

**TOCA-1 Antibody**  
**Catalog # ASC10603****Specification**

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**TOCA-1 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">Q5TON5</a>
Other Accession	<a href="#">NP_001020119</a> , <a href="#">68348709</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	TOCA-1 antibody can be used for detection of TOCA-1 by Western blot at 0.5 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.

**TOCA-1 Antibody - Additional Information**

Gene ID	54874
Target/Specificity	
FBNP1L;	

**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.

**TOCA-1 Antibody - Protein Information**

**Name** FBNP1L

**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.

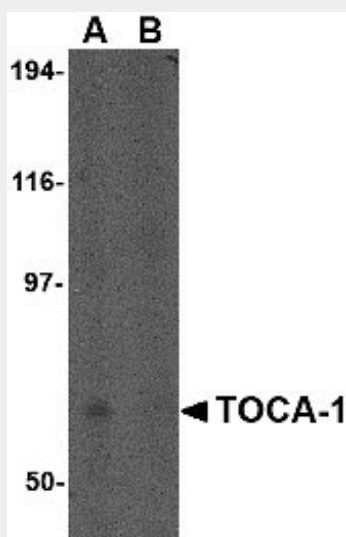
**Cellular Location**

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

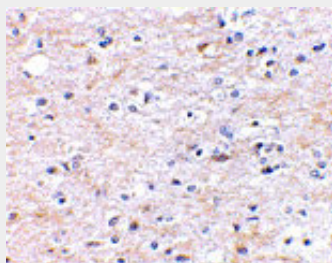
**TOCA-1 Antibody - Protocols**

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

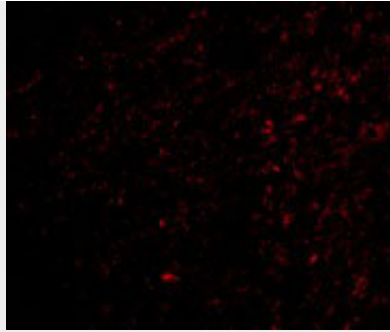
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**TOCA-1 Antibody - Images**

Western blot analysis of TOCA-1 in human brain tissue lysate in (A) the absence and (B) the presence of blocking peptide with TOCA-1 antibody at 0.5  $\mu\text{g/mL}$ .



Immunohistochemical staining of human brain tissue using TOCA-1 antibody at 2.5  $\mu\text{g/mL}$ .



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

#### **TOCA-1 Antibody - 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.

#### **TOCA-1 Antibody - 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.