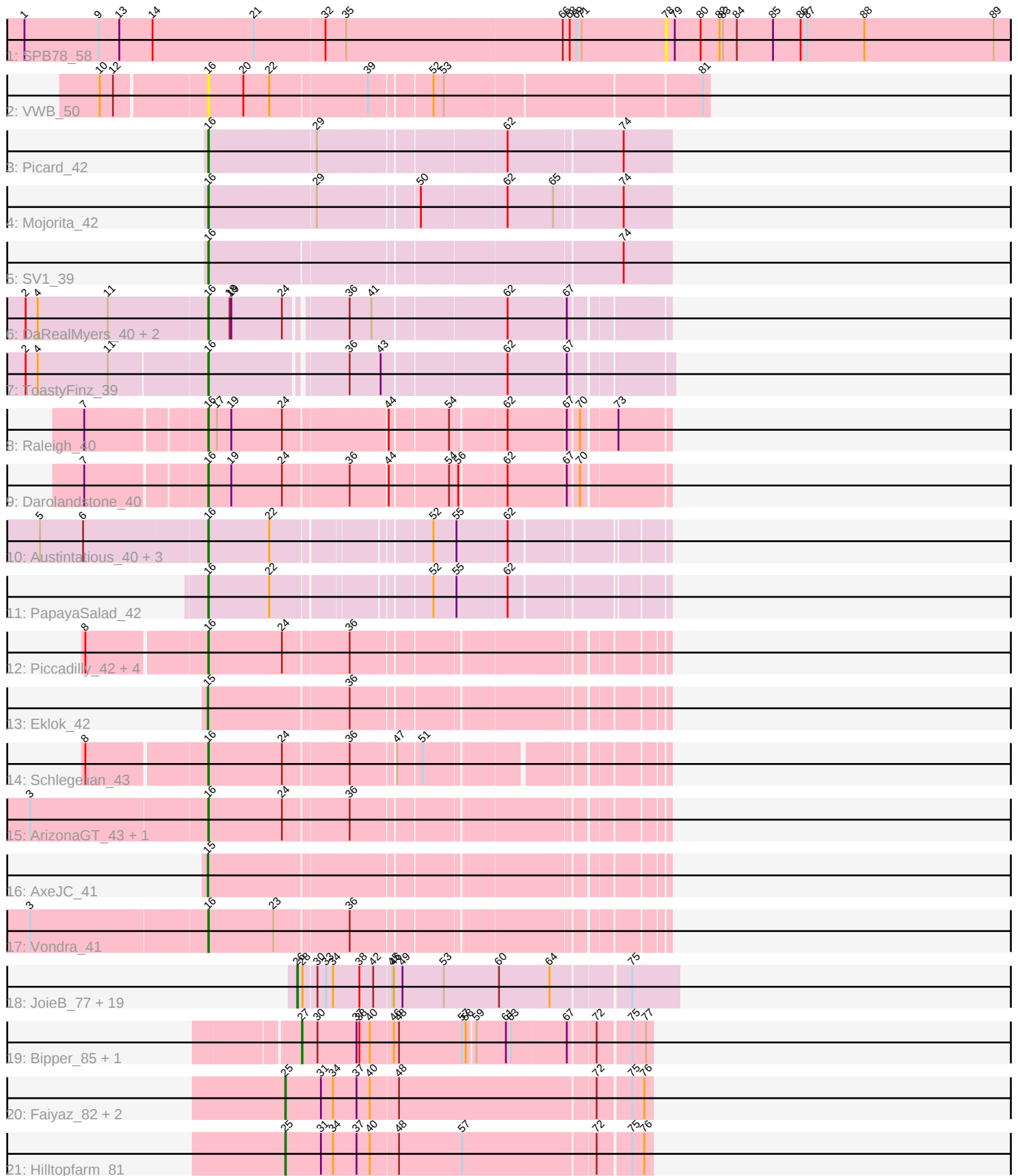


Pham 319445



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 319445 Report

This analysis was run 09/05/26 on database version 662.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 319445 has 53 members, 2 are drafts.

Phages represented in each track:

- Track 1 : SPB78_58
- Track 2 : VWB_50
- Track 3 : Picard_42
- Track 4 : Mojorita_42
- Track 5 : SV1_39
- Track 6 : DaRealMyers_40, SoJo_40, Tubberson_40
- Track 7 : ToastyFinz_39
- Track 8 : Raleigh_40
- Track 9 : Darolandstone_40
- Track 10 : Austintatious_40, Ididsumtinwong_44, Lishka_40, Bioscum_43
- Track 11 : PapayaSalad_42
- Track 12 : Piccadilly_42, Eastland_42, HFrancette_43, Ignacio_42, FrumpyGal_43
- Track 13 : Eklok_42
- Track 14 : Schlegelian_43
- Track 15 : ArizonaGT_43, Cumberbatch_43
- Track 16 : AxeJC_41
- Track 17 : Vondra_41
- Track 18 : JoieB_77, GoongGoong_76, MosMoris_73, Caprice_75, FeliMaine_78, Tesla_73, Gattaca_74, Poise_77, RedRaider77_76, Clarkson_77, Corazon_73, Marvin_72, LittleLaf_76, Pringar_74, Raela_77, VasuNzinga_75, Blackbeetle_77, Huphlepuuff_78, Beelzebub_80, Lilbit_74
- Track 19 : Bipper_85, Cracklewink_85
- Track 20 : Faiyaz_82, AuntGwenStacy_81, Typha_80
- Track 21 : Hilltopfarm_81

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

The start number called the most often in the published annotations is 16, it was called in 23 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArizonaGT_43, Austintatious_40, Bioscum_43, Cumberbatch_43, DaRealMyers_40, Darolandstone_40, Eastland_42, FrumpyGal_43, HFrancette_43, Ididsumtinwong_44, Ignacio_42, Lishka_40, Mojarita_42, PapayaSalad_42, Picard_42, Piccadilly_42, Raleigh_40, SV1_39, Schlegelian_43, SoJo_40, ToastyFinz_39, Tubberson_40, VWB_50, Vondra_41,

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

-

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

- AuntGwenStacy_81, AxeJC_41, Beelzebub_80, Bipper_85, Blackbeetle_77, Caprice_75, Clarkson_77, Corazon_73, Cracklewink_85, Eklok_42, Faiyaz_82, FeliMaine_78, Gattaca_74, GoongGoong_76, Hilltopfarm_81, Huphlepuuff_78, JoieB_77, Lilbit_74, LittleLaf_76, Marvin_72, MosMoris_73, Poise_77, Pringar_74, Raela_77, RedRaider77_76, SPB78_58, Tesla_73, Typha_80, VasuNzinga_75,

Summary by start number:

Start 15:

- Found in 2 of 53 (3.8%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AxeJC_41 (BP), Eklok_42 (BP),

Start 16:

- Found in 24 of 53 (45.3%) of genes in pham
- Manual Annotations of this start: 23 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArizonaGT_43 (BP), Austintatious_40 (BC3), Bioscum_43 (BC3), Cumberbatch_43 (BP), DaRealMyers_40 (BC1), Darolandstone_40 (BC2), Eastland_42 (BP), FrumpyGal_43 (BP), HFrancette_43 (BP), Ididsumtinwong_44 (BC3), Ignacio_42 (BP), Lishka_40 (BC3), Mojarita_42 (BC1), PapayaSalad_42 (BC3), Picard_42 (BC1), Piccadilly_42 (BP), Raleigh_40 (BC2), SV1_39 (BC1), Schlegelian_43 (BP), SoJo_40 (BC1), ToastyFinz_39 (BC1), Tubberson_40 (BC1), VWB_50 (BA), Vondra_41 (BP),

Start 25:

- Found in 4 of 53 (7.5%) of genes in pham
- Manual Annotations of this start: 4 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_81 (Y), Faiyaz_82 (Y), Hilltopfarm_81 (Y), Typha_80 (Y),

Start 26:

- Found in 20 of 53 (37.7%) of genes in pham
- Manual Annotations of this start: 20 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beelzebub_80 (S), Blackbeetle_77 (S), Caprice_75 (S), Clarkson_77 (S), Corazon_73 (S), FeliMaine_78 (S), Gattaca_74 (S), GoongGoong_76 (S), Huphlepuuff_78 (S), JoieB_77 (S), Lilbit_74 (S), LittleLaf_76 (S), Marvin_72 (S), MosMoris_73 (S), Poise_77 (S), Pringar_74 (S), Raela_77 (S), RedRaider77_76 (S), Tesla_73 (S), VasuNzinga_75 (S),

Start 27:

- Found in 2 of 53 (3.8%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper_85 (Y), Cracklewink_85 (Y),

Start 78:

- Found in 1 of 53 (1.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: SPB78_58 (BA),

Summary by clusters:

There are 7 clusters represented in this pham: BA, S, BP, Y, BC1, BC2, BC3,

Info for manual annotations of cluster BC1:

- Start number 16 was manually annotated 7 times for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 16 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 16 was manually annotated 5 times for cluster BC3.

Info for manual annotations of cluster BP:

- Start number 15 was manually annotated 2 times for cluster BP.
- Start number 16 was manually annotated 9 times for cluster BP.

Info for manual annotations of cluster S:

- Start number 26 was manually annotated 20 times for cluster S.

Info for manual annotations of cluster Y:

- Start number 25 was manually annotated 4 times for cluster Y.
- Start number 27 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: ArizonaGT_43 Start: 29287, Stop: 29967, Start Num: 16

Candidate Starts for ArizonaGT_43:

(3, 28987), (Start: 16 @29287 has 23 MA's), (24, 29410), (36, 29512),

Gene: AuntGwenStacy_81 Start: 53643, Stop: 54239, Start Num: 25

Candidate Starts for AuntGwenStacy_81:

(Start: 25 @53643 has 4 MA's), (31, 53703), (34, 53724), (37, 53763), (40, 53784), (48, 53829), (72, 54150), (75, 54204), (76, 54225),

Gene: Austintatious_40 Start: 26725, Stop: 27405, Start Num: 16

Candidate Starts for Austintatious_40:

(5, 26443), (6, 26518), (Start: 16 @26725 has 23 MA's), (22, 26830), (52, 27061), (55, 27097), (62, 27178),

Gene: AxeJC_41 Start: 28989, Stop: 29669, Start Num: 15

Candidate Starts for AxeJC_41:

(Start: 15 @28989 has 2 MA's),

Gene: Beelzebub_80 Start: 43008, Stop: 43628, Start Num: 26

Candidate Starts for Beelzebub_80:

(Start: 26 @43008 has 20 MA's), (28, 43017), (30, 43038), (33, 43053), (34, 43065), (38, 43107), (42, 43131), (45, 43158), (46, 43161), (49, 43176), (53, 43245), (60, 43341), (64, 43428), (75, 43548),

Gene: Bioscum_43 Start: 29021, Stop: 29701, Start Num: 16

Candidate Starts for Bioscum_43:

(5, 28739), (6, 28814), (Start: 16 @29021 has 23 MA's), (22, 29126), (52, 29357), (55, 29393), (62, 29474),

Gene: Bipper_85 Start: 55593, Stop: 56150, Start Num: 27

Candidate Starts for Bipper_85:

(Start: 27 @55593 has 2 MA's), (30, 55620), (37, 55686), (38, 55689), (40, 55707), (46, 55743), (48, 55752), (57, 55854), (58, 55860), (59, 55872), (61, 55920), (63, 55929), (67, 56019), (72, 56061), (75, 56115), (77, 56139),

Gene: Blackbeetle_77 Start: 42369, Stop: 42989, Start Num: 26

Candidate Starts for Blackbeetle_77:

(Start: 26 @42369 has 20 MA's), (28, 42378), (30, 42399), (33, 42414), (34, 42426), (38, 42468), (42, 42492), (45, 42519), (46, 42522), (49, 42537), (53, 42606), (60, 42702), (64, 42789), (75, 42909),

Gene: Caprice_75 Start: 42307, Stop: 42927, Start Num: 26

Candidate Starts for Caprice_75:

(Start: 26 @42307 has 20 MA's), (28, 42316), (30, 42337), (33, 42352), (34, 42364), (38, 42406), (42, 42430), (45, 42457), (46, 42460), (49, 42475), (53, 42544), (60, 42640), (64, 42727), (75, 42847),

Gene: Clarkson_77 Start: 42688, Stop: 43308, Start Num: 26

Candidate Starts for Clarkson_77:

(Start: 26 @42688 has 20 MA's), (28, 42697), (30, 42718), (33, 42733), (34, 42745), (38, 42787), (42, 42811), (45, 42838), (46, 42841), (49, 42856), (53, 42925), (60, 43021), (64, 43108), (75, 43228),

Gene: Corazon_73 Start: 42882, Stop: 43502, Start Num: 26

Candidate Starts for Corazon_73:

(Start: 26 @42882 has 20 MA's), (28, 42891), (30, 42912), (33, 42927), (34, 42939), (38, 42981), (42, 43005), (45, 43032), (46, 43035), (49, 43050), (53, 43119), (60, 43215), (64, 43302), (75, 43422),

Gene: Cracklewink_85 Start: 54633, Stop: 55190, Start Num: 27

Candidate Starts for Cracklewink_85:

(Start: 27 @54633 has 2 MA's), (30, 54660), (37, 54726), (38, 54729), (40, 54747), (46, 54783), (48, 54792), (57, 54894), (58, 54900), (59, 54912), (61, 54960), (63, 54969), (67, 55059), (72, 55101), (75, 55155), (77, 55179),

Gene: Cumberbatch_43 Start: 29287, Stop: 29967, Start Num: 16

Candidate Starts for Cumberbatch_43:

(3, 28987), (Start: 16 @29287 has 23 MA's), (24, 29410), (36, 29512),

Gene: DaRealMyers_40 Start: 29957, Stop: 30646, Start Num: 16

Candidate Starts for DaRealMyers_40:

(2, 29645), (4, 29666), (11, 29786), (Start: 16 @29957 has 23 MA's), (18, 29993), (19, 29996), (24, 30080), (36, 30167), (41, 30203), (62, 30410), (67, 30506),

Gene: Darolandstone_40 Start: 31614, Stop: 32318, Start Num: 16

Candidate Starts for Darolandstone_40:

(7, 31419), (Start: 16 @31614 has 23 MA's), (19, 31653), (24, 31737), (36, 31839), (44, 31896), (54, 31989), (56, 32001), (62, 32073), (67, 32169), (70, 32184),

Gene: Eastland_42 Start: 29247, Stop: 29927, Start Num: 16

Candidate Starts for Eastland_42:

(8, 29049), (Start: 16 @29247 has 23 MA's), (24, 29370), (36, 29472),

Gene: Eklok_42 Start: 29046, Stop: 29726, Start Num: 15

Candidate Starts for Eklok_42:

(Start: 15 @29046 has 2 MA's), (36, 29271),

Gene: Faiyaz_82 Start: 53649, Stop: 54245, Start Num: 25

Candidate Starts for Faiyaz_82:

(Start: 25 @53649 has 4 MA's), (31, 53709), (34, 53730), (37, 53769), (40, 53790), (48, 53835), (72, 54156), (75, 54210), (76, 54231),

Gene: FeliMaine_78 Start: 42930, Stop: 43550, Start Num: 26

Candidate Starts for FeliMaine_78:

(Start: 26 @42930 has 20 MA's), (28, 42939), (30, 42960), (33, 42975), (34, 42987), (38, 43029), (42, 43053), (45, 43080), (46, 43083), (49, 43098), (53, 43167), (60, 43263), (64, 43350), (75, 43470),

Gene: FrumpyGal_43 Start: 29247, Stop: 29927, Start Num: 16

Candidate Starts for FrumpyGal_43:

(8, 29049), (Start: 16 @29247 has 23 MA's), (24, 29370), (36, 29472),

Gene: Gattaca_74 Start: 42467, Stop: 43087, Start Num: 26

Candidate Starts for Gattaca_74:

(Start: 26 @42467 has 20 MA's), (28, 42476), (30, 42497), (33, 42512), (34, 42524), (38, 42566), (42, 42590), (45, 42617), (46, 42620), (49, 42635), (53, 42704), (60, 42800), (64, 42887), (75, 43007),

Gene: GoongGoong_76 Start: 42272, Stop: 42892, Start Num: 26

Candidate Starts for GoongGoong_76:

(Start: 26 @42272 has 20 MA's), (28, 42281), (30, 42302), (33, 42317), (34, 42329), (38, 42371), (42, 42395), (45, 42422), (46, 42425), (49, 42440), (53, 42509), (60, 42605), (64, 42692), (75, 42812),

Gene: HFrancette_43 Start: 30025, Stop: 30705, Start Num: 16

Candidate Starts for HFrancette_43:

(8, 29827), (Start: 16 @30025 has 23 MA's), (24, 30148), (36, 30250),

Gene: Hilltopfarm_81 Start: 53343, Stop: 53939, Start Num: 25

Candidate Starts for Hilltopfarm_81:

(Start: 25 @53343 has 4 MA's), (31, 53403), (34, 53424), (37, 53463), (40, 53484), (48, 53529), (57, 53634), (72, 53850), (75, 53904), (76, 53925),

Gene: Huphlepuuff_78 Start: 42493, Stop: 43113, Start Num: 26

Candidate Starts for Huphlepuuff_78:

(Start: 26 @42493 has 20 MA's), (28, 42502), (30, 42523), (33, 42538), (34, 42550), (38, 42592), (42, 42616), (45, 42643), (46, 42646), (49, 42661), (53, 42730), (60, 42826), (64, 42913), (75, 43033),

Gene: Ididsumtinwong_44 Start: 29021, Stop: 29701, Start Num: 16

Candidate Starts for Ididsumtinwong_44:

(5, 28739), (6, 28814), (Start: 16 @29021 has 23 MA's), (22, 29126), (52, 29357), (55, 29393), (62, 29474),

Gene: Ignacio_42 Start: 29928, Stop: 30608, Start Num: 16

Candidate Starts for Ignacio_42:

(8, 29730), (Start: 16 @29928 has 23 MA's), (24, 30051), (36, 30153),

Gene: JoieB_77 Start: 42956, Stop: 43576, Start Num: 26

Candidate Starts for JoieB_77:

(Start: 26 @42956 has 20 MA's), (28, 42965), (30, 42986), (33, 43001), (34, 43013), (38, 43055), (42, 43079), (45, 43106), (46, 43109), (49, 43124), (53, 43193), (60, 43289), (64, 43376), (75, 43496),

Gene: Lilbit_74 Start: 43053, Stop: 43673, Start Num: 26

Candidate Starts for Lilbit_74:

(Start: 26 @43053 has 20 MA's), (28, 43062), (30, 43083), (33, 43098), (34, 43110), (38, 43152), (42, 43176), (45, 43203), (46, 43206), (49, 43221), (53, 43290), (60, 43386), (64, 43473), (75, 43593),

Gene: Lishka_40 Start: 26725, Stop: 27405, Start Num: 16

Candidate Starts for Lishka_40:

(5, 26443), (6, 26518), (Start: 16 @26725 has 23 MA's), (22, 26830), (52, 27061), (55, 27097), (62, 27178),

Gene: LittleLaf_76 Start: 42782, Stop: 43402, Start Num: 26

Candidate Starts for LittleLaf_76:

(Start: 26 @42782 has 20 MA's), (28, 42791), (30, 42812), (33, 42827), (34, 42839), (38, 42881), (42, 42905), (45, 42932), (46, 42935), (49, 42950), (53, 43019), (60, 43115), (64, 43202), (75, 43322),

Gene: Marvin_72 Start: 42578, Stop: 43198, Start Num: 26

Candidate Starts for Marvin_72:

(Start: 26 @42578 has 20 MA's), (28, 42587), (30, 42608), (33, 42623), (34, 42635), (38, 42677), (42, 42701), (45, 42728), (46, 42731), (49, 42746), (53, 42815), (60, 42911), (64, 42998), (75, 43118),

Gene: Mojarita_42 Start: 29163, Stop: 29900, Start Num: 16

Candidate Starts for Mojarita_42:

(Start: 16 @29163 has 23 MA's), (29, 29343), (50, 29496), (62, 29634), (65, 29712), (74, 29820),

Gene: MosMoris_73 Start: 42473, Stop: 43093, Start Num: 26

Candidate Starts for MosMoris_73:

(Start: 26 @42473 has 20 MA's), (28, 42482), (30, 42503), (33, 42518), (34, 42530), (38, 42572), (42, 42596), (45, 42623), (46, 42626), (49, 42641), (53, 42710), (60, 42806), (64, 42893), (75, 43013),

Gene: PapayaSalad_42 Start: 29311, Stop: 29991, Start Num: 16

Candidate Starts for PapayaSalad_42:

(Start: 16 @29311 has 23 MA's), (22, 29416), (52, 29647), (55, 29683), (62, 29764),

Gene: Picard_42 Start: 29361, Stop: 30098, Start Num: 16

Candidate Starts for Picard_42:

(Start: 16 @29361 has 23 MA's), (29, 29541), (62, 29832), (74, 30018),

Gene: Piccadilly_42 Start: 29246, Stop: 29926, Start Num: 16

Candidate Starts for Piccadilly_42:

(8, 29048), (Start: 16 @29246 has 23 MA's), (24, 29369), (36, 29471),

Gene: Poise_77 Start: 42369, Stop: 42989, Start Num: 26

Candidate Starts for Poise_77:

(Start: 26 @42369 has 20 MA's), (28, 42378), (30, 42399), (33, 42414), (34, 42426), (38, 42468), (42, 42492), (45, 42519), (46, 42522), (49, 42537), (53, 42606), (60, 42702), (64, 42789), (75, 42909),

Gene: Pringar_74 Start: 42294, Stop: 42914, Start Num: 26

Candidate Starts for Pringar_74:

(Start: 26 @42294 has 20 MA's), (28, 42303), (30, 42324), (33, 42339), (34, 42351), (38, 42393), (42, 42417), (45, 42444), (46, 42447), (49, 42462), (53, 42531), (60, 42627), (64, 42714), (75, 42834),

Gene: Raela_77 Start: 42920, Stop: 43540, Start Num: 26

Candidate Starts for Raela_77:

(Start: 26 @42920 has 20 MA's), (28, 42929), (30, 42950), (33, 42965), (34, 42977), (38, 43019), (42, 43043), (45, 43070), (46, 43073), (49, 43088), (53, 43157), (60, 43253), (64, 43340), (75, 43460),

Gene: Raleigh_40 Start: 31982, Stop: 32686, Start Num: 16

Candidate Starts for Raleigh_40:

(7, 31787), (Start: 16 @31982 has 23 MA's), (17, 31997), (19, 32021), (24, 32105), (44, 32264), (54, 32357), (62, 32441), (67, 32537), (70, 32552), (73, 32606),

Gene: RedRaider77_76 Start: 42314, Stop: 42934, Start Num: 26

Candidate Starts for RedRaider77_76:

(Start: 26 @42314 has 20 MA's), (28, 42323), (30, 42344), (33, 42359), (34, 42371), (38, 42413), (42, 42437), (45, 42464), (46, 42467), (49, 42482), (53, 42551), (60, 42647), (64, 42734), (75, 42854),

Gene: SPB78_58 Start: 39567, Stop: 40202, Start Num: 78

Candidate Starts for SPB78_58:

(1, 38469), (9, 38598), (13, 38634), (14, 38691), (21, 38865), (32, 38982), (35, 39018), (66, 39390), (68, 39402), (69, 39414), (71, 39423), (78, 39567), (79, 39582), (80, 39627), (82, 39660), (83, 39666), (84, 39690), (85, 39753), (86, 39801), (87, 39813), (88, 39912), (89, 40137),

Gene: SV1_39 Start: 28072, Stop: 28803, Start Num: 16

Candidate Starts for SV1_39:

(Start: 16 @28072 has 23 MA's), (74, 28723),

Gene: Schlegelian_43 Start: 29811, Stop: 30476, Start Num: 16

Candidate Starts for Schlegelian_43:

(8, 29613), (Start: 16 @29811 has 23 MA's), (24, 29934), (36, 30036), (47, 30102), (51, 30141),

Gene: SoJo_40 Start: 29952, Stop: 30641, Start Num: 16

Candidate Starts for SoJo_40:

(2, 29640), (4, 29661), (11, 29781), (Start: 16 @29952 has 23 MA's), (18, 29988), (19, 29991), (24, 30075), (36, 30162), (41, 30198), (62, 30405), (67, 30501),

Gene: Tesla_73 Start: 42163, Stop: 42783, Start Num: 26

Candidate Starts for Tesla_73:

(Start: 26 @42163 has 20 MA's), (28, 42172), (30, 42193), (33, 42208), (34, 42220), (38, 42262), (42, 42286), (45, 42313), (46, 42316), (49, 42331), (53, 42400), (60, 42496), (64, 42583), (75, 42703),

Gene: ToastyFinz_39 Start: 30745, Stop: 31443, Start Num: 16

Candidate Starts for ToastyFinz_39:

(2, 30439), (4, 30460), (11, 30580), (Start: 16 @30745 has 23 MA's), (36, 30955), (43, 31003), (62, 31198), (67, 31294),

Gene: Tubberson_40 Start: 29954, Stop: 30643, Start Num: 16

Candidate Starts for Tubberson_40:

(2, 29642), (4, 29663), (11, 29783), (Start: 16 @29954 has 23 MA's), (18, 29990), (19, 29993), (24, 30077), (36, 30164), (41, 30200), (62, 30407), (67, 30503),

Gene: Typha_80 Start: 53643, Stop: 54239, Start Num: 25

Candidate Starts for Typha_80:

(Start: 25 @53643 has 4 MA's), (31, 53703), (34, 53724), (37, 53763), (40, 53784), (48, 53829), (72, 54150), (75, 54204), (76, 54225),

Gene: VWB_50 Start: 37705, Stop: 38505, Start Num: 16

Candidate Starts for VWB_50:

(10, 37534), (12, 37555), (Start: 16 @37705 has 23 MA's), (20, 37765), (22, 37810), (39, 37966), (52, 38062), (53, 38080), (81, 38494),

Gene: VasuNzinga_75 Start: 42252, Stop: 42872, Start Num: 26

Candidate Starts for VasuNzinga_75:

(Start: 26 @42252 has 20 MA's), (28, 42261), (30, 42282), (33, 42297), (34, 42309), (38, 42351), (42, 42375), (45, 42402), (46, 42405), (49, 42420), (53, 42489), (60, 42585), (64, 42672), (75, 42792),

Gene: Vondra_41 Start: 29098, Stop: 29778, Start Num: 16

Candidate Starts for Vondra_41:

(3, 28798), (Start: 16 @29098 has 23 MA's), (23, 29209), (36, 29323),