

## Substance P in Serum ELISA

<b>Specimen Type</b>	Human Serum
<b>Specimen Volume</b>	5.0 mL
<b>Collection</b>	Serum: Collect blood in SST tube. Allow to clot for 30min at Room Temperature. Centrifuge sample at 3400 rpm for 10 minutes. Separate serum into a transfer tube as soon as possible. Freeze at -20 <sup>0</sup> C immediately.
<b>Minimum Volume</b>	1.0 mL
<b>Handling</b>	Ship frozen on dry ice.
<b>Rejection Criteria</b>	Specimens received unfrozen. Specimens received at ambient temperature. Specimens outside of listed stability.
<b>Stability</b>	Frozen for 4 weeks. (based on published information)
<b>Methodology</b>	EIA (Enzyme Immunoassay)
<b>Reference Range</b>	<1700 pg/mL
<b>Turnaround Time</b>	Up to 14 business days.
<b>CPT Code</b>	83520
<b>Clinical Significance</b>	Substance P is a neuropeptide present in the central and peripheral nervous system. Substance P is a neurotransmitter released in response to pain and other noxious stimuli. Substance P is a neuropeptide of the tachykinin class that also includes neurokinin. Substance P is found in the brain, spinal cord, and peripheral tissues and is released from nerve endings in response to stimuli. Increased substance P levels can occur in neurogenic inflammation and physiological stress and may be associated with carcinoid or neuroendocrine tumors.
<b>Principle</b>	This assay is based on the competitive binding technique in which Substance P present in a sample competes with a fixed amount of horseradish peroxidase (HRP)-labeled Substance P for sites on a mouse monoclonal antibody. During the incubation, the monoclonal antibody becomes bound to the goat anti-mouse antibody coated onto the microplate. Following a wash to remove excess conjugate and unbound sample, a substrate solution is added to the wells to determine the bound enzyme activity. The color development is stopped and the absorbance is read at 450 nm. The intensity of the color is inversely proportional to the concentration of Substance P in the sample.