

Human Cardiac Troponin I protein, His tag

Cat. No. GTX00237-pro

Applications Functional Assay

Species Human

Package

10 µg

Applications

Application Note

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 µl 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 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of TNNI3 and TNNT2 was in a dose dependent manner.

Observed MW (kDa) 28 kDa.

Properties

Form Lyophilized powder

Buffer Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.

Preservative ProClin 300

Storage For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.

Region/Sequence N-terminal His-Tag; Met1~Gly203 (NP_000354.4)

Expression System E. coli

Purity > 97%

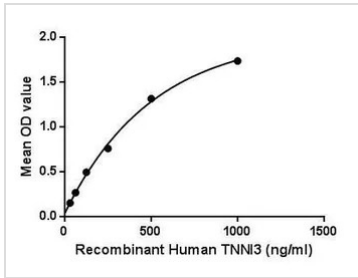
Endotoxin < 1 EU/µg

Conjugation Unconjugated

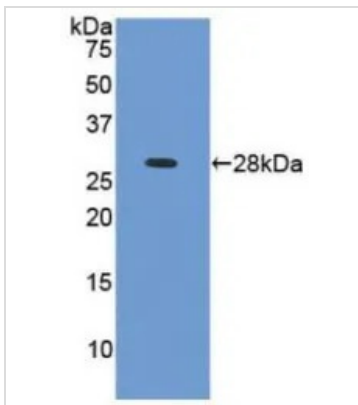
Note For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.



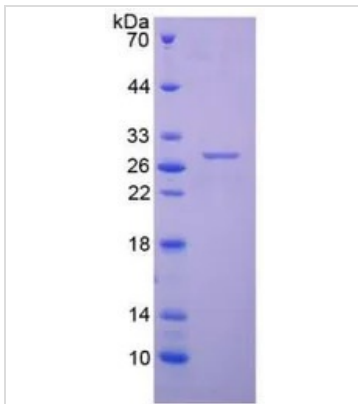
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DATA IMAGES

GTx00237-pro Functional Assay Image

Functional ELISA analysis of GTx00237-pro Human Cardiac Troponin I protein which can bind immobilized TNNT2 protein.


GTx00237-pro Image

WB analysis of GTx00237-pro Human Cardiac Troponin I protein.


GTx00237-pro Image

SDS-PAGE analysis of GTx00237-pro Human Cardiac Troponin I protein.



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