



Anti-F3 , Mouse (Rabbit) Antibody

Size

(Synonymous names: F3 is also referred to as chick F11 or contactin. (Wolff JM et al. 1989)

200µl

(Rabbit polyclonal IgG, Serum)

Cat.No. SML-ROA003-EX

Background: F3 is a neural member of the immunoglobulin Superfamily, and has six immunoglobulin (Ig)-like domains and four fibronectin type III domains (Gennarini et al. 1989). It is a glycosyl phosphatidyl inositol (GPI)-anchored cell surface glycoprotein expressed in axon-rich regions of the developing brain and is also expressed in the myelin sheath (Fig.1). The molecule shows multiple interactions with other membrane proteins and with components of the extracellular matrix (Durbec et al. 1992). In vitro antibody perturbation experiments suggest that those molecules are involved in axon fasciculation (Wolff et al. 1989) and in elongation of axon on pre-existing axon (Chang et al. 1987). F3 transfected cells promote neurite outgrowth over their surface and a soluble form of F3 enhanced neurite initiation and outgrowth (Durbec et al. 1992). Expression of F3 is developmentally regulated. Maximal expression occurs one-two weeks postnatally and declines rapidly thereafter, although it is still present in adult tissues (Gennarini et al. 1991).

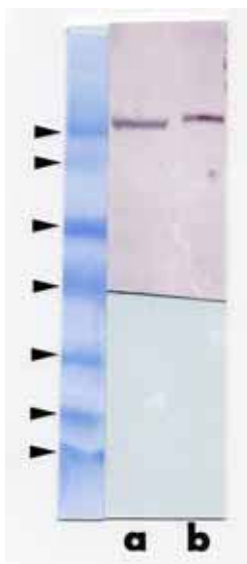
Source / Purification: This is an affinity-purified rabbit polyclonal antibodies raised against synthetic peptide KGFGPIFEEQPINT corresponding to amino acids 37-50 of F3 with known cell adhesion molecules showing strong homology with chick F11.

Immunogen: CKGFGPIFEEQPINT (N-terminal Cys)

Specificity: The antibody specifically labels cell adhesion molecule F3 in immunoblotting (band at 135kDa), in immunofluorescent staining of cultured cells and in immunohistochemistry.

Uses: Polyclonal anti-F3 may be used for the localization of immunoglobulin superfamily F3 using immunohistochemistry and immunoblotting. The product is provided as serum IgG with 0.01% sodium azide as a preservative.

Recommended antibody dilutions: Immunohistochemistry Minimum 1:200
Western blotting Minimum 1:500



Western blotting analysis of extracts from mouse brain homogenates (a. detergent soluble fraction) and myelin sheathes (b), using anti-F3 antibody.

Arrowheads indicate molecular marker: 117, 97, 66, 45, 31, 21.5 and 14.5kDa respectively (up to down).



Storage and Stability: Stable for 2 years at -20°C from date of shipment. Aliquot to avoid repeated freezing and thawing.

Formulation: 200 μg of protein A purified IgG in 200 μl of 0.07M Tris-glycine, pH 7.4, 0.1M NaCl, 0.01% Sodium azide with 30% glycerol. Liquid at -20°C .

Selected Application References:

- 1) Gennarini G, Cibelli G, Rougon G, Mattei MG, Goridis C.(1989) The mouse neuronal cell surface protein F3: a phosphatidylinositol-anchored member of the immunoglobulin superfamily related to chicken contactin. J Cell Biol. 109:775-88.
- 2) Gennarini G, Durbec P, Boned A, Rougon G, Goridis C. (1991) Transfected F3/F11 neuronal cell surface protein mediates intercellular adhesion and promotes neurite outgrowth. Neuron. 6:595-606.
- 3) Durbec P, Gennarini G, Goridis C, Rougon G. (1992) A soluble form of the F3 neuronal cell adhesion molecule promotes neurite outgrowth. J Cell Biol. 117:877-87.
- 4) Chang S, Rathjen FG, Raper JA. (1987) Extension of neurites on axons is impaired by antibodies against specific neural cell surface glycoproteins. J Cell Biol.104:355-62.
- 5) Wolff JM, Brummendorf T, Rathjen FG. (1989) Neural cell recognition molecule F11: membrane interaction by covalently attached phosphatidylinositol. Biochem Biophys Res Commun. 161:931-8.

For research use only; not for use as a diagnostic.

