



Anti-DNA polymerase eta antibody ab186677

★★★★★ [1 Abreviews](#) [2 References](#) [2 Images](#)

Overview

Product name	Anti-DNA polymerase eta antibody
Description	Rabbit polyclonal to DNA polymerase eta
Host species	Rabbit
Tested applications	Suitable for: ICC/IF, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment corresponding to Human DNA polymerase eta aa 400-550. Database link: Q9Y253
	 Run BLAST with  Run BLAST with
Positive control	U251MG cells; Human stomach tissue.
General notes	<p>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.</p> <p>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</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab186677 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
ICC/IF		Use a concentration of 0.25 - 2 µg/ml.
IHC-P		1/50 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target**Function**

DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high fidelity DNA polymerases cannot proceed and DNA synthesis stalls. Plays an important role in the repair of UV-induced pyrimidine dimers. Depending on the context, it inserts the correct base, but causes frequent base transitions and transversions. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have lyase activity. Targets POLI to replication foci.

Involvement in disease

Defects in POLH are the cause of xeroderma pigmentosum variant type (XPV) [MIM:278750]; also designated as XP-V. Xeroderma pigmentosum (XP) is an autosomal recessive disease due to deficient nucleotide excision repair. It is characterized by hypersensitivity of the skin to sunlight, followed by high incidence of skin cancer and frequent neurologic abnormalities. XPV shows normal nucleotide excision repair, but an exaggerated delay in recovery of replicative DNA synthesis. Most XPV patients do not develop clinical symptoms and skin neoplasias until a later age. Clinical manifestations are limited to photo-induced deterioration of the skin and eyes.

Sequence similarities

Belongs to the DNA polymerase type-Y family.
Contains 1 umuC domain.

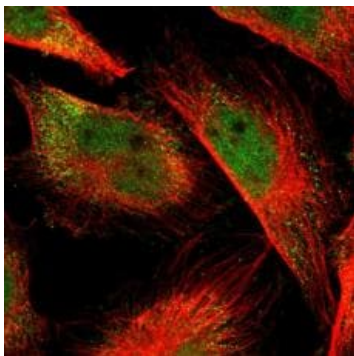
Domain

The catalytic core consists of fingers, palm and thumb subdomains, but the fingers and thumb subdomains are much smaller than in high-fidelity polymerases; residues from five sequence motifs of the Y-family cluster around an active site cleft that can accommodate DNA and nucleotide substrates with relaxed geometric constraints, with consequently higher rates of misincorporation and low processivity.

Cellular localization

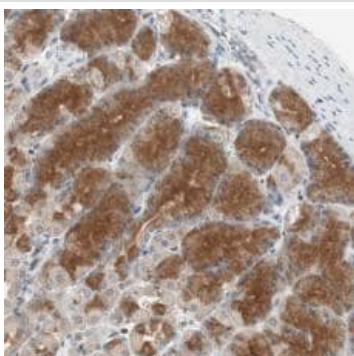
Nucleus. Accumulates at replication forks after DNA damage.

Images



Immunofluorescent analysis of U251MG cells (PFA-fixed/Triton X-100 permeabilized) labeling DNA polymerase eta with ab186677 at 4µg/ml.

Immunocytochemistry/ Immunofluorescence - Anti-DNA polymerase eta antibody (ab186677)



Immunohistochemical analysis of Paraffin-embedded Human stomach tissue labeling DNA polymerase eta with ab186677 at 1/50 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DNA polymerase eta antibody (ab186677)

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

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