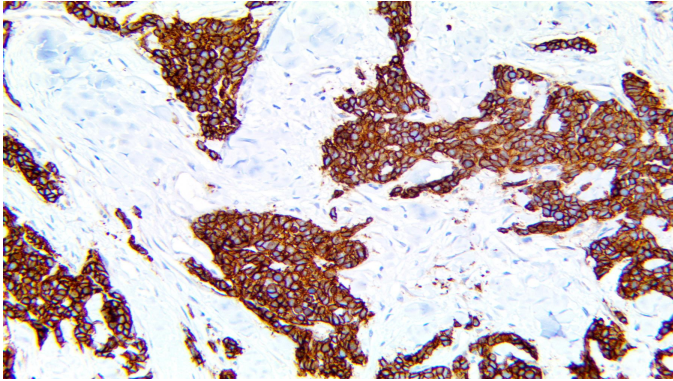


Somatostatin Receptor 2/SSTR2

Clone: EP149
Rabbit Monoclonal



Inset: IHC of Somatostatin Receptor 2/SSTR2 on a FFPE Lung Neuroendocrine Carcinoma Tissue

Intended Use
For In Vitro Diagnostic Use.

This antibody is intended for use in Immunohistochemical applications on formalin-fixed paraffin-embedded tissues (FFPE), frozen tissue sections, and cell preparations. Interpretation of results should be performed by a qualified medical professional.

* The SSTR2 antibody, clone EP3, has been manufactured using Epitomics RabMab® technology covered under Patent No.'s 5,675,063 and 7,402,409.

Immunogen
Synthetic peptide corresponding to residues on the C-terminus of the human SSTR2 protein.

Summary and Explanation
Somatostatin Receptor 2 (SSTR2) is one of five subtypes of the somatostatin receptors, which belong to the superfamily of G protein-coupled receptors (GPCRs). Somatostatin receptor 2 is encoded by the *SSTR2* gene, located on chromosome 17q25.1. SSTR2. SSTR2 becomes activated by the hormone somatostatin (SST), which is an inhibitor of hormone secretion and gastrointestinal function. SST and its receptor subtypes also prevent angiogenesis and have anti-proliferative effects on healthy and cancerous cells.

Somatostatin Receptors have been reported to be highly expressed in a wide variety of human tumors. High SSTR2 expression was found via IHC in neuroblastomas, medulloblastomas, paragangliomas, small cell lung cancers, meningiomas, and breast cancers. One study reported a highly specific and increased expression of SSTR2 in a large series of neural and neuroendocrine tumors. Another study investigating patients with gastroenteropancreatic neuroendocrine neoplasm (GEP-NEN) demonstrated the correlation between decreased immunohistochemical staining and advanced stage of tumors. Additionally, an improved survival of patients with high SSTR2 expression was found, indicating the usefulness of SSTR2 as a potential prognostic marker for GEP-NEN. Using IHC, blood vessels exhibited receptor-specific localization for

SSTR2 and SSTR5 expressed in Breast Cancers with significant correlations between mRNA and protein expression along with receptor-specific correlations with histological markers, as well as ER and PR levels.

Antibody Type	Rabbit Monoclonal	Clone	EP149
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Nuclear, Cytoplasmic, Membranous	Species Reactivity	Human
Control	Placenta, Brain, Testis, Prostate, Papillary Thyroid Carcinoma, Transitional Cell Carcinoma		
Application	Neural & Neuroendocrine Cancer, Lung Cancers, Breast Cancer, Gallbladder and Pancreatic Cancer		

Presentation
Anti-Somatostatin Receptor 2/SSTR2 is a Rabbit Monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.

<i>Catalog No.</i>	<i>Presentation</i>	<i>Dilution</i>	<i>Volume</i>
BSB-3748-3	Predilute	Ready-to-Use	3.0 mL
BSB-3748-7	Predilute	Ready-to-Use	7.0 mL
BSB-3748-15	Predilute	Ready-to-Use	15.0 mL
BSB-3748-01	Concentrate	1:25-1:100	0.1 mL
BSB-3748-05	Concentrate	1:25-1:100	0.5 mL
BSB-3748-1	Concentrate	1:25-1:100	1.0 mL

Control Slides Available

<i>Catalog No.</i>	<i>Quantity</i>
BSB-3748-CS	5 slides

Storage Store at 2-8°C (Control Slides: Store at 20-25°C)

- Precautions**
1. For professional users only. Results should be interpreted by a qualified medical professional.
 2. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent.
 3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents.
 4. Dispose of unused solution with copious amounts of water.
 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately.
 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water.
 7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar).
 8. For additional safety information refer to Safety Data Sheet for this product.
 9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories" (see References in this document).

Stability

This product is stable up to the expiration date on the product label.

Do not use after expiration date listed on the package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.

Specimen Preparation

Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033), or ImmunoDNA Digester (BSB 0108-0112). See reverse side for complete protocol. Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).

Frozen sections and cell preparations: The antibody can be used on acetone-fixed frozen sections and acetone-fixed cell preparations.

IHC Protocol

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB 7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) 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. TintoRetriever Pressure Cooker or Equivalent

Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.

b. TintoRetriever PT Module or Water Bath Method

Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA 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. For manual IHC, perform antibody incubation at ambient temperature. For automated IHC methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC protocol. Wash slides between each step with ImmunoDNA washer solution.

Abbreviated Immunohistochemical Protocol

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

Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMunter (BSB 0169-0174) or organic solvent based resin such as PermaMunter (BSB 0094-0097), refer to PI0174 or PI0097.









Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized, and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

References

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Symbol Key/Légende des symboles/Erläuterung der Symbole

	EMERGO EUROPE Prinsessegracht 20 2514 AP The Hague The Netherlands	 Storage Temperature Limites de température Zulässiger Temperaturbereich	 Manufacturer Fabricant Hersteller	 Catalog Number Référence du catalogue Bestellnummer
	In Vitro Diagnostic Medical Device Dispositif médical de diagnostic in vitro In-Vitro-Diagnostikum	 Read Instructions for Use Consulter les instructions d'utilisation Gebrauchsanweisung beachten	 Expiration Date Utiliser jusque Verwendbar bis	 Lot Number Code du lot Chargenbezeichnung