abcam

Product datasheet

Human DNA polymerase eta peptide ab19077

<u>1 References</u> 画像数 1

製品の詳細	
製品名	Human DNA polymerase eta peptide
精製度	> 90 % HPLC.
	00/252
アクセッション番号	<u>Q9Y253</u>
Animal free	No
由来	Synthetic
生物種	Human

特性

Our Abpromise guarantee covers the use of ab19077 in the following tested applications.

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

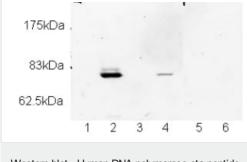
アプリケーション	Blocking
製品の状態	Liquid
備考	 First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions. If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer. Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent. Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised. Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.
前処理および保存	
保存方法および安定性	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Information available upon request.

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機能	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.
関連疾患	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.
配列類似性	Belongs to the DNA polymerase type-Y family. Contains 1 umuC domain.
ドメイン	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.
細胞内局在	Nucleus. Accumulates at replication forks after DNA damage.

画像



Western blot - Human DNA polymerase eta peptide (ab19077)

Lanes 1-2 & 5-6 : Anti-DNA polymerase eta antibody (<u>ab17725</u>) at 1/400 dilution

Lanes 3-4 : Anti-DNA polymerase eta antibody (<u>ab17725</u>) at 1/2000 dilution

Lanes 1 & 3 & 5 : XP30RO cell lysate (cells lacking endogenous DNA polymerase eta) Lanes 2 & 4 & 6 : MRC5 cell lysate

Secondary

All lanes : Goat anti-rabbit HRP at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Exposure time: 20 minutes

60% confluent 6cm dish of each cell type was washed in PBS then

scraped into 150µl of SDS-PAGE buffer, boiled for 5 minutes then sonicated for 10 minutes. 20µl of each sample was loaded in triplicate on a 6.5% polyacrylamide denaturing gel, then transferred to nitrocellulose. The membrane was blocked in 5% non-fat milk in PBS plus 0.1% Tween20 for 30 minutes. The primary antibody, **ab17725**, was incubated with the membrane in PBS plus 0.1% Tween20 and 5% milk overnight. Where the immunizing peptide was used, 5µl of the peptide was incubated with 5µl of antibody for ten minutes prior to dilution in 2ml of 5% milk in PBS plus 0.1% Tween20, which was then incubated with the blocked membrane overnight.

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

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