

## GULO Protein, Rat (Cell-Free, His)

Cat. No.:	HY-P702310
Synonyms:	L-gulonolactone oxidase; L-gulono-gamma-lactone oxidase; GLO
Species:	Rat
Source:	E. coli Cell-free
Accession:	P10867 (V2-Y440)
Gene ID:	60671
Molecular Weight:	52.0 kDa

### PROPERTIES

AA Sequence	<p>V H G Y K G V Q F Q    N W A K T Y G C S P    E V Y Y Q P T S V E    E V R E V L A L A R</p> <p>E Q K K K V K V V G    G G H S P S D I A C    T D G F M I H M G K    M N R V L Q V D K E</p> <p>K K Q I T V E A G I    L L A D L H P Q L D    E H G L A M S N L G    A V S D V T V A G V</p> <p>I G S G T H N T G I    K H G I L A T Q V V    A L T L M T A D G E    V L E C S E S R N A</p> <p>D V F Q A A R V H L    G C L G I I L T V T    L Q C V P Q F H L Q    E T S F P S T L K E</p> <p>V L D N L D S H L K    R S E Y F R F L W F    P H T E N V S I I Y    Q D H T N K A P S S</p> <p>A S N W F W D Y A I    G F Y L L E F L L W    T S T Y L P C L V G    W I N R F F F W M L</p> <p>F N C K K E S S N L    S H K I F T Y E C R    F K Q H V Q D W A I    P R E K T K E A L L</p> <p>E L K A M L E A H P    K V V A H Y P V E V    R F T R G D D I L L    S P C F Q R D S C Y</p> <p>M N I I M Y R P Y G    K D V P R L D Y W L    A Y E T I M K K F G    G R P H W A K A H N</p> <p>C T Q K D F E E M Y    P T F H K F C D I R    E K L D P T G M F L    N S Y L E K V F Y</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

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**Background**

GULO Protein catalyzes the oxidation of L-gulono-1,4-lactone, resulting in the production of hydrogen peroxide and L-xylo-hexulonolactone. The latter compound spontaneously undergoes isomerization, ultimately yielding L-ascorbate. This enzymatic process highlights the pivotal role of GULO in the biosynthesis of L-ascorbate, commonly known as vitamin C, a crucial antioxidant in various biological systems. The ability of GULO to facilitate this oxidation pathway contributes to the cellular synthesis of L-ascorbate, emphasizing its significance in maintaining redox balance and supporting essential physiological functions.

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

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