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Product datasheet for BM4067

Collagen IV (COL4A1) Mouse Monoclonal Antibody [Clone ID: CIV22]

Product data:

Product Type:	Primary Antibodies
Clone Name:	CIV22
Applications:	IHC
Recommended Dilution:	**Immunohistochemistry on Frozen Sections:** 0.125 µg/ml (1/1600). **Immunohistochemistry on Paraffin Sections:** 0.5 µg/ml (1/400). Proteinase K pretreatment for antigen retrieval is recommended. Also suitable for **ELISA.** ***Recommended Positive Control:*** Human tonsil. The antigen is stable to formalin fixation, however.
Reactivity:	Bovine, Human, Porcine
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified pepsin fragments of Human type IV Collagen from Human kidneys.
Specificity:	This Monoclonal antibody Clone *CIV22* stains basement membranes in a variety of tissues and organs, including kidney, skin, striated and smooth muscle, spleen, lymph node, lung, placenta, and tendon. It recognizes native, but **not** denatured Collagen type IV but nevertheless reacts clearly with formalin-fixed paraffin-embedded sections. *CIV22* is a useful marker for monitoring destruction of basal membranes as observed in malignant neoplastic diseases. This antibody recognizes a conformational epitope on a helical part of native Collagen IV and loses its reactivity on denaturing the Collagen IV protein. **Antigen Distribution on Tissue Sections:** Basically all basement membranes except corneal epithelium.

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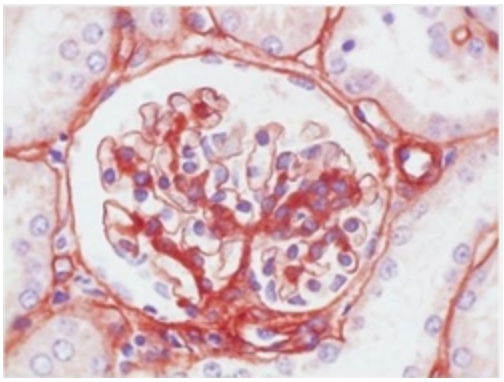
Formulation:	PBS, pH 7.2 State: Purified State: Lyophilized purified IgG fraction. **Production:** This antibody was produced Serum-free, without Fetal Calf Serum. Stabilizer: 5 mg/ml BSA Preservative: 0.05% (v/v) Kathon CG
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.2 mg/ml (after reconstitution)
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at 2-8°C. Following reconstitution store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	collagen type IV alpha 1 chain
Database Link:	Entrez Gene 1282 Human P02462
Background:	Collagen IV is a major constituent of the basement membranes along with laminins, proteoglycans and enactins. It is a multimeric protein composed of 3 alpha subunits. These subunits are encoded by 6 different genes, alpha 1 through alpha 6, each of which can form a triple helix structure with 2 other subunits to form type IV collagen. It can form insoluble fibers with high tensile strength. Collagen IV is useful in detecting the loss of parts of basement membranes in carcinomas.
Synonyms:	COL4A1

Note:

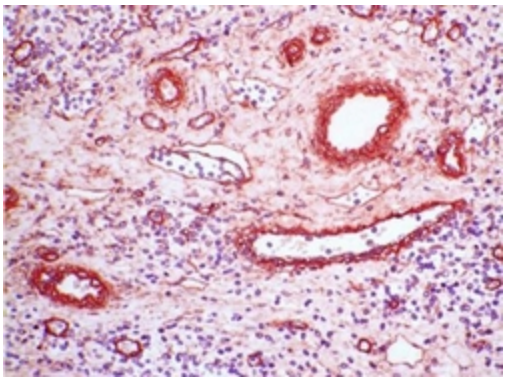
Protocol: **Protocol with frozen, ice-cold acetone-fixed sections:**
The whole procedure is performed at room temperature
1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Protocol with formalin-fixed, paraffin-embedded sections:
The whole procedure is performed at room temperature
1. Deparaffinize and rehydrate tissue section
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Product images:



Swine Kidney, Paraffin Section stained with type IV Collagen Antibody (Clone CIV22)



Human Tonsil, Paraffin Section stained with type IV Collagen Antibody (Clone CIV22)