

TOCA-1 Antibody

Catalog # ASC10602

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q5TON5
Other Accession	NP_001020119 , 68348709
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	70065
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TOCA-1 antibody can be used for detection of TOCA-1 by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	54874
Other Names	Formin-binding protein 1-like, Transducer of Cdc42-dependent actin assembly protein 1, Toca-1, FNBP1L, C1orf39, TOCA1
Target/Specificity	FNBP1L;
Reconstitution & Storage	TOCA-1 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	TOCA-1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FNBP1L
Synonyms	C1orf39, TOCA1
Function	Required to coordinate membrane tubulation with reorganization of the actin cytoskeleton during endocytosis. May bind to lipids such as phosphatidylinositol 4,5-bisphosphate and phosphatidylserine and promote membrane invagination and the formation of tubules. Also promotes CDC42-induced actin polymerization by activating the WASL/N-WASP-WASPIP/WIP complex, the predominant form of WASL/N-WASP in cells. Actin polymerization may promote the fission of membrane tubules

to form endocytic vesicles. Essential for autophagy of intracellular bacterial pathogens.

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cell cortex. Cytoplasmic vesicle. Cell membrane; Peripheral membrane protein; Cytoplasmic side

Background

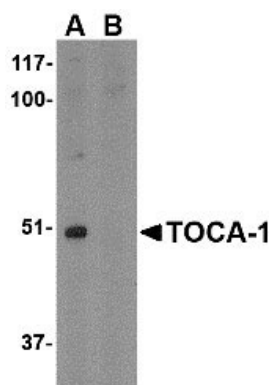
TOCA-1 Antibody: Actin reorganization is important for the regulation of neuronal morphology. A protein involved in this process, the transducer of cdc42-dependent actin assembly 1 (TOCA-1) protein, a member of the evolutionarily conserved pombe CDC15 homology (PCH) protein family, is an essential component of the Cdc42 pathway. TOCA-1 binds both N-WASP and Cdc42 and is essential for Cdc42- and PIP2-induced actin polymerization, suggesting that TOCA-1 mediates Cdc42-dependent actin nucleation by activating the N-WASP-WIP complex. Decreased expression of TOCA-1 significantly enhances neurite elongation in PC-12 cells; its overexpression in the same cells suppresses neurite elongation. It has been suggested that TOCA-1 negatively regulates axon branching by regulating membrane trafficking by regulating membrane trafficking through the F-BAR/EFC domain. Multiple isoforms of TOCA-1 are known to exist.

References

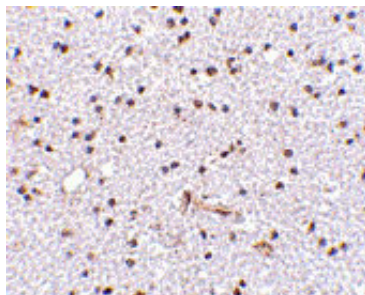
Ho H-Y H, Rohatgi R, Lebensohn AM, et al. Toca-1 mediates Cdc42-dependent actin nucleation by activating the N-WASP-WIP complex. *Cell*2004; 118:203-16.

Kakimoto T, Katoh H, and Negishi M. Regulation of neuronal morphology by Toca-1, an F-BAR/EFC protein that induces plasma membrane invagination. *J. Biol. Chem.*2006; 281:29042-43.

Images

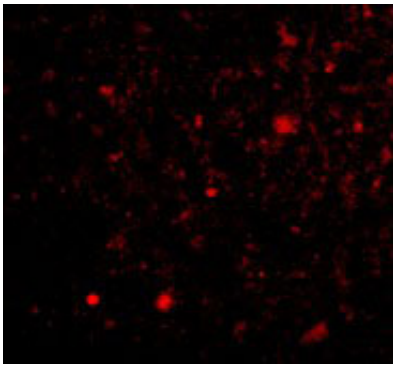


Western blot analysis of TOCA-1 in mouse brain tissue lysate with in (A) the absence and (B) the presence of blocking peptide with TOCA-1 antibody at 1 µg/mL.



Immunohistochemistry of TOCA-1 in human brain tissue with TOCA-1 antibody at 2.5 µg/mL.

Immunofluorescence of TOCA-1 in Human Brain cells with TOCA-1 antibody at 20 µg/mL.



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