

Immunotag™ α -SMA Polyclonal Antibody

| Antibody Specification | |
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| Catalog No. | ITT5121 |
| Product Description | Immunotag™ α -SMA Polyclonal Antibody |
| Size | 50 μ g, 100 μ g |
| 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 | α -SMA |
| Clonality | Polyclonal |
| Storage/Stability | -20°C/1 year |
| Application | WB,IHC-p,ELISA |
| Recommended Dilution | Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications. |
| Concentration | 1 mg/ml |
| Reactive Species | Human,Mouse,Rat |
| Host Species | Rabbit |
| Immunogen | Synthesized peptide derived from the Internal region of human α -SMA |
| Specificity | α -SMA Polyclonal Antibody detects endogenous levels of α -SMA 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 | ACTC1/ACTA1/ACTA2/ACTG2 |
| Accession No. | P68032 P68033 P68035 |
| Alternate Names | ACTC1; ACTC; Actin, alpha cardiac muscle 1; Alpha-cardiac actin; ACTA1; ACTA; Actin, alpha skeletal muscle; Alpha-actin-1; ACTA2; ACTSA; ACTVS; GIG46; |

Antibody Specification

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| Description | actin, alpha, cardiac muscle 1(ACTC1) Homo sapiens Actins are highly conserved proteins that are involved in various types of cell motility. Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to four others. The protein encoded by this gene belongs to the actin family which is comprised of three main groups of actin isoforms, alpha, beta, and gamma. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. Defects in this gene have been associated with idiopathic dilated cardiomyopathy (IDC) and familial hypertrophic cardiomyopathy (FHC). [provided by RefSeq, Jul 2008], |
| Cell Pathway/ Category | Cardiac muscle contraction,Hypertrophic cardiomyopathy (HCM),Dilated cardiomyopathy, |
| Protein Expression | Muscle,Tongue, |
| Subcellular Localization | extracellular space,cytoplasm,cytosol,actin filament,focal adhesion,membrane,sarcomere,lamellipodium,filopodium,I band,actomyosin, actin portion,cell body,extracellular exosome,blood microparticle, |
| Protein Function | disease:Defects in ACTC1 are the cause of cardiomyopathy dilated type 1R (CMD1R) [MIM:102540]. 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 ACTC1 are the cause of cardiomyopathy familial hypertrophic type 11 (CMH11) [MIM:612098]. 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.,function:Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.,miscellaneous:In vertebrates 3 main groups of actin isoforms, alpha, beta and gamma have been identified. The alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins coexist in most cell types as components of the cytoskeleton and as mediators of internal cell motility.,similarity:Belongs to the actin family.,subunit:Polymerization of globular actin (G-actin) leads to a structural filament (F-actin) in the form of a two-stranded helix. Each actin can bind to 4 others., |
| Usage | For Research Use Only! Not for diagnostic or therapeutic procedures. |