

Product Specification Sheet

**Rat Serum Albumin**

Cat. # ALBR14-N-10 Purified rat serum albumin protein (RSA, >99%, fatty acid and globulin free) **SIZE:** 10 mg

Albumin is the protein of the highest concentration in serum or plasma. Albumin transports many small molecules in the blood (for example, bilirubin, calcium, progesterone, and drugs). It is also of prime importance in maintaining the osmotic pressure of the blood. Albumin is synthesized by the liver. Albumin performs many functions including maintaining the "osmotic pressure" that causes fluid to remain within the blood stream instead of leaking out into the tissues. Liver disease, kidney disease, and malnutrition are the major causes of low albumin. A diseased liver produces insufficient albumin. Diseased kidneys sometimes lose large amounts of albumin into the urine faster than the liver can produce it (this is termed nephrotic syndrome). Plasma albumin concentration is an important indicator of nutritional status, and low concentrations pre-surgery increase the risk of post-operative wound dehiscence, seroma formation and infection. Albumin levels are also dependant on the state of hydration of the body. A person that is dehydrated will have an artificially low albumin level. This returns to normal when the dehydration is corrected. Albumin fluctuates so widely because it is very sensitive to changes in hydration of the body.

Rat serum

**Source of Antigen**

Rat (Sprague-Dawley strain) albumin was purified by salt fractionation and chromatographical methods to (>98%, mol wt ~65 Kda; pI=5.7). During the manufacturing process, albumin preparation is treated with sodium caprylate to remove fatty acids and heated to precipitated gamma-globulins. The purified protein is essentially free from IgG, fatty acids or other contaminating serum proteins.

Fatty acid content:	<0.01%
Gamma-globulins	Not detectable by IEP
Solubility	soluble in water up to 40-50 mg/ml.
Additional tests	Tested in rat BSA ELISA kit #6400

Rat serum albumin is supplied in PBS, pH 7.4 at 1 mg/ml (see lot sp concn on the vial) or in powder form (no buffers or additives). Reconstitute the protein PBS or other buffers at 1 mg/ml or other desired concentrations. Store powder at 4oC and reconstituted solution at -20oC. Avoid repeated freeze and thaw.

**Stability:** 6-12 months at -20oC or below.

**Recommended Usage**

Rat serum albumin can be used a carrier protein, molecular weight standards, antigen or ELISA standards.

**References:** Chen RF (1978) JBC 242, 173-181; Jagodzinski, L.L (1981) PNAS 78, 3521-3525; Malamud D (1978) Anal. Biochem. 86, 620-647

\*This product is for In vitro research use only.

**Related material available from ADI**

Catalog#	ProdDescription
800-225-BSA	Albumin (Human, Mouse, rat, bovine and others) removal kit (synthetic dye based matrix; sufficient to remove 250-500 mg BSA from Bioprocessed material), 25 ml aff column

800-302-BSA	Bovine serum albumin (BSA) removal kit (Antibody based aff matrix; sufficient to remove 1-2 mg BSA from Bioprocessed material), 2 ml aff column
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700-1250-10 Albumin-X,	Albumin (multiple species) removal kit (sufficient to remove 6-10 mg albumin or process ~200-300 ul serum; 10 mini-columns ~1.25 ml resin)
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700-300-10 Albumin-X,	Albumin (multiple species) removal kit (sufficient to remove 2-3 mg albumin or process ~50-100 ul serum; 10 mini-columns ~250 ul resin)
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ALBC15-N-10	Chicken Serum Albumin protein purified
ALBH16-R-10	Recombinant (yeast) purified human serum albumin (rHSA)
ALBH17-R-10	Recombinant (plant) purified human serum albumin (rHSA)
ALBH25-N-1	Human serum albumin (HSA), purified (>98%)
ALBH25-N-10	Human serum albumin (HSA), purified (>98%)
ALBHS-15-N	Purified Hamster (syrian) serum albumin protein pure
ALBMK25-N-1	Monkey (Rhesus) Serum Albumin protein, purified
ALBMK35-N-1	Monkey (Cynomologus) Serum Albumin protein, purified
ALBSH20-N-10	Purified Sheep serum albumin protein (antigen grade >99%)
BSA15-AS	Bovine Serum albumin-agarose (aff matrix)

8000	Bovine Albumin (BSA) ELISA Kit, 96 tests, Quantitative
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Anti-human, mouse, rat albumin antibodies and conjugates

Mouse, rat, human Albumin, IgG, IgM, IgE, and other serum protein ELISA kits

ALBR14-N-10

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