

## Antibody Datasheet

<b>Product Name:</b>	Mouse anti <i>Staphylococcus aureus</i> enterotoxin type A
<b>Clone number:</b>	C4
<b>Isotype:</b>	Mouse IgG <sub>1</sub>
<b>Product code:</b>	MAB12243-100
<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 A of <i>Staphylococcus aureus</i> ( <i>S.aureus</i> ).
<b>Applications:</b>	ELISA. The antibody is suitable for use as a detection antibody with clone E11 (MAB12242) and H10 (MAB12245) in ELISA assays.
<b>Secondary reagents:</b>	Goat anti mouse IgG:HRP (PAB21441HRP)
<b>Antigen background:</b>	<p><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.</p> <p>Pathogenic <i>S.aureus</i> secrete a range of potent toxins, which are a major cause of a wide range of infectious conditions in humans worldwide. Enterotoxins, produced by</p>



*S.aureus*, are recognised virulence factors which are a major cause of food poisoning. The toxins are heat stable, resistant to proteolysis and affect the epithelium of the digestive tract. Over 30 enterotoxins have been identified to date.

Staphylococcus aureus enterotoxin A (SEA) has reported emetic activity and acts as a bacterial superantigen, stimulating T lymphocytes and other cells of the immune system. The SEA protein possesses domains that interact with T cell receptors (TCR) molecules and major histocompatibility complex type II (MHC II) molecules on antigen presenting cells ([Argudin, MA](#)).

SEA is a major cause of food borne infection causing food poisoning. The clinical symptoms of SEA intoxication include fever, myalgia, vomiting, diarrhoea, headaches and in some cases shock. Currently there is no specific treatment for 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 enterotoxin A infection has been successfully developed ([Ortega E](#)).

**References:**

Argudín MÁ, Mendoza MC, Rodicio MR. 2010. Food poisoning and Staphylococcus aureus enterotoxins. *Toxins (Basel)*. 2010 Jul;2(7):1751-73.

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.

