

U-Blot® Phospho-Cardiac Troponin I (Ser23/24) Rabbit mAb (WT9061)

User Manual

General Information

Product name	U-Blot® Phospho-Cardiac Troponin I (Ser23/24) Rabbit mAb
Product No.	WT9061
Clonality	Recombinant monoclonal
Clone Number	W-R36
Alternative name	TNNC1, TNNI3

Key Features

Target	Phospho-Cardiac Troponin I (Ser23/24)
Reactivity	Human
Applications	WB
MW(Calculated)	24 kDa
MW(Observed)	25 kDa
Host Species	Rabbit
Isotype	IgG
Conjugate	Unconjugated
Modification	Phosphorylation
Modification Site	Ser23/24
Purification	Protein A affinity purification
Immunogen	Polypeptide
Specificity	Specific for cardiac troponin I only when phosphorylated at Ser23/24

Storage Information

Storage	Store at -20°C. Avoid repeated freeze-thaw cycles
Stability	Stable for 12 months from date of receipt / reconstitution.
Formulation	PBS, Glycerol, BSA

Product Usage Information

Applications	Dilution	Recommended Species
WB	1:5000-10000	Human

Target Information

Gene name	TNNI3
Protein name	Cardiac troponin I
Organism	Human
Gene ID	7137
SwissProt	P19429

Cardiac troponin is composed of three subunits, namely cardiac troponin T (cTnT), cardiac troponin I (cTnI), and cardiac troponin C (cTnC). They collectively participate in the regulation of cardiac muscle contraction. The amino-terminal and carboxyl-terminal ends of cTnI molecules are prone to degradation through protein hydrolysis. Cardiac troponin I (cTnI) is an important regulatory factor that inhibits muscle contraction under normal circumstances. It binds to actin, preventing the interaction between actin and cardiac troponin C (cTnC), thus inhibiting muscle contraction. The phosphorylation status of cTnI can alter its affinity for actin, thereby influencing the regulation of muscle contraction. The serine residues at positions 22 and 23 of cTnI are susceptible to phosphorylation by protein kinase A, which regulates muscle contraction. Abnormal levels of phosphorylation may also contribute to muscle dysfunction or the development of heart disease. Cellular localization: cardiac myofibril, cytosol.

Background

Cellular Localization	cardiac myofibril, cytosol
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