

#5029 Store at -20°C

MLK1 (D66E2) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M	Endogenous	120	Rabbit IgG	#P80192	4293

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
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	MLK1 (D66E2) Rabbit mAb detects endogenous levels of total MLK1 protein. The antibody also cross-reacts with a 45 kDa protein of unknown origin.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu1070 of human MLK1 protein.	
Background	Mixed-lineage kinases (MLKs) belong to the mitogen activated kinase kinase kinase (MAPKKK) family of dual-specificity protein kinases. While not particularly well conserved at the sequence level, MLK1, 2 and 3 share a conserved domain structure consisting of a catalytic core and two isoleucine/leucine zipper motifs among other protein-protein binding domains (1). MLK1 preferentially stimulates the JNK (c-Jun amino-terminal kinase) pathway in response to agonists and stress (2). Although multiple phosphorylation events are required for full activation of MLK1, two autophosphorylation sites within the activation loop (Ser308 and Thr312) appear to be the predominant activation residues (3). In neuronal cells, MLK1 appears to function downstream of the small G-proteins Rac1 and Cdc42 and upstream of MKK4 and MKK7 to promote apoptosis (2).	
Background References	1. Dorow, D.S. et al. (1993) <i>Eur J Biochem</i> 213, 701-10. 2. Xu, Z. et al. (2001) <i>Mol Cell Biol</i> 21, 4713-24. 3. Durkin, J.T. et al. (2004) <i>Biochemistry</i> 43, 16348-55.	

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	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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