SANTA CRUZ BIOTECHNOLOGY, INC.

p-JNK (29.Thr 183/Tyr 185): sc-293137

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

JNKs (c-Jun N-terminal kinases) belong to a family of MAP kinases that are involved in a variety of cellular processes, including transcriptional regulation and cellular proliferation, differentiation and development. JNK2 (c-Jun N-terminal kinase 2) and JNK3 (c-Jun N-terminal kinase 3) are 424 and 464 amino acid proteins, respectively, that each contain one protein kinase domain and use magnesium as a cofactor to catalyze the phosphorylation of target proteins, thereby playing a role in a variety of events throughout the cell. Both JNK2 and JNK3 exist as multiple alternatively spliced isoforms and are subject to post-translational phosphorylation on Thr 183 and Thr 221, respectively, an event which activates JNK2/JNK3 enzymatic activity. Defects in the gene encoding JNK3 are a cause of epileptic encephalopathy of the Lennox-Gastaut type, a group of epileptic disorders characterized by severe psychomotor delay and seizures.

REFERENCES

1. Kallunki, T., et al. 1994. JNK2 contains a specificity-determining region responsible for efficient c-Jun binding and phosphorylation. Genes Dev. 8: 2996-3007.
2. Sluss, H.K., et al. 1994. Signal transduction by tumor necrosis factor mediated by JNK protein kinases. Mol. Cell. Biol. 14: 8376-8384.

SOURCE

p-JNK (29.Thr 183/Tyr 185) is a mouse monoclonal antibody raised against a short amino acid sequence containing Thr 183 and Tyr 185 phosphorylated JNK of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-JNK (29.Thr 183/Tyr 185) is recommended for detection of Thr 183 and Tyr 185 phosphorylated JNK1, and correspondingly phosphorylated JNK2 and JNK3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of p-JNK p46 isoform: 46 kDa.

Molecular Weight of p-JNK p54 isoform: 54 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

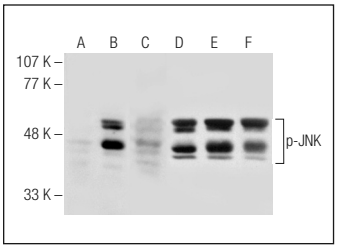
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Lambda Phosphatase: sc-200312A and Western Blotting Luminol Reagent: sc-2048.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Western blot analysis of JNK phosphorylation in untreated (**A**,**D**), anisomycin treated (**B**,**E**) and anisomycin and lambda protein phosphatase (sc-200312A) treated (**C**,**F**) Jurkat whole cell lysates. Antibodies tested include p-JNK (29.Thr 183/Tyr 185): sc-293137 (**A**,**B**,**C**) and JNK (FL): sc-571 (**D**,**E**,**F**).

SELECT PRODUCT CITATIONS

1. Zhang, G., et al. 2016. Down-regulation of miR-20a-5p triggers cell apoptosis to facilitate mycobacterial clearance through targeting JNK2 in human macrophages. Cell Cycle 15: 2527-2538.
2. Zhou, X., et al. 2017. Erythromycin attenuates metalloprotease/anti-metalloprotease imbalance in cigarette smoke-induced emphysema in rats via the mitogen-activated protein kinase/nuclear factor-κB activation pathway. Mol. Med. Rep. 15: 2983-2990.
3. Bai, Y., et al. 2017. Inhibitory effects of resveratrol on the adhesion, migration and invasion of human bladder cancer cells. Mol. Med. Rep. 15: 885-889.
4. Zhang, B., et al. 2018. Dihydroartemisinin sensitizes Lewis lung carcinoma cells to carboplatin therapy via p38 mitogen-activated protein kinase activation. Oncol. Lett. 15: 7531-7536.
5. Sun, Y., et al. 2018. Efficacy of lentivirus-mediated *Drosophila melanogaster* deoxyribonucleoside kinase combined with (E)-5-(2-bromovinyl)-2'-deoxyuridine or 1-β-D-arabinofuranosylthymine therapy in human keloid fibroblasts. Mol. Med. Rep. 18: 1660-1665.
6. Zhao, W., et al. 2018. Curcumin suppressed the prostate cancer by inhibiting JNK pathways via epigenetic regulation. J. Biochem. Mol. Toxicol. 32: e22049.

RESEARCH USE

For research use only, not for use in diagnostic procedures. Not for resale.

CONJUGATES

See **p-JNK (G-7): sc-6254** for p-JNK antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.