

产品名称: Tropomyosin  $\alpha$  Rabbit Polyclonal Antibody  
产品货号: AP Rab19300



## 产品概述 (Summary)

|                        |                                                 |
|------------------------|-------------------------------------------------|
| 产品名称 (Production Name) | Tropomyosin $\alpha$ Rabbit Polyclonal Antibody |
| 描述 (Description)       | Rabbit polyclonal Antibody                      |
| 宿主 (Host)              | Rabbit                                          |
| 应用 (Application)       | WB, ELISA                                       |
| 种属反应性 (Reactivity)     | Human, Mouse, Rat                               |

## 产品性能 (Performance)

|                     |                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------|
| 偶联物 (Conjugation)   | Unconjugated                                                                                      |
| 修饰 (Modification)   | Unmodified                                                                                        |
| 同种型 (Isotype)       | IgG                                                                                               |
| 克隆 (Clonality)      | Polyclonal                                                                                        |
| 形式 (Form)           | Liquid                                                                                            |
| 存放说明 (Storage)      | Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.          |
| 储存溶液 (Buffer)       | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| 纯化方式 (Purification) | Affinity purification                                                                             |

## 免疫原信息 (Immunogen)

|                        |                                                                                            |
|------------------------|--------------------------------------------------------------------------------------------|
| 基因名 (Gene Name)        | TPM1                                                                                       |
| 别名 (Alternative Names) | Tropomyosin alpha-1 chain (Alpha-tropomyosin) (Tropomyosin-1)                              |
| 基因 ID (Gene ID)        | 7168.0                                                                                     |
| 蛋白 ID (SwissProt ID)   | P09493. Synthesized peptide derived from human Tropomyosin $\alpha$ . at AA range: 101-150 |

## 产品应用 (Application)

|                          |                                        |
|--------------------------|----------------------------------------|
| 稀释比 (Dilution Ratio)     | WB 1:500-1:2000, ELISA 1:10000-1:20000 |
| 蛋白分子量 (Molecular Weight) | 38kDa                                  |

## 研究背景 (Background)

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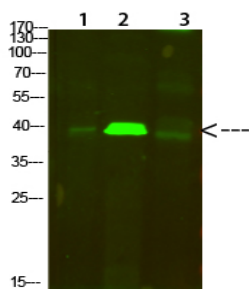
This gene is a member of the tropomyosin family of highly conserved, widely distributed actin-binding proteins involved in the contractile system of striated and smooth muscles and the cytoskeleton of non-muscle cells. Tropomyosin is composed of two alpha-helical chains arranged as a coiled-coil. It 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 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 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.,

## 研究领域 (Research Area)

Cardiac muscle contraction; Hypertrophic cardiomyopathy (HCM); Dilated cardiomyopathy;

## 图片 (Image Data)

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Western Blot analysis of 1,mouse-lung 2,mouse-brain 3,mouse-spleen cells using primary antibody diluted at 1:500 (4°C overnight) . Secondary antibody: Goat Anti-rabbit IgG IRDye 800 ( diluted at 1:5000, 25°C, 1 hour)

#### 注意事项 (Note)

For research use only .