

Active Recombinant Human USP25, GST-tagged

Cat. No. USP25-187H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human USP25 (amino acid residues 1-1055), fused with N-terminal GST, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1-1055 a.a.
Description	The chromosome 21 trisomy (Down syndrome) is the most frequent human birth defect, and an increase in USP25 gene dosage in Down syndrome patients could seriously disturb the balance between ubiquitylated and deubiquitylated substrates (Valero et al., 1999). Instability and allelic deletions of the 21q11-q21 region of the chromosome have been found in 13 of 34 squamous non-small cell lung carcinomas (Groet et al., 2000). USP25 is a target for SUMOylation, being more efficient with SUMO2/3. USP25 SUMOylation impairs binding to and hydrolysis of ubiquitin chains (Meulmeester et al., 2008). USP25 is deSUMOylated by SENP1 (Mohideen and Lima, 2008).
Form	50 mM HEPES pH 7.5, 150 mM sodium chloride, 2 mM dithiothreitol, 10% glycerol
Bio-activity	Deubiquitylase Enzyme Assay: The activity of GST-USP25 was validated by determining the increase in fluorescence measured as a result of the enzyme catalysed cleavage of the fluorogenic substrate Ubiquitin-Rhodamine110-Glycine generating Ubiquitin and Rhodamine110-Glycine. Incubation of the substrate in the

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presence or absence of GST-USP25 was compared confirming the deubiquitylating activity of GST-USP25.

Molecular Mass ~149 kDa

Purity >74% by SDS-PAGE

Storage 12 months at -70°C. Avoid multiple freeze/thaw cycles.

Concentration 0.5 mg/ml

GENE INFORMATION

Gene Name USP25 ubiquitin specific peptidase 25 [Homo sapiens]

Official Symbol USP25

Synonyms USP25; ubiquitin specific peptidase 25; ubiquitin specific protease 25; ubiquitin carboxyl-terminal hydrolase 25; USP21; USP on chromosome 21; ubiquitin thioesterase 25; deubiquitinating enzyme 25; ubiquitin thiolesterase 25; ubiquitin-specific processing protease 25; ubiquitin-specific-processing protease 25;

Gene ID 29761

mRNA Refseq NM_013396

Protein Refseq NP_037528

MIM 604736

UniProt ID Q9UHP3

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Chromosome Location	21q11.2
Function	SUMO binding; cysteine-type peptidase activity; peptidase activity; protein binding; ubiquitin thiolesterase activity; ubiquitin-specific protease activity;