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ProductInformation

Anti-Neurophysin II
Developed in Rabbit
Whole Antiserum

Product Number **N 0774**

Product Description

Anti-Neurophysin II is developed in rabbit using a highly purified synthetic peptide corresponding to porcine neurophysin II as the immunogen.

Anti-Neurophysin II specifically recognizes rat and porcine (predicted) neurophysin II and may be used for the detection of neurophysin II in rat paraventricular nucleus/ hypothalamus and supraoptic nucleus/hypothalamus by immunofluorescence and immunohistochemistry on frozen sections.

Neurophysin I and neurophysin II are precursors of the neurophyseal peptide hormones oxytocin and vasopressin, respectively.[1] The neurophysin precursor is composed of both the peptide hormone and neurophysin connected by a tri-peptide G-K-R linker.[2] The precursor is processed into the hormone and mature neurophysin after packaging into neuronal secretory vesicles. The processed hormone and neurophysin, considered to be a biologically inert carrier protein,[3,4] associate into a non-covalent complex that is disrupted after dilution upon entering the bloodstream. Composed of nine amino acids each, oxytocin and vasopressin are highly similar. They are synthesized in the neuronal perikarya found in the large neurons of the paraventricular and supraoptic nuclei. They are stored in the axons of neurons in the neurohypophsis until they are released into the bloodstream.

Reagent

Anti-Neurophysin II is supplied as 100 µl of lyophilized rabbit antiserum.

Preparation Instructions

Reconstitute the lyophilized vial with 100 µl sterile deionized water. Be careful to reconstitute the entire contents of the vial.

Storage/Stability

Store the antibody at –20 °C. Upon reconstitution, freeze in working aliquots. Repeated freezing and thawing is not recommended. Dilute with sterile phosphate buffered saline or Tris buffer at dilutions no higher than 1:10. Storage in “frost-free” freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution for immunohisto-chemistry on frozen sections using PAP (Peroxidase Anti-Peroxidase) detection is 1:2,000-1:4,000 . Dilution in the range of 1:200-1:400 is recommended for immunofluorescent detection on frozen sections.

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

References

1. Abercrombie, D.M., Pharmacol. Ther., **33**, 209-219 (1987).
2. Breslow, E. and Burman, S., Advances in Enzymology and Related Areas of Molecular Biology (Meister, A. ed.), John Wiley & Sons, New York, **63**, 1-67 (1990).
3. de Bree, F.M., J. Neuroendocrinol., **12**, 589-594 (2000).
4. Eubanks, S. et al., Biochemistry, **38**, 13530-13541 (1999).

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