OriGene Technologies Inc.

9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-888-267-4436
Fax: +1-301-340-8606
techsupport@origene.com

OriGene EU

Acris Antibodies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info@acris-antibodies.com

Monoclonal Antibody to CD326 / EPCAM / TACSTD1 - Supernatant

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

Catalog No.: DM2014S

Quantity: 1 ml

Background: Lung cancer is a heterogeneous disease, which can be subdivided into five major tyoes based on
histopathological criteria like squamous cell carcinomas, adenocarcinoma, large cell carcinoma,
adenosquamous carcinoma and small cell lung cancer (SCLC). A number of important prognostic characteristics have been identified to include the extend of disease and especially for
SCLC, tumor sensitivity to chemotherapy.
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

Clone: MOC-31

Immunogen: Extract isolated from small cell lung carcinoma-derived cell line.
Remarks: The hybridoma was derived by fusion of mouse X63 myeloma cells with the mouse spleen cells.

Format: **State:** Liquid Tissue Culture Supernatant
Preservatives: 0.09% Sodium Azide

Applications:

Immunoblotting.
Cell Suspensions.
Flow Cytometry.
Immunocytochemistry.
Immunohistochemistry on Frozen Sections.
Immunohistochemistry on Paraffin Sections (after microwave treatment).
Working Dilution: 1/2-1/10.
Incubation Time: 1 h at RT.
Dilution Buffer: Dilute immediately before use with PBS or TBS.
Recommended Positive Control: Bronchial tissue.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

During the First International Workshop on Small Cell Lung Cancer Antigens in London, April 1987, specific antibodies have been catagorized according to their reactivity patterns. *MOC-31* belongs to the so-called "***Cluster 2***" reactivity pattern.
The monoclonal antibody *MOC-31* is reactive with the SCLC-CD2 epithelial antigen EGP-2, present in most epithelia and lung carcinomas. The membrane associated antigen appear to have a molecular weight of 35-40 kDa.
This antibody reacts in Western blotting with a 40 kDa membrane-associated protein present in most epithelia and in all lung carcinomas.
MOC-31 is unreactive with normal and malignant meso-thelium and therefore especially useful for the de-tection of carcinoma cells in ascites or pleural effusions.

Species Reactivity:

Tested: Human.
Expected from sequence similarity: Mouse.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Berendsen HH, de Leij L, Postmus PE, Ter Haar JG, Poppema S, The TH. Detection of small cell lung cancer metastases in bone marrow aspirates using monoclonal antibody directed against neuroendocrine differentiation antigen. J Clin Pathol. 1988 Mar;41(3):273-6. PubMed PMID: 2834417.
2. Ruitenbeek T, Gouw AS, Poppema S. Immunocytology of body cavity fluids. MOC-31, a monoclonal antibody discriminating between mesothelial and epithelial cells. Arch Pathol Lab Med. 1994 Mar;118(3):265-9. PubMed PMID: 8135629.
3. Politi E, Kandaraki C, Apostolopoulou C, Kyritsi T, Koutselini H. Immunocytochemical panel for distinguishing between carcinoma and reactive mesothelial cells in body cavity fluids. Diagn Cytopathol. 2005 Mar;32(3):151-5. PubMed PMID: 15690338.
4. The World Health Organization histological typing of lung tumours. Second edition. Am J Clin Pathol. 1982 Feb;77(2):123-36. PubMed PMID: 7064914.
5. Souhami, R.L. et al. (1987). Antigens of small cell lung cancer. Lancet ii 325-26.
6. De Leij, et al. (1987). Monoclonal antibodies in clinical and experimental pathology of lung cancer. Application of monoclonal antibodies in tumor pathology (Ruiter, D.J. et al. Eds). Dordrecht; Martinus Nijhoff 191-210.

Pictures:

DM2014S clone MOC-31 Ep-CAM Antibody Staining of Formalin-Fixed, Paraffin-Embedded Human colon carcinoma tissue.