



## PRODUCT SPECIFICATION

Recombinant anti-bovine serum albumin (BSA) nanobodies.

Catalogue number: sdAb-BSA-Nb 92/95

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### Background

Serum albumin is by far the most abundant protein in serum and is a non-specific carrier of hormones, ions, lipids and other small molecules. Sometimes albumin can be a disturbing factor in biological experiments and needs to be removed from biological samples. In other circumstances it can be advantageously used to i.e. increase the half life of small compounds, or of another (therapeutic or diagnostic) nanobody (Figure 1), that because of its small size is quickly cleared from the circulation by glomerular filtration. We also provide BSA Nanobodies that can be used for site specific coupling of other compounds.

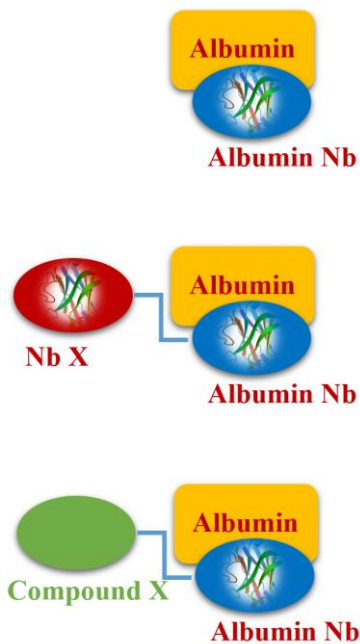
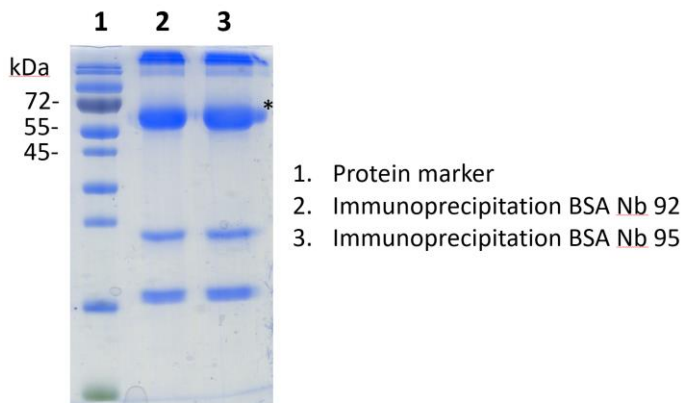


Figure 1: Use of BSA Nanobodies. Bovine serum albumin-specific Nanobodies can be used for removal of serum albumin from biological samples (top), for coupling to another nanobody that targets a component in serum or that is endowed with diagnostic or therapeutic properties (middle), or for coupling to small pharmacological compounds. In the latter two cases, serum half life will be significantly increased due to albumin association.

Applications: PD, IP. This product is for R&D use only, not for drug, diagnostic, therapeutic, household, or other uses.

## Nanobody functionality:

### Pull down of bovine serum albumin.



Procedure: 5  $\mu$ l bovine serum was diluted in 1 ml PBS. 2  $\mu$ g BSA nanobody was added, coupled to anti-HA IgG beads. After 2 hours incubation, the beads were washed 4 times with PBS and 0.5 % Tween20, Laemmli sample buffer was added to the beads and boiled for 2 minutes. The supernatant was fractionated by SDS-PAGE (12%) and the gel was stained with Coomassie brilliant blue. Albumin is indicated by the black asterisk.

### Source and properties

BSA nanobodies were obtained by immunizing a llama with BSA. Their affinity is not yet determined but is expected to be in the nanomolar range.

Availability: BSA Nanobodies 92/95 come with a COOH-terminal HA or Myc tag. Available in 100  $\mu$ g, 500  $\mu$ g, 1000  $\mu$ g quantities. For bulk amounts, please inquire.

Expression host: VHH single domain antibody purified from *E. coli*.

Cross reactivity: BSA Nanobodies do not cross-react with human or mouse serum albumin.

Storage buffer: 20 mM Tris-HCl pH 8.0, 150 mM NaCl, 1mM DTT, 60 % glycerol. Store at -20°C. The sample will not freeze. Maintain sample in cold environment during transport to increase longevity.

Stability: Store at -20°C upon arrival. For long term storage, aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Product citations: /

Please inquire for other available BSA nanobodies, not reported in this datasheet.