Revision 1

TRRAP (P2032) Antibody

#3967 Store at -20C

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M Mk	Endogenous	434	Rabbit	#Q9Y4A5	8295

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

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.

Specificity/Sensitivity

TRRAP (P2032) Antibody detects endogenous levels of total TRRAP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the human TRRAP protein. Antibodies are purified by peptide affinity chromatography.

Background

Transformation/transcription domain-associated protein (TRRAP) is a highly conserved 434 kDa protein found in various multiprotein complexes, such as SAGA, PCAF, NuA4 and TIP60, which contain histone acetyltransferase (HAT) activity (1-4). TRRAP functions as an adaptor protein by binding directly to the transactivation domains of transcriptional activator proteins and facilitating the recruitment of HAT complexes to acetylate histone proteins and activate transcription (1-5). TRRAP is required for the transcriptional activation and cell transformation activities of c-Myc, E2F1, E2F4, p53 and the adenovirus E1A proteins (1,6,7). TRRAP is also essential in early development and is required at the mitotic checkpoint and for normal cell cycle progression (8,9). In addition, TRRAP has been shown to function in DNA repair. As part of the TIP60 complex, TRRAP is required for the acetylation of histone H4 at double-stranded DNA breaks and subsequent DNA repair by homologous recombination (10). In addition, TRRAP associates with the MRN (MRE11, RAD50, NBS1) complex, which lacks intrinsic HAT activity yet functions in the sensing and subsequent repair of double-stranded breaks by non-homologous DNA end-joining (11). TRRAP shows significant homology to the PI-3 kinase domain of the ATM family of kinases; however, amino acids that map to the catalytic site of the kinase domain are not conserved in TRRAP (1).

Background References

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3. Ikura, T. et al. (2000) *Cell* 102, 463-473.
4. Allard, S. et al. (1999) *EMBO J.* 18, 5108-5119.
5. McMahon, S.B. et al. (2000) *Mol. Cell. Biol.* 20, 556-562.
6. Deleu, L. et al. (2001) *Oncogene* 20, 8270-8275.
7. Ard, P.G. et al. (2002) *Mol. Cell. Biol.* 22, 5650-5661.
8. Herceg, Z. et al. (2001) *Nat. Genet.* 29, 206-211.
9. Li, H. et al. (2004) *EMBO J.* 23, 4824-4834.
10. Murr, R. et al. (2006) *Nat. Cell Biol.* 8, 91-99.
11. Robert, F. et al. (2006) *Mol. Cell. Biol.* 26, 402-412.

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

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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