


# Anti-beta Actin antibody ab227387

[111 References](#)   [13 Images](#)

### Overview

<b>Product name</b>	Anti-beta Actin antibody
<b>Description</b>	Rabbit polyclonal to beta Actin
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human, Drosophila melanogaster <b>Predicted to work with:</b> Sheep, Rabbit, Chicken, Guinea pig, Cow, Dog, Xenopus laevis, Chimpanzee, Rhesus monkey 
<b>Immunogen</b>	Recombinant fragment within Human beta Actin (internal sequence). The exact sequence is proprietary. Database link: <a href="#">P60709</a>
<b>Positive control</b>	WB: HEK-293T, A431, HeLa, HepG2, Neuro-2a, C8D30, NIH/3T3, RAW 264.7, C2C12, PC-12 and Rat2 whole cell extracts; Mouse and rat liver tissue extracts; Drosophila melanogaster lysate. IP: HEK-293T whole cell extract. IHC-P: Mouse pancreas and cervix tissues; Rat liver tissue. ICC/IF: HeLa cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 78% PBS, 1% BSA, 20% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified

<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

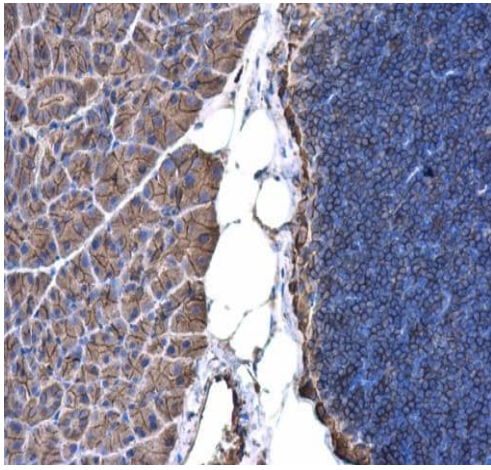
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab227387 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>WB</b>		1/5000 - 1/20000. Predicted molecular weight: 42 kDa.
<b>IP</b>		1/100 - 1/1000.
<b>IHC-P</b>		1/100 - 1/1000.
<b>ICC/IF</b>		1/100 - 1/1000.

## Target

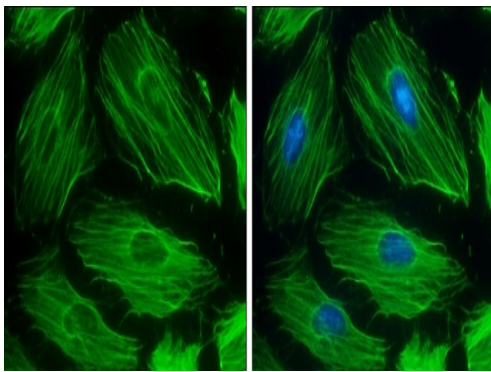
<b>Function</b>	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
<b>Involvement in disease</b>	Defects in ACTB are a cause of dystonia juvenile-onset (DYTJ) [MIM:607371]. DYTJ is a form of dystonia with juvenile onset. Dystonia is defined by the presence of sustained involuntary muscle contraction, often leading to abnormal postures. DYTJ patients manifest progressive, generalized, dopa-unresponsive dystonia, developmental malformations and sensory hearing loss.
<b>Sequence similarities</b>	Belongs to the actin family.
<b>Post-translational modifications</b>	ISGylated.
<b>Cellular localization</b>	Cytoplasm > cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

## Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody (ab227387)

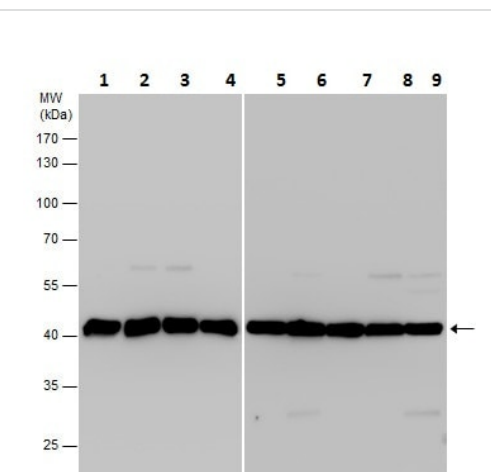
Paraffin-embedded mouse pancreas tissue stained for beta Actin using ab227387 at 1/500 dilution in immunohistochemical analysis.



Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody (ab227387)

0.5% Triton X-100 followed by ice-cold methanol fixed HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained for beta Actin (green) using ab227387 at 1/500 dilution in ICC/IF.

Nuclear counterstain: Hoechst 33342 (blue).



Western blot - Anti-beta Actin antibody (ab227387)

**All lanes** : Anti-beta Actin antibody (ab227387) at 1/20000 dilution

**Lane 1** : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract

**Lane 2** : A431 (human epidermoid carcinoma cell line) whole cell extract

**Lane 3** : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract

**Lane 4** : HepG2 (human liver hepatocellular carcinoma cell line) whole cell extract

**Lane 5** : Neuro-2a (mouse neuroblastoma cell line) whole cell extract

**Lane 6** : C8D30 whole cell extract

**Lane 7** : NIH/3T3 (mouse embryo fibroblast cell line) whole cell extract

**Lane 8** : RAW 264.7 (mouse macrophage cell line transformed

with Abelson murine leukemia virus) whole cell extract

**Lane 9 :** C2C12 (mouse myoblast cell line) whole cell extract

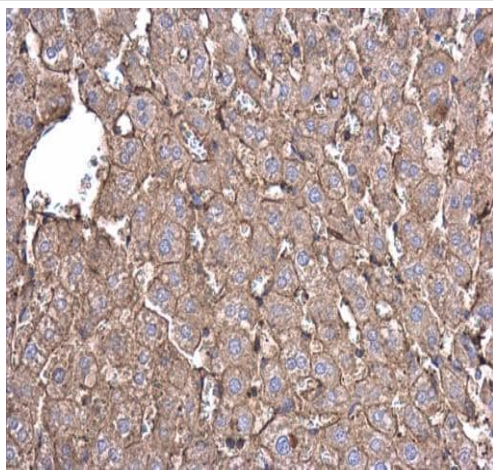
Lysates/proteins at 30 µg per lane.

### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

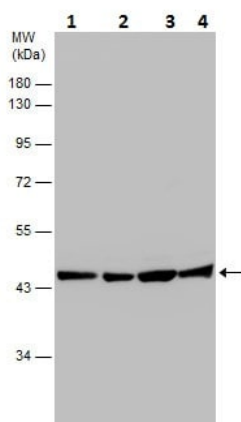
**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody (ab227387)

Paraffin-embedded rat liver tissue stained for beta Actin using ab227387 at 1/500 dilution in immunohistochemical analysis.



Western blot - Anti-beta Actin antibody (ab227387)

**All lanes :** Anti-beta Actin antibody (ab227387) at 1/20000 dilution

**Lane 1 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract

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**Lane 3 :** HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell extract

**Lane 4 :** HepG2 (human liver hepatocellular carcinoma cell line) whole cell extract

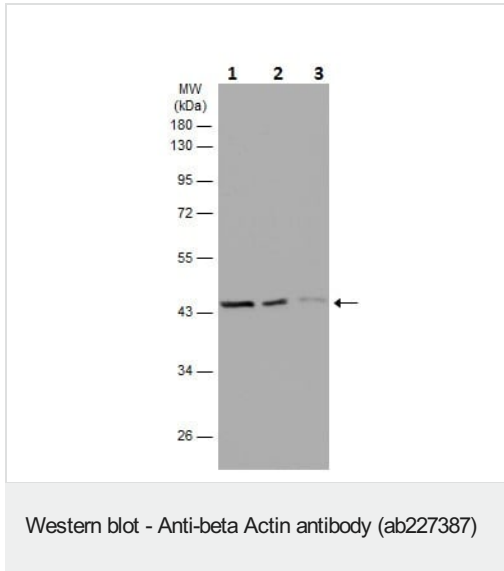
Lysates/proteins at 30 µg per lane.

### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



**All lanes :** Anti-beta Actin antibody (ab227387) at 1/10000 dilution

**Lane 1 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract at 15  $\mu$ g

**Lane 2 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract at 5  $\mu$ g

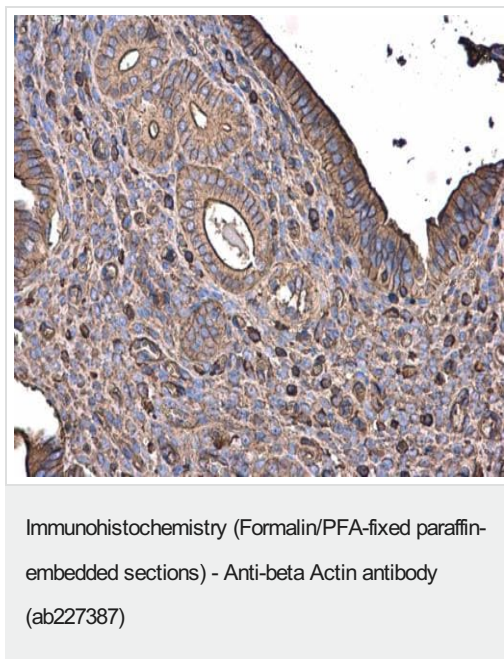
**Lane 3 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract at 2  $\mu$ g

**Secondary**

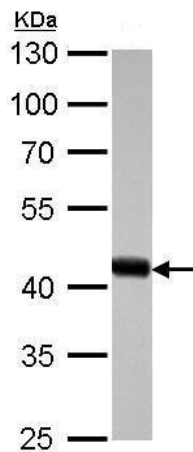
**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



Paraffin-embedded mouse cervix tissue stained for beta Actin using ab227387 at 1/500 dilution in immunohistochemical analysis.



Western blot - Anti-beta Actin antibody (ab227387)

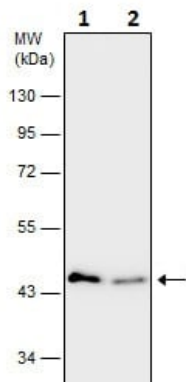
Anti-beta Actin antibody (ab227387) at 1/10000 dilution +  
Drosophila melanogaster lysate at 30 µg

#### Secondary

HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



Western blot - Anti-beta Actin antibody (ab227387)

**All lanes :** Anti-beta Actin antibody (ab227387) at 1/15000 dilution

**Lane 1 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract

**Lane 2 :** HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with beta Actin shRNA, whole cell extract

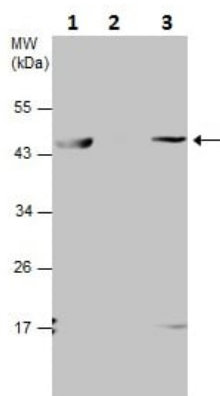
Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



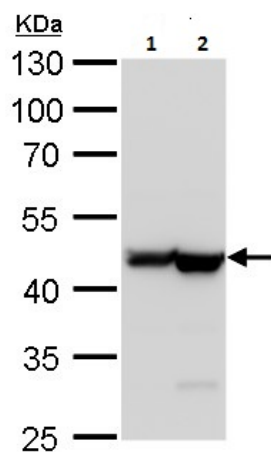
Immunoprecipitation - Anti-beta Actin antibody  
(ab227387)

beta Actin was immunoprecipitated from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract with 5 µg of ab227387. Western blot was performed from the immunoprecipitate using ab227387. Anti-rabbit IgG was used as secondary antibody.

**Lane 1:** HEK-293T whole cell extract (Input).

**Lane 2:** Control IgG instead of ab227387 in HEK-293T whole cell extract.

**Lane 3:** ab227387 IP in HEK-293T whole cell extract.



Western blot - Anti-beta Actin antibody (ab227387)

**All lanes :** Anti-beta Actin antibody (ab227387) at 1/20000 dilution

**Lane 1 :** PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate

**Lane 2 :** Rat2 (rat fibroblast cell line) whole cell lysate

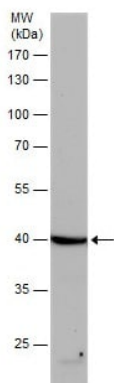
Lysates/proteins at 30 µg per lane.

**Secondary**

**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



Western blot - Anti-beta Actin antibody (ab227387)

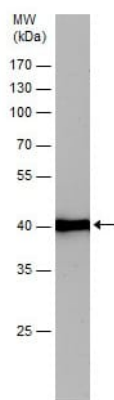
Anti-beta Actin antibody (ab227387) at 1/20000 dilution + Mouse liver tissue extract at 50 µg

#### Secondary

HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.



Western blot - Anti-beta Actin antibody (ab227387)

Anti-beta Actin antibody (ab227387) at 1/20000 dilution + Rat liver tissue extract at 50 µg

#### Secondary

HRP-conjugated anti-rabbit IgG

**Predicted band size:** 42 kDa

10% SDS-PAGE gel.

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