

**#5942** Store at -20°C

## TDRD3 (D3O2G) Rabbit mAb


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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	83	Rabbit IgG	#Q9H7E2	81550

<b>Product Usage Information</b>	<b>Application</b> Western Blotting Immunoprecipitation	<b>Dilution</b> 1:1000 1:50
<b>Storage</b>	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.	
<b>Specificity / Sensitivity</b>	TDRD3 (D3O2G) Rabbit mAb recognizes endogenous levels of total TDRD3 protein.	
<b>Source / Purification</b>	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human TDRD3 protein.	
<b>Background</b>	Tudor domain-containing protein 3 (TDRD3) contains a tudor domain through which it binds to asymmetric di-methyl histone H3 (Arg17) and asymmetric di-methyl histone H4 (Arg3). Both of these histone marks are associated with transcription activation (1,2). TDRD3 is targeted to estrogen responsive genes where it performs as a coactivator (1). TDRD3 acts as a scaffolding protein to recruit Topoisomerase III B (TOP3B) to target genes to reduce transcription-generated R loops by relaxing negatively supercoiled DNA thereby reducing genomic instability (3). In addition to the nucleus, TDRD3 also resides in the cytoplasm where it associates with actively translating polyribosomes and accumulates into stress granules upon exposure to stress, implicating its role in post-transcriptional regulation of RNA (2,4).	
<b>Background References</b>	1. Yang, Y. et al. (2010) <i>Mol Cell</i> 40, 1016-23. 2. Goulet, I. et al. (2008) <i>Hum Mol Genet</i> 17, 3055-74. 3. Yang, Y. et al. (2014) <i>Mol Cell</i> 53, 484-97. 4. Linder, B. et al. (2008) <i>Hum Mol Genet</i> 17, 3236-46.	

<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>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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