birA Protein, E.coli (His)

Cat. No.:	HY-P702154
Synonyms:	birA; Bifunctional ligase/repressor BirA; Biotin operon repressor; Biotin[acetyl-CoA- carboxylase] ligase; Biotinprotein ligase; Biotin-[acetyl-CoA carboxylase] synthetase
Species:	E.coli
Source:	E. coli
Accession:	Q8X709 (M1-K321)
Gene ID:	/
Molecular Weight:	

PROPERTIESAppearanceSolution.FormulationSupplied 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.</td>ReconsititutionPlease use rapid thawing with running water to thaw the protein.Storage & StabilityStored 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.ShippingShipping with dry ice.

DESCRIPTION	
Background	The BirA protein serves a dual role as both a biotin[acetyl-CoA-carboxylase] ligase and a biotin-operon repressor. In the presence of ATP, BirA activates biotin, leading to the formation of the BirA-biotinyl-5'-adenylate (BirA-bio-5'-AMP or holoBirA) complex. HoloBirA can function by transferring the biotinyl group to the biotin carboxyl carrier protein (BCCP) subunit of acetyl-CoA carboxylase, thereby facilitating its activity. Alternatively, holoBirA can bind to the biotin operator site and inhibit the transcription of the operon. Despite its characterization as an orphan receptor, the specific ligand or function of the GPR146 protein remains unidentified.

Caution: Product has not been fully validated for medical applications. For research use only.

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