 27247), (19, 27268), (21, 27334), (23, 27367), (26, 27406), (28, 27424), (30, 27451), (35, 27490), (36, 27496), (40, 27550), (41, 27580), (42, 27592), (43, 27601), (44, 27604),

Gene: Bachome_35 Start: 26144, Stop: 26686, Start Num: 8
Candidate Starts for Bachome_35:
(Start: 6 @26108 has 16 MA's), (Start: 7 @26126 has 3 MA's), (Start: 8 @26144 has 17 MA's), (9, 26165), (11, 26198), (12, 26207), (Start: 13 @26210 has 1 MA's), (14, 26249), (16, 26279), (18, 26315), (19, 26336), (21, 26402), (26, 26474), (27, 26486), (28, 26492), (30, 26519), (31, 26522), (33, 26537), (34, 26540), (35, 26558), (36, 26564), (38, 26576), (40, 26618), (41, 26648), (43, 26669),

Gene: Beemo_36 Start: 27041, Stop: 27619, Start Num: 6
Candidate Starts for Beemo_36:
(Start: 6 @27041 has 16 MA's), (Start: 8 @27077 has 17 MA's), (9, 27098), (18, 27248), (19, 27269), (21, 27335), (23, 27368), (26, 27407), (28, 27425), (30, 27452), (35, 27491), (36, 27497), (40, 27551),

(41, 27581), (42, 27593), (43, 27602), (44, 27605),

Gene: BengiVuitton_34 Start: 26453, Stop: 26995, Start Num: 8
Candidate Starts for BengiVuitton_34:
(Start: 6 @26417 has 16 MA's), (Start: 7 @26435 has 3 MA's), (Start: 8 @26453 has 17 MA's), (9, 26474), (10, 26501), (11, 26507), (Start: 13 @26519 has 1 MA's), (15, 26564), (18, 26624), (19, 26645), (21, 26711), (27, 26795), (28, 26801), (29, 26810), (30, 26828), (35, 26867), (36, 26873), (38, 26885), (41, 26957), (43, 26978),

Gene: BlessJoy_37 Start: 25105, Stop: 25647, Start Num: 8
Candidate Starts for BlessJoy_37:
(3, 24961), (4, 25024), (Start: 6 @25069 has 16 MA's), (Start: 7 @25087 has 3 MA's), (Start: 8 @25105 has 17 MA's), (9, 25126), (12, 25168), (Start: 13 @25171 has 1 MA's), (14, 25210), (16, 25240), (18, 25276), (19, 25297), (21, 25363), (24, 25405), (26, 25435), (27, 25447), (28, 25453), (29, 25462), (30, 25480), (31, 25483), (34, 25501), (35, 25519), (38, 25537), (40, 25579), (41, 25609), (43, 25630),

Gene: Blinn1_38 Start: 25132, Stop: 25719, Start Num: 5
Candidate Starts for Blinn1_38:
(Start: 5 @25132 has 6 MA's), (Start: 6 @25141 has 16 MA's), (Start: 7 @25159 has 3 MA's), (Start: 8 @25177 has 17 MA's), (9, 25198), (12, 25240), (Start: 13 @25243 has 1 MA's), (14, 25282), (16, 25312), (18, 25348), (19, 25369), (21, 25435), (24, 25477), (26, 25507), (27, 25519), (28, 25525), (29, 25534), (30, 25552), (31, 25555), (34, 25573), (35, 25591), (36, 25597), (38, 25609), (40, 25651), (41, 25681), (43, 25702),

Gene: BogosyJay_34 Start: 26586, Stop: 27164, Start Num: 6
Candidate Starts for BogosyJay_34:
(Start: 6 @26586 has 16 MA's), (Start: 8 @26622 has 17 MA's), (9, 26643), (18, 26793), (19, 26814), (21, 26880), (23, 26913), (28, 26970), (30, 26997), (31, 27000), (35, 27036), (36, 27042), (40, 27096), (41, 27126), (42, 27138), (43, 27147), (44, 27150),

Gene: CloudWang3_37 Start: 24840, Stop: 25427, Start Num: 5
Candidate Starts for CloudWang3_37:
(3, 24741), (4, 24804), (Start: 5 @24840 has 6 MA's), (Start: 6 @24849 has 16 MA's), (Start: 7 @24867 has 3 MA's), (Start: 8 @24885 has 17 MA's), (9, 24906), (12, 24948), (Start: 13 @24951 has 1 MA's), (14, 24990), (16, 25020), (18, 25056), (19, 25077), (21, 25143), (24, 25185), (26, 25215), (27, 25227), (28, 25233), (29, 25242), (30, 25260), (31, 25263), (34, 25281), (35, 25299), (38, 25317), (40, 25359), (41, 25389), (43, 25410),

Gene: DaVinci_37 Start: 25093, Stop: 25653, Start Num: 7
Candidate Starts for DaVinci_37:
(3, 24967), (4, 25030), (Start: 6 @25075 has 16 MA's), (Start: 7 @25093 has 3 MA's), (Start: 8 @25111 has 17 MA's), (9, 25132), (12, 25174), (Start: 13 @25177 has 1 MA's), (14, 25216), (16, 25246), (18, 25282), (19, 25303), (21, 25369), (24, 25411), (26, 25441), (27, 25453), (28, 25459), (29, 25468), (30, 25486), (31, 25489), (34, 25507), (35, 25525), (38, 25543), (40, 25585), (41, 25615), (43, 25636),

Gene: DeerParkTS_34 Start: 26427, Stop: 26972, Start Num: 8
Candidate Starts for DeerParkTS_34:
(Start: 6 @26391 has 16 MA's), (Start: 8 @26427 has 17 MA's), (9, 26448), (12, 26490), (Start: 13 @26493 has 1 MA's), (17, 26574), (18, 26598), (19, 26622), (20, 26628), (25, 26748), (27, 26772), (28, 26778), (29, 26787), (30, 26805), (35, 26844), (36, 26850), (38, 26862), (40, 26904), (41, 26934), (43, 26955), (44, 26958),

Gene: DelvinSonDorr_36 Start: 25104, Stop: 25646, Start Num: 8

Candidate Starts for DelvinSonDorr_36:
(Start: 5 @25059 has 6 MA's), (Start: 6 @25068 has 16 MA's), (Start: 7 @25086 has 3 MA's), (Start: 8 @25104 has 17 MA's), (9, 25125), (12, 25167), (Start: 13 @25170 has 1 MA's), (14, 25209), (16, 25239), (18, 25275), (19, 25296), (21, 25362), (24, 25404), (26, 25434), (27, 25446), (28, 25452), (29, 25461), (30, 25479), (31, 25482), (34, 25500), (35, 25518), (38, 25536), (40, 25578), (41, 25608), (43, 25629),

Gene: Ebony_34 Start: 26075, Stop: 26653, Start Num: 6
Candidate Starts for Ebony_34:
(Start: 6 @26075 has 16 MA's), (Start: 7 @26093 has 3 MA's), (Start: 8 @26111 has 17 MA's), (9, 26132), (11, 26165), (12, 26174), (Start: 13 @26177 has 1 MA's), (14, 26216), (16, 26246), (19, 26303), (21, 26369), (26, 26441), (27, 26453), (28, 26459), (30, 26486), (31, 26489), (33, 26504), (34, 26507), (35, 26525), (36, 26531), (38, 26543), (40, 26585), (41, 26615), (43, 26636),

Gene: ExplosioNervosa_36 Start: 27111, Stop: 27653, Start Num: 8
Candidate Starts for ExplosioNervosa_36:
(Start: 6 @27075 has 16 MA's), (Start: 8 @27111 has 17 MA's), (9, 27132), (18, 27282), (19, 27303), (21, 27369), (23, 27402), (26, 27441), (28, 27459), (30, 27486), (35, 27525), (36, 27531), (40, 27585), (41, 27615), (42, 27627), (43, 27636), (44, 27639),

Gene: Garak_38 Start: 25111, Stop: 25653, Start Num: 8
Candidate Starts for Garak_38:
(3, 24967), (4, 25030), (Start: 6 @25075 has 16 MA's), (Start: 7 @25093 has 3 MA's), (Start: 8 @25111 has 17 MA's), (9, 25132), (12, 25174), (Start: 13 @25177 has 1 MA's), (14, 25216), (16, 25246), (18, 25282), (19, 25303), (21, 25369), (24, 25411), (26, 25441), (27, 25453), (28, 25459), (29, 25468), (30, 25486), (31, 25489), (34, 25507), (35, 25525), (38, 25543), (40, 25585), (41, 25615), (43, 25636),

Gene: Gilberta_34 Start: 26111, Stop: 26689, Start Num: 6
Candidate Starts for Gilberta_34:
(Start: 6 @26111 has 16 MA's), (Start: 7 @26129 has 3 MA's), (Start: 8 @26147 has 17 MA's), (9, 26168), (11, 26201), (12, 26210), (Start: 13 @26213 has 1 MA's), (14, 26252), (16, 26282), (18, 26318), (19, 26339), (21, 26405), (26, 26477), (27, 26489), (28, 26495), (30, 26522), (31, 26525), (33, 26540), (34, 26543), (35, 26561), (36, 26567), (38, 26579), (40, 26621), (41, 26651), (43, 26672),

Gene: GreedyLawyer_37 Start: 25110, Stop: 25652, Start Num: 8
Candidate Starts for GreedyLawyer_37:
(3, 24966), (4, 25029), (Start: 6 @25074 has 16 MA's), (Start: 7 @25092 has 3 MA's), (Start: 8 @25110 has 17 MA's), (9, 25131), (12, 25173), (Start: 13 @25176 has 1 MA's), (14, 25215), (16, 25245), (18, 25281), (19, 25302), (21, 25368), (24, 25410), (26, 25440), (27, 25452), (28, 25458), (29, 25467), (30, 25485), (31, 25488), (34, 25506), (35, 25524), (38, 25542), (40, 25584), (41, 25614), (43, 25635),

Gene: Gruunaga_37 Start: 25099, Stop: 25641, Start Num: 8
Candidate Starts for Gruunaga_37:
(3, 24955), (4, 25018), (Start: 6 @25063 has 16 MA's), (Start: 8 @25099 has 17 MA's), (9, 25120), (12, 25162), (Start: 13 @25165 has 1 MA's), (14, 25204), (16, 25234), (18, 25270), (19, 25291), (21, 25357), (24, 25399), (26, 25429), (27, 25441), (28, 25447), (29, 25456), (30, 25474), (31, 25477), (34, 25495), (35, 25513), (38, 25531), (40, 25573), (41, 25603), (43, 25624),

Gene: Hexamo_37 Start: 24812, Stop: 25399, Start Num: 5
Candidate Starts for Hexamo_37:
(3, 24713), (4, 24776), (Start: 5 @24812 has 6 MA's), (Start: 6 @24821 has 16 MA's), (Start: 7 @24839 has 3 MA's), (Start: 8 @24857 has 17 MA's), (9, 24878), (12, 24920), (Start: 13 @24923 has 1 MA's), (14, 24962), (16, 24992), (18, 25028), (19, 25049), (21, 25115), (24, 25157), (26, 25187), (27, 25199),

(28, 25205), (29, 25214), (30, 25232), (31, 25235), (34, 25253), (35, 25271), (36, 25277), (38, 25289), (40, 25331), (41, 25361), (43, 25382),

Gene: Joselito_34 Start: 26120, Stop: 26698, Start Num: 6
Candidate Starts for Joselito_34:
(Start: 6 @26120 has 16 MA's), (Start: 7 @26138 has 3 MA's), (Start: 8 @26156 has 17 MA's), (9, 26177), (11, 26210), (12, 26219), (Start: 13 @26222 has 1 MA's), (14, 26261), (16, 26291), (19, 26348), (21, 26414), (26, 26486), (27, 26498), (28, 26504), (30, 26531), (31, 26534), (33, 26549), (34, 26552), (35, 26570), (36, 26576), (38, 26588), (40, 26630), (41, 26660), (43, 26681),

Gene: Kipper29_37 Start: 25110, Stop: 25652, Start Num: 8
Candidate Starts for Kipper29_37:
(3, 24966), (4, 25029), (Start: 6 @25074 has 16 MA's), (Start: 7 @25092 has 3 MA's), (Start: 8 @25110 has 17 MA's), (9, 25131), (12, 25173), (Start: 13 @25176 has 1 MA's), (14, 25215), (16, 25245), (18, 25281), (19, 25302), (21, 25368), (24, 25410), (26, 25440), (27, 25452), (28, 25458), (29, 25467), (30, 25485), (31, 25488), (34, 25506), (38, 25542), (40, 25584), (41, 25614), (43, 25635),

Gene: Lokk_37 Start: 27588, Stop: 28130, Start Num: 8
Candidate Starts for Lokk_37:
(Start: 6 @27552 has 16 MA's), (Start: 8 @27588 has 17 MA's), (9, 27609), (11, 27642), (Start: 13 @27654 has 1 MA's), (18, 27759), (19, 27780), (25, 27906), (27, 27930), (29, 27945), (30, 27963), (32, 27975), (35, 28002), (39, 28023), (40, 28062), (41, 28092), (43, 28113),

Gene: MaCh_34 Start: 26108, Stop: 26686, Start Num: 6
Candidate Starts for MaCh_34:
(Start: 6 @26108 has 16 MA's), (Start: 7 @26126 has 3 MA's), (Start: 8 @26144 has 17 MA's), (9, 26165), (11, 26198), (12, 26207), (Start: 13 @26210 has 1 MA's), (14, 26249), (16, 26279), (18, 26315), (19, 26336), (21, 26402), (26, 26474), (27, 26486), (28, 26492), (30, 26519), (31, 26522), (33, 26537), (34, 26540), (35, 26558), (36, 26564), (38, 26576), (40, 26618), (41, 26648), (43, 26669),

Gene: Mabel_34 Start: 26118, Stop: 26660, Start Num: 8
Candidate Starts for Mabel_34:
(Start: 6 @26082 has 16 MA's), (Start: 7 @26100 has 3 MA's), (Start: 8 @26118 has 17 MA's), (9, 26139), (11, 26172), (12, 26181), (Start: 13 @26184 has 1 MA's), (14, 26223), (16, 26253), (19, 26310), (21, 26376), (26, 26448), (27, 26460), (28, 26466), (30, 26493), (31, 26496), (33, 26511), (34, 26514), (35, 26532), (36, 26538), (38, 26550), (40, 26592), (41, 26622), (43, 26643),

Gene: Maminiaina_34 Start: 26568, Stop: 27146, Start Num: 6
Candidate Starts for Maminiaina_34:
(Start: 6 @26568 has 16 MA's), (Start: 8 @26604 has 17 MA's), (9, 26625), (18, 26775), (19, 26796), (21, 26862), (23, 26895), (28, 26952), (30, 26979), (31, 26982), (35, 27018), (36, 27024), (40, 27078), (41, 27108), (42, 27120), (43, 27129), (44, 27132),

Gene: Miko_37 Start: 27726, Stop: 28304, Start Num: 6
Candidate Starts for Miko_37:
(2, 27618), (Start: 6 @27726 has 16 MA's), (Start: 8 @27762 has 17 MA's), (9, 27783), (12, 27825), (Start: 13 @27828 has 1 MA's), (14, 27867), (17, 27909), (18, 27933), (19, 27954), (21, 28020), (22, 28023), (27, 28104), (28, 28110), (29, 28119), (30, 28137), (32, 28149), (35, 28176), (37, 28185), (38, 28194), (41, 28266), (43, 28287),

Gene: Mulciber_33 Start: 25663, Stop: 26241, Start Num: 6
Candidate Starts for Mulciber_33:

(Start: 6 @25663 has 16 MA's), (Start: 7 @25681 has 3 MA's), (Start: 8 @25699 has 17 MA's), (9, 25720), (11, 25753), (12, 25762), (Start: 13 @25765 has 1 MA's), (14, 25804), (16, 25834), (19, 25891), (21, 25957), (26, 26029), (27, 26041), (28, 26047), (30, 26074), (31, 26077), (33, 26092), (34, 26095), (35, 26113), (36, 26119), (38, 26131), (40, 26173), (41, 26203), (43, 26224),

Gene: Neeharika16_37 Start: 25085, Stop: 25645, Start Num: 7
Candidate Starts for Neeharika16_37:
(3, 24959), (4, 25022), (Start: 6 @25067 has 16 MA's), (Start: 7 @25085 has 3 MA's), (Start: 8 @25103 has 17 MA's), (9, 25124), (12, 25166), (Start: 13 @25169 has 1 MA's), (14, 25208), (16, 25238), (18, 25274), (19, 25295), (21, 25361), (24, 25403), (26, 25433), (27, 25445), (28, 25451), (29, 25460), (30, 25478), (31, 25481), (34, 25499), (35, 25517), (38, 25535), (40, 25577), (41, 25607), (43, 25628),

Gene: Orange_33 Start: 25669, Stop: 26247, Start Num: 6
Candidate Starts for Orange_33:
(Start: 6 @25669 has 16 MA's), (Start: 7 @25687 has 3 MA's), (Start: 8 @25705 has 17 MA's), (9, 25726), (11, 25759), (12, 25768), (Start: 13 @25771 has 1 MA's), (14, 25810), (16, 25840), (19, 25897), (21, 25963), (26, 26035), (27, 26047), (28, 26053), (30, 26080), (31, 26083), (33, 26098), (34, 26101), (35, 26119), (36, 26125), (38, 26137), (40, 26179), (41, 26209), (43, 26230),

Gene: Petersenfast_33 Start: 25704, Stop: 26246, Start Num: 8
Candidate Starts for Petersenfast_33:
(Start: 6 @25668 has 16 MA's), (Start: 7 @25686 has 3 MA's), (Start: 8 @25704 has 17 MA's), (9, 25725), (11, 25758), (12, 25767), (Start: 13 @25770 has 1 MA's), (14, 25809), (16, 25839), (18, 25875), (19, 25896), (21, 25962), (26, 26034), (27, 26046), (28, 26052), (30, 26079), (31, 26082), (33, 26097), (34, 26100), (35, 26118), (36, 26124), (38, 26136), (40, 26178), (41, 26208), (43, 26229),

Gene: Phonnegut_36 Start: 27040, Stop: 27618, Start Num: 6
Candidate Starts for Phonnegut_36:
(Start: 6 @27040 has 16 MA's), (Start: 8 @27076 has 17 MA's), (9, 27097), (18, 27247), (19, 27268), (21, 27334), (23, 27367), (26, 27406), (28, 27424), (30, 27451), (35, 27490), (36, 27496), (40, 27550), (41, 27580), (42, 27592), (43, 27601), (44, 27604),

Gene: Pioneer_36 Start: 27076, Stop: 27618, Start Num: 8
Candidate Starts for Pioneer_36:
(Start: 6 @27040 has 16 MA's), (Start: 8 @27076 has 17 MA's), (9, 27097), (18, 27247), (19, 27268), (21, 27334), (23, 27367), (26, 27406), (28, 27424), (30, 27451), (35, 27490), (36, 27496), (40, 27550), (41, 27580), (42, 27592), (43, 27601), (44, 27604),

Gene: Priamo_38 Start: 25149, Stop: 25691, Start Num: 8
Candidate Starts for Priamo_38:
(3, 25005), (4, 25068), (Start: 6 @25113 has 16 MA's), (Start: 7 @25131 has 3 MA's), (Start: 8 @25149 has 17 MA's), (9, 25170), (12, 25212), (Start: 13 @25215 has 1 MA's), (14, 25254), (16, 25284), (18, 25320), (19, 25341), (21, 25407), (24, 25449), (26, 25479), (27, 25491), (28, 25497), (29, 25506), (30, 25524), (31, 25527), (34, 25545), (35, 25563), (36, 25569), (38, 25581), (40, 25623), (41, 25653), (43, 25674),

Gene: Rachaly_37 Start: 27592, Stop: 28170, Start Num: 6
Candidate Starts for Rachaly_37:
(1, 27427), (2, 27484), (Start: 6 @27592 has 16 MA's), (Start: 8 @27628 has 17 MA's), (9, 27649), (12, 27691), (Start: 13 @27694 has 1 MA's), (14, 27733), (17, 27775), (18, 27799), (19, 27820), (21, 27886), (22, 27889), (27, 27970), (28, 27976), (29, 27985), (30, 28003), (32, 28015), (35, 28042), (37, 28051), (38, 28060), (41, 28132), (43, 28153),

Gene: Salz_34 Start: 26023, Stop: 26601, Start Num: 6
Candidate Starts for Salz_34:
(Start: 6 @26023 has 16 MA's), (Start: 7 @26041 has 3 MA's), (Start: 8 @26059 has 17 MA's), (9, 26080), (11, 26113), (12, 26122), (Start: 13 @26125 has 1 MA's), (14, 26164), (16, 26194), (19, 26251), (21, 26317), (26, 26389), (27, 26401), (28, 26407), (30, 26434), (31, 26437), (33, 26452), (34, 26455), (35, 26473), (36, 26479), (38, 26491), (40, 26533), (41, 26563), (43, 26584),

Gene: SmellyB_37 Start: 25092, Stop: 25652, Start Num: 7
Candidate Starts for SmellyB_37:
(3, 24966), (4, 25029), (Start: 6 @25074 has 16 MA's), (Start: 7 @25092 has 3 MA's), (Start: 8 @25110 has 17 MA's), (9, 25131), (12, 25173), (Start: 13 @25176 has 1 MA's), (14, 25215), (16, 25245), (18, 25281), (19, 25302), (21, 25368), (24, 25410), (26, 25440), (27, 25452), (28, 25458), (29, 25467), (30, 25485), (31, 25488), (34, 25506), (35, 25524), (38, 25542), (40, 25584), (41, 25614), (43, 25635),

Gene: Snape_33 Start: 25666, Stop: 26244, Start Num: 6
Candidate Starts for Snape_33:
(Start: 6 @25666 has 16 MA's), (Start: 7 @25684 has 3 MA's), (Start: 8 @25702 has 17 MA's), (9, 25723), (11, 25756), (12, 25765), (Start: 13 @25768 has 1 MA's), (14, 25807), (16, 25837), (19, 25894), (21, 25960), (26, 26032), (27, 26044), (28, 26050), (30, 26077), (31, 26080), (33, 26095), (34, 26098), (35, 26116), (36, 26122), (38, 26134), (40, 26176), (41, 26206), (43, 26227),

Gene: SuperCallie99_37 Start: 25102, Stop: 25644, Start Num: 8
Candidate Starts for SuperCallie99_37:
(3, 24958), (4, 25021), (Start: 6 @25066 has 16 MA's), (Start: 8 @25102 has 17 MA's), (9, 25123), (12, 25165), (Start: 13 @25168 has 1 MA's), (14, 25207), (16, 25237), (18, 25273), (19, 25294), (21, 25360), (24, 25402), (26, 25432), (27, 25444), (28, 25450), (29, 25459), (30, 25477), (31, 25480), (34, 25498), (35, 25516), (38, 25534), (40, 25576), (41, 25606), (43, 25627),

Gene: Timothy_34 Start: 26026, Stop: 26604, Start Num: 6
Candidate Starts for Timothy_34:
(Start: 6 @26026 has 16 MA's), (Start: 7 @26044 has 3 MA's), (Start: 8 @26062 has 17 MA's), (9, 26083), (11, 26116), (12, 26125), (Start: 13 @26128 has 1 MA's), (14, 26167), (16, 26197), (19, 26254), (21, 26320), (26, 26392), (27, 26404), (28, 26410), (30, 26437), (31, 26440), (33, 26455), (34, 26458), (35, 26476), (36, 26482), (38, 26494), (40, 26536), (41, 26566), (43, 26587),

Gene: ToneTone_34 Start: 24815, Stop: 25357, Start Num: 8
Candidate Starts for ToneTone_34:
(3, 24671), (4, 24734), (Start: 6 @24779 has 16 MA's), (Start: 7 @24797 has 3 MA's), (Start: 8 @24815 has 17 MA's), (9, 24836), (12, 24878), (Start: 13 @24881 has 1 MA's), (14, 24920), (16, 24950), (18, 24986), (19, 25007), (21, 25073), (24, 25115), (26, 25145), (27, 25157), (28, 25163), (29, 25172), (30, 25190), (31, 25193), (34, 25211), (35, 25229), (38, 25247), (40, 25289), (41, 25319), (43, 25340),

Gene: Tucker_37 Start: 24901, Stop: 25443, Start Num: 8
Candidate Starts for Tucker_37:
(3, 24757), (4, 24820), (Start: 5 @24856 has 6 MA's), (Start: 6 @24865 has 16 MA's), (Start: 7 @24883 has 3 MA's), (Start: 8 @24901 has 17 MA's), (9, 24922), (12, 24964), (Start: 13 @24967 has 1 MA's), (14, 25006), (16, 25036), (18, 25072), (19, 25093), (21, 25159), (24, 25201), (26, 25231), (27, 25243), (28, 25249), (29, 25258), (30, 25276), (31, 25279), (34, 25297), (35, 25315), (38, 25333), (40, 25375), (41, 25405), (43, 25426),

Gene: Wiks_36 Start: 24883, Stop: 25425, Start Num: 8
Candidate Starts for Wiks_36:

(3, 24739), (4, 24802), (Start: 5 @24838 has 6 MA's), (Start: 6 @24847 has 16 MA's), (Start: 7 @24865 has 3 MA's), (Start: 8 @24883 has 17 MA's), (9, 24904), (12, 24946), (Start: 13 @24949 has 1 MA's), (14, 24988), (16, 25018), (18, 25054), (19, 25075), (21, 25141), (24, 25183), (26, 25213), (27, 25225), (28, 25231), (29, 25240), (30, 25258), (31, 25261), (34, 25279), (35, 25297), (38, 25315), (40, 25357), (41, 25387), (43, 25408),

Gene: Wolpertinger_32 Start: 25770, Stop: 26246, Start Num: 13
Candidate Starts for Wolpertinger_32:
(Start: 6 @25668 has 16 MA's), (Start: 7 @25686 has 3 MA's), (Start: 8 @25704 has 17 MA's), (9, 25725), (11, 25758), (12, 25767), (Start: 13 @25770 has 1 MA's), (14, 25809), (16, 25839), (18, 25875), (19, 25896), (21, 25962), (26, 26034), (27, 26046), (28, 26052), (30, 26079), (31, 26082), (33, 26097), (34, 26100), (35, 26118), (36, 26124), (38, 26136), (40, 26178), (41, 26208), (43, 26229),

Gene: Yokurt_37 Start: 24838, Stop: 25425, Start Num: 5
Candidate Starts for Yokurt_37:
(3, 24739), (4, 24802), (Start: 5 @24838 has 6 MA's), (Start: 6 @24847 has 16 MA's), (Start: 7 @24865 has 3 MA's), (Start: 8 @24883 has 17 MA's), (9, 24904), (12, 24946), (Start: 13 @24949 has 1 MA's), (14, 24988), (16, 25018), (18, 25054), (19, 25075), (21, 25141), (24, 25183), (26, 25213), (27, 25225), (28, 25231), (29, 25240), (30, 25258), (31, 25261), (34, 25279), (35, 25297), (38, 25315), (40, 25357), (41, 25387), (43, 25408),

Gene: Zaka_37 Start: 24838, Stop: 25425, Start Num: 5
Candidate Starts for Zaka_37:
(3, 24739), (4, 24802), (Start: 5 @24838 has 6 MA's), (Start: 6 @24847 has 16 MA's), (Start: 7 @24865 has 3 MA's), (Start: 8 @24883 has 17 MA's), (9, 24904), (12, 24946), (Start: 13 @24949 has 1 MA's), (14, 24988), (16, 25018), (18, 25054), (19, 25075), (21, 25141), (24, 25183), (26, 25213), (27, 25225), (28, 25231), (29, 25240), (30, 25258), (31, 25261), (34, 25279), (35, 25297), (38, 25315), (40, 25357), (41, 25387), (43, 25408),