10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Troponin I fast + slow skeletal muscle Rabbit pAb

Catalog # AP98854

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	P19237
Other Accession	P19237
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	21692
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TNNI1+TNNI2
Epitope Specificity	51-150/182
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the troponin I family.
SUBUNIT	Binds to actin and tropomyosin.
DISEASE	Arthrogryposis, distal, 2B (DA2B) [MIM:601680]: A form of distal arthrogryposis, a disease characterized by congenital joint contractures that mainly involve two or more distal parts of the limbs, in the absence of a primary neurological or muscle disease. DA2B is characterized by contractures of the hands and feet, and a distinctive face characterized by prominent nasolabial folds, small mouth and downslanting palpebral fissures. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Troponin proteins associate with tropomyosin and regulate the calcium sensitivity of the myofibril contractile apparatus of striated muscles. 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. The TnI-fast and TnI-slow genes are expressed in fast-twitch and slow-twitch skeletal muscle fibers, respectively, while the TnI-cardiac gene is expressed exclusively in cardiac muscle tissue. This gene encodes the Troponin-I-skeletal-slow-twitch protein. This gene is expressed in cardiac and skeletal muscle during early development but is restricted to slow-twitch skeletal muscle fibers in adults. The encoded protein prevents muscle contraction by inhibiting calcium-mediated conformational changes in actin-myosin complexes. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	7135
Other Names	SSTNI; TNN1; AMCD2B; DA2B; DA2B1; FSSV; fsTnI; 2700018B22Rik; TNNI1_HUMAN; TNNI1; Troponin I, slow-twitch isoform; TNNI2_HUMAN; TNNI2; Troponin I, fast-twitch isoform; TNNI2_MOUSE; TNNI1_MOUSE; troponin I1, slow skeletal type; troponin I type 1 (skeletal, slow)
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	TNNI1
Function	Troponin I is the inhibitory subunit of troponin, the thin filament regulatory complex which confers calcium-sensitivity to striated muscle actomyosin ATPase activity.
Tissue Location	Highest levels observed in human skeletal muscle (e.g. gastrocnemious muscle), differentiated cultures of primary human muscle cells and rhabdomyosarcoma cells cultured in low serum medium Expressed in C2 muscle cell myoblasts and myotubes

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