**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 Neurokinin 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 A1.

**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 IgG 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.

Suitable for use as control antibody for Preprotachykinin 1 siRNA (h): sc-42297, Preprotachykinin 1 siRNA (m): sc-42298, Preprotachykinin 1 shRNA Plasmid (h): sc-42297-SH, Preprotachykinin 1 shRNA Plasmid (m): sc-42298-SH, Preprotachykinin 1 shRNA (h) Lentiviral Particles: sc-42297-V and Preprotachykinin 1 shRNA (m) Lentiviral Particles: sc-42298-V.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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