

Recombinant Human XDH protein, His/GST-tagged

Cat. No. XDH-17H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human XDH(Met1~Gly300) fused with His/GST tag at N-terminal was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	1-300 a.a.
Description	Xanthine dehydrogenase belongs to the group of molybdenum-containing hydroxylases involved in the oxidative metabolism of purines. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Xanthine dehydrogenase can be converted to xanthine oxidase by reversible sulfhydryl oxidation or by irreversible proteolytic modification. Defects in xanthine dehydrogenase cause xanthinuria, may contribute to adult respiratory stress syndrome, and may potentiate influenza infection through an oxygen metabolite-dependent mechanism.
Form	Supplied as lyophilized form in PBS, pH7.4, containing 5% trehalose, 0.01% sarcosyl.
Molecular Mass	63.1kDa
AA Sequence	MTADKLVFFV NGRKVVEKNA DPETLLAYL RRLGLSGTK LGCGEggCGA CTVMLSKYDR LQNKIVHFSA NACLAPICSL HHVAVTTVEG IGSTKTRLHP VQERIAKSHG SQCGFCTPGI VMSMYTLLRN QPEPTMEEIE NAFQGNLCRC

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TGYRPILQGF RTFARDGGCC GGDGNNPNCC MNQKKDHSVS LSPSLFKPEE
FTPLDPTQEP IFPELLRLK DTPRKQLRFE GERVTWIQAS TLKELDLKA
QHPDAKLVVG NTEIGIEMKF KNMLFPMIVC PAWIPELNSV EHGPDGISFG

Endotoxin	<1.0EU per 1g (determined by the LAL method)
Purity	> 90%
Applications	SDS-PAGE; WB; ELISA; IP.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 centigrade for one month. Aliquot and store at -80 centigrade for 12 months.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.

GENE INFORMATION

Gene Name	XDH xanthine dehydrogenase [Homo sapiens]
Official Symbol	XDH
Synonyms	XDH; xanthine dehydrogenase; xanthene dehydrogenase; xanthine dehydrogenase/oxidase; XO; XOR; xanthine oxidase; xanthine oxidoreductase;
Gene ID	7498
mRNA Refseq	NM_000379
Protein Refseq	NP_000370
MIM	607633

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UniProt ID	P47989
Chromosome Location	2p23.1
Pathway	Caffeine metabolism, organism-specific biosystem; Caffeine metabolism, conserved biosystem; Drug metabolism - other enzymes, organism-specific biosystem; Drug metabolism - other enzymes, conserved biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of nucleotides, organism-specific biosystem;
Function	2 iron, 2 sulfur cluster binding; UDP-N-acetylmuramate dehydrogenase activity; electron carrier activity; flavin adenine dinucleotide binding; iron ion binding; metal ion binding; molybdopterin cofactor binding; oxidoreductase activity, acting on CH-OH group of donors; protein homodimerization activity; xanthine dehydrogenase activity; xanthine oxidase activity; xanthine oxidase activity;

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