

**TREX1 (D8E2O) Rabbit mAb**

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<b>Applications:</b> W, IP	<b>Reactivity:</b> H	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 33	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q9NSU2	<b>Entrez-Gene Id:</b> 11277
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**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:200

**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**

TREX1 (D8E2O) Rabbit mAb recognizes endogenous levels of total TREX1 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro298 of human TREX1 protein.

**Background**

TREX1 is a broadly expressed 3' to 5' exonuclease that acts on single-stranded DNA (ssDNA) to negatively regulate the interferon-stimulatory DNA (ISD) response (1-4). In humans, there are three TREX1 isoforms generated through alternative splicing with predicted molecular weights of 32, 33, and 39 kDa (2). The transcript for the 33 kDa isoform is the most abundant (2). Mice deficient in TREX1 accumulate intracellular ssDNA, which triggers the ISD response and eventually lethal autoimmunity (3,4). Mutations in TREX1 are associated with autoimmune diseases including Aicardi-Goutieres syndrome and systemic lupus erythematosus (5,6). In addition, TREX1 prevents the cell-intrinsic innate immune response to human immunodeficiency virus (HIV) by digesting excess HIV DNA that would normally trigger induction of type I interferon (7).

**Background References**

1. Mazur, D.J. and Perrino, F.W. (1999) *J Biol Chem* 274, 19655-60.
2. Mazur, D.J. and Perrino, F.W. (2001) *J Biol Chem* 276, 14718-27.
3. Yang, Y.G. et al. (2007) *Cell* 131, 873-86.
4. Stetson, D.B. et al. (2008) *Cell* 134, 587-98.
5. Crow, Y.J. et al. (2006) *Nat Genet* 38, 917-20.
6. Lee-Kirsch, M.A. et al. (2007) *Nat Genet* 39, 1065-7.
7. Yan, N. et al. (2010) *Nat Immunol* 11, 1005-13.

**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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human

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