# Data Sheet (Cat.No.TMAY-02524)

TargetMol

## Anti-NGFR/p75NTR Antibody (4S343)

### Product Details

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| Ig Type: | Rabbit IgG |
| Reactivity: | Human |
| Conjugation: | Unconjugated |
| Clone: | 4S343 |
| Purification: | Protein A |

### Applications

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| Verified Activity: | Immunofluorescence staining of NGFR in Hela cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with rabbit anti-Human NGFR monoclonal antibody (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to Cytoplasm and Cell membrane. |
| Application: | ELISA,ICC/IF |
| Recommended | ELISA: 1:5000-1:10000; ICC-IF: 1:20-1:100 |

### Properties

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| Stability & Storage: | Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free. |
| Shipping: | Shipping with blue ice. |

### Antigen Details

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| Immunogen: | Recombinant Protein: Human NGFR Protein (TMPY-02615) |
| Antigen Species: | Human |
| Synonyms: | nerve growth factor receptor (TNFR superfamily, member 16) |

### Research Background

Nerve growth factor receptors (NGFRs) belong to a large growth factor receptor family. NGFR includes two types of receptors: high-affinity nerve growth factor receptor and low-affinity nerve growth factor receptor. The high-affinity nerve growth factor receptor is also referred to as the Trk family whose members are bound by some neurotrophins with high affinity.Nerve growth factorbinds with TrkA after being released from target cells, the NGF / TrkA complex is subsequently trafficked back to the cell body. The Low-affinity nerve growth factor receptor also named p75 which binds with all kinds of neurotrophins with low affinity. All four kinds of neurotrophins, including Nerve growth factor, Brain-derived neurotrophic factor, Neurotrophin-3, and Neurotrophin-4 bind to the p75. Studies have proved that NGFR acts as a molecular signal switch that determines cell death or survival by three steps. First, pro-nerve growth factor (prNGF) triggers cell apoptosis by its high-affinity binding to p75NTR, while NGF induces neuronal survival with low-affinity binding. Second, p75NTR mediates cell death by combining with co-receptor Sortilin, whereas it promotes neuronal survival through combination with proNGF. Third, the release of the intracellular domain chopper or cleavage short p75 NTR can independently initiate neuronal apoptosis.

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