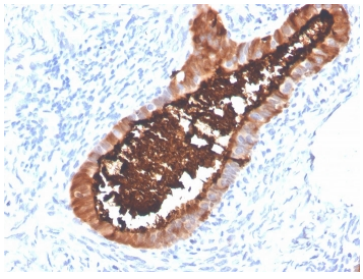
Recombinant MUC16 Antibody / CA125 [clone OCA125/4505R] (V8758)

Catalog No.	Formulation	Size
V8758-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8758-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8758SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

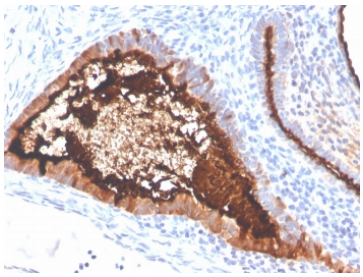
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	OCA125/4505R
Purity	Protein A affinity chromatography
UniProt	Q8WXI7
Localization	Cell surface, cytoplasmic, secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This recombinant MUC16 antibody is available for research use only.



Immunohistochemistry analysis of Recombinant MUC16 Antibody in FFPE human ovarian carcinoma tissue. Strong membranous and apical cytoplasmic HRP-DAB brown staining is observed in malignant epithelial cells, consistent with overexpression of MUC16 / CA125 in ovarian carcinoma, while surrounding stromal cells are largely negative. Clone OCA125/4505R demonstrates clear epithelial surface localization. Heat-induced epitope retrieval was performed in pH 9 Tris-EDTA buffer (10mM Tris, 1mM EDTA) for 20 minutes followed by cooling prior to staining.



IHC staining of FFPE human ovarian carcinoma with recombinant MUC16 antibody (clone OCA125/4505R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

Recombinant MUC16 Antibody recognizes Mucin 16 (MUC16), a high molecular weight transmembrane glycoprotein commonly known as CA125. MUC16 is a member of the mucin family characterized by extensive O-linked glycosylation and a large extracellular tandem repeat domain. The Recombinant MUC16 Antibody is designed for detection of MUC16 expression in research applications involving epithelial and tumor tissues.

MUC16 antibody, also referred to as CA125 antibody and Ovarian cancer antigen 125 antibody in the literature, targets a heavily glycosylated mucin primarily expressed on the apical surface of epithelial cells lining the respiratory, ocular, and female reproductive tracts. MUC16 plays a role in epithelial barrier function, lubrication, and protection against mechanical stress and pathogens. In normal tissues, expression is most prominent in endometrium, fallopian tube, and ocular surface epithelium, while limited or absent in most other non-secretory tissues.

The MUC16 gene is located on human chromosome 19p13.2 and encodes one of the largest membrane-associated mucins. Structurally, the protein contains multiple SEA domains, extensive tandem repeat regions, and a short cytoplasmic tail that participates in intracellular signaling interactions. MUC16 can undergo proteolytic cleavage, releasing its extracellular portion into circulation, which forms the basis of the widely used serum CA125 biomarker in ovarian carcinoma monitoring.

Aberrant overexpression of MUC16 is strongly associated with epithelial ovarian carcinoma and is also observed in subsets of endometrial, pancreatic, breast, and lung carcinomas. Tumor-associated MUC16 contributes to immune evasion, tumor progression, and metastasis through interactions with mesothelin and modulation of immune cell function. In histologic sections, MUC16 typically demonstrates membranous and apical cytoplasmic staining in positive epithelial cells. A MUC16 antibody is commonly used in research settings to evaluate epithelial differentiation, tumor origin, and mucin biology. Clone OCA125/4505R is a recombinant rabbit monoclonal antibody developed to target MUC16 in experimental systems.

Application Notes

Optimal dilution of the recombinant MUC16 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 12201-12300 from the human protein was used as the immunogen for the recombinant MUC16 antibody.

Storage

Store the recombinant MUC16 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).