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**Product Data Sheet**


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Product Name: HAO1 Human

Cat. No.: GP21773

Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Hydroxyacid oxidase 1; HAOX1; Glycolate oxidase; GOX; HAO1; GOX1.		
Amino Acid Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSMLPR LICINDYEQH AKSVLPKSIY DYYRSGANDE ETLADNIAAF SRWKLYPRML RNVAETDLST SVLGQRVSMP ICVGATAMQR MAHVDGELAT VRACQSLGTG MMLSSWATSS IEEVAEAGPE ALRWLQLYY KDREVTKKLV RQAEKMGYKA IFVTVDTPYL GNRLDDVRNR FKLPPQLRMK NFETSTLSFS PEENFGDDSG LAAYVAKAID PSISWEDIKW LRRLTSLPIV AKGILRGDDA REAVKHGLNG ILVSNHGARQ LDGVPATIDV LPEIVEAVEG KVEVFLDGGV RKGTDVLKAL ALGAKAVFVG RPIVWGLAFQ GEKGVQDVLE ILKEEFRLAM ALSGCQNVKV IDKTLVRKNP LAVSKI.		
Formulation	HAO1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 20% glycerol and 0.5M NaCl.		

**Introduction**

Glycolate oxidase (HAO1) belongs to the superfamily of the alpha hydroxy acid oxidases (HAO) enzymes. HAO1 catalyzes the FMN mediated oxidation of glycolate to glyoxylate and glyoxylate to oxalate with reduction of oxygen to hydrogen peroxide. HAO1 is most abundantly expressed in the liver and pancreas and is most active on twocarbon substrates such as glycolate. Lately, HAO1 has been identified as a key contributor to hyperoxaluria, a disorder in which large deposits of calcium oxalate form kidney stones.

**Stability**

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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Background

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 45kDa. HAO1 is fused to a 36 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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