

#77565 Store at -20°C

Cleaved RIP (Asp324) (D5P6D) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	30	Rabbit IgG	#Q13546	8737

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	Cleaved RIP (Asp324) (D5P6D) Rabbit mAb recognizes endogenous levels of the amino-terminal end of RIP protein only when cleaved at Asp324.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp324 of human RIP protein.	
Background	<p>The receptor-interacting protein (RIP) family of serine-threonine kinases (RIP, RIP2, RIP3, and RIP4) are important regulators of cellular stress that trigger pro-survival and inflammatory responses through the activation of NF-κB, as well as pro-apoptotic pathways (1). In addition to the kinase domain, RIP contains a death domain responsible for interaction with the death domain receptor Fas and recruitment to TNF-R1 through interaction with TRADD (2,3). RIP-deficient cells show a failure in TNF-mediated NF-κB activation, making the cells more sensitive to apoptosis (4,5). RIP also interacts with TNF-receptor-associated factors (TRAFs) and can recruit IKKs to the TNF-R1 signaling complex via interaction with NEMO, leading to IκB phosphorylation and degradation (6,7). Overexpression of RIP induces both NF-κB activation and apoptosis (2,3). Caspase-8-dependent cleavage of the RIP death domain can trigger the apoptotic activity of RIP (8).</p> <p>Necroptosis, a regulated pathway for necrotic cell death, is triggered by a number of inflammatory signals, including cytokines in the tumor necrosis factor (TNF) family, pathogen sensors such as toll-like receptors (TLRs), and ischemic injury (9,10). The process is negatively regulated by caspases and is initiated through a complex containing the RIP and RIP3 kinases, typically referred to as the necrosome. Necroptosis is inhibited by a small molecule inhibitor of RIP, necrostatin-1 (Nec-1) (11). Research studies show that necroptosis contributes to a number of pathological conditions, and Nec-1 has been shown to provide neuroprotection in models such as ischemic brain injury (12). RIP is phosphorylated at several sites within the kinase domain that are sensitive to Nec-1, including Ser14, Ser15, Ser161, and Ser166 (13).</p>	
Background References	<ol style="list-style-type: none"> 1. Meylan, E. and Tschopp, J. (2005) <i>Trends Biochem Sci</i> 30, 151-9. 2. Hsu, H. et al. (1996) <i>Immunity</i> 4, 387-96. 3. Stanger, B.Z. et al. (1995) <i>Cell</i> 81, 513-23. 4. Ting, A.T. et al. (1996) <i>EMBO J</i> 15, 6189-96. 5. Kelliher, M.A. et al. (1998) <i>Immunity</i> 8, 297-303. 6. Devin, A. et al. (2000) <i>Immunity</i> 12, 419-29. 7. Zhang, S.Q. et al. (2000) <i>Immunity</i> 12, 301-11. 8. Lin, Y. et al. (1999) <i>Genes Dev</i> 13, 2514-26. 9. Christofferson, D.E. and Yuan, J. (2010) <i>Curr Opin Cell Biol</i> 22, 263-8. 10. Kaczmarek, A. et al. (2013) <i>Immunity</i> 38, 209-23. 11. Degterev, A. et al. (2008) <i>Nat Chem Biol</i> 4, 313-21. 12. Degterev, A. et al. (2005) <i>Nat Chem Biol</i> 1, 112-9. 13. Ofengeim, D. and Yuan, J. (2013) <i>Nat Rev Mol Cell Biol</i> 14, 727-36. 	

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**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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