

ARG43532 anti-JNK1 phospho (Thr183) antibody

Package: 100 µl
Store at: -20°C

Summary

| | |
|---------------------|--|
| Product Description | Rabbit Polyclonal antibody recognizes JNK1 phospho (Thr183). |
| Tested Reactivity | Hu, Ms, Rat |
| Tested Application | FACS, ICC/IF, IHC-P, IP, WB |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | IgG |
| Target Name | JNK1 |
| Species | Human |
| Immunogen | Synthetic phosphospecific peptide around JNK1: phospho (Thr183). |
| Conjugation | Un-conjugated |
| Alternate Names | JNK; JNK1; PRKM8; SAPK1; JNK-46; JNK1A2; SAPK1c; JNK21B1/2 |

Application Instructions

| Application table | Application | Dilution |
|-------------------|-------------|----------------|
| | FACS | 1:20 - 1:200 |
| | ICC/IF | 1:10 - 1:100 |
| | IHC-P | 1:50 - 1:200 |
| | IP | 1:10 - 1:50 |
| | WB | 1:500 - 1:2000 |

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

Properties

| | |
|---------------------|--|
| Form | Liquid |
| Purification | Affinity purified. |
| Buffer | PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol. |
| Preservative | 0.02% Sodium azide |
| Stabilizer | 50% Glycerol |
| 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 or below. 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

MAPK8

Gene Full Name

mitogen-activated protein kinase 8

Background

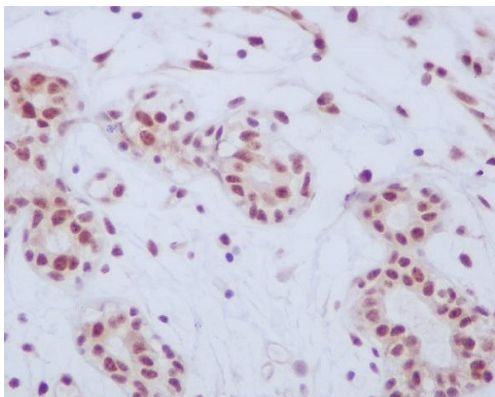
The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various cell stimuli, and targets specific transcription factors, and thus mediates immediate-early gene expression in response to cell stimuli. The activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. Studies of the mouse counterpart of this gene suggested that this kinase play a key role in T cell proliferation, apoptosis and differentiation. Five alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Jun 2013]

Function

Serine/threonine-protein kinase involved in various processes such as cell proliferation, differentiation, migration, transformation 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 MAPK8/JNK1. In turn, MAPK8/JNK1 phosphorylates a number of transcription factors, primarily components of AP-1 such as JUN, JDP2 and ATF2 and thus regulates AP-1 transcriptional activity. Phosphorylates the replication licensing factor CDT1, inhibiting the interaction between CDT1 and the histone H4 acetylase HBO1 to replication origins. Loss of this interaction abrogates the acetylation required for replication initiation. Promotes stressed cell apoptosis by phosphorylating key regulatory factors including p53/TP53 and Yes-associates protein YAP1. In T-cells, MAPK8 and MAPK9 are required for polarized differentiation of T-helper cells into Th1 cells. Contributes to the survival of erythroid cells by phosphorylating the antagonist of cell death BAD upon EPO stimulation. Mediates starvation-induced BCL2 phosphorylation, BCL2 dissociation from BECN1, and thus activation of autophagy. Phosphorylates STMN2 and hence regulates microtubule dynamics, controlling neurite elongation in cortical neurons. In the developing brain, through its cytoplasmic activity on STMN2, negatively regulates the rate of exit from multipolar stage and of radial migration from the ventricular zone. Phosphorylates several other substrates including heat shock factor protein 4 (HSF4), the deacetylase SIRT1, ELK1, or the E3 ligase ITCH. Phosphorylates the CLOCK-ARNTL/BMAL1 heterodimer and plays a role in the regulation of the circadian clock.

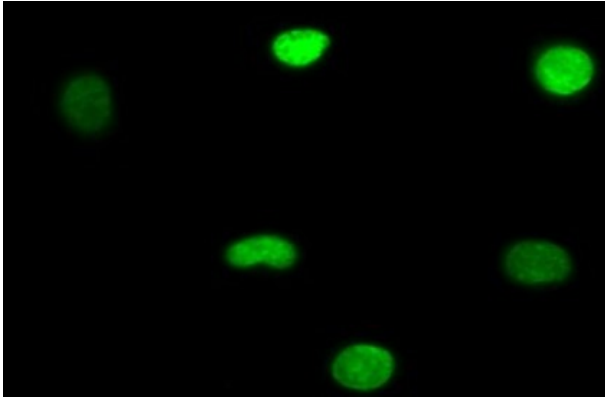
JNK1 isoforms display different binding patterns: beta-1 preferentially binds to c-Jun, whereas alpha-1, alpha-2, and beta-2 have a similar low level of binding to both c-Jun or ATF2. However, there is no correlation between binding and phosphorylation, which is achieved at about the same efficiency by all isoforms. [UniProt]

Images



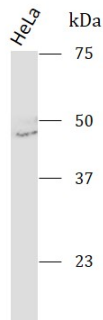
ARG43532 anti-JNK1 phospho (Thr183) antibody IHC-P image

Immunohistochemistry: Human breast stained with ARG43532 anti-JNK1 phospho (Thr183) antibody.



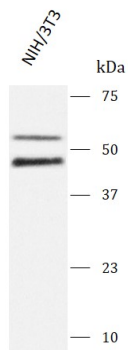
ARG43532 anti-JNK1 phospho (Thr183) antibody ICC/IF image

Immunofluorescence: NIH/3T3 stained with ARG43532 anti-JNK1 phospho (Thr183) antibody.



ARG43532 anti-JNK1 phospho (Thr183) antibody WB image

Western blot: HeLa stained with ARG43532 anti-JNK1 phospho (Thr183) antibody.



ARG43532 anti-JNK1 phospho (Thr183) antibody WB image

Western blot: NIH/3T3 stained with ARG43532 anti-JNK1 phospho (Thr183) antibody.