

**OTUD5 Antibody**  
**Catalog # ASC10771****Specification**

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**OTUD5 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q96G74</a>
Other Accession	<a href="#">EAW50723</a> , <a href="#">119571108</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	OTUD5 antibody can be used for detection of OTUD5 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

**OTUD5 Antibody - Additional Information**

Gene ID	55593
Target/Specificity	
OTUD5;	

**Reconstitution & Storage**

OTUD5 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

OTUD5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**OTUD5 Antibody - Protein Information**

**Name** OTUD5 ([HGNC:25402](#))

**Function**

Deubiquitinating enzyme that functions as a negative regulator of the innate immune system (PubMed: [17991829](http://www.uniprot.org/citations/17991829)), PubMed: [22245969](http://www.uniprot.org/citations/22245969), PubMed: [23827681](http://www.uniprot.org/citations/23827681), PubMed: [33523931](http://www.uniprot.org/citations/33523931)). Has peptidase activity towards 'Lys-48'- and 'Lys-63'-linked polyubiquitin chains (PubMed: [22245969](http://www.uniprot.org/citations/22245969)). Can also cleave 'Lys-11'-linked ubiquitin chains (in vitro) (PubMed: [22245969](http://www.uniprot.org/citations/22245969)). Acts via TRAF3 deubiquitination and subsequent suppression of type I interferon (IFN) production

(PubMed:<a href="http://www.uniprot.org/citations/17991829" target="\_blank">17991829</a>). Controls neuroectodermal differentiation through cleaving 'Lys-48'-linked ubiquitin chains to counteract degradation of select chromatin regulators such as ARID1A, HDAC2 and HCF1 (PubMed:<a href="http://www.uniprot.org/citations/33523931" target="\_blank">33523931</a>). Acts as a positive regulator of mTORC1 and mTORC2 signaling following phosphorylation by MTOR: acts by mediating deubiquitination of BTRC, leading to its stability (PubMed:<a href="http://www.uniprot.org/citations/33110214" target="\_blank">33110214</a>).

**Cellular Location**

Nucleus.

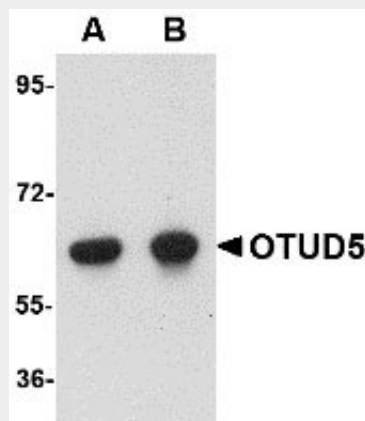
**Tissue Location**

Expressed in various tissues, including the liver and placenta, as well as in peripheral blood leukocytes

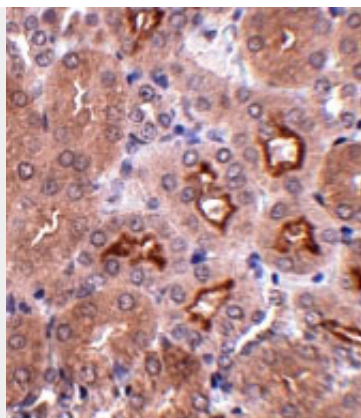
**OTUD5 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

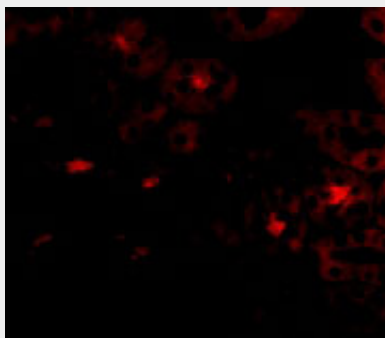
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**OTUD5 Antibody - Images**

Western blot analysis of OTUD5 in human kidney lysate with OTUD5 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of OTUD5 in mouse kidney tissue with OTUD5 antibody at 2.5 µg/mL.



Immunofluorescence of OTUD5 in Human Kidney cells with OTUD5 antibody at 20 µg/mL.

### **OTUD5 Antibody - Background**

**OTUD5 Antibody:** OTUD5 is a member of the OTU (ovarian tumor) domain-containing cysteine protease superfamily. The OTU domain confers deubiquitinase activity and OTUD5 has been shown to suppress the type I interferon (IFN-I)-dependent innate immune response by cleaving the polyubiquitin chain from TRAF3, an essential type I interferon adaptor protein. Cleavage results in disassociation of TRAF3 from a downstream signaling complex containing TBK1 and the disruption of the IFN-I signaling cascade, indicating that OTUD5 acts as a negative regulator of innate immune responses. It has been suggested that by suppressing IFN-I production, OTUD5 may function to inhibit the emergence of certain autoimmune disorders such as systemic lupus erythematosus. Multiple isoforms of OTUD5 are known to exist.

### **OTUD5 Antibody - References**

Kayagi N, Phung Q, Chan S, et al. DUBA: A deubiquitinase that regulates type I interferon production. *Science* 2007; 318:1628-32.  
Borodovsky A, Ovaa H, Kolli N, et al. Chemistry-based functional genomics reveals novel members of the deubiquitinating enzyme family. *Chem. Biol.* 2002; 10:1149-59.