


Anti-PKA beta (catalytic subunit) (phospho S338) antibody ab5816

1 References **1 图像**

概述

产品名称	Anti-PKA beta (catalytic subunit) (phospho S338)抗体
描述	兔多克隆抗体 to PKA beta (catalytic subunit) (phospho S338)
宿主	Rabbit
特异性	Peptide competition data indicate that this antibody cross-reacts with the PKA nu subunit (64% homologous) and partially with the alpha subunit (82% homologous).
经测试应用	适用于: WB
种属反应性	与反应: Mouse 预测可用于: Cow, Pig 
免疫原	Synthetic peptide corresponding to Human PKA beta (catalytic subunit) (phospho S338).
阳性对照	3T3-L1 adipocytes.
常规说明	

c-AMP-dependent Protein Kinase (PKA) is a serine/threonine kinase that regulates a number of cellular processes including proliferation, ion transport and gene transcription. PKA is composed of conserved catalytic subunits and regulatory subunits that dissociate upon activation by cAMP. The catalytic subunit of PKA contains the activation loop and mediates DNA binding and substrate recognition. The catalytic subunit is assembled and expressed as an active form and is phosphorylated on threonine 197 by PDK 1 in the activation loop and serine 338 in the carboxyl terminus. Phosphorylation of serine 338 plays a key role in stabilizing PKA and activating its substrates, and hence mediating its biological functions.

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
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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: 7.30 Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.1% BSA
纯度	Immunogen affinity purified
纯化说明	The antibody has been negatively preadsorbed using a non-phosphopeptide corresponding to the site of phosphorylation to remove antibody that is reactive with non-phosphorylated PKA. The final product is generated by affinity chromatography using a PKA-derived peptide that is phosphorylated at serine 338.
Primary antibody说明	c-AMP-dependent Protein Kinase (PKA) is a serine/threonine kinase that regulates a number of cellular processes including proliferation, ion transport and gene transcription. PKA is composed of conserved catalytic subunits and regulatory subunits that dissociate upon activation by cAMP. The catalytic subunit of PKA contains the activation loop and mediates DNA binding and substrate recognition. The catalytic subunit is assembled and expressed as an active form and is phosphorylated on threonine 197 by PDK 1 in the activation loop and serine 338 in the carboxyl terminus. Phosphorylation of serine 338 plays a key role in stabilizing PKA and activating its substrates, and hence mediating its biological functions.
克隆	多克隆
同种型	IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab5816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		1/1000. Detects a band of approximately 42 kDa.

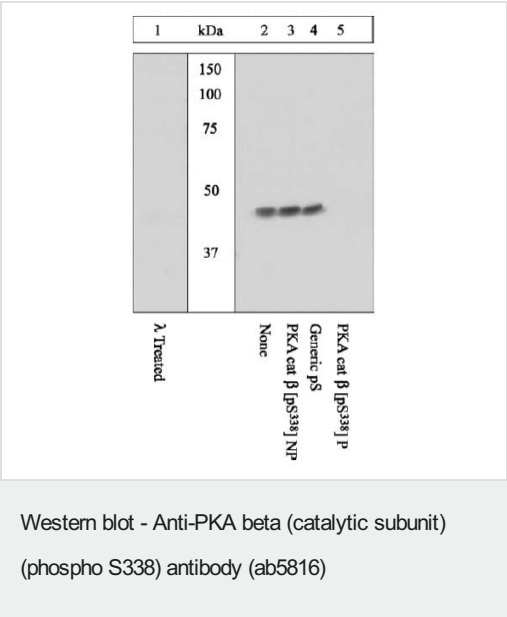
靶标

功能	Mediates cAMP-dependent signaling triggered by receptor binding to GPCRs. PKA activation regulates diverse cellular processes such as cell proliferation, the cell cycle, differentiation and regulation of microtubule dynamics, chromatin condensation and decondensation, nuclear envelope disassembly and reassembly, as well as regulation of intracellular transport mechanisms and ion flux.
组织特异性	Isoform 1 is most abundant in the brain, with low level expression in kidney. Isoform 2 is predominantly expressed in thymus, spleen and kidney. Isoform 3 and isoform 4 are only expressed in the brain.
序列相似性	Belongs to the protein kinase superfamily. AGC Ser/Thr protein kinase family. cAMP subfamily. Contains 1 AGC-kinase C-terminal domain. Contains 1 protein kinase domain.
翻译后修饰	Asn-3 is partially deaminated to Asp giving rise to 2 major isoelectric variants, called CB and CA respectively.

细胞定位

Cytoplasm. Nucleus. Translocates into the nucleus (monomeric catalytic subunit) (By similarity).
The inactive holoenzyme is found in the cytoplasm.

图片



Peptide Competition: Lysates prepared from 3T3-L1 cells were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were either treated with lambda phosphatase (1) or left untreated (2-5), blocked with a 5% BSA-TBSTbuffer for two hours at room temperature, and incubated with ab5816 antibody for two hours at room temperature in a 3% BSA-TBST buffer, following prior incubation with: no peptide (1, 2), the non-phosphopeptide corresponding to the immunogen (3), a generic phosphoserine-containing peptide (4), or, the phosphopeptide immunogen (5). After washing, membranes were incubated with goat F(ab')₂ anti-rabbit IgG HRP-conjugate and bands were detected using the Pierce SuperSignal™ method. The data show that the peptide corresponding to PKA cat beta [pS338] blocks the antibody signal, thereby verifying the specificity of the antibody. The data also show that phosphatase stripping eliminates the signal, verifying that the antibody is phospho-specific.

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