**DESCRIPTION**

**Species Reactivity**  Human

**Specificity**  Detects human Neuropeptide Y/NPY in direct ELISAs.

**Source**  Monoclonal Mouse IgG2A Clone # 904032

**Purification**  Protein A or G purified from hybridoma culture supernatant

**Immunogen**  Neuropeptide Y/NPY conjugated to KLH

**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**

*General Protocols are available in the Technical Information section on our website.*

**Recommended Concentration**

<table>
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<th>Sample</th>
<th>8-25 μg/mL</th>
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**Immunohistochemistry**

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.

- 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 G1 or G0 proteins, which inhibit adenylate cyclase and reduce cAMP accumulation and modulate Calcium and Potassium channels.