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Product datasheet

Anti-CaMKI (phospho T177) antibody ab62215

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製品の概要

製品名 Anti-CaMKI (phospho T177) antibody

製品の詳細 Rabbit polyclonal to CaMKI (phospho T177)

由来種 Rabbit

アプリケーション 適用あり: IHC-P, ICC/IF

種交差性 交差種: Human

交差が予測される動物種: Mouse, Rat 🔷

免疫原 Synthetic peptide corresponding to Human CaMKI aa 100-200 (phospho T177).

Database link: Q14012

ポジティブ・コントロール HeLa cells.

特記事項 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

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

バッファー pH: 7.40

Preservative: 0.02% Sodium azide

Constituents: PBS, 50% Glycerol, 0.87% Sodium chloride

精製度 Immunogen affinity purified

特記事項(精製) ab62215 was affinity purified from rabbit antiserum by affinity chromatography using epitope

specific phosphopeptide. The antibody against non phosphopeptide was removed by chromatography using non phosphopeptide corresponding to the phosphorylation site.

ポリ/モノ ポリクローナル

アイソタイプ lgG

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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ab62215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 |
|----------|-----------|---------------------------------|
| IHC-P | | Use a concentration of 4 µg/ml. |
| ICC/IF | | 1/500 - 1/1000. |

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



Immunocytochemistry/ Immunofluorescence - Anti-CaMKI (phospho T177) antibody (ab62215) Immunofluorescence analysis of HeLa cells, using ab62215 (1/500 - 1/1000) staining CaMKI; in the presence and absence of immunizing peptide.

Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-CaMKI (phospho T177) antibody (ab62215)

Ab62215 staining human normal occipital cortex. Staining is localised to nuclear and cytoplasmic compartments.

Left panel: with primary antibody at 4 ug/ml. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus, at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 antigen retrieval buffer EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and ampli

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