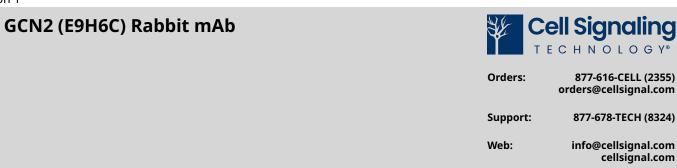
Store at -20C





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Applications: W, IP	Reactivity: H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 220	<b>Source/Isotype:</b> Rabbit IgG	UniProt ID: #Q9P2K8	<b>Entrez-Gene Id:</b> 440275
Product Usage Information		<b>Application</b> Western Blotting Immunoprecipitation			<b>Dilution</b> 1:1000 1:100	
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		GCN2 (E9H6C) Rabbit mAb recognizes endogenous levels of total GCN2 protein.				
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro217 of human GCN2 protein.				
Background	Background Phosphorylation of the eukaryotic initiation factor 2 (eIF2) alpha subunit is a well-documented mechanism of downregulating protein synthesis under a variety of stress conditions. Kinases activ by viral infection (PKR), endoplasmic reticulum stress (PERK/PEK), amino acid deprivation (GCN2), a hemin deficiency (HRI) can phosphorylate the eIF2 alpha subunit (1,2). GCN2 is also required for UN light-induced translation inhibition, and <i>in vivo</i> phosphorylation of murine GCN2 at Thr898 is induced by both UV irradiation and by leucine deprivation (3). UV-induced activation of NF-κB also requires GCN2, which may act simply by preventing translation of IκB-alpha to replace pools that have beer ubiquitinated and degraded (4). Interestingly, proteasome inhibitors (MG132 and ALLN) activate the GCN2/eIF2alpha pathway, suggesting a pivotal role for this kinase in stress response and ubiquitim mediated signaling (5). <i>In vitro</i> autophosphorylation of yeast GCN2 within its activation loop at Thr and Thr887 (Thr898 and Thr903 in mouse) has also been reported (6).					. Kinases activated ation (GCN2), and required for UV Fhr898 is induced also requires that have been LN) activate the and ubiquitin-
Background References		<ol> <li>Kaufman, R.J. (1999) <i>Genes Dev</i> 13, 1211-33.</li> <li>Sheikh, M.S. and Fornace, A.J. (1999) <i>Oncogene</i> 18, 6121-8.</li> <li>Deng, J. et al. (2002) <i>Curr Biol</i> 12, 1279-86.</li> <li>Jiang, H.Y. and Wek, R.C. (2005) <i>Biochem J</i> 385, 371-80.</li> <li>Jiang, H.Y. and Wek, R.C. (2005) <i>J Biol Chem</i> 280, 14189-202.</li> <li>Garcia-Barrio, M. et al. (2002) <i>J Biol Chem</i> 277, 30675-83.</li> </ol>				
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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.				
Applications K	ey	W: Western Blotting IP	: Immunoprecipita	ation		
Cross-Reactivit	су Кеу	H: Human				
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