

# Produktinformation



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Zellkultur & Verbrauchsmaterial
Diagnostik & molekulare Diagnostik
Laborgeräte & Service

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- Gefahrgutzuschlag
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#### SZABO-SCANDIC HandelsgmbH

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Anti-RNA hairpin [BL3-6S97N] Bulk Size, 1 mg, Ab03300-23.0-BT View online

## Anti-RNA hairpin [BL3-6S97N] Bulk Size Ab03300-23.0-BT

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse Fab format for improved compatibility with existing reagents assays and techniques.

Isotype and Format: Rabbit IgG, Kappa

Clone Number: BL3-6S97N

Alternative Name(s) of Target:

**UniProt Accession Number of Target Protein:** 

Published Application(s): crystallization

Published Species Reactivity: Species independent

**Immunogen:** A library of Fabs was generated by rationally varying the composition of the residues in complementarity determining regions (CDRs) of Fab BL3–6. Subsequently, the Fab library was challenged in a phage display selection to recognize and bind the GAAACAC motif.

**Specificity:** The antibody binds to the RNA hairpins GAAACAC hairpin. An RNA hairpin is an essential secondary structure of RNA. It can guide RNA folding, determine interactions in a ribozyme, protect messenger RNA (mRNA) from degradation, serve as a recognition motif for RNA binding proteins or act as a substrate for enzymatic reactions.

**Application Notes:** The Fab was generated by directed mutagenesis from the parental Fab BL3-6. The S97N mutation in complimentarity determining region L3 of the Fab improved the binding affinity compared to the parent Fab BL3-6 (Kd= 5 nM). The Fab fragment also bound to the affinity matured GAGACCC hairpin. The crystal structure of the Spinach RNA grafted with GAAACAC loop in complex with Fab BL3-6S97N was determined (Koirala et al., 2018; PMID: 29309709).

**Antibody First Published in:** Koirala et al. Affinity maturation of a portable Fab-RNA module for chaperone-assisted RNA crystallography Nucleic Acids Res. 2018 Mar 16;46(5):2624-2635. PMID:29309709 **Note on publication:** The original paper describes the use of Fab fragment as chaperone for RNA crystallography.

### Product Form

Size: 1 mg Purified antibody in bulk size.
Purification: Protein A affinity purified
Supplied In: PBS only.
Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without

added preservatives, it is therefore recommed this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C. **Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.