Synaptic Systems

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Tenascin-C

Cat.No. 217 127; Monoclonal rat antibody, 200 µl hybridoma supernatant (lyophilized)

Data Sheet

Reconstitution/ Storage	200 µl hybridoma supernatant, lyophilized. For reconstitution add 200 µl H_2O, then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 500 up to 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: 1 : 100 up to 1 : 500 **IHC**: yes **IHC-P/FFPE**: not tested yet
Clone	578
Subtype	IgG2a
Immunogen	Recombinant protein corresponding to AA 23 to 2210 from mouse Tenascin-C (UniProt Id: Q80YX1)
Epitop	Epitop: AA 1082 to 1510 from mouse Tenascin-C (UniProt Id: Q80YX1)
Reactivity	Reacts with: rat, mouse (Q80YX1). Other species not tested yet.
Specificity	Specific for tenascin-C splice variants carrying the FNIII D domain.
Remarks	Tenascin-C variants detected by this antibody are downregulated during development and hardly detectable in adult animals

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Tenascin-C, also referrred to as **TN-C**, **Cytoactin**, and **J1-200/220**, is a multimodular glycoprotein with neurite outgrowth-stimulating properties. It is composed of a cysteine rich amino-terminus followed by a stretch of EGF like and fibronectin type III (FNIII) repeats. Its C-terminus shows homologies to fibrinogen β and γ. In the central nervous system TN-C is transiently expressed by immature astrocytes and by subpopulations of neurons, e.g., retinal ganglion cells.

Selected References SYSY Antibodies

Expression of tenascin in the developing and adult cerebellar cortex.
Bartsch S, Bartsch U, Dörries U, Faissner A, Weller A, Ekblom P, Schachner M
The Journal of neuroscience : the official journal of the Society for Neuroscience (1992) 12(3): 736-49. **WB, IHC**

Fibroblasts that proliferate near denervated synaptic sites in skeletal muscle synthesize the adhesive molecules tenascin(J1), N-CAM, fibronectin, and a heparan sulfate proteoglycan.
Gatchalian CL, Schachner M, Sanes JR
The Journal of cell biology (1989) 108(5): 1873-90. **ICC, IHC**

The glia-derived extracellular matrix glycoprotein tenascin-C promotes embryonic and postnatal retina axon outgrowth via the alternatively spliced fibronectin type III domain TNfnD.
Siddiqui S, Horvat-Bröcker A, Faissner A
Neuron glia biology (2008) 4(4): 271-83. **ICC**

Tenascin-C promotes neurite outgrowth of embryonic hippocampal neurons through the alternatively spliced fibronectin type III BD domains via activation of the cell adhesion molecule F3/contactin.
Rigato F, Garwood J, Calco V, Heck N, Faivre-Sarrailh C, Faissner A
The Journal of neuroscience : the official journal of the Society for Neuroscience (2002) 22(15): 6596-609. **WB**

J1/tenascin-related molecules are not responsible for the segmented pattern of neural crest cells or motor axons in the chick embryo.
Stern CD, Norris WE, Bronner-Fraser M, Carlson GJ, Faissner A, Keynes RJ, Schachner M
Development (Cambridge, England) (1989) 107(2): 309-19. **IHC**

Selected General References

Mechano-regulated tenascin-C orchestrates muscle repair.
Flück M, Mund SI, Schittny JC, Klossner S, Durieux AC, Giraud MN
Proceedings of the National Academy of Sciences of the United States of America (2008) 105(36): 13662-7.

Structural and functional aberrations in the cerebral cortex of tenascin-C deficient mice.
Irintchev A, Rollenhagen A, Troncoso E, Kiss JZ, Schachner M
Cerebral cortex (New York, N.Y. : 1991) (2005) 15(7): 950-62.

Tenascin-C promotes neurite outgrowth of embryonic hippocampal neurons through the alternatively spliced fibronectin type III BD domains via activation of the cell adhesion molecule F3/contactin.
Rigato F, Garwood J, Calco V, Heck N, Faivre-Sarrailh C, Faissner A
The Journal of neuroscience : the official journal of the Society for Neuroscience (2002) 22(15): 6596-609.

Tenascin-C contains distinct adhesive, anti-adhesive, and neurite outgrowth promoting sites for neurons.
Götz B, Scholze A, Clement A, Joester A, Schütte K, Wigger F, Frank R, Spiess E, Ekblom P, Faissner A
The Journal of cell biology (1996) 132(4): 681-99.

Fibroblasts that proliferate near denervated synaptic sites in skeletal muscle synthesize the adhesive molecules tenascin(J1), N-CAM, fibronectin, and a heparan sulfate proteoglycan.
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