# abcam

# Product datasheet

# Anti-M6PR (cation independent) antibody [MEM-238] ab8093

★★★★★ 3 Abreviews 14 References 4 图像

### 概述

产品名称 Anti-M6PR (cation independent)抗体[MEM-238]

描述 小鼠单克隆抗体[MEM-238] to M6PR (cation independent)

宿主 Mouse

特异性 CD222 antigen (human)

经测试应用 适用于: WB, Flow Cyt (Intra)

种属反应性 与反应: Human

预测可用于: Non human primates

免疫原 Tissue, cells or virus corresponding to Vaccinia virus M6PR (cation independent).

表位 Recognizes an epitope between domains 2 and 5.

阳性对照 Flow Cyt (Intra): HeLa cells.

常规说明 CD222 is a 250kDa transmembrane protein with a short cytoplasmic tail containing an

> internalization signal. CD222 was originally identified as a receptor for IGFII and M6P-containing proteins (e.g. lysosomal hydrolases). Lysosomal enzymes are sorted to lysosomes via CD222 either from the Golgi, where the enzymes acquire M6P, or from the extracellular space. The majority of CD222 molecules (approximately 90-95%) are located intracellularly, only 5-10% is present on the cell membrane. The internalization rate seems to be enhanced by ligand induced dimerization of CD222 as well as by phosphorylation of its cytoplasmic serine. CD222 is also a receptor for TGFbeta latency associated peptide (LAP), proliferin and may bind several molecules independently of M6P, including plasminogen, CD87 or retinoic acid. It is involved in activation of latent TGFbeta [PROW].

This product was changed from ascites to tissue culture supernatant on 24th January 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

**存储溶液** pH: 7.40

Preservative: 0.097% Sodium azide

Constituent: PBS

纯**度** Protein A purified

纯**化说明** Purified from TCS. Purity >95% by SDS-PAGE.

Primary antibody说明 CD222 is a 250kDa transmembrane protein with a short cytoplasmic tail containing an

internalization signal. CD222 was originally identified as a receptor for IGFII and M6P-containing proteins (e.g. lysosomal hydrolases). Lysosomal enzymes are sorted to lysosomes via CD222 either from the Golgi, where the enzymes acquire M6P, or from the extracellular space. The majority of CD222 molecules (approximately 90-95%) are located intracellularly, only 5-10% is present on the cell membrane. The internalization rate seems to be enhanced by ligand induced dimerization of CD222 as well as by phosphorylation of its cytoplasmic serine. CD222 is also a receptor for TGFbeta latency associated peptide (LAP), proliferin and may bind several

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activation of latent TGFbeta [PROW].

同种型 lgG1

应用

The Abpromise quarantee Abpromise™承诺保证使用ab8093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 <b>用</b>	Ab评论	说明
WB		Use a concentration of 1 - 2 µg/ml. Use under non reducing condition. Predicted molecular weight: 274 kDa.
Flow Cyt (Intra)		Use a concentration of 2 - 6 µg/ml.  ab170190 - Mouse monoclonal lgG1, is suitable for use as an isotype control with this antibody.

# 靶标

功能 Transport of phosphorylated lysosomal enzymes from the Golgi complex and the cell surface to

lysosomes. Lysosomal enzymes bearing phosphomannosyl residues bind specifically to mannose-6-phosphate receptors in the Golgi apparatus and the resulting receptor-ligand complex is transported to an acidic prelyosomal compartment where the low pH mediates the dissociation of the complex. This receptor also binds IGF2. Acts as a positive regulator of T-cell coactivation,

by binding DPP4.

序列相似性 Belongs to the MRL1/IGF2R family.

Contains 1 fibronectin type-II domain.

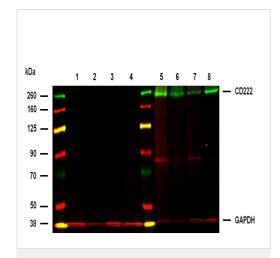
#### 结构域

Contains 15 repeating units of approximately 147 AA harboring four disulfide bonds each. The most highly conserved region within the repeat consists of a stretch of 13 AA that contains cysteines at both ends.

#### 细胞定位

Lysosome membrane. Colocalized with DPP4 in internalized cytoplasmic vesicles adjacent to the cell surface.

# 图片



Western blot - Anti-M6PR (cation independent) antibody [MEM-238] (ab8093)

**All lanes :** Anti-M6PR (cation independent) antibody [MEM-238] (ab8093) at 1 µg/ml

Lane 1: Jurkat whole cell extract, with reducing SDS loading buffer

Lane 2: K562 whole cell extract, with reducing SDS loading buffer

Lane 3: Raji whole cell extract, with reducing SDS loading buffer

Lane 4: HeLa whole cell extract, with reducing SDS loading buffer

Lane 5: Jurkat whole cell extract, with non-reducing SDS loading

buffer

Lane 6: K562 whole cell extract, with non-reducing SDS loading

buffer

Lane 7: Raji whole cell extract, with non-reducing SDS loading

buffer

Lane 8: HeLa whole cell extract, with non-reducing SDS loading

buffer

#### Secondary

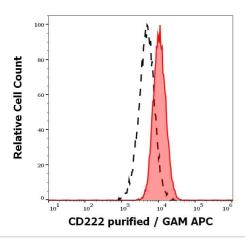
All lanes: IRDye 800CW Goat-anti-Mouse IgG (green)

Predicted band size: 274 kDa

Western blotting analysis was performed on whole cell extracts (RIPA lysis buffer) of Jurkat, K562, Raji, and HeLa cell lines, mixed and heated (100°C, 5 min) with reducing and non-reducing SDS-loading buffer. Samples were resolved using 7% Tris-glycine SDS gel electrophoresis.

Nitrocellulose membrane blot was probed with ab8093 followed by IRDye 800CW Goat-anti-Mouse IgG (green). Mouse anti-GAPDH monoclonal antibody FF26A conjugated with DyLight 680 (0.1 µg/ml), was used as the loading control (red). Multiplex fluorescent Western blot detection was performed.

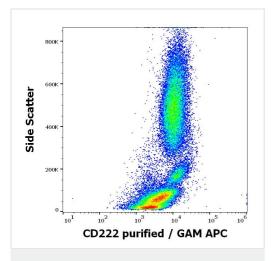
CD222 molecules were detected at ~250 kDa in all analysed cell lines.



Flow Cytometry - Anti-M6PR (cation independent)

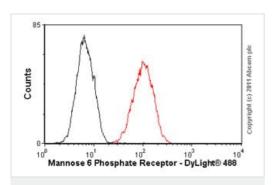
antibody [MEM-238] (ab8093)

Flow cytometry surface staining analysis of human peripheral whole blood showing separation of human neutrophil granulocytes (red) from lymphocytes black using ab8093 at 2 µg/ml GAM APC.



Flow Cytometry - Anti-M6PR (cation independent) antibody [MEM-238] (ab8093)

Flow cytometry analysis of human peripheral whole blood stained using ab8093 in 2 µg/ml and GAM APC.



Flow Cytometry (Intracellular) - Anti-M6PR (cation independent) antibody [MEM-238] (ab8093)

Overlay histogram showing HeLa cells stained with ab8093 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab8093, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2μg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of

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