

BLVRB Protein, Human (His)

Cat. No.:	HY-P76172
Synonyms:	Flavin reductase (NADPH); Biliverdin reductase B; FR; BVR-B; GHBP; FLR
Species:	Human
Source:	E. coli
Accession:	P30043 (A2-Q206)
Gene ID:	645
Molecular Weight:	Approximately 25 kDa.

PROPERTIES

AA Sequence	<p> AVKKIAIFGA T GQTGLTTLA QAVQAGYEVT VLVRDSSRLP SEGPRPAHV V VGDVLQAADV DKT VAGQDAV IVLLGTRNDL SPTTVMSEGA RNIVAAMKAH GVDKVVACTS AFLLDPTKV PPRLQAVTDD HIRMHKVLRE SGLKYVAVMP PHIGDQPLTG AYTVTLDGRG PSRVISKHDL GHFMLRCLTT DEYDGHSTYP SHQYQ </p>
Biological Activity	Measured by the reduction of riboflavin 5'-monophosphate (FMN) using NADPH as the cofactor. The specific activity is 733.394 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4, 10% Glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	BLVRB Protein is a broad-specificity oxidoreductase with the ability to catalyze the NADPH-dependent reduction of various flavins, including riboflavin, FAD or FMN, as well as biliverdins, methemoglobin, and PQQ (pyrroloquinoline quinone). This enzyme plays a crucial role in heme catabolism, metabolizing linear tetrapyrroles. Additionally, it can reduce complexed
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Fe(3+) iron to Fe(2+) when FMN and NADPH are present. In the liver, BLVRB Protein serves a significant function by converting biliverdin to bilirubin, contributing to essential metabolic processes and maintaining redox balance.

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

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