



Product Information

ANTI-OPIOID δ RECEPTOR

Developed in Rabbit, Whole Antiserum

Product Number **O 0382**

Product Description

Anti-Opioid δ Receptor (DOR, OP₁) is developed in rabbit by repeated immunization with a synthetic peptide corresponding to amino acids 3-17 of the mouse opioid δ receptor.

Anti-Opioid δ Receptor specifically recognizes the rat opioid δ receptor. The antibody reacts with rat and mouse (predicted) opioid δ receptor by various immunochemical techniques including immunoblotting, immunoprecipitation, immunohistochemistry, and immunofluorescence (frozen tissue sections from the rat raphe nuclei and dorsal horn of the spinal cord).

Opioid peptides are endogenous neuromodulators that play a major role in the nociceptive pathway by interacting with several membrane receptors. Recent molecular cloning techniques have characterized the nucleotide sequence of at least three distinct opioid receptors, namely the δ -, κ - and μ -opioid receptors.¹ The cloned receptors are highly homologous (65%), differing only at the termini and the extracellular loops that confer binding specificity.² All three interact with heterotrimeric G proteins.³

Enkephalin release and, thus, nociception are modulated by DORs located postsynaptically on pallidostriatal feedback neurons.⁴ In contrast, DORs modulate nociception from a presynaptic localization in the periaqueductal gray (PAG) where immunolabeling of DOR was intracellular and often associated with large dense-core vesicles.⁵ Additionally, receptor autoradiographic investigations localized DORs to the external plexiform layer of the olfactory bulb, the nucleus accumbens, several layers of the cerebral cortex and several nuclei of the amygdala.⁶

Reagent

Anti-Opioid δ Receptor is supplied as 100 μ l of lyophilized rabbit polyclonal antiserum.

Preparation Instructions

Resuspend the lyophilized antibody in 100 μ l sterile distilled water. Be careful to reconstitute the entire contents of the vial. Portions of the pellet may have dislodged during shipment and may not be in the bottom of the vial.

Storage/Stability

Store the lyophilized antibody at -20°C . Upon reconstitution, store in working aliquots at -20°C . Avoid repeated cycles of freezing and thawing. Dilute with sterile PBS or Tris buffer at dilutions no higher than 1:10. After reconstitution, this product is stable for six months at -20°C .

Product Profile

The specificity of the Anti-Opioid δ Receptor was determined by immunolabeling of transfected cells, immunoblotting, and immunoisolation studies.⁷ The suggested working dilution for frozen sections is 1:1,000-1:2,000 for ABC detection and 1:100-1:200 for immunofluorescent detection. The recommended working dilution for immunoblotting is 1:2,000-1:2,500.

Note: In order to obtain the best results and assay sensitivities of various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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