

TRPM6 (CHAK2) Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8053c

Specification

TRPM6 (CHAK2) Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	Q9BX84
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	231708
Antigen Region	317-348

TRPM6 (CHAK2) Antibody (Center) - Additional Information

Gene ID 140803

Other Names

Transient receptor potential cation channel subfamily M member 6, Channel kinase 2, Melastatin-related TRP cation channel 6, TRPM6, CHAK2

Target/Specificity

This TRPM6 (CHAK2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 317-348 amino acids from the Central region of human TRPM6 (CHAK2).

Dilution

WB~~1:1000
IHC-P~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

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

Precautions

TRPM6 (CHAK2) Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPM6 (CHAK2) Antibody (Center) - Protein Information

Name TRPM6

Synonyms CHAK2

Function Bifunctional protein that combines an ion channel with an intrinsic kinase domain, enabling it to modulate cellular functions either by conducting ions through the pore or by phosphorylating downstream proteins via its kinase domain (PubMed:[14576148](#), PubMed:[16636202](#), PubMed:[18258429](#), PubMed:[18365021](#)). Crucial for Mg(2+) homeostasis. Has an important role in epithelial Mg(2+) transport and in the active Mg(2+) absorption in the gut and kidney (PubMed:[14576148](#)). However, whether TRPM6 forms functional homomeric channels by itself or functions primarily as a subunit of heteromeric TRPM6-TRPM7 channels, is still under debate (PubMed:[14576148](#), PubMed:[16636202](#), PubMed:[24385424](#)).

Cellular Location

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=TRPM6 requires the presence of TRPM7 to be targeted to the cell membrane (in HEK 293 cells).

Tissue Location

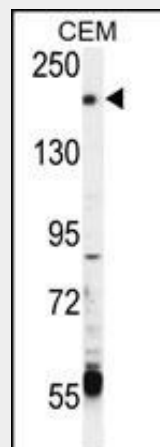
Highly expressed in kidney and colon. Isoform TRPM6a and isoform TRPM6b, are coexpressed with TRPM7 in kidney, and testis, and are also found in several cell lines of lung origin Isoform TRPM6c is detected only in testis and in NCI-H510A small cell lung carcinoma cells

TRPM6 (CHAK2) Antibody (Center) - Protocols

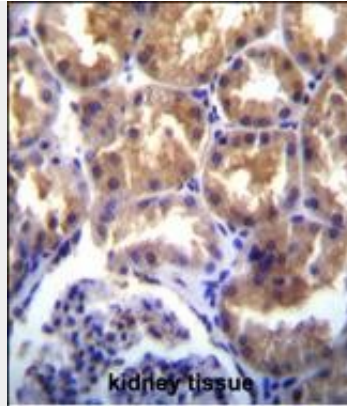
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TRPM6 (CHAK2) Antibody (Center) - Images



CHAK2 Antibody (H332) (Cat. #AP8053c) western blot analysis in CEM cell line lysates (35ug/lane). This demonstrates the CHAK2 antibody detected the CHAK2 protein (arrow).



TRPM6(CHAK2) Antibody (Center) (Cat. #AP8053c) immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of TRPM6 Antibody (CHAK2) (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

TRPM6 (CHAK2) Antibody (Center) - Background

CHAK2 is a member of the ion channel proteins. It regulates the calcium concentration in cells, which is imperative for such functions as muscle contractions and neuronal firing. It is also upregulated in certain forms of cancer and could play a role in diabetes.

TRPM6 (CHAK2) Antibody (Center) - References

Blume-Jensen P, et al. Nature 2001. 411: 355.
Cantrell D, J. Cell Sci. 2001. 114: 1439.
Jiang S Oncogene 2000. 19: 5590.
Manning G, et al. Science 2002. 298: 1912.
Moller, D, et al. Am. J. Physiol. 1994. 266: C351-C359.
Robertson, S. et al. Trends Genet. 2000. 16: 368.
Robinson D, et al. Oncogene 2000. 19: 5548.
Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889.
Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561.
Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.

TRPM6 (CHAK2) Antibody (Center) - Citations

- [Importance of the renal ion channel TRPM6 in the circadian secretion of renin to raise blood pressure](#)
- [Up-Regulation of Transient Receptor Potential Melastatin 6 Channel Expression by Tumor Necrosis Factor- \$\alpha\$ in the Presence of Epidermal Growth Factor Receptor Tyrosine Kinase Inhibitor.](#)
- [Down-regulation of TRPM6-mediated magnesium influx by cyclosporin A.](#)
- [TRPM6 expression and cell proliferation are up-regulated by phosphorylation of ERK1/2 in renal epithelial cells.](#)