**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 \( \alpha \) 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 (F-6) is a mouse monoclonal antibody raised against amino acids 1-97 representing full length NPY of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NPY (F-6) is available conjugated to agarose (sc-133080 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133080 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycerythrin (sc-133080 PE), fluorescein (sc-133080 FITC), Alexa Fluor® 488 (sc-133080 AF488), Alexa Fluor® 546 (sc-133080 AF546), Alexa Fluor® 594 (sc-133080 AF594) or Alexa Fluor® 647 (sc-133080 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-133080 AF680) or Alexa Fluor® 790 (sc-133080 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

NPY (F-6) is recommended for detection of NPY of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

Positive Controls: Neuro-2A whole cell lysate: sc-364185.

**STORAGE**

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

**DATA**

NPY (F-6): sc-133080. Western blot analysis of human recombinant NPY precursor fusion protein [A] and human recombinant NPY fusion protein incubated with active NPY [B].

NPY (F-6): sc-133080. Western blot analysis of NPY expression in Neuro-2A whole cell lysate.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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