



# NPFF2 Receptor (S-17): sc-46205

## 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.

## REFERENCES

1. 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.
2. 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.
3. Quelven, I., et al. 2005. Comparison of pharmacological activities of NPFF1 and NPFF2 Receptor agonists. *Eur. J. Pharmacol.* 508: 107-114.
4. SWISS-PROT/TrEMBL (O9GZ06). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

## CHROMOSOMAL LOCATION

Genetic locus: NPFFR2 (human) mapping to 4q21; Npffr2 (mouse) mapping to 5 E1.

## SOURCE

NPFF2 Receptor (S-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic 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-46205 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

NPFF2 Receptor (S-17) is recommended for detection of NPFF2 Receptor of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Positive Controls: hypothalamus or spinal cord.

## 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) 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.

## RESEARCH USE

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