GFRα-1 (E-11): sc-271546

**BACKGROUND**

Glial 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 TGFβ superfamily of growth factors. Three receptors for these factors, GFRα-1 (also designated GDNFR-α, RETL1 or TrnR-1), GFRα-2 (also designated GDNFR-β, RETL2, NTN-α or TrnR-2) and GFRα-3 have been identified. The receptors do not contain transmembrane domains and are attached to the cell membrane by glycosyl-phosphoinositole linkage. Both GFRα-1 and GFRα-2 have been shown to mediate the GDNF-dependent and NTN-dependent phosphorylation and activation of the tyrosine kinase Ret. GFRα-3 is expressed only during development.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GFRA1 (human) mapping to 10q25.3; Gfra1 (mouse) mapping to 19 D2.

**SOURCE**

GFRα-1 (E-11) is a mouse monoclonal antibody raised against amino acids 388-437 of GFRα-1 of human origin.

**PRODUCT**

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

**APPLICATIONS**

GFRα-1 (E-11) is recommended for detection of GFRα-1 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 GFRα-1 siRNA (h): sc-35469, GFRα-1 siRNA (m): sc-35470, GFRα-1 shRNA Plasmid (h): sc-35469-SH, GFRα-1 shRNA Plasmid (m): sc-35470-SH, GFRα-1 shRNA Plasmid (r): sc-270400, GFRα-1 shRNA (h) Lentiviral Particles: sc-35469-V, GFRα-1 shRNA (m) Lentiviral Particles: sc-35470-V and GFRα-1 shRNA (r) Lentiviral Particles: sc-270400-V.

Molecular Weight of GFRα-1 isoforms: 47/53 kDa.

Molecular Weight of glycosylated GFRα-1: 57-88 kDa.

Positive Controls: H4 cell lysate: sc-2408, C2C12 whole cell lysate: sc-364188 or C6 whole cell lysate: sc-364373.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

![Western blot analysis of GFRα-1 expression in H4 (A), Caki-1 (B), C2C12 (C), NIH/3T3 (D), C6 (E) and NFR (F) whole cell lysates.](image)

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

![Immunofluorescence staining of formalin-fixed HeLa cells showing membrane localization (A), immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing membrane and cytoplasmic staining of lymphoid cells (B).](image)

GFRα-1 (E-11): sc-271546. Immunofluorescence staining of formalin-fixed HeLa cells showing membrane localization (A), immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing membrane and cytoplasmic staining of lymphoid cells (B).

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**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.