

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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# Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

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- Gefahrgutzuschlag
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### Product datasheet

# EpCAM/CD326

nordicmubio.com/product/epcam-cd326

Catalogue number: MUB2061P

Clone	HEA125
Isotype	lgG1
Product Type	Monoclonal Antibody
Units	0.1 mg
Host	Mouse
Species reactivity	Human
Application	ELISA Flow Cytometry Immunofluorescence Immunohistochemistry (frozen & paraffin)

### **Background**

Ep-CAM is a 34 kD glycoprotein and can be detected at the basolateral membrane of the majority of epithelial tissues. It is intricately linked with the cadherin-catenin complex and hence the fundamental WNT pathway responsible for intracellular signalling and polarity. Ep-CAM functions as a homotypic calcium-independent cell adhesion molecule. Of particular interest, Ep-CAM appears to be overexpressed at the cell surface of the majority of human epithelial carcinomas, including colorectal, breast, prostate, head and neck, and hepatic carcinomas. The antigen is therefore being used as a target for immunotherapy of human carcinomas. Also, Ep-CAM monoclonal antibodies are now extensively used for the detection and enrichment of circulating tumor cells in peripheral blood. Formation of Ep- CAM-mediated adhesions has a negative regulatory effect on adhesions mediated by classic cadherins, which may have strong effects on the differentiation and growth of epithelial cells. Ep-CAM overexpression is suggested to be associated with enhanced epithelial proliferation.

#### Source

HEA125 is a mouse monoclonal IgG1 antibody derived by fusion of Ag8.653 mouse myeloma cells with splenocytes from a BALB/c mouse cells immunized with the HT-29 colon carcinoma cell line.

Immunogen: Viable HT-29 human colon carcinoma cell line

#### **Product**

Each vial contains 100µg 1mg/ml purified monoclonal antibody in PBS containing 0.09% sodium azide.

Purification Method: ProtG affinity chromatography

Concentration: 1 mg/ml

## **Specificity**

The antibody HEA125 is directed against human EpCAM.

Species Reactivity: The monoclonal antibody HEA125 shows a broad reactivity pattern with most human epithelial cells and epithelium derived tumours. It doesn't react with epidermal keratinocytes, parietal cells, hepatocytes, thymus cortical epithelium, myoepithelia, and non-epithelial tissues. HEA125 reacts intensely with all carcinomas derived from the intestinal tract, stomach, pancreas, liver, lung, breast, ovary, thyroid gland, kidney, bladder, prostate and metastases thereof. Stratified squamous epithelia usually stain less intensely then adenocarcinoma. The antibody is suitable for differentiation between carcinoma and non-carcinoma. Keratinizing areas of a tumour mass usually remain unstained as sarcoma, lymphoma, melanoma and neurogenic tumours do.

### **Applications**

The HEA125 antibody is suitable for the detection of human EpCAM by Western blotting (under reducing and non-reducing conditions), flow cytometry and immunocytochemistry. The antibody is also suitable for the detection of human EpCAM by immunohistochemistry on frozen and paraffin embedded tissues. For the latter application, pre-treatment with pronase 0.1% or unmasking fluid C (Art. No. DE000) is recommended. Optimal antibody dilutions for the different applications should be determined by titration. For immmunohistochemistry a dilution of 1:100 to 1:500 is recommended.

The monoclonal antibody HEA125 shows a broad reactivity pattern with most human epithelial cells and epithelium derived tumours. It doesn't react with epidermal keratinocytes, parietal cells, hepatocytes, thymus cortical epithelium, myoepithelia, and non-epithelial tissues.

Incubation Time: 60 min at RT

Working Concentration: IHC on frozen sections !:200 to 1:500

*Pre-Treatment:* Pronase 0.1% or unmasking fluid C (Art.No. DE000)

Positive Control: Human appendix, human kidney

### **Storage**

The antibody may be stored at +4°C. For prolonged storage prepare appropriate aliquots and store at or below -20°C. Prior to use, an aliquot is thawed slowly in the dark at ambient temperature, spun down again and used to prepare working dilutions by adding sterile phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. Working dilutions should be stored at +4°C, not refrozen, and preferably used the same day. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance or the concentration of the product.

*Product Stability:* For prolonged storage prepare appropriate aliquots and store at or below -20°C. Prior to use, an aliquot is thawed slowly in the dark at ambient temperature, spun down again and used to prepare working dilutions by adding sterile phosphate buffered saline (PBS, pH 7.2). Repeated thawing and freezing should be avoided. Working dilutions should be stored at +4°C, not refrozen, and preferably used the same day. If a slight precipitation occurs upon storage, this should be removed by centrifugation. It will not affect the performance or the concentration of the product.

Shipping Conditions: The antibody is shipped at ambient temperature and may be stored at +4°C. For prolonged storage prepare appropriate aliquots and store at or below -20°C

### **Caution**

This product is intended FOR RESEARCH USE ONLY, and FOR TESTS IN VITRO, not for use in diagnostic or therapeutic procedures involving humans or animals. This product contains sodium azide. To prevent formation of toxic vapors, do not mix with strong acidic solutions. To prevent formation of potentially explosive metallic azides in metal plumbing, always wash into drain with copious quantities of water. This datasheet is as accurate as reasonably achievable, but Nordic-MUbio accepts no liability for any inaccuracies or omissions in this information.

#### References

- 1. Moldenhauer G., Momburg F., Möller P., Schwartz, and Hämmerling G.J. (1987) Epithelium-specific surface glycoprotein of Mr 34,000 is a widely distributed human carcinoma marker. Br. J. Cancer 56; 714-721.
- 2. Momburg F., Moldenhauer G., Hämmerling G.J., and Möller F. (1987) Immunohistochemical study of the expression of a Mr 34,000 human epithelium-specific surface glycoprotein in normal and malignant tissues. Cancer Research 47; 2883-2891.
- 3. Simon B., Podolsky, D.K., Moldenhauer G., Isselbacher K.J., Gattoni-Celli, S., and Brand S.J. (1990) Epithelial glycoprotein is a member of a family of epithelial cell surface antigens homologous to nidogen, a matrix adhesion protein. Proc. Natl., Acad. Sci. USA 87; 2755 ff.
- 4. Kemmner W., Moldenhauer G., Schlag P., and Brossmer R. (1992) Separation of tumor

cells from a suspension of dissociated human colorectal carcionoma tissue by means of monoclonal antibody-coated magnetic beads. J. Immunol. Methods 147; 197-200. 5. Winter , M. J. et al. (2003) The epithelial cell adhesion molecule (Ep - CAM) as a morphoregulatory molecule is a tool in surgical pathology. Am. J. Pathol. 163: 2139 - 2148.