SANTA CRUZ BIOTECHNOLOGY, INC.

JNK1 (37): sc-136205

BACKGROUND

c-Jun N-terminal kinases (JNKs) phosphorylate and augment transcriptional activity of c-Jun. JNKs originate from three genes that yield ten isoforms through alternative mRNA splicing, including JNK1α1, JNK1β1, JNK2α1, JNK2β1 and JNK3α1, which represent the p46 isoforms, and JNK1α2, JNK1β2, JNK2α2, JNK2β2 and JNK3β2, which represent the p54 isoforms. JNKs coordinate cell responses to stress and influence regulation of cell growth and transformation. The human JNK1 (PRKM8, SAPK1, MAPK8) gene maps to chromosome 10q11.22 and shares 83% amino acid identity with JNK2. JNK1 is necessary for normal activation and differentiation of CD4 helper T (TH) cells into TH1 and TH2 effector cells. Capsaicin activates JNK1 and p38 in Ras-transformed human breast epithelial cells. Nitrogen oxides (NO_x) upregulate JNK1 in addition to c-Fos, c-Jun and other signaling kinases, including MEKK1 and p38.

CHROMOSOMAL LOCATION

Genetic locus: MAPK8 (human) mapping to 10q11.22; Mapk8 (mouse) mapping to 14 B.

SOURCE

JNK1 (37) is a mouse monoclonal antibody raised against amino acids 264-415 of JNK1 of human origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

JNK1 (37) is recommended for detection of JNK1 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for JNK1 siRNA (h): sc-29380, JNK1 siRNA (m): sc-29381, JNK1 siRNA (r): sc-156089, JNK1 shRNA Plasmid (h): sc-29380-SH, JNK1 shRNA Plasmid (m): sc-29381-SH, JNK1 shRNA Plasmid (r): sc-156089-SH, JNK1 shRNA (h) Lentiviral Particles: sc-29380-V, JNK1 shRNA (m) Lentiviral Particles: sc-29381-V and JNK1 shRNA (r) Lentiviral Particles: sc-156089-V.

Molecular Weight of p46 isoform: 46 kDa.

Molecular Weight of p54 isoform: 54 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

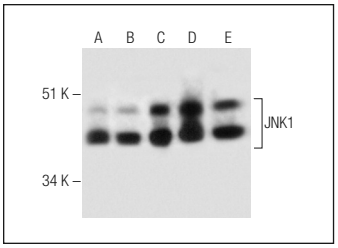
STORAGE

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

RESEARCH USE

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

DATA



JNK1 (37): sc-136205. Western blot analysis of JNK1 expression in A-431 (**A**), HeLa (**B**), RAW 264.7 (**C**), Jurkat (**D**) and NIH/3T3 (**E**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chen, P.C., et al. 2018. Anti-metastatic effects of antrodan with and without cisplatin on Lewis lung carcinomas in a mouse xenograft model. Int. J. Mol. Sci. 19: 1565.
2. Tang, M., et al. 2019. Brucine inhibits TNF-α-induced HFLS-RA cell proliferation by activating the JNK signaling pathway. Exp. Ther. Med. 18: 735-740.
3. Pan, M., et al. 2019. JNK1 induces Notch1 expression to regulate genes governing photoreceptor production. Cells 8: 970.
4. Mooradian, A.D., et al. 2020. Naturally occurring rare sugars are free radical scavengers and can ameliorate endoplasmic reticulum stress. Int. J. Vitam. Nutr. Res. 90: 210-220.
5. Hu, Q.Y., et al. 2021. Malayoside, a cardenolide glycoside extracted from *Antiaris toxicaria Lesch,* induces apoptosis in human non-small lung cancer cells via MAPK-Nur77 signaling pathway. Biochem. Pharmacol. 190: 114622.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CONJUGATES

See **JNK (D-2): sc-7345** for JNK antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.