

DESCRIPTION

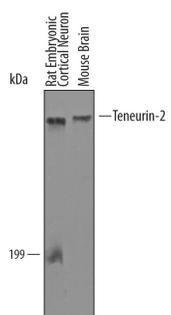
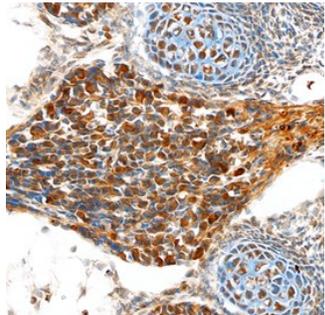
Species Reactivity	Human/Mouse/Rat
Specificity	Detects Teneurin-2 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human (rh) Teneurin-3 is observed, and less than 4% cross-reactivity with rhTeneurin-1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Teneurin-2 Met1-Lys183 Accession # AAI72353
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 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	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Mouse and Rat Teneurin-2 by Western blot. Western blot shows lysates of mouse brain tissue and rat embryonic cortical neuron cells. PVDF Membrane was probed with 1 µg/mL of Human Teneurin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4578) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Teneurin-2 at approximately 300 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.</p>	<p>Immunohistochemistry</p>  <p>Teneurin-2 in Mouse Brain. Teneurin-2 was detected in immersion fixed frozen sections of embryonic mouse brain using Sheep Anti-Human/Mouse/Rat Teneurin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4578) at 10 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 neurons in dorsal root ganglia and cells in cartilage primordium. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>
--	---

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

Teneurin-2 (also Ten-2/Ten-m2, tenascin-M2, and Ten-m/Odz2) is a 250-330 kDa member of the tenascin family, teneurin subfamily of transmembrane (TM) molecules. It is a covalently-linked homodimer that is expressed in both embryonic and adult neurons, among which are cerebellar Purkinje cells, pyramidal neurons of the hippocampus, and neurons of layers II and VI of the cerebral cortex. Teneurin-2 appears to promote neurite outgrowth and mediate cell-to-cell adhesion via homophilic interactions. Human teneurin-2 is a 2774 amino acid (aa) type II TM glycoprotein. It contains a 379 aa cytoplasmic region (aa 1-379) that contains a polySer segment (aa 331-334), plus a 2374 aa extracellular domain (ECD). The ECD possesses eight sequential EGF-like domains (aa 575-841), five NHL repeats, each of which forms a β-propeller (aa 1272-1573), and 23 YD/TyrAsp-containing repeats that bind carbohydrates. There is a furin cleavage site after Arg528. There are three potential splice variants. One shows a deletion of aa 799-807, while two others show 46 and five aa substitutions for aa 1-167, respectively. Over aa 1-183, human teneurin-2 shares 98% aa identity with mouse teneurin-2.