Plasmid	Description	Source
pGEM-T Easy	Cloning vector for PCR products; Ap ^r	Promega
pGEM695	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
Ť	fragments of arcA	-
pGEM696	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>arcA</i> interrupted by <i>ermB</i> resistance gene cassettes for	
	mutagenesis	
pGEM611	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of arcC	
pGEM612	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>arcC</i> interrupted by <i>ermB</i> resistance gene cassettes for	
	mutagenesis	
pGEM905	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>arcA-C</i> interrupted by <i>ermB</i> resistance gene cassettes for	
	mutagenesis	
pGEM615	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
(F) (505	fragments of <i>arcT</i>	
pGEM707	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>arcT</i> interrupted by <i>ermB</i> resistance gene cassettes for	
CEN/710	mutagenesis	
pGEM/19	pGEM-1 easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>arcA-1</i> interrupted by <i>ermB</i> resistance gene cassettes for	
*CEM600	Initiagenesis	This study.
POEM099	fragments of grap?	This study
pGEM700	pGEM T easy derivative vector with the subcloned 5' and 3' end homolog	This study
POLIMITOO	fragments of <i>araR</i> ? interrupted by <i>armR</i> resistance gene cassettes for	This study
	mitagenesis	
pGEM703	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
r	fragments of <i>ahrC</i>	
pGEM704	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
1	fragments of ahrC interrupted by ermB resistance gene cassettes for	5
	mutagenesis	
pGEM708	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
*	fragments of argR1	-
pGEM709	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of argR1 interrupted by ermB resistance gene cassettes for	
	mutagenesis	
pGEM868	pGEM-T easy derivative vector with the subcloned 5' and 3'-end homolog	This study
	fragments of <i>ply</i> interrupted by <i>cat</i> resistance gene cassettes for mutagenesis	
pET28	a T7-based protein expression vector carrying an N-terminal His tag, Km ⁴	Novagen
pTP1	pET28 expression vector with a TEV protease	Saleh et al., 2013 (1)
pET698	arcA for protein expression and mouse immunization	This study
pET883	<i>arcB</i> for protein expression and mouse immunization	This study
pET885	arcC for protein expression and mouse immunization	This study
pET702	<i>argR2</i> for protein expression and mouse immunization	This study
pET706	<i>ahrC</i> for protein expression and mouse immunization	This study
pET711	<i>argR1</i> for protein expression and mouse immunization	This study
Cm, chloramphenicol: Km, kanamycin: Erm, erythromycin: Spe, spectinomycin: r, resistant		

TABLE S2Plasmids used in this study

Supplemental REFERENCE

1. Saleh M, Bartual SG, Abdullah MR, Jensch I, Asmat TM, Petruschka L, Pribyl T, Gellert M,

Lillig CH, Antelmann H, Hermoso JA, Hammerschmidt S. 2013. Molecular architecture of

Streptococcus pneumoniae surface thioredoxin-fold lipoproteins crucial for extracellular oxidative

stress resistance and maintenance of virulence. EMBO Mol Med 5:1852-1870.