### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-Cenexin1/ODF2 antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to Cenexin1/ODF2</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Specificity</strong></td>
<td>On the basis of the immunogen sequence, we would expect this antibody to recognise the following isoforms of Cenexin1/ODF2 as listed in Swissprot: Q5BJF6-1 (95 kDa), Q5BJF6-2 (89 kDa), Q5BJF6-3 (93 kDa), and Q5BJF6-4 (95 kDa).</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: WB, ICC/IF</td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Synthetic peptide conjugated to KLH derived from within residues 750 to the C-terminus of Human Cenexin1/ODF2. Read Abcam's proprietary immunogen policy (Peptide available as ab43839.)</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>This antibody gave a positive signal in Hela whole cell lysate and MCF7 whole cell lysate.</td>
</tr>
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### Properties

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<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
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<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>
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<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.02% Sodium Azide</td>
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<tr>
<td><strong>Purity</strong></td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
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</table>

### Applications

Our [Abpromise guarantee](#) covers the use of ab43840 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
Function
Seems to be a major component of sperm tail outer dense fibers (ODF). ODFs are filamentous structures located on the outside of the axoneme in the midpiece and principal piece of the mammalian sperm tail and may help to maintain the passive elastic structures and elastic recoil of the sperm tail. May have a modulating influence on sperm motility. Functions as a general scaffold protein that is specifically localized at the distal/subdistal appendages of mother centrioles. Component of the centrosome matrix required for the localization of PLK1 and NIN to the centrosomes. Required for the formation and/or maintenance of normal CETN1 assembly.

Tissue specificity
Testis-specific (at protein level). Highly expressed in cytoplasm of step 2 round spermatids. Detected in the middle piece and extends to about half the principal piece of the sperm tails.

Sequence similarities
Belongs to the ODF2 family.

Post-translational modifications
Tyrosine phosphorylated.

Cellular localization

Images

**Application** | **Abreviews** | **Notes**
--- | --- | ---
WB | ★★★★★ | Use a concentration of 1 µg/ml.
ICC/IF | ★★★★★ | Use at an assay dependent concentration. PubMed: 22096071

**Target**

**Function**
Seems to be a major component of sperm tail outer dense fibers (ODF). ODFs are filamentous structures located on the outside of the axoneme in the midpiece and principal piece of the mammalian sperm tail and may help to maintain the passive elastic structures and elastic recoil of the sperm tail. May have a modulating influence on sperm motility. Functions as a general scaffold protein that is specifically localized at the distal/subdistal appendages of mother centrioles. Component of the centrosome matrix required for the localization of PLK1 and NIN to the centrosomes. Required for the formation and/or maintenance of normal CETN1 assembly.

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Testis-specific (at protein level). Highly expressed in cytoplasm of step 2 round spermatids. Detected in the middle piece and extends to about half the principal piece of the sperm tails.

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**Post-translational modifications**
Tyrosine phosphorylated.

**Cellular localization**

**Western blot - Anti-Cenexin1/ODF2 antibody (ab43840)**

**All lanes**: ab43840 at 1 µg/ml

**Lane 1**: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate at 25 µg

**Lane 2**: MCF7 (Human breast adenocarcinoma) at 10 µg

**Secondary**

**All lanes**: Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) (ab65484) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 93 kDa

**Observed band size**: 100 kDa

why is the actual band size different from the predicted?
Exposure time: 20 minutes

Abcam recommends using milk as the blocking agent. Abcam welcomes customer feedback and would appreciate any comments regarding this product and the data presented above.

ab43840 staining Cenexin1 in the mother centriole of a dividing HeLa cell by ICC/IF. DNA is stained blue, Aurora A is stained red, and Cenexin1 is stained green. Cells were fixed in formaldehyde, permeabilized with 0.1% Triton in PBS, and blocked with 2% BSA for 1 hour at 21°C. The primary antibody was diluted 1/200 and incubated with the sample for 1 hour at 21°C. A FITC-conjugated anti-rabbit IgG H+L antibody was used as the secondary.

Immunocytochemistry/ Immunofluorescence analysis of human HCT116 cells labeling Cenexin1/ODF2 with ab43840 at 1/400 dilution. Cells were fixed in formaldehyde and permeabilized with 0.5% Triton X-100 in PBS. Staining with ab43840 at 1/400 was carried out for 1 hour at 22°C in PBS buffer. ab150081, a Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed secondary antibody was used at 1/200 dilution. DAPI was used to counterstain.
**Western blot** - Anti-Cenexin1/ODF2 antibody (ab43840)

Image courtesy of an anonymous abreview.

**All lanes**: Anti-Cenexin1/ODF2 antibody (ab43840) at 1/500 dilution

**Lane 1**: 25 ug HeLa cell lysate

**Lane 2**: 12.5 ug HeLa cell lysate

**Lane 3**: 25 ug HeLa cell lysate with Human Cenexin1/ODF2 peptide (ab43839) at 4 µg/ml

**Lane 4**: 12.5 ug HeLa cell lysate with Human Cenexin1/ODF2 peptide (ab43839) at 4 µg/ml

**Secondary**

**All lanes**: Anti-Rabbit IgG HRP-conjugated at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size**: 93 kDa

**Observed band size**: ~75 kDa Why is the actual band size different from the predicted?

**Exposure time**: 4 minutes

Detection of Cenexin 1 by ab43840 in Western blot of HeLa cell lysates. Please see anonymous abreview for further details.

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

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