Revision 1

#12221 Store at -20C

Tenascin C (D16C4) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	240	Rabbit IgG	#P24821	3371

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Tenascin C (D16C4) Rabbit mAb recognizes endogenous levels of total Tenascin C protein. This antibody also cross-reacts with a protein of unknown origin at 120 kDa.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human Tenascin C protein.

Background

Tenascin C is a large hexameric extracellular matrix glycoprotein that exhibits de-adhesive effects on cell-matrix interaction, enhancing cell proliferation and motility in most cell types. It is highly expressed in remodeling tissues during embryonic development and under pathological conditions in adults, and research studies have shown markedly increased expression in cancerous tissues (1,2). Tenascin C has been implicated in a variety of cellular processes relevant to atherosclerosis, including cell proliferation, migration, and apoptosis. Expression of Tenascin C is tightly controlled in adults and is upregulated in tissues undergoing wound healing (3). In development, the expression of Tenascin C is known to be associated with epithelial-mesenchymal transition (EMT) events, including gastrulation and formation of the neural crest, endocardial cushion, and secondary palate (1). Investigators have shown that Tenascin C is a key determinant of the tumor stroma and is involved in the initiation of tumorigenesis and progression to metastasis (2). Immature and mature astrocytes, radial glial cells, Schwann cells, and a subset of neurons express Tenascin C. Upon CNS trauma or exposure of neurons to excitotoxic agents, Tenascin C expression is upregulated by glial cells. Research studies have shown that Tenascin C is involved in guidance of migrating axons and neurons, synaptic plasticity, and neuronal regeneration, promoting spinal cord regeneration after injury (4).

Background References

1. Imanaka-Yoshida, K. (2012) *Circ J* 76, 2513-20.
2. Yoshimura, H. et al. (2011) *Histol Histopathol* 26, 297-305.
3. Minear, M.A. et al. (2011) *Hum Genet* 129, 641-54.
4. Chen, J. et al. (2010) *Mol Ther* 18, 1769-77.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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