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Certificate of Analysis and Data Sheet

Mouse anti-MRSA antibody

Catalog No:	Isotype:	Clone:	Species:	Accession No:
130-00027	Mouse Ig G1	4B10.B6	Human	N/A

Description

Methicillin resistant *Staphylococcus aureus* (MRSA) are a major pathogen responsible for serious hospital infections worldwide. These bacteria are resistant to all beta-lactam antibiotics due to the production of an additional penicillin binding protein, the PBP2a (about 75kDa) encoded by the *mecA* gene, which shows low affinity for this class of antibiotics. The protein is the targets of -lactam antibiotics. According to the resistant and sensitive ability of bacteria to antibiotics, two main groups are classified, MRSA and MSSA (Methicillin Sensitive *Staphylococcus aureus*).

Applications

Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:1000-5000
Western Blotting	*			0.1-0.2 µg/ml (See Image below)
Enzyme Immunoassay (EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation	*			1:1000-2000
Flow Cytometry			*	
Neutralization			*	

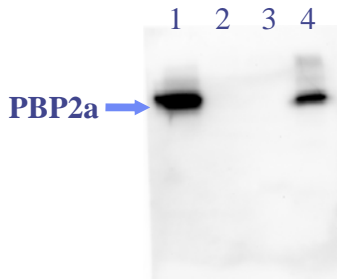
Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Immunodetection Analysis: The membrane blot was probed with purified mouse anti-MRSA primary antibody, then followed by in-house anti-mouse secondary antibody conjugated to HRP (1:5000). The detected protein was clearly visualized by chemiluminescence detection system. Arrow indicates that the antibody specifically recognize target protein from bacterial samples.

Lane 1 and 4. Lysates from two selected MRSA isolated strains;
Lane 2-3. Lysates from two selected MSSA strains.

Preparation

Immunogen was PBP2a recombinant protein derived from MRSA bacteria. This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with the immunogen. The IgG fraction of tissue culture supernatant was purified by Protein G affinity chromatography.

Specificity

This antibody was selected for its ability to specifically detect PBP2a from MRSA. The antibody has ability to distinguish both MRSA and MSSA in tested assays. Because it did not show any binding signal while used bacterial cell lysates from MSSA. This antibody showed no cross-reactivity with other tested bacterial proteins.

Reconstitution

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, liking Sodium Azide. ***It final concentration is indicated in shipping vial.***

The antibody is stable for at least years from the data of receipt when stored at -20°C to -70°C .

Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at -20°C to -70°C in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at 4°C . **Please avoid freeze-thaw cycles.**

Storage

Keep it at 4°C if intended for use within a month, otherwise, Store at -20°C . **Minimize freezing and thawing when use.**

Reference

Zinderman, C.; et.al., (2004). "Community-Acquired Methicillin-Resistant Staphylococcus aureus Among Military Recruits". *Emerging Infectious Diseases*.

Bignardi G E, et.al., Detection of the *mecA* gene and phenotypic detection of resistance in *Staphylococcus aureus* isolates with borderline or low level methicillin resistance. *J Antimicrobiol Chemother.* 1996;37:53–63.

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