

### Anti-PKC antibody [MC5] ab31

★★★★★ [6 Abreviews](#) [42 References](#) [画像数 2](#)

#### 製品の概要

製品名	Anti-PKC antibody [MC5]
製品の詳細	Mouse monoclonal [MC5] to PKC
由来種	Mouse
特異性	This antibody reacts with PKC alpha, crossreactivity to PKC beta isoforms can be observed.
アプリケーション	<b>適用あり:</b> WB, Flow Cyt
種交差性	<b>交差種:</b> Mouse, Rat, Human
免疫原	Full length protein corresponding to Cow PKC. Purified bovine brain protein kinase C
ポジティブ・コントロール	WB: Calpain treated PKC. Rat adipocyte homogenate. 3T3-L1 homogenate. Purified microsomes from 3T3-L1 cells. Flow Cytometry: Jurkat cells. ICC/IF: Vero and HEK-293T cells. IHC-Fr: mouse spleen and duodenum tissue. IHC-P: Human skin papilloma tissue.
特記事項	<p>It should be possible to selectively block degradation of PKC without affecting the membrane associated activation. This will allow an assessment of the role of proteolysis in the activation of the protein kinase pathway.</p> <p>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.</p> <p>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&amp;As</p>

#### 製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	Preservative: 0.02% Sodium azide Constituent: 99.98% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル

クローン名	MC5
ミエローマ	P3x63
アイソタイプ	IgG2a
軽鎖の種類	unknown

## アプリケーション

The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab31の使用に適用されます**

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご確認ください。

アプリケーション	Abreviews	特記事項
WB	★★★★★ (2)	Use at an assay dependent concentration.
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <b>ab170191</b> - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

## ターゲット情報

機能	<p>Calcium-activated, phospholipid- and diacylglycerol (DAG)-dependent serine/threonine-protein kinase that is involved in positive and negative regulation of cell proliferation, apoptosis, differentiation, migration and adhesion, tumorigenesis, cardiac hypertrophy, angiogenesis, platelet function and inflammation, by directly phosphorylating targets such as RAF1, BCL2, CSPG4, TNNT2/CTNT, or activating signaling cascade involving MAPK1/3 (ERK1/2) and RAP1GAP. Involved in cell proliferation and cell growth arrest by positive and negative regulation of the cell cycle. Can promote cell growth by phosphorylating and activating RAF1, which mediates the activation of the MAPK/ERK signaling cascade, and/or by up-regulating CDKN1A, which facilitates active cyclin-dependent kinase (CDK) complex formation in glioma cells. In intestinal cells stimulated by the phorbol ester PMA, can trigger a cell cycle arrest program which is associated with the accumulation of the hyper-phosphorylated growth-suppressive form of RB1 and induction of the CDK inhibitors CDKN1A and CDKN1B. Exhibits anti-apoptotic function in glioma cells and protects them from apoptosis by suppressing the p53/TP53-mediated activation of IGFBP3, and in leukemia cells mediates anti-apoptotic action by phosphorylating BCL2. During macrophage differentiation induced by macrophage colony-stimulating factor (CSF1), is translocated to the nucleus and is associated with macrophage development. After wounding, translocates from focal contacts to lamellipodia and participates in the modulation of desmosomal adhesion. Plays a role in cell motility by phosphorylating CSPG4, which induces association of CSPG4 with extensive lamellipodia at the cell periphery and polarization of the cell accompanied by increases in cell motility. Is highly expressed in a number of cancer cells where it can act as a tumor promoter and is implicated in malignant phenotypes of several tumors such as gliomas and breast cancers. Negatively regulates myocardial contractility and positively regulates angiogenesis, platelet aggregation and thrombus formation in arteries. Mediates hypertrophic growth of neonatal cardiomyocytes, in part through a MAPK1/3 (ERK1/2)-dependent signaling pathway, and upon PMA treatment, is required to induce cardiomyocyte hypertrophy up to heart failure and death, by increasing protein synthesis, protein-DNA ratio and cell surface area. Regulates cardiomyocyte function by phosphorylating cardiac troponin T (TNNT2/CTNT), which induces significant reduction in actomyosin ATPase activity, myofilament calcium sensitivity and</p>
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myocardial contractility. In angiogenesis, is required for full endothelial cell migration, adhesion to vitronectin (VTN), and vascular endothelial growth factor A (VEGFA)-dependent regulation of kinase activation and vascular tube formation. Involved in the stabilization of VEGFA mRNA at post-transcriptional level and mediates VEGFA-induced cell proliferation. In the regulation of calcium-induced platelet aggregation, mediates signals from the CD36/GP4 receptor for granule release, and activates the integrin heterodimer ITGA2B-ITGB3 through the RAP1GAP pathway for adhesion. During response to lipopolysaccharides (LPS), may regulate selective LPS-induced macrophage functions involved in host defense and inflammation. But in some inflammatory responses, may negatively regulate NF-kappa-B-induced genes, through IL1A-dependent induction of NF-kappa-B inhibitor alpha (NFKBIA/IKBA). Upon stimulation with 12-O-tetradecanoylphorbol-13-acetate (TPA), phosphorylates EIF4G1, which modulates EIF4G1 binding to MKNK1 and may be involved in the regulation of EIF4E phosphorylation. Phosphorylates KIT, leading to inhibition of KIT activity. Phosphorylates ATF2 which promotes cooperation between ATF2 and JUN, activating transcription.

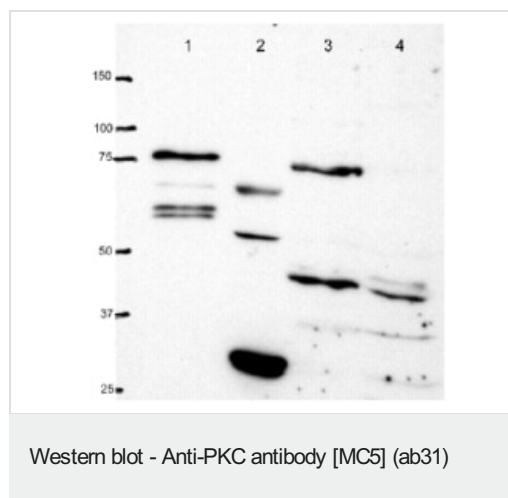
#### 配列類似性

Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. PKC subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 C2 domain. Contains 2 phorbol-ester/DAG-type zinc fingers. Contains 1 protein kinase domain.

#### 細胞内局在

Cytoplasm. Cell membrane. Mitochondrion membrane. Nucleus.

#### 画像



**All lanes :** Anti-PKC antibody [MC5] (ab31)

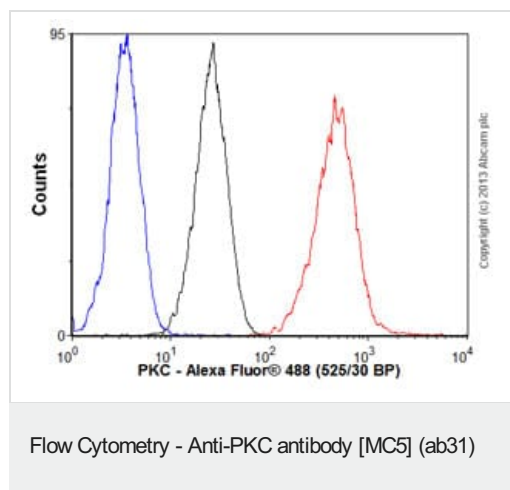
**Lane 1 :** Calpain treated PKC

**Lane 2 :** Homogenate from rat adipocytes

**Lane 3 :** Homogenate from 3T3-L1 cells

**Lane 4 :** Purified microsomes from 3T3-L1 cells

Review by Mikael Rutberg submitted 2 September 2004.



Overlay histogram showing Jurkat (Human T cell leukemia cell line from peripheral blood) cells stained with ab31 (red line). The cells were fixed with 80% methanol (5 minutes) and then permeabilized with 0.1% PBS-Tween for 20 minutes. 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 (ab31, 1 µg/1x10<sup>6</sup> cells) for 30 minutes at 22°C. The secondary antibody used was a goat anti-mouse Alexa Fluor® 488 (IgG; H+L) **ab150113** at 1/2000 dilution for 30 minutes at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] (**ab91361**, 1 µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabeled sample (blue line) was used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

This antibody gave a positive signal in HL-60 (Human promyelocytic leukemia cell line) cells fixed with 4% paraformaldehyde (10 minutes)/permeabilized with 0.1% PBS-Tween for 20 minutes used under the same conditions.

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