

Anti-POT1 Picoband Antibody

Catalog # ABO12466

Product Information

Application	WB
Primary Accession	Q9NUX5
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Protection of telomeres protein 1(POT1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	25913
Other Names	Protection of telomeres protein 1, hPot1, POT1-like telomere end-binding protein, POT1
Calculated MW	71442
Application Details	Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Nucleus . Chromosome, telomere . Colocalizes with telomeric DNA.
Tissue Specificity	Ubiquitous. .
Source	Eukaryota
Protein Name	Protection of telomeres protein 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human POT1 (195-234aa RVLIQDLVLEGDLSHIHLQNLTIDILVYDNHVVHVARSLK), different from the related mouse sequence by eleven amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	POT1
Function	Component of the telomerase ribonucleoprotein (RNP) complex that is essential for the replication of chromosome termini. Is a component of the double-stranded telomeric DNA-binding TRF1 complex which is involved in the regulation of telomere length by cis- inhibition of telomerase. Also acts as a single-stranded telomeric DNA- binding protein and thus may act as a downstream effector of the TRF1 complex and may transduce information about telomere maintenance and/or length to the telomere terminus. Component of the shelterin complex (telosome) that is involved in the regulation of telomere length and protection. Shelterin associates with arrays of double-stranded TTAGGG repeats added by telomerase and protects chromosome ends; without its protective activity, telomeres are no longer hidden from the DNA damage surveillance and chromosome ends are inappropriately processed by DNA repair pathways. Binds to two or more telomeric single-stranded 5'- TTAGGG-3' repeats (G-strand) and with high specificity to a minimal telomeric single-stranded 5'-TAGGGTTAG-3' sequence. Binds telomeric single-stranded sequences internally or at proximity of a 3'-end. Its activity is TERT dependent but it does not increase TERT activity by itself. In contrast, the ACD-POT1 heterodimer enhances telomere elongation by increasing telomerase processivity.
Cellular Location	Nucleus. Chromosome, telomere. Note=Colocalizes with telomeric DNA
Tissue Location	Ubiquitous.

Background

Protection of telomeres protein 1 is a protein that in humans is encoded by the POT1 gene. This gene is a member of the telombin family and encodes a nuclear protein involved in telomere maintenance. Specifically, this protein functions as a member of a multi-protein complex that binds to the TTAGGG repeats of telomeres, regulating telomere length and protecting chromosome ends from illegitimate recombination, catastrophic chromosome instability, and abnormal chromosome segregation. Increased transcriptional expression of this gene is associated with stomach carcinogenesis and its progression. Alternatively spliced transcript variants have been described.

Images



Anti- POT1 Picoband antibody, ABO12466, Western blotting
All lanes: Anti POT1 (ABO12466) at 0.5ug/mL
Lane 1: A431 Whole Cell Lysate at 40ug
Lane 2: HELA Whole Cell Lysate at 40ug
Lane 3: A549 Whole Cell Lysate at 40ug
Predicted bind size: 60KD
Observed bind size: 60KD