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Product Information

Anti-EpCAM antibody, Mouse monoclonal
clone Ber-EP4, purified from hybridoma cell culture

Product Number **SAB4200704**

Product Description

Anti-EpCAM antibody, Mouse monoclonal**,** (mouse IgG1 isotype) is derived from the hybridoma Ber-EP4 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with human breast carcinoma cell line MCF-7.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-EpCAM specifically recognizes human EpCAM expressed at the surface of epithelial cells and is not reactive with normal or neoplastic non-epithelial cells.[1] The antibody may be used in various immunochemical techniques including Immunohistochemistry, Immunofluorescence and Immunoprecipitation.[1,2]

EpCAM, also known as Epithelial cell adhesion molecule, epithelial specific antigen or epithelial glycoprotein, is a highly conserved type I single-span transmembrane glycoprotein which regulates cell-cell contact adhesion strength and tissue plasticity as well as plays an important role in epithelial cells proliferation and differenciation.[3] EpCAM is present on most epithelia tissues of the adult body and in undifferentiated rather than differentiated embryonic stem cells (ESCs).[4-5] EpCAM was initially identified as a tumor marker and is highly expressed in most epithelial malignant tissues cancers.[3,6] Mutations in EpCAM are associated with several intestinal abnormalities such as Lynch syndrome and congenital tufting enteropathy.[7-8] Anti-EpCAM antibody is considered as a useful tool for research of epithelial cells signaling pathways, cancer diagnostics and prediction of disease progression. Anti-EpCAM also has been proved valuable for the distinction of undifferentiated primary or metastatic tumors from non-epithelial tumors, bile duct cells from hepatocytes in certain liver diseases and between epithelial and normal reactive or neoplastic mesothelial cells from carcinoma cells.[1]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunofluorescence: a working concentration of 1-2 μg/mL is recommended using human breast adenocarcinoma MCF-7 cell line.

Immunohistochemistry: a working concentration of 5-10 μg/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human colon carcinoma sections.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

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