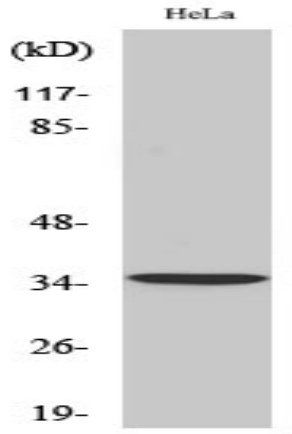
Best Tools for immunology Research

Tropomyosin α Polyclonal Antibody

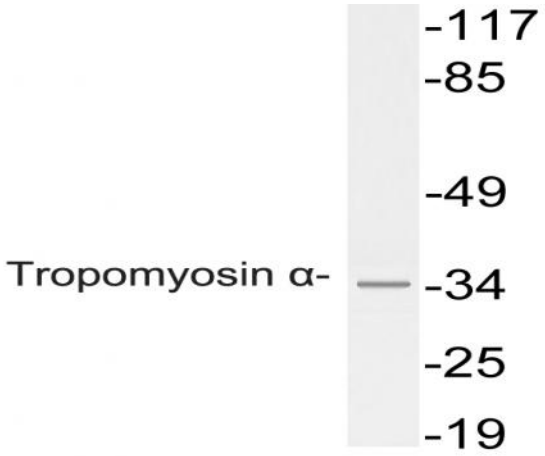
Catalog No :	YT4746
Reactivity :	Human;Mouse;Rat
Applications :	WB;ELISA
Target :	Tropomyosin α
Fields :	>>Cardiac muscle contraction;>>Adrenergic signaling in cardiomyocytes;>>MicroRNAs in cancer;>>Hypertrophic cardiomyopathy;>>Dilated cardiomyopathy
Gene Name :	TPM1
Protein Name :	Tropomyosin alpha-1 chain
Human Gene Id :	7168
Human Swiss Prot No :	P09493
Mouse Gene Id :	22003
Mouse Swiss Prot No :	P58771
Rat Gene Id :	24851
Rat Swiss Prot No :	P04692
Immunogen :	The antiserum was produced against synthesized peptide derived from human Tropomyosin alpha. AA range:40-89
Specificity :	Tropomyosin α Polyclonal Antibody detects endogenous levels of Tropomyosin α protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG

Dilution :	WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	35kD
Cell Pathway :	Cardiac muscle contraction;Hypertrophic cardiomyopathy (HCM);Dilated cardiomyopathy;
Background :	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
Function :	alternative products: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 sudde
Subcellular Location :	Cytoplasm, cytoskeleton . Associates with F-actin stress fibers. .
Expression :	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.

Products Images



Western Blot analysis of various cells using Tropomyosin α Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Western blot analysis of lysate from HeLa cells, using Tropomyosin α antibody.