

Product information

HAO1, 1-370aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP1168

Full name: Hydroxyacid oxidase 1

NCBI Accession No.: NP_060015

Synonyms: GOX (glycolate oxidase), GOX1, HAOX1

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 chromatography.

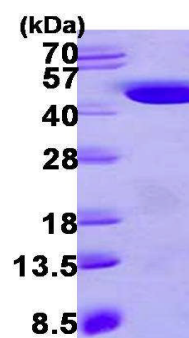
Form: Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol

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)



15% SDS-PAGE (3ug)

Sequences of amino acids:

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSM LPR LICINDYEQH AKSVLPKSIY DYYRSGANDE ETADNIAAF SRWKLYPRML
RNVAETDLST SVLGQRVSMP ICVGATAMQR MAHVDGELAT VRACQSLGTG MMLSSWATSS IEEVAEAGPE ALRWLQLYIY KDREVTKKLV
RQAEKMGYKA IFVTVDTPYL GNRLDDVRNR FKLPPQLRMK NFETSTLSFS PEENFGDDSG LAAYVAKAID PSISWEDIKW LRRLTSLPIV
AKGILRGDDA REAVKHGLNG ILVSNHGARG 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

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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.