CA125 Antibody [OCA125/1900]

Format	Catalog No.	Pack size	Dilution
Concentrated	G94025 A, B, C	0.1, 0.5, 1.0 mL	1:100 - 200
Prediluted	G94025 AA, BB	6.0, 3.0 mL	Ready to use

ANTIBODY SPECIFICATIONS

- **HOST SPECIES**: Mouse
- **CLONE**: OCA125/1900
- **ISOTYPE**: IgG1/Kappa
- **CELLULAR LOCALIZATION:** Cell membrane, Extracellular space, Secreted
- **IMMUNOGEN:** Full length native MUC16 protein purified from human ovarian carcinoma
- **MOLECULAR WEIGHT:** ~200-2000 kDa.
- **SPECIES REACTIVITY:** Human
- **POSITIVE CONTROL:** MDA-MB-468 cells. Ovarian Cancer

INTENDED USE

This antibody is intended **for research use only (RUO)** and is not approved for diagnostic or therapeutic applications. It is optimized for the detection of CA125 protein in formalin-fixed, paraffin-embedded (FFPE) human tissues by immunohistochemistry (IHC).

SUMMARY AND APPLICATION

A highly glycosylated class of secreted proteins, mucins have a fundamental structure made up of a variable number of tandem repeats (VNTRs). High molecular weight glycoproteins of the glycocalyx (polysaccharide biofilm) that shield the mucosal epithelium from particles and microbes are known as membrane-associated and secretory mucins. Large, secreted glycoproteins found on the cell surface, epithelial mucins are essential for signalling, adhesion regulation, and epithelial cell defence. The quantity of repeats varies among alleles and is highly variable. Mucins 1-4, Mucins 5 (AC and B), Mucins 6-8, Mucins 11-13, and Mucins 15-17 make up the Mucin family.

SCIENTIFIC BACKGROUND:

The gene MUC16 encodes the Mucin 16 protein, also known as CA125. It is a very high molecular weight tumour antigen that is composed of three domains: an amino terminal domain, an extracellular domain, and a carboxy terminal domain. An antigen linked to ovarian cancer, mucin 16, is employed as a marker to track the development of epithelial ovarian cancer. This hydrophilic membrane-associated protein might have a role in the actions of vitamin A.

RECOMMENDED USAGE

- **IHC Protocol Highlights:**
    - Dilution: 1–2 µg/mL
    - Incubation: 30 minutes at room temperature

  - Antigen Retrieval: Heat in 10 mM Tris with 1 mM EDTA (pH 9.0) at 95°C for 45 minutes, followed by cooling
- **Specimen Type**: FFPE sections, preferably ~4 µm

FORMULATION & STORAGE:

- Buffer: 10 mM PBS, 0.05% BSA, 0.05% sodium azide
- Storage:
  - Dilution: 1–2 µg/Ml
  - Without azide: –20 to –80°C
- Shelf Life: 24 months under proper conditions
- Hazard Classification: Non-hazardous; no MSDS required

LIMITATIONS

- Interpretation must be made by a qualified pathologist
- Tissue fixation and handling may affect staining quality
- Negative results do not always indicate absence of antigen—consider panel testing

PRECAUTIONS

- Contains 0.05% sodium azide – avoid ingestion and contact with skin or mucosa
- Wear gloves and avoid contact with eyes or mucosa
- Do not use reagents past expiration or if packaging appears compromised
- Do not pipette by mouth or reuse slides/containers without proper sterilization

TECHNICAL SUPPORT

For technical assistance, please contact Genebio Solution's Technical Support at www.genebiosolution.com