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# POT1 Rabbit pAb

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Catalog # AP58471

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | Q91WC1 |
| **Predicted** | Rat, Pig, Human, Mouse, Horse |
| **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. |
| **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

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| **Gene ID** | 101185 |
| **Other Names** | Protection of telomeres protein 1, mPot1, POT1-like telomere end-binding protein, Pot1, Pot1a |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **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

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| **Name** | Pot1 |
| **Synonyms** | Pot1a |
| **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 similarity). |
| **Cellular Location** | Nucleus. Chromosome, telomere. Note=Colocalizes with telomeric DNA. |

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