

Beta-Lactamase Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 15721

Size: 100ug or 500ug PEG-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. Beta-lactamase from *Enterobacter cloacae* is a serine beta-lactamase with substrate specificity for cephalosporins.

SPECIFICATION SUMMARY

Antigen: Type IV beta lactamase from *Enterobacter cloacae*. Predicted molecular wt. ~41kDa.

Sequence:

MMRKSLLCCAL LLGISCSALA TPVSEKQLAE VVANTITPLM KAQSVPGMAV AVIYQGGKPHY
YTFGKADIAA NKPVTPQTLF ELGSISKFTFT GVLGGDAIAR GEISLDDAVT RYWPQLTGKQ
WQGIRMLDLA TYTAGGLPLQ VPDEVTDNAS LLRFYQNWQP QWKPGTTRLY ANASIGLFGA
LAVKPSGMPY EQAMTTRVLK PLKLDHTWIN VPKAEEAHYA WGYRDGKAVR VSPGMLDAQA
YGVKTNVQDM ANWVMANMAP ENVADASLKQ GIALAQSRYW RIGSMYQGLG
WEMLNWPVEA NTVVEGSDSK VALAPLVAE VNPPAPPVKA SWVHKTGSTG GFGSYVAFIP
EKQIGIVMLA NTSYPNPARV EAAYHILEAL Q

Accession no.: P05364

Host Species: Mouse

Clone no.: 3E11.G3

Antibody Subtype: IgG3

Specificity: This antibody recognizes Type IV beta-lactamase of *Enterobacter cloacae*.

APPLICATIONS

ELISA: use at 10-20ug/ml (optimized for immobilized beta-lactamase at 10ug/ml). End users 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°C. Store in appropriate aliquots to avoid multiple freeze-thaw cycles.

For in vitro investigational use only. Not intended for use in therapeutic or diagnostic procedures.