abcam

Product datasheet

Recombinant Human DNA polymerase eta protein ab132167

1 Image

Description

Product name	Recombinant Human DNA polymerase eta protein
Expression system	Wheat germ
Accession	Q9Y253-2
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MATGQDRVVALVDMDCFFVQVEQRQNPHLRNKPCAVVQ YKSWKGGGIIAV SYEARAFGVTRSMWADDAKKLCPDLLLAQVRESRGKAN LTKYREASVEVM EIMSRFAVIERASIDEAYVDLTSAVQERLQKLQGQPISADLL PSTYIEGL PQGPTTAEETVQKEGMRKQGLFQWLDSLQIDNLTSPDLQ LTVGAVIVEEM RAAIERETGFQCSAGISHNKVLAKLACGLNKPNRQTLVSH GSVPQLFSQM PIRKIRSLGGKLGASVIEILGIEYMGELTQFTESQLQSHFGE KNGSWLYA MCRGIEHDPVKPRQLPKTIGCSKNFPGKTALATREQVQW WLLQLAQELEE RLTKDRNDNDRVATQLVVSIRVQGDKRLSSLRRCCALTRY DAHKMSHDAF TVIKNCNTSGIQTE
Predicted molecular weight	71 kDa including tags
Amino acids	1 to 414

Specifications

Our Abpromise guarantee covers the use of **ab132167** in the following tested applications.

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

Applications	Western blot

SDS-PAGE

ELISA

Form Liquid

Additional notes

Preparation and Storage

Stability and Storage Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles.

pH: 8.00
Constituents: 0.31% Glutathione, 0.79% Tris HCl

General Info

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.

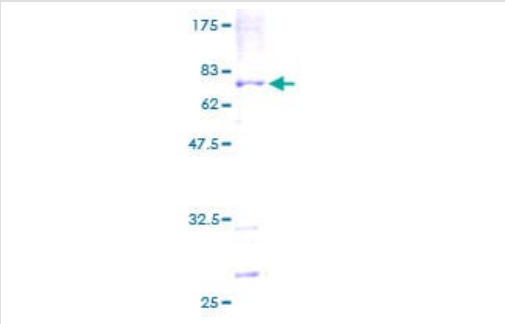
Involvement in disease Defects in POLH are the cause of xeroderma pigmentosum variant type (XPV) [MIM:278750]; also designated as XP-V. Xeroderma pigmentosum (XP) is an autosomal recessive disease due to deficient nucleotide excision repair. It is characterized by hypersensitivity of the skin to sunlight, 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



SDS-PAGE - Recombinant Human DNA polymerase eta protein (ab132167)

12.5% SDS-PAGE analysis of ab132167 stained with Coomassie Blue.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors