

BACKGROUND

Human serum albumin (HSA) is the most abundant protein in human blood plasma. It is synthesized in the liver as preproalbumin, and an N-terminal peptide is removed before the nascent protein is released from the rough endoplasmic reticulum. The product, proalbumin, is cleaved in the Golgi vesicles to produce the secreted albumin.¹

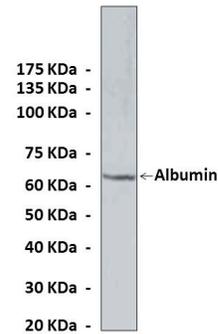
Albumin is essential in maintaining the osmotic pressure for proper distribution of body fluids between intravascular compartments and body tissues. When ionized in water at physiological pH 7.4, albumin is negatively charged. Albumin contains eleven distinct binding domains for hydrophobic compounds. One heme and six long-chain fatty acids can bind to albumin at the same time. Albumin also acts as a plasma carrier by non-specifically binding several hydrophobic steroid hormones.² The general structure of albumin is characterized by several long beta sheets, which allows it to maintain a relatively static shape, which is essential for regulating blood pressure.

Albumin, along with α 1-acid glycoprotein (AGP), are plasma proteins that can act as drug carriers with drug pharmacokinetic implications. Albumin has an important clinical impact for drugs that have a relatively narrow therapeutic index.³

References:

1. Emerson TE: Critical Care Med. 17:690-694, 1989.
2. Zunszain PA et al.: BMC Struct Biol. 3:6, 2003.
3. Fehske KJet al.: Mol. Pharmacol. 21: 387-393, 1982.

QUALITY CONTROL DATA



Western Blot detection of endogenous albumin protein in normal rat hepatocyte (RH) lysates using Albumin antibody.

TECHNICAL INFORMATION

Source:

Albumin Antibody is a mouse monoclonal antibody raised against purified HSA protein.

Specificity and Sensitivity:

This monoclonal antibody detects endogenous levels of albumin protein in normal primary cell lysates.

Storage Buffer: PBS and 30% glycerol

Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	1:50
IHC	1:100
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

