Active Recombinant Mouse Tgm1 Protein, His-GST-tagged

Cat. No. Tgm1-1782M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Mouse Tgm1 Protein(Leu337-Arg607), fused with Two N-terminal Tags, His tag and GST tag, was expressed in E.coli.
Species	Mouse
Source	E.coli
ProteinLength	337-607 aa
Form	20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Bio-activity	Transglutaminase 1(TGM1) is an enzyme found in cells that make up the outermost layer of the skin (the epidermis). It can catalyze the addition of an alkyl group from an akylamine to a glutamine residue of a protein, forming an alkylglutamine in the protein. TGM1 is involved in the formation of the cornified cell envelope, which is a structure that surrounds skin cells and helps form a protective barrier between the body and its environment. Besides, Synuclein Alpha (SNCa) has been identified as an interactor of TGM1, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse TGM1 and recombinant mouse SNCa. Briefly, TGM1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to SNCa-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TGM1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate

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	solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of TGM1 and SNCa was shown, and this effect was in a dose dependent manner.
Molecular Mass	60.3kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method)
Purity	>98%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 month.
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	Tgm1 transglutaminase 1, K polypeptide [Mus musculus]
Official Symbol	Tgm1
Synonyms	TGM1; transglutaminase 1, K polypeptide; protein-glutamine gamma-glutamyltransferase K; TGK; TG K; TG(K); TGase 1; TGase K; TGase-1; K polypeptide; epidermal TGase; transglutaminase K; transglutaminase-1; transglutaminase type 1; protein-glutamine-gamma-glutamyltransferase; Tgase1; 2310004J08Rik;
Gene ID	21816
mRNA Refseq	NM_001161714

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Protein Refseq	NP_001155186

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