**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 Neuromedin K. In response to Substance P binding, NK-1R signals IL-12 production.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: TAC1 (human) mapping to 7q21.3, TAC3 (human) mapping to 12q13.3; Tac1 (mouse) mapping to 6 A1, Tac2 (mouse) mapping to 10 D3.

**SOURCE**

Substance P (NC1/34HL) is a rat monoclonal antibody epitope mapping near the C-terminus of Substance P.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Substance P (NC1/34HL) is available conjugated to agarose (sc-21715 AC), 500 µg/0.25 ml agarose in 1 ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-21715 PE), fluorescein (sc-21715 FITC), Alexa Fluor® 488 (sc-21715 AF488), Alexa Fluor® 546 (sc-21715 AF546), Alexa Fluor® 594 (sc-21715 AF594) or Alexa Fluor® 647 (sc-21715 AF647), 200 µg/ml, for WB (RGB), IF, IHCIP and FCM; and to either Alexa Fluor® 680 (sc-21715 AF680) or Alexa Fluor® 790 (sc-21715 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Substance P (NC1/34HL) is recommended for detection of Substance P and neurokinins A and B of multiple species 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 [Leu] enkephalin, [Met] enkephalin, somatostatin, and β-endorphin.

**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.