

Technical Data Sheet

GENERAL INFORMATION

PRODUCT	rBSA Recombinant Protein PG, expressed in yeast. Lyophilized.
Cat. No. & QUANTITY	MT01G-L1RBSAHB: 1 g MT10G-L1RBSAHB: 10 g
DESCRIPTION	Recombinant Bovine Serum Albumin (rBSA) is an animal-free albumin produced by recombinant expression in yeast. It provides a highly consistent and homogeneous alternative to conventional animal-derived BSA, minimizing lot-to-lot variability associated with biological source materials. rBSA Diagnostic Grade is specifically designed for use in immunoassays and other diagnostic applications, where it can be used as a blocking and stabilizing agent to reduce non-specific interactions and support reliable assay performance. This product is supplied in a freeze-dried version of its well-characterized liquid equivalent, for convenient storage and handling.

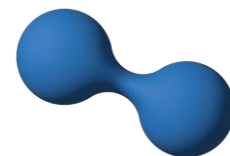
DELIVERY CONDITIONS

SHIPPING CONDITIONS	This protein is shipped and can be stored at Room Temperature (from 15 °C to 30 °C) for 24 months.
SUGGESTED RECONSTITUTION BUFFER	1X PBS buffer (137 mM NaCl, 2.7 mM KCl, 10 mM Na ₂ HPO ₄ , 1.8 mM KH ₂ PO ₄ , pH 7.4).
RECONSTITUTION INSTRUCTIONS	1. Add 10 mL of the suggested Reconstitution Buffer to reconstitute the protein at 100 mg/mL (10%). 2. Gently pipette up and down to dissolve the solid powder. 3. Place on ice and aliquot into smaller volumes to avoid multiple freeze/thaw cycles. 4. Store from -15 °C to -25 °C.
STORAGE CONDITIONS	This lyophilized product can be handled and stored at Room Temperature (from 15 °C to 30 °C) for at least 24 months. After reconstitution, the shelf life is 12 months if stored from -15 °C to -25 °C. Short-term storage at 4 °C is possible. To avoid multiple freeze/thaw cycles, store in multiple aliquots.

INTENDED USE

This product is intended as a raw material for use in regulated IVD and pharmaceutical workflows. Typical applications include its use as a protein carrier, and as a component in rapid diagnostic devices.





PERFORMANCE OF rBSA

Recombinant BSA (rBSA) is widely used as a blocking and stabilizing agent in immunoassays. Levprot's rBSA, produced in yeast and free from animal-derived components, has been benchmarked against conventional serum-derived BSA in a series of ELISA assays. As shown in the figure, comparable performance to animal-derived BSA is achieved when Levprot's rBSA is used at dilutions between 1:20 and 1:100.

In addition, non-specific background was evaluated at the recommended dilutions. As demonstrated in the figure below, when Levprot's rBSA is applied at lower concentrations, the non-specific signal remains stable. This allows the use of reduced rBSA concentrations while maintaining equivalent levels of assay performance, ensuring consistent specific and non-specific signal balance in immunoassays such as ELISA.

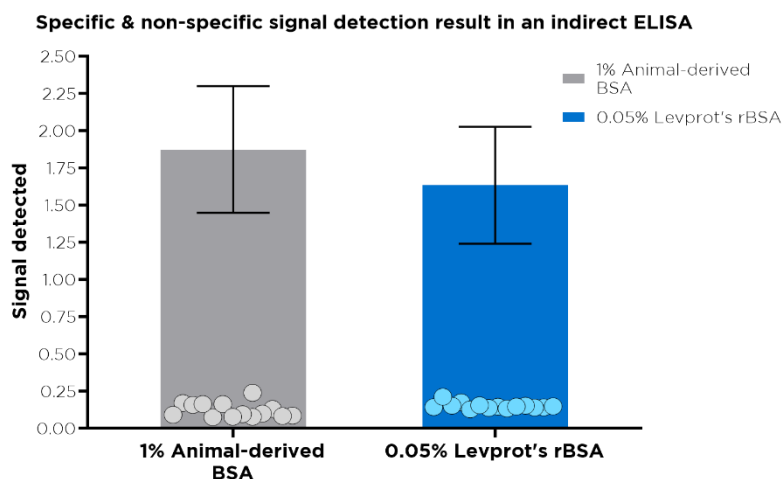


Image. Specific signal at a fixed concentration of antigen (bars) and non-specific signal detection without any antigen presence (dots). Grey bars and dots represent the values obtained with 1% of animal-derived BSA; while blue bars and dots represent the signal obtained with 0.05% of Levprot's rBSA.

QUALITY CONTROL

PURITY

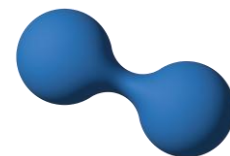
PROTEIN CONCENTRATION

Protein content is measured according to the Bradford method, a colorimetric assay based on protein-dye binding.

PROTEIN PURITY

Purity is determined by the ratio of absorbance at 260 and 280 nm and by SDS-PAGE. A 260/280 ratio between 0.55 and 0.9 is accepted and indicates low DNA contamination compared to the protein concentration. SDS-PAGE allows verification of protein band purity, with a purity level of >90% being acceptable.



**TECHNICAL SUPPORT**

If you have any questions, feel free to contact us at support@levprot.com

Consult the Safety Data Sheet for information regarding hazards and safe handling practises.

THIS PRODUCT IS INTENDED FOR RESEARCH USE ONLY.

DATE 19/08/2026

REV. TDS_MT_L1RBSAHB rev.00

