SANTA CRUZ BIOTECHNOLOGY, INC.

NPY1-R (H-91): sc-28949

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The NPY1-R gene, located on human chromosome 4q32.2, encodes a 384 amino acid protein, NPY1-R (also designated Neuropeptide Y receptor Y1). NPY1-R is a member of the G protein-coupled receptor superfamily, and like other members has seven putative transmembrane domains. However, NPY1-R gene consists of three exons, unlike the contiguous structure of other G protein-coupled receptor genes. NPY1-R is expressed in the post-synaptic membrane of spleen, small intestine, kidney, testis, placenta, aortic smooth muscle, and throughout the central nervous system. NPY1-R associates with Neuropeptide Y, unphosphorylated Peptide YY (PYY) and particularly strongly with phosphorolated PYY. Depending on the cell type, NPY1-R couples with different G proteins, which act as second messengers. NPY1-R activation is necessary and sufficient for the release of substance P, a pain neurotransmitter, and the initiation of neurogenic inflammation. NPY1-R stimulates feeding behaviors, through an interaction with NPY.

CHROMOSOMAL LOCATION

Genetic locus: NPY1R (human) mapping to 4q32.2; Npy1r (mouse) mapping to 8 B3.3.

SOURCE

NPY1-R (H-91) is a rabbit polyclonal antibody raised against amino acids 181-271 mapping within an internal region of NPY1-R 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.

RESEARCH USE

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

APPLICATIONS

NPY1-R (H-91) is recommended for detection of NPY1-R of mouse, rat and 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), 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).

NPY1-R (H-91) is also recommended for detection of NPY1-R in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NPY1-R siRNA (h): sc-36097, NPY1-R siRNA (m): sc-36098, NPY1-R shRNA Plasmid (h): sc-36097-SH, NPY1-R shRNA Plasmid (m): sc-36098-SH, NPY1-R shRNA (h) Lentiviral Particles: sc-36097-V and NPY1-R shRNA (m) Lentiviral Particles: sc-36098-V.

Molecular Weight (predicted) of NPY1-R: 44 kDa.

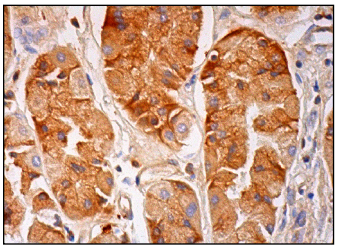
Molecular Weight (observed) of NPY1-R: 43-53 kDa.

Positive Controls: rat brain extract: sc-2392, SK-N-MC cell lysate: sc-2237 or mouse brain extract: sc-2253.

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) Immunoprecipitation: 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



NPY1-R (H-91): sc-28949. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing membrane and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Lin, J., et al. 2010. Genetic ablation of luteinizing hormone receptor improves the amyloid pathology in a mouse model of Alzheimer disease. J. Neuropathol. Exp. Neurol. 69: 253-261.

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.