

DESCRIPTION

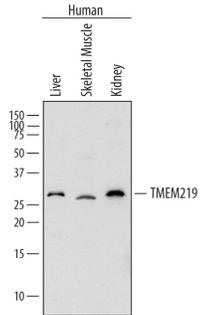
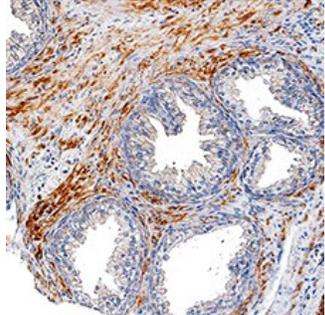
Species Reactivity	Human
Specificity	Detects human TMEM219 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human TMEM219 Leu41-Leu200 Accession # ACQ72822
Formulation	Lyophilized from 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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	1-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human TMEM219 by Western Blot. Western blot shows lysates of human liver tissue, human skeletal muscle tissue, and human kidney tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human TMEM219 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7556) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for TMEM219 at approximately 30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>TMEM219 in Human Prostate Gland. TMEM219 was detected in immersion fixed paraffin-embedded sections of human prostate gland using Sheep Anti-Human TMEM219 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7556) at 1 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in stromal cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TMEM219 (Transmembrane protein 219; also IGFBP3 Receptor) is a 30-35 kDa member of the 2-transmembrane group of the Pfam-A family of polytopic molecules. It is widely expressed, and appears to be a cell-surface receptor for IGFBP3. Only free IGFBP3 will bind to TMEM219; when complexed to IGF-I, IGFBP3 is unable to recognize the TMEM219 molecule. Ligation of TMEM219 inhibits cell proliferation and induces caspase-8 mediated apoptosis. It is suggested that procaspase-8 is normally sequestered by TMEM219. Following IGFBP3 binding, procaspase-8 is activated and released from TMEM219, resulting in the downstream activation of executioner caspases. Human TMEM219 is a 240 amino acid (aa) 2-transmembrane protein. It contains an N-terminal 20 aa cytoplasmic region, a 21 aa TM domain, a 164 aa extracellular region (aa 41-204), a second 21 aa TM domain, and a C-terminal 15 aa cytoplasmic tail. Over aa 41-200, human TMEM219 shares 82% aa sequence identity with mouse TMEM219.