

Active Transglutaminase 1 (TGM1) Instruction Manual

SBPB269Mu01

Mus musculus (Mouse)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 97%

Isoelectric Point

5.9

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

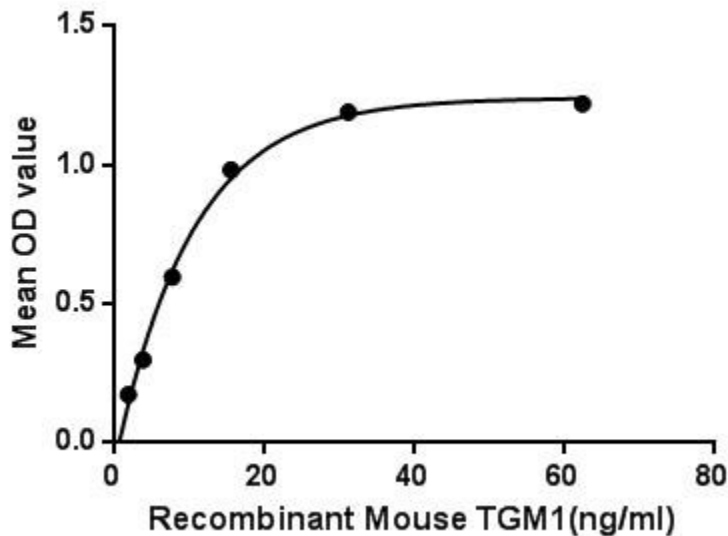


Figure. The binding activity of TGM1 with SNCa.

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 alkylamine 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 solution, wells were incubated 15-25 minutes at 37°C. 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.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

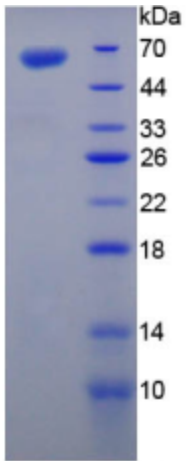


Figure. SDS-PAGE

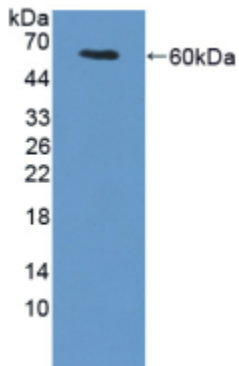


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.