

## BSA (B-140): sc-50528

### 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. Scott, T. and Eagleson, M. 1988. *Concise Encyclopedia Biochemistry*. New York: Walter de Gruyter.
5. 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.
6. Ediriwickrema, C.P., et al. 2000. Natural killer cell-dependent immunoglobulin G<sub>2α</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.
7. Kooser, A., et al. 2003. Investigation of the antigen antibody reaction between anti-bovine serum albumin (α-BSA) and bovine serum albumin (BSA) using piezoresistive microcantilever based sensors. *Biosens. Bioelectron.* 19: 503-508.

### SOURCE

BSA (B-140) is a rabbit polyclonal antibody raised against amino acids 25-164 mapping near the N-terminus 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.

### STORAGE

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

### APPLICATIONS

BSA (B-140) is recommended for detection of BSA of bovine 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).

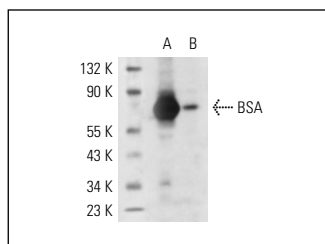
Molecular Weight of BSA: 67 kDa.

Positive Controls: EBTr cell lysate: sc-24669 or bovine PBL whole cell lysate.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



BSA (B-140): sc-50528. Western blot analysis of BSA expression in bovine PBL (A) and EBTr (B) whole cell lysates.

### SELECT PRODUCT CITATIONS

1. Hasegawa, T., et al. 2011. The AAA-ATPase VPS4 regulates extracellular secretion and lysosomal targeting of α-synuclein. *PLoS ONE* 6: e29460.

### RESEARCH USE

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

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Try **BSA (A23-A/D3): sc-65701** or **BSA (5H1): sc-70446**, our highly recommended monoclonal alternatives to BSA (B-140).