Technical Data Sheet

BSA blocking solution

for immunodetection

Order number: **1550**

BSA blocking solution is a well-established, versatile standard blocking buffer for Western Blotting and ELISA applications. BSA blocking solution prevents nonspecific binding of proteins by saturating of free binding sites on plastic surfaces, membranes or other protein binding surfaces. The high purity and control of the raw materials enable good lot-to-lot consistency for this blocking solution based on bovine serum albumins. A high reliability of the assay over years is obtained even when different lots are used. BSA blocking solution contains 0.045% ProClin® 300 (v/v).

Benefits of BSA blocking solution

Albumins are a part of the surrounding matrix of antibodies and can therefore have considerable effects on their binding and activity. Some antibodies even need the presence of albumins in their direct surrounding to achieve optimal binding characteristics. In case of using albumin-sensitive capture antibodies it is beneficial to use BSA as blocking reagent. During blocking with BSA blocking solution, albumin molecules adsorb closely to the coated capture antibodies und enable good binding of these antibodies.

If the capture antibodies do not strongly depend on BSA the blocking efficiency can be increased with modern blockers based on chemically modified molecules. For many assays, Peptide blocking solution[1] (economic) or Casein blocking solution[2] (high-end blocker) are useful alternatives to BSA containing solutions avoiding problems such as BSA-interactions and cross-reactivities caused by BSA. This might be the case e.g., if your assay measures analytes in plasma, serum or tissue specimen.

[1] Peptide blocking solution (BSA-free) 1095 belongs to a new class of blocking solutions with chemical modifications that help to minimize interactions between the blocking layer and the sample matrix. The differently sized molecules of Peptide blocking solution can fill even small gaps on the blocked surface e.g. between close-fitting coated capture antibodies. This enables a sufficient blocking for many assays.

[2] To obtain an even better blocking effectivity compared to Peptide blocking solution, we recommend using Casein high-end blocking solution 1080. It combines the advantages of blockers based on proteins with the good characteristics of modern chemically modified blockers. When reliability and very low coefficients of variation are important for your assay the use of Casein high-end blocking solution is recommended. Casein high-end blocking solution is useable for blocking surfaces in all problematic immunoassays, where other blocking solutions fail.

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Application

BSA blocking solution can be used for ELISA, EIA, Western blotting, immuno-PCR and protein arrays to reduce nonspecific binding. BSA blocking solution is ready-to-use. **Prior to use, BSA blocking solution should be mixed thoroughly.**

After immobilization of capture antibody or target protein BSA blocking solution is added without dilution to wells or membranes. Incubation time has to be adapted by the user, depending on surface characteristics. We recommend blocking over night at +4 °C, but in many cases shorter incubation is also promising. After blocking the surface has to be washed with Washing Buffer to make it useable for the next working steps.

Storage

It is possible to store BSA blocking solution at +2-8°C, or at -20°C. The shelf life of the unopened bottle is 1 year. The buffer tolerates several cycles of freezing and thawing.

Related products

7777	WesternFroxx all-in-one Protein Ladder (15 – 200 kDa) for immunodetection
1052	Protein Ladder (6.5 - 212 kDa), unstained for molecular biology
1123	Protein Ladder (11 – 245 kDa), prestained for molecular biology
1288	Protein Ladder (10 – 180 kDa), prestained for molecular biology
5560	ECL Xtrasensitivity Kit for immunodetection
1080	CleanBlot Background Minimizer for immunodetection
1095	Peptide blocking solution (BSA-free) for immunodetection
1080	Casein high-end blocking solution for immunodetection
1102	Acrylamide Xtra solution 30 % - Mix 37.5:1 for electrophoresis
1248	Acrylamide Xtra solution 40 % - Mix 37.5:1 for electrophoresis
1106	Acrylamide Xtra solution 30 % - Mix 29:1 for electrophoresis
1912	Coomassie® brilliant blue R-250 (C.I. 42660) for biochemistry
1277	SDS Xtrapure for biochemistry
8027	TEMED for biochemistry
1610	Ammonium persulfate for molecular biology
1125	Tris Xtrapure for biochemistry
1275	Glycine for biochemistry

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