

Troponin1 Protein

Full-length recombinant protein expressed in E. coli cells

Catalog # T68-30H

Lot # N234-3

Product Description

Recombinant full-length human troponin1 protein was expressed in E. coli cells using an N-terminal His tag. The gene accession number is [NM_003281](#).

Gene Aliases

TNNI1; DKFZp451O223; SSTNI; TNN1

Formulation

Recombinant protein stored in 50mM sodium phosphate, pH 7.0, 300mM NaCl, 150mM imidazole, 0.1mM PMSF, 0.25mM DTT, 25% glycerol.

Storage and Stability

Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

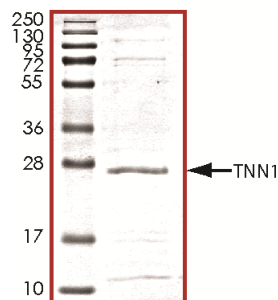
Scientific Background

Troponin 1 is a member of the tropomyosin family and regulates the calcium sensitivity of the myofibril contractile apparatus of striated muscles. Troponin 1 is part of a complex with troponin T and troponin C in which Troponin 1 acts as an inhibitory subunit that blocks actin-myosin interactions and thereby mediates striated muscle relaxation (1). Troponin 1 is expressed in cardiac and skeletal muscle during early development but is restricted to slow-twitch skeletal muscle fibers in adults. The Troponin 1 protein prevents muscle contraction by inhibiting calcium-mediated conformational changes in actin-myosin complexes (2).

References

1. Tiso, N. et al: Fine mapping of five human skeletal muscle genes: alpha-tropomyosin, beta-tropomyosin, troponin-I slow-twitch, troponin-I fast-twitch, and troponin-C fast. *Biochem. Biophys. Res. Commun.* 230: 347-350, 1997.
2. Nadal-Ginard, et al: Molecular basis of cardiac performance: plasticity of the myocardium generated through protein isoform switches. *J. Clin. Invest.* 84: 1693-1700, 1989

Purity



The purity of Troponin1 was determined to be **>80%** by densitometry. Approx. MW **24kDa**.

Troponin1 Protein

Full-length recombinant protein expressed in E. coli cells

Catalog Number	T68-30H
Specific Lot Number	N234-3
Purity	>80%
Concentration	0.2 µg/µl
Stability	1yr At -70°C from date of shipment
Storage & Shipping	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on dry ice.

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