

TCTN1 Antibody

Catalog # ASC11161

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q2MV58
Other Accession	NP_001076007 , 130978359
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	63570
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TCTN1 antibody can be used for detection of TCTN1 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	79600
Other Names	Tectonic-1, TCTN1, TECT1
Target/Specificity	TCTN1;
Reconstitution & Storage	TCTN1 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	TCTN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TCTN1
Synonyms	TECT1
Function	Component of the tectonic-like complex, a complex localized at the transition zone of primary cilia and acting as a barrier that prevents diffusion of transmembrane proteins between the cilia and plasma membranes. Regulator of Hedgehog (Hh), required for both activation and inhibition of the Hh pathway in the patterning of the neural tube. During neural tube development, it is required for formation of the most ventral cell types and for full Hh pathway activation. Functions in Hh signal transduction to fully activate the pathway in the presence of high Hh levels and to repress the

pathway in the absence of Hh signals. Modulates Hh signal transduction downstream of SMO and RAB23 (By similarity).

Cellular Location

Cytoplasm, cytoskeleton, cilium basal body. Secreted. Note=Despite the presence of a signal sequence, the full-length protein might not be secreted. Localizes at the transition zone, a region between the basal body and the ciliary axoneme.

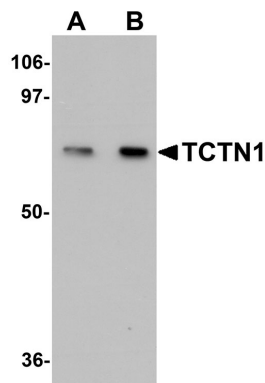
Background

TCTN1 Antibody: TCTN1 is the founding member of the Tectonic protein family, a group of evolutionarily conserved secreted and transmembrane proteins that regulate the Hedgehog (Hh)-mediated patterning of the neural tube. During embryonic development, TCTN1 is expressed in regions that participate in Hh signaling, beginning in the gastrulation stages in the ventral node. Mice expressing mutant TCTN1 die between E13.5 and E16.5 and display holoprosencephaly, a defect associated with reduced Hh signaling, indicating the role of TCTN1 as an Hh activator. At later stages in development, TCTN1 is thought to also act as a repressor on the Hh pathway in the anterior and posterior neural tube.

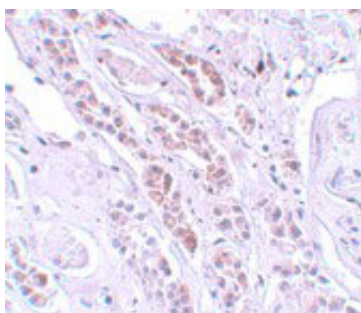
References

Reiter JF and Skarnes WC. Tectonic, a novel regulator of the Hedgehog pathway required for both activation and inhibition. *Genes Dev.*2006; 20:22-7.

Images

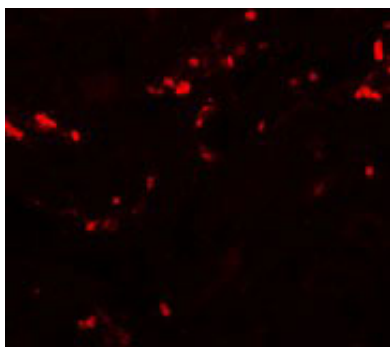


Western blot analysis of TCTN1 in mouse kidney tissue lysate with TCTN1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of TCTN1 in human kidney tissue with TCTN1 antibody at 5 µg/mL.

Immunofluorescence of TCTN1 in Human Kidney cells with TCTN1 antibody at 20 µg/mL.



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