

## Product datasheet

### LEU-ENKEPHALIN MOUSE MONOCLONAL ANTIBODY (NOC1)

**SKU:** 1018

0.5 mL

#### OVERVIEW

**Clonality:**

Monoclonal

**Host:**

Mouse

**Reactivity:**

Rat, Human

**Application:**

IHC, ICC, RIA

**Target:**

Leu-enkephalin

**Target background:**

Enkephalins (penta-peptides) have been discovered as regulators of nerve impulses involving pain in the brain. It has been shown that these peptides act as natural analgesics (pain-killers) and their action mimics that of morphine and other opiates. At present, it is thought that the morphine-like effects are due to aromatic side chains on phenylalanine and tyrosine which mimic a similar structure on morphine. Research suggests that it does not make much difference whether the enkephalin contains methionine or leucine at the acid end of the peptide for its action.

**Target alias:**

Enkephalin, endorphins, endorphin, Met5-enkephalin, Leu5-enkephalin, Met-enkephalin, Leu-enkephalin, anti-Enkephalin, anti-endorphins, anti-endorphin, anti-Met5-enkephalin, anti-Leu5-enkephalin, anti-Met-enkephalin, anti-Leu-enkephalin

**Immunogen:**

pentapeptide ( Tyr-Gly-Gly-Phe-Leu)

**Specificity:**

A sensitive antibody against enkephalineric fibrillar networks in the globus pallidus, N. accumbens, septum, hypothalamus, thalamus, amygdala, N. interstitialis of the stria terminalis and brain stem nuclei. This antibody does not distinguish between Met5-enkephalin and Leu5-enkephalin by radioimmunoassay or by immunocytochemistry. It is recommended for localizing enkephalineric sites by immunohistochemistry. It does not bind to beta-endorphin or dynorphin-containing areas. It exhibits approximately 40% cross reactivity with c-terminal extended Met-enkephalin hexapeptides and 7% cross reactivity with the extended heptapeptide (-Arg-Phe-OH), but does not recognize other endogenous peptides. All well established enkephalin immunoreactive sites are recognized by this antibody in immunohistochemistry (IHC) and electron microscopy immunocytochemistry (ICC). Specific for: rat and human

**Clone ID:**

NOC1

**Isotype:**

IgG1

**Preservative:**

0.05% thimerosal

**Format:**

Lyophilized tissue culture supernatant

**Recommend starting dilution:**

If reconstituted with deionized water in 0.5 mL: IHC 1:100 - 1:400. Optimal dilution has to be determined by the user.

**Limitations:**

Research Use Only

**References:**

- 1.-Bernácer J - Cholinergic interneurons are differentially distributed in the human striatum.
- 2.-Andersson LI - Mimics of the binding sites of opioid receptors obtained by molecular imprinting of enkephalin and morphine.
- 3.-Cuello AC - Characterization and immunocytochemical application of monoclonal antibodies against enkephalins.
- 4.-Ma W - Substance P and enkephalin immunoreactivities in axonal boutons presynaptic to physiologically identified dorsal horn neurons. An ultrastructural m...
- 5.-Garzón M and Pickel VM - Ultrastructural localization of enkephalin and mu-opioid receptors in the rat ventral tegmental area.

**Storage:**

Lyophilized antibodies can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage (2 years). To avoid freeze-thaw cycles, reconstituted antibodies should be aliquoted before freezing for long-term (1 year) storage (-80°C) or kept at 4°C for short-term usage (2 months). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made with the assay buffer. After the maximum long-term storage period (2 years lyophilized or 1 year reconstituted) antibodies should be tested in your assay with a standard sample to verify if you have noticed any decrease in their efficacy.

Image:



Cat spinal cord immunostained with NOC1  
(Anti-LeuEnkephalin 1018)

