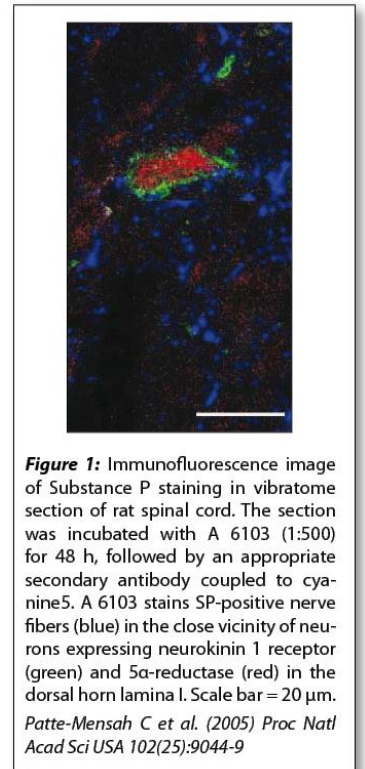


## Data Sheet

# HUMAN SUBSTANCE P

## ANTIBODY, MONOCLONAL

<b>Catalog no.:</b>	A 6103.1 / A 6103.2
<b>Immunogen:</b>	Synthetic human Substance P (RPKPQQFFGLM)
<b>Synonyms:</b>	Protachykinin-1 (aa 58-68)
<b>Swiss-Prot No:</b>	P20366
<b>Gene Information:</b>	Gene Name: TAC1, NKA, NKNA, or TAC2 GeneID: 6863
<b>Host:</b>	Mouse Balb/c
<b>Clone no.:</b>	SP-DE4-21
<b>Isotype:</b>	IgG <sub>1</sub>
<b>Matrix:</b>	Cell culture supernatant, Protein G purified, PBS pH 7.4
<b>Specificity:</b>	Human Substance P, mouse, rat and guinea pig Substance P  There was no crossreactivity obtained with related tachykinins (human Neurokinin A, Neurokinin B, and Kassinin)
<b>Contents:</b>	10 µg / 100 µg (lyophilized)  Resuspend in 10 µl / 100 µl aqua bidest.
<b>Known applications:</b>	ELISA (1:10 000), immunohistochemistry (vibratome sections, 1:500-1000; cryosections, 1:300) <sup>2,3,4</sup>  Do not fix specimen in methanol for immunohistochemistry  This antibody has not been tested for use in all applications. This does not necessarily exclude its use for non-tested procedures. The stated dilutions are recommendations only. We suggest that the applicant titrates the antibody in his/her system using appropriate negative/positive controls.
<b>Store at:</b>	2-8 °C (lyophilized); - 20 °C (dissolved)  Repeated thawing and freezing must be avoided
<b>References:</b>	1. Anavi-Goffer S, Coutts AA (2003). Cellular distribution of vanilloid VR1 receptor immunoreactivity in the guinea-pig myenteric plexus. <i>Eur J Pharmacol</i> <b>458</b> (1-2): 61-71.



**Figure 1:** Immunofluorescence image of Substance P staining in vibratome section of rat spinal cord. The section was incubated with A 6103 (1:500) for 48 h, followed by an appropriate secondary antibody coupled to cyanine5. A 6103 stains SP-positive nerve fibers (blue) in the close vicinity of neurons expressing neurokinin 1 receptor (green) and 5 $\alpha$ -reductase (red) in the dorsal horn lamina I. Scale bar = 20 µm. *Patte-Mensah C et al. (2005) Proc Natl Acad Sci USA 102(25):9044-9*



2. Patte-Mensah C, Kibaly C, Mensah-Nyagan AG (2005). Substance P inhibits progesterone conversion to neuroactive metabolites in spinal sensory circuit: a potential component of nociception. *Proc Natl Acad Sci U S A* **102**(25): 9044-9049.

3. Papp I, Szucs P, Hollo K, Erdelyi F, Szabo G, Antal M (2006). Hyperpolarization-activated and cyclic nucleotide-gated cation channel subunit 2 ion channels modulate synaptic transmission from nociceptive primary afferents containing substance P to secondary sensory neurons in laminae I-II of the rodent spinal dorsal horn. *Eur J Neurosci* **24**(5): 1341-1352.

4. Hamamoto T, Takumida M, Hirakawa K, Takeno S, Tatsukawa T (2008). Localization of transient receptor potential channel vanilloid subfamilies in the mouse larynx. *Acta Otolaryngol* **128**(6): 685-693.

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### For research use only

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