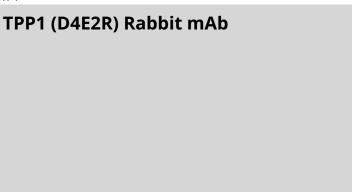
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Applications: W, IP	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 58	Source/Isotype: Rabbit IgG	UniProt ID: #Q96AP0	Entrez-Gene Id: 65057		
Product Usage Information		Application Western Blotting Immunoprecipitation			Dilution 1:1000 1:50			
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. <i>Do not aliquot the antibody.</i>				ol and less than		
Specificity/Sensitivity		TPP1 (D4E2R) Rabbit mAb recognizes endogenous levels of total TPP1 protein.						
Source / Purification		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu169 of human TPP1 protein.						
Background		TPP1 is encoded by the the <i>ACD</i> gene, and is one of six core proteins of the shelterin complex (TRF1, TRF2, Rap1, TIN2, POT1 and TPP1) that regulates telomere length and integrity. This nuclear protein complex localizes to telomeres, and protects the natural ends of chromosomes from inappropriate processing by DNA repair pathways (1). TPP1 was identified in screens for proteins that bind TIN2, which is considered to be the central component of the shelterin complex (1). TPP1 contains two protein-protein interaction domains that facilitate shelterin complex function: a carboxy-terminal TIN2-binding domain and a more central POT1-binding domain. Heterodimerization of TPP1 with POT1 promotes binding to single-stranded telomeric DNA, which facilitates telomere elongation and protection by the shelterin complex. The TPP1 protein also contains a TEL patch, a collection of surface amino acids that recruits telomerase and modulates its processivity (2). In addition to playing an important role in normal development (3), TPP1 is implicated in the etiology of selected diseases. For example, mutations in <i>ACD</i> that alter the composition of the TEL patch have been linked to Hoyeraal-Hreidarsson syndrome, a clinically severe form of dyskeratosis congenita characterized by hematopoietic stem cell dysfunction, bone marrow failure, and a predisposition to cancer (4,5).						
Background Re	ferences	1. de Lange, T. (2005) <i>Genes Dev</i> 19, 2100-10. 2. Nandakumar, J. et al. (2012) <i>Nature</i> 492, 285-9. 3. Tejera, A.M. et al. (2010) <i>Dev Cell</i> 18, 775-89. 4. Kocak, H. et al. (2014) <i>Genes Dev</i> 28, 2090-102. 5. Guo, Y. et al. (2014) <i>Blood</i> 124, 2767-2774.						
Species Reactiv	vity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).			western blot).			
Western Blot B	uffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfa dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.		n 5% w/v nonfat				
Applications Ke	ey (W: Western Blotting IP: Immunoprecipitation						
Cross-Reactivit	у Кеу	H: Human Mk: Monkey						
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