

BM2274F**Monoclonal Antibody to CD326 / EPCAM / TACSTD1 - FITC****Alternate names:**

Adenocarcinoma-associated antigen, EGP314, Ep-CAM, Epithelial cell adhesion molecule, Epithelial glycoprotein 314, GA733-2, KS 1/4 antigen, KSA, M1S2, M4S1, MIC18, Major gastrointestinal tumor-associated protein GA733-2, TROP1, Trop-1, Tumor-associated calcium signal transducer 1

Quantity:

0.25 ml

Background:

Epithelial Cell Adhesion Molecule (EpCAM) is a 40 kDa cell surface antigen. This antigen has been identified independently by a number of groups, and has been known by a variety of names. Several monoclonal antibodies have been raised against EpCAM, many of which have been described as tumour specific molecules on carcinomas. EpCAM is a Type 1 transmembrane glycoprotein. It is expressed on the basolateral membrane of cells by the majority of epithelial tissues, with the exception of adult squamous epithelium and some specific epithelial cell types including hepatocytes and gastric epithelial cells. EpCAM expression has been reported to be a possible marker of early malignancy, with expression being increased in tumour cells, and de novo expression being seen in dysplastic squamous epithelium.

Uniprot ID:

[P16422](#)

NCBI:

[NP_002345.2](#)

GeneID:

[4072](#)

Host / Isotype:

Mouse / IgG1

Recommended Isotype Controls:

SM10F (for use in human samples)

Clone:

HEA125

Immunogen:

HT-29 colon carcinoma cell line

Format:

State: Liquid purified Ig fraction
Purification: Affinity Chromatography on Protein A
Buffer System: PBS, pH 7.4
Preservatives: 0.09% Sodium Azide
Label: FITC – Fluorescein Isothiocyanate Isomer 1

Applications:

Immunofluorescence Microscopy.
Cell Sorting.
Cytological Material.
Immunohistochemistry on Frozen Sections and Paraffin-Embedded Sections.
With Paraffin embedded sections, protease pretreatment is required prior to antibody application.
Working Dilution: Dilute at least 1/10 with PBS, pH 7.4 for Immunohistochemical application.
Incubation Time: 1 h at RT.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:	<p>The Ep-CAM (HEA125) antibody recognizes the epithelial cell adhesion molecule Ep-CAM (also described as 17-1A antigen or EPG34). This antigen is widely expressed on cells of epithelial origin and tumors derived therefrom. HEA125 represents an excellent marker to discriminate epithelial from mesothelial structures. The antigen has been detected in all carcinoma types tested (18 different origins). A subset of squamous cell carcinoma is negative.</p> <p>Tested Reactivities on Cultured Cell Lines: All carcinoma cell lines tested so far; particularly strong reaction with colon carcinoma cell lines (HT-29, WiDr, SW1116).</p> <p>Polypeptide Reacting: Mr 40,000 human epithelium-specific cell surface glycoprotein (Ep-CAM).</p>
Species Reactivity:	<p>Tested: Human.</p>
Storage:	<p>Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.</p>
Product Citations:	<p>Purchased from Acris:</p> <ol style="list-style-type: none">1. Mandair, D; Vesely, C; Ensell, L; Lowe, H; Spanswick, VJ; Hartley, J; Caplin, M; Meyer, T; 2016A comparison of CellCollector with CellSearch in patients with neuroendocrine tumours. <i>Endocr. Relat. Cancer</i>. PubMed PMID: 27521132.
General Readings:	<ol style="list-style-type: none">1. Edwards PA. Heterogeneous expression of cell-surface antigens in normal epithelia and their tumours, revealed by monoclonal antibodies. <i>Br J Cancer</i>. 1985 Feb;51(2):149-60. PubMed PMID: 2578284.2. Moldenhauer G, Momburg F, Möller P, Schwartz R, Hämmerling GJ. Epithelium-specific surface glycoprotein of Mr 34,000 is a widely distributed human carcinoma marker. <i>Br J Cancer</i>. 1987 Dec;56(6):714-21. PubMed PMID: 2449234.3. Momburg F, Moldenhauer G, Hämmerling GJ, Möller P. Immunohistochemical study of the expression of a Mr 34,000 human epithelium-specific surface glycoprotein in normal and malignant tissues. <i>Cancer Res</i>. 1987 Jun 1;47(11):2883-91. PubMed PMID: 3552208.4. Simon B, Podolsky DK, Moldenhauer G, Isselbacher KJ, Gattoni-Celli S, Brand SJ. Epithelial glycoprotein is a member of a family of epithelial cell surface antigens homologous to nidogen, a matrix adhesion protein. <i>Proc Natl Acad Sci U S A</i>. 1990 Apr;87(7):2755-9. PubMed PMID: 2108441.5. Kemmner W, Moldenhauer G, Schlag P, Brossmer R. Separation of tumor cells from a suspension of dissociated human colorectal carcinoma tissue by means of monoclonal antibody-coated magnetic beads. <i>J Immunol Methods</i>. 1992 Mar 4;147(2):197-200. PubMed PMID: 1548402.6. Winter MJ, Nagtegaal ID, van Krieken JH, Litvinov SV. The epithelial cell adhesion molecule (Ep-CAM) as a morphoregulatory molecule is a tool in surgical pathology. <i>Am J Pathol</i>. 2003 Dec;163(6):2139-48. PubMed PMID: 14633587.7. Joplin R, Strain AJ, Neuberger JM. Biliary epithelial cells from the liver of patients with primary biliary cirrhosis: isolation, characterization, and short-term culture. <i>J Pathol</i>. 1990 Nov;162(3):255-60. PubMed PMID: 2266463.8. Metzgeroth G, Mantz C, Kuhn C, Schultheis B, Hehlmann R, Hastka J. Reliable identification of small cell lung cancer in cytological specimens by immunocytology.

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11. Balzar M, Winter MJ, de Boer CJ, Litvinov SV. The biology of the 17-1A antigen (EPCAM). J Mol Med (Berl). 1999 Oct;77(10):699-712. PubMed PMID: 10606205.
12. Hastka J, Pfiester P. [Cell marker for the differential diagnosis of malignant mesotheliomas]. Pathologe. 1988 Jul;9(4):245-7. PubMed PMID: 2463617.
13. Momburg F, Moldenhauer G, Hämmerling GJ, Möller P, Otto HF: Charakterisierung eines epithelspezifischen Zellmembranantigens mit Hilfe des monoklonalen Antikörpers HEA125. Verh Dtsch Ges Path 69, 627 (1985)