

## DESCRIPTION

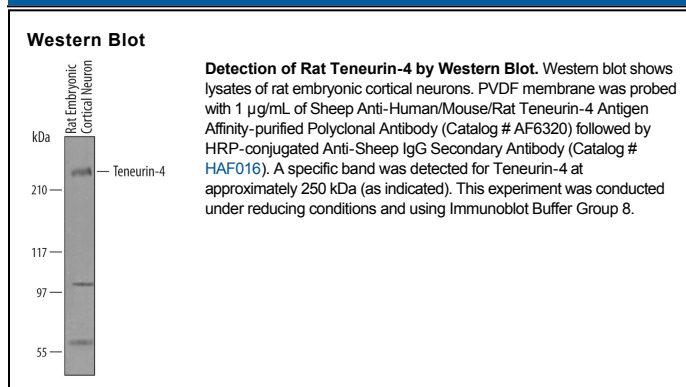
|                           |  |
|---------------------------|--|
| <b>Species Reactivity</b> | Human/Mouse/Rat  |
| <b>Specificity</b>        | Detects human, mouse, and rat Teneurin-4 in Western blots and human Teneurin-4 in direct ELISAs. In direct ELISAs, approximately 5% cross-reactivity with recombinant human (rh) Teneurin-1 is observed, and less than 1% cross-reactivity with rhTeneurin-2 and rhTeneurin-3 is observed. |
| <b>Source</b>             | Polyclonal Sheep IgG   |
| <b>Purification</b>       | Antigen Affinity-purified  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Teneurin-4<br>Lys61-Lys340<br>Accession # Q6N022   |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*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    |
|---------------------|---------------------------|-----------|
| <b>Western Blot</b> | 1 µg/mL                   | See Below |

## DATA



## PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.2 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.<br>*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

Teneurin-4 (also Ten-m4, Doc4 and tenascin-M4) is a 250-300 kDa member of the tenascin family, teneurin subfamily of transmembrane (TM) molecules. It is a covalently-linked homodimer that is widely expressed in the embryo, and in adult, participates in cell-to-cell adhesion, and may communicate ER stress levels. Human Teneurin-4 is a 2769 amino acid (aa) type II TM glycoprotein. It contains a 345 aa cytoplasmic region (aa 1-345), plus a 2403 aa extracellular domain (ECD) (aa 367-2769). The ECD possesses eight sequential EGF-like domains (aa 561-831), five NHL repeats, each of which form a β-propeller (aa 1216-1566), and 23 YD/TyrAsp-containing repeats that bind carbohydrates. C-terminal cleavage generates a short 5 kDa, 41 aa peptide (aa 2726-2766) termed TCAP-1 that shows bioactivity. Teneurin-4 is hypothesized to form heterodimers with other teneurins. Over aa 61-340, human Teneurin-4 shares 95% aa identity with mouse Teneurin-4.