# abcam

### Product datasheet

## Anti-ERK5 (phospho T219 + Y221) antibody ab5686

★★★★★ 2 Abreviews 6 References 1 图像

概述

产品名称 Anti-ERK5 (phospho T219 + Y221)抗体

宿主 Rabbit

特异性 Some cross-reactivity is observed with endogenous ERK1 and 2 (44 and 42 kDa, respectively)

due to the high levels of expression and activation of this protein typically observed with most cell

types.

经测试应用 适用于: WB

种属反应性 与反应: Human

预测可用于: Mouse 🔷

免疫原 Synthetic peptide corresponding to ERK5 (phospho T219 + Y221).

**阳性**对照 WB: HEK293 cells transiently co-transfected with plasmids expressing ERK5 kinase domain

(ERK5kin) and constitutively activated MEK5 (MEK5D-D).

常规说明

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

**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 ERK5. The

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final product is generated by affinity chromatography using an ERK5-derived peptide that is phosphorylated at threonine 219 and tyrosine 221.

 克隆
 多克隆

 同种型
 IgG

应用

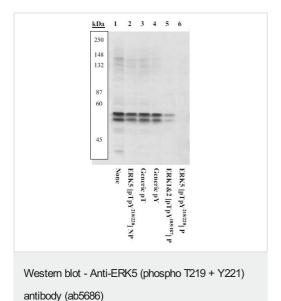
The Abpromise guarantee Abpromise™承诺保证使用ab5686于以下的经测试应用

"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	<b>★</b> ★ ★ ★ <b>(1)</b>	1/1000. Predicted molecular weight: 88 kDa. Due to the low abundance and low levels of activation of endogenous ERK5, over-expression or immunoprecipitation may be required.

<b>靶</b> 标	
功能	Plays a role in various cellular processes such as proliferation, differentiation and cell survival. The upstream activator of MAPK7 is the MAPK kinase MAP2K5. Upon activation, it translocates to the nucleus and phosphorylates various downstream targets including MEF2C. EGF activates MAPK7 through a Ras-independent and MAP2K5-dependent pathway. May have a role in muscle cell differentiation. May be important for endothelial function and maintenance of blood vessel integrity. MAP2K5 and MAPK7 interact specifically with one another and not with MEK1/ERK1 or MEK2/ERK2 pathways.
组织 <b>特异性</b>	Expressed in many adult tissues. Abundant in heart, placenta, lung, kidney and skeletal muscle. Not detectable in liver.
序列相似性	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.  Contains 1 protein kinase domain.
结 <b>构域</b>	The second proline-rich region may interact with actin targeting the kinase to a specific location in the cell.  The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
<b>翻</b> 译后 <b>修</b> 饰	Dually phosphorylated on Thr-219 and Tyr-221, which activates the enzyme (By similarity). Autophosphorylated in vitro on threonine and tyrosine residues when the C-terminal part of the kinase, which could have a regulatory role, is absent.
细胞定位	Cytoplasm. Nucleus. Translocates to the nucleus upon activation.

图片



#### Peptide Competition:

Extracts prepared from HEK293 cells transiently transfected with plasmids expressing ERK5 kinase domain (ERK5kin) and constitutively activated MEK5D-D were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA TBST buffer overnight at 4oC, then were incubated with the ab5686 antibody for two hours at room temperature in a 3% BSATBST buffer, following prior incubation with: no peptide (1), the non-phosphopeptide corresponding to the immunogen (2), a generic phosphothreonine-containing peptide (3), a generic phosphotyrosine-containing peptide (4), the phosphopeptide derived from the corresponding region of ERK1&2 (5), or, the phosphopeptide immunogen (6). After washing, membranes were incubated with goat F(ab' 2 anti-rabbit lgG alkaline phosphatase conjugate and bands were detected using the Tropix WesternStarTM detection method. The data show that while there is some cross-reactivity with ERK1&

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