

Tenascin-R

Cat.No. 217 011; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: yes IHC-P/FFPE: not tested yet EM: yes
Clone	619
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 1211 from bovine Tenascin-R
Epitop	Epitop: AA 1 to 1211 from bovine Tenascin-R
Reactivity	Reacts with: rat (Q05546), mouse (Q8BYI9), cow, chicken. Other species not tested yet.
Specificity	Specific for Tenascin-R. (K.O. verified)

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

Tenascin-R, also referred to as **TNR** and **J1-160/180**, is an extracellular matrix glycoprotein expressed by oligodendrocytes and subpopulations of neurons in the adult CNS of vertebrates. TNR is a member of the Tenascin family of multidomain adhesion molecules and affects neuronal cell migration and neurite extension.

Selected References SYSY Antibodies

Mice deficient for tenascin-R display alterations of the extracellular matrix and decreased axonal conduction velocities in the CNS.
Weber P, Bartsch U, Rasband MN, Czaniera R, Lang Y, Bluethmann H, Margolis RU, Levinson SR, Shrager P, Montag D, Schachner M, et al.
The Journal of neuroscience : the official journal of the Society for Neuroscience (1999) 19(11): 4245-62. **WB, IHC; KO verified**

Immunoelectron microscopic localization of the neural recognition molecules L1, NCAM, and its isoform NCAM180, the NCAM-associated polysialic acid, beta1 integrin and the extracellular matrix molecule tenascin-R in synapses of the adult rat hippocampus.

Schuster T, Krug M, Stalder M, Hackel N, Gerardy-Schahn R, Schachner M
Journal of neurobiology (2001) 49(2): 142-58. **EM**

Synaptic coupling of inner ear sensory cells is controlled by brevican-based extracellular matrix baskets resembling perineuronal nets.

Sonntag M, Blosa M, Schmidt S, Reimann K, Blum K, Eckrich T, Seeger G, Hecker D, Schick B, Arendt T, Engel J, et al.
BMC biology (2018) 16(1): 99. **IHC; tested species: mouse**

Hyaluronan deficiency due to Has3 knock-out causes altered neuronal activity and seizures via reduction in brain extracellular space.

Arranz AM, Perkins KL, Irie F, Lewis DP, Hrabe J, Xiao F, Itano N, Kimata K, Hrabetova S, Yamaguchi Y
The Journal of neuroscience : the official journal of the Society for Neuroscience (2014) 34(18): 6164-76. **IHC; tested species: mouse**

Tenascin-R restricts posttraumatic remodeling of motoneuron innervation and functional recovery after spinal cord injury in adult mice.

Apostolova I, Irintchev A, Schachner M
The Journal of neuroscience : the official journal of the Society for Neuroscience (2006) 26(30): 7849-59. **IHC; KO verified; tested species: mouse**

Postnatal development of perineuronal nets in wild-type mice and in a mutant deficient in tenascin-R.
Brückner G, Grosche J, Schmidt S, Härtig W, Margolis RU, Delpech B, Seidenbecher CI, Czaniera R, Schachner M
The Journal of comparative neurology (2000) 428(4): 616-29. **IHC; KO verified; tested species: mouse**

The distribution of tenascin-R in the developing avian nervous system.

Derr LB, McKae LA, Tucker RP
The Journal of experimental zoology (1998) 280(2): 152-64. **IHC; tested species: chicken**

Isolation of a tenascin-R binding protein from mouse brain membranes. A phosphacan-related chondroitin sulfate proteoglycan.
Xiao ZC, Bartsch U, Margolis RK, Rougon G, Montag D, Schachner M
The Journal of biological chemistry (1997) 272(51): 32092-101. **IHC; tested species: mouse**

Selected General References

Competition and cooperation between tenascin-R, lecticans and contactin 1 regulate neurite growth and morphology.
Zacharias U, Rauch U
Journal of cell science (2006) 119(Pt 16): 3456-66.

Tenascin-R plays a role in neuroprotection via its distinct domains that coordinate to modulate the microglia function.
Liao H, Bu WY, Wang TH, Ahmed S, Xiao ZC
The Journal of biological chemistry (2005) 280(9): 8316-23.

High affinity binding and overlapping localization of neurocan and phosphacan/protein-tyrosine phosphatase-zeta/beta with tenascin-R, amphoterin, and the heparin-binding growth-associated molecule.
Milev P, Chiba A, Häring M, Rauvala H, Schachner M, Ranscht B, Margolis RK, Margolis RU
The Journal of biological chemistry (1998) 273(12): 6998-7005.

Isolation of a tenascin-R binding protein from mouse brain membranes. A phosphacan-related chondroitin sulfate proteoglycan.
Xiao ZC, Bartsch U, Margolis RK, Rougon G, Montag D, Schachner M
The Journal of biological chemistry (1997) 272(51): 32092-101.

Tenascin-R is an intrinsic autocrine factor for oligodendrocyte differentiation and promotes cell adhesion by a sulfatide-mediated mechanism.

Pesheva P, Gloor S, Schachner M, Probstmeier R
The Journal of neuroscience : the official journal of the Society for Neuroscience (1997) 17(12): 4642-51.