

# TRPC3 Antibody

Catalog # ASC10454

## Product Information

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| <b>Application</b>           | WB, IF, E, IHC-P   |
| <b>Primary Accession</b>     | <a href="#">Q13507</a>   |
| <b>Other Accession</b>       | <a href="#">CAA74083</a> , <a href="#">2225937</a>   |
| <b>Reactivity</b>            | Human, Mouse   |
| <b>Host</b>                  | Rabbit   |
| <b>Clonality</b>             | Polyclonal   |
| <b>Isotype</b>               | IgG  |
| <b>Calculated MW</b>         | 105538   |
| <b>Concentration (mg/ml)</b> | 1 mg/mL  |
| <b>Conjugate</b>             | Unconjugated   |
| <b>Application Notes</b>     | TRPC3 antibody can be used for the detection of TRPC3 by Western blot at 1 - 2 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL. |

## Additional Information

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| <b>Gene ID</b>                      | 7222  |
| <b>Other Names</b>                  | TRPC3 Antibody: TRP3, TRP3, Short transient receptor potential channel 3, Transient receptor protein 3, TrpC3, transient receptor potential cation channel, subfamily C, member 3   |
| <b>Target/Specificity</b>           | TRPC3;  |
| <b>Reconstitution &amp; Storage</b> | TRPC3 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. |
| <b>Precautions</b>                  | TRPC3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.  |

## Protein Information

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|--------------------------|--|
| <b>Name</b>              | TRPC3  |
| <b>Synonyms</b>          | TRP3   |
| <b>Function</b>          | Forms a receptor-activated non-selective calcium permeant cation channel (PubMed: <a href="#">29726814</a> , PubMed: <a href="#">30139744</a> , PubMed: <a href="#">35051376</a> , PubMed: <a href="#">9417057</a> , PubMed: <a href="#">9930701</a> , PubMed: <a href="#">10611319</a> ). |
| <b>Cellular Location</b> | Cell membrane; Multi-pass membrane protein   |

## Tissue Location

Expressed predominantly in brain and at much lower levels in ovary, colon, small intestine, lung, prostate, placenta and testis

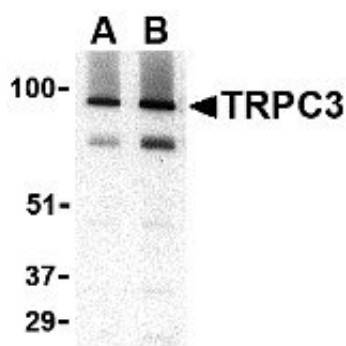
## Background

**TRPC3 Antibody:** 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<sup>2+</sup>-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.

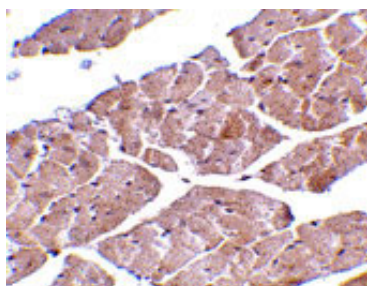
## References

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

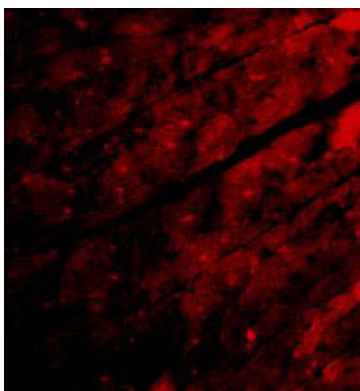


Western blot analysis of TRPC3 in human brain tissue lysate with TRPC3 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of TRPC3 in mouse heart tissue with TRPC3 antibody at 2 µg/mL.

Immunofluorescence of TRPC3 in Mouse Heart cells with TRPC3 antibody at 20 µg/mL.



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