

DUSP6/MKP3 Antibody

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	42	Rabbit	#Q16828	1848

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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

DUSP6/MKP3 Antibody recognizes endogenous levels of total DUSP6/MKP3 protein. This antibody also cross-reacts with an unidentified protein of 50 kDa in some cell extracts.

Species predicted to react based on 100% sequence homology

Mouse, Rat

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val372 of human DUSP6/MKP3 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

MAP kinases are inactivated by dual-specificity protein phosphatases (DUSPs) that differ in their substrate specificity, tissue distribution, inducibility by extracellular stimuli, and cellular localization. DUSPs, also known as MAPK phosphatases (MKPs), specifically dephosphorylate both threonine and tyrosine residues in MAPK P-loops and have been shown to play important roles in regulating the function of the MAPK family (1,2). At least 13 members of the family (DUSP1-10, DUSP14, DUSP16, and DUSP22) display unique substrate specificities for various MAP kinases (3). MAPK phosphatases typically contain an amino-terminal rhodanese-fold responsible for DUSP docking to MAPK family members and a carboxy-terminal catalytic domain (4). These phosphatases can play important roles in development, immune system function, stress responses, and metabolic homeostasis (5). In addition, research studies have implicated DUSPs in the development of cancer and the response of cancer cells to chemotherapy (6).

Background References

1. Camps, M. et al. (2000) *FASEB J* 14, 6-16.
2. Theodosiou, A. and Ashworth, A. (2002) *Genome Biol* 3, REVIEWS3009.
3. Salojin, K. and Oravec, T. (2007) *J Leukoc Biol* 81, 860-9.
4. Tanoue, T. et al. (2002) *J Biol Chem* 277, 22942-9.
5. Dickinson, R.J. and Keyse, S.M. (2006) *J Cell Sci* 119, 4607-15.
6. Wu, G.S. (2007) *Cancer Metastasis Rev* 26, 579-85.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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