

Human/Mouse/Rat Teneurin-4 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6320

DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	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.		
Source	Polyclonal Sheep IgG		
Purification	Antigen Affinity-purified		
Immunogen	<i>E. coli</i> -derived recombinant human Teneurin-4 Lys61-Lys340 Accession # Q6N022		
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 Iyophilized 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
Sample

	Concentration	-
Western Blot	1 μg/mL	See Below

DATA

Western Blot	Detection of Human and Mouse Teneurin-4 by Western Blot. Western blot shows lysates of SH-SY5Y human neuroblastoma cell line and L-929 mouse fibroblast cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti- Human/Mouse/Rat Teneurin-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6320) followed by HRP-conjugated Anti- Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Teneurin-4 at approximately 300 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.	Western Blot	Detection of Rat Teneurin-4 by Western Blot. Western blot shows lysates of Rat cortical stem cell. PVDF membrane was probed with 1 µg/mL of Sheep Anti- Human/Mouse/Rat Teneurin-4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6320) followed by HRP-conjugated Anti- Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Teneurin-4 at approximately 300 kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.
PREPARATION AND STORAGE			
Reconstitution Reconstitute	at 0.2 mg/mL in sterile PBS		

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.	
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.	
	Small pack size (-SP) is snipped with polar packs. Opon receipt, store it inimediately at -20 to -70 C	
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.	
	 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-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.

Rev. 8/10/2021 Page 1 of 1



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