

kshB Protein, Mycobacterium tuberculosis

Cat. No.:	HY-P701979
Synonyms:	hmp; 3-ketosteroid-9-alpha-monooxygenase; ferredoxin reductase component; 3-ketosteroid-9-alpha-hydroxylase; ferredoxin reductase component; KSH; Androsta-1; 4-diene-3; 17-dione 9-alpha-hydroxylase; Rieske-type oxygenase; RO
Species:	Others
Source:	E. coli
Accession:	P9WJ93 (M1-E358)
Gene ID:	887315
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	<p>The kshB Protein plays a crucial role in the degradation of cholesterol, catalyzing the introduction of a 9α-hydroxyl moiety into 1,4-androstadiene-3,17-dione (ADD) to generate the 9α-hydroxy-1,4-androstadiene-3,17-dione (9OHADD) intermediate. This intermediate undergoes spontaneous transformation into 3-hydroxy-9,10-seconandrost-1,3,5(10)-triene-9,17-dione (HSA) through the meta-cleavage of ring B, accompanied by the aromatization of ring A. Additionally, kshB exhibits versatility in substrate utilization, as it can also act on 4-androstene-3,17-dione (AD), 3-oxo-23,24-bisnorcholesta-4-en-22-oate (4-BNC), 3-oxo-23,24-bisnorcholesta-1,4-dien-22-oate (1,4-BNC), 3-oxo-23,24-bisnorcholesta-4-en-22-oyl-coenzyme A thioester (4-BNC-CoA), and 3-oxo-23,24-bisnorcholesta-1,4-dien-22-oyl-coenzyme A thioester (1,4-BNC-CoA) as substrates. This highlights the protein's pivotal role in cholesterol catabolism and its ability to engage in diverse metabolic pathways.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA