

# Tachykinin (1-129): sc-4376 WB

## BACKGROUND

The tachykinin family consists of amidated neuropeptides that share a carboxy-terminal sequence (Phe-X-Gly-Leu-Met-NH<sub>2</sub>). 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  $\gamma$  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

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## CHROMOSOMAL LOCATION

Genetic locus: TAC1 (human) mapping to 7q21-q22; Tac1 (mouse) mapping to 6 A1.

## SOURCE

Tachykinin (1-129) is expressed in *E. coli* as a 41 kDa tagged fusion protein corresponding to amino acids 1-129 of tachykinin of human origin.

## PRODUCT

Tachykinin (1-129) is purified from bacterial lysates (>98%) by column chromatography; supplied as 10  $\mu$ g protein in 0.1 ml SDS-PAGE loading buffer.

## APPLICATIONS

Tachykinin (1-129) is suitable as a Western blotting control for sc-14104, sc-14105 and sc-15322.

## STORAGE

Store at -20° C; stable for one year from the date of shipment.

## RESEARCH USE

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