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Store at -20C
#7419

MAPKAPK-5 (D70A10) Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H R Mk	Endogenous	58	Rabbit IgG	#Q8IW41	8550

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

MAPKAPK-5 (D70A10) Rabbit mAb recognizes endogenous levels of total MAPKAPK-5 protein. This antibody does not cross-react with MAPKAPK-2 or MAPKAPK-3.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly367 of human MAPKAPK-5 protein.

Background

MAPKAPK-5 belongs to the mitogen-activated protein kinase (MAPK) activated protein kinases (MK) subfamily that includes MAPKAPK-2/MK2 and MK3/3pK. The MK subfamily is part of a family of protein kinase subfamilies downstream of MAPK pathways and includes ribosomal S6 kinase (RSKs), mitogen and stress activated kinases (MSKs) and MAPK-interacting kinases (MNKs). All MKs are activated by MAPK pathways and mediate important processes (e.g. gene expression, cell cycle progression) and have been implicated in inflammation and cancer (1,2). MAPKAPK-5 shows binding to and activation by p38 MAPK and extracellular-regulated kinases (Erk) (3,4). MAPKAPK-5 was shown to be activated by Erk3 and act as a chaperone to Erk3 (5,6). While overexpressed MAPKAPK-5 shares similar substrates with MAPKAPK-2, such as HSP27 and glycogen synthase, recent work with MAPKAPK-5 knock-out mice indicates distinct substrates and functional properties (7).

Background References

1. Roux, P.P. and Blenis, J. (2004) *Microbio.l Mol. Biol. Rev.* 68, 320-344.
2. Gaestel, M. (2006) *Nat. Rev. Mol. Cell Biol.* 7, 120-130.
3. New, L. et al. (1998) *EMBO J.* 17, 3372-3384.
4. Ni, H. et al. (1998) *Biochem. Biophys. Res. Commun.* 243, 492-496.
5. Schumacher, S. et al. (2004) *EMBO J.* 23, 4770-4779.
6. Seternes, O.M. et al. (2004) *EMBO J.* 23, 4780-4791.
7. Shi, Y. et al. (2003) *Mol. Cell Biol.* 23, 7732-7741.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **R:** Rat **Mk:** Monkey

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