

### Anti-YKL-40/CHI3L1 antibody [EPR19078-157] ab255297

敲除验证
重组
RabMAb

★★★★★
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#### 概述

产品名称	Anti-YKL-40/CHI3L1抗体[EPR19078-157]
描述	兔单克隆抗体[EPR19078-157] to YKL-40/CHI3L1
宿主	Rabbit
经测试应用	<b>适用于:</b> WB, IHC-P, Flow Cyt (Intra) <b>不适用于:</b> ICC/IF
种属反应性	<b>与反应:</b> Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human spleen tissue lysate; THP-1 (Human monocytic leukemia monocyte), U-87 MG (Human glioblastoma-astrocytoma epithelial cell), MG-63 (Human osteosarcoma fibroblast), Caco-2 (Human colorectal adenocarcinoma epithelial cell), 293T (Human embryonic kidney epithelial cell), and Jurkat (Human T cell leukemia T lymphocyte) whole cell lysates; IHC-P: Human spleen and tonsil tissue. Flow: THP-1 cells.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 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 long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
纯度	Protein A purified

克隆	单克隆
克隆编号	EPR19078-157
同种型	IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab255297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
WB		1/1000. Detects a band of approximately 42 kDa (predicted molecular weight: 43 kDa).
IHC-P	★☆☆☆☆ (1)	1/250. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/500.

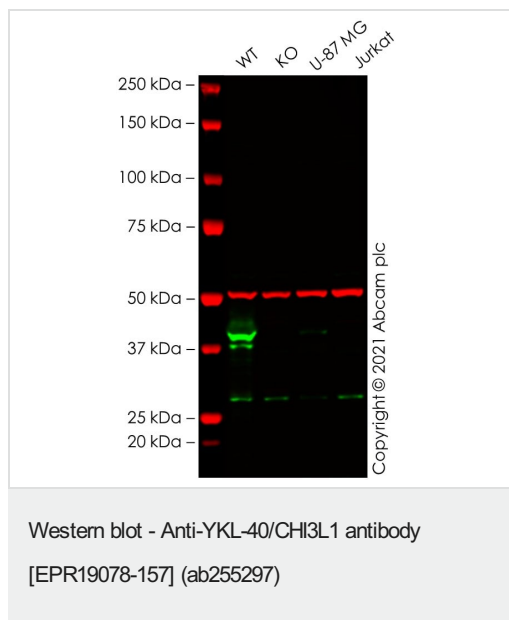
应用说明

Is unsuitable for ICC/IF.

靶标

功能	Carbohydrate-binding lectin with a preference for chitin. May play a role in defense against pathogens, or in tissue remodeling. May play an important role in the capacity of cells to respond to and cope with changes in their environment.
组织特异性	Present in activated macrophages, articular chondrocytes, synovial cells as well as in liver. Undetectable in muscle tissues, lung, pancreas, mononuclear cells, or fibroblasts.
疾病相关	A genetic variation in CHI3L1 is associated with susceptibility to asthma-related traits type 7 (ASRT7) [MIM:611960]. Asthma-related traits include clinical symptoms of asthma, such as coughing, wheezing and dyspnea, bronchial hyperresponsiveness (BHR) as assessed by methacholine challenge test, serum IgE levels, atopy, and atopic dermatitis.
序列相似性	Belongs to the glycosyl hydrolase 18 family.
翻译后修饰	Glycosylated.
细胞定位	Secreted > extracellular space.

图片



**All lanes :** Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297) at 1/1000 dilution

**Lane 1 :** Wild-type THP-1 cell lysate

**Lane 2 :** CHI3L1 knockout THP-1 cell lysate

**Lane 3 :** U-87 MG cell lysate

**Lane 4 :** Jurkat cell lysate

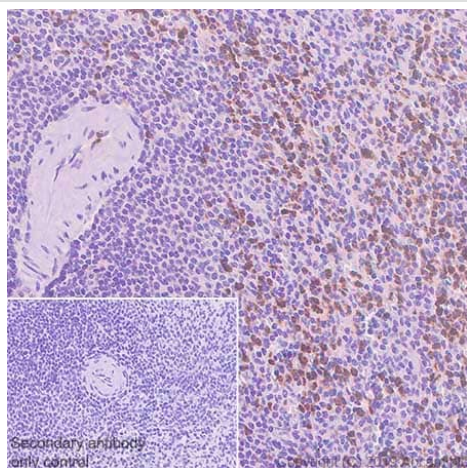
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

**Predicted band size:** 43 kDa

**Observed band size:** 37,40 kDa

False colour image of Western blot: Anti-YKL-40/CHI3L1 antibody [EPR19078-157] staining at 1/1000 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab255297 was shown to bind specifically to YKL-40/CHI3L1. A band was observed at 37/40 kDa in wild-type THP-1 cell lysates with no signal observed at this size in CHI3L1 knockout cell line [ab280038](#) (knockout cell lysate [ab280097](#)). To generate this image, wild-type and CHI3L1 knockout THP-1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % 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 (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297)

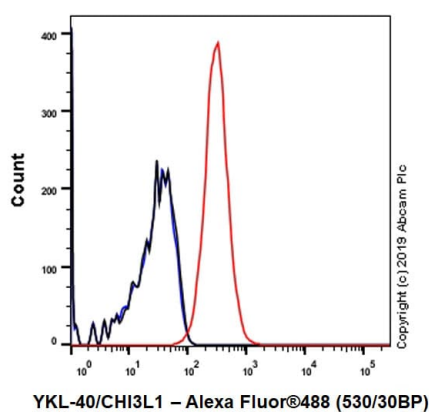
Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling YKL-40/CHI3L1 with ab255297 at 1/250 dilution followed by ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on neutrophils of human spleen is observed.

The section was incubated with ab255297 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. Counterstained with Hematoxylin.

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

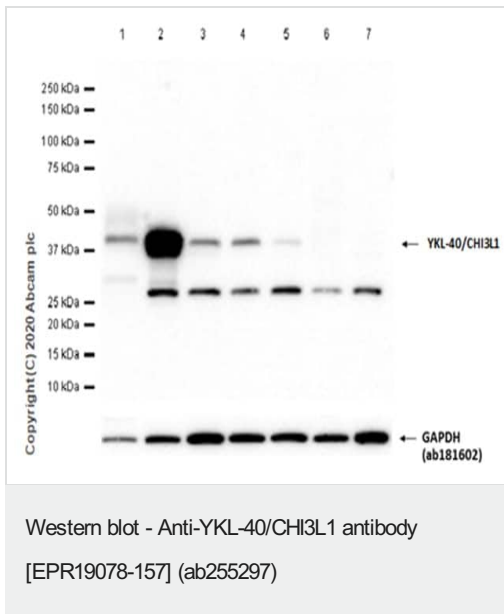
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).



Flow Cytometry (Intracellular) - Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized THP-1 (human monocytic leukemia cell line) cells labelling YKL-40/CHI3L1 with ab255297 at 1/500 dilution (Red) compared with a Rabbit monoclonal IgG (**ab172730**, Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat anti rabbit IgG (Alexa Fluor<sup>®</sup> 488, **ab150077**) at 1/2000 dilution was used as the secondary antibody.



**All lanes :** Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297) at 1/1000 dilution

**Lane 1 :** Human spleen tissue lysate

**Lane 2 :** THP-1 (Human monocytic leukemia monocyte) whole cell lysate

**Lane 3 :** U-87 MG ( Human glioblastoma-astrocytoma epithelial cell) whole cell lysate

**Lane 4 :** MG-63 (Human osteosarcoma fibroblast) whole cell lysate

**Lane 5 :** Caco-2 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate

**Lane 6 :** 293T (Human embryonic kidney epithelial cell) whole cell lysate

**Lane 7 :** Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 43 kDa

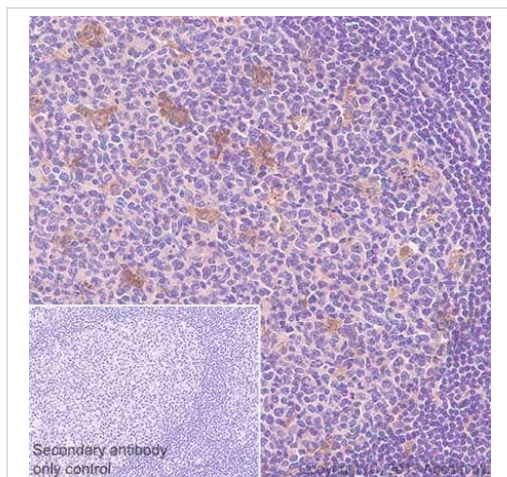
**Observed band size:** 42 kDa

**Additional bands at:** 27 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 60 seconds

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

The expression profile observed in 293T and Jurkat are consistent with the literature (PMID: 19767768, PMID: 16472595).

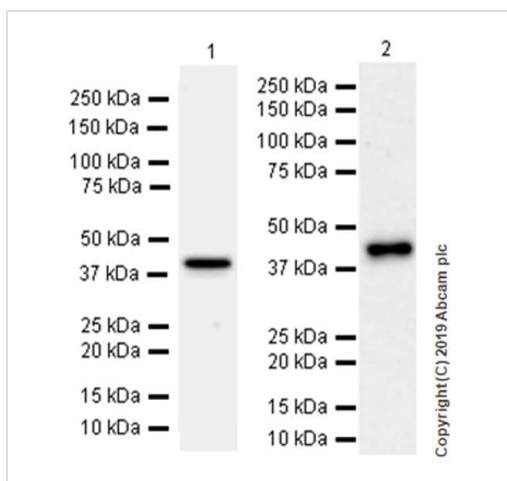


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling YKL-40/CHI3L1 with ab255297 at 1/250 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on macrophages in human tonsil germinal center is observed. The section was incubated with ab255297 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND<sup>®</sup> RX instrument. Counterstained with Hematoxylin.

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

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).



Western blot - Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297)

**All lanes :** Anti-YKL-40/CHI3L1 antibody [EPR19078-157] (ab255297) at 1/1000 dilution

**Lane 1 :** Human spleen lysate

**Lane 2 :** THP-1 (human monocytic leukemia cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

#### Secondary

**Lane 1 :** VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/1000 dilution

**Lane 2 :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 43 kDa





**Observed band size:** 42 kDa

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

Exposure time: 3 minutes

The molecular weight observed is consistent with what has been described in the literature (PMID 19414556).

Why choose a recombinant antibody?

 <b>Research with confidence</b> Consistent and reproducible results	 <b>Long-term and scalable supply</b> Recombinant technology
 <b>Success from the first experiment</b> Confirmed specificity	 <b>Ethical standards compliant</b> Animal-free production

Anti-YKL-40/CHI3L1 antibody [EPR19078-157]  
(ab255297)

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

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