

# Goat Anti-TRPC4 Antibody

Peptide-affinity purified goat antibody Catalog # AF2115a

### Specification

# **Goat Anti-TRPC4 Antibody - Product Information**

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>Q9UBN4</u> <u>NP\_057263</u>, <u>7223</u>, <u>22066 (mouse)</u>, <u>84494 (rat)</u> Rat Human, Mouse, Pig, Dog, Cow Goat Polyclonal 100ug/200ul IgG 112101

# Goat Anti-TRPC4 Antibody - Additional Information

Gene ID 7223

**Other Names** Short transient receptor potential channel 4, TrpC4, Trp-related protein 4, hTrp-4, hTrp4, TRPC4

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** Goat Anti-TRPC4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Goat Anti-TRPC4 Antibody - Protein Information**

Name TRPC4

#### Function

Forms a receptor-activated non-selective calcium permeant cation channel. Acts as a cell-cell contact-dependent endothelial calcium entry channel. Probably operated by a phosphatidylinositol second messenger system activated by receptor tyrosine kinases or G- protein coupled receptors. Mediates cation entry, with an enhanced permeability to barium over calcium. May also be activated by intracellular calcium store depletion.



### **Cellular Location**

Membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Note=Enhanced insertion into the cell membrane after activation of the EGF receptor

#### **Tissue Location**

Strongly expressed in placenta. Expressed at lower levels in heart, pancreas, kidney and brain. Expressed in endothelial cells. Isoform alpha was found to be the predominant isoform. Isoform beta was not found in pancreas and brain

### **Goat Anti-TRPC4 Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Goat Anti-TRPC4 Antibody - Images

| 1 | 250kDa<br>150kDa<br>100kDa<br>75kDa |
|---|-------------------------------------|
|   | 50kDa<br>37kDa                      |
|   | 25kDa                               |
|   | 20kDa                               |
|   | 15kDa                               |

AF2115a (0.3  $\mu$ g/ml) staining of Rat Brain lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-TRPC4 Antibody - References

Association study of TRPC4 as a candidate gene for generalized epilepsy with photosensitivity. von Spiczak S, et al. Neuromolecular Med, 2010 Sep. PMID 20574736.

Association study of 182 candidate genes in anorexia nervosa. Pinheiro AP, et al. Am J Med Genet B Neuropsychiatr Genet, 2010 Jul. PMID 20468064.

Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. Rose JE, et al. Mol Med, 2010 Jul-Aug. PMID 20379614.

The phospholipid-binding protein SESTD1 is a novel regulator of the transient receptor potential channels TRPC4 and TRPC5. Miehe S, et al. J Biol Chem, 2010 Apr 16. PMID 20164195.

Cell-cell contact formation governs Ca2+ signaling by TRPC4 in the vascular endothelium: evidence for a regulatory TRPC4-beta-catenin interaction. Graziani A, et al. J Biol Chem, 2010 Feb 5. PMID 19996314.