



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

ANTI-OPIOID κ RECEPTOR

Developed in Rabbit, Affinity Isolated Antibody

Product Number **O 1757**

Product Description

Anti-Opioid κ Receptor (KOR, OP₂) is developed in rabbit by repeated immunization with a synthetic peptide corresponding to the internal region of the rat opioid κ receptor. The specific IgG was affinity isolated on immobilized immunogen.

Anti-Opioid κ Receptor specifically recognizes the recombinant rat opioid κ receptor protein by immunoprecipitation and immunoblotting. The antibody also reacts with mouse and human opioid κ receptor protein.

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

KOR⁴ is primarily responsible for mediating the effects of the products of preprodynorphin and possibly preproenkephalin.⁵ Localization of the KOR is primarily postsynaptic. Immunolocalization of KOR on sections of rat and guinea pig brain demonstrated prominent staining in the ventral forebrain, hypothalamus, thalamus, posterior pituitary and midbrain.⁵

Reagent

Anti-Opioid κ Receptor is supplied as 50 μ g of lyophilized affinity isolated rabbit polyclonal antibody.

Preparation Instructions

Resuspend the lyophilized antibody in sterile PBS, pH 7.2. 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. After reconstitution, this product is stable for six months at -20°C .

Product Profile

The suggested working dilution for western blotting of the purified recombinant protein is 1:500-1:1,000. This antibody may be diluted with PBS or other appropriate buffers.

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

1. Goldstein, A., Trends Pharmacol. Sci., **8**, 456-459 (1987).
2. Reisine, T. and Bell, G.I., Trends Neurosci., **16**, 506-510 (1993).
3. Childers, S.R., Life Sci., **48**, 1991-2003 (1991).
4. Yakovlev, A.G. et al., J. Biol. Chem., **270**, 6421-6424 (1995).
5. Arvidsson, U. et al., Proc. Natl. Acad. Sci. USA, **92**, 5062-5066 (1995).

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