# Product datasheet

## Anti-Abhd5/CGI-58 antibody [EPR12621] ab183739

**Recombinant RabMab**

<table>
<thead>
<tr>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product name</strong></td>
</tr>
<tr>
<td><strong>Description</strong></td>
</tr>
<tr>
<td><strong>Host species</strong></td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
</tr>
<tr>
<td><strong>Species reactivity</strong></td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
</tr>
</tbody>
</table>
| **General notes** | Previously labelled as Abhd5.  
Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents.  
This product is a recombinant rabbit monoclonal antibody. |

## Properties

<table>
<thead>
<tr>
<th>Form</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 long term. Avoid freeze / thaw cycle.</td>
</tr>
</tbody>
</table>
| **Storage buffer** | pH: 7.2  
Preservative: 0.01% Sodium azide  
Constituents: 59% PBS, 40% Glycerol, 0.05% BSA |
| **Purity** | Tissue culture supernatant |
| **Clonality** | Monoclonal |
| **Clone number** | EPR12621 |
| **Isotype** | IgG |
**Function**
Lysophosphatidic acid acyltransferase which functions in phosphatidic acid biosynthesis. May regulate the cellular storage of triacylglycerol through activation of the phospholipase PNPLA2. Involved in keratinocyte differentiation.

**Tissue specificity**
Widely expressed in various tissues, including lymphocytes, liver, skeletal muscle and brain. Expressed by upper epidermal layers and dermal fibroblasts in skin, hepatocytes and neurons (at protein level).

**Involvement in disease**
Defects in ABHD5 are the cause of Chanarin-Dorfman syndrome (CDS) [MIM:275630]; also called triglyceride storage disease with impaired long-chain fatty acid oxidation or neutral lipid storage disease with ichthyosis. CDS is an autosomal recessive inborn error of lipid metabolism with multisystemic accumulation of triglycerides although plasma concentrations are normal. Clinical characteristics are congenital generalized ichthyosis, vacuolated leukocytes, hepatomegaly, myopathy, cataracts, neurosensory hearing loss and developmental delay. The disorder presents at birth with generalized, fine, white scaling of the skin and a variable degree of erythema resembling non-bullous congenital ichthyosiform erythroderma.

**Sequence similarities**
Belongs to the peptidase S33 family. ABHD4/ABHD5 subfamily.

**Developmental stage**
Detected in fetal epidermis from 49 to 135 days estimated gestational age (at protein level).

**Domain**
The HXXXXD motif is essential for acyltransferase activity and may constitute the binding site for the phosphate moiety of the glycerol-3-phosphate.

**Cellular localization**
Cytoplasm. Lipid droplet. Colocalized with PLIN and ADRP on the surface of lipid droplets. The localization is dependent upon the metabolic status of the adipocytes and the activity of PKA.

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### Applications

Our **Abpromise guarantee** covers the use of **ab183739** 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>1/1000 - 1/2000. Detects a band of approximately 45 kDa (predicted molecular weight: 39 kDa).</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>1/200. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.</td>
</tr>
</tbody>
</table>

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### Target

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**Western blot - Anti-Abhd5/CGI-58 antibody** [EPR12621] (ab183739)

**All lanes**: Anti-Abhd5/CGI-58 antibody [EPR12621] (ab183739) at 1/1000 dilution

**Lane 1**: HepG2 cell lysate  
**Lane 2**: U87-MG cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**  
**All lanes**: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size**: 39 kDa

**Western blot - Anti-Abhd5/CGI-58 antibody** [EPR12621] (ab183739)

Anti-Abhd5/CGI-58 antibody [EPR12621] (ab183739) at 1/1000 dilution + Human fetal liver lysate at 10 µg

**Secondary**  
Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

**Predicted band size**: 39 kDa
Immunohistochemical analysis of paraffin-embedded Human lipomyoma tissue labeling Abhd5/CGI-58 with ab183739 at 1/2000 dilution. The slide is counterstained with Hematoxylin.

Flow cytometric analysis of 2% paraformaldehyde-fixed HepG2 cells labeling Abhd5/CGI-58 with ab183739 at 1/200 dilution. Goat anti-rabbit IgG (FITC) at 1/150 dilution was used as the secondary antibody. Rabbit monoclonal IgG was used as the isotype control.

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