

TESPA1 Antibody
Catalog # ASC11734**Specification**

TESPA1 Antibody - Product Information

Application	WB, ICC, IF
Primary Accession	A2RU30
Other Accession	NP_001129502 , 209862861
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 57 kDa

Application Notes	Observed: 60 kDa KDa TESPA1 antibody can be used for detection of TESPA1 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunocytochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
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TESPA1 Antibody - Additional Information

Gene ID **9840**

Target/Specificity

TESPA1; TESPA1 antibody is human specific. At least three isoforms TESPA1 are known to exist.

Reconstitution & Storage

TESPA1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

Precautions

TESPA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TESPA1 Antibody - Protein Information

Name TESPA1

Synonyms KIAA0748

Function

Required for the development and maturation of T-cells, its function being essential for the late stages of thymocyte development (By similarity). Plays a role in T-cell antigen receptor (TCR)-mediated activation of the ERK and NFAT signaling pathways, possibly by serving as a scaffolding protein that promotes the assembly of the LAT signalosome in thymocytes. May play a role in the regulation of inositol 1,4,5-trisphosphate receptor-mediated Ca(2+) release and mitochondrial Ca(2+) uptake via the mitochondria-associated endoplasmic reticulum membrane (MAM) compartment.

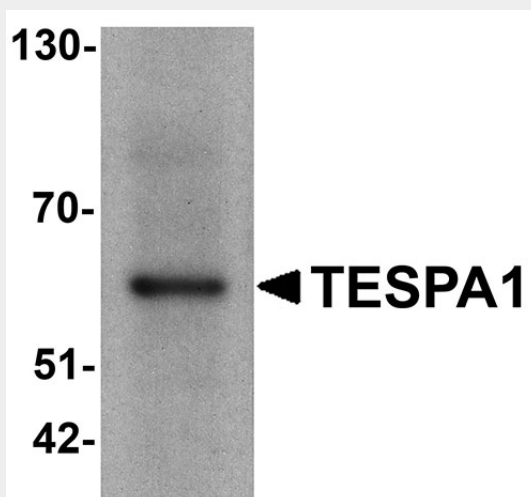
Cellular Location

Cytoplasm. Endoplasmic reticulum membrane. Note=May localize to mitochondria- associated endoplasmic reticulum membrane (MAM)

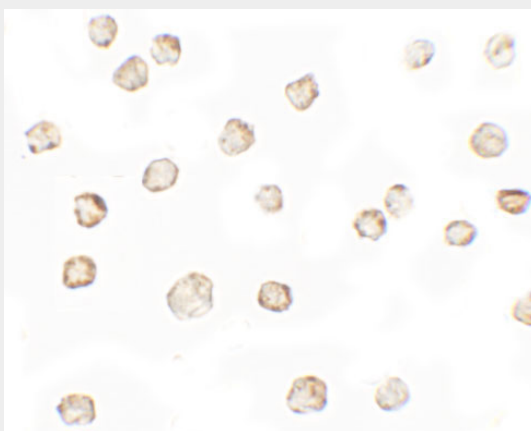
TESPA1 Antibody - Protocols

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

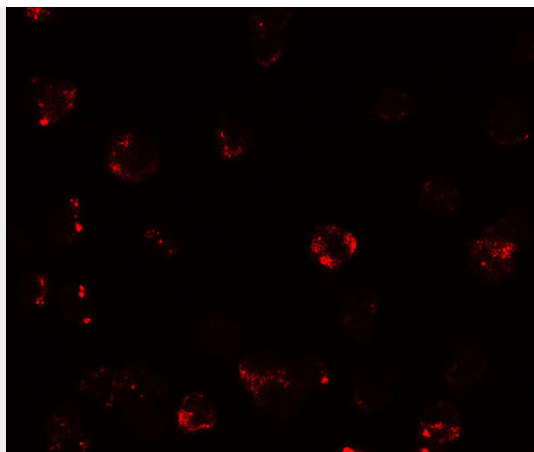
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TESPA1 Antibody - Images

Western blot analysis of TESPA1 in A431 cell lysate with TESPA1 antibody at 1 µg/ml.



Immunocytochemistry of TESPA1 in A431 cells with TESPA1 antibody at 5 µg/mL.



Immunofluorescence of TESPA1 in A431 cells with TESPA1 antibody at 20 µg/mL.

TESPA1 Antibody - Background

TESPA1 is a critical component of the TCR signalosome and is essential for T cell selection and maturation through the regulation of TCR signaling during T cell development (1). TESPA1 encodes a protein of 458 amino acids and is highly conserved among vertebrate species (2). TESPA1 expression was tightly regulated during T cell development, with highest expression at the DP stage (3). TESPA1 deficiency resulted in failure of positive selection and substantially fewer of CD4⁺ and CD8⁺ SP cells in the thymus (1,4).

TESPA1 Antibody - References

Wang D, Zheng M, Lei L, et al. Tespa1 is involved in late thymocyte development through the regulation of TCR-mediated signaling. *Nat. Immunol.* 2012; 13:560-8.
Matsuzaki H, Fujimoto T, Ota T, et al. Tespa1 is a novel inositol 1,4,5-trisphosphate receptor binding protein in T and B lymphocytes. *FEBS Open Bio.* 2012; 2:255-9.
Matsuzaki H, Fujimoto T, Tanaka M, et al. Tespa1 is a novel component of mitochondria-associated endoplasmic reticulum membranes and affects mitochondrial calcium flux. *Biochem. Biophys. Res. Commun.* 2013; 433:322-6.
Fujimoto T, Matsuzaki H, Tanaka M, et al. Tespa1 protein is phosphorylated in response to store-operated calcium entry. *Biochem. Biophys. Res. Commun.* 2013; 434:162-5.