ARG51783
anti-MAPKAPK2 / MK2 phospho (Thr334) antibody

Package: 100 µl, 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MAPKAPK2 / MK2 phospho (Thr334)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MAPKAPK2 / MK2
Species	Human
Immunogen	Peptide sequence around phosphorylation site of Threonine 334 (P-Q-T(p)-P-L) derived from Human MAPKAPK2 / MK2.
Conjugation	Un-conjugated
Alternate Names	MAPKAP-K2; MAPK-activated protein kinase 2; MK-2; MAPKAP kinase 2; MAP kinase-activated protein kinase 2; MK2; EC 2.7.11.1; MAPKAPK-2

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100 - 1:200
IHC-P	1:50 - 1:100
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

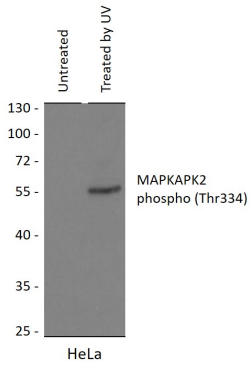
Form	Liquid
Purification	Antibodies were produced by immunizing rabbits with KLH-conjugated synthetic phosphopeptide. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. In addition, non-phospho specific antibodies were removed by chromatogramphy using non-phosphopeptide.
Buffer	PBS (without Mg2+ and Ca2+, pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

	and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

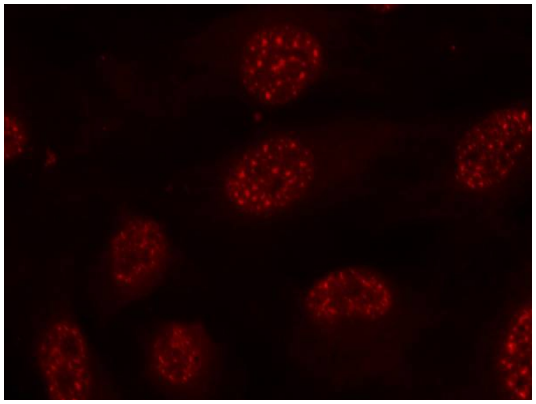
Database links	GeneID: 17164 Mouse GeneID: 9261 Human Swiss-port # P49137 Human Swiss-port # P49138 Mouse
Gene Symbol	MAPKAPK2
Gene Full Name	mitogen-activated protein kinase-activated protein kinase 2
Background	MAPKAPK-2 encodes a member of the Ser/Thr protein kinase family. This kinase is regulated through direct phosphorylation by p38 MAP kinase. In conjunction with p38 MAP kinase, this kinase is known to be involved in many cellular processes including stress and inflammatory responses, nuclear export, gene expression regulation and cell proliferation. Heat shock protein HSP27 was shown to be one of the substrates of this kinase in vivo. Two transcript variants encoding two different isoforms have been found for this gene.
Function	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, HNRNPA0, HSF1, HSP27/HSPB1, KRT18, KRT20, 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, HNRNPA0, 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 HNRNPA0 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. [UniProt]
Research Area	Signaling Transduction antibody
Calculated Mw	46 kDa
PTM	Sumoylation inhibits the protein kinase activity. Phosphorylated and activated by MAP kinase p38-alpha/MAPK14 at Thr-222, Ser-272 and Thr-334.

Images



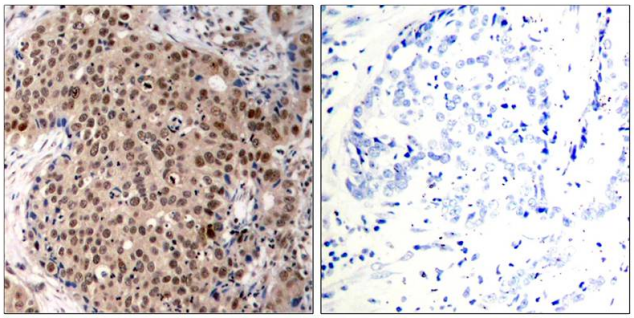
ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody WB image

Western blot: 25 µg of HeLa cells untreated or treated by UV. The blots were stained with ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody.



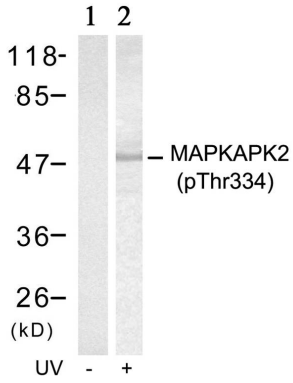
ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody ICC/IF image

Immunofluorescence: Methanol-fixed HeLa cells stained with ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody.



ARG51783 anti-MAPKAPK2anti MAPKAPK2 / MK2 phospho (Thr334) antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human breast carcinoma tissue stained with ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody (left) or the same antibody preincubated with blocking peptide (right).



ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody WB image

Western blot: Extracts from HeLa cells untreated (lane 1) or treated with UV (lane 2) stained with ARG51783 anti-MAPKAPK2 / MK2 phospho (Thr334) antibody.