abcam

Product datasheet

JNK (Thr183/Tyr185) In-Cell ELISA Kit ab126424

4 References 3 图像

概述

产品名称	JNK (Thr183/Tyr185) In-Cell ELISA试剂盒
检测方法	Colorimetric
样品类型	Adherent cells
检测类型	Cell-based (qualitative)
检测时间	5h 10m
实验步骤	Multiple steps standard assay
种属反应性	**与反应:** Mouse, Rat, Human
产品概述	ab126424 is a very rapid, convenient and sensitive assay kit that can monitor the activation or function of important biological pathways in cells. It can be used for measuring the relative amount of JNK (Thr183/Tyr185) phosphorylation and screening the effects of various treatments, inhibitors (such as siRNA or chemicals), or activators in cultured Human, Mouse and Rat cell lines. By determining JNK protein phosphorylation in your experimental model system, you can verify pathway activation in your cell lines without spending excess time and effort in preparing cell lysate and performing an analysis of Western Blot. In the JNK (Thr183/Tyr185) In-Cell ELISA Kit, cells are seeded into a 96 well tissue culture plate. The cells are fixed after various treatments, inhibitors or activators. After blocking, anti-Phospho-JNK(Thr183/Tyr185) or anti-JNK (primary antibody) is pipetted into the wells and incubated. The wells are washed, and HRP-conjugated anti-Mouse IgG (secondary antibody) is added to the wells. The wells are washed again, a TMB substrate solution is added to the wells and color develops in proportion to the amount of protein. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.
平台	Microplate

性能

存放说明	Store at -20°C. Please refer to protocols.

组件	1 x 96 tests
HRP-conjugated Anti-Mouse IgG Concentrate	1 x 10µl
Blocking Buffer Concentrate (5X)	1 x 20ml
Fixing Solution	1 x 30ml
Uncoated 96-well Microplate	1 unit
Mouse anti-JNK Concentrate (Item H)	1 x 7µl
Mouse anti-Phospho-JNK (Thr183/Tyr185) Concentrate (Item G)	1 x 7µl
Quenching Buffer Concentrate (30x)	1 x 2ml
Stop Solution	1 x 14ml
TMB One-Step Substrate Reagent	1 x 12ml
Wash Buffer A Concentrate (20X)	1 x 30ml
Wash Buffer B Concentrate (20X)	1 x 30ml

功能

Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation and programmed cell death. Extracellular stimuli such as proinflammatory cytokines or physical stress stimulate the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. In this cascade, two dual specificity kinases MAP2K4/MKK4 and MAP2K7/MKK7 phosphorylate and activate MAPK8/JNK1. In turn, MAPK8/JNK1 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. Phosphorylates the replication licensing factor CDT1, inhibiting the interaction between CDT1 and the histone H4 acetylase HBO1 to replication origins. Loss of this interaction abrogates the acetylation required for replication initiation. Promotes stressed cell apoptosis by phosphorylating key regulatory factors including p53/TP53 and Yes-associates protein YAP1. In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells. Contributes to the survival of erythroid cells by phosphorylating the antagonist of cell death BAD upon EPO stimulation. Mediates starvation-induced BCL2 phosphorylation, BCL2 dissociation from BECN1, and thus activation of autophagy. Phosphorylates STMN2 and hence regulates microtubule dynamics, controlling neurite elongation in cortical neurons. In the developing brain, through its cytoplasmic activity on STMN2, negatively regulates the rate of exit from multipolar stage and of radial migration from the ventricular zone. Phosphorylates several other substrates including heat shock factor protein 4 (HSF4), the deacetylase SIRT1, ELK1, or the E3 ligase ITCH.
JNK1 isoforms display different binding patterns: beta-1 preferentially binds to c-Jun, whereas alpha-1, alpha-2, and beta-2 have a similar low level of binding to both c-Jun or ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms.

序列相似性

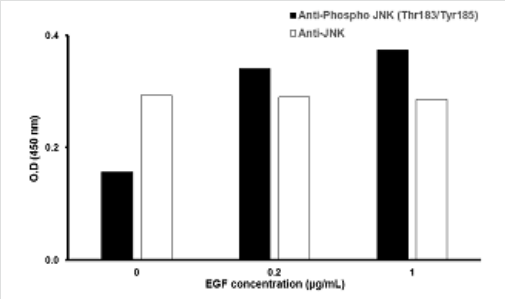
Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.
Contains 1 protein kinase domain.

结构域

The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.

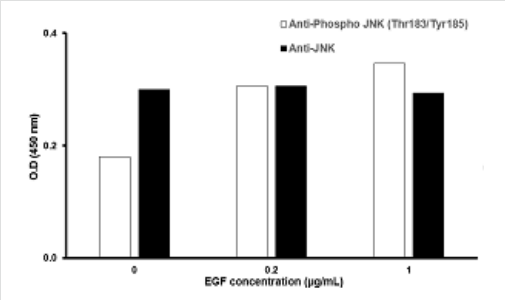
翻译后修饰	Dually phosphorylated on Thr-183 and Tyr-185 by MAP2K7 and MAP2K4, which activates the enzyme. Phosphorylated by TAOK2.
细胞定位	Cytoplasm. Nucleus.

图片



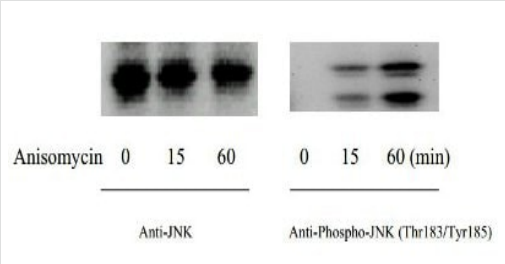
In-Cell ELISA - JNK (Thr183/Tyr185) In-Cell ELISA Kit (ab126424)

HeLa cells were stimulated by different concentrations of anisomycin for 1 hour at 37°C.



In-Cell ELISA - JNK (Thr183/Tyr185) In-Cell ELISA Kit (ab126424)

HeLa cells were stimulated by different concentrations of anisomycin for 15 minutes at 37°C.



Western blot - JNK (Thr183/Tyr185) In-Cell ELISA Kit (ab126424)

Western blot analysis of extracts from 1 µg/ml Anisomycin treated HeLa cells. Anti-Phospho-JNK (Thr183/Tyr185) and Anti-JNK antibodies were used in both detection assays.

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