

POT1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP58471

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q91WC1
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	70863
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse POT1
Epitope Specificity	551-640/640
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the telombin family.
SUBUNIT	Homodimer or homooligomer. Component of the shelterin complex (telosome) composed of TERF1, TERF2, TINF2, TERF2IP, ACD and POT1. Binds single-stranded telomeric DNA as a monomer. Component of the telomerase holoenzyme complex at least composed of TERT, DKC1, WRAP53/TCAB1, NOP10, NHP2, GAR1, TEP1, EST1A, POT1 and a telomerase RNA template component (TERC). Found in a complex with TERF1, TINF2 and TNKS1. Interacts with TNKS1. Forms heterodimers with ACD. Identified in a complex with ACD and single-stranded telomeric DNA.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. [provided by RefSeq, Jul 2008].

Additional Information

Gene ID	101185
Other Names	Protection of telomeres protein 1, mPot1, POT1-like telomere end-binding protein, Pot1, Pot1a
Target/Specificity	Ubiquitous.

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Pot1
Synonyms	Pot1a
Function	<p>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 similarity).</p>
Cellular Location	Nucleus. Chromosome, telomere. Note=Colocalizes with telomeric DNA.

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