

**XRN1 Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IP	H Mk	Endogenous	200	Rabbit
<b>Product Usage Information</b>	<b>Application</b>			<b>Dilution</b>
	Western Blotting			1:1000
	Immunoprecipitation			1:200
<b>Storage</b>	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.			
<b>Specificity/Sensitivity</b>	XRN1 Antibody recognizes endogenous levels of total XRN1 protein.			
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala1696 of human XRN1 protein. Antibodies are purified by protein A and peptide affinity chromatography.			
<b>Background</b>	5'-3' exoribonuclease 1 (XRN1) is a cytoplasmic exonuclease that degrades RNA containing a 5'-monophosphate to component mononucleotides. XRN1 is the primary exonuclease associated with ribosomes in the cytoplasm and is responsible for mRNA turnover (1,2). This turnover is facilitated in discrete structures in the cytoplasm called P-bodies that contain decapping and deadenylation proteins (3). XRN1 also plays a role in RISC-mediated mRNA degradation, as it associates with 3' mRNA fragments generated by RISC cleavage. This process does not require uncapping or deadenylation (4). XRN1 plays a significant role in viral RNA degradation (5). As such, many viral genomes, including hepatitis C, Dengue, and West Nile, encode for XRN1-resistant long non-coding RNA that affect innate immunity and viral replication (6).			
<b>Background References</b>	<ol style="list-style-type: none"> <li>1. Brown, J.T. et al. (2000) <i>Genetics</i> 155, 31-42.</li> <li>2. Long, R.M. and McNally, M.T. (2003) <i>Mol Cell</i> 11, 1126-8.</li> <li>3. Cougot, N. et al. (2004) <i>J Cell Biol</i> 165, 31-40.</li> <li>4. Orban, T.I. and Izaurralde, E. (2005) <i>RNA</i> 11, 459-69.</li> <li>5. Cheng, C.P. et al. (2006) <i>J Virol</i> 80, 2631-40.</li> <li>6. Charley, P.A. and Wilusz, J. (2016) <i>Virus Res</i> 212, 70-7.</li> </ol>			
<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).			
<b>Western Blot Buffer</b>	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.			
<b>Applications Key</b>	<b>W:</b> Western Blotting <b>IP:</b> Immunoprecipitation			
<b>Cross-Reactivity Key</b>	<b>H:</b> Human <b>Mk:</b> Monkey			
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