# MAPKAPK2 (Ab-272) Antibody

Catalog No: #33286

Package Size: #33286-1 50ul #33286-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

## Description

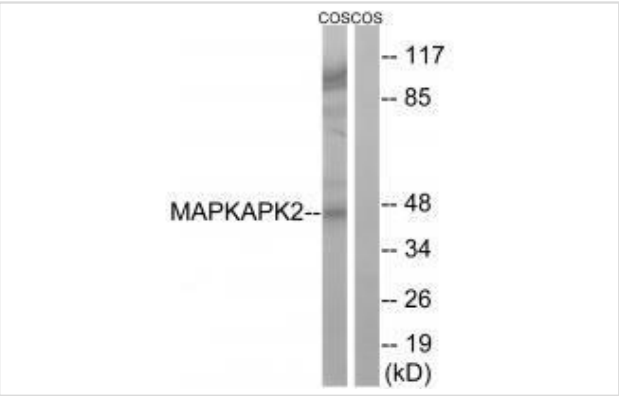
| | |
|---|---|
| Product Name | MAPKAPK2 (Ab-272) Antibody |
| Host Species | Rabbit |
| Clonality | Polyclonal |
| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Applications | WB IHC |
| Species Reactivity | Hu |
| Specificity | The antibody detects endogenous levels of total MAPKAPK2 protein. |
| Immunogen Type | Peptide |
| Immunogen Description | Synthesized non-phosphopeptide derived from human MAPKAPK2 around the phosphorylation site of serine 272 (A-I-S(p)-P-G). |
| Target Name | MAPKAPK2 |
| Other Names | EC 2.7.11.1; kinase MAPKAPK2; MAP kinase-activated protein kinase 2; MAPK-activated protein kinase 2; MAPK2 |
| Accession No. | Swiss-Prot: P49137NCBI Gene ID: 9261 |
| Uniprot | P49137 |
| GeneID | 9261; |
| SDS-PAGE MW | 46kd |
| Concentration | 1.0mg/ml |
| Formulation | Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. |
| Storage | Store at -20°C |

## Application Details

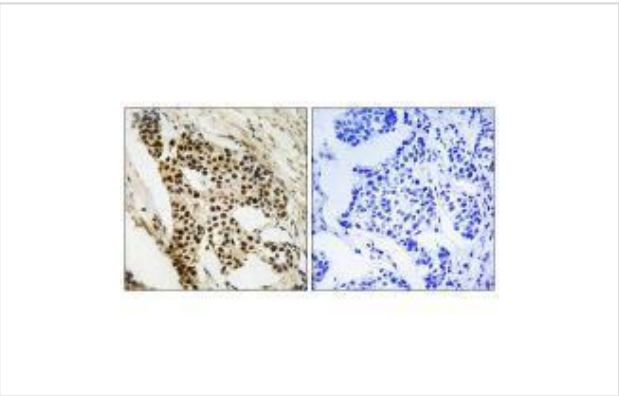
Western blotting: 1:500~1:3000

Immunohistochemistry: 1:50~1:100

## Images




Western blot analysis of extracts from COS cells, using MAPKAPK2 (Ab-272) antibody #33286.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue using MAPKAPK2 (Ab-272) antibody #33286.

## 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, 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.

Zu Y.-L., Biochem. Biophys. Res. Commun. 200-1118-1124(1994).
Stokoe D., Biochem. J. 296:843-849(1993).
Coxon P.Y., Cell. Signal. 15:993-1001(2003).

Note: This product is for in vitro research use only