Revision 1

#77934 Store at -20C

TRPC3 (D4P5S) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	105	Rabbit IgG	#Q13507-3	7222

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

TRPC3 (D4P5S) Rabbit mAb recognizes endogeneous levels of total TRPC3 protein. This antibody does not cross-react with TRPC6 or TRPC7 proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human TRPC3 protein.

Background

Transient Receptor Potential Canonical 3 (TRPC3) belongs to the superfamily of TRP cation channels. The TRPC subfamily (TRPC1-7) is a group of calcium-permeable cation channels that mediates the increase in intracellular [Ca2+] following activation by G-protein-coupled receptors or receptor tyrosine kinases (1). TRPC3 is mainly expressed in the brain and various other tissues, though at a much lower level (2). In the brain, TRPC3 is involved in BDNF-induced axonal growth cone plasticity, dendritic spine formation, and neuronal survival (3-6). It is also required for synaptic transmission and motor coordination (7). Outside of the central nervous system, TRPC3 also exerts other important biological functions such as regulating cardiac and vascular contractility, maintaining Ca2+ homeostasis in primary T cells and endothelial cells (8-10). TRPC3 is activated by diacylglycerol and Inositol 1,4,5-trisphosphate (11,12). It is also activated by internal calcium store depletion and regulates mitochondrial calcium uptake (13,14).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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