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

Antibodies

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

Catalog	#60155AZ	100 Tests	5 µL/test
	#60155AZ.1	25 Tests	5 µL/test

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Product Description

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

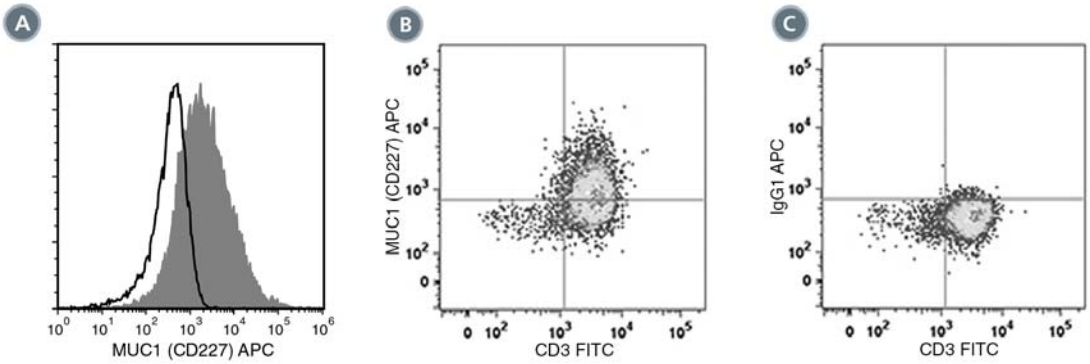
Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for quantifying airway apical epithelial cells cultured in PneumaCult™-ALI Medium (Catalog #05001) in air-liquid interface cultures.

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

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.

Data



(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

1. Qu J et al. (2016) Molecular basis of antibody binding to mucin glycopeptides in lung cancer. Int J Oncol 48(2): 587–94. (FC)
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4. O'Connor JC et al. (2005) MUC1 expression in human prostate cancer cell lines and primary tumors. Prostate Cancer Prostatic Dis 8(1): 36–44.
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