


Product datasheet

Anti-beta Actin antibody - Loading Control ab13822

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Overview

Product name	Anti-beta Actin antibody - Loading Control
Description	Chicken polyclonal to beta Actin - Loading Control
Host species	Chicken
Specificity	Detects a single clean band at 40kD representing beta actin. Does not cross-react with adult cardiac, smooth or skeletal muscle actin.
Tested applications	Suitable for: IHC-P, ICC/IF, WB
Species reactivity	Reacts with: Mouse, Rat, Human, Chinese hamster Predicted to work with: Rabbit, Chicken, Cow, Dog, Xenopus laevis, Fish 
Immunogen	Synthetic peptide derived from residues 1 - 100 of Human beta Actin. Read Abcam's proprietary immunogen policy.
Positive control	This antibody detects beta actin in HeLa cells in WB and IF This antibody gave a positive result in IHC in the following FFPE tissue: Human normal colon.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 3% BSA This product may contain up to 3% BSA depending on the batch. For specific batch formulations please contact us.
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgY

Applications

Our [Abpromise guarantee](#) covers the use of **ab13822** 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
IHC-P		Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.
ICC/IF		Use a concentration of 5 µg/ml.
WB	★★★★★	1/1000. Detects a band of approximately 40 kDa (predicted molecular weight: 41 kDa). Can be blocked with Human beta Actin peptide (ab13772) .

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.

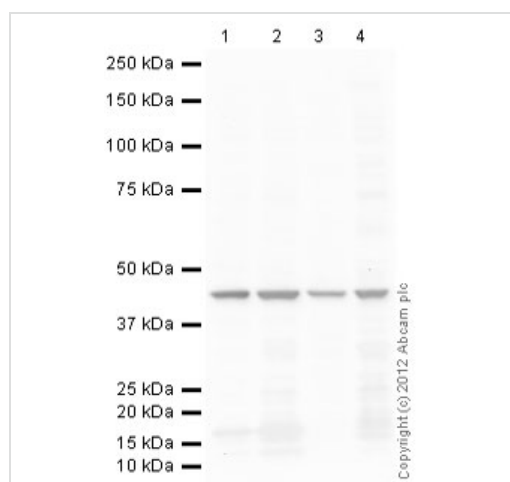
Post-translational modifications

ISGylated.

Cellular localization

Cytoplasm > cytoskeleton. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.

Images



Western blot - Anti-beta Actin antibody - Loading Control (ab13822)

All lanes : Anti-beta Actin antibody - Loading Control (ab13822) 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 : Liver (Rat) Tissue Lysate

Lane 4 : CHO-K1 cell lysate Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

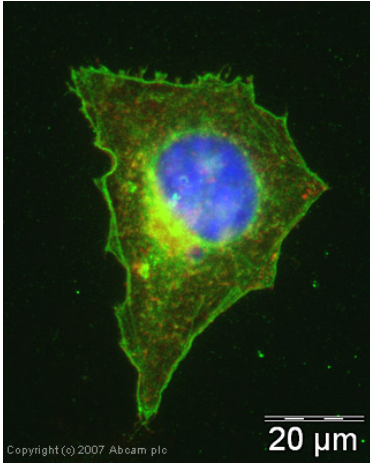
All lanes : Goat polyclonal Secondary Antibody to Chicken IgY - H&L (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

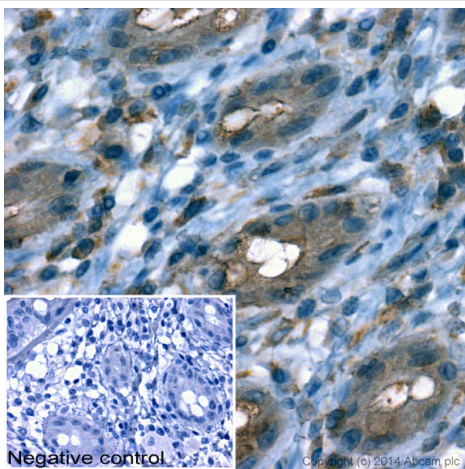
Predicted band size: 41 kDa

Exposure time: 90 seconds



Immunocytochemistry/ Immunofluorescence - Anti-beta Actin antibody - Loading Control (ab13822)

ICC/IF image of ab13822 stained human HeLa cells. The cells were methanol fixed (5 min), permeabilised in TBS-T (20 min) and incubated with the antibody (ab13822, 5 μ g/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to quench autofluorescence and block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-chicken IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-beta Actin antibody - Loading Control (ab13822)

IHC image of beta Actin staining in THuman normal colon formalin fixed paraffin embedded tissue section*. The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins. The section was incubated with ab13822, 10 μ g/ml overnight at +4°C. A goat-anti chicken HRP secondary antibody (Ab6877, 1/500 dilution) was used for 1hr at room temperature. The section was counterstained with haematoxylin and mounted with DPX.

The inset negative control image is taken from an identical assay without primary antibody.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

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