

Trim5a Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1023a**Specification**

Trim5a Antibody - Product Information

Application	WB, IHC, E
Primary Accession	Q9NUD5
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1

Description

TRIM5-alpha is a protein that is found in the cells of many mammals and fends of various retrovirus infections. It protects monkeys from infection with HIV-1, and humans from infection with some other viruses. If a retrovirus has entered a cell, it needs to shed its capsid in order to reversely transcribe its genes, so that they can be expressed by the host cell. It is believed that TRIM5 alpha, which is present in the cytoplasm, somehow recognizes the capsid and blocks its shedding, thereby stopping the virus in its tracks. It thus represents an intracellular defense completely separate from the rest of the body's immune system.

Immunogen

Purified recombinant fragment of human trim5 alpha expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

Trim5a Antibody - Additional Information

Gene ID 85364

Other Names

Zinc finger CCHC domain-containing protein 3, ZCCHC3, C20orf99

Dilution

WB~~1/500 - 1/2000

IHC~~1/200 - 1/1000

E~~N/A

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Trim5a Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Trim5a Antibody - Protein Information

Name ZCCHC3 ([HGNC:16230](#))

Function

Nucleic acid-binding protein involved in innate immune response to DNA and RNA viruses (PubMed:[30135424](http://www.uniprot.org/citations/30135424)), (PubMed:[30193849](http://www.uniprot.org/citations/30193849)). Binds DNA and RNA in the cytoplasm and acts by promoting recognition of viral nucleic acids by virus sensors, such as RIGI, IFIH1/MDA5 and CGAS (PubMed:[30135424](http://www.uniprot.org/citations/30135424), PubMed:[30193849](http://www.uniprot.org/citations/30193849)). Acts as a co-sensor for recognition of double-stranded DNA (dsDNA) by cGAS in the cytoplasm, thereby playing a role in innate immune response to cytosolic dsDNA and DNA virus (PubMed:[30135424](http://www.uniprot.org/citations/30135424)). Binds dsDNA and probably acts by promoting sensing of dsDNA by CGAS, leading to enhance CGAS oligomerization and activation (PubMed:[30135424](http://www.uniprot.org/citations/30135424)). Promotes sensing of viral RNA by RIGI-like receptors proteins RIGI and IFIH1/MDA5 via two mechanisms: binds double-stranded RNA (dsRNA), enhancing the binding of RIGI and IFIH1/MDA5 to dsRNA and promotes 'Lys-63'-linked ubiquitination and subsequent activation of RIGI and IFIH1/MDA5 (PubMed:[30193849](http://www.uniprot.org/citations/30193849)).

Cellular Location

Cytoplasm.

Trim5a 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](#)

Trim5a Antibody - Images

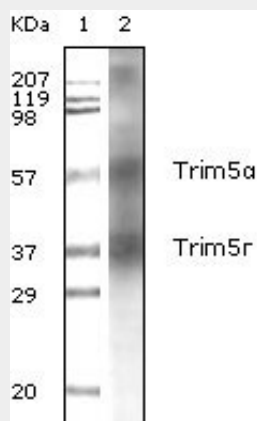


Figure 1: Western blot analysis using Trim5α mouse mAb against human breast carcinoma tissue lysate.

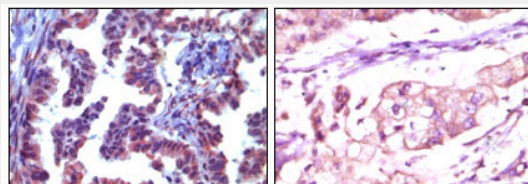


Figure 2: Immunohistochemical analysis of paraffin-embedded human metastatic adenocarcinoma(A) and stomach adenocarcinoma (B), showing cytoplasmic localization using Trim5 α mouse mAb with AEC staining (A) and DAB staining(B).

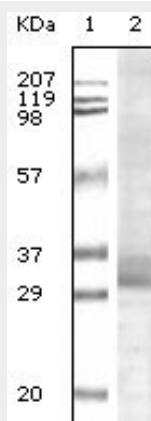


Figure 3: Western blot analysis using Trim5 α mouse monoclonal antibody against truncated Trim5 α recombinant protein.

Trim5 α Antibody - References

1. Stremlau, M. Nature 2004.427:848-53.
2. Song, B. J Virol. 2005.79(7):3930-7.