Monoclonal Antibodies Detecting Human Antigens

Anti-EpCAM (EBA-1)

Form          Catalog number
FITC           347197
PE             347198
PerCP-Cy5.5    347199
APC            347200

Product availability varies by region. Contact BD Biosciences Customer Support or your local sales representative for information.

Research Applications

Research applications include studies of:

- Epithelial glycoprotein on human epithelial cells
- Differentiation of non-epithelial tumors from undifferentiated carcinomas
- Enrichment of solid tumor cells from bone marrow or peripheral blood cells
- Circulating tumor cells in the metastatic process
- Response monitoring of micrometastatic cells to adjuvant therapies
- Residual tumor cells in transplant material

Specificity

The Anti-EpCAM antibody is directed against a human epithelial adhesion molecule (EpCAM) that has been identified as a ~40-kilodalton (kDa) protein in Western blotting. This antigen is also known as epithelial surface antigen (ESA) and epithelial glycoprotein 2 (EGP-2).

Antigen distribution

The epithelial cells present in non-squamous epithelia and tumors derived from such cells show EpCAM expression. The normal epithelial cells reactive with anti-EpCAM antibodies are those present in the (lower) respiratory tract; the (lower) gastrointestinal tract; tubules in the kidney; the surface epithelium of the ovary; the exocrine and endocrine pancreas; secondary germ cells of telogenic hair follicles; and secretory tubules of sweat glands in the skin, whereas the epidermis is negative. In addition, all epithelial cells in the thyroid and epithelial cells in the thymus show EpCAM expression, while the outer cortex and Hassall's corpuscles have low expression. In the liver, only the bile ducts appear to be positive with anti-EpCAM antibodies. Non-squamous–carcinoma cells have high EpCAM expression, whereas such expression can also occur in squamous carcinoma. Tumors arising from non-epithelial cells, such as lymphoma, mesothelioma, neuroblastoma, and melanoma, do not express EpCAM.

Clone

The Anti-EpCAM antibody, clone EBA-1, is derived from the fusion of SP2 myeloma cells with spleen cells from BALB/c mice immunized with macromolecular aggregates containing breast carcinoma–associated mucin BCA-225.

Composition

The Anti-EpCAM antibody is composed of mouse IgG1 heavy chains and lambda light chains.

Product configuration

The following are supplied in phosphate buffered saline (PBS) containing a stabilizer and a preservative.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.
PROCEDURE
Visit our website (bdbiosciences.com) or contact your local BD representative for the lyse/wash protocol for direct immunofluorescence.

REPRESENTATIVE DATA
Flow cytometric analysis was performed on whole blood containing SK-BR-3 cells stained with the indicated conjugated antibody. Laser excitation was at 488 nm and 635 nm. Representative data analyzed with a BD FACS™ brand flow cytometer is shown in the following figure.

HANDLING AND STORAGE
Store vials at 2°C–8°C. Conjugated forms should not be frozen. Protect from exposure to light. Each reagent is stable until the expiration date shown on the bottle label when stored as directed.

WARNING
All biological specimens and materials coming in contact with them are considered biohazards. Handle as if capable of transmitting infection10,11 and dispose of with proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

CHARACTERIZATION
To ensure consistently high-quality reagents, each lot of antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

WARRANTY
Unless otherwise indicated in any applicable BD general conditions of sale for non-US customers, the following warranty applies to the purchase of these products.

REFERENCES


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