

# BSA (F-18): sc-50711

## BACKGROUND

Bovine serum albumin (BSA) is an abundant plasma protein in bovines that is important for maintaining osmotic pressure in blood plasma for proper distribution of body fluids between intravascular compartments and body tissues. BSA is a common buffer component for immunoglobulin type assays due to good solubility characteristics for water, Ca<sup>2+</sup>, Na<sup>+</sup>, K<sup>+</sup>, fatty acids, hormones and bilirubin. BSA makes up about half of the protein in plasma and represents the most stable and soluble protein in the plasma. It is a suitable reagent for laboratories developing immunoassays, mostly due to its availability, solubility and the numerous functional groups present for coupling. The BSA component contains several lysines that are capable of reacting with conjugation sites of linkers, making it applicable as a carrier protein for antigenic compounds.

## REFERENCES

1. Makinodan, T., et al. 1960. Demonstration of a normal serum macroglobulin coprecipitating with the bovine serum albumin (BSA)-chicken anti-BSA precipitate. *J. Immunol.* 85: 439-446.
2. Terman, D.S., et al. 1976. Specific removal of bovine serum albumin (BSA) antibodies *in vivo* by extracorporeal circulation over BSA immobilized on nylon microcapsules. *J. Immunol.* 116: 1337-1341.
3. Angelisova, P., et al. 1986. The characteristics of monoclonal antibodies against human albumin. *Folia Biol.* 32: 289-294.
4. Fuchtenbusch, M., et al. 1997. Antibodies to bovine serum albumin (BSA) in type 1 diabetes and other autoimmune disorders. *Exp. Clin. Endocrinol. Diabetes* 105: 86-91.
5. Ediriwickrema, C.P., et al. 2000. Natural killer cell-dependent immunoglobulin G<sub>2a</sub> anti-bovine serum albumin (BSA) response elicited by high molecular weight dextran-BSA conjugates associated with dextran-mediated macrophage-natural killer cell interaction. *Immunology* 101: 474-483.
6. Kooser, A., et al. 2003. Investigation of the antigen antibody reaction between anti-bovine serum albumin (a-BSA) and bovine serum albumin (BSA) using piezoresistive microcantilever based sensors. *Biosens. Bioelectron.* 19: 503-508.
7. Taguchi, Y., et al. 2004. Binding of estrogen receptor with estrogen conjugated to bovine serum albumin (BSA). *Nucl. Recept.* 2: 5.
8. Haroun, M., 2005. Bovine serum albumin antibodies as a disease marker for hepatitis E virus infection. *J. Biomed. Biotechnol.* 2005: 316-321.

## SOURCE

BSA (F-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BSA of bovine origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-50711 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

BSA (F-18) is recommended for detection of BSA of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BSA (F-18) is also recommended for detection of BSA in additional species, including bovine.

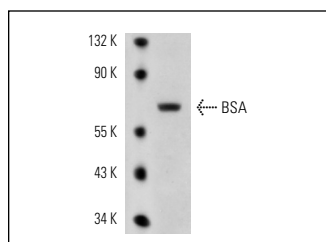
Molecular Weight of BSA: 67 kDa.

Positive Controls: ALB (m2): 293T Lysate: sc-118327, bovine PBL cell lysate or EBTr cell lysate: sc-24669.

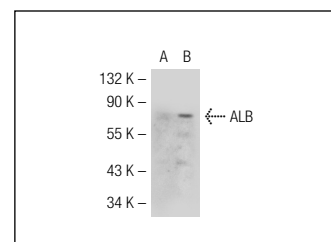
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



BSA (F-18): sc-50711. Western blot analysis of BSA expression in bovine PBL whole cell lysate.



BSA (F-18): sc-50711. Western blot analysis of ALB expression in non-transfected: sc-117752 (A) and mouse ALB transfected: sc-118328 (B) 293T whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.