Anti-MUC16 Antibody [PD01-13]

HA721217

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IHC-P, WB, IF-Tissue
Molecular Wt:	Predicted band size: 1,519 kDa
Clone number:	PD01-13

Description: Mucin-16 (MUC-16) also known as Ovarian cancer-related tumor marker CA125 is a protein that in humans is encoded by the MUC16 gene. MUC-16 is a member of the mucin family glycoproteins. MUC-16 has found application as a tumor marker or biomarker that may be elevated in the blood of some patients with specific types of cancers, most notably ovarian cancer, or other conditions that are benign. MUC16 is a component of the ocular surface (including the cornea and conjunctiva), the respiratory tract and the female reproductive tract epithelia. Since MUC16 is highly glycosylated it creates a hydrophilic environment that acts as a lubricating barrier against foreign particles and infectious agents on the apical membrane of epithelial cells. Also, the cytoplasmic tail of MUC16 has been shown to interact with cytoskeleton by binding members of the ERM protein family. The expression of mucin 16 has been shown to be altered in dry eye, cystic fibrosis, and several types of cancers.

Immunogen: Synthetic peptide.

Positive control: Human ovarian serous carcinoma tissue, human endometrium tissue, human ovary cancer tissue, NIH:OVCAR-3 cell lysate, HeLa cell lysate.

Subcellular location: Cell membrane, secreted, extracellular space.

Database links: SwissProt: Q8WXI7 Human

Recommended Dilutions:

IHC-P	1:1,000-1:2,000
WB	1:1,000
IF-Tissue	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

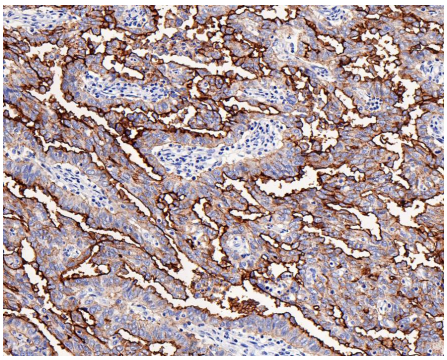

Fig1: Immunohistochemical analysis of paraffin-embedded human ovarian serous carcinoma tissue with Rabbit anti-MUC16 antibody (HA721217) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721217) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

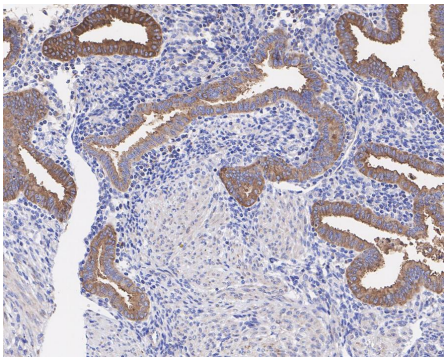

Fig2: Immunohistochemical analysis of paraffin-embedded human endometrium tissue with Rabbit anti-MUC16 antibody (HA721217) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721217) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

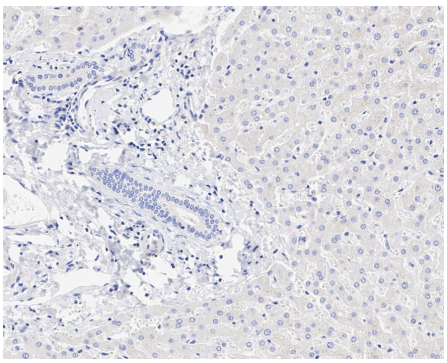

Fig3: Immunohistochemical analysis of paraffin-embedded human liver tissue (negative) with Rabbit anti-MUC16 antibody (HA721217) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721217) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

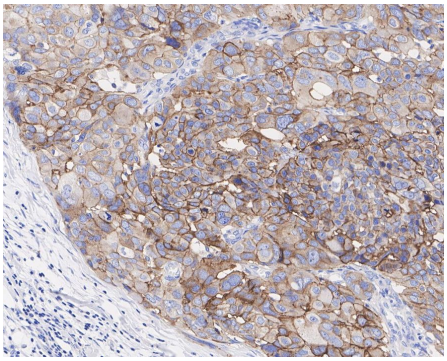

Fig4: Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue with Rabbit anti-MUC16 antibody (HA721217) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA721217) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

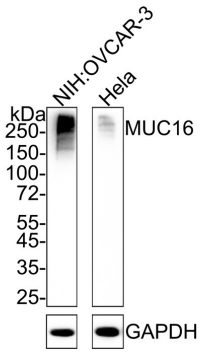

Fig5: Western blot analysis of MUC16 on different lysates with Rabbit anti-MUC16 antibody (HA721217) at 1/1,000 dilution.

Lane 1: NIH:OVCAR-3 cell lysate
Lane 2: HeLa cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 1519 kDa

Exposure time: 25 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721217) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

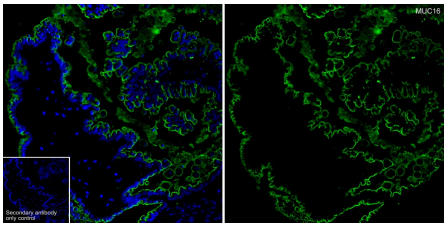

Fig6: Application: IF-Tissue

Species: Human

Site: ovarian serous carcinoma

Sample: Paraffin-embedded section

Antibody concentration: 1/1,000

Background References

1. Giamougiannis P et al. The evolving role of MUC16 (CA125) in the transformation of ovarian cells and the progression of neoplasia. Carcinogenesis. 2021 Apr
2. Wang F et al. MUC16 promotes EOC proliferation by regulating GLUT1 expression. J Cell Mol Med. 2021 Mar