# CA125 Antibody for IHC / Mucin 16 [clone CA125/9923R] (V6041)

| Catalog No. | Formulation | Size |
|---|---|---|
| V6041-100UG | 0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide | 100 ug |
| V6041-20UG | 0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide | 20 ug |
| V6041SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

Recombinant RABBIT MONOCLONAL

**Bulk quote request**

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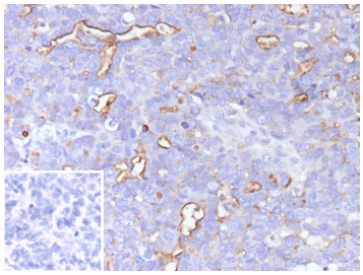
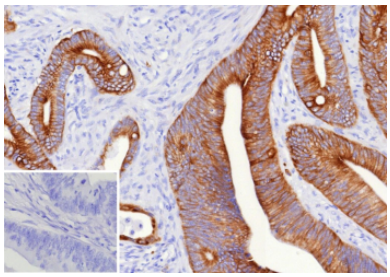
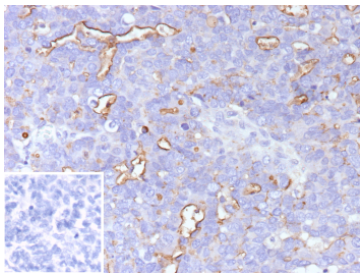
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Recombinant Rabbit Monoclonal |
| **Isotype** | Rabbit IgG, kappa |
| **Clone Name** | CA125/9923R |
| **UniProt** | Q8WXI7 |
| **Localization** | Cell membrane, Extracellular space, Secreted |
| **Applications** | ELISA :<br>Immunohistochemistry (FFPE) : 1-2ug/ml |
| **Limitations** | This CA125 antibody is available for research use only. |



Immunohistochemistry analysis of CA125 Antibody (Clone CA125/9923R) in FFPE human ovarian carcinoma tissue. Focal membranous and apical cytoplasmic HRP-DAB brown staining is observed in malignant epithelial cells, consistent with MUC16 / ovarian cancer antigen 125 expression in ovarian carcinoma, while surrounding stromal cells are largely negative. This CA125 Antibody for IHC demonstrates distinct epithelial surface localization in tumor cells. The inset shows PBS used in place of the primary antibody as a secondary-only negative control. Heat-induced epitope retrieval was performed in 10mM Tris with 1mM EDTA, pH 9.0, at 95oC for 45 minutes followed by cooling at room temperature for 20 minutes.



Immunohistochemistry analysis of CA125 Antibody (Clone CA125/9923R) in FFPE human colon carcinoma tissue. Strong apical and membranous HRP-DAB brown staining is observed in malignant gland-forming epithelial cells, consistent with MUC16 / cancer antigen 125 expression in colon carcinoma, while adjacent stromal elements are largely negative. This CA125 Antibody for IHC demonstrates clear epithelial surface localization within tumor glands. The inset shows PBS used in place of the primary antibody as a secondary-only negative control. Heat-induced epitope retrieval was performed in 10mM Tris with 1mM EDTA, pH 9.0, at 95oC for 45 minutes followed by cooling at room temperature for 20 minutes.



SDS-PAGE Analysis of Purified CA125 Antibody (clone CA125/9923R). Confirmation of Purity and Integrity of Antibody.

## Description

CA125 Antibody recognizes Mucin 16 (MUC16), a very high molecular weight transmembrane glycoprotein widely known as cancer antigen 125 and ovarian cancer antigen 125. MUC16 is a membrane-associated mucin characterized by extensive O-linked glycosylation, multiple tandem repeat domains, and a large extracellular region that can be proteolytically shed into circulation. CA125 Antibody for IHC is designed for immunohistochemical detection of MUC16 expression in epithelial and tumor tissues in research applications.

MUC16 antibody, also referred to as CA125 antibody and Mucin-16 antibody in the literature, targets a mucin primarily expressed on the apical surface of epithelial cells lining the female reproductive tract, including endometrium and fallopian tube, as well as in ocular and respiratory epithelium. Under physiologic conditions, MUC16 contributes to epithelial barrier integrity, lubrication, and protection against environmental stress. Proteolytic cleavage of its extracellular domain generates circulating CA125, which is widely used as a serum biomarker for monitoring ovarian carcinoma.

The MUC16 gene is located on human chromosome 19p13.2 and encodes one of the largest membrane-associated proteins identified. Structurally, MUC16 contains numerous SEA domains, extensive tandem repeat regions, a transmembrane segment, and a short cytoplasmic tail involved in intracellular signaling interactions. MUC16 has been shown to interact with mesothelin and contribute to tumor cell adhesion and peritoneal dissemination in ovarian carcinoma models.

Aberrant overexpression of MUC16 is most strongly associated with epithelial ovarian carcinoma and is also observed in subsets of endometrial, pancreatic, breast, lung, and gastrointestinal carcinomas. In histologic sections, MUC16 typically demonstrates apical membranous and cytoplasmic staining in positive epithelial tumor cells. A CA125 antibody is commonly applied in research settings to evaluate epithelial differentiation and tumor origin. Clone CA125/9923R is a recombinant rabbit monoclonal antibody developed to target MUC16 in experimental systems.

## Application Notes

Optimal dilution of the CA125 antibody should be determined by the researcher.

## Immunogen

Recombinant human Mucin 16 protein was used as the immunogen for the CA125 antibody.

## Storage

CA125 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.