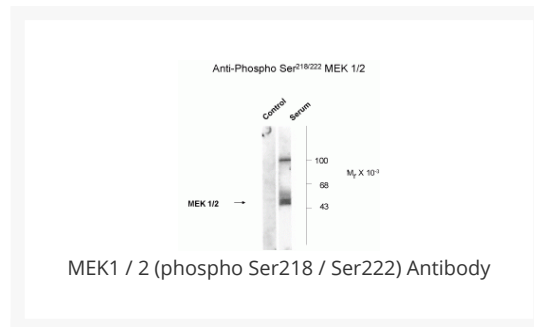




MEK1 / 2 (phospho Ser218 / Ser222) Antibody

Cat. No.: XPS-1018



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse, Rat, Xenopus
IMMUNOGEN:	MEK 1/2 (Ser218/222) polyclonal antibody was raised against a synthetic phosphopeptide corresponding to amino acids residues surrounding the phosphoSer218/222 of human MEK 1/2.
TESTED APPLICATIONS:	WB
APPLICATIONS:	The antibody immunolabels the ~45k MEK protein in a Western blot of serum-stimulated NIH 3T3 cells. The immunolabeling is blocked by the phosphopeptide used as antigen but not the corresponding non-phosphopeptide. Applications include Dot Blots (DB) and Western Blots (WB). Suitability for Immunohistochemistry (IHC) has not yet been determined. Human, mouse, rat and Xenopus have 100% amino acid sequence identity with the antigen used to raise the antibody. When internally tested under ideal conditions the working dilutions were 1:1000 for DB and WB.
SPECIFICITY:	MEK1/2 antibody is specific for MEK 1/2 phosphorylated at Ser218/222.
PREDICTED MOLECULAR WEIGHT:	45

Ψ Properties

PURIFICATION:	Affinity Purified
CLONALITY:	Polyclonal
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
STORAGE CONDITIONS:	For long term storage -80°C is recommended, but shorter term storage at -20°C is also acceptable as aliquots may be taken without freeze/thawing due to the presence of 50% glycerol. Stable for one year.

Additional Info

OFFICIAL SYMBOL:	MAP2K1
ACCESSION NO.:	Q02750
PROTEIN GI NO.:	400274
GENE ID:	5604
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Background and References

BACKGROUND:	MEK 1 and MEK 2 are integral components of the MAP kinase cascade that regulates cell growth and differentiation and this pathway also plays a key role in synaptic plasticity in brain. Activation of MEK 1/2 occurs via phosphorylation of two serine residues (Ser218 and Ser222). Activated MEK 1/2 then acts as a dual specificity kinase phosphorylating both a threonine and a tyrosine residue on ERK. This phosphorylation of ERK by MEK 1/2 is a critical step in the MAP kinase cascade.
REFERENCES:	1) N.G. Ahn, N.G., Robbins, D.G., Haycock, J.W., Seger, R., Cobb, M.H. and Krebs, E.G., "Identification of an activator of the microtubule-associated protein 2 kinases ERK1 and ERK2 in PC12 cells stimulated with nerve growth factor or bradykinin," J. Neurochem. 59 (1992) 147 - 156.
	2) Crews, C.M., Alessandrini, A. and Erikson, R.L., "The primary structure of MEK, a protein kinase that phosphorylates the ERK gene product," Science 258 (1992) 478 - 480.
	3) Ahn, N.G. "The MAP kinase cascade. Discovery of a new signal transduction pathway," Mol. Cell Biochem. 127 - 128 (1993) 201 - 209.
	4) Adams, J.P. and Sweatt, J.D., "Molecular psychology: Roles for the ERK MAP kinase cascade in memory," Annu. Rev. Pharmacol. Toxicol. 42 (2002) 135 - 163.

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