

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 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.