# abcam

## Product datasheet

## Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] ab302917

Recombinant RabMAb

## 7 Images

#### Overview

**Product name** Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72]

**Description** Rabbit monoclonal [EPR26178-72] to VLDL Receptor/VLDL-R

**Host species** Rabbit

Specificity This antibody does not cross-react with human LDLR.

**Tested applications** Suitable for: WB, IHC-P

Unsuitable for: Flow Cyt or IP

Species reactivity Reacts with: Mouse, Rat, Human

**Immunogen** Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: Human and mouse heart tissue lysate treated & untreated with Protein Deglycosylation Mix II;

> human, mouse and rat liver tissue lysate, human small intestine tissue lysate; 3T3-L1 treated & untreated with1µM Dexamethasone whole cell tissue lysate, THP-1, and Huh7 whole cell lysates; human VLDLR & His-tagged LDLR recombinant protein. IHC-P: Human cardiac muscle and

pancreas tissue sections.

General notes ab302917 is unsuitable for mouse and rat IHC

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### **Properties**

**Form** 

Storage instructions 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.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA

Purity Protein A purified

Clonality Monoclonal
Clone number EPR26178-72

**Isotype** IgG

#### **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab302917 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 100-150 kDa (predicted molecular weight: 96 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

**Application notes** Is unsuitable for Flow Cyt or IP.

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Function Binds VLDL and transports it into cells by endocytosis. In order to be internalized, the receptor-

ligand complexes must first cluster into clathrin-coated pits. Binding to Reelin induces tyrosine

phosphorylation of Dab1 and modulation of Tau phosphorylation.

**Tissue specificity** Abundant in heart and skeletal muscle; also ovary and kidney; not in liver.

**Involvement in disease** Defects in VLDLR are the cause of cerebellar ataxia mental retardation and dysequilibrium

syndrome type 1 (CMARQ1) [MIM:224050]; also known as dysequilibrium syndrome (DES) or non-progressive cerebellar disorder with mental retardation. CMARQ1 is a congenital, non-progressive cerebellar ataxia associated with disturbed equilibrium, delayed ambulation, mental retardation and cerebellar hypoplasia. Additional features include short stature, strabismus, pes

planus and, rarely, seizures.

**Sequence similarities** Contains 3 EGF-like domains.

Contains 8 LDL-receptor class A domains. Contains 6 LDL-receptor class B repeats.

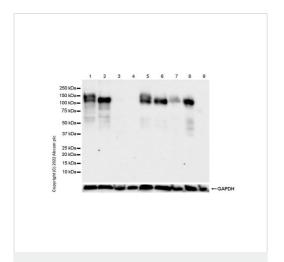
Post-translational

modifications

Ubiquitinated at Lys-839 by MYLIP leading to degradation.

Cellular localization Membrane. Membrane > clathrin-coated pit.

#### **Images**



Western blot - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

**All lanes :** Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (ab302917) at 1/1000 dilution

**Lane 1 :** Untreated human heart tissue lysate at 30  $\mu g$  **Lane 2 :** Human heart tissue lysate treated with Protein

Deglycosylation Mix II at 30 µg

Lane 3: Human liver tissue lysate at 50 µg

Lane 4 : Human small intestine tissue lysate at 50  $\mu g$  Lane 5 : Untreated mouse heart tissue lysate at 30  $\mu g$ 

Lane 6: Mouse heart tissue lysate treated with Protein

Deglycosylation Mix II at 30 µg

**Lane 7**: Mouse liver tissue lysate at 50 μg **Lane 8**: Rat heart tissue lysate at 50 μg

Lane 9 : Rat liver tissue lysate at 50  $\mu g$ 

## **Secondary**

**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/1000 dilution

Predicted band size: 96 kDa

Observed band size: 100-150 kDa

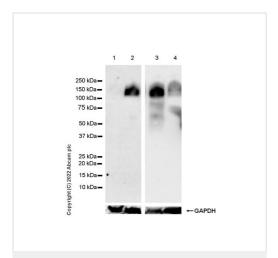
Exposure time: 48 seconds

Blocking / Diluting buffer and concentration: 5% NFDM/TBST

VLDLR is a glycoprotein of approximately 150 kDa and detected as a 120 kDa band after treated with Protein Deglycosylation MIX II.

Low expression: liver, small intestine (PMID: 7925422; PMID:

11960750; PMID: 29289645)



Western blot - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

**All lanes :** Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (ab302917) at 1/1000 dilution

Lane 1 : Untreated 3T3-L1 (mouse embryonic fibroblast), whole cell lysate

**Lane 2 :** 3T3-L1 treated with1 $\mu$ M Dexamethasone for 48h, whole cell lysate

Lane 3 : THP-1 (human monocytic leukemia monocyte), whole cell lysate

**Lane 4 :** Huh7 (Human hepatocellular carcinoma epithelial cell), whole cell lysate

Lysates/proteins at 50 µg per lane.

## **Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 96 kDa

Observed band size: 100-150 kDa

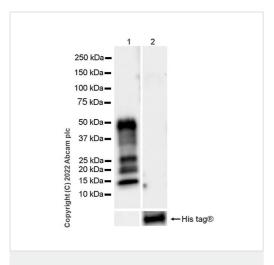
Blocking / Diluting buffer and concentration: 5% NFDM/TBST

The expression of VLDLR is upregulated in response to

Dexamethasone treatment (PMID: 11960750). Low expression: Huh7 (PMID: 29289645)

Exposure time:

Lane 1 and 2: 180 seconds
Lane 3 and 4: 48 seconds



Western blot - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

**All lanes :** Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (ab302917) at 1/1000 dilution

Lane 1: Human VLDLR recombinant protein 10 ng

Lane 2: His-tagged human LDLR recombinant protein 10 ng

**Secondary** 

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051)

**Predicted band size:** 96 kDa **Observed band size:** 15-50 kDa

Exposure time: 15 seconds

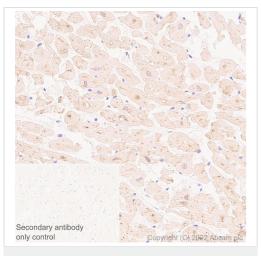
Blocking / Diluting buffer and concentration: 5% NFDM/TBST

This blot was developed using a high sensitivity ECL substrate.

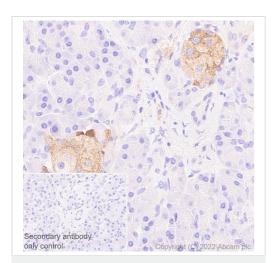
Immunohistochemical analysis of paraffin-embedded human cardiac muscle tissue labeling VLDL Receptor/VLDL-R with ab302917 at 1/500 dilution (0.978 µg/ml) followed by a ready to use Leica DS9800 (BOND™ Polymer Refine Detection). Cytoplasmic staining on cardiac muscle. The section was incubated with ab302917 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Primary diluent was used instead of primary antibody, followed by a ready to use Leica DS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

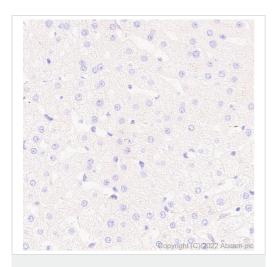


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

Immunohistochemical analysis of paraffin-embedded human pancreas tissue labeling VLDL Receptor/VLDL-R with ab302917 at 1/500 dilution (0.978 µg/ml) followed by a ready to use Leica DS9800 (BOND™ Polymer Refine Detection). Cytoplasmic staining on islet of human pancreas. The section was incubated with ab302917 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Primary diluent was used instead of primary antibody, followed by a ready to use Leica DS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.

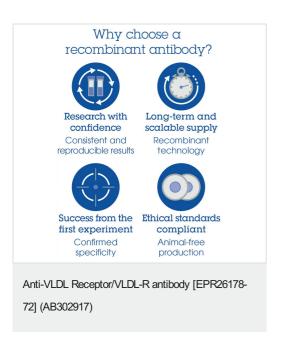


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-VLDL Receptor/VLDL-R antibody [EPR26178-72] (AB302917)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling VLDL Receptor/VLDL-R with ab302917 at 1/500 dilution (0.978  $\mu$ g/ml) followed by a ready to use Leica DS9800 (BOND TM Polymer Refine Detection). Negative control: No staining on human liver was observed. The section was incubated with ab302917 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Primary diluent was used instead of primary antibody, followed by a ready to use Leica DS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins was used.



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

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