

Recombinant Human CYBB, His-tagged

Cat. No. CYBB-11752H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human CYBB protein, fused to His-tag, was expressed in E.coli and purified by Ni-sepharose.
Species	Human
Source	E.coli
ProteinLength	422-577a.a.
Description	Cytochrome b (-245) is composed of cytochrome b alpha (CYBA) and beta (CYBB) chain. It has been proposed as a primary component of the microbicidal oxidase system of phagocytes. CYBB deficiency is one of five described biochemical defects associated with chronic granulomatous disease (CGD). In this disorder, there is decreased activity of phagocyte NADPH oxidase; neutrophils are able to phagocytize bacteria but cannot kill them in the phagocytic vacuoles. The cause of the killing defect is an inability to increase the cells respiration and consequent failure to deliver activated oxygen into the phagocytic vacuole.
Storage	The protein is stored in PBS buffer at -20°C. Avoid repeated freezing and thawing cycles.
Storage Buffer	1M PBS (58mM Na ₂ HPO ₄ , 17mM NaH ₂ PO ₄ , 68mM NaCl, pH8.) added with 300mM Imidazole and 0.7% Sarcosyl, 15%glycerol.

GENE INFORMATION

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Gene Name	CYBB cytochrome b-245, beta polypeptide [Homo sapiens]
Official Symbol	CYBB
Synonyms	CYBB; cytochrome b-245, beta polypeptide; CGD, chronic granulomatous disease; cytochrome b-245 heavy chain; GP91 PHOX; NOX2; CGD91-phox; NADPH oxidase 2; p22 phagocyte B-cytochrome; cytochrome b558 subunit beta; cytochrome b(558) subunit beta; neutrophil cytochrome b 91 kDa polypeptide; heme-binding membrane glycoprotein gp91phox; superoxide-generating NADPH oxidase heavy chain subunit; CGD; AMCBX2; GP91-1; GP91PHOX; p91-PHOX; GP91-PHOX;
Gene ID	1536
mRNA Refseq	NM_000397
Protein Refseq	NP_000388
MIM	300481
UniProt ID	P04839
Chromosome Location	Xp21.1
Pathway	Adaptive Immune System, organism-specific biosystem; Antigen processing-Cross presentation, organism-specific biosystem; Class I MHC mediated antigen processing & presentation, organism-specific biosystem; Cross-presentation of particulate exogenous antigens (phagosomes), organism-specific biosystem; Immune System, organism-specific biosystem; Leukocyte transendothelial migration, organism-specific biosystem;

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Function

contributes_to electron carrier activity; flavin adenine dinucleotide binding; heme binding; metal ion binding; oxidoreductase activity; protein binding; protein heterodimerization activity; contributes_to superoxide-generating NADPH oxidase activity; sup

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