# abcam

## Product datasheet

# Anti-IL-6 antibody [EPR21711] ab233706





重组 RabMAb

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概述

产品名称 Anti-IL-6抗体[EPR21711]

描述 兔单克隆抗体[EPR21711] to IL-6

宿主 Rabbit

经测试应用 适用于: Flow Cyt (Intra), WB, ICC/IF, IP

种属反应性 与反应: Human

免疫原 Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: LPS/BFA-treated HUVEC whole cell lysate; Wild-type A549 IL-1ß (ab259387) (20 ng/ml,

> 24h) and Brefeldin A (ab120299)-treated (5 ug/ml for the last 4h) cell lysate ICC/IF: LPS/BFAtreated HUVEC cells. Flow Cyt (intra): LPS/BFA-treated HUVEC cells. IP: LPS/BFA-treated

HUVEC whole cell lysate.

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

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 EPR21711 克隆编号

**同种型** IgG

#### 应用

## The Abpromise guarantee Abpromise™承诺保证使用ab233706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
Flow Cyt (Intra)		1/500.
WB		1/1000. Detects a band of approximately 21 kDa (predicted molecular weight: 23 kDa).
ICC/IF		1/50.
IP		1/30.

#### 靶标

#### 功能

Cytokine with a wide variety of biological functions. It is a potent inducer of the acute phase response. Plays an essential role in the final differentiation of B-cells into lg-secreting cells involved in lymphocyte and monocyte differentiation. It induces myeloma and plasmacytoma growth and induces nerve cells differentiation Acts on B-cells, T-cells, hepatocytes, hematopoeitic progenitor cells and cells of the CNS. Also acts as a myokine. It is discharged into the bloodstream after muscle contraction and acts to increase the breakdown of fats and to improve insulin resistance.

#### 疾病相关

Genetic variations in IL6 are associated with susceptibility to rheumatoid arthritis systemic juvenile (RASJ) [MIM:604302]. An inflammatory articular disorder with systemic-onset beginning before the age of 16. It represents a subgroup of juvenile arthritis associated with severe extraarticular features and occasionally fatal complications. During active phases of the disorder, patients display a typical daily spiking fever, an evanescent macular rash, lymphadenopathy, hepatosplenomegaly, serositis, myalgia and arthritis.

Note=A II 6 promoter polymorphism is associated with a lifetime risk of development of Kaposi

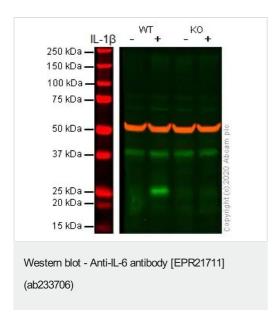
Note=A L6 promoter polymorphism is associated with a lifetime risk of development of Kaposi sarcoma in HIV-infected men.

序列相似性 Belongs to the IL-6 superfamily.

翻译后修饰 N- and O-glycosylated.

细**胞定位** Secreted.

#### 图片



**All lanes :** Anti-IL-6 antibody [EPR21711] (ab233706) at 1/1000 dilution

Lane 1: Wild-type A549 Brefeldin A (<u>ab120299</u>)-treated (5ug/ml, 4h) cell lysate

 $\textbf{Lane 2:} \ \ \text{Wild-type A549 IL-1\& (} \underline{ab259387}\text{) (20 ng/ml, 24h) and}$   $\ \ \text{Brefeldin A (} \underline{ab120299}\text{)-treated (5 ug/ml for the last 4h) cell lysate}$ 

Lane 3: IL-6 knockout A549 Brefeldin A (<u>ab120299</u>)-treated (5ug/ml, 4h) cell lysate

**Lane 4 :** IL-6 knockout A549 IL-1ß (<u>ab259387</u>) (20 ng/ml, 24h) and Brefeldin A (<u>ab120299</u>)-treated (5 ug/ml for the last 4h) cell lysate

Lysates/proteins at 30 µg per lane.

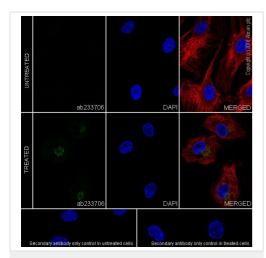
Performed under reducing conditions.

**Predicted band size:** 23 kDa **Observed band size:** 25 kDa

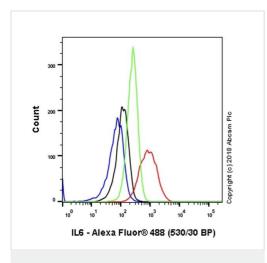
Additional bands at: 40 kDa (possible non-specific binding)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab233706 observed at 25 kDa. Red - loading control <u>ab7291</u> (Mouse anti-Alpha Tubulin [DM1A] observed at 55kDa.

ab233706 was shown to react with IL-6 in wild-type A549 cells in western blot with loss of signal observed in IL-6 knockout cell line ab273751 (knockout cell lysate ab275501). Wild-type and IL-6 knockout A549 cell lysates were subjected to SDS-PAGE. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with ab233706 and ab7291 (Mouse anti-Alpha Tubulin [DM1A] overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-IL-6 antibody [EPR21711] (ab233706)

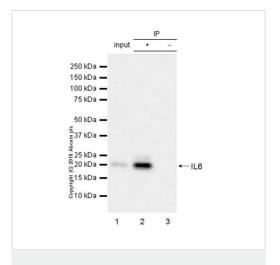


Flow Cytometry (Intracellular) - Anti-IL-6 antibody [EPR21711] (ab233706)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HUVEC (human umbilical vein endothelial cell line) cells labeling IL6 with ab233706 at 1/50 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor<sup>®</sup> 488) (ab150077) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining in HUVEC cells treated with lipopolysaccharide (0.5 µg/ml) for 24h and Brefeldin A (300 ng/ml) for 20h. The nuclear counterstain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor<sup>®</sup> 594) (ab195889) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HUVEC (human umbilical vein endothelial cell line) treated with lipopolysaccharide (0.5 µg/ml) for 24h and Brefeldin A (300 ng/ml) for 20h (red) / untreated control (green) cells labeling IL6 with ab233706 at 1/500 compared with a Rabbit monoclonal IgG (ab172730) (black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077), at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-IL-6 antibody [EPR21711] (ab233706)

1 2

250 kDa —

150 kDa —

100 kDa —

75 kDa —

37 kDa —

37 kDa —

37 kDa —

37 kDa —

31 kDa —

31 kDa —

4 kDZ 20 kDa —

4

Western blot - Anti-IL-6 antibody [EPR21711] (ab233706)

IL6 was immunoprecipitated from 0.35 mg HUVEC (human umbilical vein endothelial cell line) treated with lipopolysaccharide (0.5  $\mu$ g/ml) for 24h and Brefeldin A (300 ng/ml) for 20h, whole cell lysate with ab233706 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab233706 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

**Lane 1:** HUVEC treated with lipopolysaccharide (0.5  $\mu$ g/ml) for 24h and Brefeldin A (300 ng/ml) for 20h, whole cell lysate 10  $\mu$ g (lnput). **Lane 2:** ab233706 IP in HUVEC treated with lipopolysaccharide (0.5  $\mu$ g/ml) for 24h and Brefeldin A (300 ng/ml) for 20h, whole cell lysate.

**Lane 3:** Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab233706 in HUVEC treated with lipopolysaccharide (0.5  $\mu$ g/ml) for 24h and Brefeldin A (300 ng/ml) for 20h, whole cell lysate.

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

Exposure time: 5 seconds.

**All lanes :** Anti-IL-6 antibody [EPR21711] (ab233706) at 1/1000 dilution

**Lane 1 :** Untreated HUVEC (human umbilical vein endothelial cell line) whole cell lysate

**Lane 2**: HUVEC treated with 0.5 μg/ml lipopolysaccharides (LPS) for 24 hours, added 300 ng/ml BFA last 20 hours, whole cell lysate

Lysates/proteins at 10 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) (<u>ab97051</u>) at 1/100000 dilution

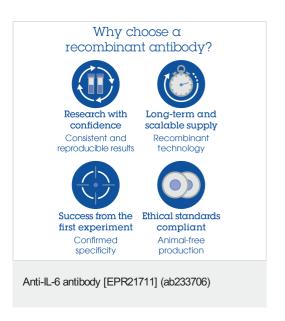
Developed using the ECL technique.

Predicted band size: 23 kDa Observed band size: 21 kDa

Exposure time: 3 minutes

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

The molecular mass observed is consistent with what has been described in the literature (PMID: 2523818, PMID: 2783321).



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