Development of TEM-1 β-lactamase based protein translocation assay for identification of *Anaplasma phagocytophilum* type IV secretion system effector proteins

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Supplementary Information

Table S1. Primers used for PCR amplification

Primer ID	Sequence (5'-3')	Note	Purpose
SM-F	CTTGCGGCCGCCTGCTTATCCACG GAATCT	NotI site is underlined	Replacement of ampicillin resistance gene *bla* with Sm^R in plasmid pTraG-VirD4
SM-R	TCACATATGTTATTTGCCGACTACC TTGGTGATC	NdeI site is underlined	
pMal-F	TCACATATGCTGTCAGACCAAGTT TACTCAT	NdeI site is underlined	
pMal-R	CTTGCGGCCGCAACGGACCGAAA GAGTTT	NotI site is underlined	
VirD4-F	TCCGTCGACCGACATGTTCTTATT GATTGGC	SalI site is underlined	Construction of pVirD4
VirD4-R	TCCGTCGACCATAATCTATGGTCC TTGTTGG	SalI site is underlined	
TEM-1-F	TATGCGACTCCTGCATTAGGCATA ACG		Cloning of TEM-1 β-lactamase gene into plasmid pACYCDuet-1 to generate plasmid pTEM-1
TEM-1-R	TGCTTCTCAAATGCCTGAGGAGTT TGTAGAAAC		
pACYCDuet-F	CCTCAGGCATTTGAGAAGCACA		
pACYCDuet-R	CCTAATGCAGGAGTCGCATAAGG		
TEM-1-Ats-1-F	GGCGGTGGAGGCAGCCATATGCT AATAAGAAGAATTCTGAC		Construction of plasmid pTEM-1-Ats-1
TEM-1-Ats-1-R	GCGGCCGCCCATGGACATATGTTA CCTCGTACCTTTACCAT		
TEM-1-APH0215-F	GGCGGTGGAGGCAGCCATATGGT CGATAACACCACGAT		Construction of plasmid pTEM-1-APH0215
TEM-1-APH0215-R	GCGGCCGCCCATGGACATATGTTA CGTTCTCGATCGGCC		
TEM-1-APH0756-F	GGCGGTGGAGGCAGCCATATGCG TCCTGATGGGCAAC		Construction of plasmid pTEM-1-APH0756
TEM-1-APH0756-R	GCGGCCGCCCATGGACATATGTTA TCGCGAGACACCACTTC		
VirD4-Expression-F	ATCCGAATTCAAGCTTGAAAACTA CGACCTCAC	EcoRI site is underlined	Expression of truncated recombinant VirD4 protein
VirD4-Expression-R	CTTGCGGCCGCCTTTAGTCTTCCG TTACTGCTATC	NotI site is underlined	
215-Delta-C-R	TAGGGATCCTTAATCGCAGTGTAT GTCATAAAAAGT	BamHI site is underlined	Construction of plasmid pTEM-1-APH0215ΔC
215-Delta-C-F	ATCGGATCCGAATTCCCTGCA	BamHI site is underlined	

APH0215-GFP-F	GCACTCGAGGCCACCATGGTCGATAACACCACGATAC	XhoI site is underlined	Construction of plasmid pAPH0215-GFP
APH0215-GFP-R	GGTGGATCCCGCGTTCTCGATCGGCCAATAG	BamHI site is underlined	

Supplemental Fig. S1

Full-length blots for Figure 2B and 2C.

Supplemental Fig. S1

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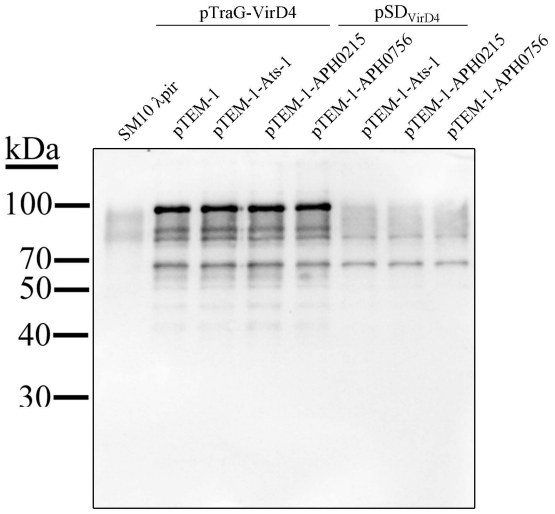
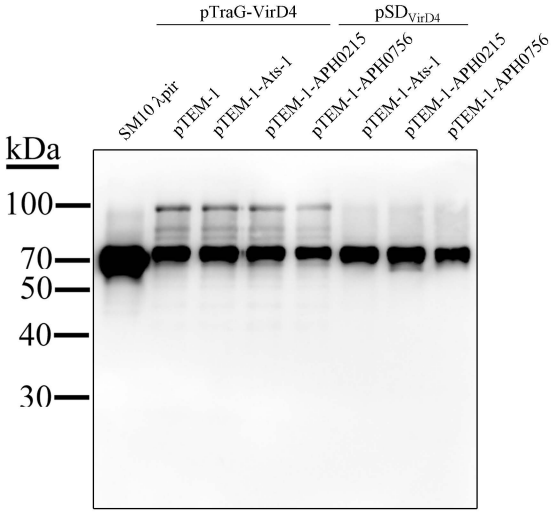
Relative to Fig. 2B

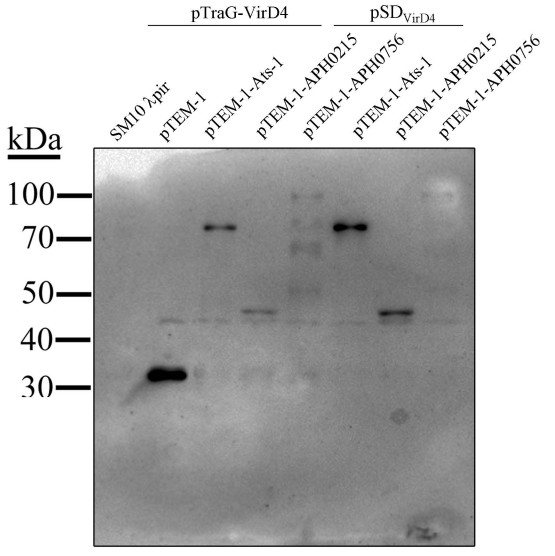


IB: α-VirD4

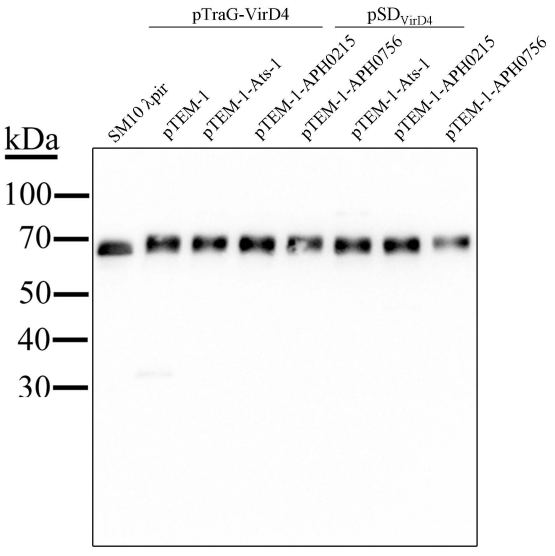


IB: α-GroEL

Relative to Fig. 2C



IB: α-T7



IB: α-GroEL

Supplemental Fig. S2

Full-length blots for Figure 3A and 3B.

Supplemental Fig. S2

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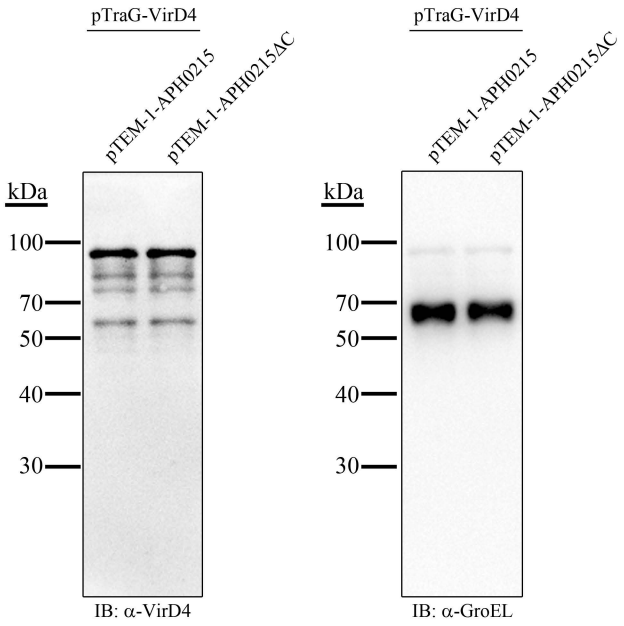
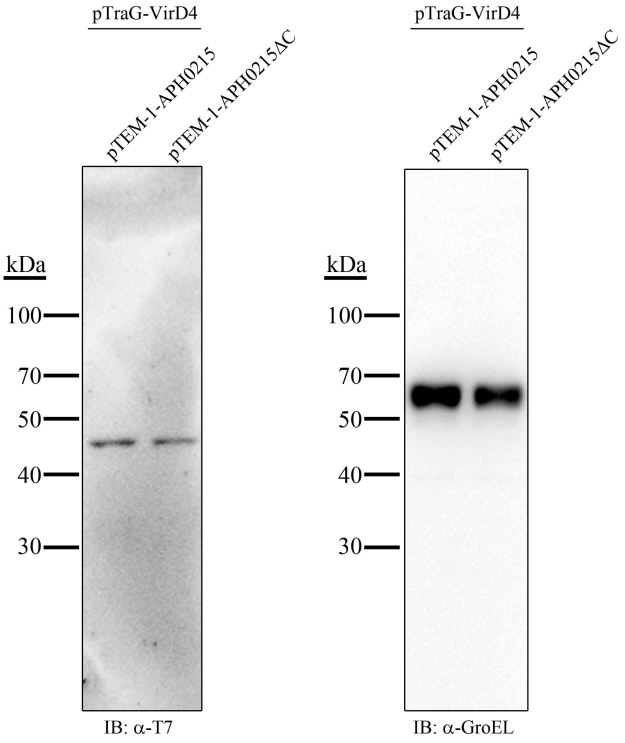
Relative to Fig. 3A



Relative to Fig. 3B



Supplemental Fig. S3

Full-length blots for Figure 4B and 4C.

Supplemental Fig. S3

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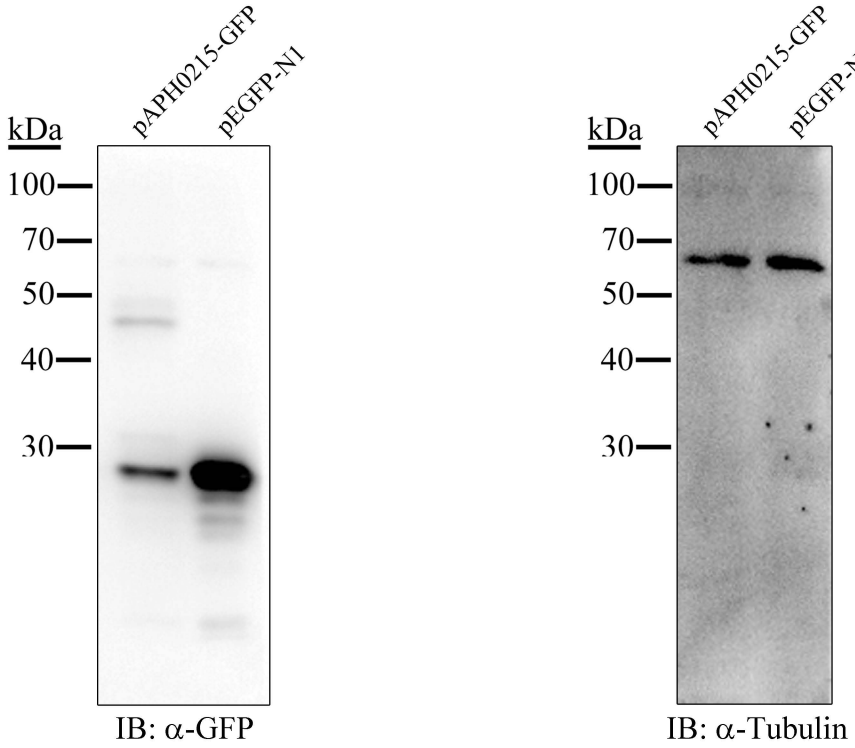
Relative to Fig. 4B



Relative to Fig. 4C