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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Anti-EpCAM [3-17I] Standard Size Ab02662-2.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

Isotype and Format: Mouse IgG2a, Fc Silent™, Kappa
Clone Number: 3-17I
Alternative Name(s) of Target: CD326; Ep-CAM; KS1/4 antigen; KSA; Epithelial cell adhesion molecule; Adenocarcinoma-associated antigen; Cell surface glycoprotein Trop-1; Epithelial cell surface antigen; Epithelial glycoprotein; EGP; Epithelial glycoprotein 314; 17-1A-antigen; EGP314; hEGP314; Major gastrointestinal tumor-associated protein GA733-2; Tumor-associated calcium signal transducer 1; EGP-2; EGP40; KSA; CO17-1A; GA733-2; 3-171
UniProt Accession Number of Target Protein: P16422
Published Application(s): ELISA, FC, IHC
Published Species Reactivity: Human, Cynomolgus Monkey
Immunogen: The original antibody was generated from a human naïve scFv phage display library and later on made into a human IgG1 isotype format.
Specificity: This antibody binds human EpCAM. It also cross reactis with cynomolgus monkey EpCAM.
Application Notes: The antibody specifically interacts with the naturally EpCAM+Kato III cell line by flow cytometric analysis. The IgG format of the antibody bound to both human and cynomolgus EpCAM under non-reducing conditions in western blot analysis. In contrast, no binding of the antibody was observed to any reduced EpCAM antigen. Further, ELISA data demonstrated good binding of the scFv and IgG formats of the antibody to both human and cynomolgus EpCAM. The binding affinity of the IgG1 format to human and monkey EpCAM was measured by surface plasmon resonance (Kd= 1 nM and 0.93 nM respectively). The ability of the IgG format of the antibody to induce ADCC was analyzed using three different breast cancer cell lines MDA-MB-231, MDA-453 and BT-474. The results clearly demonstrated that the antibody induced ADCC in all the three cell lines MDA-MB-453, MDA-MB-231 and BT-474 in the presence of human PBMCs. EC50 values were estimated to be 0.08 ng/ml, 15 ng/ml and 0.12 ng/ml for these cell lines, respectively. The achieved maximum killing was 75%, 92% and 61%, respectively. The ability of the IgG version of the antibody to induce complement dependent cytotoxicity (CDC) was analyzed using two cell lines KATO III and MT-3. The results clearly demonstrated that the antibody induced CDC in the cell lines KATO III and MT-3 in the presence of human serum (EC50 = 0.28 ng/ml and 0.38 ng/ml for KATO III and MT-3 cells, respectively) (US8637017B2). Immunohistochemistry studies of the reactivity of the IgG2A format of the antibody were performed on a panel of normal human tissues. The antibody showed a strong reaction to

sloughed cells of esophagus sample, colon cancers, breast cancers, and lung cancers with epithelial origin. The antibody was conjugated to Strepsaporin. PCI of 3–17I-saporin attenuated cellular viability in three different EpCAM-positive cancer cell lines (MCF7, BxPC-3 and WiDr) as measured by MTS assay. Further, PCI of 3–17I-saporin attenuated both proliferation and colony forming ability of EpCAM-positive MCF7 cells (Lund et al., 2014; PMID: 24525727).

Antibody First Published in: Lund et al. The novel EpCAM-targeting monoclonal antibody 3-17I linked to saporin is highly cytotoxic after photochemical internalization in breast, pancreas and colon cancer cell lines. MAbs. Jul-Aug 2014;6(4):1038-50. PMID:24525727

Note on publication: Explores the therapeutic potential of this antibody by using 3–17I-saporin conjugate and checking it cytotoxicity after photochemical internalization.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4^{o}C for up to 3 months. For longer storage, aliquot and store at -20^{o}C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.