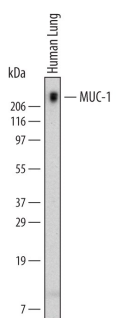
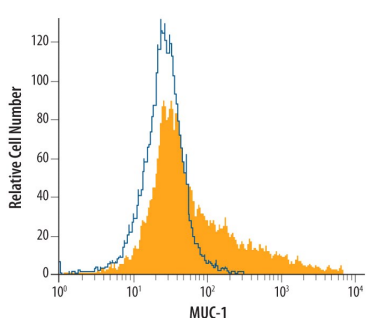
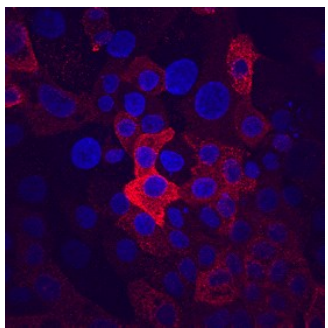
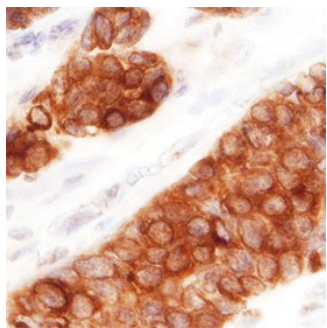
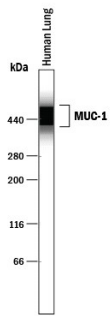


DESCRIPTION	
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human MUC-1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) MUC-20, rhMUC-20S, or rhCA125/MUC-16 was observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 604804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

APPLICATIONS		
<b>Please Note:</b> 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.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	2 µg/mL	See Below
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunohistochemistry</b>	8-25 µg/mL	See Below
<b>Simple Western</b>	40 µg/mL	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA	
<p><b>Western Blot</b></p>  <p><b>Detection of Human MUC-1 by Western Blot.</b> 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><b>Flow Cytometry</b></p>  <p><b>Detection of MUC-1 in MCF-7 Human Cell Line by Flow Cytometry.</b> 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)<sub>2</sub> Secondary Antibody (Catalog # F0101B).</p>
<p><b>Immunocytochemistry</b></p>  <p><b>MUC-1 in Capan-1 Human Cell Line.</b> 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 <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>MUC-1 in Human Breast.</b> 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 &amp; Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm of epithelial cells. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</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**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

MUC-1 (Mucin-1; also PEM, PEPT, 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.