

Active Recombinant Human GLO1 protein, His-tagged

Cat. No. GLO1-27H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GLO1 protein was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	Lactoylglutathione lyase, also known as GLO1, belongs to the glyoxalase family. Glyoxalase I is responsible for the catalysis and formation of S-lactoyl-glutathione from methylglyoxal condensation and reduced glutathione. This enzyme is ubiquitously expressed and is also present in many tumor cell lines, in which its concentration is often upregulated.
Form	Liquid. In 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT, 10% glycerol
Bio-activity	Specific activity: >400 units/mg. One unit will form 1.0 μmol of S-lactoylglutathione from methylglyoxal and reduced glutathione per minute at pH 6.5 at 25°C.
Molecular Mass	20.7 kDa (184 aa), confirmed by MALDI-TOF
AA Sequence	ARPCIPKSFG YSSVVCVCNA TYCDSFDPPT FPALGTFSRY ESTRSGRRME LSMGPIQANH TGTGLLLTLQ PEQKFQKVKG FGGAMTDAAALNILALSPPA QNLLKSYFS EEGIGYNIIR VPMASCDFSI RYTYADTPD DFQLHNFSLP EEDTKLKIPL IHRALQLAQR PVSLLASPWTSPWLKTNGA VNGKGSLSKGQ PGDIYHQTWA RYFVKFLDAY AEHKLQFWAV TAENEPSAGL LSGYPFQCLG

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FTPEHQRDFI ARDLGPTLANSTHHNVRLLM LDDQRLLLP WAKVVLTDPE
AAKYVHGIAV HWYLDLFLAPA KATLGETHRL FPNTMLFASE ACVGSKFWEQ
SVRLGSWDRGMQYSHSIITN LLYHVVGWTD WNLALNPEGG PNWVRNFVDS
PIIVDITKDT FYKQPMFYHL GHFSKFIPEG SQRVGLVASQ
KNDLDAVALMHPDGSAVVVV LNRSSKDVPL TIKDPAVGFL ETISPGYSIH
TYLWRRQHHH HHH

Endotoxin < 1.0 EU per 1 microgram of protein (determined by LAL method)

Purity >90% by SDS - PAGE

Storage Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.

Concentration 1 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name [GLO1 glyoxalase I \[Homo sapiens \]](#)

Official Symbol [GLO1](#)

Synonyms GLO1; glyoxalase I; lactoylglutathione lyase; GLOD1; glyoxalase domain containing 1; glx I; aldoketomutase; methylglyoxalase; ketone-aldehyde mutase; lactoyl glutathione lyase; S-D-lactoylglutathione methylglyoxal lyase; GLYI;

Gene ID [2739](#)

mRNA Refseq [NM_006708](#)

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Protein Refseq	NP_006699
MIM	138750
UniProt ID	Q04760
Chromosome Location	6p21.3-p21.1
Pathway	Pyruvate metabolism, organism-specific biosystem; Pyruvate metabolism, conserved biosystem; methylglyoxal degradation I, organism-specific biosystem;
Function	lactoylglutathione lyase activity; lyase activity; metal ion binding;

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