Troponin C/TNNC1 Protein, Human (N-His)

Cat. No.:	HY-P71372A
Synonyms:	CMH7; TNNC1; TNNI3; Troponin I
Species:	Human
Source:	E. coli
Accession:	P63316 (M1-E161)
Gene ID:	7134
Molecular Weight:	approximately 19 kDa

PROPERTIES

AA Sequence	M D D I Y K A A V E Q L T E E Q K N E F K A A F D I F V L G A E D G C I S T K E L G K V M R M L G Q N P T P E E L Q E M I D E V D E D G S G T V D F D E F L V M M V R C M K D D S K G K S E E E L S D L F R M F D K N A D G Y I D L D E L K I M L Q A T G E T I T E D D I E E L M K D G D K N N D G R I D Y D E F L E F M K G V E
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Troponin C, represented by the TNNC1 gene, serves as the central regulatory protein orchestrating striated muscle contraction. The troponin complex, composed of Tn-I, Tn-T, and Tn-C, plays a pivotal role in this regulatory mechanism. Tn-I functions as the inhibitor of actomyosin ATPase, while Tn-T provides the binding site for tropomyosin. Of particular significance, Tn-C serves as the calcium-binding component, and upon calcium interaction, it nullifies the inhibitory effect of Tn-I on actin filaments. This intricate interplay highlights the pivotal role of Troponin C in translating calcium signals into the modulation of muscle contraction dynamics.

Caution: Product has not been fully validated for medical applications. For research use only.

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