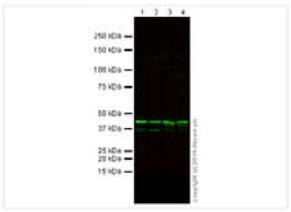
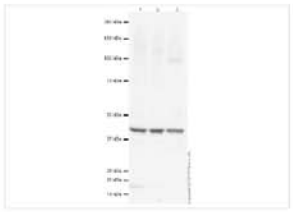
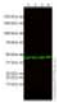
Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226)

★★★★★ Abreviews (131) · Q&A (7) · Specific References (525) · Datasheet · SDS

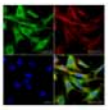




Most popular with customers

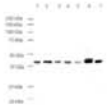


Anti-beta Actin antibody (ab8227)
★★★★★ 87 reviews
References (786)
Applications: ELISA, Flow Cyt, ICC, ICC/IF, IHC-Fr, IHC-FrFl, IHC-P...
Species: Mouse, Rat, Sheep, Rabbit, Chicken, Guinea pig, Cow, Dog...



Anti-GAPDH antibody [6C5] (ab8245)
★★★★★ 87 reviews
References (811)
Applications: ELISA, ICC, ICC/IF, IHC-Fr, WB
Species: Mouse, Rat, Rabbit, Chicken, Hamster, Cat, Dog, Human...

Anti-beta Actin antibody [mAbcam 8226] - Loading Control (HRP) (ab20272)
★★★★★ 14 reviews
References (91)
Applications: WB
Species: Mouse, Rat, Rabbit, Chicken, Cow, Dog, Human, Pig...



Anti-beta Actin antibody - Loading Control (ab8229)
★★★★☆ 10 reviews
References (83)
Applications: WB
Species: Mouse, Rat, Rabbit, Goat, Chicken, Cow, Dog, Human, Fish...

Datasheet · Specific References (525) · Protocols

Customer reviews and FAQs

Overview

Product name	Anti-beta Actin antibody [mAbcam 8226] - Loading Control See all beta Actin primary antibodies
Description	Mouse monoclonal [mAbcam 8226] to beta Actin - Loading Control
Specificity	Does not cross-react with adult cardiac, smooth, or skeletal muscle actin. The immunogen used for this product shares 77% homology with Gamma actin/actin cytoplasmic 2. Cross-reactivity with this protein has not been confirmed experimentally.
Tested applications	**Suitable for:** ICC/IF, ICC, Flow Cyt, IHC-FrFl, IHC-P, IHC-Fr, IP, WB ▸ more details
Species reactivity	**Reacts with:** Mouse, Rat, Rabbit, Horse, Chicken, Cow, Dog, Human, Pig, Zebrafish, African green monkey, Chinese hamster, Armenian hamster **Predicted to work with:** Sheep, Guinea pig ⚠
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human beta Actin. Read Abcam's proprietary immunogen policy (Peptide available as ab13772.)
Positive control	WB, ICC/IF, Flow Cyt: HeLa, Jurkat, A431, HEK293, NIH 3T3, PC12 cells. IHC-P: Human colon (FFPE), Rat colon (FFPE).
General notes	**Western blot protocol advice:** For best results in Western blot, **we recommend using 2-5% BSA for blocking not milk since we have found that using 5% milk significantly reduces the band intensity for beta actin**. Please see the comparison data in the images section. Our Technical team (technical@abcam.com) will be happy to provide further information and advice. This antibody clone [mAbcam 8226] is manufactured by Abcam. We have the following conjugates available: Anti-beta Actin antibody (Alexa Fluor® 680) [mAbcam 8226] (ab184092) Anti-beta Actin antibody (Alexa Fluor® 790) [mAbcam 8226]

Product code ab8226

Size	Price
◉ 100 µg	$429
○ 10 µg	$129

Order now and get it on Thursday October 19, 2017

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Shipping info

$45.00 to United States
Same day delivery on Boston area orders placed by **1.00 PM**

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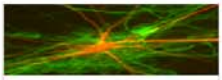


NEUROSCIENCE

Caracterização imunohistoquímica e molecular de um tumor raro do Sistema Nervoso Central

Video

ABPROMISE
Guaranteed product quality, expert customer support

GUARANTEED

(ab184576)
Anti-beta Actin antibody (HRP) [mAbcam 8226] (ab20272)

Properties

Form	Liquid
Storage instructions	Shipped at 4ºC. Store at +4ºC short term (1-2 weeks). Upon delivery aliquot. Store at -20ºC or -80ºC. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS Contains 0.4 M Arginine as a stabilizing agent.
Concentration	100 µg at 1 mg/ml 10 µg at 1 mg/ml
Purity	IgG fraction
Clonality	Monoclonal
Clone number	mAbcam 8226
Myeloma	Sp2/0-Ag14
Isotype	IgG1
Light chain type	kappa
Research areas	› Isotype/Loading Controls → Loading Controls → Beta Actin › Tags & Cell Markers → Subcellular Markers → Cytoskeleton → Actin › Signal Transduction → Cytoskeleton / ECM → Cytoskeleton → Microfilaments → Actin etc → Actin

Associated products

Alternative Products	› Anti-beta Actin antibody [mAbcam 8224] - Loading Control (ab8224) › Anti-beta Actin antibody (ab8227)
Compatible Secondaries	› Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) (ab150113) › Goat Anti-Mouse IgG H&L (HRP) (ab205719) › Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773)
Immunizing Peptide (Blocking)	› Human beta Actin peptide (ab13772)
Immunohistochemistry kits	› Mouse on Mouse Polymer IHC Kit (ab127055) › EXPOSE Mouse and Rabbit Specific HRP/DAB Detection IHC kit (ab80436)
Related Products	› Prism Ultra Protein Ladder (10-245 kDa) (ab116028) › Phalloidin-iFluor 488 Reagent - CytoPainter (ab176753) › Phalloidin-iFluor 647 Reagent - CytoPainter (ab176759) › Anti-beta Actin antibody [mAbcam 8226] - Loading Control (Alexa Fluor® 680) (ab184092) › Anti-beta Actin antibody [mAbcam 8226] - Loading Control (Alexa Fluor® 790) (ab184576) › Anti-beta Actin antibody [mAbcam 8226] - Loading Control (HRP) (ab20272)

Applications

Our Abpromise guarantee covers the use of **ab8226** 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
ICC/IF	★★★★☆	Use a concentration of 5 µg/ml.
ICC	★★★★★	Use at an assay dependent concentration.
Flow Cyt	★★★★★	Use at an assay dependent concentration. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-FrFl	★★★★☆	Use at an assay dependent concentration.
IHC-P	★★★★☆	Use a concentration of 0.1 - 0.5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IHC-Fr	★★★★★	1/500.
IP	★★★★★	1/100.
WB	★★★★★	1/500 - 1/10000. Predicted molecular weight: 42 kDa.Can be blocked with Human beta Actin peptide (ab13772). **We recommend blocking using 2-5% BSA as we have found that use of 5% milk significantly reduces the band intensity for beta actin.** Please refer to the images section for the blocking comparison data.

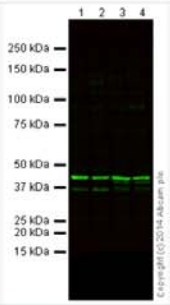
Target

Function	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
Involvement in disease	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.
Sequence similarities	Belongs to the actin family.
Post-translational modifications	ISGylated.
Cellular localization	Cytoplasm > cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

▼ Information by UniProt

Database links	Entrez Gene: 396526 Chicken Entrez Gene: 280979 Cow Entrez Gene: 100033878 Horse Entrez Gene: 60 Human Entrez Gene: 11461 Mouse Entrez Gene: 414396 Pig Entrez Gene: 100009272 Rabbit Entrez Gene: 81822 Rat **see all**
Alternative names	A26C1A antibody A26C1B antibody ACTB antibody **see all**

Anti-beta Actin antibody [mAbcam 8226] - Loading Control images



Western blot - Anti-beta Actin [mAbcam 8226] antibody (ab8226)

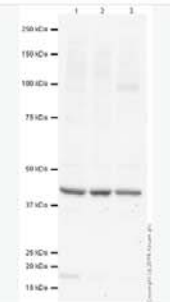
All lanes : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1/1000 dilution

Lane 1 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 3 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 4 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
Goat Anti-Mouse IgG H&L (Alexa Fluor® 790) (ab175783) at 1/10000 dilution

Predicted band size : 42 kDa
Observed band size : 42 kDa
This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Milk before being incubated with ab8226 overnight at 4°C. Antibody binding was detected using a goat anti-mouse Alexa 790 (ab175783) at a 1:10,000 dilution for 1hr at room temperature and then imaged using the Licor Odyssey CLx.



Western blot - Anti-beta Actin [mAbcam 8226] antibody (ab8226)

All lanes : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 3 : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

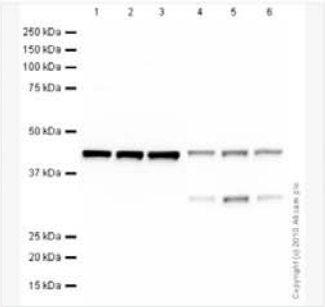
Secondary
Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/50000 dilution
Developed using the ECL technique

Performed under reducing conditions.

Predicted band size : 42 kDa
Observed band size : 42 kDa

Exposure time : 3 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 2% Bovine Serum Albumin before being incubated with ab8226 overnight at 4°C. Antibody binding was detected using an anti-mouse HRP (ab97040) antibody conjugated to HRP, and visualised using ECL development solution ab133406



Western blot - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

Lanes 1 - 3 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1 µg/ml (5% BSA BLOCK)
Lanes 4 - 6 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1 µg/ml (5% MILK BLOCK)

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 3 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate
Lane 4 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 5 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 6 : NIH 3T3 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

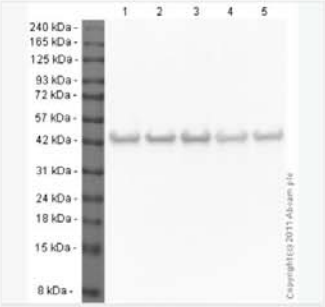
Lysates/proteins at 10 µg per lane.

Secondary
Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

Predicted band size : 42 kDa
Observed band size : 42 kDa

Exposure time : 8 minutes



Western blot - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

All lanes : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1 µg/ml

Lane 1 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 2 : Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate
Lane 3 : A431 (Human epithelial carcinoma cell line) Whole Cell Lysate
Lane 4 : HEK293 (Human embryonic kidney cell line) Whole Cell Lysate
Lane 5 : HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution
Developed using the ECL technique

Performed under reducing conditions.

Predicted band size : 42 kDa
Observed band size : 42 kDa

Exposure time : 10 seconds

Western blot image using the Optiblot Reducing Electrophoresis Kit - 10 x 10 cm (4-20%) (ab119220) with the Prism Ultra Protein Ladder (ab116028) 5µl used. We recommend using our ECL substrate kit (ab65623).

Western blot - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

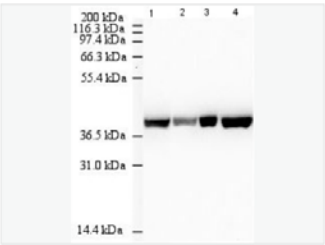
Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 0.5 µg/ml + HeLa cell lysate

Secondary
Goat polyclonal to mouse IgG H&L (HRP) at 1/5000 dilution

Performed under non-reducing conditions.

Predicted band size : 42 kDa
Observed band size : 42 kDa

Exposure time : 30 seconds



Western blot - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

Lane 1 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1/1000 dilution
Lane 2 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1/10000 dilution
Lanes 3 - 4 : Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226) at 1/500 dilution

Lane 1 : HeLa cell lysate
Lane 2 : HeLa cell lysate
Lane 3 : HEK293 cell lysate
Lane 4 : NIH 3T3 mouse cell lysate

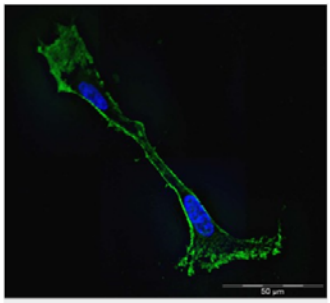
Lysates/proteins at 20 µg per lane.

Secondary
Rabbit Anti-Mouse IgG H&L (HRP) (ab6728) at 1/5000 dilution

Performed under reducing conditions.

Predicted band size : 42 kDa

Exposure time : 10 seconds

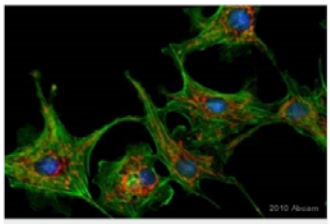


Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

Immunofluorescence using ab8226 at 5µg/ml incubated for 1 hour on Rat Colon Cancer cells.

Cells were fixed with ice-cold methanol for 5 mins, then for all following steps, permeabilised in TBS-T for 30 mins, blocked with 5% BSA for 30 mins and then washed in TBS-T. Secondary antibody was Alexa Fluor 488 goat anti-mouse IgG at 1/1000 incubated for 1 hour. Cells were counterstained with DAPI. Image at 400X magnification. All incubations were at room temperature.

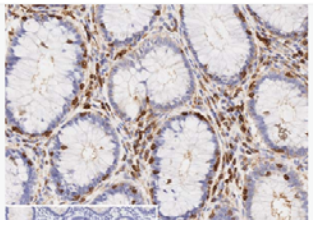
The beta actin fibres can be seen arrayed around the edge of the cells.



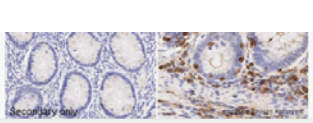
Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody [mAbcam 8226] (ab8226)
This image is a courtesy of Anonymous Abreview

ab8226 staining beta Actin in human gastric epithelial AGS cells by Immunocytochemistry/ Immunofluorescence. Cells were fixed in formaldehyde. Permeabilization and blocking was carried out using 5% BSA containing 0.025% Triton X in TBS for 1 hour at 23°C. Primary antibody was used at 5µg/ml for 1 hour at 23° C. An Alexa Fluor 488® conjugated goat polyclonal to mouse IgG was used as the secondary antibody at a 1/1000 dilution.

See Abreview

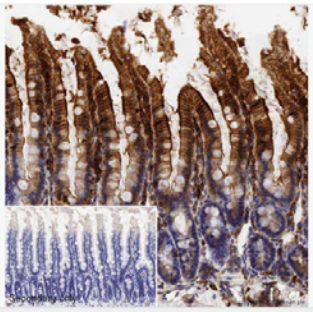


IHC image of ab8226 staining beta Actin in human colon formalin fixed paraffin embedded tissue sections*, performed on a Leica Bond. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab8226, 0.1µg/ml working concentration, for 15 mins at room temperature and detected



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. No primary antibody was used in the secondary only control (shown on the inset).
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody [mAbcam 8226] (ab8226)

IHC image of ab8226 staining beta Actin in rat colon formalin fixed paraffin embedded tissue sections, performed on a Leica Bond. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab8226, 0.5µg/ml working concentration, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. No primary antibody was used in the secondary only control (shown on the inset).
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

Protocols

Mouse on Mouse staining protocol

References for Anti-beta Actin antibody [mAbcam 8226] - Loading Control (ab8226)

This product has been referenced in:

- Zhang Z *et al.* Sepia ink oligopeptide induces apoptosis and growth inhibition in human lung cancer cells. *Oncotarget* **8**:23202-23212 (2017). WB ; Human . Read more (PubMed: 28423568) »
- Martins CO *et al.* Rheumatic Heart Disease and Myxomatous Degeneration: Differences and Similarities of Valve Damage Resulting from Autoimmune Reactions and Matrix Disorganization. *PLoS One* **12**:e0170191 (2017). WB ; Human . Read more (PubMed: 28121998) »

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138 Abreviews or Q&A

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1

Q I was doing biotinylation of surface proteins and then pull down on streptavidin agarose resin. My proteins can be associated with F-actin. Can this antibody recognize F-actin as well?

0

Abcam community
Verified customer
Asked on Sep 10 2012

A Yes, F-actin is an alternative name for beta-actin, therefore the antibody will cross react. You will need to run the pull down under denaturing conditions in order

and 0 minute(s) · Concentration: 10% · Temperature: 20°C

Read More

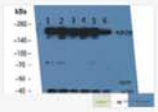
Abcam user community
Verified customer
Submitted Jun 19 2017

0

Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★☆ Good

Application	Western blot
Sample	Rat Tissue lysate - whole (spleen)
Gel Running Conditions	Non-reduced Non-Denaturing (Native)
Specification	Retina
Blocking step	Licor Odyssey Blocking Buffer as blocking agent for 1 hour(s) and 0 minute(s) · Concentration: 100% · Temperature: 25°C



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Abcam user community
Verified customer
Submitted Apr 21 2017

0

Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★★ Excellent

Abcam guarantees this product to work in the species/application used in this Abreview.

Application	Western blot
Sample	Rat Tissue lysate - whole (fat)
Gel Running Conditions	Non-reduced Non-Denaturing (Native) (gel 10%)
Loading amount	20 µg
Specification	fat
Blocking step	BSA as blocking agent for 2 hour(s) and 0 minute(s) · Concentration: 3% · Temperature: 25°C

Read More

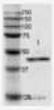
Abcam user community
Verified customer
Submitted Mar 14 2017

0

Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★★ Excellent

Application	Western blot
Sample	Human Tissue lysate - whole (HEK cells)
Gel Running Conditions	Reduced Denaturing (12% gel)
Loading amount	20 µg
Specification	HEK cells
Blocking step	Licor Odyssey Blocking Buffer as blocking agent for 1 hour(s) and 0 minute(s) · Concentration: 100% · Temperature: 25°C



Read More

Abcam user community
Verified customer
Submitted Feb 03 2017

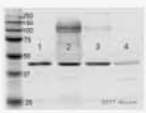
0

Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★★ Excellent

Abcam guarantees this product to work in the species/application used in this Abreview.

Application	Western blot
Sample	Zebrafish Tissue lysate - whole (Retina)
Gel Running Conditions	Reduced Denaturing (12% gel)
Loading amount	20 µg
Specification	Retina
Blocking step	Licor Odyssey Blocking Buffer as blocking agent for 1 hour(s) and 0



minute(s) · Concentration: 100% · Temperature: 25°C

Read More

Abcam user community
Verified customer
Submitted Feb 03 2017

0

IHC - Wholemount abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★☆ Good

Application	IHC - Wholemount
Sample	Zebrafish Cell (Whole Body)
Specification	Whole Body

Abcam user community
Verified customer
Submitted Nov 25 2014

Read More

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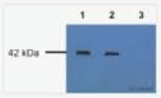
Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★★ Excellent

Application	Western blot
Loading amount	25 µg
Gel Running Conditions	Reduced Denaturing (12% polyacrylamide)
Sample	Human Cell lysate - whole cell (Huh7.5 hepatoma cell line)
Specification	Huh7.5 hepatoma cell line
Blocking step	Milk as blocking agent for 30 minute(s) · Concentration: 5% · Temperature: 20°C



Abcam user community
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Submitted Nov 06 2014

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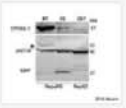
Western blot abreview for Anti-beta Actin antibody [mAbcam 8226]

★★★★★ Excellent

Application	Western blot
Loading amount	20 µg
Gel Running Conditions	Reduced Denaturing (5-20)
Sample	Human Cell lysate - whole cell (HepaRG HepG2)
Specification	HepaRG HepG2
Blocking step	Milk as blocking agent for 20 hour(s) and 0 minute(s) · Concentration: 3% · Temperature: 4°C



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