**DESCRIPTION**

**Species Reactivity** Human/Mouse/Rat  
**Specificity** Detects human, mouse, and rat Substance P.  
**Source** Monoclonal Mouse IgG, Clone # 266815  
**Purification** Protein A or G purified from hybridoma culture supernatant  
**Immunogen** KLH-coupled mouse Substance P synthetic peptide RPKPQQFFGLM  
**Formulation** Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

**APPLICATIONS**

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
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<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<td>8-25 μg/mL</td>
<td>See Below</td>
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**DATA**

**Immunohistochemistry**

Substance P in Human Spinal Cord. Substance P was detected in immersion fixed paraffin-embedded sections of human spinal cord using 8 μg/mL Human/Mouse/Rat Substance P Monoclonal Antibody (Catalog # MAB4375) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific labeling was localized to the spinal cord dorsal horn. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**PREPARATION AND STORAGE**

**Reconstitution** Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Substance P (Neurokinin-1), is member of the tachykinin peptide family. Processing of preprotachykinin isoforms generates Substance P and other tachykinins. Active Substance P is an 11 amino acid peptide, RPKPQQFFGLM, that is identical across all mammalian species. Substance P is mainly secreted from C-type fibers of primary sensory afferent neurons after stimulation through protease-activated receptor 2 (PAR2). Substance P binds primarily to the neurokinin 1 receptor on neurons in the dorsal horn, transmitting pain signals through the central nervous system.