abcam

Product datasheet

Anti-beta Actin antibody [AC-15] ab6276

KO 評価済

94 Abreviews 2211 References 画像数 6

製品の概要

製品名	Anti-beta Actin antibody [AC-15]
製品の詳細	Mouse monoclonal [AC-15] to beta Actin
由来種	Mouse
アプリケーション	**適用あり:** ICC/IF, WB
種交差性	**交差種:** Mouse, Rat, Cow, Dog, Human, African green monkey, Chinese hamster **非交差種:** Drosophila melanogaster, Dictyostelium discoideum
免疫原	Synthetic peptide corresponding to beta Actin aa 1-100 (N terminal) conjugated to keyhole limpet haemocyanin. Slightly modified ß-cytoplasmic actin N-terminal peptide, Ac-Asp-Asp-Asp-Ile-Ala-Ala-Leu-Val-Ile-Asp-Asn-Gly -Ser-Gly-Lys, conjugated to KLH. Run BLAST with ExPASy Run BLAST with NCBI
エピトープ	N-terminal of the beta isoform of actin.
ポジティブ・コントロール	ICC/IF: SV40LT-SMC cells WB: HAP1, HeLa, Jurkat, A431, HEK-293, COS-7, NIH/3T3, PC-12, Rat2, CHO, MDBK and MDCK cell lysates.
特記事項	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. 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&As

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
精製度	Affinity purified

特記事項（精製）	Purified from hybridoma cell culture.
ポリ/モノ	モノクローナル
クローン名	AC-15
アイソタイプ	IgG1

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab6276の使用に適用されます

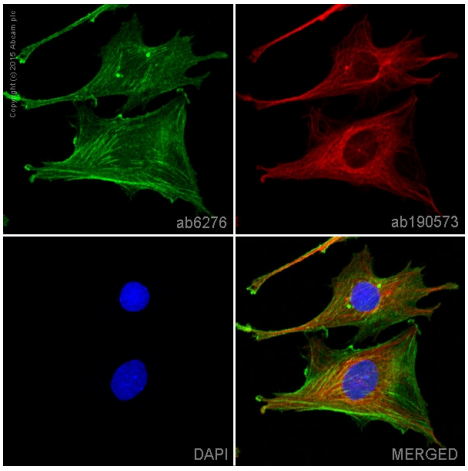
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF	★★★★★ (9)	Use a concentration of 5 µg/ml.
WB	★★★★★ (76)	1/5000 - 1/16000. Predicted molecular weight: 42 kDa.

ターゲット情報

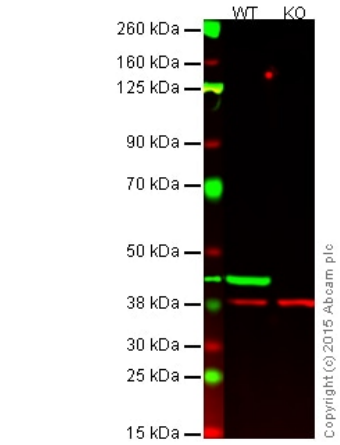
機能	Actins are highly conserved proteins that are involved in various types of cell motility and are ubiquitously expressed in all eukaryotic cells.
関連疾患	Defects in ACTB are a cause of dystonia juvenile-onset (DYTJ) [MIM:607371]. DYTJ is a form of dystonia with juvenile onset. Dystonia is defined by the 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.
配列類似性	Belongs to the actin family.
翻訳後修飾	ISGylated.
細胞内局在	Cytoplasm > cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

画像



Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody [AC-15] (ab6276)

ab6276 staining beta Actin in SV40LT-SMC cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized in 0.1% Triton X-100 for 5 minutes and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab6276 at a working concentration of 5µg/ml and **ab190573**, Rabbit monoclonal [EP1332Y] to alpha Tubulin (Alexa Fluor® 647, shown in red) at 1/250 overnight at +4°C, followed by a further incubation at room temperature for 1h with an **anti-mouse AlexaFluor® 488** (**ab150117**) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Western blot - Anti-beta Actin antibody [AC-15] (ab6276)

All lanes : Anti-beta Actin antibody [AC-15] (ab6276) at 1/5000 dilution

Lane 1 : Wild-type HAP1 cell lysate (20 µg)
Lane 2 : Beta actin knockout HAP1 cell lysate (20 µg)

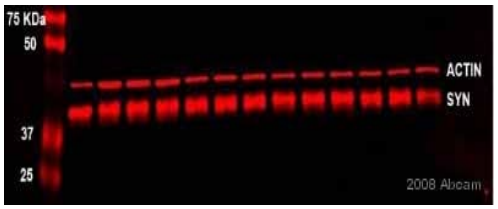
Secondary
All lanes : Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) at 1/10000 dilution

Predicted band size: 42 kDa

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: Beta actin knockout HAP1 cell lysate (20 µg)

Lanes 1 and 2: Merged signal (red and green). Green - beta actin, ab6276 observed at 42 kDa. Red - loading control, **ab181602** observed at 37 kDa.

Ab6276 was shown to specifically react with beta actin in wild-type HAP1 cells. No band was observed when beta actin knockout samples were used. Wild-type and beta actin knockout samples were subjected to SDS-PAGE. ab6276 (beta actin) and **ab181602** (loading control to GAPDH) were diluted 1/5000 and 1/10 000 and incubated overnight at 4°C. Blots were developed with **Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed** (**ab216772**) and **Goat Anti-Rabbit IgG H&L (IRDye® 680RD)** preadsorbed (**ab216777**) secondary antibodies at 1/10 000 dilution for 1 h at room temperature before imaging.

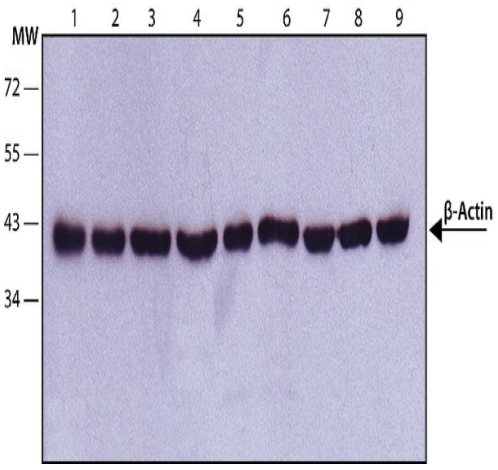


Western blot - Anti-beta Actin antibody [AC-15] (ab6276)

This image is courtesy of an Abreview submitted by Dr Mark Elliott

Western Blot of ab6276 (used as loading control) with whole tissue lysate of human grey matter from BA20 (temporal cortex). Ab6276 was diluted 1/50000 and incubated with the sample for 16 hours at 4°C. 5 µg of lysate was loaded onto the gel, which was blocked with 5% milk for 1 hour at 20°C. An Alexa Fluor® 680 conjugated goat anti-mouse antibody, diluted 1/5000, was used as the secondary.

Bands below actin in image are synaptophysin (SYN).



Western blot - Anti-beta Actin antibody [AC-15] (ab6276)

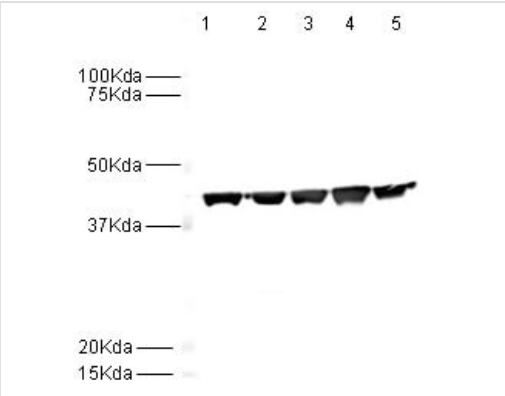
All lanes : Anti-beta Actin antibody [AC-15] (ab6276) at 1 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate
Lane 2 : Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate
Lane 3 : COS-7 (african green monkey kidney fibroblast-like cell line) cell lysate
Lane 4 : NIH/3T3 (mouse embryonic fibroblast cell line) cell lysate
Lane 5 : PC-12 (rat adrenal gland pheochromocytoma cell line) cell lysate
Lane 6 : Rat2 (rat fibroblast cell line) cell lysate
Lane 7 : CHO (chinese hamster ovary cell line) cell lysate
Lane 8 : MDBK (bovine kidney cell line) cell lysate
Lane 9 : MDCK (canine kidney cell line) cell lysate

Secondary
All lanes : Goat Anti-Mouse IgG-Peroxidase

Developed using the ECL technique.

Predicted band size: 42 kDa



Western blot - Anti-beta Actin antibody [AC-15] (ab6276)

All lanes : Anti-beta Actin antibody [AC-15] (ab6276) at 1/5000 dilution

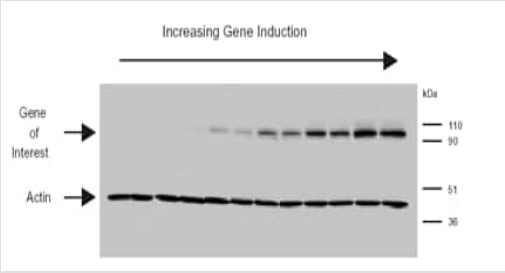
Lane 1 : HeLa nuclear
Lane 2 : HeLa whole cell lysate
Lane 3 : A431 cell lysate
Lane 4 : Jurkat cell lysate
Lane 5 : HEK293 cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Alexa Fluor anti mouse at 1/5000 dilution

Performed under reducing conditions.

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



Western blot - Anti-beta Actin antibody [AC-15] (ab6276)

This image is courtesy of David Grimm, Yale University, USA

MDCK cells induced with increasing amounts of doxycycline to control expression of the gene of interest. All cells were normalized for loading with an albumin protein standard assay. Anti-beta actin (ab6276) was used at a concentration of 1:5000 in a milk blocking solution. B-actin blotting confirms the albumin assay in showing that an equal amount of lysate was loaded in each lane.

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