

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GFR α -2/GDNF R α -2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human (rh) GDNF R α , rhGFR α -3, rhGFR α -4, and recombinant mouse GFR α -2 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 129030
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human GFR α -2/GDNF R α -2 Ser22-Ser441 Accession # O00451
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.

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 (PSP) and artemin, 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 GDNF and NTN are mediated through a receptor complex composed of the non ligand-binding signaling subunit (c-Ret receptor tyrosine kinase) and either of two ligand binding subunits (GDNF receptor α -1 [GFR α -1], also known as GDNF R α -1 or Trn R1, or GFR α -2, also known as GDNF R α -2 or Trn R2). GFR α -1 and -2 are members of a family of at least four cysteine-rich glycosyl-phosphatidylinositol (GPI)-linked cell surface proteins that share conserved placements of many of their cysteine residues. Binding of GDNF or NTN to membrane-associated GFR α -1 or GFR α -2 initiates the association with and activation of the Ret tyrosine kinase.

Human GFR α -2 cDNA encodes a 464 amino acid (aa) residue protein with a putative N-terminal 21 aa hydrophobic signal peptide. Like other GPI-linked proteins, human GFR α -2 has a C-terminal hydrophobic region which is preceded by a three aa (GPS) GPI-binding site. Human GFR α -2 shares 96.5% amino acid identity with mouse GFR α -2. The expression of the various GFR α s are differentially regulated in the central and peripheral nervous system, suggesting complementary roles for the GFR α s in mediating the activities of the GDNF family of neurotrophic factors.

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