Anti-EXO1 (exonuclease 1) Polyclonal Antibody

Cat. #: 60B184

Description:
EXO1 (exonuclease 1) is a 5'->3' double-stranded DNA exonuclease which may also possess a cryptic 3'->5' double-stranded DNA exonuclease activity. EXO1 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. EXO1 is required for somatic hypermutation (SHM) and class switch recombination (CSR) of immunoglobulin genes. It is essential for male and female meiosis. EXO1 interacts with the MLH1-PMS2 heterodimer via MLH1. It interacts with MSH3 and with the MSH2-MSH6 heterodimer via MSH2, and this interaction may increase the processivity of the 5'->3' exonuclease activity. EXO1 interacts with PCNA, and this interaction may both stimulate the cryptic 3'->5' exonuclease activity and suppress the 5'->3' exonuclease activity. EXO1 interacts with WRN, and this interaction stimulates both the 5'->3' exonuclease activity and cleavage of 5' overhanging flap structures. It also interacts with RECQL/RECQ1, and this interaction stimulates cleavage of 5' overhanging flap structures.

Immunogen/Specificity:
Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to N-terminal residues of human exonuclease 1

Storage buffer:
This antibody is stored in PBS, 0.01% sodium azide and 50% glycerol.

Preparation:
Purified by antigen-specific affinity chromatography.

Applications :
ELISA
Western Blotting (1µg/ml for 2hrs)

Clone Number:
Isotype:
Species: human, mouse
Storage and Stability: at -20oC

References

Schmutte,C., et al, Cancer Res. 58 (20), 4537-4542 (1998)
Tishkoff,D.X., et al, Cancer Res. 58 (22), 5027-5031 (1998)
Qiu,J., et al, J. Biol. Chem. 274 (25), 17893-17900 (1999)
Lee,B.I. et al, J. Biol. Chem. 274 (53), 37763-37769 (1999)
Rasmussen,L.J., et al, Mutat. Res. 460 (1), 41-52 (2000)
Schmutte,C., et al, J. Biol. Chem. 276 (35), 33011-33018 (2001)
Jager,A.C., et al, Oncogene 20 (27), 3590-3595 (2001)
Sun,X., et al, Cancer Res. 62 (21), 6026-6030 (2002)
Genschel,J., et al, J. Biol. Chem. 277 (15), 13302-1331
Zhang,Y., et al, Cell 122 (5), 693-705 (2005)
Alam,N.A., et al, Cancer Genet. Cytogenet. 147 (2), 121-127 (2003)
Sharma,S., et al, J. Biol. Chem. 278 (26), 23487-23496 (2003)
Genschel,J., et al, Mol. Cell 12 (5), 1077-1086 (2003)
Dzantiev,L., et al, Mol. Cell 15 (1), 31-41 (2004)
Nielsen,F.C., et al, Oncogene 23 (7), 1457-1468 (2004)

Tel. (650)-964-2589, Fax. (650)964-2519 info@antageneinc.com, 1391 Old Middlefield Way, Suite K Mountain View, CA 94043