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Store at -20C
#2766

PKR (N216) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 74	Source/Isotype: Rabbit	UniProt ID: #P19525	Entrez-Gene Id: 5610
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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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.	
Specificity/Sensitivity	PKR (N216) Antibody detects endogenous levels of total PKR protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human PKR. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	Protein kinase R (PKR) is transcriptionally induced by interferon and activated by double-stranded RNA (dsRNA). PKR inhibits translation initiation through phosphorylation of the α subunit of the initiation factor eIF2 (eIF2 α) and also controls the activation of several transcription factors, such as NF- κ B, p53, and the Stats. In addition, PKR mediates apoptosis induced by many different stimuli, such as LPS, TNF- α , viral infection, and serum starvation (1,2). Activation of PKR by dsRNA results in PKR dimerization and autophosphorylation of Thr446 and Thr451 in the activation loop. Substitution of threonine for alanine at position 451 completely inactivated PKR, while a mutant with a threonine to alanine substitution at position 446 was partially active (3). Research studies have implicated PKR activation in the pathologies of neurodegenerative diseases, including Alzheimer's disease (4,5).	
Background References	<ol style="list-style-type: none"> Williams, B.R. (1999) <i>Oncogene</i> 18, 6112-6120. Gil, J. and Esteban, M. (2000) <i>Apoptosis</i> 5, 107-114. Romano, P. R. et al. (1998) <i>Mol. Cell. Biol.</i> 18, 2282-2297. Peel, A.L. and Bredesen, D.E. (2003) <i>Neurobiol Dis</i> 14, 52-62. Peel, A.L. (2004) <i>J Neuropathol Exp Neurol</i> 63, 97-105. 	

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	W: Western Blotting
Cross-Reactivity Key	H: Human
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