

CATALOGUE #: 8T53ph

PRODUCT NAME: Human cardiac troponin I (cTnI), phosphorylated

Source:	<p>Human heart tissue.</p> <p>Blood samples from the tissue donors were tested and found negative for HBsAg, HIV-1 and HIV-2 antibodies, HCV, and syphilis.</p>
Applications:	<p>TnI is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium sensitivity to striated muscle actomyosin ATPase activity.</p> <p>Cardiac isoform of TnI (cTnI) has two serine residues at positions 22 and 23 which could be phosphorylated by cAMP-dependent protein kinase (PKA) in response to β-adrenergic stimulation of the heart. Modification of these serines results in the changes of myocardial contractility. About 50% of cTnI purified from human cardiac tissue is mono- or biphosphorylated.</p> <p>cTnI purified from human cardiac tissue was completely phosphorylated <i>in vitro</i> by catalytic subunit of PKA from bovine heart.</p> <p>TnI is suitable for use as a standard in immunoassay, immunogen for antiserum production.</p>
Analysis:	<p>Purity > 95 %.</p> <p>TnI concentration was determined spectrophotometrically using A (0.1 %, 280 nm, 1 cm) equal to 0.42. This coefficient was calculated from the amino composition of human cTnI (FEBS Lett, 270, 57-61).</p> <p>Phosphate incorporation confirmed by reaction with monoclonal antibody that doesn't react with phosphorylated cTnI in ELISA and immunoblotting.</p>
Presentation:	<p>Frozen in 60 mM Tris-HCl, pH 7.3, 285 mM NaCl, 6 mM EGTA, 15 mM MgCl₂, 3 mM DTT, 150 μM ATP, 1.5 mM CaCl₂, 2.3 % glycerol and traces PKA.</p>
Storage:	<p>-20 °C (- 70 °C for long term storage)</p>
Other information:	<p>Avoid repeated freezing and thawing.</p>