

NPFF2 Receptor (D-17): sc-46202

BACKGROUND

Neuropeptide FF 1 Receptor (NPFF1 or hFF1) and Neuropeptide FF 2 Receptor (NPFF2) belong to the G protein-coupled receptor 1 family. Both NPFF1 and NPFF2 are integral membrane proteins that act as receptors for NPAF (A-18-F-amide) and NPFF (F-8-F-amide) neuropeptides. Both NPFF proteins may be activated by synthetic or naturally occurring FMRF-amide-like ligands. The receptors are mediated by association with G proteins that activate a phosphatidylinositol-calcium second messenger system. NPFF1 Receptors is highly expressed in the human hypothalamus and amygdala, indicating a possible role for NPFF1 in central autonomic and neuroendocrine control in the human brain. Based in part on NPFF2 Receptor expression in diencephalon and superficial layers of the spinal cord, NPFF2 Receptor is thought to be involved in the modulation of sensory input and opioid analgesia. GPR74 is the human gene which codes for the NPFF2 receptor protein and maps to chromosome 4q13.3.

REFERENCES

- Gouarderes, C., et al. 2004. Detailed distribution of Neuropeptide FF Receptors (NPFF1 and NPFF2) in the rat, mouse, octodon, rabbit, guinea pig, and marmoset monkey brains: a comparative autoradiographic study. *Synapse* 51: 249-269.
- Goncharuk, V., et al. 2004. Distribution of the NPFF1 Receptor (hFF1) in the human hypothalamus and surrounding basal forebrain structures: immunohistochemical study. *J. Comp. Neurol.* 474: 487-503.
- Quelven, I., et al. 2005. Comparison of pharmacological activities of NPFF1 and NPFF2 Receptor agonists. *Eur. J. Pharmacol.* 508: 107-114.
- SWISS-PROT/TrEMBL (Q9GZ06). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: NPFFR2 (human) mapping to 4q13.3.

SOURCE

NPFF2 Receptor (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of NPFF2 Receptor of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-46202 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

NPFF2 Receptor (D-17) is recommended for detection of NPFF2 Receptor of human 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

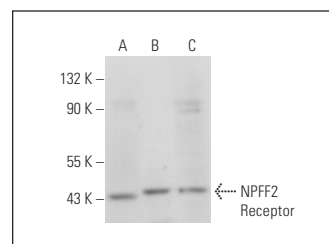
Suitable for use as control antibody for NPFF2 Receptor siRNA (h): sc-45724, NPFF2 Receptor shRNA Plasmid (h): sc-45724-SH and NPFF2 Receptor shRNA (h) Lentiviral Particles: sc-45724-V.

Positive Controls: Hs 181 Tes whole cell lysate: sc-364779, MIA PaCa-2 cell lysate: sc-2285 or SH-SY5Y cell lysate: sc-3812.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NPFF2 Receptor (D-17): sc-46202. Western blot analysis of NPFF2 Receptor expression in Hs 181 Tes (A), MIA PaCa-2 (B) and SH-SY5Y (C) whole cell lysates.

RESEARCH USE

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