

**Goat Anti-Smooth muscle alpha-actin Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF2010a****Specification**

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**Goat Anti-Smooth muscle alpha-actin Antibody - Product Information**

Application	WB, IHC-P, Pep-ELISA
Primary Accession	<a href="#">P62736</a>
Other Accession	<a href="#">NP_001135417</a> , <a href="#">59</a>
Reactivity	Human, Mouse, Rat, Pig
Predicted	Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	42009

**Goat Anti-Smooth muscle alpha-actin Antibody - Additional Information****Gene ID 59****Other Names**

Actin, aortic smooth muscle, Alpha-actin-2, Cell growth-inhibiting gene 46 protein, ACTA2, ACTSA, ACTVS

**Dilution**

WB~~1:1000  
IHC-P~~N/A  
Pep-ELISA~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Smooth muscle alpha-actin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Smooth muscle alpha-actin Antibody - Protein Information****Name ACTA2****Synonyms ACTSA, ACTVS**

**Function**

Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.

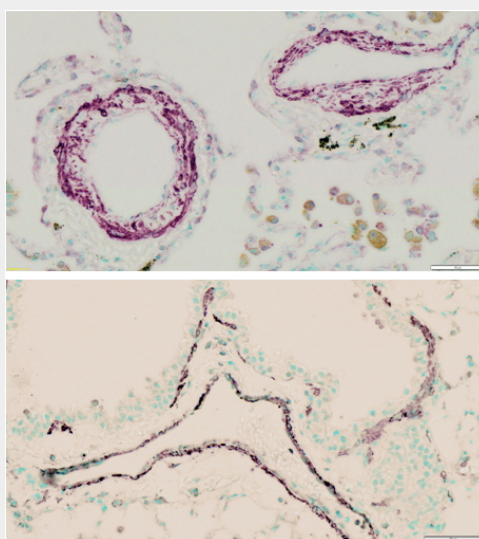
**Cellular Location**

Cytoplasm, cytoskeleton.

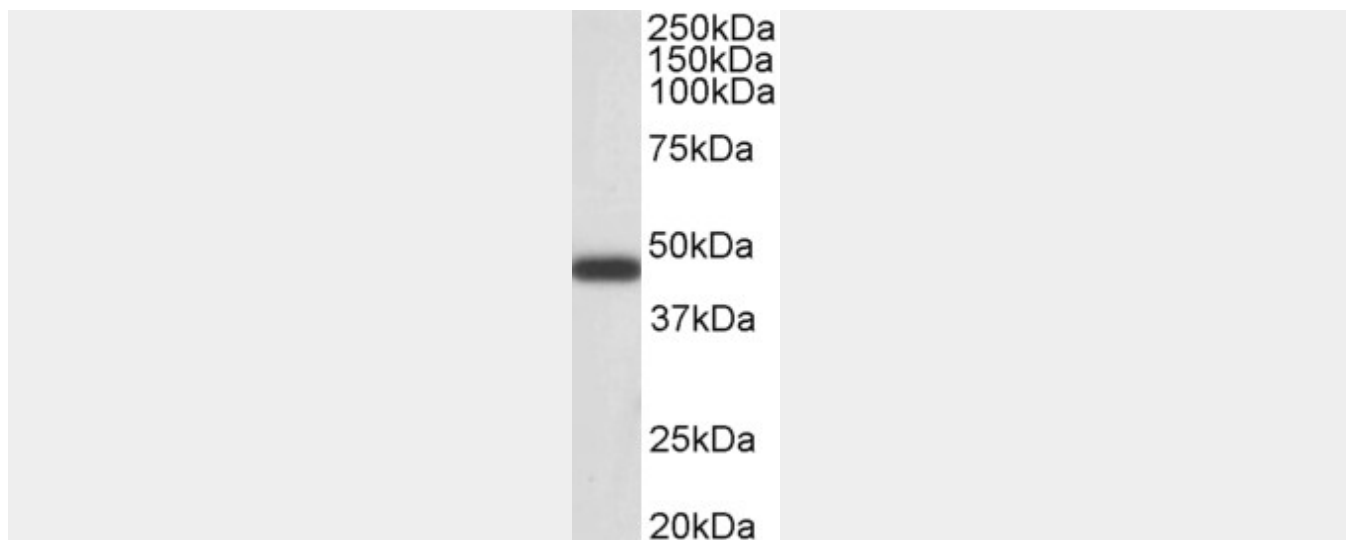
**Goat Anti-Smooth muscle alpha-actin Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

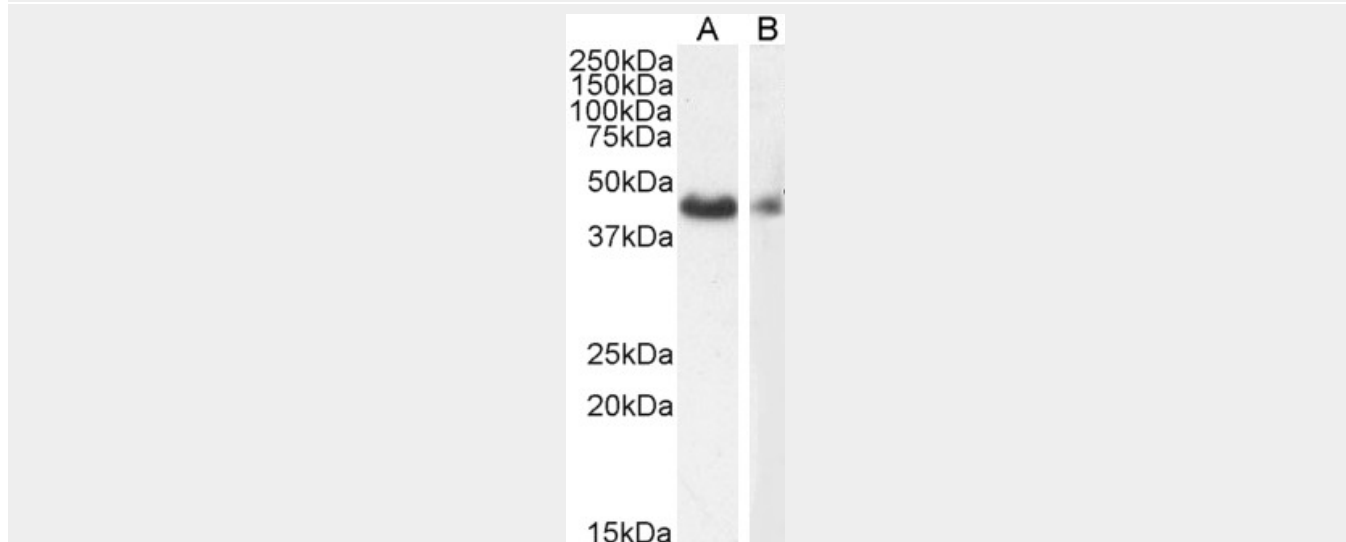
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Goat Anti-Smooth muscle alpha-actin Antibody - Images**

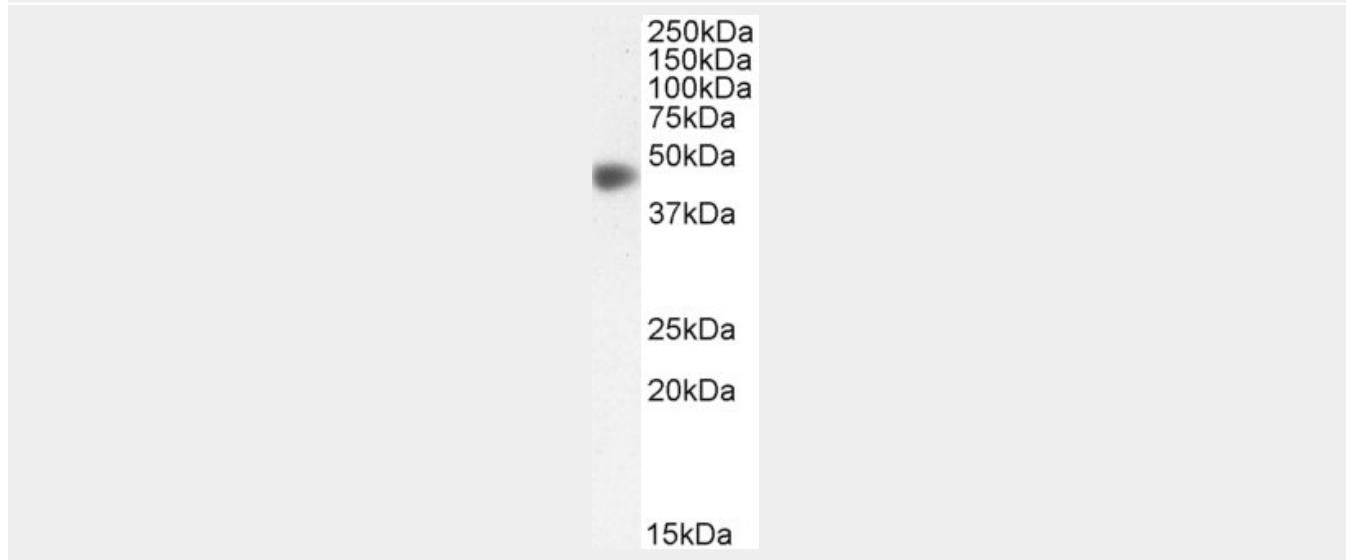
AF2010a (2.5 µg/ml) staining of paraffin embedded Human Lung (top) and Mouse Lung (bottom). Trypsin-mediated antigen retrieval, HRP-staining. Bar in right lower corner represents 50µm. Data provided by Dr L. Marsh, Ludwig Boltzmann Institute for Lung Vascular Research, Graz, Austria



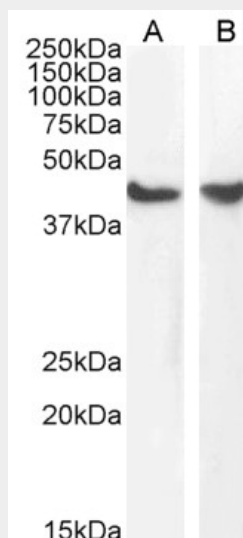
AF2010a staining (0.5  $\mu$ g/ml) of Human Duodenum lysate (RIPA buffer, 35  $\mu$ g total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



EB06450 (1 $\mu$ g/ml) staining of HeLa (A) and (2 $\mu$ g/ml) NIH3T3 (B) cell lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



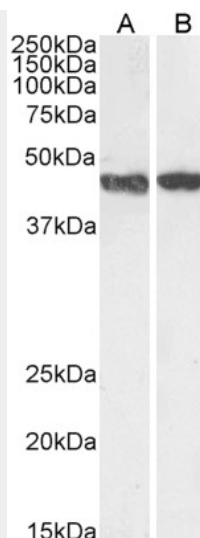
EB06450 (0.3 $\mu$ g/ml) staining of Human Duodenum lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



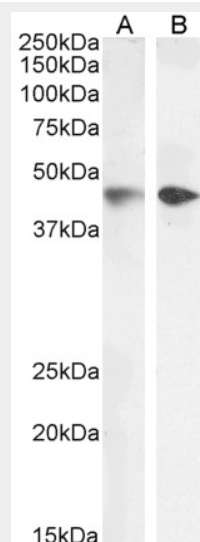
EB06450 (1 $\mu$ g/ml) staining of HeLa (A) and NIH3T3 (B) cell lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



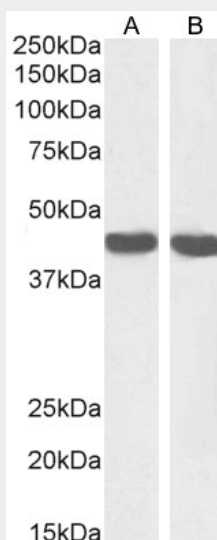
EB06450 (1 $\mu$ g/ml) staining of Human Duodenum lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



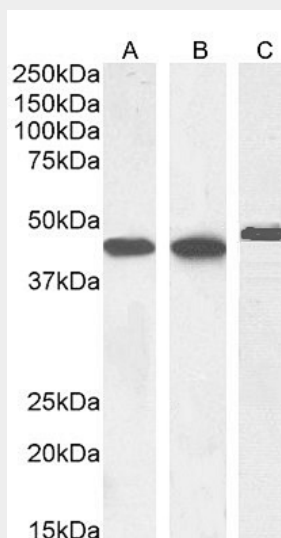
EB06450 (1 $\mu$ g/ml) staining of HeLa (A) and NIH3T3 (B) cell lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB06450 (0.3 $\mu$ g/ml) staining of Human Heart (A) and (2 $\mu$ g/ml) Mouse Duodenum (B) lysate (35 $\mu$ g protein in RIPA buffer). Detected by chemiluminescence.



EB06450 (1µg/ml) staining of HeLa (A) and NIH3T3 (B) cell lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB06450 (1µg/ml) staining of Human Heart (A), (0.1ug/ml) Mouse Duodenum (B) and (0.03ug/ml) Rat Heart (C) lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

#### Goat Anti-Smooth muscle alpha-actin Antibody - Background

The protein encoded by this gene belongs to the actin family of proteins, which are highly conserved proteins that play a role in cell motility, structure and integrity. Alpha, beta and gamma actin isoforms have been identified, with alpha actins being a major constituent of the contractile apparatus, while beta and gamma actins are involved in the regulation of cell motility. This actin is an alpha actin that is found in skeletal muscle. Defects in this gene cause aortic aneurysm familial thoracic type 6. Multiple alternatively spliced variants, encoding the same protein, have been identified.

#### Goat Anti-Smooth muscle alpha-actin Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Stromal expression of actin is a marker of aggressiveness in basal cell carcinoma. Adegboyega PA, et al. Hum Pathol, 2010 Aug. PMID 20381122.

New genetic associations detected in a host response study to hepatitis B vaccine. Davila S, et al. Genes Immun, 2010 Apr. PMID 20237496.

[Relationship between atrial fibroblast proliferation/fibrosis and atrial fibrillation in patients with rheumatic heart disease] Lin YZ, et al. Zhonghua Xin Xue Guan Bing Za Zhi, 2009 Sep. PMID 20128380.

Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.