

Product Information

Anti-Tensin 2 (C-terminal)

produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200268**

Product Description

Anti-Tensin 2 (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence located near the C-terminus human tensin 2 (GeneID: 23371), conjugated to KLH. The corresponding sequence is identical in human tensin 2 isoforms 2 and 3, and highly conserved (single amino acid substitution) in mouse tensin 2. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Tensin 2 (C-terminal) specifically recognizes human tensin 2. The antibody may be used in various immunochemical techniques including immunoblotting (~160 kDa). Detection of the tensin 2 band by immunoblotting is specifically inhibited by the tensin 2 immunizing peptide.

Tensins are a family of focal adhesion proteins that link between the extracellular matrix (ECM) and the cytoskeleton via integrins, and thus are thought to play an important role in regulating cell shape and motility. The tensin family includes four members: tensin1-4, encoded by different genes.^{1,2} Tensins are multidomain proteins consisting of homologous C1, PTPase, C2, SH2 and PTB domains. Tensin2 (also known as TENC1, TNS2, C1TEN), shares extensive homology with tensin1 at its N- and C-terminals, including the actin-binding domain, the SH2 and PTB domains. Tensin2 mRNA is highly expressed in heart, kidney, skeletal muscle and liver.² Tensin2 has been shown to be largely absent in a panel of human cancer cell lines and is down-regulated in human kidney cancer.³ Tensin2 variant 3 is associated with aggressive tumor behavior in human hepatocellular carcinoma (HCC).⁴ Tensin2 interacts with several binding partners through its SH2-PTB domains, including Axl RTK, caveolin-1, and with the tumor suppressor gene DLC1 to regulate DLC1 tumor suppressor activity.⁵ Tensin2 also inhibits Akt signaling and cell survival. It reduces intracellular PtdIns(3,4,5)P(3) levels at the plasma membrane, indicating that in addition to regulating cytoskeletal dynamics, it influences phosphoinositide-Akt signaling through its PTPase domain.⁶

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1.5-3.0 µg/mL is recommended using lysates of HEK-293T cells over expressing human tensin 2.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Hafizi, S., et al., *Biochem. Biophys. Res. Commun.*, **299**, 793-800 (2002).
2. Chen, H., et al., *Proc. Natl. Acad. Sci. USA*, **99**, 733-738 (2002).
3. Martuszczyńska, D., et al., *PloS One*, **4**, e4350. doi: 10.1371/journal.pone0004350 (2009).
4. Yam, J.W., et al., *Hepatology*, **44**, 881-890 (2006).
5. Chan, L.K., et al., *PloS One*, **4**, e5572. doi: 10.1371/journal.pone0005572 (2009).
6. Hafizi, S., et al., *Biochem. Biophys. Res. Commun.*, **399**, 396-401 (2010).

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