

**Supplemental Table 1. Plasmids used in this study**

Plasmid	Encoded protein	Source/reference
pBA174	Cyt-OmpC 50 in pBAD33, Cm <sup>R</sup>	Walsh et. al. 2003
pBAD33	Vector, pACYC ori, Para, Cm <sup>R</sup>	Guzman et. al. 1995
pFlag-MAC	Vector for cytoplasmic expression of Flag tagged proteins, pBR322 ori, Ap <sup>R</sup>	Sigma
pFlag-ATS	Vector for periplasmic expression of Flag-tagged proteins, pBR322 ori, Ap <sup>R</sup>	Sigma
pHisTrxRseA169-196	His-Trx-tagged RseA169-196 in pET28a	Kim et. al. 2007
pHisTrxRseA169-196 <sup>I173A</sup>	I173A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>N174A</sup>	N174A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>M176A</sup>	M176A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>L177A</sup>	L177A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>Q178A</sup>	Q178A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>D179A</sup>	D179A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>Y180A</sup>	Y180A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>E181A</sup>	E181A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>L182A</sup>	L182A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>Q183A</sup>	Q183A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>R185A</sup>	R185A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>L186A</sup>	L186A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>H187A</sup>	H187A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>S188A</sup>	S188A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pHisTrxRseA169-196 <sup>E189A</sup>	E189A mutant of RseA169-196 peptide in pET28a, Ap <sup>R</sup>	This work
pLC234	His-tagged RseA periplasmic domain in pET28b, Kan <sup>R</sup>	De Las Penas et. al. 1997
pRseB-MAC	RseB <sup>24-318</sup> in pFlag-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>R238A+R239A</sup>	R238A+R239A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>D245A</sup>	D245A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>N246A</sup>	N246A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>I249A</sup>	I249A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>E250A</sup>	E250A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>D171A</sup>	D171A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>D174A</sup>	D174A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>D176A</sup>	D176A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>E178A</sup>	E178A in pRseB-MAC, Ap <sup>R</sup>	This work

pRseB-MAC <sup>E181A</sup>	E181A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>Q182A</sup>	Q182A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>P248C</sup>	P248C in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>S251C</sup>	S251C in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>R252C</sup>	R252C in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>V265C</sup>	V265C in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>I249A+E250A</sup>	I249A+E250A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>D245A+N246A+I249A+E250A</sup>	D245A+N246A+I249A+E250A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB-MAC <sup>R252A+L253A+Y254A+S255A+D256A+L258A</sup>	R252A+L253A+Y254A+S255A+D256A+L258A in pRseB-MAC, Ap <sup>R</sup>	This work
pRseB <sup>218-318</sup> -MAC	RseB <sup>218-318</sup> in pFlag-MAC, Ap <sup>R</sup>	This work
pRseB-ATS	RseB <sup>24-318</sup> in pFlag-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>R238A+R239A</sup>	R238A+R239A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>D245A</sup>	D245A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>N246A</sup>	N246A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>I249A</sup>	I249A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>E250A</sup>	E250A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>D171A</sup>	D171A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>D174A</sup>	D174A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>D176A</sup>	D176A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>E178A</sup>	E178A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>E181A</sup>	E181A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>Q182A</sup>	Q182A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>I249A+E250A</sup>	I249A+E250A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>D245A+N246A+I249A+E250A</sup>	D245A+N246A+I249A+E250A in pRseB-ATS, Ap <sup>R</sup>	This work
pRseB-ATS <sup>R252A+L253A+Y254A+S255A+D256A+L258A</sup>	R252A+L253A+Y254A+S255A+D256A+L258A in pRseB-ATS, Ap <sup>R</sup>	This work
pTrc99a	Vector, pBR322 ori, Ap <sup>R</sup>	Amersham Pharmacia Biotech
pRseA-Trc <sup>I173C</sup>	I173C mutant of His-tagged RseA periplasmic domain in pTrc99A	This work
pRseA-Trc <sup>D179C</sup>	D179C mutant of His-tagged RseA periplasmic domain in pTrc99A	This work
pRseA-Trc <sup>L186C</sup>	L186C mutant of His-tagged RseA periplasmic domain in pTrc99A	This work
pRseA-Trc <sup>H187C</sup>	H187C mutant of His-tagged RseA periplasmic domain in pTrc99A	This work

Figure S1

