### Overview

**Product name**  
Anti-Abhd5 / CGI-58 antibody

**Description**  
Goat polyclonal to Abhd5 / CGI-58

**Host species**  
Goat

**Specificity**  
This antibody is not expected to cross-react with ABHD4.

**Tested applications**  
Suitable for: WB, ELISA

**Species reactivity**  
Reacts with: Mouse, Cow, Human  
Predicted to work with: Rat, Sheep, Dog, Pig, Orangutan

**Immunogen**  
Synthetic peptide corresponding to Human Abhd5 / CGI-58 aa 181-192 (internal sequence).  
**Sequence:**  
C-FPERPDLADQDR

**Positive control**  
A431 and NIH-3T3 cell line lysates.

**General notes**  
Previously labelled as Abhd5.

### Properties

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Storage buffer**  
pH: 7.30  
Preservative: 0.02% Sodium azide  
Constituents: 0.5% Tris buffered saline, 0.5% BSA

**Purity**  
Immunogen affinity purified

**Purification notes**  
Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

**Clonality**  
Polyclonal

**Isotype**  
IgG

### Applications
**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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**Our Abpromise guarantee** covers the use of ab59488 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>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 0.2 - 0.6 µg/ml. Detects a band of approximately 40 kDa (predicted molecular weight: 39 kDa). Additional faint bands of 26kDa and 18kDa were observed in NIH-3T3. These bands were successfully blocked by incubation with the immunizing peptide.</td>
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<tr>
<td>ELISA</td>
<td></td>
<td>Use at an assay dependent dilution. Peptide ELISA: antibody detection limit dilution 1:8,000.</td>
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</tbody>
</table>
Western blot - Anti-Abhd5 / CGI-58 antibody (ab59488)

Anti-Abhd5 / CGI-58 antibody (ab59488) at 1 µg/ml + A431 cell line lysate (35µg protein in RIPA buffer)

**Predicted band size:** 39 kDa  
**Observed band size:** 38 kDa

*why is the actual band size different from the predicted?*

Primary incubation was 1 hour. Detected by chemiluminescence.

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Western blot - Anti-Abhd5 / CGI-58 antibody (ab59488)

Anti-Abhd5 / CGI-58 antibody (ab59488) at 0.2 µg/ml + NIH-3T3 cell lysate (RIPA buffer) at 35 µg

**Predicted band size:** 39 kDa  
**Observed band size:** 40 kDa

*why is the actual band size different from the predicted?*

Primary incubation was 1 hour. Detected by chemiluminescence.

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

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