abcam

Product datasheet

Recombinant human TAOK2 protein ab61426

4 图像

描述

产品名称 重组人TAOK2蛋白

生物活性 Specific activity: 104 nmol/min/mg.

纯**度** > 85 % Densitometry.

Affinity purified.

表达系统 Baculovirus infected Sf9 cells

Accession Q9UL54

蛋白长度 Protein fragment

无动物成分 No

性质 Recombinant

 种属
 Human

 氨基酸
 1 to 314

技术指标

Our **Abpromise guarantee** covers the use of **ab61426** in the following tested applications.

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

应用 Functional Studies

SDS-PAGE

形式 Liquid

补充说明 <u>ab64311</u> (Myelin Basic Protein protein) can be utilized as a substrate for assessing kinase

activity

制备和贮存

稳**定性和存储** Shipped on dry ice. Upon delivery aliquot and store at -80℃. Avoid freeze / thaw cycles.

pH: 7.50

Constituents: 0.0038% EGTA, 0.00174% PMSF, 0.00385% DTT, 0.79% Tris HCl, 0.00292%

EDTA, 25% Glycerol (glycerin, glycerine), 0.87% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

功能

Isoform 1, but not isoform 2, plays a role in apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation. This function, which requires the activation of MAPK8/JNK and nuclear localization of C-terminally truncated isoform 1, may be linked to the mitochondrial CASP9-associated death pathway. Isoform 1, but not isoform 2, activates the JNK MAP kinase pathway through the specific activation of the upstream MKK3 and MKK6 kinases. Isoform 1 binds to microtubules and affects their organization and stability independently of its kinase activity. Prevents MAP3K7-mediated activation of IKKA, and thus NF-kappa-B activation, but not that of JNK. Phosphorylates itself, MBP, activated MAPK8 and tubulins. May play a role in the osmotic stress-MAPK8 pathway. Isoform 2, but not isoform 1, is required for PCDH8 endocytosis. Following homophilic interactions between PCDH8 extracellular domains, isoform 2 phosphorylates and activates MAPK14/p38 MAPK which in turn phosphorylates isoform 2. This process leads to PCDH8 endocytosis and CDH2 cointernalization (By similarity). Both isoforms are involved in MAPK14 phosphorylation.

组织特异性

序列相似性

翻译后修饰

细胞定位

Ubiquitously expressed, with a higher level of expression in testis and brain.

Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 protein kinase domain.

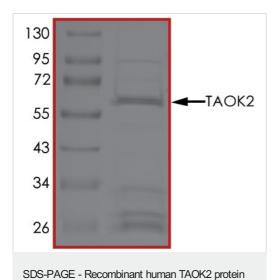
Isoforms 1 and 2 are autophosphorylated.

C-terminal cleavage of isoform 1 and subsequent nuclear localization requires CASP9 activity. isoform 2 is phosphorylated at 'Ser-1031' by MAPK14. This phosphorylation is required PCDH8 for endocytosis.

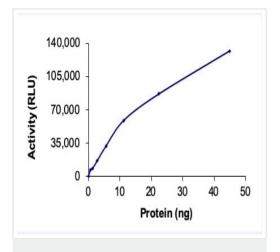
Cytoplasmic vesicle membrane. Cytoplasm > cytoskeleton. Nucleus. Catalytically active full-length phosphorylated isoform 1 localizes to microtubules in the cytoplasm predominantly on microtubule cables positioned around the nucleus. A C-terminally truncated form of isoform 1 is present in the nucleus; isoform 2 and kinase-defective, as well as full-length isoform 1 are excluded from the nucleus and Cell projection > dendrite. In dendrites, colocalizes with PCDH8.

图片

(ab61426)

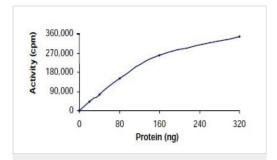


SDS PAGE analysis of ab61426

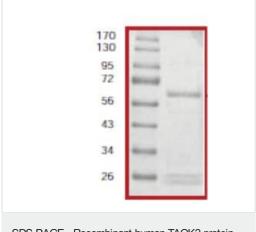


The specific activity of TAOK2 (ab61426) was determined to be 20 nmol /min/mg as per activity assay protocol.

Functional Studies - Recombinant human TAOK2 protein (ab61426)



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SDS-PAGE - Recombinant human TAOK2 protein (ab61426)

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