

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human ADAM10 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse ADAM10, approximately 5% cross-reactivity with recombinant human (rh) TACE, and less than 1% cross-reactivity with rhADAM8, rhADAM9, rhADAM15, and rhBACE is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Protein A or G purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human ADAM10 Thr214-Glu672 Accession # O14672
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

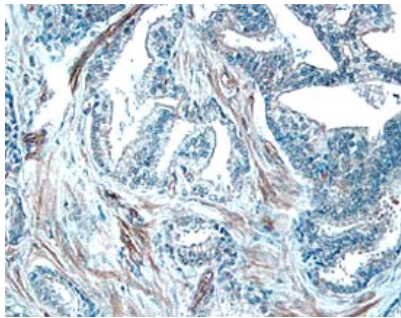
## APPLICATIONS

**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	Recombinant Human ADAM10 (Catalog # <a href="#">936-AD</a> ) under non-reducing conditions only
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

### Immunohistochemistry



**ADAM10 in Human Prostate Cancer Tissue.** ADAM10 was detected in immersion fixed paraffin-embedded sections of human prostate cancer tissue using 5 µg/mL Goat Anti-Human ADAM10 Ectodomain Polyclonal Antibody (Catalog # AB936) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # [CTS008](#)) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 1 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <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

ADAM10 (also known as Kuzbanian, mammalian disintegrin metalloprotease, and myelin-associated metalloproteinase) is a member of the ADAM family that contains a disintegrin and metalloprotease-like domain (1, 2). Like other membrane-anchored ADAMs, ADAM10 consists of the following domains, pro with a cysteine switch and furin cleavage sequence, catalytic with the zinc-binding site and Met-turn expected for reprotolysins, disintegrin-like, cysteine-rich, EGF-like, transmembrane, and cytoplasmic. ADAM10 is highly conserved, with 97% amino acid identity between mouse, rat, bovine, and human and 45% identity between mouse and *Drosophila*. The active enzyme processes notch, notch ligand delta, and amyloid protein precursor at the alpha site, playing an important role in neurogenesis (3, 4). It also processes the 26 kDa membrane-anchored pro-tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) to the 17 kDa mature TNF- $\alpha$  (5). It cleaves myelin basic protein and type IV collagen (6, 7). ADAM10 is widely expressed in tissues and resides both on the cell surface and in the cell (8, 9).

## References:

1. Rooke, *et al.* (1996) *Science* **273**:1227.
2. Pan and Rubin (1997) *Cell* **90**:271.
3. Qi, *et al.* (1999) *Science* **283**:91.
4. Lammich, *et al.* (1999) *Proc. Natl. Acad. Sci. USA* **96**:3922.
5. Rosendahl, *et al.* (1997) *J. Biol. Chem.* **272**:24588.
6. Chantry, *et al.* (1989) *J. Biol. Chem.* **264**:21603.
7. Millichip, *et al.* (1998) *Biochem. Biophys. Res. Comm.* **245**:594.
8. Chantry and Glynn (1990) *Biochem. J.* **268**:245.
9. Fahrenholz, *et al.* (2000) *Ann. N.Y. Acad. Sci.* **920**:215.