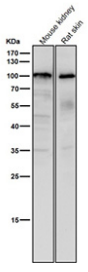
USP5 Antibody / Ubiquitin specific peptidase 5 [clone 32U18] (FY12506)

Catalog No.	Formulation	Size
FY12506	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

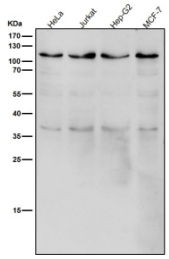
Recombinant RABBIT MONOCLONAL

Bulk quote request

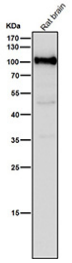
Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	32U18
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	P45974
Applications	Western blot: 1:500-1:2000 Immunocytochemistry/Immunofluorescence: 1:50-1:200
Limitations	This USP5 antibody is available for research use only.



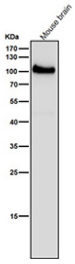
All lanes use the USP5 antibody at 1:1K dilution for 1 hour at room temperature.
Predicted molecular weight ~96 kDa.



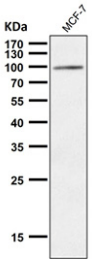
All lanes use the USP5 antibody at 1:1K dilution for 1 hour at room temperature. Predicted molecular weight ~96 kDa.



All lanes use the USP5 antibody at 1:1K dilution for 1 hour at room temperature. Predicted molecular weight ~96 kDa.



All lanes use the USP5 antibody at 1:1K dilution for 1 hour at room temperature. Predicted molecular weight ~96 kDa.



Western blot analysis of USP5 expression in MCF-7 cell lysate using USP5 antibody. Predicted molecular weight ~96 kDa.

Description

USP5 antibody detects ubiquitin specific peptidase 5, a deubiquitinating enzyme encoded by the USP5 gene. USP5 is part of the ubiquitin specific protease family that cleaves ubiquitin from polyubiquitin chains. Its primary function is to disassemble unanchored polyubiquitin, recycling ubiquitin monomers for reuse in the ubiquitin proteasome system. Through this activity, USP5 maintains ubiquitin homeostasis, regulates protein turnover, and influences signaling pathways that depend on ubiquitination.

USP5 antibody is commonly used in research on protein degradation, signal transduction, and cancer biology. By detecting USP5, scientists can study how ubiquitin processing enzymes control proteostasis and prevent accumulation of abnormal proteins. Dysregulation of USP5 activity leads to disruptions in protein quality control and contributes to disease.

In western blot assays, USP5 antibody detects protein bands corresponding to the enzyme in cell and tissue extracts. Immunohistochemistry reveals localization in cytoplasmic and nuclear compartments, while immunofluorescence highlights its presence in proteasome rich regions. These applications make USP5 antibody versatile for tracking ubiquitin protease activity.

USP5 has been implicated in cancer progression, where it regulates stability of tumor suppressors and oncogenes. Elevated USP5 expression supports tumor cell survival and proliferation by maintaining ubiquitin pools and stabilizing growth promoting proteins. By applying USP5 antibody, researchers can assess how deubiquitinating enzymes contribute to malignancy and therapy resistance.

Beyond cancer, USP5 plays roles in neurodegeneration, immune regulation, and viral infection. In neurons, altered USP5 activity contributes to proteotoxic stress and synaptic dysfunction. In immunity, it regulates signaling pathways dependent on ubiquitination, affecting cytokine responses and pathogen defense. This broad functional spectrum highlights the research value of USP5 antibody in multiple biological contexts.

USP5 antibody from NSJ Bioreagents provides reliable specificity for examining ubiquitin processing, proteostasis, and disease related pathways. Its performance across methods makes it an essential reagent for laboratories investigating the ubiquitin system.

Application Notes

Optimal dilution of the USP5 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human USP5 was used as the immunogen for the USP5 antibody.

Storage

Store the USP5 antibody at -20oC.

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