# Product datasheet

**Anti-alpha Actinin/ACTN1 antibody [AT6/172] ab18061**

<table>
<thead>
<tr>
<th>Product name</th>
<th>Anti-alpha Actinin/ACTN1 antibody [AT6/172]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Mouse monoclonal [AT6/172] to alpha Actinin/ACTN1</td>
</tr>
<tr>
<td>Host species</td>
<td>Mouse</td>
</tr>
<tr>
<td>Specificity</td>
<td>Recognizes and is specific for human alpha Actinin 1/ACTN1 isoform (non-muscle) at 100 kDa. This antibody may recognize other isoforms of alpha-actinin (1-4). There is no specific epitope information available. The clone number has been updated from (0.T.02) to (AT6/172) both clone numbers name the same antibody clone.</td>
</tr>
<tr>
<td>Tested applications</td>
<td>Suitable for: ICC</td>
</tr>
<tr>
<td></td>
<td>Unsuitable for: IP</td>
</tr>
<tr>
<td>Species reactivity</td>
<td>Reacts with: Mouse, Rabbit, Human</td>
</tr>
<tr>
<td>Immunogen</td>
<td>Full length protein corresponding to Human alpha Actinin/ACTN1. Database link: P12814</td>
</tr>
<tr>
<td>Positive control</td>
<td>ICC: HeLa cells, ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (ab277612).</td>
</tr>
<tr>
<td>General notes</td>
<td>This product was previously labelled as alpha Actinin</td>
</tr>
</tbody>
</table>

Reproducibility is key to advancing scientific discovery and accelerating scientists’ next breakthrough. Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for. We are also updating the applications & species that this product has been "predicted to work with," however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as customer reviews and Q&As.

Properties

**Form**
Liquid

**Storage instructions**
Shipped at 4°C. Add glycerol to a final volume of 50% for extra stability and aliquot. Store at -20°C. Avoid freeze / thaw cycle.

**Storage buffer**
pH: 7.60
Preservative: 0.09% Sodium azide
Constituent: PBS

**Purity**
Protein A purified

**Clonality**
Monoclonal

**Clone number**
AT6/172

**Isotype**
IgG1

Applications

Our Abpromise guarantee covers the use of ab18061 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC</td>
<td></td>
<td>Use a concentration of 1 - 5 µg/ml.</td>
</tr>
</tbody>
</table>

**Target**

**Function**
F-actin cross-linking protein which is thought to anchor actin to a variety of intracellular structures. This is a bundling protein.

**Sequence similarities**
Belongs to the alpha-actinin family.
Contains 1 actin-binding domain.
Contains 2 CH (calponin-homology) domains.
Contains 2 EF-hand domains.
Contains 4 spectrin repeats.

**Cellular localization**
Cytoplasm > cytoskeleton. Cytoplasm > myofibril > sarcomere > Z line. Colocalizes with MYOZ2 and PPP3CA at the Z-line of heart and skeletal muscle.

Images
Immunofluorescence staining of Actinin/ACTN1 using ab18061 in ioSkeletal Myocytes - Human iPSC-Derived Skeletal Myocytes (ab277612), which were differentiated for 10 days post induction.

The cells were fixed with 100% MeOH (5 min) and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab18061 at 5 µg/mL and ab6046, rabbit polyclonal to beta Tubulin, at 1/1000 dilution. Cells were then incubated with ab150117, Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and ab150088, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown. Gamma is adjusted to 1.5 in all channels.

ICC/IF image of ab18061 stained HeLa (Human epithelial cell line from cervix adenocarcinoma) cells. The cells were fixed in 4% formaldehyde for 10 minutes and then incubated in 1% BSA / 10% normal goat serum / 0.3 M glycine in 0.1% PBS-Tween for 1 hour to permeabilize the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab18061, 1 µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1 hour. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1 hour. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43 µM.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
We provide support in Chinese, English, French, German, Japanese and Spanish

Extensive multi-media technical resources to help you

We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors