**Antibodies**

**Anti-Human MUC1 (CD227) Antibody, Clone 16A, APC**

Mouse monoclonal IgG1 antibody against human MUC1 (CD227), APC-conjugated

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<th>Test Count</th>
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The 16A antibody reacts with human MUC1, a large (> 250 kDa) heavily glycosylated type 1 transmembrane protein expressed on the surface of most glandular and ductal epithelial cells and a variety of hematopoietic cells. A characteristic feature of the MUC1 glycoprotein is a core domain composed of a variable number of tandem repeats and multiple oligosaccharide side chains. Because the extracellular portion of MUC1 can extend beyond most cell surface proteins, it is thought to play a role in cell-cell and cell-substrate adhesion. The protein is highly expressed by a majority of human adenocarcinomas and is associated with a poor prognosis. In the mammary gland, MUC1 is localized on the apical plasma membrane of luminal epithelial cells. The clone 16A antibody has a higher affinity for the glycosylated form of MUC1.

**Target Antigen Name:** MUC1 (CD227)
**Alternative Names:** CD227, EMA, Episialin, Epithelial membrane antigen, HMFG antigen, MAM6, Mucin 1, PEM, Polymorphic epithelial mucin
**Gene ID:** 4582
**Species Reactivity:** Human
**Host Species:** Mouse (C57BL/6)
**Clonality:** Monoclonal
**Clone:** 16A
**Isotype:** IgG1, lambda
**Immunogen:** Jurkat cells expressing MUC1
**Conjugate:** APC (Allophycocyanin)

**Applications**

**Verified:** FC
**Reported:** FC
**Special Applications:** This antibody clone has been verified for quantifying airway apical epithelial cells cultured in PneumaCult™-ALI Medium (Catalog #05001) in air-liquid interface cultures.

**Properties**

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin (BSA)
**Purification:** The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions. The solution is free of unconjugated APC and unconjugated antibody.
**Stability and Storage:** Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
**Directions for Use:** For flow cytometry, the suggested use of this antibody is 5 μL per 1 x 10^6 cells in 100 μL. It is recommended that the antibody be titrated for optimal performance for each application.

**Abbreviations:** CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting
(A) Flow cytometry analysis of human airway epithelial cells cultured in PneumaCult™-ALI Medium at the air-liquid interface. Cells were enzymatically dissociated and labeled with Anti-Human MUC1 (CD227) Antibody, Clone 16A, APC (filled histogram) or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, APC (Catalog #60070AZ, solid line histogram).

(B) Flow cytometry analysis of human peripheral blood lymphocytes following stimulation with phytohemagglutinin (PHA) for 3 days. Cells were labeled with Anti-Human MUC1 (CD227) Antibody, Clone 16A, APC and Anti-Human CD3 Antibody, Clone UCHT1, FITC (Catalog #60011FI).

(C) Flow cytometry analysis of human peripheral blood lymphocytes following stimulation with PHA for 3 days. Cells were labeled with Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21, APC and Anti-Human CD3 Antibody, Clone UCHT1, FITC.

Related Products
For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References