

Product datasheet for PH314740

Cardiac Troponin I (TNNI3) (NM_000363) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	TNNI3 MS Standard C13 and N15-labeled recombinant protein (NP_000354)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC214740
Predicted MW:	23.8 kDa
Protein Sequence:	>RC214740 representing NM_000363 Red=Cloning site Green=Tags(s) MADGSSDAAREPRPAPAPIRRRSSNYRAYATEPHAKKSKISASRKLQLKTLTLLQIAKQELEREAEERRG EKGRALSTRCQPLELAGLGFAELQDLCRQLHARVDKVDEERYDIEAKVTKNITEIADLTQKIFDLRGKFK RPTLRRVRI SADAMM QALLGARAKESLDLRAHLKQVKKEDTEKENREVGDWKRNIDALSGMEGRKKKFES TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_000354
RefSeq Size:	2073
RefSeq ORF:	630
Synonyms:	CMD1FF; CMD2A; CMH7; cTnI; RCM1; TNNC1
Locus ID:	7137
UniProt ID:	P19429 , Q6FGX2



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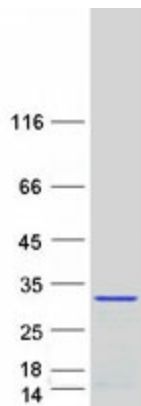
Cytogenetics: 19q13.42

Summary: 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). Troponin I is useful in making a diagnosis of heart failure, and of ischemic heart disease. An elevated level of troponin is also now used as indicator of acute myocardial injury in patients hospitalized with moderate/severe Coronavirus Disease 2019 (COVID-19). Such elevation has also been associated with higher risk of mortality in cardiovascular disease patients hospitalized due to COVID-19. [provided by RefSeq, Aug 2020]

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Stem cell - Pluripotency

Protein Pathways: Cardiac muscle contraction, Dilated cardiomyopathy, Hypertrophic cardiomyopathy (HCM)

Product images:



Coomassie blue staining of purified TNNI3 protein (Cat# [TP314740]). The protein was produced from HEK293T cells transfected with TNNI3 cDNA clone (Cat# [RC214740]) using MegaTran 2.0 (Cat# [TT210002]).