ARG51807
anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes SAPK / JNK phospho (Thr183 (221) / Tyr185 (223))
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, WB
Specificity	The antibody detects endogenous levels of dually phosphorylated JNK1 / JNK2 at Thr183 and Tyr185, and JNK3 at Thr221 and Tyr223.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	SAPK / JNK
Species	Human
Immunogen	Peptide sequence around phosphorylation site of Thr183/Tyr185 (M-M-T(p)-P-Y(p)- V - V) derived from Human SAPK / JNK.
Conjugation	Un-conjugated
Alternate Names	JNK3A; Mitogen-activated protein kinase 10; p54bSAPK; Stress-activated protein kinase 1b; JNK3; c-Jun N-terminal kinase 3; Stress-activated protein kinase JNK3; EC 2.7.11.24; SAPK1b; p493F12; MAP kinase 10; PRKM10; MAPK 10; MAP kinase p49 3F12

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100 - 1:200
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

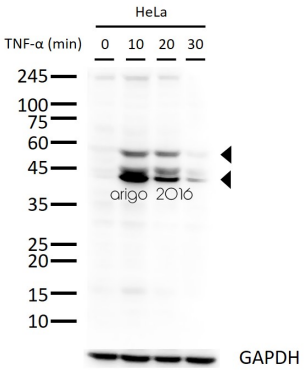
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

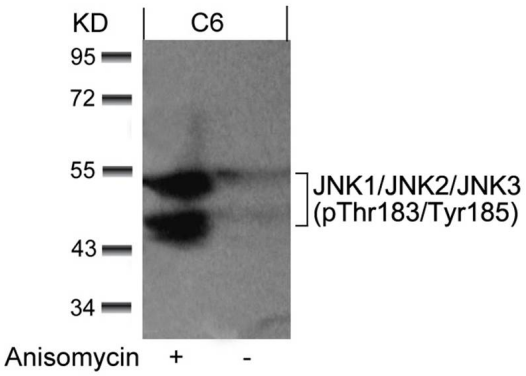
Gene Symbol	MAPK10
Gene Full Name	mitogen-activated protein kinase 10
Background	Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells By similarity. Phosphorylates heat shock factor protein 4 (HSF4). /Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2 and thus regulates AP-1 transcriptional activity. In T-cells, JNK1 and JNK2 are required for polarized differentiation of T-helper cells into Th1 cells. JNK2 isoforms display different binding patterns: alpha-1 and alpha-2 preferentially bind to c-Jun, whereas beta-1 and beta-2 bind to ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms. JUNB is not a substrate for JNK2 alpha-2, and JUND binds only weakly to it. Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating a number of transcription factors, primarily components of AP-1 such as c-Jun and ATF2 and thus regulates AP-1 transcriptional activity. Required for stress-induced neuronal apoptosis and the pathogenesis of glutamate excitotoxicity
Function	Serine/threonine-protein kinase involved in various processes such as neuronal proliferation, differentiation, migration 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 MAPK10/JNK3. In turn, MAPK10/JNK3 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN and ATF2 and thus regulates AP-1 transcriptional activity. Plays regulatory roles in the signaling pathways during neuronal apoptosis. Phosphorylates the neuronal microtubule regulator STMN2. Acts in the regulation of the beta-amyloid precursor protein/APP signaling during neuronal differentiation by phosphorylating APP. Participates also in neurite growth in spiral ganglion neurons. Phosphorylates the CLOCK-ARNTL/BMAL1 heterodimer and plays a role in the photic regulation of the circadian clock (PubMed:22441692). [UniProt]
Highlight	Related Antibody Duos and Panels: ARG30205 NFkB Activation Antibody Panel ARG30294 Phospho SAPK / JNK Antibody Duo (Total, pT183/Y185) Related products: JNK antibodies; JNK ELISA Kits; JNK Duos / Panels; Anti-Rabbit IgG secondary antibodies; Related news: Treatment of Obesity with Celastrol Tumor microenvironments are shown to affect progression of several cancer subtypes Immune signaling protein TLR4 has opposing roles in breast cancer development Understanding Your Cells: Choose the right markers Related poster download: Toll-like Receptor.pdf
Research Area	Cancer antibody; Immune System antibody; Signaling Transduction antibody; NF-kB Activation Study antibody
Calculated Mw	53 kDa
PTM	Dually phosphorylated on Thr-221 and Tyr-223 by MAP2K4 and MAP2K7, which activates the enzyme. MAP2K7 shows a strong preference for Thr-221 while MAP2K4 phosphorylates Tyr-223 preferentially. Weakly autophosphorylated on threonine and tyrosine residues in vitro. Palmitoylation regulates subcellular location and axonal development.

Images



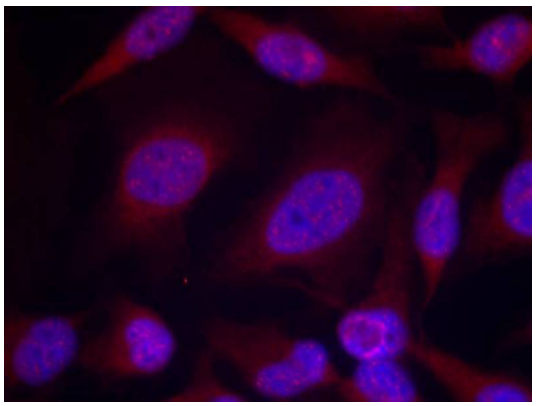
ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody WB image

Western blot: 30 µg of HeLa cells untreated or treated with TNF-alpha at 10, 20, or 30 min. The blots were stained with ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody at 1:500 dilution.



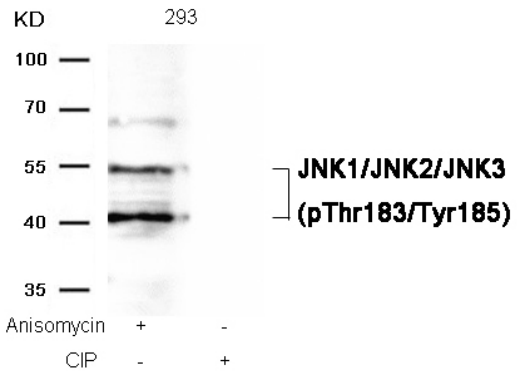
ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody WB image

Western blot: Extracts from C6 cells untreated or treated with anisomycin. The blots were stained with ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody.



ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody ICC/IF image

Immunofluorescence: Methanol-fixed HeLa cells stained with ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody.



ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody WB image

Western blot: Extracts from 293 cells, treated with Anisomycin or calf intestinal phosphatase (CIP). The blots were stained with ARG51807 anti-SAPK / JNK phospho (Thr183 (221) / Tyr185 (223)) antibody.