

Rabbit anti-Human JNK2 Monoclonal Antibody | anti-MAPK9 antibody

Recombinant Anti-JNK2 Antibody, Rabbit Monoclonal

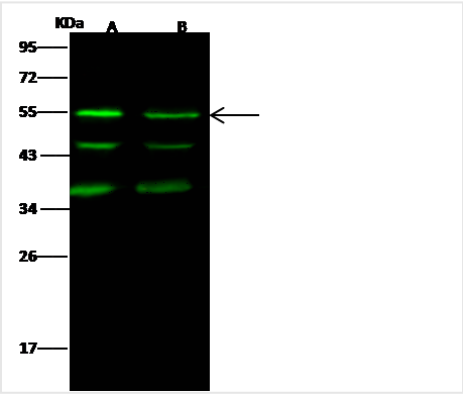
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA255132	Rabbit	Human	Immunoprecipitation, Immunofluorescence, Immunocytochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

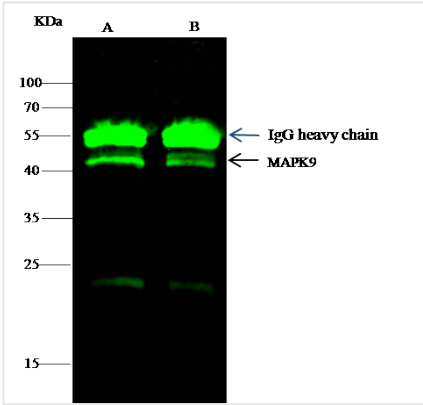
JNK2; Monoclonal Antibody; Recombinant Anti-JNK2 Antibody; Rabbit Monoclonal; JNK2/MAPK9 Antibody; Rabbit MAb; mitogen-activated protein kinase 9; Anti-JNK-55 Antibody; Anti-JNK2 Antibody; Anti-JNK2A Antibody; Anti-JNK2ALPHA Antibody; Anti-JNK2B Antibody; Anti-JNK2BETA Antibody; Anti-p54a Antibody; Anti-p54aSAPK Antibody; Anti-PRKM9 Antibody; Anti-SAPK Antibody; Anti-SAPK1a Antibody; anti-MAPK9 antibody

PRODUCT SPECIFICATIONS

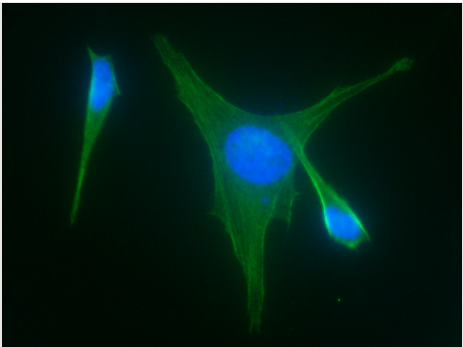
Host	Rabbit
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Number	004
Specificity	Human JNK2/MAPK9
Purity/Purification	Protein A
Form/Format	Liquid; 0.2um filtered solution in PBS
Applicable Applications for anti-MAPK9 antibody	IP (Immunoprecipitation), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA, WB (Western Blot)
Antibody Type	Recombinant Antibody
Immunogen	Recombinant Human JNK2/MAPK9 Protein
Conjugation	Unconjugated
Preparation	This antibody was obtained from a rabbit immunized with purified, recombinant Human JNK2/MAPK9 (rh JNK2/MAPK9).
Preparation and Storage	This antibody can be stored at 2-8 degree C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 degree C to -80 degree C. Preservative-Free. Avoid repeated freeze-thaw cycles.



WB (Western Blot)
Anti-MAPK9 rabbit monoclonal antibody at 1:500 dilutionLane A: HepG2 Whole Cell LysateLane B: A549 Whole Cell LysateLysates/proteins at 30 ug per lane.SecondaryGoat Anti-Rabbit IgG H&L (Dylight800) at 1/10000 dilution.Developed using the Odyssey technique.Performed under reducing conditions.Predicted band size:48 kDaObserved band size:54 kDa(We are unsure as to the identity of these extra bands).



IP (Immunoprecipitation)
MAPK9 was immunoprecipitated using:Lane A:0.5 mg Jurkat Whole Cell LysateLane B:0.5 mg A549 Whole Cell Lysate0.5 uL anti-MAPK9 rabbit monoclonal antibody and 15 ul of 50 % Protein G agarose.Primary antibody:Anti-MAPK9 rabbit monoclonal antibody,at 1:1000 dilutionSecondary antibody:Dylight 800-labeled antibody to rabbit IgG (H+L), at 1:5000 dilutionDeveloped using the odssey technique.Performed under reducing conditions.Predicted band size: 44 kDaObserved band size: 44 kDa



IF (Immunofluorescence)
Immunofluorescence staining of Human MAPK9 in Hela cells. Cells were fixed with 4% PFA, permeabilized with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with Rabbit anti-Human MAPK9 monoclonal antibody (1:300) at 37 degree C 1 hour. Then cells were stained with the Alexa Fluor 488-conjugated Goat Anti-rabbit IgG secondary antibody (green) and counterstained with DAPI (blue). Positive staining was localized to cytoplasm and Nucleus.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPK9 antibody

Mitogen-activated protein kinase 9 (MAPK9), also well known as c-Jun N-terminal kinase (JNK2), is a member of the MAP kinase subfamily belonging to the protein kinase superfamily. MAPK9 responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating some transcription factors, such as c-Jun and ATF2. The crystal structure of human JNK2 complexed with an indazole inhibitor by applying a high-throughput protein engineering and surface-site mutagenesis approach. A novel conformation of the activation loop is observed, which is not compatible with its phosphorylation by upstream kinases. This activation inhibitory conformation of JNK2 is stabilized by the MAP kinase insert that interacts with the activation loop in an induced-fit manner. It suggests that the MAP kinase insert of JNK2 plays a role in the regulation of JNK2 activation, possibly by interacting with intracellular binding partners. JNK2 deficiency leads to reduced c-Jun degradation, thereby augmenting c-Jun levels and cellular proliferation, and suggests that JNK2 is a negative regulator of cellular proliferation in multiple cell types. JNK2 prevents replicative stress by coordinating cell cycle progression and DNA damage repair mechanisms. JNK2 blocks the ubiquitination of tumor suppressor p53, and thus increases the stability of p53 in nonstressed cells. JNK2 negatively regulates antigen-specific CD8+ T cell expansion and effector function, and thus selectively blocking JNK2 in CD8+ T cells may potentially enhance the anti-tumor immune response. Lack of JNK2 expression was associated with higher tumor aneuploidy and reduced DNA damage response. Additionally, the JNK2 protein could be a novel therapeutic target in dry eye disease and may provide a novel target for the prevention of vascular disease and atherosclerosis.

Product Categories/Family for anti-MAPK9 antibody	VEGF Signaling Pathway
References	Sabapathy K, et al. (2004) JNK2: a negative regulator of cellular proliferation. Cell Cycle. 3(12): 1520-3.Tao J, et al. (2007) JNK2 negatively regulates CD8+ T cell effector function and anti-tumor immune response. Eur J Immunol. 37(3): 818-29.Shaw D, et al. (2008) The crystal structure of JNK2 reveals conformational flexibility in the MAP kinase insert and indicates its involvement in the regulation of catalytic activity. J Mol Biol. 383(4): 885-93.Osto E, et al. (2008) c-Jun N-terminal kinase 2 deficiency protects against hypercholesterolemia-induced endothelial dysfunction and oxidative stress. 118(20): 2073-80.De Paiva CS, et al. (2009) Essential role for c-Jun N-terminal kinase 2 in corneal epithelial response to desiccating stress. Arch Ophthalmol. 127(12): 1625-31.Chen P, et al. (2010) Jnk2 effects on tumor development, genetic instability and replicative stress in an oncogene-driven mouse mammary tumor model. PLoS One. 5(5): e10443.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21237736
NCBI GeneID	5601
NCBI Accession #	NP_002743.3
NCBI GenBank Nucleotide #	NM_002752.4
UniProt Accession #	P45984; Q15708; Q15710; Q15711; Q8N5C5; A8K0S3; B5BU66; B5M0B4; D3DWQ8; D3DWQ9
Molecular Weight	27,334 Da
NCBI Official Full Name	mitogen-activated protein kinase 9 isoform alpha2
NCBI Official Synonym Full Names	mitogen-activated protein kinase 9
NCBI Official Symbol	MAPK9
NCBI Official Synonym Symbols	JNK2; SAPK; p54a; JNK2A; JNK2B; PRKM9; JNK-55; SAPK1a; JNK2BETA; p54aSAPK; JNK2ALPHA
NCBI Protein Information	mitogen-activated protein kinase 9; MAPK 9; Jun kinase; MAP kinase 9; c-Jun kinase 2; c-Jun N-terminal kinase 2; stress-activated protein kinase 1a; stress-activated protein kinase JNK2
UniProt Protein Name	Mitogen-activated protein kinase 9
UniProt Gene Name	MAPK9
UniProt Synonym Gene Names	JNK2; PRKM9; SAPK1A; MAP kinase 9; MAPK 9; SAPK1a
UniProt Entry Name	MK09_HUMAN

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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Online datasheet: <https://stage.aaabiotech.com/monoclonal/jnk2-antibody-clone-004-immunoprecipitation-immunofluorescence-immunocytochemistry-western-blot-elisa/255132>