



Datasheet for ABIN185271

## anti-Smooth Muscle Actin antibody (N-Term)



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### Overview

Quantity:	100 µg
Target:	Smooth Muscle Actin (ACTA2)
Binding Specificity:	N-Term
Reactivity:	Human, Rat, Mouse
Host:	Goat
Clonality:	Polyclonal
Conjugate:	This Smooth Muscle Actin antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

### Product Details

Purpose:	Smooth muscle alpha-actin
Immunogen:	Peptide with sequence EEEDSTALVC, from the N Terminus of the protein sequence according to NP_001604.1, NP_001135417.1.
Sequence:	EEEDSTALVC
Isotype:	IgG
Specificity:	Variants NP_001604.1 and NP_001135417.1 encode the same protein.
Cross-Reactivity:	Dog, Human, Mouse, Rat
Purification:	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Grade:	Verified

## Target Details

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Target:	Smooth Muscle Actin (ACTA2)
Alternative Name:	ACTA2 ( <a href="#">ACTA2 Products</a> )
Background:	ACTA2, actin, alpha 2, smooth muscle, aorta, OTTHUMP00000020042, ACTSA, AAT6, ACTSA, alpha 2 actin, alpha-cardiac actin, growth-inhibiting gene 46, smooth muscle alpha-actin,
Gene ID:	59
NCBI Accession:	<a href="#">NP_001604</a> , <a href="#">NP_001135417</a>
Pathways:	<a href="#">Myometrial Relaxation and Contraction</a> , <a href="#">Skeletal Muscle Fiber Development</a>

## Application Details

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Application Notes:	Western Blot: Approx 42 kDa band observed in Human Heart, Mouse Duodenum and in lysates of cell lines HeLa and NIH3T3, and approx. 45 kDa in Rat Heart lysates (calculated MW of 42 kDa according to Human NP_001604, Mouse NP_031418.1 and Rat NP_112266.1). R Peptide ELISA: antibody detection limit dilution 1:32000.
Restrictions:	For Research Use only

## Handling

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Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Supplied at 0.5 mg/mL in Tris saline, 0.02 % sodium azide, pH 7.3 with 0.5 % bovine serum albumin.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Minimize freezing and thawing.
Storage:	-20 °C
Storage Comment:	Aliquot and store at -20°C, with minimal freeze/thawing. A working aliquot may be refrigerated at 4°C for a few weeks and still remain viable.

## Publications

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Product cited in:	Cunha, Leuckx, Sterkendries, Korf, Bomfim-Ferreira, Overbergh, Vaes, Heimberg, Gysemans,
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Mathieu: "Human multipotent adult progenitor cells enhance islet function and revascularisation when co-transplanted as a composite pellet in a mouse model of diabetes." in: **Diabetologia**, Vol. 60, Issue 1, pp. 134-142, (2017) ([PubMed](#)).

Nischalke, Berger, Lutz, Langhans, Wolter, Eisenhardt, Krämer, Kokordelis, Glässner, Müller, Rosendahl, Fischer, Berg, Grünhage, Leifeld, Soyka, Nattermann, Sauerbruch, Stickel, Spengler: "Influence of the CXCL1 rs4074 A allele on alcohol induced cirrhosis and HCC in patients of European descent." in: **PLoS ONE**, Vol. 8, Issue 11, pp. e80848, (2014) ([PubMed](#)).

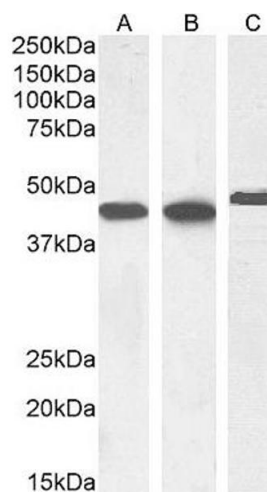
Park, Chen, Hoffman, Marsh, West, Grunig: "Modification of hemodynamic and immune responses to exposure with a weak antigen by the expression of a hypomorphic BMP2 gene." in: **PLoS ONE**, Vol. 8, Issue 1, pp. e55180, (2013) ([PubMed](#)).

Trokovic, Pöllänen, Porola, Stegaev, Hetzel, Tivesten, Engdahl, Carlsten, Forsblad-d'Elia, Fagman, Lagerquist, Konttinen: "Exosomal secretion of death bullets: a new way of apoptotic escape?" in: **American journal of physiology. Endocrinology and metabolism**, Vol. 303, Issue 8, pp. E1015-24, (2012) ([PubMed](#)).

McIntire, Sifers, Platt, Ganacias, Langat, Hunt: "Novel HLA-G-binding leukocyte immunoglobulin-like receptor (LILR) expression patterns in human placentas and umbilical cords." in: **Placenta**, Vol. 29, Issue 7, pp. 631-8, (2008) ([PubMed](#)).

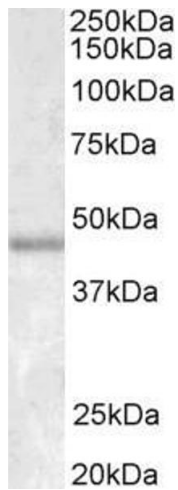
## Images

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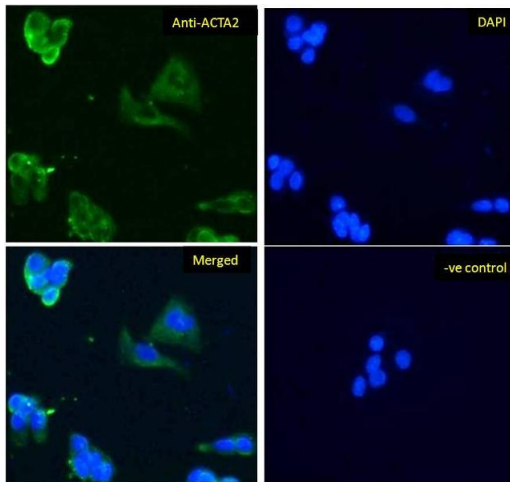


### Western Blotting

**Image 1.** (ABIN185271) (1 µg/mL) staining of Human Heart (A), (0.1 µg/mL) Mouse Duodenum (B) and (0.03 µg/mL) Rat Heart (C) lysate (35 µg protein in RIPA buffer). Detected by chemiluminescence.



**Image 2.** ABIN185271 staining (1.5  $\mu\text{g}/\text{mL}$ ) of Human Duodenum lysate (RIPA buffer, 35  $\mu\text{g}$  total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.



### Immunofluorescence

**Image 3.** ABIN185271 Immunofluorescence analysis of paraformaldehyde fixed HepG2 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10 $\mu\text{g}/\text{ml}$ ) followed by Alexa Fluor 488 secondary antibody (1 $\mu\text{g}/\text{ml}$ ), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10 $\mu\text{g}/\text{ml}$ ) followed by Alexa Fluor 488 secondary antibody (2 $\mu\text{g}/\text{ml}$ ).

Please check the [product details page](#) for more images. Overall 29 images are available for ABIN185271.