

DESCRIPTION

Species Reactivity	Rat
Specificity	Detects rat μ Opioid R/OPRM1 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1126B
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Synthetic peptide with a short amino acid sequence from the N-terminus of rat μ Opioid R/OPRM1 Accession # P33535
Formulation	Supplied as a solution in PBS containing BSA, Glycerol and Sodium Azide. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS.

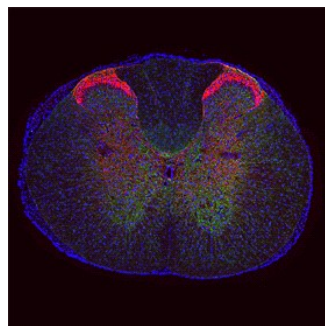
APPLICATIONS

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	1:125 dilution	See Below

DATA

Immunohistochemistry



μ Opioid R/OPRM1 in Rat Spinal Cord.

μ Opioid R/OPRM1 was detected in perfusion fixed frozen sections of rat spinal cord using Rabbit Anti-Rat μ Opioid R/OPRM1 Monoclonal Antibody (Catalog # MAB8629) at 1:125 dilution overnight at 4 °C. Tissue was stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to dorsal horn. View our protocol for [Fluorescent IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. 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 opening. ● 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

The mu-type opioid receptor (MOR), also known as OPRM1, is a 60-70 kDa variably glycosylated G protein-coupled receptor that mediates the biological effects of many alkaloid and peptide opioids including morphine. MOR is primarily expressed on neurons in the brain, spinal cord, and gastrointestinal tract as well as on immune cells. MOR activation induces analgesia, euphoria, sedation, respiratory depression, and reduced intestinal motility. Following agonist binding, MOR is phosphorylated and internalized which contributes to opioid tolerance and desensitization. OPRM1 can form heterodimers with several other 7TM GPCRs including the delta-type Opioid Receptor (DOR), Nociceptin/Orphanin Receptor (ORL1), Neurokinin 1 Receptor (NK1), Somatostatin Receptor 2 (SSTR2), Cannabinoid Receptor 1, CCR5, and the α 2A-Adrenergic Receptor (ADRA2A). Rat MOR shares 94% and 98% aa sequence identity with human and mouse MOR, respectively.

PRODUCT SPECIFIC NOTICES

* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.