Proteins



USP25 Protein, Human

Cat. No.: HY-P701444

USP25; Ubiquitin carboxyl-terminal hydrolase 25; Deubiquitinating enzyme 25; USP on Synonyms:

chromosome 21; Ubiquitin thioesterase 25; Ubiquitin-specific-processing protease 25

Species: Human Source: E. coli

Accession: Q9UHP3 (T2-R1055)

Gene ID: 29761 Molecular Weight: 122.2 kDa

PROPERT	

Biological Activity	The fundamental role of USP25 is specific removal of ubiquitin from substrates. USP25 catalyses the ubiquitin from the substrate Ub-Rho110 to release fluorophores. Rho110 will release 535 nM emission light under the excitation condition of 485 nM. The signal of which can be quickly and reliably captured using a microplate reader.
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

Ubiquitin-specific protease 25 (USP25) is a deubiquitinating enzyme with the capacity to hydrolyze ubiquitin moieties $conjugated \ to \ substrates, thereby \ participating \ in \ the \ processing \ of \ newly \ synthesized \ ubiquitin, \ recycling \ ubiquitin$ molecules, and editing polyubiquitin chains. USP25 plays a crucial role in preventing the proteasomal degradation of substrates by cleaving ubiquitin chains. Notably, it exhibits hydrolytic activity towards both 'Lys-48'- and 'Lys-63'-linked tetraubiquitin chains, showcasing its versatility in targeting different ubiquitin linkage types. Additionally, a muscle-specific isoform of USP25, known as USP25m, is suggested to play a role in the regulation of muscular differentiation and function, indicating its potential significance in specific cellular contexts.

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