

Mucin 16 Active Protein | MUC16 active protein

Mucin 16, Recombinant, Human (CA125, FLJ14303, Ovarian Carcinoma Antigen CA 125)

CATALOG #
AAA14758

PRODUCT SYNONYMS

Mucin 16; Recombinant; Human (CA125; FLJ14303; Ovarian Carcinoma Antigen CA 125); MUC16 active protein

PRODUCT SPECIFICATIONS

Purity/Purification	Purified 90% as determined by SDS-PAGE under reducing conditions and visualized by silver stain. Endotoxin: <1EU/ug protein (LAL)
Form/Format	Supplied as a lyophilized powder from PBS, pH 7.4.
Application Notes	SDS-PAGE: 170-200kD, reducing conditions.
Source	Human Mucin 16 (Met13360-Gln 14347 (Met13472Thr & Gln 13957Lys) with a (-terminal 6-His tag, expressed in Chinese hamster ovary eCHO) cells (NP 078966.2)
Biological Activity	Measured by its binding ability in a functional ELISA. When recombinant human MUC-16 is coated at 1ug/ml (100ul/well), the concentration of recombinant human Galectin-3 that produces 50% of the optimal binding response is found to be ~0.35-1.4ug/ml.
Reconstitution	Reconstitute with 200ul sterile PBS
SDS-PAGE	170-200kD, reducing conditions.
Preparation and Storage	Lyophilized powder may be stored at -20 degree C. Stable for 6 months at -20 degree C. Reconstitute with sterile PBS. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Reconstituted product is stable for 6 months at -20 degree C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

ADDITIONAL INFORMATION

Related Product Information for MUC16 active protein	MUC16, also known as the CA125 antigen, is a mucin protein that may be found in type I transmembrane or secreted forms that are used monitor the progress of epithelial ovarian cancer therapy. Expression of isoforms, proteolytic cleavage, and heavy N- and O- linked glycosylation produce forms of human MUC16 that can vary from 1148-22152aa in length and 200-5000kD in size. The 22152aa form contains ser/thr-rich N-terminal tandem repeats, 4 LRR (Leu-rich repeat) domains, 56 SEA (sea urchin sperm protein, enterokinase and agrin) domains, a transmembrane domain, and a 31aa cytoplasmic domain that includes a tyrosine phosphorylation site. SEA domains are ~120aa in length, contain conserved residues including potential O-glycosylation sites and a pair of cysteines, and are of ten found in transmembrane mucins. The protein represents aa21102-21992 of the full sequence and includes the last 6 SEA domains. It shares 68% aa identity with canine MUC16. MUC16 is overexpressed by tumor cells including ovarian and mesothelial cancers. The transmembrane form can adhere to mesothelin in the peritoneum, facilitating metastasis of ovarian cancer to the peritoneal cavity. MUC16 also binds galectin-1 on immune cells and enhances its expression on tumor cells. MUC16-expressing tumors adhere to NK cells, downregulate CD16 and suppress NK response, which may promote immune evasion. MUC16 is also cyclically expressed in the endometrium and may contribute to immune privilege during pregnancy. In the eye, MUC16 and other mucins protect the cornea and keep it hydrated. It is altered on the conjunctival epithelium of patients with non-Sjogren dry eye syndrome.
Product Categories/Family for MUC16 active protein	Molecular Biology ; MB-Proteins

NCBI AND UNIPROT INFORMATION

NCBI GI #	83367077
NCBI GeneID	94025
NCBI Accession #	NP_078966.2
NCBI GenBank Nucleotide #	NM_024690.2
UniProt Accession #	Q8WXI7; Q6ZQW5; Q96RK2
Molecular Weight	110kD
NCBI Official Full Name	mucin-16
NCBI Official Synonym Full Names	mucin 16, cell surface associated
NCBI Official Symbol	MUC16
NCBI Official Synonym Symbols	CA125
NCBI Protein Information	mucin-16; CA-125; MUC-16; CA125 ovarian cancer antigen; ovarian carcinoma antigen CA125; ovarian cancer-related tumor marker CA125
UniProt Protein Name	Mucin-16
UniProt Gene Name	MUC16
UniProt Synonym Gene Names	CA125; MUC-16; CA-125
UniProt Entry Name	MUC16_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/active-protein/mucin-16/14758>