

Anti-TRPC6 (MOUSE) Monoclonal Antibody
TRPC6 Antibody
Catalog # ASR4198**Specification**

Anti-TRPC6 (MOUSE) Monoclonal Antibody - Product Information

Host	Mouse
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human, Mouse
Clonality	Monoclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-TRPC6 monoclonal antibody has been tested by ELISA, immunohistochemistry and western blotting. Expect a band approximately 30 kDa in size corresponding to the cytoplasmic domain of TRPC6 protein by western blotting in the appropriate cell lysate or extract. Specific conditions for reactivity should be optimized by the end user. Use formalin-fixed paraffin-embedded sections for immunohistochemistry. No pre-treatment of sample is required. Strong staining was observed in adrenal, Purkinje neurons, cortical neurons, heart, ganglion cells, renal tubules, Sertoli cells, hepatocytes, skeletal muscle, exocrine pancreas, and germinal centers of lymphoid follicles. Moderate staining was observed in colon epithelium and plasma cells, B-lymphocytes, and parafollicular cells of the thyroid. Faint staining was seen in respiratory epithelium. Prostate and placenta were negative for staining. The antibody produced minimal to no background staining and appeared very specific at 2.5 µg/mL.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This monoclonal antibody was produced by repeated immunizations with a synthetic peptide corresponding to a region near the carboxy terminus of human TRPC6 protein.
Preservative	0.01% (w/v) Sodium Azide

Anti-TRPC6 (MOUSE) Monoclonal Antibody - Additional Information**Gene ID 7225**

Other Names

7225

Purity

This product was purified from concentrated tissue culture supernate by Protein A chromatography. This antibody is specific for human TRPC6 protein. A BLAST analysis was used to suggest cross-reactivity with TRPC6 from chimpanzee based on 100% homology with the immunizing sequence. Cross-reactivity with TRPC6 from other sources has not been determined.

Storage Condition

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-TRPC6 (MOUSE) Monoclonal Antibody - Protein Information

Name TRPC6 {ECO:0000303|PubMed:9930701, ECO:0000312|HGNC:HGNC:12338}

Function

Thought to form a receptor-activated non-selective calcium permeant cation channel (PubMed:19936226, PubMed:23291369). Probably is operated by a phosphatidylinositol second messenger system activated by receptor tyrosine kinases or G-protein coupled receptors. Activated by diacylglycerol (DAG) in a membrane-delimited fashion, independently of protein kinase C (PubMed:26892346). Seems not to be activated by intracellular calcium store depletion.

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

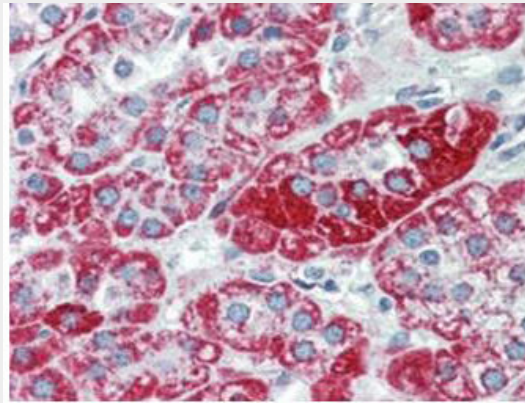
Expressed primarily in placenta, lung, spleen, ovary and small intestine. Expressed in podocytes and is a component of the glomerular slit diaphragm.

Anti-TRPC6 (MOUSE) Monoclonal 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](#)

Anti-TRPC6 (MOUSE) Monoclonal Antibody - Images



Immunohistochemistry using Rockland's anti-TRPC6 monoclonal antibody shows detection of TRPC6 in human adrenal (cortex) tissue (40X). The antibody was used a dilution to 2.5 $\mu\text{g}/\text{mL}$. The image shows strong staining with minimal background staining. Tissue was formalin fixed and paraffin embedded. No pre-treatment of sample was required. The image shows the localization of antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain. Personal communication, Andrew Elston, Lifespan Biosciences, Seattle, WA.

Anti-TRPC6 (MOUSE) Monoclonal Antibody - Background

TRPC6, also known as TRP6, short transient receptor potential channel 6 and transient receptor potential cation channel subfamily C member 6, is thought to form a receptor-activated non-selective calcium permeant cation channel. TRPC6 is probably operated by a phosphatidylinositol second messenger system activated by receptor tyrosine kinases or G-protein coupled receptors. It is activated by diacylglycerol (DAG) in a membrane-delimited fashion, independently of protein kinase C and may not to be activated by intracellular calcium store depletion. Defects in this gene are a cause of focal segmental glomerulosclerosis (FSGS). Expression of this protein has been reported in tissues such as placenta, lung, spleen, ovary, small intestine, and renal podocytes. Immunohistochemistry studies using polyclonal antibodies to this target have shown moderate to strong staining in cell types such as neurons, breast, respiratory, squamous and prostate epithelium, epidermis, placental trophoblasts, dendritic cells, and subsets of immune cells, and faint to moderate staining of adrenal, colon, ganglion cells, hepatocytes, heart, and testis.