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

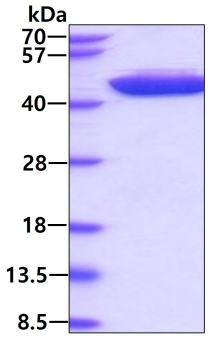
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS>MLPR LICINDYEQH AKSVLPKSIY DYYRSGANDE ETLADNIAAF SRWKLYPRML RNVAETDLST SVLGQRVSMP ICVGATAMQR MAHVDGELAT VRACQSLGTG MMLSSWATSS IEEVAEAGPE ALRWLQLYIY KDREVTKKLV RQAEKMGYKA IFVTVDTPYL GNRLDDVRNR FKLPPQLRMK NFETSTLSFS PEENFGDDSG LAAYVAKAID PSISWEDIKW LRRLTSLPIV AKGILRGDDA 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.