
Product Data Sheet

Product Name: CYB5R3 Human

Cat. No.: GP23283

Batch No.: 1

Product Data

Purity	>98%	Source	E.coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Cytochrome b5 reductase 3; DIA1; B5R; Diaphorase (NADH) (cytochrome b-5 reductase); diaphorase-1; NADH-cytochrome b5 reductase 3 membrane-bound form; NADH-cytochrome b5 reductase 3 soluble form; Diaphorase-1; EC 1.6.2.2.		
Amino Acid Sequence	MGSSHHHHHH SSGLVPRGSH MGSHMFQRST PAITLESPDI KYPLRLIDRE IISHDTRRFR FALPSPQHIL GLPVGQHIYL SARIDGNLVV RPYTPISSDD DKGFDLVLIK VYFKDTHPKF PAGGKMSQYL ESMQIGDTIE FRGPSGLLVY QGKGKFAIRP DKKSNPIIRT VKSVGMIAGG TGITPMLQVI RAIMKDPDDH TVCHLLFANQ TEKDILLRPE LEELRNKHSR RFKLWYTLDR APEAWDYGGQ FVNEEMIRDH LPPPEEEPLV LMCPPPMIQ YAQLPNLDHV GHPTERCFVF.		
Formulation	The CYB5R3 solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 100mM NaCl, 1mM DTT and 10% glycerol.		

Introduction

CYB5R3 is a cytochrome b5 reductase, which includes a membrane-bound form in somatic cells (anchored in the endoplasmic reticulum, mitochondrial and other membranes) and a soluble form in erythrocytes. The membrane-bound form exists mainly on the cytoplasmic side of the endoplasmic reticulum and functions in desaturation and elongation of fatty acids, in cholesterol biosynthesis, and in drug metabolism. The erythrocyte form is located in a soluble fraction of circulating erythrocytes and is involved in methemoglobin reduction. The membrane-bound form has both membrane-binding and catalytic domains, while the soluble form has only the catalytic domain. Mutations in this gene cause methemoglobinemias.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer

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

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

CYB5R3 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 300 amino acids (27-301) and having a molecular mass of 34.0kDa. CYB5R3 is fused to a 25 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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