

## 32-6799: HAO1 Human, Active

**Application :** Functional Assay

**Alternative Name :** Hydroxyacid oxidase 1, HAOX1, Glycolate oxidase, GOX, HAO1, GOX1.

### Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

Glycolate oxidase (HAO1) is a part of the superfamily of the alpha hydroxy acid oxidases (HAO) enzymes. HAO1 catalyses the FMN mediated oxidation of glycolate to glyoxylate and glyoxylate to oxalate by reducing oxygen to hydrogen peroxide. HAO1 is expressed mainly in the liver and pancreas and is most active on twocarbon substrates such as glycolate. HAO1 is the main cause of hyperoxaluria, a disorder in which large deposits of calcium oxalate form kidney stones.

HAO1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 406 amino acids (1-370 a.a) and having a molecular mass of 45.0kDa. HAO1 is fused to a 36 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95% as determined by SDS-PAGE.

**Content :** HAO1 protein solution (1mg/ml) contains 20% glycerol, 20mM Tris-Hcl (pH8.0) and 0.5M NaCl.

**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

**Amino Acid :** MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMLPR LICINDYEQH AKSVLPKSIY  
DYRSGANDE ETLADNIAAF SRWKLYPRMLRNVAETDLST SVLGQRVSMPCVIGATAMQR MAHVVDGELAT  
VRACQSLGTG MMLSSWATSS IEEVAEAGPE ALRWLQLYIY KDREVTKKLVRQAEMGYKA IFVTVDTPYL  
GNRLDDVRNR FKLPPQLRMK NFETSTLSFS PEENFGDDSG LAAYVAKAID PSISWEDIKW  
LRRLTSLPIVAKGILRGDDA REAVKHGLNG ILVSNHGARQ LDGVPATIDV LPEIVEAVEG KVEVFLDGGV  
RKGTDVLKAL ALGAKAVFVG RPIVWGLAFQGEKGVQDVLE ILKEEFRLAM ALSGCQNVKV IDKTLVRKNP  
LAVSKI.

### Application Note

Specific activity is > 3000 pmol/min/ug, and defined as the amount of enzyme that oxidize glyoxylate at pH 8.0 at 25C.