

Mouse GLO1 / Glyoxalase 1 Protein (His Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 50364-M07E

General Information

Gene Name Synonym:

GLOD1; GLYI; HEL-S-74; 0610009E22Rik; 1110008E19Rik; 2510049H23Rik; AW550643; Glo-1; Glo-1r; Glo-1s; Glo1-r; Glo1-s; GLY1; Qglo

Protein Construction:

A DNA sequence encoding the mouse GLO1 (NP_079650.3) (Ala 2-Ile 184) was expressed, with a polyhistidine tag at the N-terminus.

Source: Mouse

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant mouse GLO1 consisting of 190 amino acids and has a calculated molecular mass of 21.6 kDa. The apparent molecular mass of the rmGOL1 is approximately 25 and 48 kDa in SDS-PAGE under reducing conditions, corresponding to the monomer and dimer respectively.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

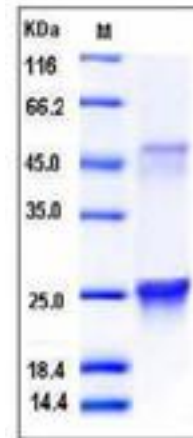
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Mouse Lactoylglutathione lyase, also known as Methylglyoxalase, Aldoketomutase, Glyoxalase I, Ketone-aldehyde mutase, S-D-lactoylglutathione methylglyoxal lyase and GLO1, is a member of the glyoxalase I family. GLO1 / Glyoxalase I is a ubiquitous cellular defense enzyme involved in the detoxification of methylglyoxal, a cytotoxic byproduct of glycolysis. Accumulative evidence suggests an important role of GLO1 expression in protection against methylglyoxal-dependent protein adduction and cellular damage associated with diabetes, cancer, and chronological aging. GLO1 / Glyoxalase I has been implicated in anxiety-like behavior in mice and in multiple psychiatric diseases in humans. GLO1 / Glyoxalase I catalyzes the conversion of hemimercaptal, formed from methylglyoxal and glutathione, to S-lactoylglutathione. GLO1 / Glyoxalase I exists in three separable isoforms which originate from two alleles in the genome. These correspond to two homodimers and one heterodimer composed of two subunits showing different electrophoretic properties. GLO1 upregulation may play a functional role in glycolytic adaptations of cancer cells.

References

- 1.Wu, YY. et al., 2008,Prog Neuropsychopharmacol Biol Psychiatry. 32 (7):1740-4.
- 2.Williams,R. et al., 2009, PLoS One 4 (3): e4649.
- 3.Antognelli,C. et al., 2009, BMC Cancer 9 :115.

Manufactured By Sino Biological Inc., FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

Fax :+86-10-51029969 • Tel:+86-400-890-9989 • <http://www.sinobiological.com>