Overview

Product name: Anti-MUC16 antibody [OC125]
Description: Mouse monoclonal [OC125] to MUC16
Host species: Mouse
Specificity: Studies have shown that this antibody reacts with approximately 80% of epithelial ovarian neoplasms of serous, endometrioid, clear cell and undifferentiated types. No reactivity has been shown for mucinous ovarian tumors or in germ cell or hematopoietic tumors. It reacts with both normal tissues and neoplasms of fallopian tube, endometrium, endocervix and mesothelioma. It does not react with colon cancer. Normal tissues such as breast, liver, skin, kidney and spleen are negative.

Tested applications: Suitable for: Flow Cyt, IHC-P
Species reactivity: Reacts with: Human
Immunogen: Partially purified human mucin fraction from a pool of tissues from patients with epithelial ovarian cancer.
Epitope: This antibody recognizes an epitope on a molecule called Cancer Antigen 125 (CA125).
Positive control: Flow cytometry: HeLa cells. IHC-P: Ovarian cancer tissue.

Properties

Form: Liquid
Storage instructions: Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer: pH: 7.30
Preservative: 0.09% Sodium azide
Constituents: PBS, 1% BSA, Renoir Red diluent
Clonality: Monoclonal
Clone number: OC125
Isotype: IgG1

Applications

Our Abpromise guarantee covers the use of ab693 in the following tested applications.
Function
Thought to provide a protective, lubricating barrier against particles and infectious agents at mucosal surfaces.

Tissue specificity
Expressed in corneal and conjunctival epithelia (at protein level). Overexpressed in ovarian carcinomas and ovarian low malignant potential (LMP) tumors as compared to the expression in normal ovarian tissue and ovarian adenomas.

Sequence similarities
Contains 2 ANK repeats.
Contains 56 SEA domains.

Domain
Composed of three domains, a Ser-, Thr-rich N-terminal domain, a repeated domain containing more than 60 partially conserved tandem repeats of 156 amino acids each (AAs 12061-21862) and a C-terminal transmembrane contain domain with a short cytoplasmic tail.

Post-translational modifications
Heavily O-glycosylated; expresses both type 1 and type 2 core glycans.
Heavily N-glycosylated; expresses primarily high mannose and complex bisecting type N-linked glycans.
May be phosphorylated. Phosphorylation of the intracellular C-terminal domain may induce proteolytic cleavage and the liberation of the extracellular domain into the extracellular space.
May contain numerous disulfide bridges. Association of several molecules of the secreted form may occur through interchain disulfide bridges providing an extraordinarily large gel-like matrix in the extracellular space or in the lumen of secretory ducts.

Cellular localization
Cell membrane. Secreted > extracellular space. May be liberated into the extracellular space following the phosphorylation of the intracellular C-terminus which induces the proteolytic cleavage and liberation of the extracellular domain.

Images

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use 1μg for 10^6 cells. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.</td>
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<tr>
<td>IHC-P</td>
<td>1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. ABC Method.</td>
<td></td>
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Target

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Overlay histogram showing HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained with ab693 (red line). The cells were fixed with 80% methanol (5 minutes) and then permeabilized with 0.1% PBS-Tween for 20 minutes. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab693, 1 µg/1x10^6 cells) for 30 minutes at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 minutes at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 minutes)/permeabilized with 0.1% PBS-Tween for 20 minutes used under the same conditions.

Paraffin embedded human ovarian cancer tissue stained for MUC16 with ab693 (1/50 dilution) in immunohistochemical analysis.

Please note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”

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