

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Neuropeptide Y/NPY in direct ELISAs.
Source	Monoclonal Mouse IgG _{2A} Clone # 904032
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Neuropeptide Y/NPY conjugated to KLH YPSKPDNPGEDAPAEDMARYYSALRHYINLITRQRY Accession # P01303
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

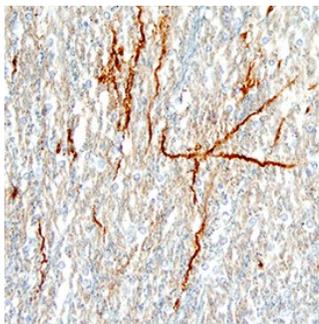
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	8-25 µg/mL	See Below

DATA

Immunohistochemistry



Neuropeptide Y/NPY in Human Brain.
Neuropeptide Y/NPY was detected in immersion fixed paraffin-embedded sections of human brain (hypothalamus) using Mouse Anti-Human Neuropeptide Y/NPY Monoclonal Antibody (Catalog # MAB8517) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to neuronal processes. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Neuropeptide Y (NPY) is a 36 amino acid peptide that was isolated from hypothalamus in porcine brain in 1982 and lately it belongs to a family of peptides which include Pancreatic Polypeptide (PP) and Peptide YY (PYY) which exert their pharmacological action via interaction with G-protein coupled receptors Y1, Y2, Y4, Y5 and y6. NPY is the most abundant peptide in brain and in nervous system NPY functions as a neurotransmitter regulating many processes including memory and learning, pain, fat storage and blood pressure. NPY also regulates stress by stimulating secretion of corticotropin-releasing hormone in brain. It appears there is a correlation between the increased levels of NPY gene expression in hippocampus and epileptic seizures. Cocaine reduces the levels of NPY and such a decrease is thought to be related to depression and anxiety. NPY receptors are rhodopsin-like G-protein coupled receptors (GPCR) coupled to G_i or G_o proteins, which inhibit adenylate cyclase and reduce cAMP accumulation and modulate Calcium and Potassium channels.