

# Substance-P

## **Data Sheet**

Catalog Number: RA20064 Host: Rabbit

Product Type: Whole Serum Species Rat

Immunogen Sequence: Synthetic Substance P coupled to KLH with Format:

Synthetic Substance P coupled to KLH with carbodiimide.

Format: Lyophilized less than 0.09% Sodium Azide as a

Preservative.

**Applications:** Immunohistochemistry: 1:300-1:500 Triton X-100 -Cy3 Fluorchrome 1:6000-1:8000 Triton X-100 -HRP Technique

Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Note that a change in the fixation or buffering system as used in our protocol may change the

configuration of the protein and, therefore, may alter the reactivity with the tissue tested

Storage and Preparation: Reconstitute vial with 100  $\mu L$  of distilled or deionized water.

Storage after reconstitution: Dilute with phosphate buffer or Tris buffer at dilutions no higher than 1/10, aliquot and freeze at -15° C or lower. Stability after reconstitution: Antibody can be

stored for up to six months if handled as described above.

References: Tong Liu, Temugin Berta, Zhen-Zhong Xu, Chul-Kyu Park, Ling Zhang, Ning Lü, Qin Liu, Yang

Liu, Yong-Jing Gao, Yen-Chin Liu, Qiufu Ma, Xinzhong Dong, and Ru-Rong Ji. TLR3 deficiency impairs spinal cord synaptic transmission, central sensitization, and prurit J Clin Invest. 2012 June 1; 122(6): 2195–2207. Published online 2012 May 8. doi:10.1172/JCI45414.

LianSheng Liu, Mohan Shenoy, Pankaj Jay Pasricha. Substance P and Calcitonin Gene Related Peptide Mediate Pain in Chronic Pancreatitis and Their Expression is Driven by Nerve Growth Factor. JOP. J Pancreas (Online) 2011 July 8; 12(4):389-394.

Jacqueline A Sobota, William A Mohler, Ann E Cowan, Betty A Eipper and Richard E Mains. Dynamics of peptidergic secretory granule transport are regulated by neuronal stimulation. BMC Neuroscience 2010, 11:32doi:10.1186/1471-2202-11-32.

### **Application Notes**

The Substance P antiserum was quality control tested using standard immunohistochemical methods. The antiserum demonstrates significant positive labeling of rat substantia nigra and spinal cord using indirect immunofluorescent and biotin/avidin-HRP techniques. Specificity was demonstrated using soluble pre-adsorption with the peptides in question at a final concentration of 10 µg of peptide per mL of diluted antiserum. Immunolabeling was completely abolished by pre-adsorption with Substance P.

Pre-adsorption with the following peptides resulted in no reduction of immunostaining: neurokinin A, neurokinin B, somatostatin and neuropeptide K.

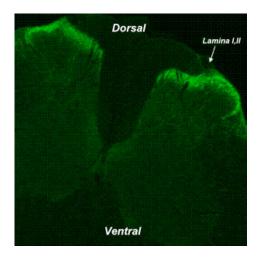
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#### Description/Data:

Substance P is a neuropeptide derived from preprotachinin. Substance P is widely distributed in the central and peripheral nervous system. In sensory ganglia, it is expressed by small sensory neurons and is transported to their central and peripheral terminals. The role of substance P in sensory transmission has been studied extensively, and its involvement in nociception and chronic pain is well established. Our guinea pig anti-substance P antibody provides an excellent tool for multicolor immunofluorescence experiments.

Image: Detection of Substance P in rat spinal cord dorsal horn (25 um sections). Courtesy of Chris Langdale, Urogenix.



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