Recombinant Human HAO1 Protein (His Tag)

Cat.NO.: TP07977

3th Edition

Synonyms:GOX;GOX1;HAOX1

Description: Hydroxyacid oxidase 1, also known as Glycolate oxidase, HAO1 and GOX1, is a member of the FMN-dependent alpha-hydroxy acid dehydrogenase family. HAO1 / GOX1 has 2-hydroxyacid oxidase activity. It is most active on the 2-carbon substrate glycolate, but is also active on 2-hydroxy fatty acids, with high activity towards 2-hydroxy palmitate and 2-hydroxy octanoate. HAO1 / GOX1 is a liver-specific peroxisomal enzyme that oxidizes glycolate to glyoxylate with concomitant production of H2O2. In Hao1 messenger RNA (mRNA), an iron-responsive element (IRE) homologous to the sequence recognized by iron regulatory proteins (IRP), key regulators of iron homeostasis, is present. Mammalian HAO1 / GOX1 is a peroxisomal protein and that the C-terminal sequence SKI acts as the targeting signal. Down-regulation of HAO1 / GOX1 expression during oxidative stress may provide a mechanism to prevent excessive H2O2 formation in liver peroxisomes and may represent the prototype of a poorly recognized but potentially relevant response to oxidative injury involving down-regulation of ROS-producing enzymes.

Form:PBS

Molecular Weight:

Sequences: Leu 2-Ile 370

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

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.