

**Epithelial Specific Antigen / Ep-CAM Ab-3 (Clone 323/A3)**

Mouse Monoclonal Antibody

**Cat. #MS-181-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml)** (Purified Ab with BSA and Azide)**Cat. #MS-181-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml)** (Purified Ab without BSA and Azide)**Cat. #MS-181-PCS (5 Slides)** (Positive Control for Histology)**Please note this data sheet has been changed effective December 6, 2011**

**Description:** EGP40 is a 40kDa transmembrane epithelial glycoprotein, also identified as epithelial specific antigen (ESA), or epithelial cellular adhesion molecule (Ep-CAM). It is expressed on baso-lateral cell surface in most simple epithelia and a vast majority of carcinomas. It reportedly distinguishes adenocarcinomas from pleural mesotheliomas.

**Comments:** Also detected by other Ab's e.g. VU-1D9 (Lab Vision Cat. No. MS-144-P), AUA1 (Lab Vision Cat No. MS-675-P), ESA43 (Lab Vision Cat. No. MS-1245-P) 17-1A, KS1/4, Ber-EP4, MOC-31, GA733, & HEA 125.

**Mol. Wt. of Antigen:** 40-43kDa**Epitope:** Not determined**Species Reactivity:** Human. Does not react with rat. Others-not known.**Clone Designation:** 323/A3**Ig Isotype:** IgG<sub>1</sub>**Immunogen:** MCF-7 human breast cancer cells<sup>1</sup>**Applications and Suggested Dilutions:**

- Flow Cytometry
  - Immunofluorescence
  - Radioimaging
  - Immunohistology (Formalin/paraffin)  
(Ab 1-2µg/ml for 30 min at RT)
- \* [Staining of formalin/paraffin tissues REQUIRES digestion of tissue sections with pepsin at 1mg/ml Tris-HCl, pH 2.0 for 15 min at RT or 10 min at 37C (Cat. #AP-9007)]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** Breast carcinoma**Cellular Localization:** Cell membrane**Storage and Stability:**

Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Supplied As:**

200µg/ml antibody purified from the ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml.

**Key References:**

1. Edwards DP, *et. al.* Cancer Res, 1986, 46:1306-17.

**Limitations and Warranty:**

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. Lab Vision is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

**For Research Use Only**

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1. Velders MP; Litvinov SV; Warnaar SO; Gorter A; Fleuren GJ; Zurawski VR Jr; Coney LR. New chimeric anti-pancarcinoma monoclonal antibody with superior cytotoxicity-mediating potency. *Cancer Research*, 1994, 54(7):1753-9.
2. Courtney SP; Williams S; Mansel RE. Can monoclonal antibody staining by 323/A3 and Ca1 of benign breast biopsies predict the development of breast cancer? *Journal of Cancer Research and Clinical Oncology*, 1993, 119(3):127-30.
3. Bergsagel PL; Victor-Kobrin C; Timblin CR; Trepel J; Kuehl WM. A murine cDNA encodes a pan-epithelial glycoprotein that is also expressed on plasma cells. *J of Immunology*, 1992, 148(2):590-6.
4. Courtney SP; Williams S; Mansel RE. Immunohistochemical staining patterns of benign breast biopsies by 323/A3 and Ca1 monoclonal antibodies related to epidemiological and radiological risk criteria. *Int Surgery*, 1992, 77:55-9.
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8. Pak KY; Nedelman MA; Fogler WE; Tam SH; Wilson E; Van Haarlem LJ; Colognola R; Warnaar SO; Daddona PE. Evaluation of the 323/A3 monoclonal antibody and the use of technetium-99m-labeled 323/A3 Fab' for the detection of pan adenocarcinoma. *International Journal of Radiation Applications and Instrumentation. Part B, Nuclear Medicine and Biology*, 1991, 18(5):483-97.
9. Courtney SP; Williams S; Mansel RE. Monoclonal antibodies 323/A3 and Ca1 identify a paracrine function of breast carcinoma on adjacent benign histological components. *British J of Cancer. Supplement*, 1990, 10:92-5.
10. Tandon AK; Clark GM; Chamness GC; McGuire WL. Association of the 323/A3 surface glycoprotein with tumor characteristics and behavior in human breast cancer. *Can Res*, 1990, 50:3317-21.
11. Khaw BA; Bailes JS; Schneider SL; Lancaster J; Powers J; Strauss HW; Lasher JC; McGuire WL. Human breast tumor imaging using 111In labeled monoclonal antibody: athymic mouse model. *Eur J of Nuclear Medicine*, 1988, 14(7-8):362-6.
12. LeMaistre CF; Edwards DP; Krolick KA; McGuire WL. An immunotoxin cytotoxic for breast cancer cells in vitro. *Cancer Res*, 1987, 47:730-4.
13. Edwards DP; Grzyb KT; Dressler LG; Mansel RE; Zava DT; Sledge GW Jr; McGuire WL. Monoclonal antibody identification and characterization of a Mr 43,000 membrane glycoprotein associated with human breast cancer. *Cancer Research*, 1986, 46(3):1306-17.

