

**Antibody to NK-1 Receptor  
RABBIT POLYCLONAL**

**Catalog Number:** AB-N04  
**Quantity:** 50 microliters  
**Format:** Liquid antisera, no preservative  
**Host:** Rabbit  
**Immunogen:** synthetic peptide corresponding to a 15-amino acid sequence (393-407) of the COOH-terminus of the rat NK-1 receptor conjugated to bovine thyroglobulin with glutaraldehyde

**Background:**

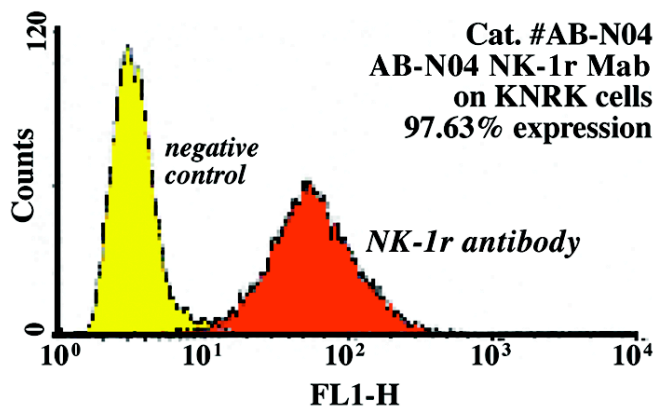
The neurokinin-1 (NK-1) receptor is a G-protein-coupled receptor characterized by seven transmembrane helices which preferentially binds the neuropeptide substance P. NK-1 receptor (also known as the Substance P Receptor) plays a key role in pain and inflammation. Studies also implicate NK-1 receptor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

**Specificity and Preparation:**

This antibody recognizes the NK-1 receptor in rat, mouse, and guinea pig. The NK-1 receptor histochemical antisera was developed in rabbit using a synthetic peptide corresponding to a 15-amino acid sequence (393-407) of the COOH-terminus of the rat NK-1 receptor conjugated to bovine thyroglobulin with glutaraldehyde.

**Usage and Storage:**

Applications include immunohistochemistry in brain and spinal cord of rat and mouse (1:500 to 1:5,000)<sup>1,2</sup> and immunoblotting (1:1,000)<sup>2</sup>. Results vary depending on protocol, tissue type, etc. 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.



**References:**

1. Mantyh PW, Rogers SD, Honore P, Allen BJ, Ghilardi JR, Li J, Daughters RS, Lappi DA, Wiley RG, Simone DA. (1997) Inhibition of hyperalgesia by ablation of lamina I spinal neurons expressing the substance P receptor. *Science* 278:275-279.
2. Vigna SR, Bowden JJ, McDonald DM, Fisher J, Okamoto A, McVey DC, Payan DG, Bunnett NW. (1994) Characterization of antibodies to the rat substance P (NK-1) receptor and to a chimeric substance P receptor expressed in mammalian cells. *J Neurosci* 14(2):834-845.

KNRK-NK-1r cells, rat kidney cells transfected with the neurokinin-1 receptor, were used for a FACS analysis with the NK-1 receptor antibody (lot #24-64). Cells were treated with the anti-NK-1r at a 1:100 dilution and subsequently with anti-rabbit IgG-FITC. A 97.63% shift is seen as compared to the non-treated control.

**To view protocol(s) for this product please visit: [www.ATSBio.com/catalog/protocols](http://www.ATSBio.com/catalog/protocols)**