#14649

DNA Ligase IV (D5N5N) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:		
		Endogenous	100	Rabbit Igo	#145517			
Product Usage		Application			Dilution			
Information		Western Blotting			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. <i>Do not aliquot the antibody.</i>						
Specificity/Sensitivity		DNA Ligase IV (D5N5N) Rabbit mAb recognizes endogenous levels of total DNA ligase IV protein.						
Source / Purification Monoclonal antibody is produced by immunizing animals with a syr residues surrounding Leu771 of human DNA ligase IV protein.		ynthetic peptide co	rresponding to					
Background	ckgroundDNA double-strand breaks (DSBs) are potentially hazardous lesions that can be induced by ic radiation (IR), radiomimetic chemicals, or DNA replication inhibitors. Cells detect and repair I through two distinct but partly overlapping signaling pathways, nonhomologous end joining and homologous recombination (HR). DNA repair through the HR pathway is restricted to S a 					ed by ionizing repair DSBs I joining (NHEJ) ed to S and G2 both pathways s the Ku promotes the		
		ligation of DNA strands free DNA ends is the fi XRCC4 proteins form c studies indicate that lo regulated by DNA ligas syndrome, a disorder c isolated from patients aberrant rejoining of D	s by DNA ligase IV a nal step in the NHE omplexes that brid ocalization of XRCC4 se IV (4). Mutations characterized by im diagnosed with LIC DNA double strand	and the ligase cofactor X J repair pathway (2). Res ge DNA breaks earlier in to the nucleus and leve in the corresponding <i>LI</i> munodeficiency and dev 4 syndrome display typ breaks (5,6).	RCC4. The ATP-depa search studies sugg the NHEJ pathway ls of XRCC4 protein <i>G4</i> gene are associa velopmental growth ical cell cycle checkp	endent ligation of est that XLF and (3). Additional are both ited with LIG4 i delay. Cells point activity, but		
Background Re	ferences	1. Hartlerode, A.J. and 2. Tsai, C.J. et al. (2007) 3. Andres, S.N. et al. (2 4. Francis, D.B. et al. (2 5. O'Driscoll, M. et al. (6. O'Driscoll, M. et al. (Scully, R. (2009) <i>Bic</i>) <i>Proc Natl Acad Sci</i> 012) <i>Nucleic Acids</i> 014) <i>DNA Repair (A</i> 2001) <i>Mol Cell</i> 8, 11 2004) <i>DNA Repair (</i>	ochem J 423, 157-68. U S A 104, 7851-6. Res 40, 1868-78. Imst) 21, 36-42. 75-85. Amst) 3, 1227-35.				
Species Reactiv	vity	Species reactivity is de	termined by testing	g in at least one approve	d application (e.g., v	western blot).		
Western Blot B	uffer	IMPORTANT: For weste TBS, 0.1% Tween® 20 a	ern blots, incubate at 4°C with gentle s	ncubate membrane with diluted primary antibody in 5% w/v BSA, 1X gentle shaking, overnight.				
Applications Ke	ey	W: Western Blotting						
Cross-Reactivit	у Кеу	H: Human						
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