# Human/Canine NGFR/TNFRSF16 Antibody

Monoclonal Mouse $IgG_1$ Clone # 74902

Catalog Number: MAB367

## DESCRIPTION

| | |
|---|---|
| **Species Reactivity** | Human/Canine |
| **Specificity** | Detects human NGF R in direct ELISAs and Western blots. In direct ELISAs, no crossreactivity with recombinant human (rh) 4-1BB, rhCD27, rhCD40, rhBAFF R, rhCD30, rhDR3, rhDR6, rhEDAR, rhFas, rhHVEM, rhGITR, rhLTR B, recominant mouse (rm) NGF R, rhOPG, rmOX40, rhRANK, rhTAJ, rhTNF RI or rhTNF RII is observed. |
| **Source** | Monoclonal Mouse $IgG_1$ Clone # 74902 |
| **Purification** | Protein A or G purified from hybridoma culture supernatant |
| **Immunogen** | *S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human NGF R<br>Lys29-Asn250<br>Accession # P08138 |
| **Endotoxin Level** | <0.10 EU per 1 µg of the antibody by the LAL method. |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

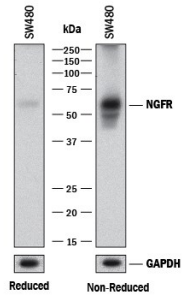
## APPLICATIONS

**Please Note:** *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

| | Recommended Concentration | Sample |
|---|---|---|
| **Western Blot** | 2 µg/mL | See Below |
| **Flow Cytometry** | 0.25 µg/$10^6$ cells | See Below |
| **Immunocytochemistry** | 8-25 µg/mL | See Below |
| **Immunohistochemistry** | 8-25 µg/mL | See Below |
| **CyTOF-ready** | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |

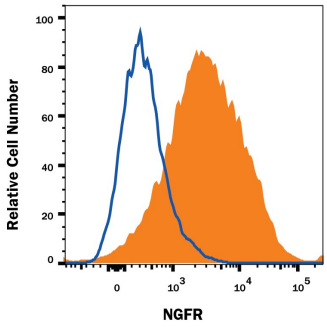
## DATA

### Western Blot



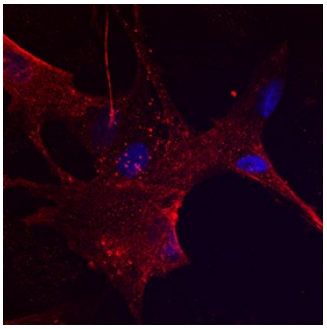

**Detection of Human NGF R/TNFRSF16 by Western Blot.** Western blot shows lysates of SW480 human colorectal adenocarcinoma cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Canine NGF R/TNFRSF16 Monoclonal Antibody (Catalog # MAB367) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for NGF R/TNFRSF16 at approximately 65 kDa (as indicated). GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

### Flow Cytometry



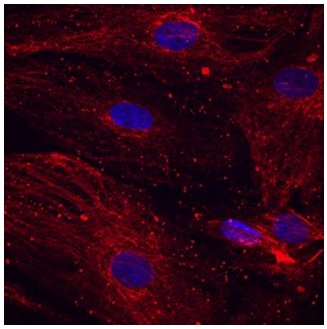

**Detection of NGF R/TNFRSF16 in SH-SY5Y Human Cell Line by Flow Cytometry.** SH-SY5Y human neuroblastoma cell line was stained with Mouse Anti-Human NGF R/TNFRSF16 Monoclonal Antibody (Catalog # MAB367, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram) followed by anti-Mouse IgG PE-conjugated Secondary Antibody (Catalog # F0102B). View our protocol for Staining Membrane-associated Proteins.

### Immunocytochemistry



**NGF R/TNFRSF16 in Canine Mesenchymal Stem Cells.** NGF R/TNFRSF16 was detected in immersion fixed canine mesenchymal stem cells using Mouse Anti-Human/Canine NGF R/TNFRSF16 Monoclonal Antibody (Catalog # MAB367) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces. View our protocol for Fluorescent ICC Staining of Stem Cells on Coverslips.

### Immunocytochemistry



**NGF R/TNFRSF16 in Human Mesenchymal Stem Cells.** NGF R/TNFRSF16 was detected in immersion fixed human mesenchymal stem cells using Mouse Anti-Human/Canine NGF R/TNFRSF16 Monoclonal Antibody (Catalog # MAB367) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces. View our protocol for Fluorescent ICC Staining of Stem Cells on Coverslips.



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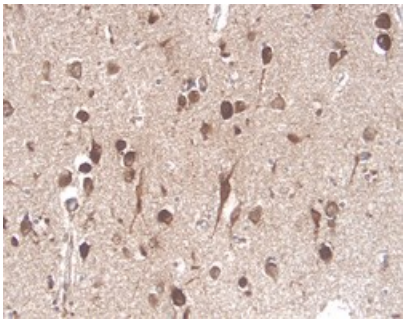
# Human/Canine NGFR/TNFRSF16 Antibody

Monoclonal Mouse $IgG_1$ Clone # 74902

Catalog Number: MAB367

**Immunohistochemistry**



**NGF R/TNFRSF16 in Human Brain.** NGF R/TNFRSF16 was detected in immersion fixed paraffin-embedded sections of human brain (cortex) using 25 µg/mL Mouse Anti-Human/Canine NGF R/TNFRSF16 Monoclonal Antibody (Catalog # MAB367) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

## PREPARATION AND STORAGE

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|---|---|
| **Reconstitution** | Reconstitute at 0.5 mg/mL in sterile PBS. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>• 12 months from date of receipt, -20 to -70 °C as supplied.<br>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>• 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

## BACKGROUND

NGF R is a type I transmembrane protein that belongs to the tumor necrosis factor receptor family (1) and has been designated TNFRSF16. This receptor is also known as p75 NTR (neurotrophin receptor) because of its ability to bind at low affinity not only to NGF, but also other neurotrophins including Brain-Derived Neurotrophic Factor (BDNF), Neurotrophin-3 and Neurotrophin-4/5. NGF R is a 75 kDa protein that is expressed in neuronal axons, Schwann's cells and perineural cells of peripheral nerves (1). Neural crest stem cells have been isolated based on their surface expression of NGF R (2, 3). In addition, neuroepithelial-derived NGF R positive cells have also been demonstrated to be able to differentiate into neurons, smooth muscle and Schwann cells in culture (4). NGF R has been used as a marker to identify mesenchymal precursors as well as hepatic stellate cells (5, 6).

**References:**


1. Barker, P.A. et al. (1992) Mol. Cell Biochem. 110:1.
2. Stemple, D.L. et al. (1992) Cell 71:973.
3. Morrison, S.J. et al. (1999) Cell 96:737.
4. Mujtaba, T. et al. (1998) Dev. Biol. 200:1.
5. Campagnolo, L. et al. (2001) Biol. Reprod. 64:464.
6. Cassiman, D. et al. (2001) Hepatology 33:148.




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