Mouse monoclonal antibody to human p75NTR [MLR2] - FITC

Catalogue No.: M-018-100-FT
Description: p75NTR was originally discovered as a low affinity nerve growth factor receptor. Later it was found that it was the receptor for all neurotrophins. It mediates signals of neurotrophins for neuronal survival, apoptosis, neurite outgrowth and synaptic plasticity. Recently, it has been revealed that p75NTR is not only acts as the receptor for neurotrophins but also the receptor for many other pathological ligands such as prions, rabies virus and amyloid beta. p75NTR also acts as a co-receptor for NOGO which mediates inhibitory signals of myelin associated protein. p75NTR is highly expressed in a number of non-neuronal and neuronal cells including motor neurons during development and also in damaged neurons. FUNCTION: Low affinity receptor which can bind to NGF, BDNF, NT-3, and NT-4. Can mediate cell survival as well as cell death of neural cells. SUBUNIT: Homodimer; disulfide-linked. Interacts with p75NTR-associated cell death executor. Interacts with NGFRAP1/BEX3. Interacts with TRAF2, TRAF4, TRAF6, PTPN13 and RANBP9. Interacts through TRAF6 with SQSTM1 which bridges NGFR to NTRK1.

Batch No.: See product label
Unit size: 100 µg
Antigen: Human recombinant p75
Isotype: IgG2a
Clone: MLR2
Other Names: Low-affinity nerve growth factor receptor; NGF receptor; Gp80-LNGFR; p75 ICD; Low affinity neurotrophic receptor p75NTR; Tumor necrosis factor receptor superfamily member 16; CD271; NGFR; TNFRSF16;
Accession: P08138 TNR16_HUMAN;
Produced in: Mouse
Purity: Immunoglobulin (IgG2A) was purified using Protein G column (Amersham Pharmacia), polished with Sephacryl 200HR (Amersham Pharmacia) in PBS. The antibody was then conjugated to Fluorescein isomer 1 (FITC, Sigma). A minimum fluorescein; protein ratio of 3:1 is guaranteed. The conjugate was purified via gel filtration using a G25 fine grain gel in 10 mMTris/50mM NaCl solution.

Applications: Immunohistochemistry, immunofluorescence, Western Blot (non-denaturing gels), flow cytometry (Anti NGF receptor p75 is CD271), anti-NGF receptor p75 dynamics, retrograde transport studies, study of intracellular trafficking (see IHC image attached).
Suggested working dilutions: For immunohistochemistry a concentration of 1-2 µg/ml is recommended. LIGHT fixation is a must, or unfixed works best. Epitope is sensitive to fixation. This antibody is not recommended for denaturing WB applications. For FACS a concentration of 20 µg/ml is recommended unfixed and for 1 site ELISA at least a 1 in 5000 dilution. This antibody does not block Neurotrophin binding. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
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Specificity: Specificity was demonstrated by immunohistochemistry and FACS analysis. Immunohistochemical staining of motor neurons in spinal cord following lesion of sciatic nerve and in cholinergic neurons of the basal forebrain corresponding to published literature.

Cross-reactivity: Reacts with human, mouse and rat. Other species have not yet been tested but it is expected that this antibody will be useful for the study of p75 in primates and other species.

Form: Liquid

Storage: The antibody conjugate can be stored at 4ºC for up to 4 months with the addition of appropriate antibacterial agent.

Expiry Date: Four months after purchase

Specific References:

References:

Live confocal imaging of intracellular trafficking of p75NTR using FITC labelled mouse monoclonal antibody to human p75NTR [MLR2], catalogue number M-018-100-FT in NSC34 mouse motor neuron cell line.