

## Rabbit SAPK/JNK Polyclonal Antibody | anti-SAPK/JNK antibody

SAPK/JNK Antibody

| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                       |
|-----------|--------|-------------------|------------------------------------------------------------------------------------|
| AAA322327 | Rabbit | Human, Mouse, Rat | ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot |

### PRODUCT SYNONYMS

SAPK/JNK; Polyclonal Antibody; SAPK/JNK Antibody; C Jun kinase 2; c Jun N terminal kinase 1; c Jun N terminal kinase 2; c Jun N terminal kinase 3; c-Jun N-terminal kinase 1; JNK 46; JNK 55; JNK; JNK-46; JNK1; JNK1A2; JNK2; JNK21B1/2; JNK2A; JNK2ALPHA; JNK2B; JNK2BETA; JNK3 alpha protein kinase; JNK3; JNK3A; Jun kinase; JUN N terminal kinase; MAP kinase 10; MAP kinase 8; MAP kinase 9; MAP kinase p49 3F12; MAPK 10; MAPK 8; MAPK 9; MAPK10; mapk8; MAPK9; Mitogen activated protein kinase 10; Mitogen activated protein kinase 8; Mitogen activated protein kinase 8 isoform JNK1 alpha1; Mitogen activated protein kinase 8 isoform JNK1 beta2; Mitogen activated protein kinase 9; Mitogen-activated protein kinase 8; MK08\_HUMAN; p493F12; p54a; p54aSAPK; p54bSAPK; PRKM10; PRKM8; PRKM9; SAPK; SAPK(beta); SAPK1; SAPK1a; SAPK1b; SAPK1c; Stress activated protein kinase 1; Stress activated protein kinase 1a; Stress activated protein kinase 1b; Stress activated protein kinase 1c; Stress activated protein kinase beta; Stress activated protein kinase JNK1; Stress activated protein kinase JNK2; Stress activated protein kinase JNK3; Stress-activated protein kinase 1c; Stress-activated protein kinase JNK1; c Jun kinase 2; C Jun N terminal kinase 2; c-Jun N-terminal kinase 2; JNK-55; JNK2 alpha; JNK2 beta; JNK2alpha; Mapk9; Mitogen-activated protein kinase 9; MK09\_HUMAN; P54a; Protein kinase; mitogen-activated; 9; SAPK alpha; Stress-activated protein kinase JNK2; c Jun kinase 3; c-Jun N-terminal kinase 3; cJun N terminal kinase 3; FLJ12099; FLJ33785; MAP kinase; Mapk10; MGC50974; mitogen activated protein kinase 10; Mitogen-activated protein kinase 10; MK10\_HUMAN; protein kinase mitogen activated 10; stress activated protein kinase beta; Stress-activated protein kinase JNK3; anti-SAPK/JNK antibody

### PRODUCT SPECIFICATIONS

|                                                    |                                                                                                          |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Host                                               | Rabbit                                                                                                   |
| Reactivity                                         | Human, Mouse, Rat                                                                                        |
| Clonality                                          | Polyclonal                                                                                               |
| Isotype                                            | IgG                                                                                                      |
| Specificity                                        | SAPK/JNK antibody detects endogenous levels of total SAPK/JNK                                            |
| Purity/Purification                                | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.            |
| Form/Format                                        | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.            |
| Concentration                                      | 1mg/ml (varies by lot)                                                                                   |
| Sequence Length                                    | 427                                                                                                      |
| Applicable Applications for anti-SAPK/JNK antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot) |
| Immunogen                                          | A synthesized peptide derived from human SAPK/JNK                                                        |
| Subcellular Location                               | Cytoplasm. Nucleus.                                                                                      |
| Predicted Cross Reactivity                         | <b>Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus</b>                                          |
| Similarity                                         | Pig (91%), Bovine (91%), Horse (91%), Sheep (91%), Rabbit (91%), Dog (91%), Chicken (91%), Xenopus (91%) |
| Conjugation                                        | Unconjugated                                                                                             |
| Preparation and Storage                            | Store at -20 degree C. Stable for 12 months from date of receipt.                                        |



**IHC (Immunohistochemistry)**  
AAA322327 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



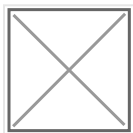
**WB (Western Blot)**  
Western blot analysis of SAPK/JNK expression in LOVO whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



**IF (Immunofluorescence)**  
AAA322327 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



**IF (Immunofluorescence)**  
AAA322327 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



**IF (Immunofluorescence)**  
AAA322327 staining MCF-7 cells by ICC/IF. Cells were fixed with PFA and permeabilized in 0.1% saponin prior to blocking in 10% serum for 45 minutes at 37 degree C. The primary antibody was diluted 1/400 and incubated with the sample for 1 hour at 37 degree C. A Alexa Fluor 594 conjugated goat polyclonal to rabbit IgG (H+L), diluted 1/600 was used as secondary antibody.

ADDITIONAL INFORMATION

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Related Product Information for anti-SAPK/JNK antibody | <p>Description: JNK3 a protein kinase of the MAPK family that is potently activated by a variety of environmental stress and pro-inflammatory cytokines. Brain-selective JNK isoform.</p> <p>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 (PubMed:22441692). Phosphorylates the heat shock transcription factor HSF1, suppressing HSF1-induced transcriptional activity (PubMed:10747973).</p> <p>Subunit Structure: Binds to at least four scaffolding proteins, MAPK8IP1/JIP-1, MAPK8IP2/JIP-2, MAPK8IP3/JIP-3/JSAP1 and SPAG9/MAPK8IP4/JIP-4 (PubMed:15693750). These proteins also bind other components of the JNK signaling pathway. Interacts with TP53 and WWOX (PubMed:12514174). Interacts with JAMP (By similarity). Forms a complex with MAPK8IP1 and ARHGEF28 (By similarity). Interacts with HSF1 (via D domain and preferentially with hyperphosphorylated form); this interaction occurs under both normal growth conditions and immediately upon heat shock (PubMed:10747973). Interacts (phosphorylated form) with NFE2; the interaction phosphorylates NFE2 in undifferentiated cells (By similarity). Interacts with NFATC4 (PubMed:17875713). Interacts with MECOM; regulates JNK signaling (PubMed:10856240). Interacts with PIN1; this interaction mediates MAPK8 conformational changes leading to the binding of MAPK8 to its substrates (PubMed:21660049). Interacts with GRIPAP1 (PubMed:17761173).</p> <p>Post-translational Modifications: Dually phosphorylated on Thr-183 and Tyr-185 by MAP2K7 and MAP2K4, which activates the enzyme (PubMed:11062067). Phosphorylated by TAOK2 (PubMed:17158878). May be phosphorylated at Thr-183 and Tyr-185 by MAP3K1/MEKK1 (PubMed:17761173).</p> <p>Similarity: The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases. Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.</p> |
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NCBI AND UNIPROT INFORMATION

|                                  |                                                                        |
|----------------------------------|------------------------------------------------------------------------|
| NCBI GI #                        | 513788279                                                              |
| NCBI GeneID                      | 5599                                                                   |
| NCBI Accession #                 | NP_001265476.1                                                         |
| NCBI GenBank Nucleotide #        | NM_001278547.1                                                         |
| UniProt Accession #              | P45983; Q15709; Q15712; Q15713; Q308M2; B5BTZ5; B7ZLV4; D3DX88; D3DX92 |
| Molecular Weight                 | Observed: 46; 54 kDa<br>Predicted: 49 kDa                              |
| NCBI Official Full Name          | mitogen-activated protein kinase 8 isoform beta2                       |
| NCBI Official Synonym Full Names | mitogen-activated protein kinase 8                                     |
| NCBI Official Symbol             | MAPK8                                                                  |
| NCBI Official Synonym Symbols    | JNK; JNK1; PRKM8; SAPK1; JNK-46; JNK1A2; SAPK1c; JNK21B1/2             |
| NCBI Protein Information         | mitogen-activated protein kinase 8                                     |
| UniProt Protein Name             | Mitogen-activated protein kinase 8                                     |

|                            |                                                          |
|----------------------------|----------------------------------------------------------|
| UniProt Gene Name          | MAPK8                                                    |
| UniProt Synonym Gene Names | JNK1; PRKM8; SAPK1; SAPK1C; MAP kinase 8; MAPK 8; SAPK1c |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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