

CYB5R1 Protein, Human (His)

Cat. No.:	HY-P76856
Synonyms:	NADH-cytochrome b5 reductase 1; b5R.1; Humb5R2; NQO3A2
Species:	Human
Source:	E. coli
Accession:	Q9UHQ9 (L29-Y305)
Gene ID:	51706
Molecular Weight:	Approximately 32 kDa

PROPERTIES

AA Sequence	<div> <div>L V R R S R R P Q V</div> <div>T L L D P N E K Y L</div> <div>L R L L D K T T V S</div> <div>H N T K R F R F A L</div> <div>P T A H H T L G L P</div> <div>V G K H I Y L S T R</div> <div>I D G S L V I R P Y</div> <div>T P V T S D E D Q G</div> <div>Y V D L V I K V Y L</div> <div>K G V H P K F P E G</div> <div>G K M S Q Y L D S L</div> <div>K V G D V V E F R G</div> <div>P S G L L T Y T G K</div> <div>G H F N I Q P N K K</div> <div>S P P E P R V A K K</div> <div>L G M I A G G T G I</div> <div>T P M L Q L I R A I</div> <div>L K V P E D P T Q C</div> <div>F L L F A N Q T E K</div> <div>D I I L R E D L E E</div> <div>L Q A R Y P N R F K</div> <div>L W F T L D H P P K</div> <div>D W A Y S K G F V T</div> <div>A D M I R E H L P A</div> <div>P G D D V L V L L C</div> <div>G P P P M V Q L A C</div> <div>H P N L D K L G Y S</div> <div>Q K M R F T Y</div> </div>
Biological Activity	Measured by its ability to combine with the NADPH produces the H ₂ O ₂ . The specific activity is 7661.210 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.
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	CYB5R1, a member of the NADH-cytochrome b5 reductase family, plays a crucial role in diverse biological processes such as fatty acid desaturation and elongation, cholesterol biosynthesis, drug metabolism, and methemoglobin reduction in
------------	---

erythrocytes. As an essential component of these metabolic pathways, CYB5R1 utilizes NADH as a cofactor to facilitate the reduction of cytochrome b5, contributing to the enzymatic processes involved in lipid metabolism, sterol synthesis, and drug biotransformation. In erythrocytes, CYB5R1's involvement in methemoglobin reduction underscores its significance in maintaining hemoglobin functionality and preventing oxidative stress. The multifunctional nature of CYB5R1 positions it as a key player in cellular processes crucial for lipid homeostasis, hemoglobin function, and drug metabolism.

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