

#### 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                             |
| <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>Conjugate</b>          | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                                                                                                                                                                         |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### 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.

#### PRODUCT SPECIFIC NOTICES

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