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Antibody to NK-1 Receptor, Affinity-Purified
RABBIT POLYCLONAL

Catalog Number: AB-N33AP
Quantity: 50 micrograms
Format: PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative.
Host: Rabbit
Immunogen: Synthetic peptide corresponding to an amino acid sequence at the C-terminus of dog NK-1 receptor conjugated to bovine thyroglobulin with glutaraldehyde

Background:

The Neurokinin-1 (NK-1) receptor is a G-protein-coupled receptor characterized by seven transmembrane helices which preferentially binds the neuropeptide substance P. The NK-1 receptor (also known as the substance P receptor) plays a key role in pain and inflammation. Studies also implicate NK-1 receptors in depression and the growth of brain tumors.

Specificity and Preparation:

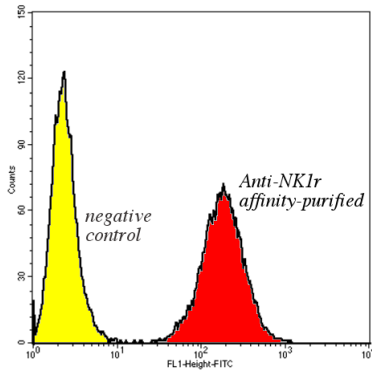
This antibody recognizes the NK-1 receptor in rat, dog, and human. This antibody was developed in rabbit using a synthetic peptide corresponding to an amino acid sequence at the C-terminus of dog NK-1 receptor conjugated to bovine thyroglobulin with glutaraldehyde. The peptide sequence has a high degree of homology to other species such as human, mouse, rat and guinea pig. The antibody is routinely tested by immunohistochemistry and flow cytometry.

Usage and Storage:

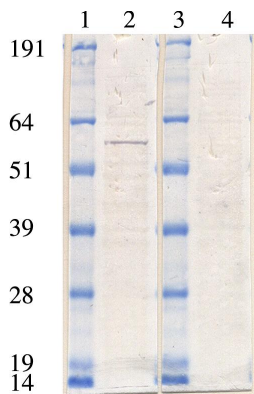
Applications include immunohistochemistry (ATS in-house, peroxidase substrate 1-3 $\mu\text{g/ml}$ and fluorescent 1-3 $\mu\text{g/ml}$), flow cytometry (ATS in-house, 3-10 $\mu\text{g/ml}$), immunoblotting (ATS in-house, western blot analysis 1-3 $\mu\text{g/ml}$), and ELISA (ATS in-house 1:1,000,000). Results may vary depending on protocol, tissue type etc; therefore the working dilutions should be determined by end user. Store the antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material before use; 5-10 seconds in a microfuge should be adequate.

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U-937 cells, human histiocytic lymphoma cell line, were used for a flow cytometry analysis with the NK-1r affinity-purified receptor antibody. Cells were treated with 4 μ g of the NK-1r antibody and subsequently with anti-rabbit IgG-FITC. A 99% shift is seen as compared to the non-treated control.



Immunoblot on U-937 (human histiocytic lymphoma) whole cell extract. Data shows extract probed with anti-NK1r versus extract probed with anti-NK1r pre-absorbed with molar excess of its cognate peptide.
Lane 1: Molecular weight standards (Invitrogen See-Blue).
Lane 2: U-937 whole cell extract probed with anti-NK-1r affinity purified at 4 μ g/ml.
Lane 3: Molecular weight standards (Invitrogen See-Blue).
Lane 4: U-937 whole cell extract probed with anti-NK-1r affinity purified at 4 μ g/ml pre-absorbed with 25-fold molar excess of its cognate peptide