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# Anti-USP5 Rabbit Monoclonal Antibody

Catalog # ABO16747

## Product Information

| | |
|---|---|
| **Application** | WB |
| **Primary Accession** | P45974 |
| **Host** | Rabbit |
| **Isotype** | Rabbit IgG |
| **Reactivity** | Rat, Human, Mouse |
| **Clonality** | Monoclonal |
| **Format** | Liquid |
| **Description** | Anti-USP5 Rabbit Monoclonal Antibody . Tested in WB, ICC/IF applications. This antibody reacts with Human, Mouse, Rat. |

## Additional Information

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|---|---|
| **Gene ID** | 8078 |
| **Other Names** | Ubiquitin carboxyl-terminal hydrolase 5, 3.4.19.12, Deubiquitinating enzyme 5, Isopeptidase T, Ubiquitin thioesterase 5, Ubiquitin-specific-processing protease 5, USP5, ISOT |
| **Calculated MW** | 95786 |
| **Application Details** | WB 1:500-1:2000<br>ICC/IF 1:50-1:200 |
| **Source** | Eukaryota |
| **Contents** | Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA. |
| **Clone Names** | Clone: 32U18 |
| **Immunogen** | A synthesized peptide derived from human USP5 |
| **Purification** | Affinity-chromatography |
| **Storage** | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |

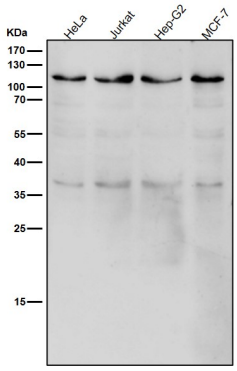
## Protein Information

| | |
|---|---|
| **Name** | USP5 |
| **Synonyms** | ISOT |
| **Function** | Deubiquitinating enzyme that participates in a wide range of cellular |

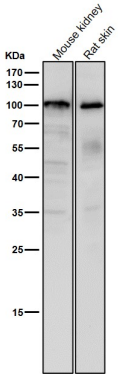
processes by specifically cleaving isopeptide bonds between ubiquitin and substrate proteins or ubiquitin itself. Affects thereby important cellular signaling pathways such as NF-kappa-B, Wnt/beta- catenin, and cytokine production by regulating ubiquitin-dependent protein degradation. Participates in the activation of the Wnt signaling pathway by promoting FOXM1 deubiquitination and stabilization that induces the recruitment of beta-catenin to Wnt target gene promoter (PubMed:26912724). Regulates the assembly and disassembly of heat-induced stress granules by mediating the hydrolysis of unanchored ubiquitin chains (PubMed:29567855). Promotes lipopolysaccharide-induced apoptosis and inflammatory response by stabilizing the TXNIP protein (PubMed:37534934). Affects T-cell biology by stabilizing the inhibitory receptor on T-cells PDC1 (PubMed:37208329). Acts as a negative regulator of autophagy by regulating ULK1 at both protein and mRNA levels (PubMed:37607937). Acts also as a negative regulator of type I interferon production by simultaneously removing both 'Lys-48'-linked unanchored and 'Lys-63'-linked anchored polyubiquitin chains on the transcription factor IRF3 (PubMed:39761299). Modulates the stability of DNA mismatch repair protein MLH1 and counteracts the effect of the ubiquitin ligase UBR4 (PubMed:39032648). Upon activation by insulin, it gets phosphorylated through mTORC1-mediated phosphorylation to enhance YTHDF1 stability by removing 'Lys-11'-linked polyubiquitination (PubMed:39900921). May also deubiquitinate other substrates such as the calcium channel CACNA1H (By similarity).

**Cellular Location** Cytoplasm. Cytoplasm, Stress granule. Nucleus

## Images

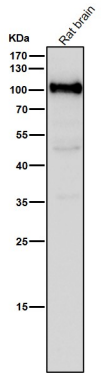


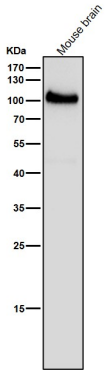

All lanes use the Antibody at 1:1K dilution for 1 hour at room temperature.



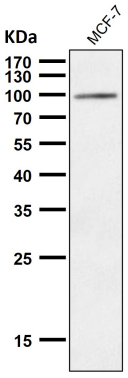

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Western blot analysis of USP5 expression in MCF-7 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.