

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
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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