

Anti-SEB [20B1] Standard Size Ab02343-23.0

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG, Kappa

Clone Number: 20B1

Alternative Name(s) of Target: Staphylococcal enterotoxin B; Enterotoxin type B; entB

UniProt Accession Number of Target Protein: P01552

Published Application(s): ELISA, WB, Inhibit, NTRL

Published Species Reactivity: Staphylococcus aureus

Immunogen: The original antibody was generated by immunizing BALB/c mice with full-length staphylococcal enterotoxin B (SEB).

Specificity: This antibody binds a conformational epitope near the C terminal end of the Staphylococcal enterotoxin B. It is suspected that this antibody reacts with 135-R, 137-F, 186-Y, 235- and 236-T of the enterotoxin. This antibody also cross reacts with superantigen SEC-1.

Application Notes: This antibody in combination with 6D3 and 14G8 can be used to detect Staphylococcal enterotoxin B (SEB) in a sample using capture ELISA. This antibody is capable of detecting SEB in a western blot assay but not staphylococcal enterotoxin A (SEA) or toxic shock syndrome toxin 1 (TSST-1). 20B1 demonstrated comparable level of inhibition of SEB induced T cell-proliferation in human T-cells from a normal donor. 20B1 also caused inhibition of cytokine induction in treated T-cells as they produced less IFN-gamma and IL-2. It was reported that monotherapy with 20B1 alone is capable of neutralizing SEB and provided protection against SEB induced lethal shock (SEBILS) in BALB/c mice and HLA-DR3 transgenic mouse model. It was also recommended that combination with mAb 14G8 or 6D3 enhanced protection and showed better results (PMID: 21233204). In vivo studies indicated that the IgG2a isotype variant of 20B1 exhibited significantly greater protection than IgG1 or IgG2b in murine SEB intoxication and S. aureus sepsis models (PMID: 24917594). ELISA assays confirmed binding of mAb 20B1 to SEC-1, and the binding affinity obtained from BLI analysis was 2.5 +/- 0.45 nM. Superantigens SEC-2, SEC-3 and streptococcal superantigen A (SSA) did not bind mAb 20B1 (PMID: 25572397).

Antibody First Published in: Varshney et al. Generation, characterization, and epitope mapping of neutralizing and protective monoclonal antibodies against staphylococcal enterotoxin b-induced lethal shock. J Biol Chem. (2011); 286(11): 9737-9747. [PMID:21233204](https://pubmed.ncbi.nlm.nih.gov/21233204/)

Note on publication: Describes the generation, characterization and epitope mapping of this antibody.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. 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.