

Datasheet for ABIN1742508
anti-beta Actin antibody (AA 2-16)[Go to Product page](#)**1** Validation**4** Images**3** Publications

Overview

Quantity:	100 µg
Target:	beta Actin (ACTB)
Binding Specificity:	AA 2-16
Reactivity:	Mouse, Rat, Chicken, Zebrafish (Danio rerio)
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide (aa 2-16 of mouse beta-actin) coupled to KLH via a C-terminally added cysteine.
Cross-Reactivity (Details):	May cross-react to alpha- and gamma-actin due to sequence homology.
Purification:	Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization.

Target Details

Target:	beta Actin (ACTB)
Alternative Name:	beta-Actin (ACTB Products)
Pathways:	Myometrial Relaxation and Contraction , Cell-Cell Junction Organization , Maintenance of Protein Location , Phototransduction

Application Details

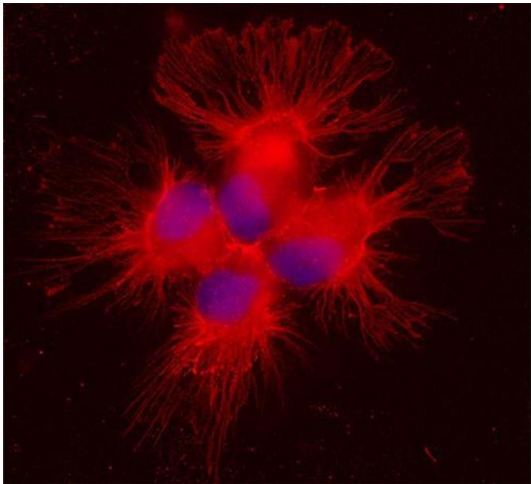
Application Notes:	WB: 1 : 1000 up to 1 : 5000 IP: not tested yet ICC: 1 : 200 up to 1 : 500 IHC: 1 : 200
Comment:	ICC: Methanol fixation is recommended.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	For reconstitution add 100 µL H ₂ O to get a 1mg/ml solution of antibody in PBS. Then aliquot and store at -20 °C until use.
Buffer:	PBS
Handling Advice:	Affinity purified antibodies are less robust than antisera, since protease inhibitors are also removed during purification. Hence, storage at 4 °C for prolonged periods (i.e. several weeks), is not recommended.
Storage:	-20 °C
Storage Comment:	Unlabeled lyophilized antibodies are stable in this form without loss of quality at ambient temperatures for several weeks or even months. They can be stored at 4°C for several years. Lyophilized antibodies must not be stored in the freezer, they may be destroyed!

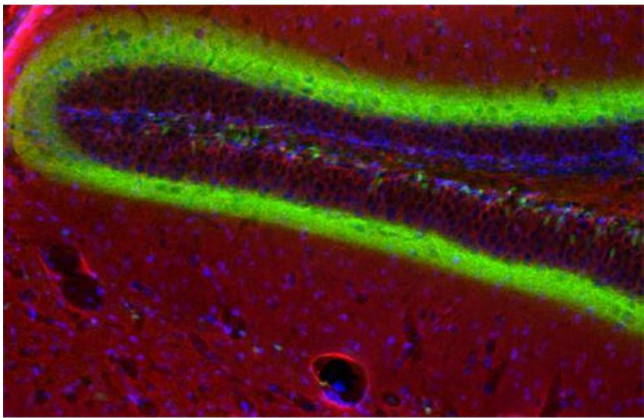
Publications

Product cited in:	Atkinson, Floerchinger, Qiao, Casey, Williamson, Moseley, Stoica, Goddard, Ge, Tullius, Tomlinson: "Donor brain death exacerbates complement-dependent ischemia/reperfusion injury in transplanted hearts." in: Circulation , Vol. 127, Issue 12, pp. 1290-9, (2013) (PubMed).
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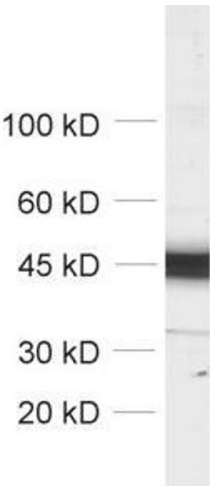
Immunocytochemistry

Image 1.



Immunohistochemistry

Image 2.



Western Blotting

Image 3.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN1742508.



Successfully validated (Western Blotting (WB))

by [Kinexus Bioinformatics Corporation](#)

Report Number: 029836

Date: Jun 22 2015

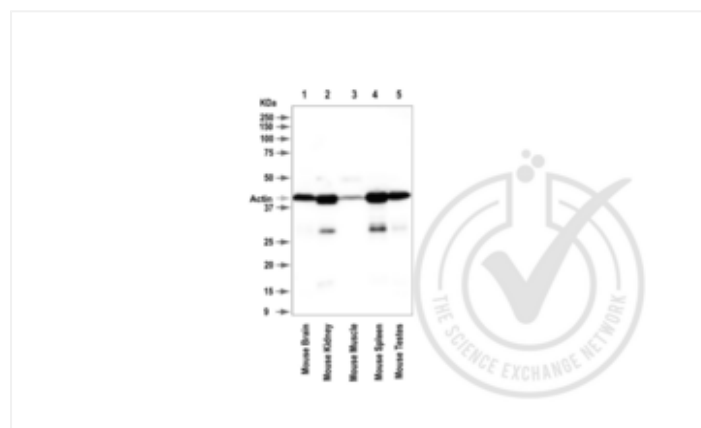
Lot Number:	251003/3
Method validated:	Western Blotting (WB)
Positive Control:	mouse brain, mouse kidney, mouse muscle, mouse spleen, mouse testes
Negative Control:	none [ubiquitously expressed]
Notes:	A band was observed in the positive controls at the expected size (~42 kDa)
Primary Antibody:	- Antigen: Beta-Actin, (ACTB) (AA 2-16) - Catalog number: ABIN1742553 - Supplier: Synaptic Systems - Supplier catalog number: 251 003 - Lot number: 251003/3 - Dilution: 1:1000
Secondary Antibody:	- Antibody: Donkey anti-Rabbit IgG Antibody (HRP) - Catalogue number: sc-2007 - Supplier: Santa Cruz - Lot number: F0613 - Dilution: 1:10,000
Controls:	<ul style="list-style-type: none"> All lysates used were prepared by Kinexus Bioinformatics Corporation following standard protocols and quality controlled for protein integrity on a regular basis. Loading control: blot was stripped and re-probed with β3-Tubulin.
Protocol:	<ul style="list-style-type: none"> 1. Cell/tissue total protein lysates were boiled in 1X SDS Sample Buffer containing 1% SDS and 1.25% β-mercaptoethanol at 95°C for 5 minutes prior to loading. 2. 15 μg of boiled lysate were loaded and resolved on a 12% SDS-polyacrylamide gel. 3. The Precision Plus Protein™ All Blue Prestained Standards from BioRad (161-0373) were used as molecular mass markers. 4. Proteins were transferred onto nitrocellulose membrane by tank transfer and protein transfer was confirmed with Ponceau S staining. 5. The immunoblot membrane was blocked in 2.5% skim milk and 1.5% BSA solution in TTBS at room temperature for 60 minutes. 6. The membrane was washed in TTBS twice for 5 minutes each. 7. The membrane was immersed with the protein side up in the antibody solution in TBS and incubated overnight at 4°C with gentle agitation. 8. The membrane was rinsed twice with TTBS. 9. The membrane was washed in TTBS twice for 5 minutes each. 10. The membrane was washed in TTBS once for 15 minutes. 11. The membrane was incubated in the HRP-conjugated secondary antibody solution in TBS for 60 minutes at room temperature with gentle agitation.

- 12. The membrane was rinsed twice with TTBS.
- 13. The membrane was washed in TTBS twice for 5 minutes each.
- 14. The membrane was washed in TTBS once for 15 minutes.
- 15. Signals were detected by chemiluminescence (ECL). The blot was scanned for 160 seconds.
- 16. The membrane was rinsed three times with TTBS.
- 17. Incubated in Acidic Glycine Stripping Buffer at room temperature with gentle agitation for 3 times, 10 minutes each.
- 18. The membrane was washed in TTBS 3 times for 5 minutes each.
- 19. Repeated Steps 4-14 with the loading control antibody (for β 3-Tubulin).
- 20. Repeated Steps 4-14 with the loading control antibody and its matching secondary antibody. The blot was scanned for 160 seconds.

Experimental Notes:

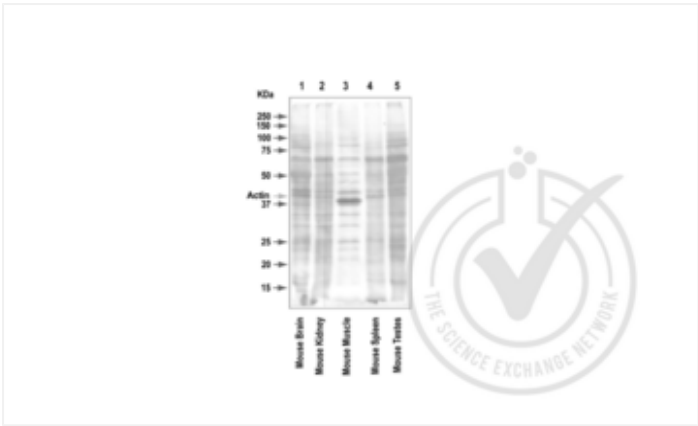
A protein band was observed at the expected target size of β -Actin of 42 kDa in all mouse extracts tested. Lower molecular weight bands of approximately 28-30 kDa were also observed in the mouse kidney and spleen tissue samples. Three main groups of actin have been identified. The β -actins and γ -actins co-exist in most cell types as components of the cytoskeleton, whereas the α -actin are found in muscle tissues. In our experience, we find that the level of actin does vary widely between different cell and tissue types.

Images for Validation report #029836



Validation image no. 1 for anti-Actin, beta (ACTB) (AA 2-16) antibody (ABIN1742508)

Figure 1. Western blot for beta actin (ACTB). Grey arrowhead indicates the expected molecular weight of ~42 kDa.



Validation image no. 2 for anti-Actin, beta (ACTB) (AA 2-16) antibody (ABIN1742508)

Figure 2. Ponceau stain loading control.



Validation image no. 3 for anti-Actin, beta (ACTB) (AA 2-16) antibody (ABIN1742508)

Figure 3. Western blot for beta actin (ACTB) using attempted siRNA silencing. Arrowhead indicates the expected molecular weight of ~42 kDa. HeLa cells were transfected with beta actin siRNA (Catalog number 12935141, Life Technologies) using Lipofectamine 2000, according to manufacturer's instructions. Total cell lysates were made from both floating and adherent cells harvested 48 hours and 72 hours after transfection. siRNA silencing of beta actin was not detected.