

OTUD5 Antibody
Catalog # ASC10771**Specification**

OTUD5 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	Q96G74
Other Accession	EAW50723 , 119571108
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:17991829). Controls neuroectodermal differentiation through cleaving 'Lys-48'-linked ubiquitin chains to counteract degradation of select chromatin regulators such as ARID1A, HDAC2 and HCF1 (PubMed:33523931). 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:33110214).

Cellular Location

Nucleus.

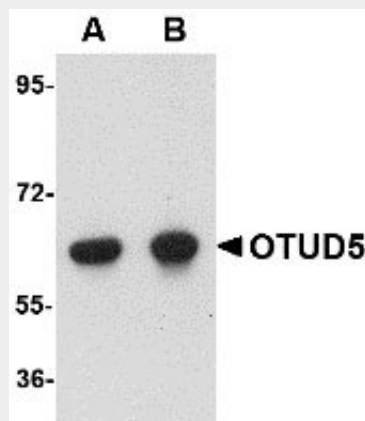
Tissue Location

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

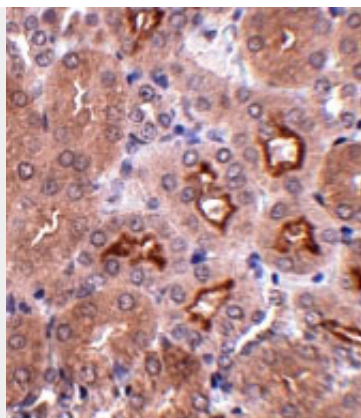
OTUD5 Antibody - Protocols

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

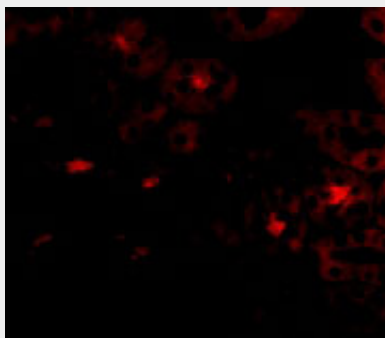
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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.