**BACKGROUND**

Substance P (also designated NK-1) is an active peptide, known as a Tachykinin, that affects diverse functions, including blood pressure regulation, peristalsis of the gut, salivation and the modulation of cellular immunity. Fragments of Substance P have differential binding capacities for Substance P receptors and have varying biological activities. For example, two amino-terminal fragments of Substance P are able to evoke an increase in GABA release. NK-1 receptor (NK-1R), also designated Substance P receptor, binds to Tachykinin peptides, including Substance P, Substance K and Neumodulin K. In response to Substance P binding, NK-1R signals IL-12 production.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TAC1 (human) mapping to 7q21.3; Tac1 (mouse) mapping to 6 A 1.

**SOURCE**

Substance P (SP-DE4-21) is a mouse monoclonal antibody raised against amino acids 1-11 of Substance P of human origin.

**PRODUCT**

Each vial contains 50 µg IgG₁ in 500 µl PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Substance P (SP-DE4-21) is recommended for detection of Substance P and protachykinin 1 precursor of mouse, rat and human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with related Tachykinins (human Neurokinin A, Neurokinin B, and Kassinin).

Substance P (SP-DE4-21) is also recommended for detection of Substance P and protachykinin 1 precursor in additional species, including equine and bovine.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.