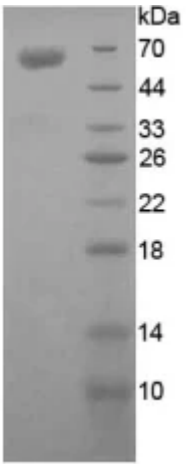
Active Transglutaminase 1 (TGM1)

Catalog#:PEM12735

概述（Summary）

别称（Alternative Names）	TGK; ICR2; KTG; LI; LI1; TGASE; Transglutaminase 1, Keratinocyte; Transglutaminase K; K Polypeptide Epidermal Type I; Protein-Glutamine-Gamma-Glutamyltransferase
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Leu337-Arg607】
Accession #	Q9JLF6
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	60.3 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Catalyzes the cross-linking of proteins and the conjugation of polyamines to proteins. Responsible for cross-linking epidermal proteins during formation of the stratum corneum. Involved in cell proliferation.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

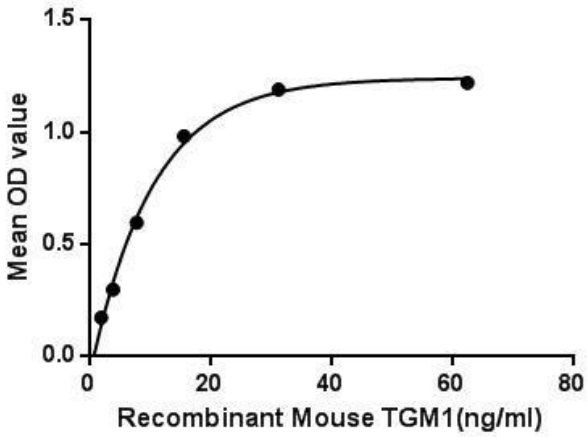


Figure. The binding activity of TGM1 with SNCa. Transglutaminase 1(TGM1) is an enzyme found in cells that make up the outermost layer of the skin (the epidermis). It can catalyze the addition of an alkyl group from an akylamine to a glutamine residue of a protein, forming an alkylglutamine in the protein. 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℃. 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 solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of TGM1 and SNCa was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

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