GFRα-4 (H-71): sc-135189

SANTA CRUZ®
BIOTECHNOLOGY

The Power to Question

BACKGROUND

Glial cell line-derived neurotrophic factor (GDNF) and the related neurotrophic factor neurturin (NTN) are potent survival factors for central and peripheral neurons. Receptors for these factors include GFRα-1 (previously designated GDNFR-α), GFRα-2 (also designated RETL2), GFRα-3 and GFRα-4 (also known as persephin receptor). The receptors do not contain transmembrane domains and are attached to the cell membrane by glycosylphosphoinositol linkage. Binding of GDNF or NTN to one of these receptors leads to the activation of the tyrosine kinase Ret. GFRα-4 mediates the activation and GDNF-induced autophosphorylation of the RET receptor. It is mainly expressed in the adult thyroid gland, but lower levels may also be detected in fetal adrenal and thyroid glands.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GFRA4 (human) mapping to 20p13; Gfra4 (mouse) mapping to 2 F1.

SOURCE

GFRα-4 (H-71) is a rabbit polyclonal antibody raised against amino acids 101-171 mapping within an internal region of GFRα-4 precursor of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GFRα-4 (H-71) is recommended for detection of mature GFRα-4 and GFRα-4 precursor of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immuno-fluorescence (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-4 siRNA (h): sc-60683, GFRα-4 siRNA (m): sc-60684, GFRα-4 shRNA Plasmid (h): sc-60683-SH, GFRα-4 shRNA Plasmid (m): sc-60684-SH, GFRα-4 shRNA (h) Lentiviral Particles: sc-60683-V and GFRα-4 shRNA (m) Lentiviral Particles: sc-60684-V.

Molecular Weight of unglycosylated GFRα-4: 29 kDa.

Molecular Weight of glycosylated GFRα-4: 33 kDa.

Positive Controls: human thyroid extract: sc-363782 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecip-itation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA
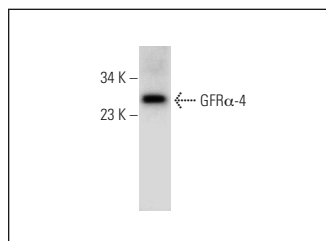
GFRα-4 (H-71): sc-135189. Western blot analysis of GFRα-4 expression in human thyroid tissue extract.
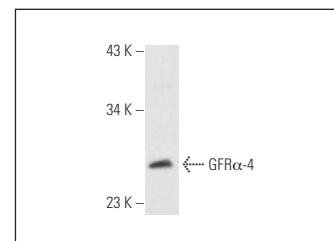
GFRα-4 (H-71): sc-135189. Western blot analysis of GFRα-4 expression in HL-60 whole cell lysate.

STORAGE

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