Technical Data Sheet

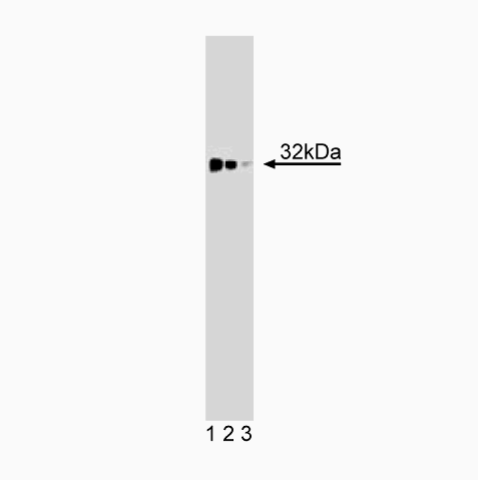
Purified Mouse Anti-Mouse TREX1

Product Information

Material Number:	**611986**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	29/TREX1
Immunogen:	Mouse TREX1 aa. 82-179
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse
Target MW:	32 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

DNA replication, repair, and recombination requires the excision of nucleotides from the DNA 3' termini. Many 3' to 5' exonucleases have been identified which catalyze the excision of monophosphates from the 3' termini of DNA. TREX1 and TREX2 are 3' to 5' exonucleases that contain three conserved exonuclease active site motifs (EASM) that may produce exonuclease activity. TREX1 and TREX2 are most closely related to the proofreading exonucleases of the bacterial replicative DNA polymerases and the RNase T enzymes. Recombinant expression of TREX1 and TREX2 demonstrates that they have exonuclease activity when oligonucleotide is present. TREX1 shows the greatest exonuclease activity with partial duplex DNA, and no activity with single-stranded RNA or an RNA-DNA partial duplex. In addition, reconstitution of TREX1 with DNA polymerase β and DNA ligase III-XRCC1 facilitates accurate rejoining of a 3' mismatched base residue at a single-strand break. Thus, TREX1 and TREX2 are 3' to 5' exonucleases that may be important for excision of nucleotides during DNA replication, repair, and recombination.



Western blot analysis of TREX1 on a BC3H1 cell lysate (Mouse brain smooth muscle-like cells; ATCC CRL-1443). *Lane 1: 1:2500, lane 2: 1:5000, lane 3: 1: 10,000 dilution of the mouse anti-mouse TREX1 antibody.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Hoss M, Robins P, Naven TJ, Pappin DJ, Sgouros J, Lindahl T. A human DNA editing enzyme homologous to the Escherichia coli DnaQ/MutD protein. *EMBO J.* 1999; 18(13):3868-3875.(Biology)

Mazur DJ, Perrino FW. Identification and expression of the TREX1 and TREX2 cDNA sequences encoding mammalian 3'-->5' exonucleases. *J Biol Chem.* 1999; 274(28):19655-19660.(Biology)