

## Beta-lactamase TEM Protein, E. coli, Recombinant (His)

## General Information

Synonyms:	TEM-5;TEM-24/CAZ-6;TEM-1;Penicillinase;TEM-4;TEM-3;TEM-2;TEM-8/CAZ-2;TEM-6;blaT-3;blaT-6;TEM-16/CAZ-7;IRT-4;bla;Beta-lactamase TEM;blaT-4;blaT-5
Protein Construction:	24-286 aa
Species:	E. coli
Expression Host:	P. pastoris (Yeast)
Accession:	P62593
Molecular Weight:	30.9 kDa (predicted)
AA Sequence:	HPETLVKVKDAEDQLGARVGYIELDLNSGKILESFRPEERFPMSTFKVLLCGAVLSRVDAGQEQLGRRRIHYS QNDLVEYSPVTEKHLTDGMTVRELCSAAITMSDNTAANLLLLTTIGGPKELTAFLHNMGDHSVTRLDRWEPELN EAIPNDERDTTTPAAMATTLRKLTLGELLTLASRQQLIDWMEADKVGPLLRSLPAGWFIADKSGAGERGS RGIIAALGPDGKPSRIVVIYTTGSQATMDERNRQIAEIGASLIKHW

## QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

## Preparation and Storage

## Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

## Stability &amp; Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

## Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

## Protein Background

TEM-type are the most prevalent beta-lactamases in enterobacteria; they hydrolyze the beta-lactam bond in susceptible beta-lactam antibiotics, thus conferring resistance to penicillins and cephalosporins. TEM-3 and TEM-4 are capable of hydrolyzing cefotaxime and ceftazidime. TEM-5 is capable of hydrolyzing ceftazidime. TEM-6 is

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capable of hydrolyzing ceftazidime and aztreonam. TEM-8/CAZ-2, TEM-16/CAZ-7 and TEM-24/CAZ-6 are markedly active against ceftazidime. IRT-4 shows resistance to beta-lactamase inhibitors.

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