

## Active Recombinant Human TNNI3 Protein, His-tagged

Cat. No. TNNI3-873H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Active Recombinant Human TNNI3 Protein(2-210 aa), fused with N-terminal His tag, was expressed in HEK293.

**Species** Human

**Source** HEK293

**ProteinLength** 2-210 aa

**Form** PBS, pH7.4, containing 5% Trehalose.

#### Bio-activity

Cardiac Troponin I (cTnI), as a cytoplasmic protein, is one of the most important regulatory proteins part of the troponin-tropomyosin complex localized on the actin (thin) myofilaments in cardiac myocytes. It is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. Besides, Actin Alpha 1, Cardiac Muscle (ACTC1) has been identified as an interactor of cTnI, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human cTnI and recombinant human ACTC1. Briefly, biotin-linked cTnI were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to ACTC1-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 $\mu$ l stop solution to the wells and read at 450nm

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immediately. The binding activity of cTnI and ACTC1 was shown, the EC50 for this effect is 0.066ug/mL.

**Molecular Mass** 25.5kDa

**Endotoxin** <1.0EU per 1µg (determined by the LAL method).

**Purity** >90%

**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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

**Gene Name** TNNI3 troponin I type 3 (cardiac) [ Homo sapiens ]

**Official Symbol** TNNI3

**Synonyms** TNNI3; troponin I type 3 (cardiac); troponin I, cardiac; troponin I, cardiac muscle; CMH7; TNNC1; RCM1; cTnI; CMD2A; CMD1FF; MGC116817;

**Gene ID** 7137

**mRNA Refseq** NM\_000363

**Protein Refseq** NP\_000354

**MIM** 191044

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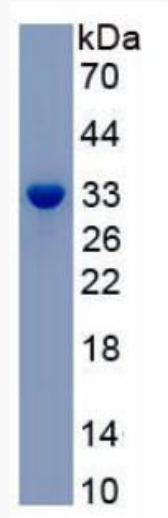
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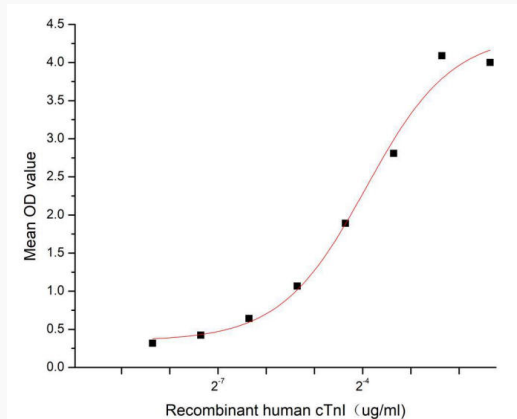
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