Recombinant Protein Technical Manual

Recombinant Human Troponin C/TNNC1 Protein (His Tag)

RPES4792

Product Data:

Product SKU: RPES4792

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P63316

Protein Information:

Molecular Mass:	19.8 kDa
AP Molecular Mass:	17-20 kDa
Tag:	N-His
Bio-activity:	
Purity:	> 95% as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping:	This product is provided as liquid. It is shipped at frozen temperature with blue ice. Upon receipt, store it immediately at<-20°C.
Formulation:	Supplied as a 0.2 µm filtered solution of 20mM Tris,100mM NaCl,1mM DTT,10% glycerol,pH8.0.
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CMD1Z;CMH13;TN-C;TNC;TNNC

Immunogen Information:

Sequence: Met1-Glu161

Background:

Troponin I, also known as TNI, is a 24 kDa component of a protein complex on striated muscle thin filaments. Troponin is the central regulatory protein of striated muscle contraction. Tn consists of three components: Tn-I which is the inhibitor of actomyosin ATPase, Tn-T which contains the binding site for tropomyosin and Tn-C. The binding of calcium to Tn-C abolishes the inhibitory action of Tn on actin filaments. Troponin I inhibits the calcium-dependent muscle contraction mediated by Troponins C and T. The expression of cardiac Troponin I (TNNI3) is restricted to cardiac muscle, while TNNI1 and TNNI2(encoded by distinct genes) are expressed in skeletal muscle. Mutations of cardiac Troponin I are associated with heriditary cardiomyopathy. Human cardiac Troponin I shares 93% amino acid sequence identity with mouse and rat cardiac Troponin I.