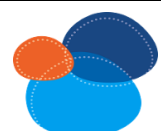


## Antibody Datasheet

<b>Product Name:</b>	Mouse anti Staphylococcus aureus enterotoxin type B
<b>Clone number:</b>	S643
<b>Isotype:</b>	Mouse IgG <sub>1</sub>
<b>Product code:</b>	MAB12240-100
<b>Batch Number:</b>	
<b>Amount:</b>	0.1mg
<b>Concentration:</b>	1mg/ml
<b>Buffer:</b>	Phosphate Buffered Saline pH7.4
<b>Preservative:</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Purification:</b>	The antibody was purified by affinity chromatography on protein A sepharose.
<b>Specificity:</b>	This antibody is specific for enterotoxin type B of <i>Staphylococcus aureus</i> ( <i>S.aureus</i> ). The antibody does not react with <i>S.aureus</i> enterotoxins A, C, D or E.
<b>Applications:</b>	ELISA. The antibody is suitable for use as a detection antibody with clone S222 (MAB12241) in ELISA assays.
<b>Secondary reagent:</b>	Goat anti mouse IgG:HRP (PAB21441HRP)
<b>Antigen background:</b>	<i>Staphylococcus aureus</i> ( <i>S.aureus</i> ) is a gram-positive, non-spore forming bacterium that is a member of the genus <i>Staphylococcus</i> , belonging to the family <i>Staphylococcaceae</i> . First recognised in 1880, <i>S.aureus</i> exists in many individuals as part of the normal microbiota, inhabiting the skin, nasal passages and respiratory tract. Pathogenic <i>S.aureus</i> secrete a range of potent toxins, which are a major cause a wide range of infectious conditions in humans worldwide.



Enterotoxins, produced by *S.aureus*, are a major cause of food poisoning. Over 30 enterotoxins have been identified to date. *Staphylococcus aureus* enterotoxin B (SEB) and SEA are recognised as the most potent enterotoxin within the Staphylococcal family of toxin. SEB and SEA enterotoxin also acts as a potent bacterial superantigen, binding to and stimulating T lymphocytes and binding to major histocompatibility antigens (MHC), on antigen presenting cells of the immune system. Two separate domains on the 28kDa SEB protein are reported to be responsible for the two different functions of the toxin ([Fries, B](#)).

SEB and SEA are considered to be major causes of food borne infection causing food poisoning. The clinical symptoms of SEB and SEA intoxication include fever, myalgia, vomiting, diarrhoea, headaches and in some cases shock. Currently there is no specific treatment for SEB or SEA mediated disease or shock. The condition is often self-limiting but support with hydration is often required. Currently, no licensed vaccine or antitoxin for the treatment of SEB or SEA infection has been successfully developed ([Ortega E](#)).

**References:**

Fries BC, Varshney AK. 2013. Bacterial Toxins-Staphylococcal Enterotoxin B. *Microbiol Spectr.* Dec;1(2)

Ortega E, Abriouel H, Lucas R, Gálvez A. 2010. Multiple roles of *Staphylococcus aureus* enterotoxins: pathogenicity, superantigenic activity, and correlation to antibiotic resistance. *Toxins (Basel).* Aug;2(8):2117-31.

**Storage:**

Store at +4°C for up to three months, or at -20°C for longer periods  
The antibody is shipped at ambient temperature.  
Avoid repeated freeze/thaw cycles.

