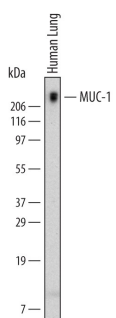
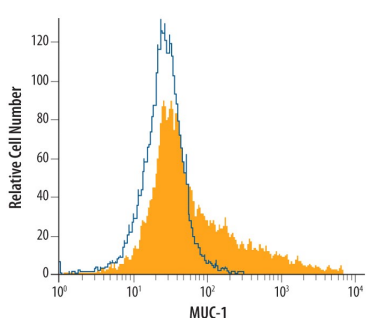
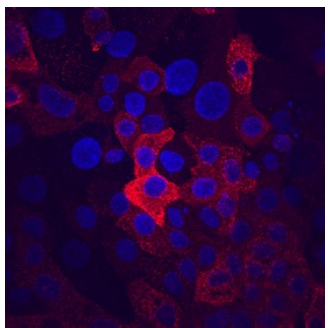
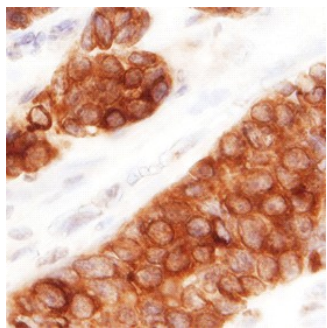
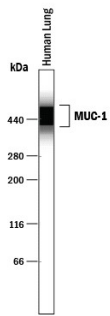


DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human MUC-1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) MUC-20, rhMUC-20S, or rhCA125/MUC-16 was observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 604804
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human MUC-1 Pro126-Arg145 Accession # P15941
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	8-25 µg/mL	See Below
Simple Western	40 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA	
<p>Western Blot</p>  <p>Detection of Human MUC-1 by Western Blot. Western blot shows lysates of human lung tissue. PVDF Membrane was probed with 2 µg/mL of Mouse Anti-Human MUC-1 Monoclonal Antibody (Catalog # MAB6298) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for MUC-1 at approximately 300 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Flow Cytometry</p>  <p>Detection of MUC-1 in MCF-7 Human Cell Line by Flow Cytometry. MCF-7 human breast cancer cell line was stained with Mouse Anti-Human MUC-1 Monoclonal Antibody (Catalog # MAB6298, filled histogram) or isotype control antibody (Catalog # MAB0041, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG F(ab')₂ Secondary Antibody (Catalog # F0101B).</p>
<p>Immunocytochemistry</p>  <p>MUC-1 in Capan-1 Human Cell Line. MUC-1 was detected in immersion fixed Capan-1 human pancreatic adenocarcinoma cell line using Mouse Anti-Human MUC-1 Monoclonal Antibody (Catalog # MAB6298) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>	<p>Immunohistochemistry</p>  <p>MUC-1 in Human Breast. MUC-1 was detected in immersion fixed paraffin-embedded sections of human breast using Mouse Anti-Human MUC-1 Monoclonal Antibody (Catalog # MAB6298) at 15 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>

Simple Western



Detection of Human MUC-1 by Simple Western™. Simple Western lane view shows lysates of human lung tissue, loaded at 0.2 mg/mL. Specific bands were detected for MUC-1 at approximately 300-500 kDa (as indicated) using 40 µg/mL of Mouse Anti-Human MUC-1 Monoclonal Antibody (Catalog # MAB6298). This experiment was conducted under reducing conditions and using the 66-440 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MUC-1 (Mucin-1; also PEM, PEMT, Episialin, tumor-associated mucin, and carcinoma associated mucin) is a 240-450 kDa type I transmembrane glycoprotein. Human MUC-1 is 1255 amino acids (aa) in length and contains a 23 aa signal sequence, a 1135 aa extracellular domain (ECD), a 23 aa transmembrane segment, and a 74 aa cytoplasmic tail. The ECD consists of degenerate tandem repeats and a tandem repeat region, which makes up the major portion of the protein. Potential O-glycosylation sites (serines and threonines) make up more than one-fourth of the amino acids. Splicing variants produce ten isoforms for human MUC-1. Human MUC-1 is 28% aa identical to mouse MUC-1.