

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Tensin 4/CTEN in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 684524
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Tensin 4/CTEN Ser2-Gln107 Accession # Q81ZW8
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

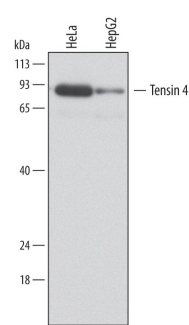
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	1 µg/mL	HeLa human cervical epithelial carcinoma cell line and HepG2 human hepatocellular carcinoma cell line
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	10 µg/mL	See Below

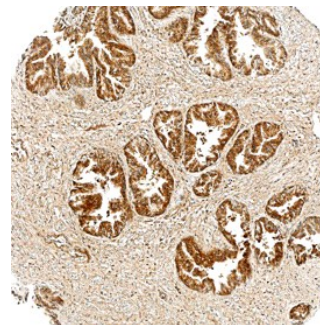
## DATA

### Immunohistochemistry



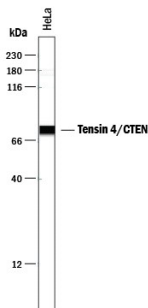
**Detection of Human Tensin 4/CTEN by Western Blot.** Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and HepG2 human hepatocellular carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human Tensin 4/CTEN Monoclonal Antibody (Catalog # MAB6925) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Tensin 4/CTEN at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Immunohistochemistry



**Tensin 4/CTEN in Human Prostate.** Tensin 4/CTEN was detected in immersion fixed paraffin-embedded sections of human prostate using Mouse Anti-Human Tensin 4/CTEN Monoclonal Antibody (Catalog # MAB6925) at 25 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

### Simple Western



**Detection of Human Tensin 4/CTEN by Simple Western™.** Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Tensin 4/CTEN at approximately 74 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human Tensin 4/CTEN Monoclonal Antibody (Catalog # MAB6925). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

CTEN, also known as Tensin 4, is a 90 kDa cytoplasmic protein that is associated with focal adhesions in epithelial cells and is upregulated in several carcinomas. It promotes tumorigenesis by disrupting the attachment of focal adhesions to the cytoskeleton, promoting epithelial-mesenchymal transition, and binding nuclear beta-Catenin. CTEN is cleaved by Caspase-3 at Asp570-Ser571 during apoptosis. It contains a serine-rich region (aa 168-324), one SH2 domain (aa 449-556), and a phosphatase domain (aa 548-714). Within aa 1-107, human CTEN shares 62% and 59% aa sequence identity with mouse and rat CTEN, respectively.