

M6a Glycoprotein

Cat.No. 238 005; Polyclonal Guinea pig antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Guinea pig serum albumin was added for stabilization. For reconstitution add 50 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: yes ICC: 1 : 500 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: not tested yet
Immunogen	Synthetic peptide corresponding to AA 261 to 270 from rat M6a Glycoprotein (UniProt Id: Q812E9)
Reactivity	Reacts with: human (P51674), rat (Q812E9), mouse (P35802), pig, dog. Other species not tested yet.
Specificity	Specific for M6a neuronal glycoprotein.
matching control	238-0P

Selected General References

Expression of the axonal membrane glycoprotein M6a is regulated by chronic stress.
 Cooper B, Fuchs E, Flügge G
 PLoS one (2009) 4(1): e3659.

Glycoprotein M6a is present in glutamatergic axons in adult rat forebrain and cerebellum.
 Cooper B, Werner HB, Flügge G
 Brain research (2008) 1197: 1-12.

The stress-regulated protein M6a is a key modulator for neurite outgrowth and filopodium/spine formation.
 Alfonso J, Fernández ME, Cooper B, Flügge G, Frasch AC
 Proceedings of the National Academy of Sciences of the United States of America (2005) 102(47): 17196-201.

Immunoelectron microscopic localization of the M6a antigen in rat brain.
 Roussel G, Trifilieff E, Lagenaud C, Nussbaum JL
 Journal of neurocytology (1998) 27(9): 695-703.

Molecular cloning of M6: identification of a PLP/DM20 gene family.
 Yan Y, Lagenaud C, Narayanan V
 Neuron (1993) 11(3): 423-31.

EMA: a developmentally regulated cell-surface glycoprotein of CNS neurons that is concentrated at the leading edge of growth cones.
 Baumrind NL, Parkinson D, Wayne DB, Heuser JE, Pearlman AL
 Developmental dynamics : an official publication of the American Association of Anatomists (1992) 194(4): 311-25.

TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

M6a and M6b are transmembrane **glycoproteins** with four membrane spanning domains that belong to the myelin proteolipid protein (PLP) family. In contrast to other PLP proteins that are expressed by glia cells, M6a is found only in neurons where it is concentrated at presynaptic glutamatergic terminals. M6a has been suggested to be a potential mediator of cell-cell interactions involved in axonfasciculation during development.