Recombinant Mouse GLO1/Glyoxalase 1 Protein (His Tag)

Catalog Number: PKSM040716

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

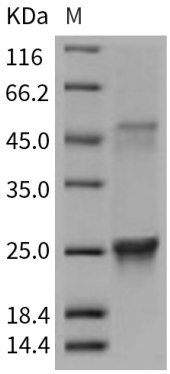
Description

Species	Mouse
Source	E.coli-derived Mouse GLO1/Glyoxalase 1 protein Ala 2-Ile 184, with an N-terminal His
Calculated MW	21.6 kDa
Observed MW	25&48 kDa
Accession	NP_079650.3
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

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.

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