# abcam

# Product datasheet

# Anti-CD45 antibody - Hematopoietic Stem Cell Marker ab10559

★★★★★ 7 Abreviews 35 References 2 图像

概述

产品名称 Anti-CD45抗体- Hematopoietic Stem Cell Marker

描述 兔多克隆抗体to CD45 - Hematopoietic Stem Cell Marker

**宿主** Rabbit

经测试应用 适用于: WB, IHC-P

种属反应性 与反应: Human

预测可用于: Pig, Monkey 📤

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

常规说明

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

性能

形式 Liquid

**存放说明** Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

**存储溶液** pH: 7.40

Preservative: 0.02% Sodium azide

Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising

agent. If you would like information about the formulation of a specific lot, please contact our

scientific support team who will be happy to help.

纯**度** Immunogen affinity purified

**克隆** 多克隆

**同种型** IgG

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#### The Abpromise guarantee

## Abpromise™承诺保证使用ab10559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		1/500. Detects a band of approximately 155 kDa (predicted molecular weight: 147 kDa).
IHC-P	<b>★★★★★</b> (4)	Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

44.	471

#### 功能

Protein tyrosine-protein phosphatase required for T-cell activation through the antigen receptor. Acts as a positive regulator of T-cell coactivation upon binding to DPP4. The first PTPase domain has enzymatic activity, while the second one seems to affect the substrate specificity of the first one. Upon T-cell activation, recruits and dephosphorylates SKAP1 and FYN.

#### 疾病相关

Defects in PTPRC are a cause of severe combined immunodeficiency autosomal recessive T-cell-negative/B-cell-positive/NK-cell-positive (T(-)B(+)NK(+) SCID) [MIM:608971]. A form of severe combined immunodeficiency (SCID), a genetically and clinically heterogeneous group of rare congenital disorders characterized by impairment of both humoral and cell-mediated immunity, leukopenia, and low or absent antibody levels. Patients present in infancy recurrent, persistent infections by opportunistic organisms. The common characteristic of all types of SCID is absence of T-cell-mediated cellular immunity due to a defect in T-cell development.

Genetic variations in PTPRC are involved in multiple sclerosis susceptibility (MS) [MIM:126200]. MS is a neurodegenerative disorder characterized by the gradual accumulation of focal plaques of demyelination particularly in the periventricular areas of the brain. Peripheral nerves are not affected. Onset usually in third or fourth decade with intermittent progression over an extended period. The cause is still uncertain.

#### 序列相似性

结构域

Belongs to the protein-tyrosine phosphatase family. Receptor class 1/6 subfamily.

Contains 2 fibronectin type-III domains.

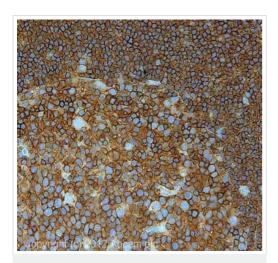
Contains 2 tyrosine-protein phosphatase domains.

The first PTPase domain interacts with SKAP1.

翻译后修饰 Heavily N- and O-glycosylated.

细胞定位 Membrane. Membrane raft. Colocalized with DPP4 in membrane rafts.

#### 图片



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CD45 antibody - Hematopoietic Stem Cell Marker (ab10559)

IHC image of ab10559 staining in human Hodgkins lymphoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond M system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab10559, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Western blot - Anti-CD45 antibody - Hematopoietic Stem Cell Marker (ab10559)

ab10559 rabbit polyclonal to CD45 (1/500) with secondary goat anti-rabbit lgG **ab6721** (1/5000).

Expected molecular weight: 147 kDa. WB exposure time: 1min 30sec

Lanes 1 to 10: 20µg of cell lysate per lane

Lanes 6 to 10: ab17550 CD45 blocking peptide used at 1µg/ml

Lane 1: HeLa Nuclear Extract (ab10559)

Lane 2: HeLa Whole Cell Lysate (ab10559)

Lane 3: A431 Whole Cell Lysate (ab10559)

Lane 4: Jurkat Whole Cell Lysate (ab10559)

Lane 5: HEK293 Whole Cell Lysate (ab10559)

Lane 6: HeLa Nuclear Extract (ab10559+ ab17550)

Lane 7: HeLa Whole Cell Lysate (ab10559+ ab17550)

Lane 8: A431 Whole Cell Lysate (ab10559+ ab17550)

Lane 9: Jurkat Whole Cell Lysate (ab10559+ ab17550)

Lane 10: HEK293 Whole Cell Lysate (ab10559+ ab17550)

A strong band, slightly higher was seen in Jurkat cell lysate. The band was blocked using the immunising peptide (<u>ab17550</u>). It is likely that the band is CD45.

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