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TP1 Antibody

Catalog # ASC10123

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q99973
Other Accession	AAC51107, 1848277
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	290490
Conjugate	Unconjugated
Application Notes	TP1 antibody can be used for detection of TP1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	7011
Other Names	TP1 Antibody: TP1, TLP1, p240, TROVE1, VAULT2, TP1, Telomerase protein component 1, Telomerase-associated protein 1, Telomerase protein 1, telomerase-associated protein 1
Target/Specificity	TEP1;
Reconstitution & Storage	TP1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	TP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TEP1
Synonyms	TLP1, TP1
Function	Component of the telomerase ribonucleoprotein complex that is essential for the replication of chromosome termini (PubMed:19179534). Also a component of the ribonucleoprotein vaults particle, a multi- subunit structure involved in nucleo-cytoplasmic transport (By similarity). Responsible for the localizing and stabilizing vault RNA (vRNA) association in the vault ribonucleoprotein particle. Binds to TERC (By similarity).

Cellular Location	Nucleus. Chromosome, telomere.
Tissue Location	Ubiquitous..

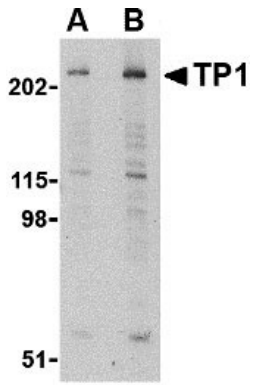
Background

TP1 Antibody: Telomerase is an RNA-dependent DNA polymerase that uses an RNA component to add telomeric repeat sequences at the ends of chromosomes. Besides the RNA component which serves as the template that specifies the telomeric repeat, the telomerase complex contains a reverse transcriptase protein (TRT) and various accessory proteins including the telomerase-associated protein 1 (TP1). Telomerase activity is low in most somatic cells, causing the gradual shortening of telomeres which can ultimately lead to telomere fusion and cell death. High levels of telomerase activity are widely seen in cancerous cells and while recent experiments have suggested that telomerase may be a viable target in cancer therapy, expression levels of TP1 do not correlate with malignancy. At least two isoforms of TP1 are known to exist.

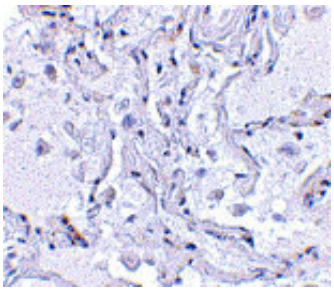
References

Greider CW. Telomere length regulation. Annu. Rev. Biochem.1996; 274:92-7.
Cong YS, Wright WE, and Shay JW. Human telomerase and its regulation. Microbiol. Mol. Biol. Rev.2002; 66:407-25.
Harrington L, McPhail T, Mar V, et al. A mammalian telomerase-associated protein. Science1997; 275:973-7.
Wong JMY and Collins K. Telomere maintenance and disease. Lancet2003; 362:983-8.

Images

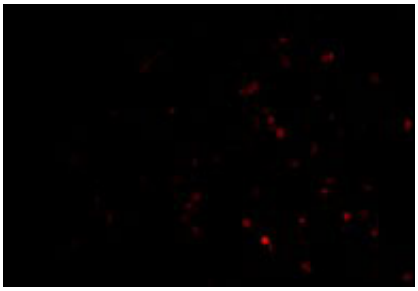


Western blot analysis of TP1 in human kidney tissue lysate with TP1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemical staining of human lung tissue using TP1 antibody at 2.5 µg/mL.

Immunofluorescence of TP-1 in Human Lung cells with TP-1 antibody at 20 µg/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.