abcam

Product datasheet

Anti-CaMKI antibody [EPR2217Y] ab68234

リコンビナント RabMAb

4 Abreviews 13 References 画像数 5

製品の概要

製品名	Anti-CaMKI antibody [EPR2217Y]
製品の詳細	Rabbit monoclonal [EPR2217Y] to CaMKI
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P **適用なし:** Flow Cyt or IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide within Human CaMKI (N terminal). The exact sequence is proprietary.
ポジティブ・コントロール	SH-SY5Y lysate, human, mouse and rat brain lysate and human kidney tissue sections.
特記事項	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**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol (glycerin, glycerine), 59% PBS
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR2217Y
アイソタイプ	IgG

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ab68234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検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★★ (3)	1/5000 - 1/10000. Detects a band of approximately 41 kDa (predicted molecular weight: 41 kDa).
IHC-P	★★★★☆ (1)	1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

追加情報 Is unsuitable for Flow Cyt or IP.

ターゲット情報

機能 Calcium/calmodulin-dependent protein kinase that operates in the calcium-triggered CaMKK-CaMK1 signaling cascade and, upon calcium influx, regulates transcription activators activity, cell cycle, hormone production, cell differentiation, actin filament organization and neurite outgrowth. Recognizes the substrate consensus sequence [MVLIF]-x-R-x(2)-[ST]-x(3)-[MVLIF]. Regulates axonal extension and growth cone motility in hippocampal and cerebellar nerve cells. Upon NMDA receptor-mediated Ca(2+) elevation, promotes dendritic growth in hippocampal neurons and is essential in synapses for full long-term potentiation (LTP) and ERK2-dependent translational activation. Downstream of NMDA receptors, promotes the formation of spines and synapses in hippocampal neurons by phosphorylating ARHGEF7/BETAPIX on 'Ser-694', which results in the enhancement of ARHGEF7 activity and activation of RAC1. Promotes neuronal differentiation and neurite outgrowth by activation and phosphorylation of MARK2 on 'Ser-91', 'Ser-92', 'Ser-93' and 'Ser-294'. Promotes nuclear export of HDAC5 and binding to 14-3-3 by phosphorylation of 'Ser-259' and 'Ser-498' in the regulation of muscle cell differentiation. Regulates NUMB-mediated endocytosis by phosphorylation of NUMB on 'Ser-276' and 'Ser-295'. Involved in the regulation of basal and estrogen-stimulated migration of medulloblastoma cells through ARHGEF7/BETAPIX phosphorylation (By similarity). Is required for proper activation of cyclin-D1/CDK4 complex during G1 progression in diploid fibroblasts. Plays a role in K(+) and ANG2-mediated regulation of the aldosterone synthase (CYP11B2) to produce aldosterone in the adrenal cortex. Phosphorylates EIF4G3/eIF4GII. In vitro phosphorylates CREB1, ATF1, CFTR, MYL9 and SYN1/synapsin I.

組織特異性 Widely expressed. Expressed in cells of the zona glomerulosa of the adrenal cortex.

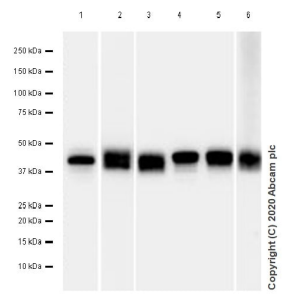
配列類似性 Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily. Contains 1 protein kinase domain.

ドメイン The autoinhibitory domain overlaps with the calmodulin binding region and interacts in the inactive folded state with the catalytic domain as a pseudosubstrate.

翻訳後修飾 Phosphorylated by CaMKK1 and CaMKK2 on Thr-177.
Polybiquitinated by the E3 ubiquitin-protein ligase complex SCF(FBXL12), leading to proteasomal degradation.

細胞内局在 Cytoplasm. Nucleus. Predominantly cytoplasmic.

画像



Western blot - Anti-CaMKI antibody [EPR2217Y] (ab68234)

All lanes : Anti-CaMKI antibody [EPR2217Y] (ab68234)

Lane 1 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate
Lane 2 : Human brain tissue lysate
Lane 3 : Mouse brain tissue lysate
Lane 4 : NIH/3T3 (Mouse embryonic fibroblast)
Lane 5 : Rat brain tissue lysate
Lane 6 : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate

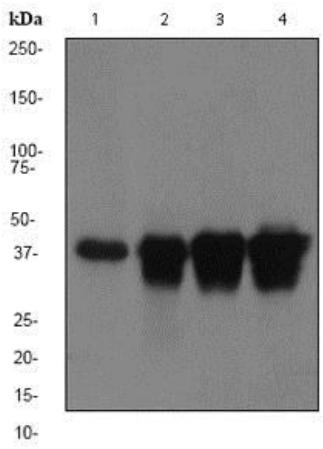
Lysates/proteins at 40 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 41 kDa
Observed band size: 41 kDa

Exposure time: Lane 1 & 3, 4, 5: 5 seconds. Lane 2 & 6:20 seconds

Blocking and diluting buffer: 5% NFDM /TBST



Western blot - Anti-CaMKI antibody [EPR2217Y] (ab68234)

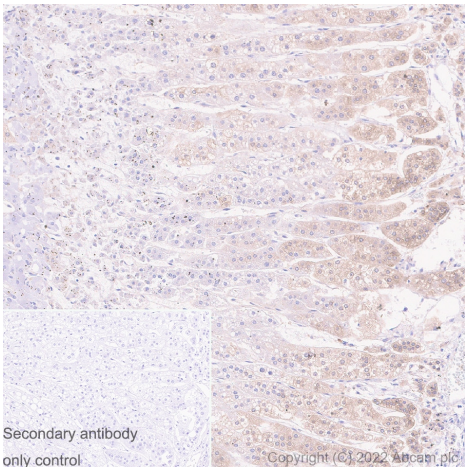
All lanes : Anti-CaMKI antibody [EPR2217Y] (ab68234) at 1/5000 dilution

Lane 1 : SH-SY5Y lysate
Lane 2 : human brain tissue lysate
Lane 3 : mouse brain tissue lysate
Lane 4 : rat brain tissue lysate

Lysates/proteins at 10 µg per lane.

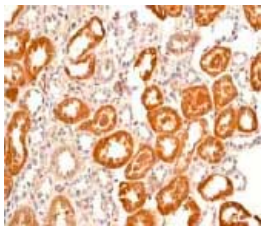
Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 41 kDa
Observed band size: 41 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CaMKI antibody [EPR2217Y] (ab68234)

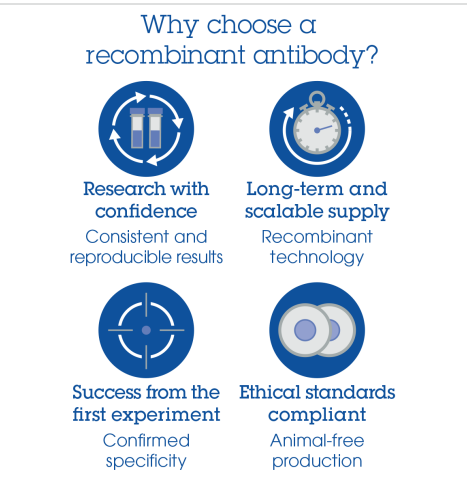
Immunohistochemical analysis of Paraffin-embedded Human adrenal gland tissue labelling CaMKI with ab68234 at 1/500 dilution, followed by ready to use secondary antibody Goat Anti-Rabbit IgG H&L (HRP polymer). Positive staining on the zona glomerulosa of human adrenal glands. The section was incubated with ab68234 at +4°C overnight. Counter stained with Hematoxylin.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CaMKI antibody [EPR2217Y] (ab68234)

ab68234 at 1/100-1/250 dilution staining CaMKI in human kidney tissue sections.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Anti-CaMKI antibody [EPR2217Y] (ab68234)

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