

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Hydroxyacid Oxidase-1/HAO-1 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Hydroxyacid Oxidase-1/HAO-1 Leu2-Ile370 Accession # Q9UJM8
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Glycolate oxidase is a member of the superfamily of the α -hydroxy acid oxidases (HAO), enzymes that are present in both plants and animals (1). It catalyzes the FMN-mediated oxidation of glycolate to glyoxylate and glyoxylate to oxalate with reduction of oxygen to hydrogen peroxide (2, 3). The co-factor, FMN, is tightly bound but not covalently linked to the protein. In humans and other vertebrates, HAOs are found primarily in the peroxisomes of liver, kidney, and pancreas. Three HAOs have been identified in humans (4). HAO-1 is most highly expressed in liver and pancreas and is most active on two-carbon substrates such as glycolate. HAO-2 is expressed in liver and kidney and has greater activity against long-chain α -hydroxy acid substrates such as 2-hydroxypalmitate. HAO-3 is expressed primarily in the pancreas. Recently, HAO has been identified as a major contributor to hyperoxaluria, a disorder in which large deposits of calcium oxalate form kidney stones (5).

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