

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 FGGAMTDAALNILALSPPA QNLLLKSYFS EEGIGYNIIR VPMASCDFSI RTYTYADTPD DFQLHNFSLP EEDTKLKIPL IHRALQLAQR PVSLASPWTSPTWLKTINGA VNGKGS�KGQ PGDIYHQTWA RYFVKFLDAY AEHKLQFWAV TAENEPSAGL LSGYPFQCLG

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

FTPEHQRDFI ARDLGPTLANSTHHNVRLLM LDDQRLLLPW WAKVVLTDPE
 AAKYVHGIAV HWYLDLFLAPA KATLGETHRL FPNTMLFASE ACVGSKFWEQ
 SVRLGSWDRGMQYSHSIITN LLYHVVGWTD WNLALNPEGG PNWVRNFVDS
 PIIVDITKDT FYKQPMFYHL GHFSKFIPEG SQRVGLVASQ
 KNDLDAVALMHPDGSVVVV 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](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



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;

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA