



[Go to Product page](#)

Datasheet for ABIN7317463
TGM3 Protein (His tag)

Overview

Quantity:	100 µg
Target:	TGM3
Origin:	Human
Source:	Baculovirus infected Insect Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This TGM3 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human TGM3/Transglutaminase 3 Protein (His Tag)(Active)
Sequence:	Ala 2-Glu 693
Characteristics:	A DNA sequence encoding the human TGM3 (Q08188) (Ala 2-Glu 693) was expressed, with a polyhistidine tag at the N-terminus.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave a synthetic peptide Benzyloxycarbonyl-Gln-Gly and NH ₂ OH. The specific activity is > 450 pmoles/min/µg.

Target Details

Target:	TGM3
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Target Details

Alternative Name: TGM3/Transglutaminase 3 ([TGM3 Products](#))

Background: Transglutaminases (TGase) are a family of calcium-dependent acyl-transfer enzymes ubiquitously expressed in mammalian cells and responsible for catalyzing covalent cross-links between proteins or peptides. Transglutaminase 3 (TGM3) is a member of a family of Ca²⁺-dependent enzymes that catalyze covalent cross-linking reactions between proteins or peptides. TGM3 isoform is widely expressed and is important for epithelial barrier formation. It is a zymogen, requiring proteolysis for activity. Calcium-activated TGM3 can bind, hydrolyze, and is inhibited by GTP, despite lacking structural homology with other GTP binding proteins. TGM3 displays a diffuse cytoplasmic distribution in vitro consistent with its proposed role in the early phase of cornified cell envelope assembly in the cytoplasm. TGM3-driven specific isopeptide bonds between intermediate filaments and KAPs participate to the progressive scaffolding of the hair shaft. Additionally, TGM3 may be a novel prognostic biomarker for esophageal squamous cell carcinoma (ESCC).

Synonym: TGE

Molecular Weight: 78.8 kDa

UniProt: [Q08188](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 8.5, 10 % gly

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.