# abcam

# Product datasheet

# Anti-Ikaros antibody [EPR13791] - C-terminal ab190691



重组 RabMAb

## 6 图像

概述

产品名称 Anti-lkaros抗体[EPR13791] - C-terminal

描述 兔单克隆抗体[EPR13791] to lkaros - C-terminal

宿主 Rabbit

特异性 Based on the sequence analysis, ab190691 recognizes seven isoforms with the predicted MWs

of 58KDa, 48KDa, 48KDa, 43KDa, 41KDa, 32KDa and 53KDa, respectively.

This product is not suitable for Mouse in WB, ICC/IF or IP.

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

不适用于: ChIP

种属反应性 与反应: Human

不与反应: Mouse

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 ICC/IF: Jurkat cells. Flow Cyt (intra): Jurkat cells. WB: Jurkat , Raji and Ramos and Daudi cell

lysates.

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 long

term. Avoid freeze / thaw cycle.

存储溶液 pH: 7.2

Preservative: 0.01% Sodium azide

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

纯**度** Protein A purified

**克隆** 单克隆

**克隆编号** EPR13791

**同种型** lgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab190691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
IP		1/30.
Flow Cyt (Intra)		1/60.
ICC/IF		1/250.
WB		1/1000 - 1/10000. Detects a band of approximately 50-70 kDa (predicted molecular weight: 58 kDa).

应用说明 Is unsuitable for ChIP.

靶标

功能 Transcription regulator of hematopoietic cell differentiation (PubMed:17934067). Binds gamma-

satellite DNA (PubMed:17135265, PubMed:19141594). Plays a role in the development of lymphocytes, B- and T-cells. Binds and activates the enhancer (delta-A element) of the CD3-delta gene. Repressor of the TDT (fikzfterminal deoxynucleotidyltransferase) gene during thymocyte differentiation. Regulates transcription through association with both HDAC-dependent and HDAC-independent complexes. Targets the 2 chromatin-remodeling complexes, NuRD and BAF (SWI/SNF), in a single complex (PYR complex), to the beta-globin locus in adult erythrocytes. Increases normal apoptosis in adult erythroid cells. Confers early temporal competence to retinal progenitor cells (RPCs) (By similarity). Function is isoform-specific and is modulated by

dominant-negative inactive isoforms (PubMed:17135265, PubMed:17934067).

组织特异性 Abundantly expressed in thymus, spleen and peripheral blood Leukocytes and lymph nodes.

Lower expression in bone marrow and small intestine.

疾病相关 Defects in IKZF1 are frequent occurrences (28.6%) in acute lymphoblasic leukemia (ALL). Such

alterations or deletions lead to poor prognosis for ALL.

 $Chromosomal\ aberrations\ involving\ IKZF1\ are\ a\ cause\ of\ B-cell\ non-Hodgkin\ lymphomas\ (B-cell\ non-Hodgkin\ lymphomas\ ly$ 

NHL). Translocation t(3;7)(q27;p12), with BCL6.

**序列相似性** Belongs to the Ikaros C2H2-type zinc-finger protein family.

Contains 6 C2H2-type zinc fingers.

结构域 The N-terminal zinc-fingers 2 and 3 are required for DNA binding as well as for targeting IKFZ1 to

pericentromeric heterochromatin.

The C-terminal zinc-finger domain is required for dimerization.

翻译后修饰 Phosphorylation controls cell-cycle progression from late G(1) stage to S stage.

Hyperphosphorylated during G2/M phase. Dephosphorylated state during late G(1) phase. Phosphorylation on Thr-140 is required for DNA and pericentromeric location during mitosis. CK2 is the main kinase, in vitro. GSK3 and CDK may also contribute to phosphorylation of the C-terminal serine and threonine residues. Phosphorylation on these C-terminal residues reduces the DNA-binding ability. Phosphorylation/dephosphorylation events on Ser-13 and Ser-295 regulate TDT expression during thymocyte differentiation. Dephosphorylation by protein phosphatase 1 regulates stability and pericentromeric heterochromatin location. Phosphorylated in both lymphoid and non-lymphoid tissues (By similarity). Phosphorylation at Ser-361 and Ser-364 downstream of SYK induces nuclear translocation.

Sumoylated. Simulataneous sumoylation on the 2 sites results in a loss of both HDAC-dependent and HDAC-independent repression. Has no effect on pericentromeric heterochromatin location. Desumoylated by SENP1.

Polyubiquitinated.

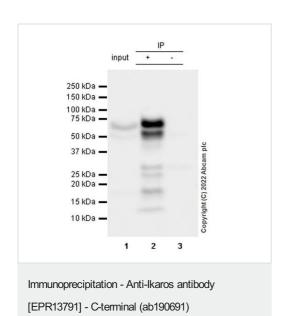
Cytoplasm; Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events and Nucleus. In resting lymphocytes, distributed diffusely throughout the nucleus. Localizes to pericentromeric heterochromatin in proliferating cells. This localization requires DNA binding which is regulated by phosphorylation / dephosphorylation events (By similarity).

There are 7 isoforms produced by alternative splicing.

形式

细胞定位

#### 图片



50-70 kDa lkaros was immunoprecipitated from 0.35mg Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate with ab190691 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab190691 at 1/1000 dilution (0.71  $\mu$ g/ml). VeriBlot for IP secondary antibody (HRP) (ab131366) was used at 1/5000 dilution.

**Lane 1 (Input):** Ramos (human Burkitt's lymphoma B lymphocyte) whole cell lysate 10  $\mu g$ .

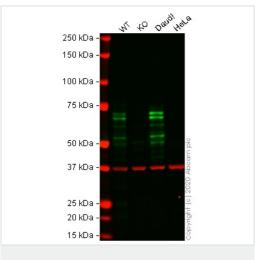
Lane 2 (+): Ramos whole cell lysate.

**Lane 3 (-):** Rabbit monoclonal lgG (<u>ab172730</u>) instead of ab190691 in Ramos whole cell lysate.

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

Exposure time: 15 seconds.



Western blot - Anti-Ikaros antibody [EPR13791] - C-terminal (ab190691)

**All lanes :** Anti-lkaros antibody [EPR13791] - C-terminal (ab190691) at 1/1000 dilution

Lane 1: Wild-type Jurkat cell lysate

Lane 2: IKZF1 knockout Jurkat cell lysate

Lane 3 : Daudi cell lysate

Lane 4 : HeLa cell lysate

Lysates/proteins at 20 µg per lane.

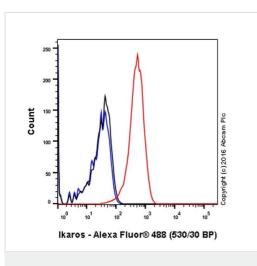
Performed under reducing conditions.

Predicted band size: 58 kDa

Observed band size: 50-70 kDa

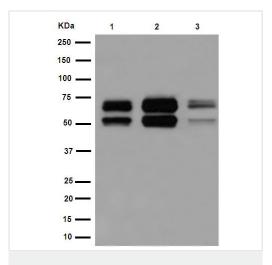
**Lanes 1 - 4:** Merged signal (red and green). Green - ab190691 observed at 50-70 kDa. Red - loading control <u>ab8245</u> (Mouse anti-GAPDH antibody [6C5]) observed at 37kDa.

ab190691 was shown to react with lkaros in wild-type Jurkat cells in western blot with loss of signal observed in IKZF1 knockout sample. Wild-type and IKZF1 knockout Jurkat cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween<sup>®</sup>) before incubation with ab190691 and ab8245 (Mouse anti-GAPDH antibody [6C5]) 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<sup>®</sup> 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-Ikaros antibody [EPR13791] - C-terminal (ab190691)

Intracellular Flow Cytometry analysis of Jurkat (human acute T cell leukemia) labelling lkaros with purified ab190691 at 1/60 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Alexa Fluor<sup>®</sup> 488 goat anti-rabbit lgG (1/2000) was used as the secondary antibody. Black - lsotype control, rabbit monoclonal lgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Western blot - Anti-Ikaros antibody [EPR13791] - C-terminal (ab190691)

**All lanes :** Anti-lkaros antibody [EPR13791] - C-terminal (ab190691) at 1/10000 dilution

Lane 1 : Raji cell line lysate

Lane 2 : Jurkat cell line lysate

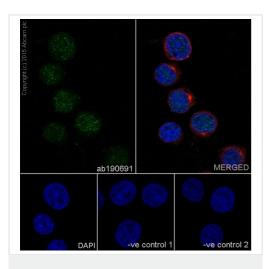
Lane 3 : Ramos cell line lysate

Lysates/proteins at 20 µg per lane.

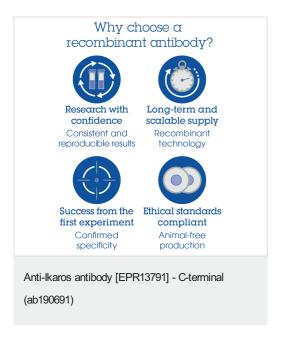
# **Secondary**

**All lanes :** Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugated antibody at 1/1000 dilution

**Predicted band size:** 58 kDa **Observed band size:** 50-70 kDa



Immunocytochemistry/ Immunofluorescence - Anti-Ikaros antibody [EPR13791] - C-terminal (ab190691) Immunofluorescent analysis of 4% paraformaldehyde fixed Jurkat cells labeling lkaros with ab190691 at 1/250 followed by Goat anti rabbit lgG (Alexa Fluor® 555) at 1/200 and conterstained with DAPI.



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