HISTOPRIME®
A BIOZOL BRAND

Product Datasheet

HISTOPRIME®

CatNo E047

Lot: See Label
Storage: +2 to +8 °C
Exp. Date: See Label

Collagen IV

Monoclonal Antibody against Collagen IV

Specificity

Connective tissues are composed of extracellular, structural, and supportive elements that perform multiple functions in tissue differentiation and formation. A major component of connective tissue, as well as adjacent basement membranes, is the fibrous protein collagen, which occurs in various forms. Basement membranes mainly have collagen type IV collagen.

Contents

Reagents sufficient for about 50-100 tissue sections
1 dropper bottle **HISTOPRIME® Collagen IV** (Bottle**,** 5 ml)

Application

The monoclonal antibody E047 (COL-94) is directed exclusively against type IV collagen. It does not react with other types of collagen or with other connective tissue proteins. The anti-collagen IV antibody allows to reveal the importance of basement membranes in tissue differentiation, cell growth or neoplasia. Destruction of the epithelial basement membrane is considered an important criterion for malignant invasive growth. In particular, invasive ductal breast carcinomas usually show complete loss of the basement membrane.
The E047 antibody also reacts with monkey collagen IV, but not with chicken, cat, rabbit, rat, sheep and goat collagen.

Fusion Partners

Balb/C mice were immunized with human collagen IV. Spleen cells from these animals were fused with mouse myeloma cells. The resulting hybridoma cells were used to produce ascites. Ascites was processed with stabilizing buffer to obtain a ready-to-use product.

E047-230109-1/2

Manufacturer
BIOZOL
FIT FOR SCIENCE

BIOZOL
Diagnostica Vertrieb GmbH
Leipziger Straße 4
85386 Eching

Phone +49 (89) 3799 666 6
Fax +49 (89) 3799 666 99
E-Mail info@biozol.de
www biozol.de

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Characterization

Antigen	Human Collagen IV
Specificity	Collagen IV alpha and/or alpha2 chain in connective tissue, basement membranes.
Clone	COL-94
Isotype	Mouse IgG1
Pretreatment	Proteolytic pretreatment with Pronase (LINARIS CatNo E110) for 10 minutes at room temperature or pretreatment on paraffin sections with HistoSafe enhancer (LINARIS CatNo E7000) for 20 minutes in a water bath at 96-100 °C.
Incubation Period	1 hour by room temperature
Control Tissue	Connective tissue
Application	Ready-to-use in PBS, BSA, NaN_3 (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
Recommended Secondary Reagents	**Alkaline Phosphatase** Vectastain® ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector® Red (Vector CatNo SK-5100). **Peroxidase** Vectastain® ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

References

1. Barsky S. H., Siegal G. P., Jannotta F., and Liotta L. A. (1983). Loss of basement membrane components by invasive tumors but not by benign counterparts. Lab. Invest. 49; 140-147.
2. Remberger K. and Nerlich A. (1985). Diagnostischer Wert der Darstellung von Basalmembranproteinen in benignen und malignen Mammaveränderungen. Verh. Dtsch. Ges. Pathol. 69; 123-130.
3. Josji M. G., Lee A. K. C., Pedersen C. A. Schnitt S., Camus M. G., and Huges K. S. (1996) The role of immunocytochemical diagnosis of proliferative and neoplastic lesions of the breast. Mod. Pathol. 9; 57-62.
4. Nerlich A. G., (1998). Wert der Basalmembrandarstellung in der Diagnostik invasiver Karzinome Pathologe 19; 89-94.

Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.

(*)Note **E047 contains Sodium Azide; take adequate precautions!**

E047-230109-2/2

For Research use only. Not for use in diagnostic procedure

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BIOZOL
Diagnostica Vertrieb GmbH
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85386 Eching

Phone +49 (89) 3799 666 6
Fax +49 (89) 3799 666 99
E-Mail info@biozol.de
www biozol.de