

Recombinant Human HAO1, His-tagged

Cat. No. HAO1-3612H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinanthuman HAO1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.
Species	Human
Source	E.coli
ProteinLength	1-370 aa
Description	HAO1, also known as glycolate oxidase, is a member of the superfamily of the alpha hydroxy acid oxidases(HAO) enzymes. It catalyzes the FMN mediated oxidation of glycolate to glyoxylate and glyoxylate to oxalate with reduction of oxygen to hydrogen peroxide. It is most highly expressed in liver and pancreas and is most active on twocarbon substrates such as glycolate. Recently, it has been identified as a major contributor to hyperoxaluria, a disorder in which large deposits of calcium oxalate form kidney stones.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 0.5M NaCl
Molecular Weight	45.0 kDa(406aa), confirmed by MALDI-TOF
Purity	> 95% by SDS - PAGE
Concentration	1.0 mg/ml (determined by Bradford assay)

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Sequences of amino acids

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMLPR LICINDYEQH
 AKSVLPKSIY DYYRSGANDE ETLADNIAAF SRWKLYPRMLRNVAETDLST
 SVLGQRVSMP ICVGATAMQR MAHVDGELAT VRACQSLGTG MMLSSWATSS
 IEEVAEAGPE ALRWLQLYIY KDREVTKKLVRQAEKMGYKA IFVTVDTPYL
 GNRLDDVRNR FKLPPQLRMK NFETSTLSFS PEENFGDDSG LAAYVAKAID
 PSISWEDIKW LRRLTSLPIVAKGILRGDDA REAVKHGLNG ILVSNHGARQ
 LDGVPATIDV LPEIVEAVEG KVEVFLDGGV RKGTDVLKAL ALGAKAVFVG
 RPIVWGLAFQGEKGVQDVLE ILKEEFRLAM ALSGCQNVKV IDKTLVRKNP LAVSKI

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION
Gene Name

HAO1 hydroxyacid oxidase (glycolate oxidase) 1 [Homo sapiens]

Official Symbol

HAO1

Synonyms

HAO1; GOX; GOX1; HAOX1; MGC142225; MGC142227; hydroxyacid oxidase (glycolate oxidase) 1; hydroxyacid oxidase 1; glycolate oxidase; OTTHUMP00000030231; (S)-2-hydroxy-acid oxidase; EC=1.1.3.15

Gene ID

54363

mRNA Refseq

NM_017545

Protein Refseq

NP_060015

MIM

605023

UniProt ID

Q9UJM8

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Chromosome Location	20p12
Function	(S)-2-hydroxy-acid oxidase activity; FMN binding; glycolate oxidase activity; oxidoreductase activity