

Murinoglobulin-1/Mug1 Protein, Mouse (His)

Cat. No.:	HY-P71452
Synonyms:	Mug1; Mug-1Murinoglobulin-1; MuG1
Species:	Mouse
Source:	E. coli
Accession:	P28665 (700T-910E)
Gene ID:	17836
Molecular Weight:	Approximately 32.0 kDa

PROPERTIES

AA Sequence	<p>T P E I S W S L R T T L S K R P E E P P R K D P S S N D P L T E T I R K Y F P E</p> <p>T W V W D I V T V N S T G L A E V E M T V P D T I T E W K A G A L C L S N D T G</p> <p>L G L S S V V P L Q A F K P F F V E V S L P Y S V V R G E A F M L K A T V M N Y</p> <p>L P T S M Q M S V Q L E A S P D F T A V P V G D D Q D S Y C L S A N G R H T S S</p> <p>W L V T P K S L G N V N F S V S A E A Q Q S S E P C G S E V A T V P E T G R K D</p> <p>T V V K V L I V E P E</p>
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O.
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

Background	<p>Murinoglobulin-1 (Mug1) operates as a proteinase inhibitor through a specific proteolytic activation mechanism in the bait region. This activation triggers a reaction at the cysteinyl-glutamyl internal thiol ester site, leading to a conformational change that effectively traps or covalently binds the proteinase to the inhibitor. In tetrameric forms of this proteinase inhibitor, steric hindrance alone provides robust inhibition. However, in monomeric configurations, an additional covalent linkage is essential between the activated glutamyl residue and a terminal amino group of a lysine or another nucleophilic group on the proteinase for inhibition to be fully effective. This intricate process highlights Mug1's ability to modulate proteinase activity through a combination of structural and chemical interactions.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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