

TRPC3 Antibody

Catalog # ASC11946

Product Information

Application	WB, IHC, E
Primary Accession	Q13507
Other Accession	NP_001124170 , 194733735
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	105538
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	TRPC3 antibody can be used for the detection of TRPC3 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL.

Additional Information

Gene ID	7222
Other Names	Short transient receptor potential channel 3, TrpC3, Transient receptor protein 3, TRP-3, hTrp-3, hTrp3, TRPC3, TRP3
Target/Specificity	TRPC3; TRPC3 antibody is human, mouse and rat reactive. At least four isoforms are known to exist; this antibody will detect the three largest isoforms. TRPC3 antibody is predicted to not cross-react with TRPC6.
Reconstitution & Storage	TRPC3 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	TRPC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TRPC3
Synonyms	TRP3
Function	Forms a receptor-activated non-selective calcium permeant cation channel (PubMed: 29726814 , PubMed: 30139744 , PubMed: 35051376 , PubMed: 9417057 , PubMed: 9930701 , PubMed: 10611319).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Expressed predominantly in brain and at much lower levels in ovary, colon,

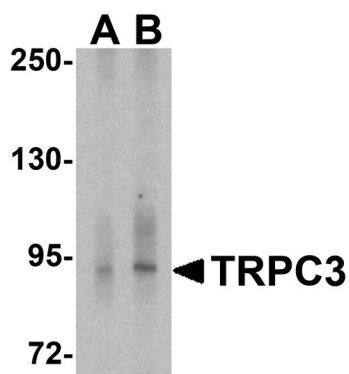
Background

The mammalian transient receptor potential (TRP) superfamily can be divided into three major families including the "canonical TRP" (TRPC) family. The seven members of this family share the activation through PLC-coupled receptors and have been suggested to be components of receptor-regulated cation channels in different cell types. Furthermore, the members of the TRPC3/6/7 subfamily can be activated by diacylglycerol analogs, suggesting a possible mechanism of activation of these channels by PLC-coupled receptors. TRPC3 encodes a Ca^{2+} -permeant channel that is agonist-activated but not store-operated or directly receptor-activated. TRPC3 physically interacts with TRPC6 and TRPC7 and forms functional tetrameric channels.

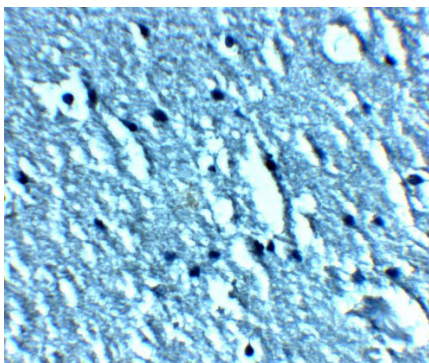
References

- Contell C, Birnbaumer V, Flockerzi V, et al. A unified nomenclature for the superfamily of TRP cation channels. *Mol. Cell* 2002; 9:229-31.
- Trebak M, Vazquez G, Bird GSJ, et al. The TRPC3/6/7 subfamily of cation channels. *Cell Calcium* 2003; 33:451-61.
- Zitt C, Obukhov AG, Strubing C, et al. Expression of TRPC3 in Chinese hamster ovary cells results in calcium-activated cation currents not related to store depletion. *J. Cell. Biol.* 1997; 1333-41.
- Dietrich A, Kalwa H, Rost BR, et al. The diacylglycerol-sensitive TRPC3/6/7 subfamily of cation channels: functional characterization and physiological relevance. *Pflugers Arch.* 2005; 451:72-80.

Images



Western blot analysis of TRPC3 in human cerebellum tissue lysate with TRPC3 antibody at (A) 1 and (B) 2 $\mu\text{g}/\text{mL}$.



Immunohistochemistry of TRPC3 in human brain tissue with TRPC3 antibody at 2.5 $\mu\text{g}/\text{mL}$.