



# Somatostatin

*IHC of Somatostatin on an FFPE Pancreas Tissue*

**Intended Use** For In Vitro Diagnostic Use

**Summary and Explanation** Somatostatin is a peptide hormone that regulates the endocrine system and affects neurotransmission and cell proliferation via interaction with G-protein-coupled somatostatin receptors and by inhibition of the release of numerous secondary hormones. Somatostatin has two active forms produced by alternative cleavage of a single preproprotein: one of 14 amino acids; the other of 28 amino acids. Somatostatin is secreted not only by cells of the hypothalamus but also by the stomach, intestine, and delta cells of the pancreas. It binds to somatostatin receptors.

Somatostatin is a useful marker of D-cells of pancreatic islet cells. D-cells are used to identify hyperplasia of the pancreatic islets. Most of these tumors are malignant, giving rise to Somatostatinomas. Somatostatin suppresses gastric acid secretion, gallbladder contractions and pancreatic enzyme secretion.

<b>Antibody Type</b>	Rabbit Polyclonal	<b>Clone</b>	N/A
<b>Isotype</b>	IgG	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Cytoplasmic	<b>Control</b>	Pancreas

**Presentation** Somatostatin antibody is the purified immunoglobulin fraction of rabbit antiserum, diluted in Phosphate Buffered Saline, pH 7.6, with protein base, and preserved with Sodium Azide preservative.

<b>Availability</b>	<b>Catalog No.</b>	<b>Antibody Type</b>	<b>Dilution</b>	<b>Volume/QTY</b>
	BSB 5931	Tinto Prediluted	Ready-To-Use	3.0 ml
	BSB 5932	Tinto Prediluted	Ready-To-Use	7.0 ml
	BSB 5933	Tinto Prediluted	Ready-To-Use	15.0 ml
	BSB 5934	Concentrated	1:250-1:1000	0.1 ml
	BSB 5935	Concentrated	1:250-1:1000	0.5 ml
	BSB 5936	Concentrated	1:250-1:1000	1.0 ml
	BSB 5937	Control Slides		5

**Note:** For concentrated antibodies, please centrifuge prior to use to ensure recovery of all product.

**Storage** Store at 2°-8°C

**Stability** 3 years

For long-term storage of the concentrated antibody, it is recommended that aliquots of the antibody be frozen at -20°C in glycerol 50% (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Dilute using an antibody diluent such as ImmunoDetector Protein Block/Antibody Diluent (BSB 0040 and BSB 0041) or ImmunoDNA Background Blocker (BSB 0103-BSB 0107).



The sodium azide (NaN<sub>3</sub>) used as a preservative, is toxic if ingested.

**Protocol** Suggested protocol on reverse

## Recommended Immunohistochemical Protocol

- Pretreatment**
1. Cut and mount 3-4 micron formalin-fixed paraffin-embedded tissues on positive charged slides.
  2. Air dry for 2 hours at 58° C.
  3. Deparaffinize, dehydrate and rehydrate tissues.
  4. Subject tissues to heat epitope retrieval using a suitable retrieval solution such as **ImmunoDNA Retriever with Citrate** (BSB 0020-BSB 0023) or **EDTA** (BSB 0030-BSB 0033).
  5. Any of three heating methods may be used:
    - a. **Electric Pressure Cooker**  
Place tissues/slides in a staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA**, and place in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high, and incubate for 15 minutes. Open and immediately transfer slides to room temperature.
    - b. **Water Bath Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a water bath set at 95°-99° C. Incubate for 30-60 minutes.
    - c. **Conventional Steamer Method**  
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the **ImmunoDNA Retriever with Citrate** or **EDTA** in a Steamer, cover and steam for 30-60 minutes.
  6. After heat treatment, transfer slides in **ImmunoDNA Retriever with Citrate** or **EDTA** to room temperature and let stand for 15-20 minutes.
  7. Wash slides with IHC wash buffer or DI water.
  8. Continue IHC staining protocol.

### Immunohistochemical Protocol

Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 minutes	5 minutes	5 minutes
Primary Antibody	30-60 minutes	30-60 minutes	30-60 minutes
1st Step Detection	10 minutes	45 minutes	15 minutes
2nd Step Detection	10 minutes	Not Applicable	15 minutes
Substrate-Chromogen	5-10 minutes	5-10 minutes	5-10 minutes
Counterstain	Varies	Varies	Varies

**Limitations** Somatostatin antibody, when used as directed, detects antigens that survive routine formalin fixation, tissue processing and sectioning. Users who deviate from recommended test procedures are responsible for interpretation and validation of patient results

- References**
1. Krejs GJ, et al. *N Eng J Med.* 1979;301:285-292
  2. Somers G, et al. *Gastroenterology.* 1983;85:1192-1198
  3. Erlandsen SL, *Williams and Wilkins, Baltimore.* 1980;140-155
  4. Friesen SR, *N Eng J Med.* 1982;306:580-590



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