Product Name: Exo1 Rabbit Polyclonal Antibody
Catalog #: APRab10656

Summary

Production Name	Exo1 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IF-P,IF-F,ICC/IF,ELISA
Reactivity	Human,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	EXO1
Alternative Names	EXO1; EXOI; HEX1; Exonuclease 1; hExo1; Exonuclease I; hExoI
Gene ID	9156.0
SwissProt ID	Q9UQ84.The antiserum was produced against synthesized peptide derived from human EXO1. AA range:61-110

Application

Dilution Ratio	WB 1:500-1:2000, IF-P/IF-F/ICC/IF 1:200-1:1000, ELISA 1:10000.Not yet tested in other applications.
Molecular Weight	94kDa

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Background

This gene encodes a protein with 5' to 3' exonuclease activity as well as an RNase H activity. It is similar to the Saccharomyces cerevisiae protein Exo1 which interacts with Msh2 and which is involved in mismatch repair and recombination. Alternative splicing of this gene results in three transcript variants encoding two different isoforms. [provided by RefSeq, Jul 2008],cofactor:Binds 2 magnesium ions per subunit. They probably participate in the reaction catalyzed by the enzyme. May bind an additional third magnesium ion after substrate binding.,developmental stage:Highly expressed in fetal liver and at lower levels in fetal brain, heart, kidney, spleen and thymus.,function:5'->3' double-stranded DNA exonuclease which may also possess a cryptic 3'->5' double-stranded DNA exonuclease activity. Functions in DNA mismatch repair (MMR) to excise mismatch-containing DNA tracts directed by strand breaks located either 5' or 3' to the mismatch. Also exhibits endonuclease activity against 5'-overhanging flap structures similar to those generated by displacement synthesis when DNA polymerase encounters the 5'-end of a downstream Okazaki fragment. Required for somatic hypermutation (SHM) and class switch recombination (CSR) of immunoglobulin genes. Essential for male and female meiosis.,polymorphism:Most naturally occurring variants in this protein are not associated with familial disposition to hereditary non-polyposis colorectal cancer (HNPCC). Furthermore, germline deletions involving this locus are not associated with clinically manifested colorectal tumors.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the XPG/RAD2 endonuclease family. EXO1 subfamily.,subcellular location:Colocalizes with PCNA to discrete nuclear foci in S-phase.,subunit:Interacts with the MLH1-PMS2 heterodimer via MLH1. Interacts with MSH3. Interacts with the MSH2-MSH6 heterodimer via MSH2, and this interaction may increase the processivity of the 5'->3' exonuclease activity. Interacts with PCNA, and this interaction may both stimulate the cryptic 3'->5' exonuclease activity and suppress the 5'->3' exonuclease activity. Interacts with WRN, and this interaction stimulates both the 5'->3' exonuclease activity and cleavage of 5'-overhanging flap structures. Interacts with RECQL/RECQ1, and this interaction stimulates cleavage of 5'-overhanging flap structures.,tissue specificity:Highly expressed in bone marrow, testis and thymus. Expressed at lower levels in colon, lymph nodes, ovary, placenta, prostate, small intestine, spleen and stomach.,

Research Area

Mismatch repair;

Image Data

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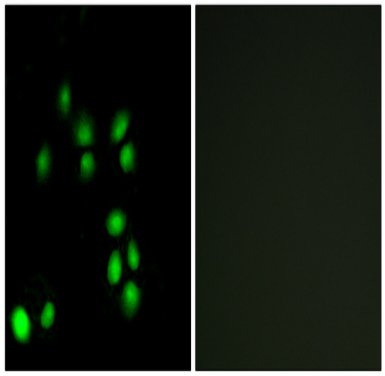
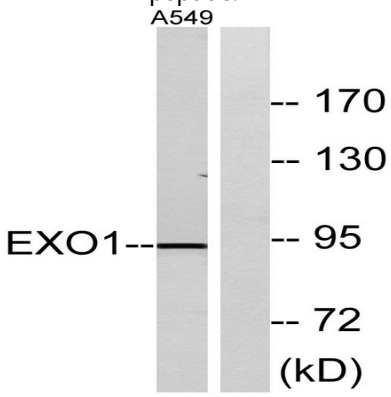
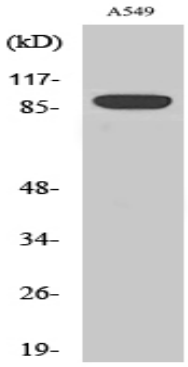


Immunofluorescence analysis of A549 cells, using EXO1 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from A549 cells, using EXO1 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using Exo1 Polyclonal Antibody cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).

Note

For research use only.