abcam

ab234446

# PerCP/Cy5.5® Anti-p75 NGF Receptor antibody [NGFR5]

Anti-p75 NGF Receptor antibody [NGFR5] conjugated to PerCP/Cy5.5® - suitable for flow cytometry, intracellular flow cytometry, and reacts with human samples. Clone [NGFR5] is a mouse monoclonal antibody cited in 12 publications.

Design your panel with our interactive flow cytometry panel builder. Click here.

## Key facts

| | |
|---|---|
| **Isotype** | IgG1 |
| **Host species** | Mouse |
| **Conjugation** | PerCP/Cy5.5® |
| **Excitation/Emission** | Ex: 482nm, Em: 695nm |
| **Storage buffer** | pH: 7.4 Preservative: 0.0975% Sodium azide Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | Native Full Length Protein corresponding to Human NGFR. Database link P08138 |
| **Clone number** | NGFR5 |
| **Purification technique** | Size-exclusion chromatography |
| **Purification notes** | Purified antibody is conjugated with tandem dye PerCP/Cy5.5® under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary. |

## Reactivity data

## Flow Cyt

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 4 µL for $10^6$ Cells |
| **Notes** | (or 100 µl of whole blood). |

### Not recommended

| | |
|---|---|
| **Species** | Mouse |
| **Dilution info** | - |
| **Notes** | (or 100 µl of whole blood). |

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | - |
| **Notes** | (or 100 µl of whole blood). |

| | |
|---|---|
| **Species** | Rabbit |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Cat |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Ferret |
| **Dilution info** | - |
| **Notes** | - |

| | |
|---|---|
| **Species** | Primates |
| **Dilution info** | - |
| **Notes** | - |

## Target data

See full target information NGFR

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| **Function** | Low affinity receptor which can bind to NGF, BDNF, NTF3, and NTF4. Forms a heterodimeric receptor with SORCS2 that binds the precursor forms of NGF, BDNF and NTF3 with high affinity, and has much lower affinity for mature NGF and BDNF (PubMed:24908487). Plays an important role in differentiation and survival of specific neuronal populations during development (By similarity). Can mediate cell survival as well as cell death of neural cells. Plays a role in the inactivation of RHOA (PubMed:26646181). Plays a role in the regulation of the translocation of GLUT4 to the cell surface in adipocytes and skeletal muscle cells in response to insulin, probably by regulating RAB31 activity, and thereby contributes to the regulation of insulin-dependent glucose uptake (By similarity). Necessary for the circadian oscillation of the clock genes BMAL1, PER1, PER2 and NR1D1 in the suprachiasmatic nucleus (SCmgetaN) of the brain and in liver and of the genes involved in glucose and lipid metabolism in the liver (PubMed:23785138). Together with BFAR negatively regulates NF-kappa-B and JNK-related signaling pathways (PubMed:22566094). |

## Storage

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|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze, Store in the dark |

## Notes

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## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | The p75 NGF receptor also known as p75 NGFR or anti-NTR is a transmembrane protein with a molecular mass of approximately 75 kDa. It is a member of the tumor necrosis factor receptor superfamily. This receptor is widely expressed in the nervous system particularly in neurons glial cells and Schwann cells. The p75 receptor primarily binds to neurotrophins such as nerve growth factor (NGF) influencing neuronal survival apoptosis and growth. |
| **Biological function summary** | The p75 receptor functions as an important part of a signaling complex that mediates diverse cellular responses. It often forms complexes with other receptors like TrkA but can also signal independently. In particular the p75 protein can form a biological chimera with different co-receptors influencing its downstream effects. |

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|---|---|
| | This makes it significant in processes like apoptosis and neuronal differentiation as well as influencing neurotrophin-mediated signaling. |
| **Pathways** | The p75 receptor plays an important role in pathways involving neuronal survival and apoptosis. One key pathway involves the nerve growth factor (NGF) signaling pathway where p75 collaborates with Trk receptors enhancing or inhibiting NGF signaling based on cellular context. Another pathway is the JNK signaling pathway where the p75 receptor interacts with proteins like sortilin contributing to apoptosis and stress responses in neurons. These interactions determine the outcome of neurotrophic signaling highlighting its role in cell fate decisions. |
| **Associated diseases and disorders** | P75 receptor is associated with several neurodegenerative conditions and cancers. Its involvement in Alzheimer's disease is significant because altered p75 expression and function can contribute to neurodegeneration through apoptosis pathways. This receptor is also linked to glioblastoma where it might promote tumor progression in coordination with proteins such as sortilin. These links make p75 receptor a target of interest for therapeutic intervention in these diseases. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

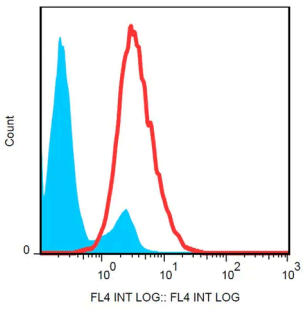
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## 1 product image




# Flow Cytometry - PerCP/Cy5.5® Anti-p75 NGF Receptor antibody [NGFR5] (ab234446)

P75 NGF Receptor Flow Cytometry staining using mouse Anti-p75 NGF Receptor antibody

Flow cytometric analysis of REH cells labeling p75 NGF Receptor with ab234446 at 4 µl/$10^6$ cells (red) as compared to a blank control (blue). Surface staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.