Product Name: JNK3 Rabbit Polyclonal Antibody
Catalog #: APRab12848
For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Molecular Weight	48kDa

Antigen Information

Gene Name	MAPK10
Alternative Names	MAPK10; JNK3; JNK3A; PRKM10; SAPK1B; Mitogen-activated protein kinase 10; MAP kinase 10; MAPK 10; MAP kinase p49 3F12; Stress-activated protein kinase 1b; SAPK1b; Stress-activated protein kinase JNK3; c-Jun N-terminal kinase 3
Gene ID	5602.0
SwissProt ID	P53779
Immunogen	The antiserum was produced against synthesized peptide derived from human MAPK10. AA range:361-410

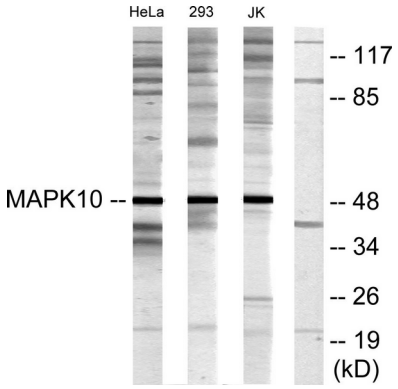
Background

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as integration points 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 specifically expressed in a subset of neurons in the nervous system and is activated by threonine and tyrosine phosphorylation. Targeted deletion of this gene in mice suggests that it may have a role in stress-induced neuronal apoptosis. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. A recent study provided evidence for translational readthrough in this gene and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2015],alternative products:A similar low level of binding to substrates is observed for isoform alpha-1 and isoform alpha-2. However, there is no correlation between binding and phosphorylation, which is achieved about at the same efficiency by all isoforms,catalytic activity:ATP + a protein = ADP + a phosphoprotein.,caution:The sequence shown here is derived from an Ensembl automatic analysis pipeline and should be considered as preliminary data.,cofactor:Magnesium.,disease:A chromosomal rearrangement involving MAPK10 is a cause of epileptic encephalopathy Lennox-Gastaut type [MIM:606369]. Translocation t(Y;4)(q11.2;q21) which causes MAPK10 truncation. Epileptic encephalopathies of the Lennox-Gastaut group are childhood epileptic disorders characterized by severe psychomotor delay and seizures.,domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by threonine and tyrosine phosphorylation by two dual specificity kinases, MAP2K4 and MAP2K7. MAP2K7 phosphorylates MAPK10 on Thr-221 causing a conformational change and a large increase in Vmax. MAP2K4 then phosphorylates Tyr-223 resulting in a further increase in Vmax. Inhibited by dual specificity phosphatases, such as DUSP1. Inhibited by HDAC9.,function: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.,mass spectrometry: PubMed:10715136,PTM:Dually phosphorylated on Thr-221 and Tyr-223, which activates the enzyme. Weakly autophosphorylated on threonine and tyrosine residues in vitro.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Interacts with MAPKBP1 (By similarity). Binds to at least four scaffolding proteins, MAPK8IP1/JIP-1, MAPK8IP2/JIP-2, MAPK8IP3/JIP-3/JSAP1 and SPAG9/MAPK8IP4/JIP-4. These proteins also bind other components of the JNK signaling pathway. Interacts with HDAC9.,tissue specificity:Specific to a subset of neurons in the nervous system. Present in the hippocampus and areas, cerebellum, striatum, brain stem, and weakly in the spinal cord. Very weak expression in testis and kidney.,

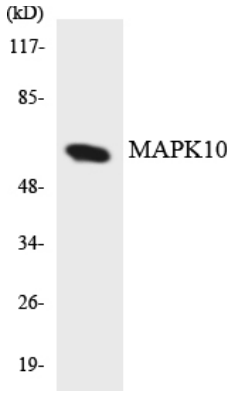
Research Area

Toll_Like; Stem cell pathway; Insulin Receptor; MAPK_ERK_Growth;MAPK_G_Protein; ErbB/HER; SAPK_JNK; WNT;WNT-T CELL;β-Catenin; Cell Growth

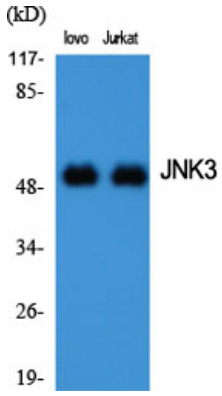
Image Data



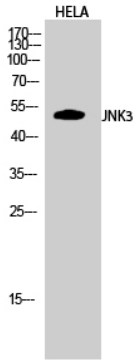
Western blot analysis of lysates from HeLa, 293, and Jurkat cells, using MAPK10 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HUVECcells using MAPK10 antibody.



Western Blot analysis of various cells using JNK3 Polyclonal Antibody diluted at 1 : 2000



Western Blot analysis of HELA cells using JNK3 Polyclonal Antibody diluted at 1 : 2000