# abcam

# Product datasheet

# Anti-LDL Receptor antibody [EP1553Y] ab52818





重组 RabMAb

★★★★★ 16 Abreviews 124 References 10 图像

概述

产品名称 Anti-LDL Receptor抗体[EP1553Y]

描述 兔单克隆抗体[EP1553Y] to LDL Receptor

宿主 Rabbit

特异性 Some optimisation may be required for detection of the target protein due to low levels of

endogenous expression in some samples. Please see images below for suitable positive

controls.

经测试应用 适用于: IHC-P, WB

不适用于: Flow Cvt or ICC/IF

种属反应性 与反应: Mouse, Human

免疫原 Synthetic peptide within Human LDL Receptor aa 800 to the C-terminus (C terminal). The exact

> sequence is proprietary. Database link: P01130

阳性对照 WB: HeLa and RAW264.7 cell lysate. HepG2 whole cell lysate. Mouse liver, lung and colon lysate.

Human liver and plasma lysate. IHC-P: Human hepatocellular carcinoma and liver tissue.

常规说明 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**.

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

Stable for 12 months at -20°C.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.1% BSA

纯**度** Protein A purified

同种型 lgG

#### 应用

#### The Abpromise guarantee Abpromise™承诺保证使用ab52818于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P	<b>★★★★★ (2)</b>	1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .
WB	<b>★★★★</b>	1/500 - 1/1000. Detects a band of approximately 100 kDa (predicted molecular weight: 95 kDa).

应用说明 Is unsuitable for Flow Cyt or ICC/IF.

靶标

功能 Binds LDL, the major cholesterol-carrying lipoprotein of plasma, and transports it into cells by

endocytosis. In order to be internalized, the receptor-ligand complexes must first cluster into clathrin-coated pits. In case of HIV-1 infection, functions as a receptor for extracellular Tat in

neurons, mediating its internalization in uninfected cells.

疾病相关 Defects in LDLR are the cause of familial hypercholesterolemia (FH) [MIM:143890]; a common

autosomal semi-dominant disease that affects about 1 in 500 individuals. The receptor defect impairs the catabolism of LDL, and the resultant elevation in plasma LDL-cholesterol promotes deposition of cholesterol in the skin (xanthelasma), tendons (xanthomas), and coronary arteries

(atherosclerosis).

序列相似性 Belongs to the LDLR family.

Contains 3 EGF-like domains.

Contains 7 LDL-receptor class A domains. Contains 6 LDL-receptor class B repeats.

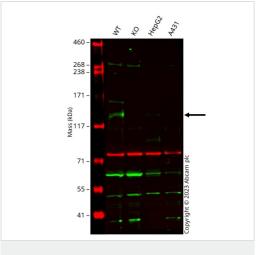
翻译**后修**饰 N- and O-glycosylated.

Ubiquitinated by MYLIP leading to degradation.

细胞定位 Cell membrane. Endomembrane system. Membrane > clathrin-coated pit. Found distributed from

the plasma membrane to intracellular compartments.

图片



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818)

**All lanes :** Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/1000 dilution

Lane 1: Wild-type HeLa cell lysate

Lane 2: LDLR knockout HeLa cell lysate

Lane 3: HepG2 cell lysate

Lane 4: A431 cell lysate

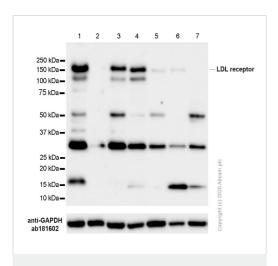
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 95 kDa

Observed band size: 130,160 kDa

Anti-LDLR antibody [EP1553Y] (ab52818) staining at 1/1000 dilution, shown in green; Mouse anti-CANX [CANX/1543] (ab238078) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab52818 was shown to bind specifically to LDLR. A band was observed at 130/160 kDa in wild-type HeLa cell lysates with no signal observed at this size in LDLR knockout cell line ab273838 (knockout cell lysate ab273792). To generate this image, wild-type and LDLR knockout HeLa cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818)

**All lanes :** Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/1000 dilution

**Lane 1 :** PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : LNCaP (Human prostate carcinoma epithelial cell) whole cell lysate

**Lane 3 :** Huh7 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

**Lane 4 :** HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate

**Lane 5**: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 6 : A431 (Human epidermoid carcinoma epithelial cell) whole cell lysate

Lane 7: HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

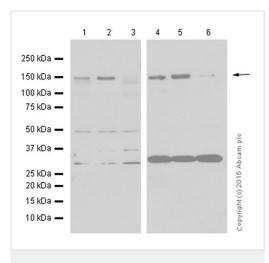
### **Secondary**

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated at 1/20000 dilution

**Predicted band size:** 95 kDa **Observed band size:** 150 kDa

Blocking buffer: 5% NFDM/TBST

Diluting buffer: 5% NFDM/TBST



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818)

**All lanes :** Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/1000 dilution

**Lane 1 :** HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate

**Lane 2**: HeLa treated with GW3965 for 8 hours at the final concentration of 5uM whole cell lysates

**Lane 3 :** HeLa treated with GW3965 for 24 hours at the final concentration of 5uM whole cell lysates

Lane 4: Raw264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysates

**Lane 5**: Raw264.7 treated with GW3965 for 8 hours at the final concentration of 5uM whole cell lysates

**Lane 6 :** Raw264.7 treated with GW3965 for 24 hours at the final concentration of 5uM whole cell lysates

Lysates/proteins at 20 µg per lane.

# Secondary

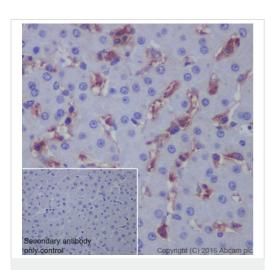
**All lanes :** Goat Anti-Rabbit  $\lg G \ H\&L \ (HRP) \ (\underline{ab97051})$  at 1/20000 dilution (HRP goat anti-rabbit  $\lg G \ (H+L)$ )

**Predicted band size:** 95 kDa **Observed band size:** 140 kDa

Exposure time: 1 minute

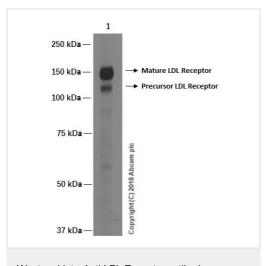
Blocking buffer: 5% NFDM/TBST

Diltuion buffer: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-LDL Receptor antibody
[EP1553Y] (ab52818)

Immunohistochemical analysis of paraffin-embedded human liver sections labeling LDL Receptor with purified ab52818 at dilution of 1:500. The secondary antibody used was <a href="mailto:ab97051">ab97051</a>; a goat antirabbit lgG H&L (HRP) at dilution of 1/500. The sample was counterstained with hematoxylin. Antigen retrieval was performed using EDTA Buffer; pH 9.0. PBS was used instead of the primary antibody as the negative control and is shown in the inset.



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818)

Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 0.4  $\mu$ g/ml + HepG2 (Human hepatocellular carcinoma epithelial cell) whole cell lysate at 20  $\mu$ g

#### Secondary

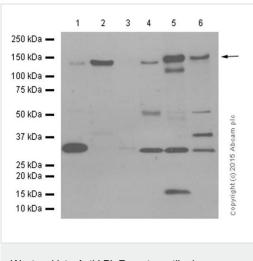
Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 95 kDa

Exposure time: 3 minutes

Blocking and diluting buffer: 5% NFDM/TBST.

The molecular weight observed is consistent with the literature (PMID: 15199428, PMID: 8349823, PMID: 10906332, PMID: 24918045).



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818) **All lanes :** Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/1000 dilution

Lane 1 : Mouse liver lysate
Lane 2 : Mouse lung lysate
Lane 3 : Mouse colon lysate
Lane 4 : Human liver lysate

Lane 5: HepG2 (Human liver hepatocellular carcinoma cell line)

cell lysate

Lane 6 : HeLa (Human epithelial cell line from cervix

adenocarcinoma) cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/1000 dilution (HRP goat anti-rabbit IgG (H+L))

**Predicted band size:** 95 kDa **Observed band size:** 140 kDa

Exposure time: 3 minutes

Blocking buffer: 5% NFDM/TBST

Diltuion buffer: 5% NFDM/TBST

1

250 kDa —

150 kDa —

100 kDa —

75 kDa —

37 kDa —

25 kDa —

20 kDa —

15 kDa —

10 kDa —

10 kDa —

10 kDa —

Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818) Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/5000 dilution + Mouse liver at 15 µg

# **Secondary**

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

**Predicted band size:** 95 kDa **Observed band size:** 140 kDa

Blocking/Diluting buffer 5% NFDM/TBST



Western blot - Anti-LDL Receptor antibody [EP1553Y] (ab52818)

Anti-LDL Receptor antibody [EP1553Y] (ab52818) at 1/500 dilution

+ Human plasma total protein lysate at 10 μg

#### Secondary

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

Developed using the ECL technique.

Performed under reducing conditions.

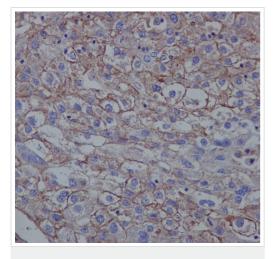
**Predicted band size:** 95 kDa **Observed band size:** 100 kDa

Additional bands at: 27 kDa, 48 kDa. We are unsure as to the

identity of these extra bands.

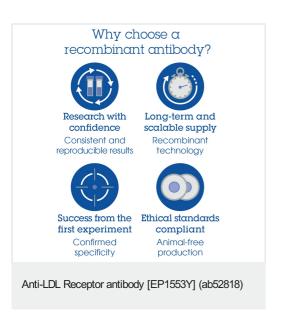
Exposure time: 4 minutes

LDL Receptor contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-LDL Receptor antibody
[EP1553Y] (ab52818)

Immunohistochemical analysis of paraffin-embedded human hepatocellular carcinoma tissue labeling LDL Receptor with ab52818 at 1/100 dilution followed by goat anti-rabbit lgG H&L (HRP) (ab97051, 1/500). The sample was counterstained with hematoxylin.



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