

**Description:** This antiserum was raised in a rabbit by immunization with a bovine serum albumin (BSA) conjugate of synthetic substance P peptide. The product vial contains 50 µL of the titled antiserum obtained by lyophilizing its 0.001 M phosphate buffer (pH 7.0, 0.5mL) solution. It can be used for immunoassay, immunohistochemistry or any other immunoreaction with substance P.

**Immunogen:** Synthetic substance P-BSA conjugate **Host:** Rabbit

**Amino Acid Sequence of Substance P<sup>1)</sup>:** RPKPQFFGLM-NH<sub>2</sub>

**Product Form:** Lyophilized unpurified serum **Size:** 50 µL

**Reconstitution:** Reconstitute the product with 0.5mL of 0.01M PBS (pH 7.0) to make a 10 fold diluted stock solution. If it is stored in a refrigerator, add moderate antiseptic to the solution (e.g. NaN30.1%).

**Storage:** The product will be stable for over one year if it be stored at -20°C to -80°C until opened. Upon reconstitution, the antiserum solution must be stored at 2°C to 8°C and used within one month. Repeated freezing- thawing should be avoided.

**Suggested Working Dilution Range:** 1:8,500 (final dilution~1:60,000) for radioimmunoassay; 1: 1,000- 4,000 for immunohistochemistry (frozen or paraffin sections). Optimal dilution should be determined by each laboratory for each application.

**Specificity** (based on radioimmunoassay): substance P 100%, substance P (6-10) 20%, substance P (4-10) 0.5%, neurokinin A 1.0%

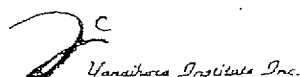
**Positive Control** (immunohistochemistry): Rat colon

**Species Tested:** Human, dog, quail, guinea pig, rat<sup>2,3,4,5,6)</sup>

#### REFERENCES:

- 1) M.M. Chang and S.E. Leeman, Isolation of a sialogogic peptide from bovine hypothalamic tissue and its characterization as substance P. *Journal of Biological Chemistry* 245: 4784-4790, 1970
- 2) A. Kuwahara, N. Yanaihara et al., Distribution of neurons containing immunoreactivity for gastrin-releasing peptide (GRP), substance P, and vasoactive intestinal polypeptide (VIP) in the rat gastric wall. *Biomedical Research* 4: 473-478, 1983
- 3) Y. Tsutsumi, N. Yanaihara et al., Histochemical studies of metaplastic lesions in the human gallbladder. *Archives of Pathology and Laboratory Medicine* 108: 917-921, 1984
- 4) T. Uchida, N. Yanaihara et al., Occurrence and projections of three subclasses of met-enkephalin-arg<sup>6</sup>-gly<sup>7</sup>-leu<sup>8</sup> neurons in the guinea-pig duodenum: immunoelectron microscopic study on the co-storage of met-enkephalin-arg<sup>6</sup>-gly<sup>7</sup>-leu<sup>8</sup> with substance P or PHI (1-15). *Biomedical Research* 6: 415-422, 1985
- 5) Y. Tsutsumi, Immunohistochemical analysis of neuroendocrine substances in non neoplastic lung and in neuroendocrine lung tumors. In: *Endocrine Pathology Update* (Eds. J. Lechago and T. Kameya) Field & Wood Philadelphia 1: 189-213, 1990
- 6) M. Yazawa, N. Yanaihara et al., Immunohistochemical demonstrations of peptide histidine methionine and substance P immunoreactive nerves in endoscopically biopsied rectal mucosa. *The Autonomic Nervous System* 27: 130-136, 1990

**FOR RESEARCH LABORATORY USE ONLY**  
**DO NOT USE ORGANIC SOLVENTS FOR DISSOLVING ANTISERUM**



2480-1 Awakura, Fujinomiya, Shizuoka, 418-0011 Japan  
FAX: +81-544-22-2770 TEL: +81-544-22-2771

For more information, please visit our internet website: <http://www.yanaihara.co.jp> or contact us to ask@yanaihara.co.jp