



E-Cadherin

IHC of E-Cadherin on an FFPE Prostatic Adenocarcinoma Tissue

Description Cadherins are a class of transmembrane proteins. They play an important role in cell adhesion by ensuring cells within tissues are bound together. E-Cadherin is an adhesion protein that is expressed in cells of epithelial lineage. It stains positively in glandular epithelium as well as Adenocarcinomas of the lung and G.I. tract, and ovary. E-Cadherin has been useful in distinguishing Adenocarcinoma from Mesothelioma. It has also been shown to be positive in some Thyroid Carcinomas. It can be used to differentiate Ductal Carcinomas (positive for E-Cadherin) from Lobular Breast Carcinomas.

Loss of E-Cadherin function or expression has been implicated in cancer progression and metastasis. E-Cadherin downregulation decreases the strength of cellular adhesion within a tissue, resulting in an increase in cellular motility. This may then allow cancer cells to cross the basement membrane and invade surrounding tissues. Loss of E-Cadherin expression has been suggested as a poor prognostic sign in Breast Carcinoma and Non-Small Cell Lung Carcinomas.

Antibody Type	Rabbit Monoclonal	Clone	EP700Y
Isotype	IgG	Reactivity	Paraffin, Frozen
Localization	Membranous	Control	Pancreas, Lung Carcinom
Storage	Store at 2°-8°C	Stability	2 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).

Presentation E-Cadherin 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.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5463	Prediluted	Ready-To-Use	3.0 ml
	BSB 5464	Prediluted	Ready-To-Use	7.0 ml
	BSB 5465	Prediluted	Ready-To-Use	15.0 ml
	BSB 5466	Concentrated	1:100-1:500	0.1 ml
	BSB 5467	Concentrated	1:100-1:5000	0.5 ml
	BSB 5468	Concentrated	1:100-1:500	1.0 ml
	BSB 5469	Control Slides		5

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

- References**
1. Krishnadath KK, et al. *J Pathol.* 1997;Jul;182(3):331-8
 2. Schofield K, et al. *Cancer.* 1997;Oct 25;81(5):293-8
 4. Simsir A, et al. *Diagn Cytopathol.* 1999;Mar;20(3):125-30
 5. Han AC, et al. *Cancer.* 1999;Apr25;87(2):83-6
 7. Karayiannakis AG, et al. *Hepatogastroenterology.* 1998;Nov-Dec;45(24):2437-42
 8. Peralta Soler A, et al. *Hum Pathol.* 1997;Jun;28(6):734-9

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 standoff rack at base of 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 or HRP)	PolyDetector (AP or HRP)
Peroxidase/AP Block	5 minutes	5 minutes
Primary Antibody	30 minutes	45 minutes
Secondary Biotinylated Link	10 minutes	Not Applicable
AP or HRP Label	10 minutes	45 minutes
Substrate-Chromogen	5-10 minutes	10 minutes
Counterstaining	Time varies with counterstain	Time varies with counterstain

