

Anti-TRPC6 (MOUSE) Monoclonal Antibody - 200-301-B59

Code: 200-301-B59

Size: 100 µg

Product Description: Anti-TRPC6 (MOUSE) Monoclonal Antibody - 200-301-B59

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	TRPC6
Species Reactivity	human, chimpanzee
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	None
Preservative	0.01% (w/v) Sodium Azide
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.
Synonyms	TRPC6, TRP6, short transient receptor potential channel 6 and transient receptor potential cation channel subfamily C member 6
Application Note	This monoclonal antibody is suitable for ELISA, immunohistochemistry and western blotting. Expect a band approximately 106 kDa in size corresponding to 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.
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.
Purity And Specificity	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.
Assay Dilutions	User Optimized
ELISA	1:10,000 - 1:50,000
Immunohistochemistry	2.5 µg/mL
WESTERN BLOT	1:500- 1:2,000
IHC	2.5 µg/mL
OTHER ASSAYS	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
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.

General Reference

Hofmann T., Obukhov A.G., Schaefer M., Harteneck C., Gudermann T., Schultz G. (1999). Direct activation of human TRPC6 and TRPC3 channels by diacylglycerol. *Nature* 397:259-263. D'Esposito M., Strazzullo M., Cuccurese M., Spalluto C., Rocchi M., D'Urso M., Ciccociola A. (1998). Identification and assignment of the human transient receptor potential channel 6 gene TRPC6 to chromosome 11q21-22. *Cytogenet. Cell Genet.* 83:46-47. Reiser J., Polu K.R., Moller C.C., Kenlan P., Altintas M.M., Wei C., Faul C., Herbert S., Villegas I., Avila-Casado C., McGee M., Sugimoto H., Brown D., Kalluri R., Mundel P., Smith P.L., Clapham D.E., Pollak M.R. (2005) TRPC6 is a glomerular slit diaphragm-associated channel required for normal renal function. *Nat. Genet.* 37:739-744.

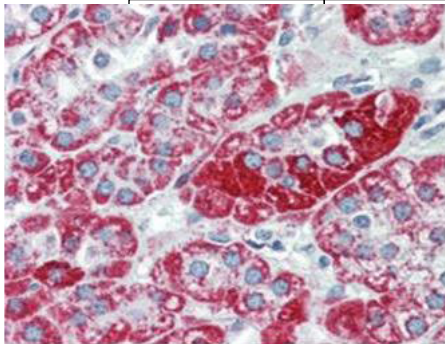
Related Products

200-301-B59S	Anti-TRPC6 (MOUSE) Monoclonal Antibody - 200-301-B59S
610-1302	Anti-MOUSE IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 610-1302
B304	NORMAL GOAT SERUM (NGS) - B304
B501-0500	BLOTTO Immunoanalytical Grade (Non-Fat Dry Milk) - B501-0500

Related Links

Images

- 1 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 µg/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.



- 2 Western Blot of Mouse anti-TRPC6 Antibody
Lane 1: Mouse Kidney WCL
Load: 10 µg per lane
Primary antibody: TRPC6 Antibody at 1:1000 for overnight at 4°C
Secondary antibody: DyLight™ 649 donkey anti-mouse at 1:20,000 for 30 min at RT
Block: MB-070 for 30 min at RT



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