



Ep-CAM (MK-1) Human, Mouse Monoclonal Antibody, Clone: MK-1-410

Product Data Sheet

Source of Antigen: *E.coli*

Host: Mouse

Isotype: IgG1

Other names: MK-1

Cat. No.:

RD182024110-10 (0.1 mg)

Research topic

Oncology

Preparation

The antibody is a mouse monoclonal antibody against recombinant Human Ep-CAM.

Species Reactivity

Human

Does not react with mouse.

Not yet tested in other species.

Purification Method

Affinity chromatography on a column with immobilized protein G.

Antibody Content

0.1 mg (determined by BCA method, BSA was used as a standard)

Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

Reconstitution

Add 0.1 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

Expiration

See vial label.

Lot Number

See vial label.

Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

Applications

ELISA, Western blotting

Introduction to the Molecule

The Ep-CAM antigen (Epithelial Cell Adhesion Molecule), also termed as MK-1, GA733-2, KSA, 17-1A or EGP40, is a 40 kDa type-I transmembrane glycoprotein with properties of Ca²⁺ -independent homotypic intracellular adhesion molecule. The full length of the molecule is 314 amino acids. Structurally, Ep-CAM is not related to any of the major families of adhesion molecules. The Ep-CAM antigen is overexpressed on the majority of tumor cells of most human epithelia of variety of tumor tissues such as stomach, colon, pancreas, gall bladder, bile duct, mammary gland, breast and lung carcinoma. Ep-CAM has been suggested to be involved in the differentiation and growth of epithelial cells under normal physiological conditions through its homotypic cell-cell adhesion activity. As it is overexpressed on most carcinomas, Ep-CAM antigen has been used as a target for diagnosis and therapy of cancer.

References to this Product

- Schmetzer O, Moldenhauer G, Nicolaou A, Schlag P, Riesenberger R, Pezzutto A. *Detection of circulating tumor-associated antigen depends on the domains recognized by the monoclonal antibodies used: N-terminal trimmed EpCAM-levels are much higher than untrimmed forms.* Immunol Lett. 2012 Apr 30;143 (2):184-92
- Abe H, Kuroki M, Imakiire T, Yamauchi Y, Yamada H, Arakawa F, Kuroki M. *Preparation of recombinant MK-1/Ep-CAM and establishment of an ELISA system for determining soluble MK-1/Ep-CAM levels in sera of cancer patients.* J Immunol Methods. 2002 Dec 15;270 (2):227-33

Note

This product is for research use only.

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