

# JNK (FL): sc-572

## 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 JNK1 $\alpha$ 1, JNK1 $\beta$ 1, JNK2 $\alpha$ 1, JNK2 $\beta$ 1 and JNK3 $\alpha$ 1, which represent the p46 isoforms, and JNK1 $\alpha$ 2, JNK1 $\beta$ 2, JNK2 $\alpha$ 2, JNK2 $\beta$ 2 and JNK3 $\beta$ 2, 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<sub>x</sub>) upregulate JNK1 in addition to c-Fos, c-Jun and other signaling kinases, including MEKK1 and p38.

## SOURCE

JNK (FL) is a rabbit polyclonal antibody raised against amino acids 1-424 representing full length JNK of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

JNK (FL) is recommended for detection of all JNK1, JNK2 and JNK3 p46 and p54 isoforms of mouse, rat, human, *Drosophila melanogaster*, *Xenopus laevis* and zebrafish origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

JNK (FL) is also recommended for detection of all JNK1, JNK2 and JNK3 p46 and p54 isoforms in additional species, including canine.

Molecular Weight of JNK3 p46: 46 kDa.

Molecular Weight of JNK3 p54: 54 kDa.

Positive Controls: JNK2 (h4): 293T Lysate: sc- 158651, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## STORAGE

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

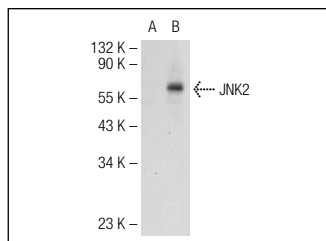
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

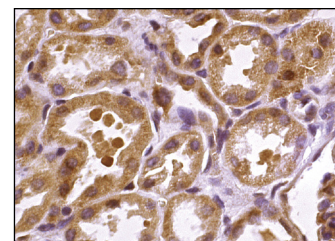
## RESEARCH USE

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

## DATA



JNK (FL): sc-572. Western blot analysis of JNK2 expression in non-transfected: sc-117752 (**A**) and human JNK2 transfected: sc-158651 (**B**) 293T whole cell lysates.



JNK (FL): sc-572. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubules.

## SELECT PRODUCT CITATIONS

1. Lee, F.S., et al. 1997. Activation of the I $\kappa$ B $\alpha$  kinase complex by MEKK1, a kinase of the JNK pathway. *Cell* 88: 213-222.
2. Chen, Y., et al. 2008. A critical role of Rap1b in B-cell trafficking and marginal zone B-cell development. *Blood* 111: 4627-4636.
3. Wang, C., et al. 2008. Nidus vespaie protein inhibiting proliferation of HepG2 hepatoma cells through extracellular signal-regulated kinase signaling pathways and inducing G<sub>1</sub> cell cycle arrest. *Acta Biochim. Biophys. Sin.* 40: 970-978.
4. Yang, L.C., et al. 2010. Extranuclear estrogen receptors mediate the neuroprotective effects of estrogen in the rat hippocampus. *PLoS ONE* 5: e9851.
5. Lima, C.F., et al. 2011. Curcumin induces heme oxygenase-1 in normal human skin fibroblasts through redox signaling: relevance for anti-aging intervention. *Mol. Nutr. Food Res.* 55: 430-442.
6. Xavier, C.P., et al. 2011. Quercetin enhances 5-fluorouracil-induced apoptosis in MSI colorectal cancer cells through p53 modulation. *Cancer Chemother. Pharmacol.* 68: 1449-1457.
7. Calegari, V.C., et al. 2011. Inflammation of the hypothalamus leads to defective pancreatic islet function. *J. Biol. Chem.* 286: 12870-12880.
8. Xavier, C.P., et al. 2012. Hypericum androsaemum water extract inhibits proliferation in human colorectal cancer cells through effects on MAP kinases and PI3K/Akt pathway. *Food Funct.* 3: 844-852.

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