



Collagen Type IV

IHC of Collagen IV on an FFPE Skin Tissue

Description Collagen is the main protein of connective tissue in animals and the most abundant protein in mammals, making up about 25% of the total protein content. Collagen IV is a major constituent of the basement membranes, along with laminins and enactins. It is composed of the alpha 1 IV chain and alpha 2 IV chain in a 2:1 ratio. It can form insoluble fibers with high tensile strength.

Normal tissue stains with this antibody in a manner consistent with the sites of mesenchymal elements and epithelial basal laminae. Antibody to collagen IV is useful in detecting the loss of parts of basement membrane in carcinomas. Collagen IV can also be useful in the classification of soft tissue tumors; Schwannomas, Leiomyomas, and their well-differentiated malignant counterparts usually immunoreact to this antibody. The vascular nature of neoplasms, Hemangiopericytoma, Angiosarcoma and Epithelioid Hemangioendothelioma can be observed with this antibody.

Antibody Type	Mouse Monoclonal	Clone	CIV22
Isotype	IgG1/K	Reactivity	Paraffin, Frozen
Localization	Cytoplasmic	Control	Muscle, Lung
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 Collagen Type IV 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.

Availability	Catalog No.	Antibody Type	Dilution	Volume/QTY
	BSB 5351	Prediluted	Ready-To-Use	3.0 ml
	BSB 5352	Prediluted	Ready-To-Use	7.0 ml
	BSB 5353	Prediluted	Ready-To-Use	15.0 ml
	BSB 5354	Concentrated	1:10-1:30	0.1 ml
	BSB 5355	Concentrated	1:10-1:30	0.5 ml
	BSB 5356	Concentrated	1:10-1:30	1.0 ml
	BSB 5357	Control Slides		5

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

- References**
- Gould VE, et al. *Pathol Annual*. 1976;11:353-386
 - McArdle JP, et al. *Int J Cancer*. 1984;34:633-638
 - Sakr WA, et al. *Hum Path*. 1987;18:1043-1050
 - Barsky SH, et al. *Am J Surg Pathol*. 1983;7:667-677

Protocol Suggested protocol on reverse

Recommended Immunohistochemical Protocol

Pretreatment with Enzyme Digestion

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 enzymatic digestion with **ImmunoDNA Digestor** (BSB 0108 – BSB 0112) or similar product (Proteinase K) using the following protocol:
 - a. Pre-warm the **ImmunoDNA Digestor** solution to room temperature
 - b. Incubate tissue sections with the **ImmunoDNA Digestor** solution for 10 minutes at room temperature or for 5 minutes at 37° C.
- NOTE: Other enzyme treatments may reduce or eliminate the intensity of this antibody. Heat induced epitope retrieval (HIER) yields poor results with this antibody.**
5. Wash slides with IHC wash buffer or DI water.
 6. 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

