

#4312 Store at -20°C

p47phox Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H	Endogenous	47	Rabbit	#P14598	653361

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 and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	p47phox Antibody detects endogenous levels of total p47phox protein.	
Species predicted to react based on 100% sequence homology:	Monkey	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg292 of human p47phox. Antibodies are purified by peptide affinity chromatography	
Background	The phagocytic NADPH oxidase is a multiprotein enzyme that catalyzes the reduction of oxygen to superoxide in response to pathogenic invasion. The NADPH oxidase consists of 6 subunits, including the membrane-bound p91 phox and p22 phox heterodimers (also known as cytochrome b558), the cytosolic complex of p40phox, p47phox and p67phox, and the small GTPase Rac2. Activation of NADPH oxidase is initiated by cytosolic complex phosphorylation, which induces a conformational change that leads to the translocation of the cytosolic complex to the membrane and formation of an active enzyme with cytochrome b558 (1). Defects in p47phox, often resulting from recombination between p47phox and a nearby homologous pseudogene, cause chronic granulomatous disease (2-4). Elevated oxidative stress due to increased myocardial NADPH oxidase activity may be a contributing factor in heart failure (5,6).	
Background References	1. Babior, B.M. (1999) <i>Blood</i> 93, 1464-76. 2. Noack, D. et al. (2001) <i>Blood</i> 97, 305-11. 3. Görlach, A. et al. (1997) <i>J Clin Invest</i> 100, 1907-18. 4. Chanock, S.J. et al. (2000) <i>Blood Cells Mol Dis</i> 26, 37-46. 5. Heymes, C. et al. (2003) <i>J Am Coll Cardiol</i> 41, 2164-71. 6. Doerries, C. et al. (2007) <i>Circ Res</i> 100, 894-903.	

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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