

# ACTG2 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP50866

## Product Information

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<b>Application</b>	WB, IHC-P, IHC-F, IF, ICC, E
<b>Primary Accession</b>	<a href="#">P63267</a>
<b>Reactivity</b>	Human, Mouse, Rat, Chicken, Rabbit
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	41877
<b>Physical State</b>	Liquid
<b>Immunogen</b>	KLH conjugated synthetic peptide derived from human ACTG2/Gamma 2 actin
<b>Epitope Specificity</b>	21-120/376
<b>Isotype</b>	IgG
<b>Purity</b>	affinity purified by Protein A
<b>Buffer</b>	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
<b>SUBCELLULAR LOCATION</b>	Cytoplasm, cytoskeleton.
<b>SIMILARITY</b>	Belongs to the actin family.
<b>SUBUNIT</b>	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.
<b>Post-translational modifications</b>	Oxidation of Met-45 and Met-48 by MICALs (MICAL1, MICAL2 or MICAL3) to form methionine sulfoxide promotes actin filament depolymerization. MICAL1 and MICAL2 produce the (R)-S-oxide form. The (R)-S-oxide form is reverted by MSRB1 and MSRB2, which promote actin repolymerization. Monomethylation at Lys-85 (K84me1) regulates actin-myosin interaction and actomyosin-dependent processes. Demethylation by ALKBH4 is required for maintaining actomyosin dynamics supporting normal cleavage furrow ingression during cytokinesis and cell migration.
<b>Important Note</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
<b>Background Descriptions</b>	Actins are highly conserved proteins that are involved in various types of cell motility and in the maintenance of the cytoskeleton. Three types of actins, alpha, beta and gamma, have been identified in vertebrates. Alpha actins are found in muscle tissues and are a major constituent of the contractile apparatus. The beta and gamma actins co-exist in most cell types as components of the cytoskeleton and as mediators of internal cell motility. This gene encodes actin gamma 2; a smooth muscle actin found in enteric tissues. Alternative splicing results in multiple transcript variants encoding distinct isoforms. Based on similarity to peptide cleavage of related actins, the mature protein of this gene is formed by removal of two N-terminal peptides.[provided by RefSeq, Dec 2010]

## Additional Information

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Gene ID 72

<b>Other Names</b>	Actin, gamma-enteric smooth muscle, Alpha-actin-3, Gamma-2-actin, Smooth muscle gamma-actin, ACTG2, ACTA3, ACTL3, ACTSG
<b>Dilution</b>	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
<b>Format</b>	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
<b>Storage</b>	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

<b>Name</b>	ACTG2
<b>Synonyms</b>	ACTA3, ACTL3, ACTSG
<b>Function</b>	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
<b>Cellular Location</b>	Cytoplasm, cytoskeleton.
<b>Tissue Location</b>	In the intestine, abundantly expressed in smooth muscle cells of muscularis mucosa and muscularis propria. Also detected in intestinal vascular smooth muscle cells

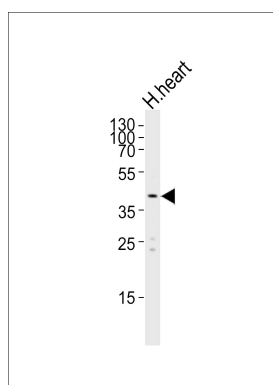
## Background

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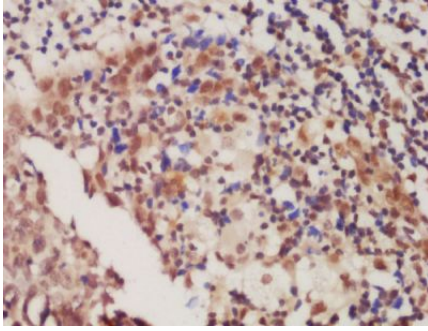
## References

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Miwa T.,et al.Mol. Cell. Biol. 11:3296-3306(1991).  
Ota T.,et al.Nat. Genet. 36:40-45(2004).  
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.  
Hillier L.W.,et al.Nature 434:724-731(2005).

## Images



Western blot analysis of lysate from human heart tissue lysate,using ACTG2 Antibody(AP50866). AP50866 was diluted at 1:500. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody.Lysate at 35ug.



Tissue/cell: human laryngocarcinoma; 4%  
Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer at 37°C for 20 min; Incubation: Anti-ACTG2 Polyclonal Antibody, Unconjugated 1:200, overnight at 4°C, followed by conjugation to the secondary antibody and DAB staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.