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Rabbit Anti-Phospho-MAPKAPK2 (Thr334) antibody

SL3262R

Product Name:	Phospho-MAPKAPK2 (Thr334)
Chinese Name:	磷酸化丝裂原活化蛋白激酶活化的蛋白激酶2抗体
Alias:	MAPKAPK2 (Phospho Thr334); MAPKAPK2 (Phospho T334); MAPKAP Kinase 2 (phospho T334); p-MAPKAP Kinase 2 (phospho T334); MAPKAPK-2(Phospho-Thr334); MAPKAPK2(phospho T334); MAP Kinase Activated Protein Kinase 2; MAPK activated protein kinase 2; MAPKAP kinase 2; MAPKAPK 2; MAPKAPK2; MAPK2_HUMAN; Mitogen Activated Protein Kinase Activated Protein Kinase 2; MK 2; MK2; MAPKAPK-2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,
Applications:	IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	46kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated Synthesised phosphopeptide derived from human MAPKAPK2 around the phosphorylation site of Thr334:PQ(p-T)PL
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of

	antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	MAP kinase activated protein kinase 2 (MAPKAP Kinase 2), also known as p45 hsp27 kinase, is a 45-54 kDa serine/threonine protein kinase that contains a proline rich sequence and two putative SH3 binding sites. MAPKAP Kinase 2 is activated in response to stress, IL1 and TNF, possibly catalyzed by p38/Hog dependent phosphorylation. One of the major substrates of MAPKAP Kinase 2 is hsp27, which stimulates actin polymerization in order to facilitate recovery from destruction of cytoskeleton during cellular stresses. MAPKAP2 is implicated in several disorders including ischemic brain injury and heart failure and has been shown to be important in regulating stress resistance and the production of TNF alpha. **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. **Subunit:** Heterodimer with p38-alpha/MAPK14. The heterodimer with p38-alpha/MAPK14 forms a stable complex: molecules are positioned 'face to face' so that the ATP-binding sites of both kinases are at the heterodimer interface. Interacts with PHC2. **Subcellular Location:** Cytoplasm. Nucleus. Note=Phosphorylation and subsequent activation releases the autoinhibitory helix, resulting in the export from the nucleus into the cytoplasm.

Tissue Specificity:
Expressed in all tissues examined.

Post-translational modifications:
Sumoylation inhibits the protein kinase activity.
Phosphorylated and activated by MAP kinase p38-alpha/MAPK14 at Thr-222, Ser-272 and Thr-334.

Similarity:
Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.
Contains 1 protein kinase domain.

SWISS:
P49137

Gene ID:
9261

Database links:

Entrez Gene: 9261Human

Entrez Gene: 17164Mouse

Entrez Gene: 289014Rat

Omim: 602006Human

SwissProt: P49137Human

SwissProt: P49138Mouse

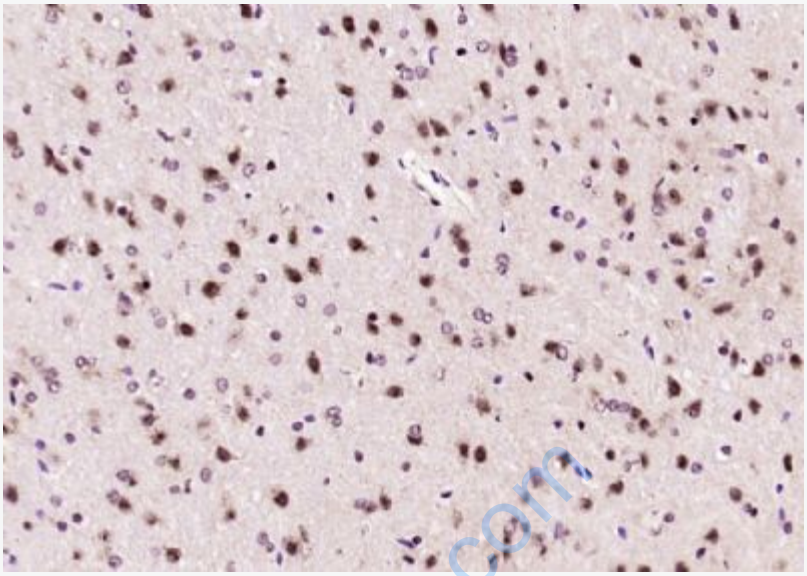
Unigene: 643566Human

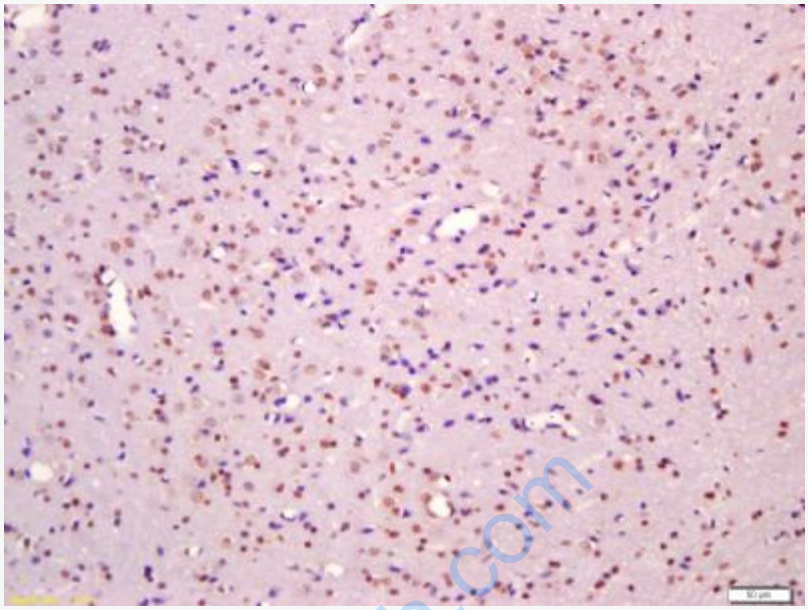
Unigene: 713747Human

Unigene: 221235Mouse

Unigene: 6276Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:	 Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-MAPKAPK2 (Thr334)) Polyclonal Antibody, Unconjugated (SL3262R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Phospho-MAPKAPK2(Thr334) Polyclonal Antibody, Unconjugated(SL3262R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining