Recombinant Microbial Transglutaminase, mTGase (High Specific Activity)

Catalog # TGE-S52H3

Product Details

Microbial Transglutaminase (mTGase) is an enzyme that catalyzes acyl transfer reactions between the γ-carboxamide groups of glutamine residues in proteins or peptides and primary amines, forming stable covalent bonds. The enzyme can also catalyze hydrolytic deamidation reactions under suitable conditions. It is widely used in protein cross-linking, protein modification, and antibody-drug conjugate (ADC) development.

Application

Site-specific conjugation for antibody-drug conjugate (ADC) development
Antibody and protein labeling with functional molecules
Protein cross-linking and modification
Hydrolytic deamidation of glutamine residues in proteins and peptides

Unit Definition

One unit is defined as the amount of enzyme, which causes the formation of 1.0 μmole of L-Glutamic-γ-monohydroxamic acidper minute by catalysing the reaction between CBZ-Gln-Gly and hydroxylamine at pH 6.0 at 37°C.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Enzyme Activity

＞60 U/mg

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

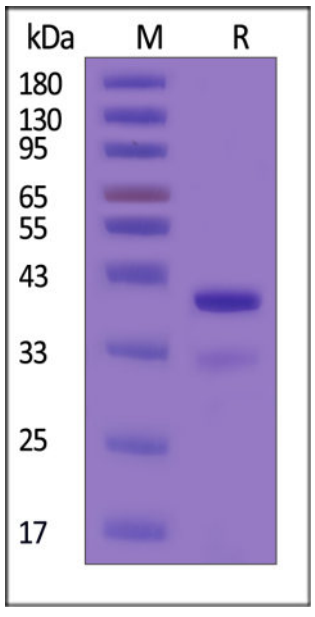
Shipping and Storage

This product is shipped at ambient temperature.

This product is stable after storage at:

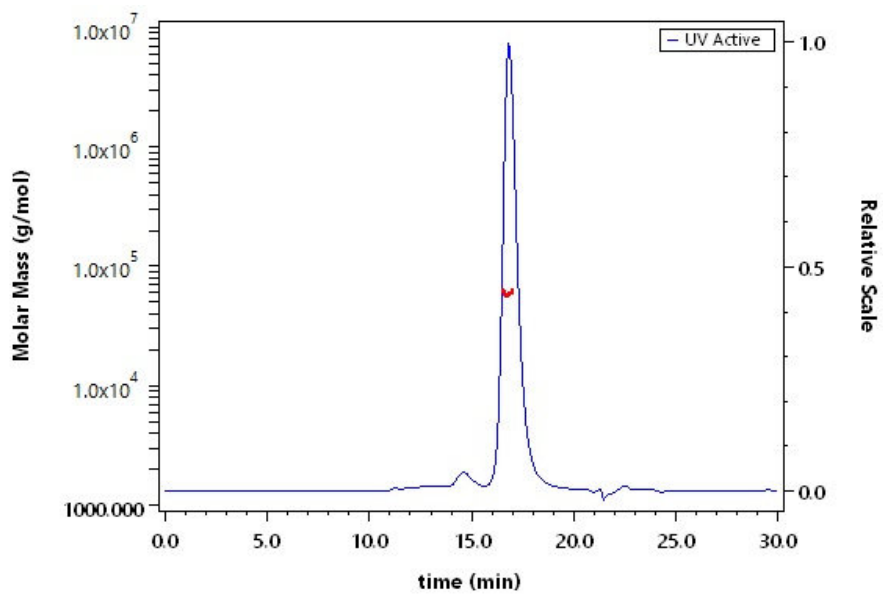
- This product is shipped at ambient temperature.
- This product is stable after storage at:
- In lyophilized state for 2 year (-20℃); After reconstitution under sterile conditions for 12 months (-70℃).

SDS-PAGE



The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



The purity of Recombinant Microbial Transglutaminase, mTGase (High Specific Activity) (Cat. No. TGE-S52H3) is more than 90% and the molecular weight of this protein is around 45-65 kDa verified by SEC-MALS.

Activity

One unit is defined as the amount of enzyme, which causes the formation of 1.0 μmole of L-Glutamic-γ-monohydroxamic acidper minute by catalysing the reaction between CBZ-Gln-Gly and hydroxylamine at pH 6.0 at 37°C.The specific activity is >60000 U/g (QC tested).

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