



Rev: A

Release Date: 04/13/2014

IVD

Ep-CAM (EP155)

Clone	EP155
Source	Rabbit Monoclonal
Cat #	PR041-6ml RTU PR041-3ml RTU CR041-0.5ml Concentrated CR041-0.1ml Concentrated
Regulatory Status	IVD

Intended Use:

This antibody is intended for use to qualitatively identify Ep-CAM by light microscopy in formalin fixed, paraffin embedded tissue sections using immunohistochemical detection methodology. Interpretation of any positive or negative staining must be complemented with the evaluation of proper controls and must be made within the context of the patient's clinical history and other diagnostic tests. A qualified pathologist must perform evaluation of the test.

Summary and Explanation:

Ep-CAM is a highly conserved type I transmembrane glycoprotein and is expressed on most normal and malignant epithelial cells. As a calcium-independent cell adhesion molecule, Ep-CAM is intricately linked with the Cadherin-Catenin pathway and hence the fundamental WNT pathway responsible for intracellular signaling and polarity.

Ep-CAM is also known as epithelial cell adhesion molecule or MOC31, Ber-EP4. It is detected at the membrane/cytoplasm of the majority of epithelial tissues (all simple, pseudo-stratified and transitional epithelial), with the exception of the adult squamous epithelium and some epithelium-derived cells, such as hepatocytes, epidermal keratinocytes, gastric parietal cells, myoepithelial cells, and thymic cortical epithelium. In tumors, Ep-CAM is over expressed by the majority of human epithelial carcinomas, except hepatocellular carcinomas (HCC). An antibody to Ep-CAM is useful for the identification of tumors with epithelial origin, and it can also be used to differentiate HCC from metastatic adenocarcinoma in the liver.

Immunogen: A synthetic peptide corresponding to residues in human Epithelial Antigen (Ep-CAM) protein.

Isotype: Rabbit IgG

Reagent Provided:

Concentrated format: Antibody to Ep-CAM is affinity purified and diluted in antibody diluent, with 1% bovine serum albumin (BSA) and 0.05% sodium azide (NaN₃).
Recommended dilutions: 1:50 – 1:100.
The antibody dilution and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by individual laboratory.

Pre-diluted format: PathnSitu ready to use antibodies are pre titrated to optimal staining conditions. Further dilution may lose the activity and may yield to sub optimal staining.

Storage Recommendations: Store at 2-8 °C. Do not use after expiration date provided on the vial.

Staining Recommendations:

Antigen Retrieval Solution: Use **EDTA or TRIS-EDTA (PathnSitu cat # PS008 or PS009)** as antigen retrieval solution Heat Retrieval Method: Retrieve sections under steam pressure for 15 min using PathnSitu's MERS (Multi Epitope Retrieval System) then allow solution to cool for 10 minutes then transfer tissue sections/slides to distilled water.

Primary Antibody: Cover the tissue sections with primary antibody and incubate for 30 min at room temperature when used PathnSitu PolyExcel Detection System.

Detection System: Refer to PathnSitu PolyExcel detection system protocol or manufacturer's detection kit staining protocol when used other vendor detection system.

Cellular Localization: Membrane/Cytoplasm

Positive Control: Colon

Troubleshooting: Follow the antibody specific protocol recommendations according to data sheet provided. If unusual results occur, contact PathnSitu Technical Support at

Limitations and Warranty: There are no warranties, expressed or implied, which extend beyond this description. PathnSitu is not liable for property damage, personal injury, or economic loss caused by this product.

Bibliography:

1. Osta WA, *et al.*: *Cancer Res* 2004, 64:5818-5824
2. Tomita Y, *et al.*: *Jpn J Cancer Res* 2000, 91:231-238
3. Sheibani K, *et al.*: *Am J Surg Pathol* 1991, 15:779-784
4. Winter MJ, *et al.*: *Am J Pathol* 2003, 163:2139-2148
5. Wong NA, *et al.*: *J Clin Pathol* 2006, 59:260-263

Ep-CAM, EP155 antibody has been created by Epitomics Inc., using Epitomics' proprietary rabbit monoclonal antibody technology covered under Patent No.'s 5,675,063 and 7,402,409.