

Active Recombinant Human USP45, GST-tagged

Cat. No. USP45-190H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human USP45 (amino acid residues 1-814), fused with N-terminal GST, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	1-814 a.a.
Description	There are two main classes of DUB; cysteine proteases and metalloproteases. Ubiquitin carboxyl-terminal hydrolase 45 (Ubiquitin Specific Protease 45; USP45) is a member of the cysteine protease enzyme family and cloning of the human gene was first described by Quesada et al. (2004). USP45 is an 819 amino acid protein that is broadly expressed; the highest levels can be found in the spleen, ovary and skeletal muscle.
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-USP45 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 presence or absence of GST-USP45 was compared confirming the deubiquitylating activity of GST-USP45.

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Molecular Mass	~118 kDa
Purity	>70% by SDS-PAGE
Storage	12 months at -70°C. Avoid multiple freeze/thaw cycles.
Concentration	0.5 mg/ml

GENE INFORMATION

Gene Name	USP45 ubiquitin specific peptidase 45 [Homo sapiens]
Official Symbol	USP45
Synonyms	USP45; ubiquitin specific peptidase 45; ubiquitin specific protease 45; ubiquitin carboxyl-terminal hydrolase 45; MGC14793; ubiquitin thioesterase 45; deubiquitinating enzyme 45; ubiquitin thiolesterase 45; ubiquitin-specific-processing protease 45;
Gene ID	85015
mRNA Refseq	NM_001080481
Protein Refseq	NP_001073950
UniProt ID	Q70EL2
Chromosome Location	6q16.2
Function	cysteine-type peptidase activity; metal ion binding; peptidase activity; ubiquitin thiolesterase activity; zinc ion binding;

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