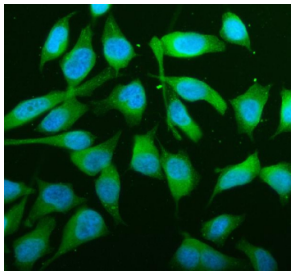
JNK2 Antibody / c-Jun N-terminal kinase 2 / MAPK9 (R32105)

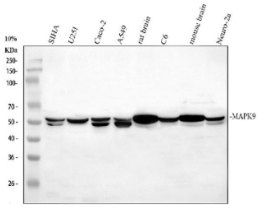
Catalog No.	Formulation	Size
R32105	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

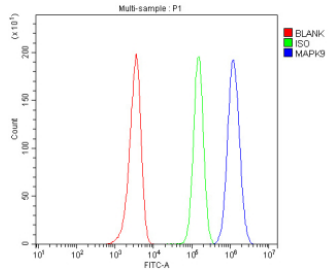
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P45984
Applications	Western Blot : 0.5-1ug/ml Immunofluorescence : 5ug/ml Flow Cytometry : 1-3ug/million cells
Limitations	This JNK2 antibody is available for research use only.



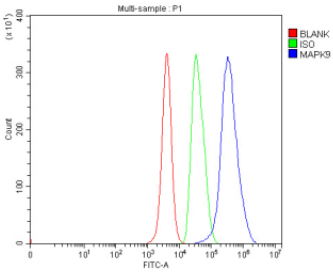
Immunofluorescence analysis of JNK2/MAPK9 expression in HeLa cells. Human HeLa cells were fixed and stained with anti-JNK2/MAPK9 antibody, followed by Fluoro488-conjugated goat anti-rabbit IgG secondary antibody (green). Nuclei were counterstained with DAPI (blue). JNK2/MAPK9 signal is observed predominantly in the cytoplasm with variable perinuclear distribution, consistent with stress-activated MAPK localization patterns.



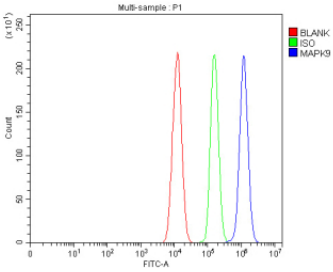
Western blot analysis of JNK2/MAPK9 expression. Whole cell lysates or tissue lysates from human SiHa cells (lane 1), human U251 cells (lane 2), human Caco-2 cells (lane 3), human A549 cells (lane 4), rat brain tissue (lane 5), rat C6 cells (lane 6), mouse brain tissue (lane 7), and mouse Neuro-2a cells (lane 8) were separated by SDS-PAGE and probed with anti-JNK2/MAPK9 antibody. A specific band is detected at the predicted molecular weight of approximately 48 kDa, consistent with c-Jun N-terminal kinase 2 (MAPK9). In several samples, a closely migrating doublet is observed around the predicted molecular weight, which is consistent with reported JNK2 isoforms and/or differential phosphorylation states commonly seen for stress-activated MAP kinases.



Flow cytometry analysis of fixed and permeabilized human HEL cells with JNK2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= JNK2 antibody.



Flow cytometry analysis of fixed and permeabilized mouse HEPA1-6 cells with JNK2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= JNK2 antibody.



Flow cytometry analysis of fixed and permeabilized rat RH35 cells with JNK2 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= JNK2 antibody.

Description

JNK2 antibody targets c-Jun N-terminal kinase 2, encoded by the MAPK9 gene. c-Jun N-terminal kinase 2 is a serine-threonine protein kinase that belongs to the mitogen-activated protein kinase (MAPK) family, which transduces extracellular stress signals into intracellular responses. JNK family members are activated by environmental stress, inflammatory cytokines, and growth factor signaling, playing central roles in cellular adaptation and survival.

Functionally, c-Jun N-terminal kinase 2 participates in phosphorylation of transcription factors such as c-Jun and other AP-1 family members, thereby regulating gene expression programs linked to apoptosis, proliferation, and immune responses. JNK2 activity contributes to stress-activated signaling cascades that influence both acute signaling outcomes and longer-term transcriptional regulation. A JNK2 antibody supports studies focused on MAPK pathway dynamics, stress signaling, and transcriptional control mechanisms downstream of kinase activation.

JNK2 is expressed across a wide range of tissues and cell types, with prominent roles in immune cells, epithelial cells, and neuronal systems. Subcellular localization is primarily cytoplasmic under basal conditions, with translocation to the nucleus following activation to regulate transcription factor targets. Localization and activation status can vary depending on stimulus type, duration, and cellular context, reflecting the kinase's role as a signaling integrator rather than a constitutively active enzyme.

From a disease relevance perspective, dysregulation of c-Jun N-terminal kinase 2 signaling has been investigated in inflammatory disorders, neurodegenerative disease, and cancer, where altered stress response pathways can influence cell fate decisions. Structurally, JNK2 contains a conserved MAP kinase domain responsible for substrate recognition and catalytic activity, along with regulatory regions that govern activation and interaction with scaffold proteins. JNK2 antibody reagents support research applications examining stress-activated signaling pathways, with NSJ Bioreagents providing tools intended for research use.

Application Notes

Optimal dilution of the JNK2 antibody should be determined by the researcher.

Immunogen

Amino acids RNYVENRPKYPGIKFEELFPDWIFPSESERDK of human JNK2a/b were used as the immunogen for the JNK2 antibody.

Storage

After reconstitution, the JNK2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.