

## IldD Protein, E.coli (His)

<b>Cat. No.:</b>	HY-P71522
<b>Synonyms:</b>	IldD; EcHS_A3817L-lactate dehydrogenase
<b>Species:</b>	E.coli
<b>Source:</b>	E. coli
<b>Accession:</b>	A8A670 (1M-396A)
<b>Gene ID:</b>	57729941
<b>Molecular Weight:</b>	Approximately 46.7 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> M I I S A A S D Y R   A A A Q R I L P P F   L F H Y M D G G A Y   S E Y T L R R N V E D L S E V A L R Q R   I L K N M S D L S L   E T T L F N E K L S   M P V A L A P V G L C G M Y A R R G E V   Q A A K A A D A H G   I P F T L S T V S V   C P I E E V A P A I K R P M W F Q L Y V   L R D R G F M R N A   L E R A K A A G C S   T L V F T V D M P T P G A R Y R D A H S   G M S G P N A A M R   R Y L Q A V T H P Q   W A W D V G L N G R P H D L G N I S A Y   L G K P T G L E D Y   I G W L G N N F D P   S I S W K D L E W I R D F W D G P M V I   K G I L D P E D A R   D A V R F G A D G I   V V S N H G G R Q L D G V L S S A R A L   P A I A D A V K G D   I A I L A D S G I R   N G L D V V R M I A L G A D T V L L G R   A F L Y A L A T A G   Q A G V A N L L N L   I E K E M K V A M T L T G A K S I S E I   T Q D S L V Q G L G   K E L P A A L A P M   A K G N A A </pre>
<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Lyophilized powder.
<b>Formulation</b>	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
<b>Endotoxin Level</b>	<1 EU/μg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	GLO1/Glyoxalase I protein serves as a catalyst in the conversion of hemimercaptal, generated from the reaction between
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methylglyoxal and glutathione, into S-lactoylglutathione. This enzymatic activity plays a crucial role in the detoxification of methylglyoxal, a cytotoxic byproduct of glycolysis. Additionally, GLO1 is implicated in the regulation of TNF-induced transcriptional activity of NF-kappa-B, suggesting its involvement in inflammatory signaling pathways. Furthermore, GLO1 is essential for normal osteoclastogenesis, highlighting its significance in cellular processes beyond its role in detoxification.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA