

Antibody to Nerve Growth Factor (p75) Receptor (ME20.4)
MOUSE MONOCLONAL

Catalog Number: AB-N07
Quantity: 100 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative. Sterile-filtered.
Host: Mouse
Isotype: IgG₁
Clone: ME20.4
Immunogen: WM245 melanoma cells

Background:

The p75 neurotrophin receptor (p75^{NTR}), also known as the low affinity nerve growth factor receptor, binds nerve growth factor, brain-derived neurotrophic factor, neurotrophin-3 and neurotrophin-4 with varying specificities. The p75^{NTR} plays an important role in neurotrophic factor signaling and has been shown to modulate the susceptibility of selective cellular populations to programmed cell death.

Specificity and Preparation:

This antibody recognizes the p75^{NTR} (low affinity neurotrophin receptor) in human, primate, rabbit, sheep, dog, cat, and pig. It was derived from immunization of mice with WM245 melanoma cells. The antibody is routinely tested by flow cytometry.

Usage and Storage:

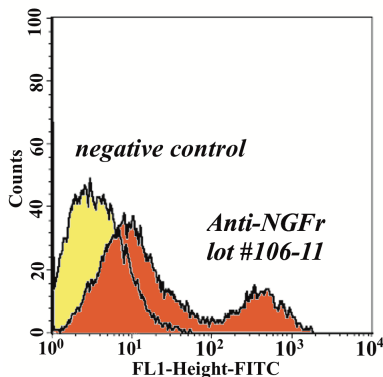
Applications include flow cytometry (ATS in-house; 1 μ g per 10⁶ cells), immunoprecipitation,⁴ immunohistochemistry (frozen),¹ electron microscopy (1:200),² immunocytochemistry (10 ng/ml),³ radioimmunoassay,⁴ targeting (targeting agent in ME20.4-SAP, Cat. #IT-15). Store the antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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References:

1. Tremere LA, Pinaud R, Grosche J, Hartig W, Rasmusson DD (2000) Antibody for human p75 LNTR identifies cholinergic basal forebrain of non-primate species. *Neuroreport* 11(10):2177-2183.
2. Caneva L, Soligo D, Cattoretti G, De Harven E, Deliliers GL. (1995) Immuno-electron microscopy characterization of human bone marrow stromal cells with anti-NGFR antibodies. *Blood Cells Mol Dis* 21:73-85.
3. Loy R, Heyer D, Clagett-Dame M, DiStefano PS (1990) Localization of NGF receptors in normal and Alzheimer's basal forebrain with monoclonal antibodies against the truncated form of the receptor. *J Neurosci Res* 27:651-664.
4. Ross AH, Grob P, Bothwell M, Elder DE, Ernst CS, Marano N, Ghrist BFD, Slemp CC, Herlyn M, Atkinson B, Koprowski H (1984) Characterization of nerve growth factor receptor in neural crest tumors using monoclonal antibodies. *PNAS* 81:6681-6685.

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HS294T cells, a human metastatic melanoma cell line, were used in flow cytometry with anti-NGFr (ME20.4, Cat. #AB-N07). Cells were treated with 1 μ g of AB-N07 and subsequently with anti-murine IgG-FITC (Cat. #FL-07).