

Anti-MAPK3 MAPKAPK3 Antibody

Catalog Number: A04510

About MAPKAPK3

Stress-activated serine/threonine-protein kinase involved in cytokines production, endocytosis, cell migration, chromatin remodeling 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. MAPKAPK2 and MAPKAPK3, share the same function and substrate specificity, but MAPKAPK3 kinase activity and level in protein expression are lower compared to MAPKAPK2. Phosphorylates HSP27/HSPB1, KRT18, KRT20, 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, such as 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. Involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3. Also acts as a modulator of Polycomb-mediated repression.

McLaughlin M.M., J. Biol. Chem. 271:8488-8492(1996).

Sithanandam G., Mol. Cell. Biol. 16:868-876(1996).

Neufeld B., J. Biol. Chem. 275:20239-20242(2000).

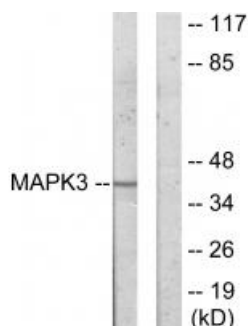
Overview

Product Name	Anti-MAPK3 MAPKAPK3 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-MAPK3 MAPKAPK3 Antibody (Catalog # A04510). Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q16644

Technical Details

Immunogen	Synthesized peptide derived from internal of human MAPK3.
Predicted Reactive Species	Boar, Bovine, Canine, Golden Hamster
Isotype	IgG
Form	Liquid
Concentration	1 mg/ml
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blotting: 1:500~1:3000</p> <p>Immunohistochemistry: 1:50~1:100</p>

Anti-MAPK3 MAPKAPK3 Antibody (A04510) Images



Western blot analysis of extracts from COLO205 cells, using MAPK3 antibody A04510.



Immunohistochemistry analysis of paraffin-embedded human skeletal muscle tissue using MAPK3 antibody A04510.

1 Publications Citing This Product

1. PubMed ID: -, Chumyam A. and Saengnil,K. 2021.Transient H₂O₂ induction by ClO₂ fumigation alters Prx-Trx system and causes MAPK accumulation attenuating browning in harvested longan fruit.CMUJ. Nat. Sci. 20(1): e2021013.

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