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<b>Catalog Number:</b>	GP14110	<b>Host:</b>	Guinea Pig
<b>Product Type:</b>	Affinity Purified	<b>Species:</b>	Rat; Mouse; Human
<b>Immunogen Sequence:</b>	NH <sub>2</sub> -CRPKPQQFFGLM-CONH <sub>2</sub> <i>Corresponding to residues 1-11 of rat Substance P</i>	<b>Reactivity:</b>	
		<b>Format:</b>	Liquid. PBS containing 0.05% sodium azide . Concentration: 1 mg/ml.
<b>Applications:</b>	Immunohistochemistry: 1:100 - 1:600		
<b>Storage:</b>	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator. Maintain at +2-8°C for 3 months or at -20°C for longer periods. Stable for 1 year. <i>Avoid repeated freeze-thaw cycles.</i>		

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### Application Notes

#### Immunohistochemistry:

Antiserum was used on perfusion fixed tissue. Perfusion: 1) calcium-free Tyrode's solution, 2) paraformaldehyde-picric acid fixative, and 3) 10% sucrose in PBS as a cryo-protectant. Desired tissues were dissected and stored overnight in 10% sucrose in PBS.

Slide-mounted tissue sections were processed for indirect immunofluorescence. Slides were incubated with blocking buffer for 1 hour at room temperature. Primary antiserum was diluted with blocking buffer to the appropriate working concentration. Blocking buffer was removed and slides were incubated for 18-24 hours at 4°C with primary antiserum. Slides were rinsed 3 times and then incubated with secondary antibodies for 1 hour at room temperature. Slides were again rinsed 3 times and cover-slipped. Staining was examined using fluorescence microscopy.

*Note:* Sodium azide (NaN<sub>3</sub>) interferes with peroxidase reactions and should not be used with peroxidase methodologies. If

sodium azide is present in any steps of the staining procedure, the tissue should thoroughly be rinsed with sodium azide-free buffer before performing the peroxidase reaction.

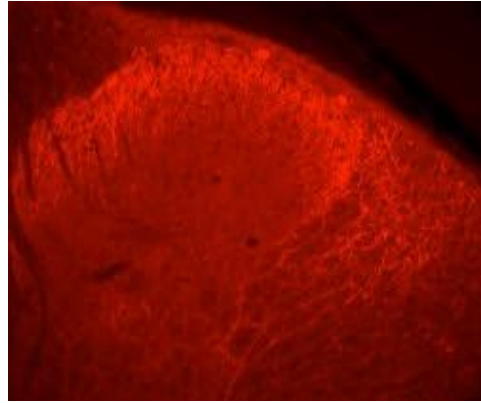
#### Description/Data:

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.

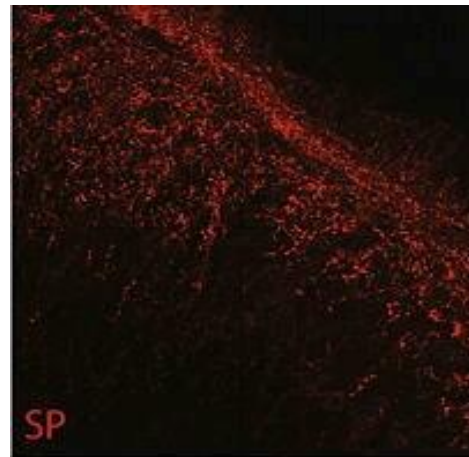
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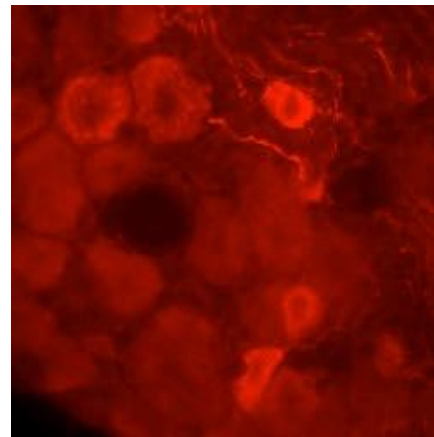
*Image: Immuofluorescent detection of Affinity Purified Substance P in rat spinal cord dorsal horn (red fluorescence).*



*Image: SP staining of rat spinal cord dorsal horn. Neuroscience Letters Volume 501, Issue 1, 21 August 2011, Pages 4-9.*



*Image: Immuofluorescent detection of Affinity Purified Substance P in rat DRG (red fluorescence).*



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