# Product datasheet

## Anti-Carbonic Anhydrase III antibody ab118428

### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Carbonic Anhydrase III antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to Carbonic Anhydrase III</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB, ICC/IF</td>
</tr>
</tbody>
</table>
| **Species reactivity** | Reacts with: Mouse, Rat, Human, Recombinant fragment  
Predicted to work with: Rabbit, Cow, Dog, Pig, Chimpanzee, Macaque monkey, Gorilla, Orangutan |
| **Immunogen** | Synthetic peptide conjugated to KLH derived from within residues 150 - 250 of Human Carbonic Anhydrase III.Read Abcam's proprietary immunogen policy |
| **Positive control** | This antibody gave a positive signal in Recombinant Carbonic anhydrase 3 protein as well as the following tissue lysates: Human Skeletal Muscle; Mouse Skeletal Muscle; Rat Skeletal Muscle.  
This antibody gave a positive result when used in the following formaldehyde fixed cell lines: HeLa. |

### 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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | pH: 7.40  
Preservative: 0.02% Sodium azide  
Constituent: PBS  
Note: Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help. |
| **Purity** | Immunogen affinity purified |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |

### Applications
Our **Abpromise guarantee** covers the use of **ab118428** 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>WB</td>
<td></td>
<td>Use a concentration of 1 µg/ml. Detects a band of approximately 32 kDa (predicted molecular weight: 29 kDa).</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 10 µg/ml.</td>
</tr>
</tbody>
</table>

**Target**

<table>
<thead>
<tr>
<th><strong>Function</strong></th>
<th>Reversible hydration of carbon dioxide.</th>
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</thead>
<tbody>
<tr>
<td><strong>Tissue specificity</strong></td>
<td>Muscle specific.</td>
</tr>
<tr>
<td><strong>Sequence similarities</strong></td>
<td>Belongs to the alpha-carbonic anhydrase family.</td>
</tr>
<tr>
<td><strong>Developmental stage</strong></td>
<td>At 6 weeks gestation, transcripts accumulate at low levels in the somites and at high levels throughout the notochord. As gestation continues, CA3 becomes abundant in all developing muscle masses and continues at high to moderate levels in the notochord.</td>
</tr>
<tr>
<td><strong>Post-translational modifications</strong></td>
<td>S-glutathionylated in hepatocytes under oxidative stress.</td>
</tr>
<tr>
<td><strong>Cellular localization</strong></td>
<td>Cytoplasm.</td>
</tr>
</tbody>
</table>

**Images**

**Immunocytochemistry/ Immunofluorescence - Anti-Carbonic Anhydrase III antibody (ab118428)**

ICC/IF image of ab118428 stained HeLa cells. The cells were 4% formaldehyde fixed (10 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 ab118428 at 10µg/ml overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor® 488 goat anti- rabbit (ab150081) IgG (H+L) preadsorbed, used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1h at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.
All lanes: Anti-Carbonic Anhydrase III antibody (ab118428) at 1 µg/ml

Lane 1: Human skeletal muscle tissue lysate - total protein (ab29330)
Lane 2: Skeletal Muscle (Mouse) Tissue Lysate
Lane 3: Skeletal Muscle (Rat) Tissue Lysate
Lane 4: Carbonic Anhydrase III protein (ab50779)

Lysates/proteins at 10 µg per lane.

Secondary
All lanes: Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 29 kDa
Observed band size: 32 kDa

why is the actual band size different from the predicted?

Exposure time: 8 minutes

Please note: All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”

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