



# Cytokeratin HMW/34βE12

*IHC of HMW/34βE12 on an FFPE Prostatic Adenocarcinoma Tissue*

**Description** Cytokeratin 34βE12 is a High Molecular Weight cytokeratin that reacts with all squamous and ductal epithelium and stains carcinomas. This antibody recognizes cytokeratins 1, 5, 10, and 14 that are found in complex epithelia. Cytokeratin 34βE12 shows no reactivity with hepatocytes, pancreatic acinar cells, proximal renal tubules or endometrial glands; there has been no reactivity with cells derived from simple epithelia. Nerve cells, glial cells and mesenchymal tissue such as blood vessels containing only non-keratin types of intermediate filaments are not labelled; however, reactivity with smooth-muscle cells has been occasionally observed.

Mesenchymal Tumors, Lymphomas, Melanomas, Neural Tumors and Neuroendocrine Tumors are unreactive with this antibody. Cytokeratin 34βE12 has been shown to be useful in distinguishing Prostatic Adenocarcinoma from Hyperplasia of the Prostate.

<b>Antibody Type</b>	Mouse Monoclonal	<b>Clone</b>	34βE12
<b>Isotype</b>	IgG1/K	<b>Reactivity</b>	Paraffin, Frozen
<b>Localization</b>	Cytoplasmic	<b>Control</b>	Prostate
<b>Storage</b>	Store at 2°-8°C	<b>Stability</b>	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** Cytokeratin 34βE12 is a mouse 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.

<b>Availability</b>	<b>Catalog No.</b>	<b>Antibody Type</b>	<b>Dilution</b>	<b>Volume/QTY</b>
	BSB 5393	Prediluted	Ready-To-Use	3.0 ml
	BSB 5394	Prediluted	Ready-To-Use	7.0 ml
	BSB 5395	Prediluted	Ready-To-Use	15.0 ml
	BSB 5396	Concentrated	1:50-1:200	0.1 ml
	BSB 5397	Concentrated	1:50-1:200	0.5 ml
	BSB 5398	Concentrated	1:50-1:200	1.0 ml
	BSB 5399	Control Slides		5

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

- References**
1. Gown AM, et al. *Am J Pathol.* 1984;114:309
  2. O'Malley FP, et al. *Virch Arch A.* 1990;417:191
  3. Mahul B Amin MD, *Arch Pathol Lab. Med.* Vol118, March 1994:260-264
  4. Wojno KJ, Epstein JI, *Am J Surg Pathol.* 1995Mar;19(3):251-60
  5. Norton AJ, et al. *Histopathol.* 1987;11:487

**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

