**Mucin 16 (C-6): sc-365002**

**BACKGROUND**

The Mucins are a family of highly glycosylated, secreted proteins with a basic structure consisting of a variable number of tandem repeats (VNTRs). Membrane-associated and secretory Mucins are high molecular weight glycoproteins of the glycocalyx (polysaccharide biofilm) that protects mucosal epithelium from particulate matter and microorganisms. Epithelial Mucins are large, secreted and cell surface glycoproteins crucial for adhesion modulation, signaling and epithelial cell protection. The number of repeats is highly polymorphic and varies among different alleles. The Mucin family consists of Mucins 1-4, Mucin 5 (AC and B), Mucins 6-8, Mucins 11-13 and Mucins 15-17. The Mucin 16 protein (also commonly referred to as CA125), encoded for by the gene MUC16, is a very high molecular weight tumor antigen consisting of three domains: a carboxy terminal domain, an extracellular domain and an amino terminal domain. Mucin 16, an ovarian cancer-associated antigen, is used as a marker to monitor the progress of epithelial ovarian cancer. It is a hydrophilic membrane-associated protein that may be involved in vitamin A functions.

**CHROMOSOMAL LOCATION**

Genetic locus: MUC16 (human) mapping to 19p13.2.

**SOURCE**

Mucin 16 (C-6) is a mouse monoclonal antibody raised against amino acids 6419-6568 mapping near the C-terminus of Mucin 16 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Mucin 16 (C-6) is available conjugated to agarose (sc-365002 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365002 BP-HRP), 200 µg/ml, for WB, (HCIP) and ELISA; to either phycocyanin (sc-365002 PE), fluorescein (sc-365002 FITC), Alexa Fluor® 488 (sc-365002 AF488), Alexa Fluor® 546 (sc-365002 AF546), Alexa Fluor® 594 (sc-365002 AF594) or Alexa Fluor® 647 (sc-365002 AF647), 200 µg/ml, for WB (RGB), IF, HCIP and FCM; and to either Alexa Fluor® 680 (sc-365002 AF680) or Alexa Fluor® 790 (sc-365002 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and CMC.

**APPLICATIONS**

Mucin 16 (C-6) is recommended for detection of Mucin 16 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Suitable for use as control antibody for Mucin 16 siRNA (h): sc-44971, Mucin 16 shRNA Plasmid (h): sc-44971-SH and Mucin 16 shRNA (h) Lentiviral Particles: sc-44971-V.

Molecular Weight of Mucin 16: 200-2000 kDa.

Positive Controls: MES-SA/Dx5 cell lysate: sc-2284, MDA-MB-468 cell lysate: sc-2282 or HeLa whole cell lysate: sc-2200.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

Mucin 16 (C-6): sc-365002. Near-infrared western blot analysis of Mucin 16 expression in MUC-16 transfected cells. Western blot using m-IgGx BP-FL, Lane A (sc-516102, 1:1000) and Lane B (sc-516140, 1:200) with UltraCruz® Western Blotting Luminol Reagent. Mucin 16 (C-6): sc-365002. Immunofluorescence staining of methanol-fixed HeLa cells showing cell surface localization (A). Immunofluorescence staining of formalin-fixed A-431 cells showing Golgi apparatus localization (B).

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

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