

## PBP1A Protein, Mycobacterium tuberculosis

Cat. No.:	HY-P701958
Synonyms:	ponA1; Penicillin-binding protein 1A; PBP-1A; Penicillin-binding protein 1*; Penicillin-insensitive transglycosylase; Peptidoglycan TGase; Penicillin-sensitive transpeptidase; DD-transpeptidase
Species:	Others
Source:	E. coli
Accession:	P71707 (K391-P820)
Gene ID:	887065
Molecular Weight:	

### PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

### DESCRIPTION

Background	PBP1A (Penicillin-Binding Protein 1A) is a crucial enzyme involved in cell wall formation in bacteria, specifically in the synthesis of cross-linked peptidoglycan from lipid intermediates. The protein exhibits a bifunctional structure with a penicillin-insensitive transglycosylase N-terminal domain responsible for the formation of linear glycan strands, and a penicillin-sensitive transpeptidase C-terminal domain that facilitates the cross-linking of peptide subunits. While PBP1A has limited peptidoglycan hydrolytic activity on its own, it plays a notable role in inhibiting the synergistic peptidoglycan hydrolysis of RipA plus RpfB.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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