TNNI3 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	TNNI3, Blocking Peptide
Full Product Name	TNNI3 Blocking Peptide
Product Gene Name	TNNI3 blocking peptide
Product Synonym Names	cardiac muscle; Cardiac troponin I; cardiomyopathy, dilated 2A (autosomal recessive); Cardiomyopathy, familial hypertrophic, 7, included; CMD1FF; CMD2A; CMH7; cTnI; Familial hypertrophic cardiomyopathy 7; MGC116817; RCM1; Tn1; Tni; TNN I3; TNNC 1; TNNC1; TNNI3; TNNI3_HUMAN; Troponin I; Troponin I cardiac; Troponin I cardiac muscle; Troponin I cardiac muscle isoform; Troponin I type 3 cardiac; troponin I, cardiac 3; TroponinI; Ttroponin I type 3 (cardiac)
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	TNNI3 peptide (MBS9617360) is used for blocking the activity of TNNI3 antibody (MBS9601816)
Molecular Weight	24,008 Da
Chromosome Location	Chromosome: 19; NC_000019.9 (55663135..55669100, complement). Location: 19q13.4
OMIM	115210
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for TNNI3 blocking peptide	Blocking/Control
Related Product Information for TNNI3 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of TNNI3 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for TNNI3 purchase	MBS9617360 is a blocking peptide targeting TNNI3.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TNNI3. It may not necessarily be applicable to this product.

NCBI GI #	151101270
NCBI GeneID	7137
NCBI Accession #	NP_000354.4

UniProt Primary Accession #	P19429
UniProt Related Accession #	P19429
GenBank Nucleotide #	NM_000363.4
NCBI Official Full Name	troponin I, cardiac muscle
NCBI Official Synonym Full Names	troponin I type 3 (cardiac)
NCBI Official Symbol	TNNI3
NCBI Official Synonym Symbols	CMH7; RCM1; cTnI; CMD2A; TNNC1; CMD1FF
UniProt Protein Name	Troponin I, cardiac muscle
UniProt Synonym Protein Names	Cardiac troponin I
Protein Family	Troponin
UniProt Gene Name	TNNI3
UniProt Synonym Gene Names	TNNC1
UniProt Entry Name	TNNI3_HUMAN
NCBI Protein Information	troponin I, cardiac muscle
NCBI Summary for TNNI3	Troponin I (TnI), along with troponin T (TnT) and troponin C (TnC), is one of 3 subunits that form the troponin complex of the thin filaments of striated muscle. TnI is the inhibitory subunit; blocking actin-myosin interactions and thereby mediating striated muscle relaxation. The TnI subfamily contains three genes: TnI-skeletal-fast-twitch, TnI-skeletal-slow-twitch, and TnI-cardiac. This gene encodes the TnI-cardiac protein and is exclusively expressed in cardiac muscle tissues. Mutations in this gene cause familial hypertrophic cardiomyopathy type 7 (CMH7) and familial restrictive cardiomyopathy (RCM). [provided by RefSeq, Jul 2008]
UniProt Comments for TNNI3	TNNI3: Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity. Binds to actin and tropomyosin. Interacts with TRIM63. Interacts with STK4/MST1. Belongs to the troponin I family. Protein type: Motility/polarity/chemotaxis; Motor; Actin-binding Chromosomal Location of Human Ortholog: 19q13.4 Cellular Component: sarcomere; troponin complex; cytosol Molecular Function: troponin T binding; protein domain specific binding; troponin C binding; protein binding; metal ion binding; calcium channel inhibitor activity; actin binding; protein kinase binding; calcium-dependent protein binding Biological Process: regulation of smooth muscle contraction; cellular calcium ion homeostasis; heart contraction; regulation of systemic arterial blood pressure by ischemic conditions; heart development; ventricular cardiac muscle morphogenesis; vasculogenesis; negative regulation of ATPase activity; muscle filament sliding; cardiac muscle contraction Disease: Cardiomyopathy, Dilated, 1ff; Cardiomyopathy, Familial Restrictive, 1; Cardiomyopathy, Familial Hypertrophic, 7; Cardiomyopathy, Dilated, 2a
Research Articles on TNNI3	**1.** Cardiac troponins I and T: molecular markers for early diagnosis, prognosis, and accurate triaging of patients with acute myocardial infarction.
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