# Product datasheet

## Anti-F-actin antibody [4E3.adl] ab130935

**Overview**

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-F-actin antibody [4E3.adl]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Mouse monoclonal [4E3.adl] to F-actin</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Mouse</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB, ICC/IF, Flow Cyt</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>corresponding to F-actin.</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>This antibody gave a positive signal in the following lysates: Human Skeletal Muscle Tissue; Mouse Skeletal Muscle Tissue; Mouse Heart Tissue; HeLa Whole Cell; C2C12 Whole Cell. This antibody gave a positive result in IF in the following Methanol fixed cell line: HeLa.</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>This antibody clone is manufactured by Abcam. If you require this antibody in a particular buffer formulation or a particular conjugate for your experiments, please contact <a href="mailto:orders@abcam.com">orders@abcam.com</a> or you can find further information here.</td>
</tr>
</tbody>
</table>

## Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituent: PBS |
| **Purity** | Concentrated Culture Supernatant |
| **Clonality** | Monoclonal |
| **Clone number** | 4E3.adl |
| **Isotype** | IgM |

## Applications

Our Abpromise guarantee covers the use of ab130935 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
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

All lanes: Anti-F-actin antibody [4E3.adl] (ab130935) at 1/500 dilution

Lane 1: Human skeletal muscle tissue lysate - total protein (ab29330)

Lane 2: Skeletal Muscle (Mouse) Tissue Lysate

Lane 3: Heart (Mouse) Tissue Lysate

Lane 4: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 5: C2C12 (Mouse myoblast cell line) Whole Cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes: Peroxidase- conjugated AffiniPure Goat Anti-mouse IgM (ab98112) at 1/3000 dilution

Developed using the ECL technique.
Performed under reducing conditions.

**Predicted band size:** 42 kDa

**Observed band size:** 42 kDa

**Additional bands at:** 60 kDa, 70 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 10 seconds

Overlay histogram showing HeLa cells stained with ab130935 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab130935, 1μg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was a goat anti-mouse DyLight® 488 (IgM, mu chain) (ab97007) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgM [ICIGM] (ab91545, 1μg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Triton X-100 for 20 min used under the same conditions.

ab130935 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab130935 at 5μg/ml overnight at +4°C. The secondary antibody (green) was a goat anti-mouse DyLight® 488 (ab96879) IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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