

Recombinant human Hydroxyacid Oxidase-1/HAO-1 protein

Catalog Number: ATGP1168

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-370aa

UniProt No.

Q9UJM8

NCBI Accession No.

NP_060015

Alternative Names

Hydroxyacid oxidase 1, GOX (glycolate oxidase), GOX1, HAOX1

PRODUCT SPECIFICATION

Molecular Weight

45.0 kDa (406aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol, 0.5M NaCl

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

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. Recombinant human HAO1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional

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chromatography.

Amino acid Sequence

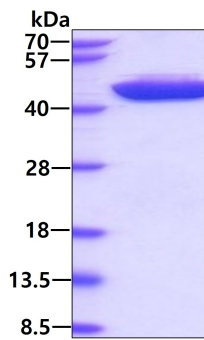
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ETLADNIAAF SRWKLYPRML RNVAETDLST SVLGQRVSMP ICVGATAMQR MAHVDGELAT VRACQSLGTG MMLSSWATSS
IEEVAEAGPE ALRWLQLYIY KDREVTKKLV RQAEKMGYKA IFVTVDTPYL GNRLDDVRNR FKLPPQLRMK NFETSTLSFS
PEENFGDDSG LAAYVAKAID PSISWEDIKW LRRLTSLPIV AKGILRGDDA REAVKHGLNG ILVSNHGARQ LDGVPATIDV
LPEIVEAVEG KVEVFLDGGV RKGTDVLKAL ALGAKAVFVG RPIVWGLAFQ GEKGVQDVLE ILKEEFRLAM ALSGCQNVKV
IDKTLVRKNP LAVSKI

General References

Pennati A. and G. Gadda. (2009) J. Biol. Chem. 284:31214
Murray M.S. et al. (2008) Biochemistry, 47:2439

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.