




Product datasheet

Anti-CaMKI antibody ab3551

1 References [画像数 1](#)

製品の概要

製品名	Anti-CaMKI antibody
製品の詳細	Rabbit polyclonal to CaMKI
由来種	Rabbit
特異性	Detects CaMKI from rat brain extract.
アプリケーション	適用あり: WB
種交差性	交差種: Mouse, Rat 交差が予測される動物種: Human 
免疫原	Synthetic peptide corresponding to Human CaMKI aa 1-18 (N terminal). Sequence: AVEGPRWKQAEDIRDIYD (Peptide available as ab5015)
	 Run BLAST with  Run BLAST with
ポジティブ・コントロール	WB: AtT20 cell extract, rat brain extract.

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: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
精製度	Immunogen affinity purified
ポリ/モノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

Our [Abpromise guarantee](#) covers the use of **ab3551** in the following tested applications.

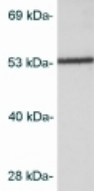
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

アプリケーション	Abreviews	特記事項
WB		<p>Use a concentration of 2 µg/ml. Predicted molecular weight: 41 kDa. Can be blocked with CaMKI peptide (ab5015).</p> <p>This antibody detects an ~43 kDa protein representing CaMKI from rat brain extract.</p>

ターゲット情報

機能	<p>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.</p>
組織特異性	<p>Widely expressed. Expressed in cells of the zona glomerulosa of the adrenal cortex.</p>
配列類似性	<p>Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.</p> <p>Contains 1 protein kinase domain.</p>
ドメイン	<p>The autoinhibitory domain overlaps with the calmodulin binding region and interacts in the inactive folded state with the catalytic domain as a pseudosubstrate.</p>
翻訳後修飾	<p>Phosphorylated by CaMKK1 and CaMKK2 on Thr-177.</p> <p>Polyubiquitinated by the E3 ubiquitin-protein ligase complex SCF(FBXL12), leading to proteasomal degradation.</p>
細胞内局在	<p>Cytoplasm. Nucleus. Predominantly cytoplasmic.</p>

画像



Western blot - Anti-CaMKI antibody (ab3551)

Anti-CaMKI antibody (ab3551) at 2 $\mu\text{g/ml}$ +
Cell lysate prepared from AtT20 cells

Predicted band size: 41 kDa

ab3551 at a 2 $\mu\text{g/ml}$ concentration staining
CaMKI in AtT20 cell lysate by Western blot.

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