Beta-Lactamase Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 15720
Format: Protein G-purified antibody in PBS, pH 7.4.

BACKGROUND

The beta-lactam antibiotics (penicillins and cephalosporins) are the most frequently used antimicrobial agents. All of the beta-lactams are structurally related through the presence of a core beta-lactam ring. Bacterial resistance to beta-lactams continues to increase, primarily due to microbial production of beta-lactamases. Beta-lactamases catalyze the hydrolysis of the beta-lactam bond which destroys anti-bacterial activity. Bacteria that produce TEM- or SHV-type beta-lactamases have point mutations in structural genes that have extended the substrate specificity of these beta-lactamases. As a result, many of the beta-lactamase-producing Gram-negative bacteria have become multi-drug resistant.

SPECIFICATION SUMMARY

Antigen: 5'-His-tagged *E. coli* 205 TEM-1 R+ beta-lactamase
Sequence:
MSIQHFRVAL IPFFAAFCLP VFAHPETLVK VKDAEDQLGA RVGYIELDLN SGKILESFRP EERFPMMSTF KVLLCGAVLS RVDAGQEQLG RRIHYSQNDL VEYSPVTEKH LTDGMTVREL CSAAITMSDN TAANLLLTTI GGPKELTAFL HNMGDHVTRL DRWEPELNEA IPNDERDTTM PAAMATTLRK LLTGELLTLA SRQQLIDWME ADKVAGPLLR SALPAGWFIA DKSGAGERGS RGIIAALGPD GKPSRIVVIY TTGSQATMDE RNRQIAEIGA SLIKHW
Accession no.: P62593
Host Species: Mouse
Clone no: 8A5.A10
Antibody Subtype: IgG1
Specificity: This antibody recognizes TEM-1-type beta-lactamases.

APPLICATIONS

Immunoblotting: use at 10ug/ml. Predicted molecular weight ~29kDa.
ELISA: use at 10-20ug/ml (optimized for immobilized beta-lactamase at 10 µg/ml).

Endusers should determine optimal concentrations for their applications.

DILUTION INSTRUCTIONS

Dilute in PBS or medium that is identical to that used in the assay system.

STORAGE AND STABILITY

This product is stable for at least one (1) year at -20^{o}C. Store in appropriate aliquots to avoid multiple freeze-thaw cycles.

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