# abcam

# Product datasheet

# Anti-Exonuclease 1 antibody ab95068

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#### Overview

**Product name** Anti-Exonuclease 1 antibody

**Description** Rabbit polyclonal to Exonuclease 1

**Host species** Rabbit

**Tested applications** Suitable for: WB. IP Species reactivity Reacts with: Human

Predicted to work with: Chimpanzee, Gorilla, Orangutan

Synthetic peptide within Human Exonuclease 1 aa 750-850 (C terminal). The exact immunogen **Immunogen** 

> sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please contact

our Scientific Support team to discuss your requirements. NP 006018.3

Run BLAST with Run BLAST with

Positive control HeLa and 293T whole cell lysate

**General notes** The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

> Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

**Properties** 

**Form** Liquid

Storage instructions Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 6.8

Preservative: 0.09% Sodium azide

Constituents: 0.1% BSA, Tris buffered saline

**Purity** Immunogen affinity purified

**Purification notes** ab95068 was affinity purified using an epitope specific to Exonuclease 1 immobilized on solid

support.

Clonality Polyclonal

**Isotype** IgG

# **Applications**

**The Abpromise guarantee** Our <u>Abpromise guarantee</u> covers the use of ab95068 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

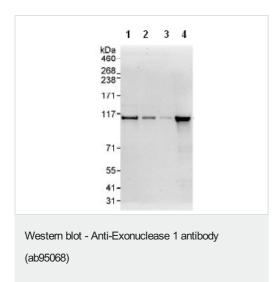
Application	Abreviews	Notes
WB		1/2000 - 1/10000. Predicted molecular weight: 94 kDa.
IP		Use at 5-15 μg/mg of lysate.

Target		
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.	
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.	
Sequence similarities	Belongs to the XPG/RAD2 endonuclease family. EXO1 subfamily.	
Developmental stage	Highly expressed in fetal liver and at lower levels in fetal brain, heart, kidney, spleen and thymus.	
Post-translational modifications	Phosphorylated upon DNA damage and in response to agents stalling DNA replication, probably by ATM or ATR. Phosphorylation at Ser-454, Thr-621 and Ser-714 is induced upon DNA-damage caused by treatment with hydroxyurea (HU) but not upon IR treatment. The HU-induced EXO1 triple phosphorylation facilitates destabilisation/degradation of the protein.	

Nucleus. Colocalizes with PCNA to discrete nuclear foci in S-phase.

# **Images**

**Cellular localization** 



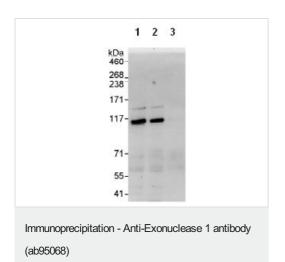
All lanes: Anti-Exonuclease 1 antibody (ab95068) at 0.04 µg/ml

Lane 1 : Hela whole cell lysate at 50 μg Lane 2 : Hela whole cell lysate at 15 μg Lane 3 : Hela whole cell lysate at 5 μg Lane 4 : 293T whole cell lysate at 50 μg

Developed using the ECL technique.

Predicted band size: 94 kDa

Exposure time: 30 seconds



ab95068 at 0.4  $\mu$ g/ml detecting Exonuclease 1 in HeLa whole cell lysate by WB following IP.

Lane 1: IP with an antibody which recognizes an upstream epitope of Exonuclease 1

Lane 2: ab95068 at 10µg/mg of lysate

Lane 3: control lgG.

In each case, 1 mg of lysate was used for IP and 20% of the IP was  $\,$ 

loaded.

Detection: Chemiluminescence with an exposure time of 30

seconds

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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