



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## Anti-*S. aureus* $\beta$ -GlcNAc WTA [4497] Bulk Size Ab04039-10.0-BT

**Isotype and Format:** Human IgG1, Kappa

**Clone Number:** 4497

**Alternative Name(s) of Target:** TA; Teichoic acids; WTA; Wall teichoic acids; GlcNAc; N-Acetylglucosamine;  $\beta$ -WTA;  $\beta$ -GlcNAc;  $\beta$ -1,4-GlcNAc;  $\beta$ -O-linked N-acetylglucosamine;  $\beta$ -O-linked GlcNAc sugar modifications on WTA

**UniProt Accession Number of Target Protein:**

**Published Application(s):** in vitro, in vivo, RBA, ELISA, FC, IF

**Published Species Reactivity:** *Staphylococcus aureus*

**Immunogen:** The original antibody was generated by cloning human IgG antibodies from peripheral B cells of patients who had been infected with *S. aureus*.

**Specificity:** This antibody is specific for *S. aureus*  $\beta$ -GlcNAc wall-teichoic acids (WTAs), a pathogen-specific polyanionic glycopolymer that is connected to the thick peptidoglycan layers of Gram-positive bacteria.

**Application Notes:** The original format of this antibody (human IgG1) was screened for antigen binding specificity using ELISA, and it was successfully used antibody was used in flow cytometry (FC) to label *S. aureus* (Lehar et al., 2015; PMID: 26536114). This antibody was used in a radioligand binding assay (RBA); affinity analysis and epitope counting were performed by saturation binding analysis using a radioiodinated version of the antibody (Fong et al., 2018; PMID: 30102105). This antibody was observed to bind strongly to planktonic Wood46 (ATCC 10832) *S. aureus* cells but very weakly to planktonic LAC $\Delta$ spa $\Delta$ sbi (AH4116) *S. aureus*. When studying the binding of WTA-specific antibodies to biofilms, this antibody was observed to bind strongly to PNAG-positive biofilm formed by Wood46 and bind *S. aureus* Wood46 in both planktonic and biofilm states. Apart from recognizing PNAG-positive biofilms, this antibody was also found to bind the PNAG-negative biofilm formed by LAC $\Delta$ spa $\Delta$ sbi. Using IF, this antibody was confirmed to bind WTA in PNAG-positive and PNAG-negative *in vitro* biofilm. This antibody was tested in a subcutaneously implanted pre-colonized catheter in mice and was found to localize to biofilm rapidly *in vivo* (de Vor et al., 2022; PMID: 34989676).

**Antibody First Published in:** Lehar et al. Novel antibody-antibiotic conjugate eliminates intracellular *S. Aureus* Nature. 2015 Nov 19;527(7578):323-8. doi: 10.1038/nature16057 PMID:26536114

**Note on publication:** The original publication describes the generation, characterization, and utilization of anti-*S. Aureus*  $\beta$ -WTA antibodies to treat intracellular reservoirs of *Staphylococcus aureus* in mice.

## 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 recommended 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.