

Active Cardiac Troponin I (cTnI) Instruction Manual

SBPA131Hu01

Homo sapiens (Human)

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

9.7

Applications

Cell culture; Activity Assays.

ACTIVITY TEST

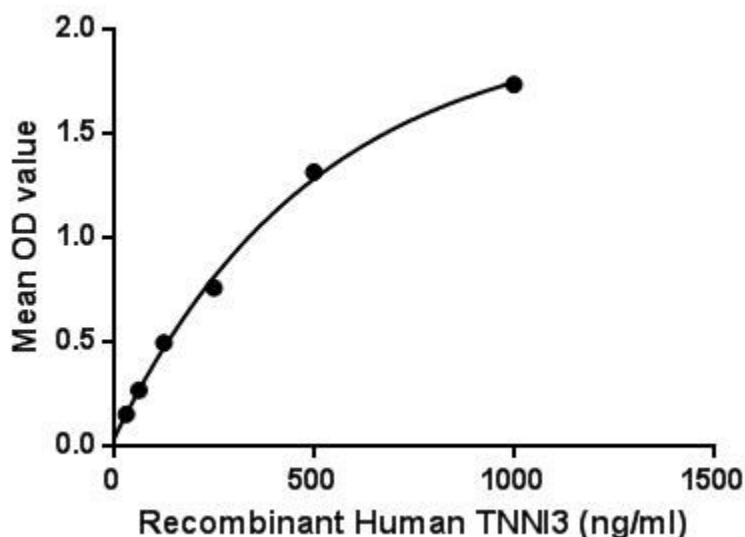


Figure. The binding activity of TNNI3 with TNNT2.

Troponin I Type 3, Cardiac (TNNI3) is a protein that in humans is encoded by the TNNI3 gene. It is a tissue-specific subtype of troponin I, which in turn is a part of the troponin complex. The TNNI3 gene encoding cardiac troponin I (cTnI) is located at 19q13.4 in the human chromosomal genome. Human cTnI is a 24kDa protein consisting of 210 amino acids with isoelectric point (pI) of 9.87. cTnI is exclusively expressed in adult cardiac muscle. Besides, Troponin T Type 2, Cardiac (TNNT2) has been identified as an interactor of TNNI3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human TNNI3 and recombinant human TNNT2. Briefly, TNNI3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ L were then

transferred to TNNT2-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-TNNI3 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 TNNI3 and TNNT2 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

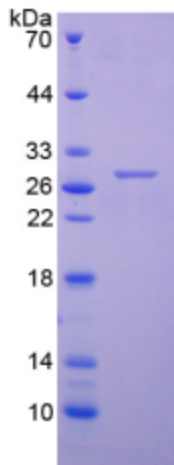


Figure. SDS-PAGE

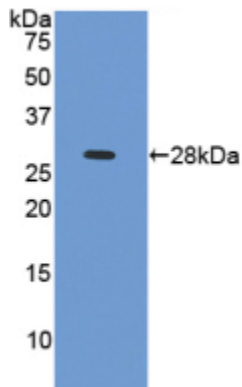


Figure. Western Blot

[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.