



Datasheet for ABIN681523

## anti-MAPKAP Kinase 2 antibody (AA 301-400)



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### Overview

Quantity:	100 µL
Target:	MAPKAP Kinase 2 (MAPKAPK2)
Binding Specificity:	AA 301-400
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MAPKAP Kinase 2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro))

### Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human MAPKAP Kinase 2
Isotype:	IgG
Cross-Reactivity:	Rat
Predicted Reactivity:	Human,Mouse,Cow,Pig,Rabbit
Purification:	Purified by Protein A.

### Target Details

Target:	MAPKAP Kinase 2 (MAPKAPK2)
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## Target Details

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Alternative Name: [MAPKAP Kinase 2 \(MAPKAPK2 Products\)](#)

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Background: Synonyms: MK2, MK-2, MAPKAP-K2, MAP kinase-activated protein kinase 2, MAPK-activated protein kinase 2, MAPKAP kinase 2, MAPKAPK-2, MAPKAPK2

Background: Stress-activated serine/threonine-protein kinase involved in cytokines production, endocytosis, reorganization of the cytoskeleton, cell migration, cell cycle control, chromatin remodeling, DNA damage response and transcriptional regulation. Following stress, it is phosphorylated and activated by MAP kinase p38-alpha/MAPK14, leading to phosphorylation of substrates. Phosphorylates serine in the peptide sequence, Hyd-X-R-X(2)-S, where Hyd is a large hydrophobic residue. Phosphorylates ALOX5, CDC25B, CDC25C, ELAVL1, HNRNPA, HSF1, HSP27/HSPB1, KRT18, KRT2, LIMK1, LSP1, PABPC1, PARN, PDE4A, RCSD1, RPS6KA3, TAB3 and TTP/ZFP36. Mediates phosphorylation of HSP27/HSPB1 in response to stress, leading to dissociate HSP27/HSPB1 from large small heat-shock protein (sHsps) oligomers and impair their chaperone activities and ability to protect against oxidative stress effectively. Involved in inflammatory response by regulating tumor necrosis factor (TNF) and IL6 production post-transcriptionally: acts by phosphorylating AU-rich elements (AREs)-binding proteins ELAVL1, HNRNPA, PABPC1 and TTP/ZFP36, leading to regulate the stability and translation of TNF and IL6 mRNAs. Phosphorylation of TTP/ZFP36, a major post-transcriptional regulator of TNF, promotes its binding to 14-3-3 proteins and reduces its ARE mRNA affinity leading to inhibition of dependent degradation of ARE-containing transcript. Also involved in late G2/M checkpoint following DNA damage through a process of post-transcriptional mRNA stabilization: following DNA damage, relocalizes from nucleus to cytoplasm and phosphorylates HNRNPA and PARN, leading to stabilize GADD45A mRNA. Involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3.

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Gene ID: 9261

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UniProt: [P49137](#)

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Pathways: [MAPK Signaling](#), [Neurotrophin Signaling Pathway](#), [Activation of Innate immune Response](#), [Toll-Like Receptors Cascades](#)

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## Application Details

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Application Notes: WB 1:300-5000  
ELISA 1:500-1000  
FCM 1:20-100  
IHC-P 1:200-400

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## Application Details

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IHC-F 1:100-500  
IF(IHC-P) 1:50-200  
IF(IHC-F) 1:50-200  
IF(ICC) 1:50-200

Restrictions: For Research Use only

## Handling

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Format: Liquid

Concentration: 1 µg/µL

Buffer: 0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.

Preservative: ProClin

Precaution of Use: This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

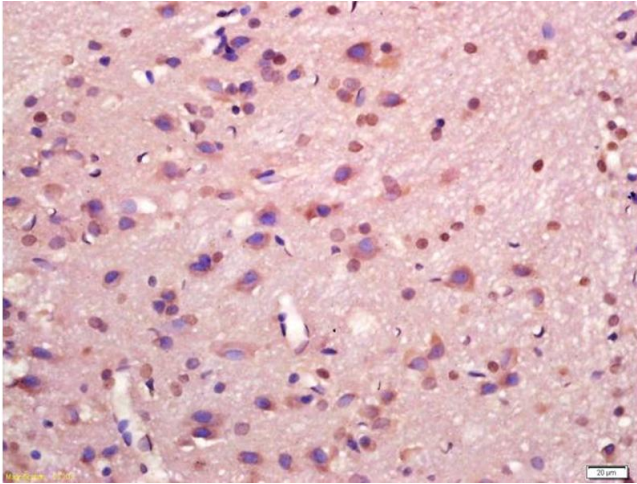
Expiry Date: 12 months

## Publications

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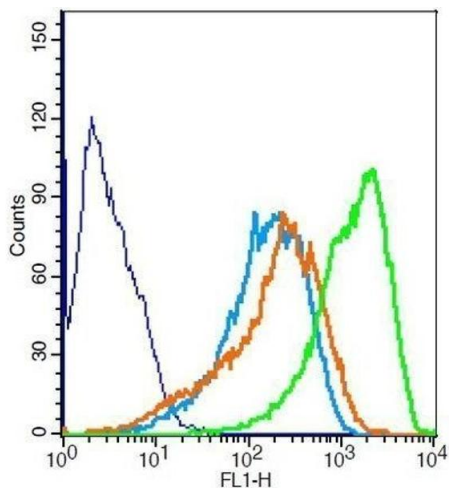
Product cited in: Rosenzweig, Ou, Quinn: "P38 mitogen-activated protein kinase promotes dedifferentiation of primary articular chondrocytes in monolayer culture." in: **Journal of cellular and molecular medicine**, Vol. 17, Issue 4, pp. 508-17, (2013) ([PubMed](#)).

Rosenzweig, Djap, Ou, Quinn: "Mechanical injury of bovine cartilage explants induces depth-dependent, transient changes in MAP kinase activity associated with apoptosis." in: **Osteoarthritis and cartilage / OARS, Osteoarthritis Research Society**, Vol. 20, Issue 12, pp. 1591-602, (2012) ([PubMed](#)).



### Immunohistochemistry

**Image 1.** Formalin-fixed and paraffin embedded rat brain labeled with Anti-MAPKAP Kinase 2 Polyclonal Antibody, Unconjugated (ABIN681523) at 1:200 followed by conjugation to the secondary antibody and DAB staining



### Flow Cytometry

**Image 2.** RSC996 cells probed with Rabbit Anti-MAPKAP Kinase 2 Polyclonal Antibody .