

## UK Office

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**Research Use Only. Not for  
diagnostic or therapeutic use.**

## EB06450 - Goat Anti-Smooth muscle alpha-actin Antibody

Size: 100µg specific antibody in 200µl



### Target Protein

**Principal Names:** actin, alpha 2, smooth muscle, aorta, OTTHUMP00000020042, ACTA2, ACTSA, AAT6, ACTSA, alpha 2 actin, alpha-cardiac actin, growth-inhibiting gene 4, smooth muscle alpha-actin

**Official Symbol:** ACTA2

**Accession Number(s):** NP\_001604.1; NP\_001135417.1

**Human GeneID(s):** [59](#)

**Important Comments:** Variants NP\_001604.1 and NP\_001135417.1 encode the same protein.

### Immunogen

Peptide with sequence EEEDSTALVC, from the N Terminus of the protein sequence according to NP\_001604.1; NP\_001135417.1.

Please note the [peptide](#) is available for sale.

### Purification and Storage

Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin.

Aliquot and store at -20°C. Minimize freezing and thawing.

### Applications Tested

**Peptide ELISA:** antibody detection limit dilution 1:128000.

**Western blot:** Approx 45kDa band observed in Human and Rat Duodenum lysates and in lysates of cell lines HeLa and NIH3T3, (calculated MW of 42kDa according to Human NP\_001604, Mouse NP\_031418.1 and Rat NP\_112266.1). Recommended concentration: 0.1-0.5µg/ml. Primary incubation 1 hour at room temperature.

### Species Reactivity

**Tested:** Human, Rat

**Expected from sequence similarity:** Human, Mouse, Rat, Dog

### Specific References

**This antibody has been successfully used in IHC on Mouse:**

João Paulo M. C. M. Cunha, Gunter Leuckx, Peter Sterkendries, Hannelie Korf, Gabriela Bomfim-Ferreira, Lutgart Overbergh, Bart Vaes, Harry Heimberg, Conny Gysemans, Chantal Mathieu

Human multipotent adult progenitor cells enhance islet function and revascularisation when co-transplanted into a composite pellet in a mouse model of diabetes.

Diabetologia. 2016 Oct 4.

PMID: 27704164

**This antibody has been successfully used in WB and IF on Mouse:**

Chaoferi Li, Tianyi Yu, Yan Liu, Xuelian Chen, and Xiong Zhang.

Topical Application of Insulin Accelerates Vessel Maturation of Wounds by Regulating Angiopoietin-1 in Diabetic Mice.

Int J Low Extrem Wounds. 2015 Dec;14(4):353-64.

PMID: 26349856

**This antibody has been successfully used in IHC on Human:**

Zabini D, Crnkovic S, Xu H, Tscherner M, Ghanim B, Klepetko W, Olschewski A, Kwapiszewska G, Marsh LM.

High-mobility group box-1 induces vascular remodelling processes via c-Jun activation.

J Cell Mol Med. 2015 May;19(5):1151-61

PMID: 25726846

**This antibody has been successfully used in IHC on Human:**

Diana Zabini, Akos Heinemann, Vasile Foris, Chandran Nagaraj, Patrick Nierlich, Zoltán Ba'lint, Grazyna Kwapiszewska, Irene M. Lang, Walter Klepetko, Horst Olschewski and Andrea Olschewski.

Comprehensive analysis of inflammatory markers in chronic thromboembolic pulmonary hypertension patients.

Eur Respir J. 2014 Oct;44(4):951-62.

PMID: 25034560

**This antibody has been successfully used in IHC on Mouse:**

Trokovic N, Pöllänen R, Porola P, Stegaev V, Hetzel U, Tivesten Å, Engdahl C, Carlsten H, Forsblad-d'Elia H, Fagman JB, Lagerquist M, Kontinen YT.

Exosomal secretion of death bullets: a new way of apoptotic escape?

Am J Physiol Endocrinol Metab. 2012 Oct 15;303(8):E1015-24.

PMID: 22912365

**This antibody has been successfully used in IF on Human:**

McIntire RH, Sifers T, Platt JS, Ganacias KG, Langat DK, Hunt JS.

Novel HLA-G-binding leukocyte immunoglobulin-like receptor (LILR) expression patterns in human placentas and umbilical cords.

Placenta. 2008 Jul;29(7):631-8.

PMID: 18538388

**This antibody has been successfully used in IHC on Mouse:**

Park SH, Chen WC, Hoffman C, Marsh LM, West J, Grunig G.

Modification of hemodynamic and immune responses to exposure with a weak antigen by the expression of a hypomorphic BMPR2 gene.

PLoS One. 2013;8(1):e55180.

PMID: 23383100

EB06450 (0.1µg/ml) staining of Human (A) and (0.5ug/ml) Rat (B) Duodenum lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

EB06450 (0.1µg/ml) staining of HeLa (A) and (0.3ug/ml) NIH3T3 (B) cell lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.

EB006450 (3.5µg/ml) staining of paraffin embedded Human Lung. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining. **This data is from a previous batch, not on sale.**

EB06450 Negative Control showing staining of paraffin embedded Human Lung, with no primary antibody. **This data is from a previous batch, not on sale.**

EB06450 Immunofluorescence analysis of paraformaldehyde fixed HepG2 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (blue). Negative control: Unimmunized goat IgG (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). **This data is from a previous batch, not on sale.**