Datasheet for ABIN7159980

anti-MAPK11 antibody (AA 310-362)

2 Images

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Overview

Quantity:	100 µg
Target:	MAPK11
Binding Specificity:	AA 310-362
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MAPK11 antibody is un-conjugated
Application:	ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant Human Mitogen-activated protein kinase 11 protein (310-362AA)
Isotype:	IgG
Cross-Reactivity:	Human
Purification:	>95%, Protein G purified

Target Details

Target:	MAPK11
Alternative Name:	MAPK11 (MAPK11 Products)
Background:	Background: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK11 is one of the four p38 MAPKs which play an important

role in the cascades of cellular responses evoked by extracellular stimuli such as proinflammatory cytokines or physical stress leading to direct activation of transcription factors. Accordingly, p38 MAPKs phosphorylate a broad range of proteins and it has been estimated that they may have approximately 200 to 300 substrates each. MAPK11 functions are mostly redundant with those of MAPK14. Some of the targets are downstream kinases which are activated through phosphorylation and further phosphorylate additional targets. RPS6KA5/MSK1 and RPS6KA4/MSK2 can directly phosphorylate and activate transcription factors such as CREB1, ATF1, the NF-kappa-B isoform RELA/NFKB3, STAT1 and STAT3, but can also phosphorylate histone H3 and the nucleosomal protein HMGN1. RPS6KA5/MSK1 and RPS6KA4/MSK2 play important roles in the rapid induction of immediate-early genes in response to stress or mitogenic stimuli, either by inducing chromatin remodeling or by recruiting the transcription machinery. On the other hand, two other kinase targets, MAPKAPK2/MK2 and MAPKAPK3/MK3, participate in the control of gene expression mostly at the post-transcriptional level, by phosphorylating ZFP36 (tristetraprolin) and ELAVL1, and by regulating EEF2K, which is important for the elongation of mRNA during translation. MKNK1/MNK1 and MKNK2/MNK2, two other kinases activated by p38 MAPKs, regulate protein synthesis by phosphorylating the initiation factor EIF4E2. In the cytoplasm, the p38 MAPK pathway is an important regulator of protein turnover. For example, CFLAR is an inhibitor of TNF-induced apoptosis whose proteasome-mediated degradation is regulated by p38 MAPK phosphorylation. Ectodomain shedding of transmembrane proteins is regulated by p38 MAPKs as well. In response to inflammatory stimuli, p38 MAPKs phosphorylate the membrane-associated metalloprotease ADAM17. Such phosphorylation is required for ADAM17-mediated ectodomain shedding of TGF-alpha family ligands, which results in the activation of EGFR signaling and cell proliferation. Additional examples of p38 MAPK substrates are the FGFR1. FGFR1 can be translocated from the extracellular space into the cytosol and nucleus of target cells, and regulates processes such as rRNA synthesis and cell growth. FGFR1 translocation requires p38 MAPK activation. In the nucleus, many transcription factors are phosphorylated and activated by p38 MAPKs in response to different stimuli. Classical examples include ATF1, ATF2, ATF6, ELK1, PTPRH, DDIT3, TP53/p53 and MEF2C and MEF2A. The p38 MAPKs are emerging as important modulators of gene expression by regulating chromatin modifiers and remodelers. The promoters of several genes involved in the inflammatory response, such as IL6, IL8 and IL12B, display a p38 MAPK-dependent enrichment of histone H3 phosphorylation on \'Ser-10\' (H3S10ph) in LPS-stimulated myeloid cells. This phosphorylation enhances the accessibility of the cryptic NF-kappa-B-binding sites marking promoters for increased NF-kappa-B recruitment.

Aliases: Human p38Beta MAP kinase mRNA complete cds antibody, MAP kinase 11 antibody,

Target Details

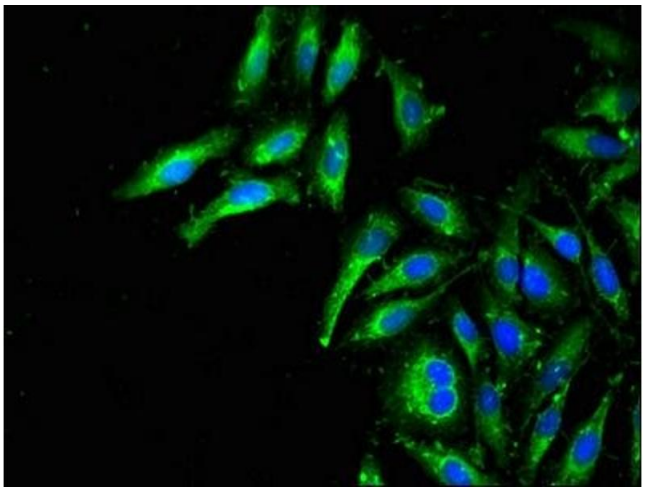
	MAP kinase p38 beta antibody, MAPK 11 antibody, Mapk11 antibody, Mitogen activated protein kinase 11 antibody, Mitogen activated protein kinase p38 2 antibody, Mitogen activated protein kinase p38 beta antibody, Mitogen-activated protein kinase 11 antibody, Mitogen-activated protein kinase p38 beta antibody, MK11_HUMAN antibody, p38 2 antibody, p38-2 antibody, p38B antibody, p38Beta antibody, P38BETA2 antibody, PRKM11 antibody, Protein kinase mitogen activated 11 antibody, SAPK2 antibody, SAPK2B antibody, Stress activated protein kinase 2 antibody, Stress activated protein kinase 2b antibody, Stress-activated protein kinase 2 antibody
UniProt:	Q15759
Pathways:	MAPK Signaling, Neurotrophin Signaling Pathway, Activation of Innate immune Response, Response to Water Deprivation, Regulation of Muscle Cell Differentiation, ER-Nucleus Signaling, Hepatitis C, Toll-Like Receptors Cascades, Signaling Events mediated by VEGFR1 and VEGFR2, Thromboxane A2 Receptor Signaling, BCR Signaling, S100 Proteins

Application Details

Application Notes:	Recommended dilution: IHC:1:20-1:200, IF:1:50-1:200,
Restrictions:	For Research Use only

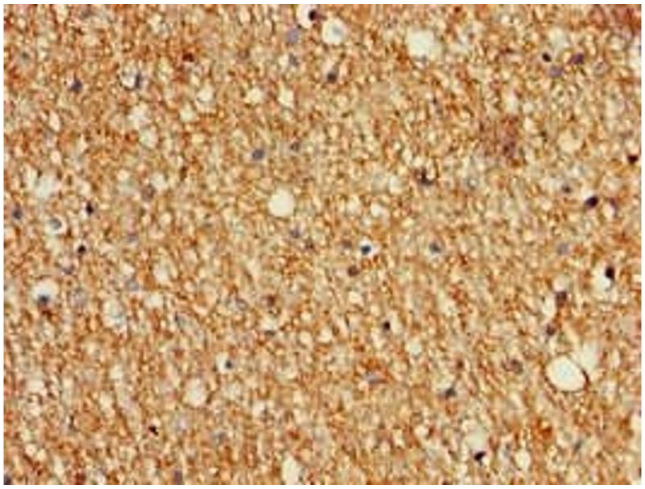
Handling

Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.



Immunofluorescence

Image 1. Immunofluorescent analysis of Hela cells using ABIN7159980 at dilution of 1:100 and Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L)



Immunohistochemistry

Image 2. Immunohistochemistry of paraffin-embedded human brain tissue using ABIN7159980 at dilution of 1:100

