

NPY (C-20)-R: sc-14728-R

BACKGROUND

The NPY hormone family consists of NPY, PP and peptide YY. NPY (neuropeptide Y) is a 36 amino acid protein that consists of a polyproline stretch followed by an amphipathic α -helix. NPY shares a 50% amino acid homology with pancreatic polypeptide gene (PP). NPY is expressed throughout the central and peripheral nervous system, particularly in the deep layers of the cortex and smaller cell bodies in the white matter. NPY interacts with the Y-receptor family of G protein-coupled receptors. NPY interacts with NPY receptor Y1 to increase corticotropin levels and decrease noradrenaline levels in the hypothalamus. Through interactions in the hypothalamus, NPY plays important roles in the regulation of energy balance by stimulating food intake. NPY favors energy storage by increasing lipoprotein lipase activity in white adipose tissue. A leucine 7 to proline 7 polymorphism has been implicated in an increase in alcohol preference, and decrease in cholesterol metabolism.

CHROMOSOMAL LOCATION

Genetic locus: NPY (human) mapping to 7p15.3; Npy (mouse) mapping to 6 B2.3.

SOURCE

NPY (C-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of NPY of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14728 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

NPY (C-20)-R is recommended for detection of NPY of mouse, rat and 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), 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). NPY (C-20)-R is also recommended for detection of NPY in additional species, including equine, canine, bovine and porcine.

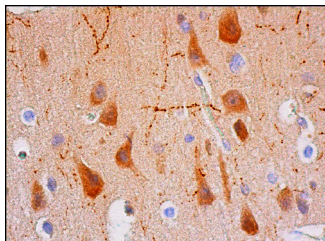
Suitable for use as control antibody for NPY siRNA (h): sc-42099, NPY siRNA (m): sc-42100, NPY shRNA Plasmid (h): sc-42099-SH, NPY shRNA Plasmid (m): sc-42100-SH, NPY shRNA (h) Lentiviral Particles: sc-42099-V and NPY shRNA (m) Lentiviral Particles: sc-42100-V.

Molecular Weight of NPY: 11 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NPY (C-20)-R: sc-14728-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells.

SELECT PRODUCT CITATIONS

1. Dong, J., et al. 2006. Role of endogenous ghrelin in the hyperphagia of mice with streptozotocin-induced diabetes. *Endocrinology* 147: 2634-2642.

PROTOCOLS

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

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Try **NPY (F-6): sc-133080**, our highly recommended monoclonal alternative to NPY (C-20).