**BACKGROUND**

Gliarial cell line-derived neurotrophic factor (GDNF) and the related neurotrophic factor neurturin (NTN) are potent survival factors for central and peripheral neurons. GDNF is a glycosylated, disulfide-bonded homodimer that is distantly related to the TGF-β superfamily of growth factors. Three receptors for these factors, GFRα₁ (also designated GDNFR-α, RETL1 or TrnR-1), GFRα₂ (also designated GDNFR-β, RETL2, NTN-α or TrnR-2) and GFRα₃ have been identified. The receptors do not contain transmembrane domains and are attached to the cell membrane by glycosyl-phosphoinositide linkage. Both GFRα₁ and GFRα₂ have been shown to mediate the GDNF-dependent and NTN-dependent phosphorylation and activation of the tyrosine kinase Ret. GFRα₃ is expressed only during development.

**CHROMOSOMAL LOCATION**

Genetic locus: GFRA1 (human) mapping to 10q25.3; Gfra1 (mouse) mapping to 132K–134K (C57BL/6J) and 132K–134K (129SvJ). GFRα₁ (E-11) is a mouse monoclonal antibody raised against amino acids 388-437 of GFRα₁ of human origin.

**SOURCE**

GFRα₁ (E-11) is a mouse monoclonal antibody raised against amino acids 388-437 of GFRα₁ of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GFRα₁ (E-11) (sc-271546 AC) is available conjugated to agarose (sc-271546 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271546 HRP), 200 µg/ml, for WB, IHC and ELISA; to either phycoerythrin(sc-271546 PE), fluorescein (sc-271546 FITC), Alexa Fluor® 488 (sc-271546 AF488), Alexa Fluor® 546 (sc-271546 AF546), Alexa Fluor® 594 (sc-271546 AF594) or Alexa Fluor® 647 (sc-271546 AF647), 200 µg/ml, for WB (RGB), IF, HCIP and FCM; and to either Alexa Fluor® 680 (sc-271546 AF680) or Alexa Fluor® 790 (sc-271546 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

GFRα₁ (E-11) is recommended for detection of GFRα₁ of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GFRα₁ siRNA (h): sc-35468, GFRα₁ siRNA (m): sc-35470, GFRα₁ siRNA (r): sc-270400, GFRα₁ shRNA Plasmid (h): sc-35469-SH, GFRα₁ shRNA Plasmid (m): sc-35470-SH, GFRα₁ shRNA Plasmid (r): sc-270400-SH, GFRα₁ shRNA (h) Lentiviral Particles: sc-35469-V, GFRα₁ shRNA (m) Lentiviral Particles: sc-35470-V and GFRα₁ shRNA (r) Lentiviral Particles: sc-270400-V.

Molecular Weight of GFRα₁ isoforms: 47/53 kDa.

Molecular Weight of glycosylated GFRα₁: 57-88 kDa.

Positive Controls: H4 cell lysate: sc-2408 or C6 whole cell lysate: sc-364373.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

GFRα₁ (E-11) sc-271546. Western blot analysis of GFRα₁ expression in H4 (A), Caki-1 (B), C2C12 (C), NIH/3T3 (D), C6 (E) and NRK (F) whole cell lysates.

GFRα₁ (E-11) sc-271546. Immunoperoxidase staining of formalin fixed, paraffin embedded human appendix tissue showing membrane and cytoplasmic staining of lymphoid cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing membrane and cytoplasmic staining of lymphoid cells (B).

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.

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