

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Serum Albumin in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 188835
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human Serum Albumin
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.

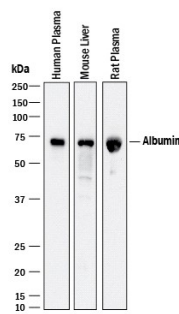
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.2-1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Intracellular Staining by Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Simple Western	1-10 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.	

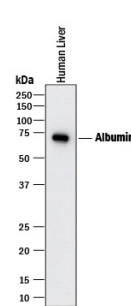
DATA

Western Blot



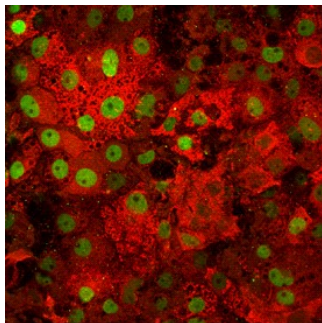
Detection of Human, Mouse, and Rat Albumin by Western Blot. Western blot shows lysates of human plasma, mouse liver tissue, and rat liver tissue. PVDF membrane was probed with 0.2 µg/mL of Mouse Anti-Human/Mouse/Rat Serum Albumin Monoclonal Antibody (Catalog # MAB1455) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Albumin at approximately 65-70 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Western Blot



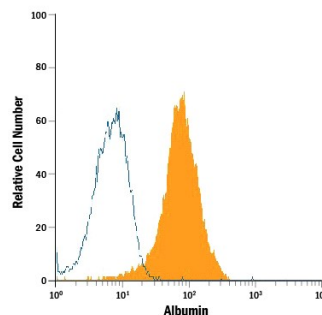
Detection of Human Albumin by Western Blot. Western blot shows lysate of human liver tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat Serum Albumin Monoclonal Antibody (Catalog # MAB1455) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Albumin at approximately 65-70 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry

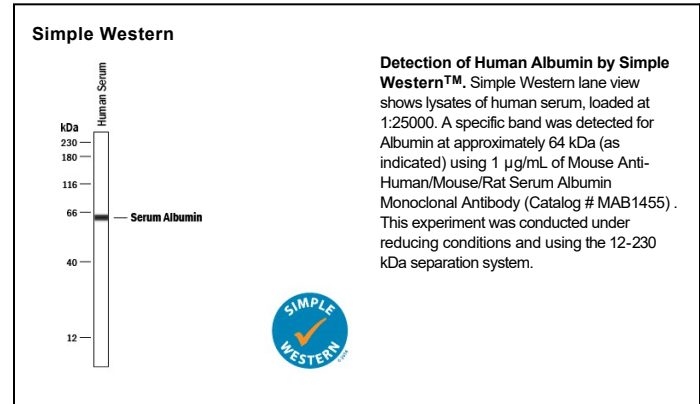
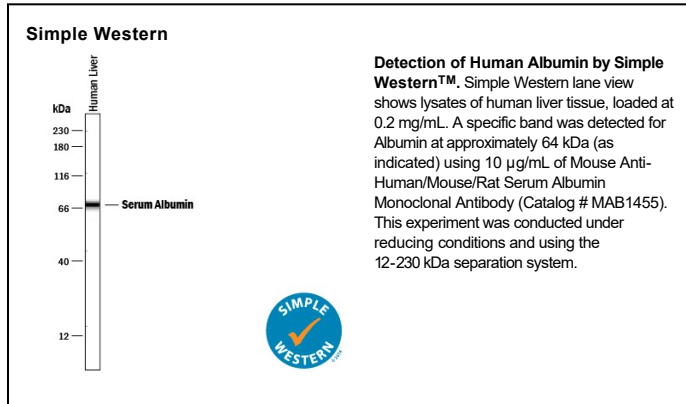


Albumin in Hepatocytes Derived from Human Embryonic Stem Cells. Albumin was detected in immersion fixed BG01V human embryonic stem cells differentiated to hepatocytes using Mouse Anti-Human/Mouse/Rat Serum Albumin Monoclonal Antibody (Catalog # MAB1455) at 10 µg/mL for 3 hours at room temperature. Cells 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 cytoplasm. Cells were co-stained using Sheep Anti-Human CEBP alpha (Catalog # AF7094) and NorthernLights™ 493-conjugated Anti-Sheep IgG Secondary Antibody (green, Catalog # NL012). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of Albumin in HepG2 Human Cell Line by Flow Cytometry. HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human/Mouse/Rat Serum Albumin Monoclonal Antibody (Catalog # MAB1455, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

Albumins are a family of globular proteins, the most common of which are serum albumins. Albumins are commonly found in blood plasma, and are unique from other blood proteins in that they are not glycosylated. Albumin is a 65-70 kDa protein with serum albumin being the main protein of human blood plasma. It binds water, cations (such as Ca²⁺, Na⁺ and K⁺), fatty acids, hormones, bilirubin, thyroxine (T₄) and pharmaceuticals (including barbiturates) - its main function is to regulate the colloidal osmotic pressure of blood. Albumin comprises three homologous domains that assemble to form a heart-shaped molecule. Each domain is a product of two subdomains that possess common structural motifs. The principal regions of ligand binding to human serum albumin are located in hydrophobic cavities in subdomains IIA and IIIA, which exhibit similar chemistry. Structurally, the serum albumins are similar, each domain containing five or six internal disulfide bonds.