

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GFR α -3/GDNF R α -3 in direct ELISAs and Western blots. In direct ELISA and Western blots, no cross-reactivity with recombinant human GFR α -2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human GFR α -3/GDNF R α -3 Met1-Trp382 Accession # AAC24355
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Glial cell line-derived growth factor (GDNF), neurturin (NTN), persephin (PEP) and artemin (ART), distant members of the TGF- β superfamily, are neurotrophic factors for a variety of neuronal populations in the central and peripheral nervous systems. The bioactivities of these neurotrophic factors are mediated through a receptor complex composed of the non ligand-binding signaling subunit (c-Ret receptor tyrosine kinase) and one of four ligand binding cysteine-rich glycosyl-phosphatidylinositol (GPI)-linked cell surface proteins (GFR α -1, 2, 3 or 4). These four GFR- α proteins share conserved placements of many of their cysteine residues. GFR α -1, 2, 3 or 4 have been shown to preferentially bind GDNF, NTN, ART and PSP, respectively. While the GFR α -3/Ret complex is highly specific for ART, the GFR α -1 /Ret complex is extremely promiscuous and may also be utilized by NTN and ART.

Human GFR α -3 cDNA encodes a 400 amino acid (aa) residue precursor protein with an N-terminal signal peptide and C-terminal hydrophobic domain. GFR α -3 is approximately 34% and 36% identical to GFR α -1 and GFR α -2, respectively. Human and mouse GFR α -3 share approximately 76% amino acid sequence homology. The gene encoding GFR α -3 has been localized to human chromosome 5. GFR α -3 is expressed at high levels only in the developing and adult sensory and sympathetic ganglia of the peripheral nervous system. In the trigeminal ganglions, the expression of GFR α -3 is found in a population of neurons distinct from those expressing GFR α -1 or 2.

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