

## Beta-Lactamase Monoclonal Antibody

### ORDERING INFORMATION

**Catalog No.:** 15720

**Size:** 100µg, 500µg, 1mg 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 IPFFAAFCPL VFAHPETLVK VKDAEDQLGA RVGYIELDLN SGKILESFRP  
EERFPMSTF KVLGCGAVLS RVDAGQEQLG RRIHYSQNDL VEYSPVTEKH LTDGMTVREL  
CSAAITMSDN TAANLLTTI GGPKELTAF HNMGDHVTRL DRWEPELNEA IPNDERDTTM  
PAAMATTLRK LLTGELLTLA SRQQLIDWME ADKVAGPLL 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 10ug/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°C. Store in appropriate aliquots to avoid multiple freeze-thaw cycles.