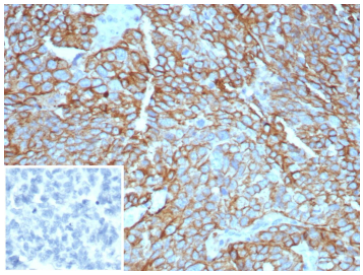
Cancer antigen 125 Antibody / CA125 [clone CA125/8893] (V6040)

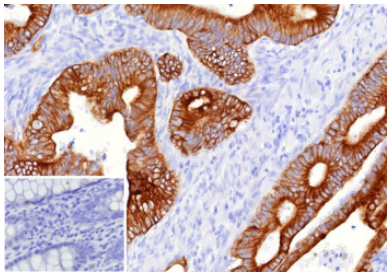
Catalog No.	Formulation	Size
V6040-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V6040-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V6040SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

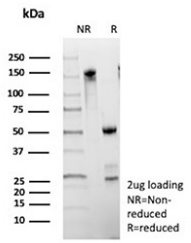
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CA125/8893
UniProt	Q8WXI7
Localization	Cell membrane, Extracellular space, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Cancer antigen 125 antibody is available for research use only.



Immunohistochemistry analysis of Cancer antigen 125 Antibody (Clone CA125/8893) in FFPE human ovarian carcinoma tissue. Strong membranous and apical cytoplasmic HRP-DAB brown staining is observed in malignant epithelial cells forming solid and glandular structures, consistent with overexpression of MUC16 / CA125 in ovarian carcinoma, while surrounding stromal elements are largely negative. 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 Cancer antigen 125 Antibody (Clone CA125/8893) 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 / CA125 expression in colon carcinoma, while adjacent stromal elements are largely negative. 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 Cancer antigen 125 antibody (clone CA125/8893). Confirmation of Purity and Integrity of Antibody.

Description

Cancer antigen 125 Antibody recognizes Mucin 16 (MUC16), a very high molecular weight transmembrane glycoprotein widely known as CA125 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. Cancer antigen 125 Antibody is useful for detecting 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 protection, lubrication, and defense against environmental stress. Release of its extracellular domain forms circulating CA125, which serves as a widely used 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, the protein contains numerous SEA domains, extensive tandem repeats, a transmembrane region, and a short cytoplasmic tail that participates in intracellular signaling interactions. MUC16 has been shown to bind mesothelin and contribute to tumor cell adhesion and peritoneal dissemination in ovarian cancer 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, tumor origin, and mucin biology. Clone CA125/8893 is a mouse monoclonal antibody developed to target MUC16 in experimental systems.

Application Notes

Optimal dilution of the Cancer antigen 125 antibody should be determined by the researcher.

Immunogen

A recombinant fragment (around amino acids 1700-2000) of human MUC16 protein (exact sequence is proprietary) was used as the immunogen for the Cancer antigen 125 antibody.

Storage

Cancer antigen 125 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.