

## Maleylacetoacetate isomerase/GSTZ1 Protein, Human (N-His)

<b>Cat. No.:</b>	HY-P70206A
<b>Synonyms:</b>	rHuMaleylacetoacetate isomerase/GSTZ1, His; Maleylacetoacetate Isomerase; MAAI; GSTZ1-1; Glutathione S-Transferase Zeta 1; GSTZ1
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	NP_665877.1 (Q2-A216)
<b>Gene ID:</b>	2954
<b>Molecular Weight:</b>	Approximately 25 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>Q A G K P I L Y S Y    F R S S C S W R V R    I A L A L K G I D Y    E T V P I N L I K D</p> <p>G G Q Q F S K D F Q    A L N P M K Q V P T    L K I D G I T I H Q    S L A I I E Y L E E</p> <p>M R P T P R L L P Q    D P K K R A S V R M    I S D L I A G G I Q    P L Q N L S V L K Q</p> <p>V G E E M Q L T W A    Q N A I T C G F N A    L E Q I L Q S T A G    I Y C V G D E V T M</p> <p>A D L C L V P Q V A    N A E R F K V D L T    P Y P T I S S I N K    R L L V L E A F Q V</p> <p>S H P C R Q P D T P    T E L R A</p>
<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 from a 0.2 µm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, 500 mM arginine, pH 7.4, 5% trehalose, 5% mannitol and 0.01% Tween80.
<b>Endotoxin Level</b>	Data is not available.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For lower concentration, please reconstitute in 50mM Tris-HCL, 300mM NaCl, 500mM arginine, pH 7.4 buffer.
<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>	The Maleylacetoacetate isomerase/GSTZ1 protein belongs to the glutathione S-transferase (GSTs) superfamily, encoding multifunctional enzymes that play a crucial role in the detoxification of electrophilic molecules, including carcinogens, mutagens, and therapeutic drugs, through conjugation with glutathione. This enzyme specifically catalyzes the conversion
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of maleylacetoacetate to fumarylacetoacetate, a critical step in the phenylalanine/tyrosine degradation pathway. In mice, deficiency of a similar gene leads to oxidative stress. The gene exhibits several transcript variants that encode multiple protein isoforms. Furthermore, the Maleylacetoacetate isomerase/GSTZ1 protein displays broad expression in the liver (RPKM 23.8), testis (RPKM 10.9), and 24 other tissues.

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

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