

Anti-Phospho-Ser³¹¹, Thr³¹⁵ MEK5 Antibody



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888-442-7100

Catalog #: p183-3115

Size: 100 µl

Cite this Antibody: PhosphoSolutions Cat# p183-3115, RRID:AB_2492149

Host	Applications	Species Tested	Species Reactivity*	Molecular Weight
Rabbit	WB 1:1000	R	B, C, Ch, H, M, NHP, X, Z	~49 kDa

Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: MEK5 (also known as MKK5) is a dual specificity serine/threonine protein kinase belonging to the MAP kinase kinase family. MEK5 has been shown to specifically activate ERK5 (Zhou et al., 1995) whereas MEK5 itself is regulated by MEKK3 (Chao et al., 1999). An important link between MEK5 and metastatic prostate cancer has been demonstrated (Mehta et al., 2003). Dual phosphorylation of Ser³¹¹ and Thr³¹⁵ have been implicated in cell proliferation (Cameron et al., 2004).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser³¹¹, Thr³¹⁵ of rat MEK5.

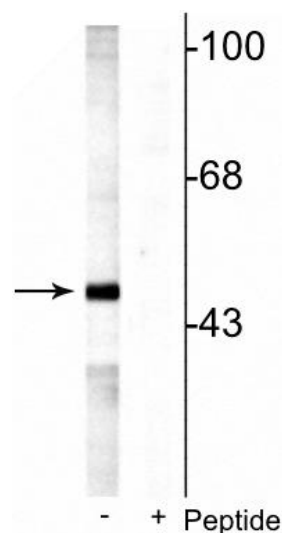
Antibody Specificity: Specific for endogenous levels of the ~49 kDa MEK5 protein phosphorylated at Ser³¹¹, Thr³¹⁵. Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

Storage and Stability: Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of rat testes lysate showing specific labeling of the ~49 kDa MEK5 protein in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is blocked by preadsorption of the phosphopeptide used as the antigen, but not by the corresponding non-phosphopeptide (not shown).

General References:

Zhou G, Bao ZQ, Dixon JE, (1995) Components of a new human protein kinase signal transduction pathway. *J. Biol. Chem.* 270(21):12665-9.

Chao TH, Hayashi M, Tapping RI, Kato Y, Lee JD (1999) MEKK3 directly regulates MEK5 activity as part of the big mitogen-activated protein kinase 1 (BMK1) signaling pathway. *J. Biol. Chem.* 274(51):36035-8.

Mehta PB, Jenkins BL, McCarthy L, Thilak L, Robson CN, Neal DE, Leung HY (2003) MEK5 overexpression is associated with metastatic prostate cancer, and stimulates proliferation, MMP-9 expression and invasion. *Oncogene* 22(9):1381-9.

Cameron SJ, Abe J, Malik S, Che W, Yang J (2004) Differential role of MEK5alpha and MEK5beta in BMK1/ERK5 activation. *J. Biol. Chem.* 279(2):1506-12.

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophila*
GP-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish

*Species assumed based on 100% homology with sequence used as antigen

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