G-Biosciences Image not found or type unknown

Immunotag™ Tropomyosin α Polyclonal Antibody

Antibody Specification

Catalog No.	ITT4746
Product Description	Immunotag™ Tropomyosin α Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	TropoMyosin α
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized peptide derived from the N-terminal region of human Tropomyosin α
Specificity	Tropomyosin α Polyclonal Antibody detects endogenous levels of Tropomyosin α protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	TPM1
Accession No.	P09493 P58771 P04692
Alternate Names	TPM1; C15orf13; TMSA; Tropomyosin alpha-1 chain; Alpha-tropomyosin; Tropomyosin-1

Antibody Specification

Description	tropomyosin 1 (alpha)(TPM1) Homo sapiens This gene is a member of the tropomyosin family of highly conserved, widely distributed actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosin is composed of two alpha-helical chains arranged as a coiled-coil. It is polymerized end to end along the two grooves of actin filaments and provides stability to the filaments. The encoded protein is one type of alpha helical chain that forms the predominant tropomyosin of striated muscle, where it also functions in association with the troponin complex to regulate the calcium-dependent interaction of actin and myosin during muscle contraction. In smooth muscle and non-muscle cells, alternatively spliced transcript variants encoding a range of isoforms have been described. Mutations in this gene are associated with type 3 familial hypertrophic cardiomyopathy. [provided by
Cell Pathway/ Category	Cardiac muscle contraction,Hypertrophic cardiomyopathy (HCM),Dilated cardiomyopathy,
Protein Expression	Brain,Caudate nucleus,Colon,Fibroblast,Heart,Hippocampus,Liver,Mammary cancer,Place
Subcellular Localization	stress fiber,cytosol,cytoskeleton,muscle thin filament tropomyosin,actin filament,integral component of membrane,myofibril,sarcomere,filamentous actin,bleb,ruffle membrane,
Protein Function	Additional isoforms seem to exist,disease:Defects in TPM1 are the cause of cardiomyopathy dilated type 1Y (CMD1Y) [MIM:611878]. Dilated cardiomyopathy is a disorder characterized by ventricular dilation and impaired systolic function, resulting in congestive heart failure and arrhythmia. Patients are at risk of premature death.,disease:Defects in TPM1 are the cause of cardiomyopathy familial hypertrophic type 3 (CMH3) [MIM:115196]. Familial hypertrophic cardiomyopathy is a hereditary heart disorder characterized by ventricular hypertrophy, which is usually asymmetric and often involves the interventricular septum. The symptoms include dyspnea, syncope, collapse, palpitations, and chest pain. They can be readily provoked by exercise. The disorder has inter- and intrafamilial variability ranging from benign to malignant forms with high risk of cardiac failure and sudden cardiac death.,domain:The molecule is in a coiled coil structure that is formed by 2 polypeptide chains. The sequence exhibits a prominent seven-residues periodicity.,function:Binds to actin filaments in muscle and non-muscle cells. Plays a central role, in association with the troponin complex, in the calcium dependent regulation of vertebrate striated muscle contraction. Smooth muscle contraction is regulated by interaction with caldesmon. In non-muscle cells is implicated in stabilizing cytoskeleton actin filaments.,mass spectrometry: PubMed:11840567,similarity:Belongs to the tropomyosin family.,subunit:Heterodimer of an alpha and a beta chain.,tissue specificity:Detected in primary breast cancer tissues but undetectable in normal breast tissues in Sudanese patients. Isoform 1 is expressed in adult and fetal skeletal muscle and cardiac tissues, with higher expression levels in the cardiac tissues. Isoform 10 is expressed in adult and fetal cardiac tissues, but not in skeletal muscle.,
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