

Product Specification Sheet

Antibody to Human Epithelial Specific Antigen (ESA/EpCAM-1/CD326)

Cat # ESA11-M Monoclonal Anti-Human Epithelial Specific Antigen (ESA/EpCAM-1/CD326) IgG

SIZE: 100 ug

This 9-exon gene encodes a carcinoma-associated antigen and is a member of a family that includes at least two type I membrane proteins. This antigen is expressed on most normal epithelial cells and gastrointestinal carcinomas and functions as a homotypic calcium-independent cell adhesion molecule. The antigen is being used as a target for immunotherapy treatment of human carcinomas.

FUNCTION: SwissProt: P16422 # GA733 tumor-associated antigen gene family may function as growth factor receptors.

SIZE: 314 amino acids; 34932 Da

SUBCELLULAR LOCATION: Membrane; Single-pass type I membrane protein.

TISSUE SPECIFICITY: This protein is expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinomas.

SIMILARITY: SwissProt: P16422 ## Contains 1 thyroglobulin type-1 domain

Alternate name: Muscarinic; ESA; EpCAM-1; CD326
Entrez Gene Number: NM_002354.1

Source of Antigen and Antibodies

Antigen: NCI-H69 small cell lung carcinoma cells

Antibody Host: Mouse

Antibody Type: Monoclonal

Isotype: IgG1

Buffer: PBS, pH 7.5, 0.1% BSA, 0.05% azide

Concn: Lot sp. concn provided on the vial

Recommended Secondary Antibodies: Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available).

Form & Storage

Purified IgG

100ul solution lyophilized powder
Buffer: Citrate-NaCl, pH 6.00.05% sodium azide
Reconstitute powder 100 ul of PBS

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Specificity and crossreactivity

This antibody recognizes a 40kDa transmembranous epithelial glycoprotein expressed on baso-lateral cell surfaces in very many epithelial tissues (but absent from mesothelial tissues). The extracellular domain has a cysteine-rich repeat and a small domain with homology to nidogen. It is a homophillic cell-cell adhesion molecule, recently called Ep-CAM (Litvinov et al., 1994). This molecule is also detected by antibodies such as 323/A3, BER-EP4, 17-1A, AUA1, KS1/4, MOC-31, GA733, HEA 125 and others). It reacts with most epithelial cells and carcinoma

Recommended Usage

ELISA (0.1-1 ug/ml)

Western Blotting (1-2 ug/ml)

Immunohistochemistry, Immunohistochemistry (Paraffin) @ 2-10 ug/ml

Optimal concn for a given application should be optimized.

*This product is for In vitro research use only.

Related material available from ADI

ESA11-M

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