Mitogen Activated Protein Kinase 12 (MAPK12) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	Mitogen Activated Protein Kinase 12 (MAPK12), Polyclonal Antibody
Full Product Name	Cy3-Linked Polyclonal Antibody to Mitogen Activated Protein Kinase 12 (MAPK12)
Product Gene Name	anti-MAPK12 antibody
Product Synonym Names	ERK6; PRKM12; p38 Gamma; SAPK3; Stress-activated protein kinase 3; Extracellular signal-regulated kinase 6; Mitogen-activated protein kinase p38 gamma
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Concentration	>=100ug/ml (lot specific)
Matching Pairs	Unconjugated Antibody: MAPK12 (MBS2028358) Cy3 Conjugated Antibody: MAPK12 (MBS2071908)
Matching Pairs	Cy3 Conjugated Antibody: MAPK12 (MBS2071908) Immunogen: MAPK12 (MBS2031143)
Molecular Weight	42,043 Da
3D Structure	ModBase 3D Structure for O08911
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Immunogen	MAPK12 (Tyr27~Phe311)
Conjugation	Cy3
Cross Reactivity	Human
Unconjugated Antibody	The unconjugated antibody version of this item is also available as catalog #MBS2028358
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for anti-MAPK12 antibody	Western Blot (WB), Immunocytochemistry (ICC), Immunohistochemistry (IHC) Formalin/Paraffin, ELISA (ELISA)
Related Product Information for anti-MAPK12 antibody	MBS2071908 is an antibody targeting MAPK12. Also known as Cy3-Linked Polyclonal Antibody to Mitogen Activated Protein Kinase 12 (MAPK12). Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-MAPK12 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MAPK12. It may not necessarily be applicable to this product.

NCBI GI #	7305253
NCBI GeneID	29857
NCBI Accession #	NP_038899.1

UniProt Primary Accession #	O08911
UniProt Secondary Accession #	Q9D0M4
UniProt Related Accession #	O08911
GenBank Nucleotide #	NM_013871.3
NCBI Official Full Name	mitogen-activated protein kinase 12
NCBI Official Synonym Full Names	mitogen-activated protein kinase 12
NCBI Official Symbol	Mapk12
NCBI Official Synonym Symbols	Erk6; Sapk3; Prkm12; AW123708; P38gamma
UniProt Protein Name	Mitogen-activated protein kinase 12
UniProt Synonym Protein Names	Extracellular signal-regulated kinase 6; ERK-6; Mitogen-activated protein kinase p38 gamma; MAP kinase p38 gamma; Stress-activated protein kinase 3
UniProt Gene Name	Mapk12
UniProt Synonym Gene Names	Sapk3; MAP kinase 12; MAPK 12; ERK-6; MAP kinase p38 gamma
NCBI Protein Information	mitogen-activated protein kinase 12
UniProt Comments for MAPK12	P38G: a proline-directed ser/thr MAP kinase, and one of four p38 kinases that play important roles in cellular responses to inflammatory cytokines, DNA damage, oxidative stress, and some GPCRs. Directly activate transcription factors and of other downstream kinases including MSK1, MSK2, eEF2K, MK2, and PRAK. MSK1 and -2 play important roles in the rapid induction of immediate-early genes in response to stress or mitogenic stimuli. MK2 and -3 control gene expression mostly at the post-transcriptional level. eEF2K is important for the elongation of mRNA during translation. Ectodomain shedding of transmembrane proteins is regulated by p38 MAPKs as well. In response to inflammatory stimuli, p38 MAPKs phosphorylate the membrane-associated metalloprotease ADAM17, which then cleaves the ectodomain of TGF-alpha family ligands, a process leading to the activation of EGFR signaling and cell proliferation. In the nucleus, many transcription factors are phosphorylated and activated by p38 MAPKs in response to different stimuli. Classical examples include ATF1, ATF2, ATF6, ELK1, PTPRH, CHOPO, p53 and MEF2C and MEF2A. The p38 MAPKs are emerging as important modulators of gene expression by regulating chromatin modifiers and remodelers. The promoters of several genes involved in the inflammatory response, such as IL6, IL8 and IL12B, display a p38 MAPK-dependent enrichment of histone H3 phosphorylation on 'Ser-10' (H3S10ph) in LPS-stimulated myeloid cells. Interacts directly with HDAC3 interacts directly and selectively to repress ATF2 transcriptional activity, and regulate TNF gene expression in LPS-stimulated cells. Plays a role in myoblast differentiation and also in the down-regulation of cyclin D1 in response to hypoxia in adrenal cells suggesting that it may inhibit cell proliferation while promoting differentiation. Regulates UV-induced checkpoint signaling and repair of UV-induced DNA damage and G2 arrest after gamma-radiation exposure. Involved in the regulation of GLUT1 expression and basal glucose uptake in L6 myotubes; and negatively regulates GLUT4 expression and contraction-mediated glucose uptake in adult skeletal muscle. C- Jun phosphorylation is stimulated by p38-alpha and inhibited by p38-gamma, leading to a distinct AP-1 regulation. Required for the normal kinetochore localization of PLK1, prevents chromosomal instability and supports mitotic cell viability. Positively regulates the expansion of transient amplifying myogenic precursor cells during muscle growth and regeneration. Its expression is down-regulation by p38-alpha activation. Highly expressed in skeletal muscle and heart. Protein type: CMGC group; EC 2.7.11.24; Kinase, protein; MAPK family; MAPK/p38 subfamily; Protein kinase, CMGC; Protein kinase, Ser/Thr (non-receptor); p38 subfamily Chromosomal Location of Human Ortholog: 15|15 E3 Cellular Component: cytoplasm; nucleoplasm Molecular Function: ATP binding; magnesium ion binding; MAP kinase activity; protein serine/threonine kinase activity Biological Process: myoblast differentiation; negative regulation of cell cycle; peptidyl-serine phosphorylation; protein amino acid phosphorylation
Research Articles on MAPK12	**1.** p38gamma mitogen-activated protein kinase mediates inflammatory signaling to promote colon tumorigenesis

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