

Tachykinin (H-2): sc-25266

BACKGROUND

The Tachykinin family consists of amidated neuropeptides that share a carboxy-terminal sequence (Phe-X-Gly-Leu-Met-NH₂). Preprotachykinin I, also designated protachykinin 1 precursor (PPT), is a common precursor of Tachykinins. Preprotachykinin I alternately splices to form various isoforms. These isoforms include Substance P, Neurokinin A (NKA, Substance K, Neuromedin L), Neurokinin B, Neuropeptide K (NPK), Neuropeptide γ and C-terminal flanking peptide. Substance P is expressed primarily in the small diameter primary sensory fibers of the peripheral nervous system and in the superficial dorsal horn of the spinal cord, the substantia nigra and the medial amygdaloid nucleus of the central nervous system. Tachykinin peptides have many pleiotropic functions, including neurotransmission, immune/hematopoietic modulation, angiogenesis and mitogenesis. Preprotachykinin I has been implicated in breast cancer and bone marrow metastasis. Substance P plays a role in depression.

REFERENCES

- McGregor, G.P. and Conlon, J.M. 1990. Characterization of the C-terminal flanking peptide of human β -preprotachykinin. *Peptides* 11: 907-910.
- Kramer, M.S., et al. 1998. Distinct mechanism for antidepressant activity by blockade of central Substance P receptors. *Science* 281: 1640-1645.
- Lai, J.P., et al. 1998. Identification of a δ isoform of preprotachykinin mRNA in human mononuclear phagocytes and lymphocytes. *J. Neuroimmunol.* 9: 121-128.
- Page, N.M., et al. 2000. Excessive placental secretion of neurokinin B during the third trimester causes pre-eclampsia. *Nature* 405: 797-800.
- Ribeiro-da-Silva, A. and Hokfelt, T. 2000. Neuroanatomical localization of Substance P in the CNS and sensory neurons. *Neuropeptides* 34: 256-271.

CHROMOSOMAL LOCATION

Genetic locus: TAC1 (human) mapping to 7q21.3; Tac1 (mouse) mapping to 6 A1.

SOURCE

Tachykinin (H-2) is a mouse monoclonal antibody raised against amino acids 1-129 of Tachykinin of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tachykinin (H-2) is available conjugated to agarose (sc-25266 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-25266 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-25266 PE), fluorescein (sc-25266 FITC), Alexa Fluor® 488 (sc-25266 AF488), Alexa Fluor® 546 (sc-25266 AF546), Alexa Fluor® 594 (sc-25266 AF594) or Alexa Fluor® 647 (sc-25266 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-25266 AF680) or Alexa Fluor® 790 (sc-25266 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Tachykinin (H-2) is recommended for detection of Tachykinin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

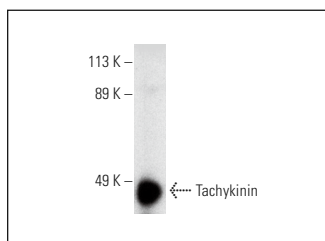
Suitable for use as control antibody for Preprotachykinin 1 siRNA (h): sc-42297, Preprotachykinin 1 siRNA (m): sc-42298, Preprotachykinin 1 shRNA Plasmid (h): sc-42297-SH, Preprotachykinin 1 shRNA Plasmid (m): sc-42298-SH, Preprotachykinin 1 shRNA (h) Lentiviral Particles: sc-42297-V and Preprotachykinin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

Molecular Weight of Tachykinin: 16 kDa.

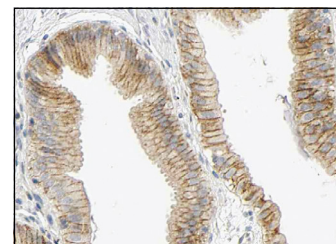
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Tachykinin (H-2): sc-25266. Western blot analysis of human recombinant Tachykinin.



Tachykinin (H-2): sc-25266. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

STORAGE

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

RESEARCH USE

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