



POLYCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. 70-041

Anti DNA polymerase β

BACKGROUND

DNA polymerase β is a distributive polymerase involved in base excision repair which repairs damaged DNA by excising modified bases (oxidized, methylated, deaminated etc.) (1). It has single-strand DNA binding and deoxyribose phosphodiesterase activities on the N-terminal side, and nucleotidyltransferase activity on the C-terminal side. The enzyme is constitutively expressed in growing cells but the level of expression is further increased by treatment with alkylating reagents such as MNNG and MMS.

Product type	Primary antibodies
Host	Rabbit
Source	
Form	Liquid 1 mg/ml in PBS, 50% glycerol
Volume	50 μ l
Concentration	
Specificity	
Antigen	Highly purified, full-length, active recombinant DNA polymerase β of rat (2)
Isotype	

Application notes WB, IP
Other applications such as indirect immuno-staining were not tested but may be possible.

Recommended use

Recommended dilutions

WB: 0.2~1 μ g /ml

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

Cross reactivity	Rat, human, mouse
Storage	-20°C (long period, -0°C)
References	1) Friedberg EC, et al. DNA Repair and Mutagenesis 2nd ed., ASM Press (2006) 2) Date T. et al. Biochemistry 27: 2983 (1988)

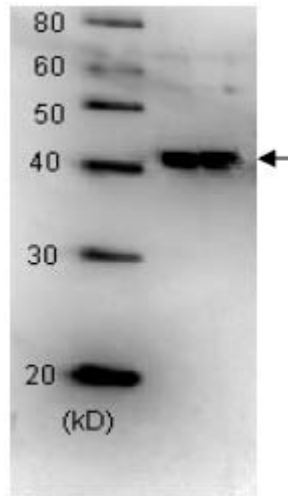


Fig.1. Western blot analysis of recombinant DNA polymerase β (rat) with this antibody

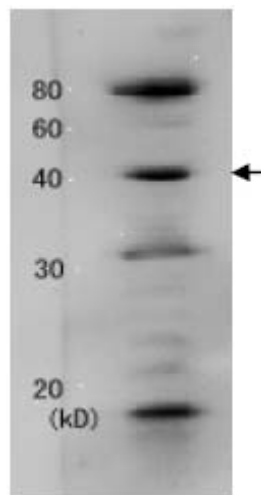


Fig.2. Identification of human DNA polymerase β in the crude extract of MCF7 cell by western blotting using this antibody.

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抗 DNA ポリメラーゼ β

BACKGROUND

DNA ポリメラーゼ β は塩基に種々の損傷や修飾（酸化、メチル化、脱アミノ基等）を受けた時の塩基除去修復による DNA の修復に関与する酵素である。N-末端側には単鎖 DNA 結合と deoxyribose phosphodiesterase 活性を、C-末側に nucleotidyltransferase 活性をもつ。この酵素は通常の培養細胞で発現しているが、MNNG や MMS などのアルキル化剤で処理すると発現が増化する（文献 1）。

Product type	一次抗体
Host	ウサギ
Source	血清
Form	液状 ウサギポリクローン抗血清、0.05%アジ化ナトリウム添加
Volume	50 ul
Concentration	
Specificity	DNA ポリメラーゼ β
Antigen	大腸菌で発現して高度に精製した活性型の全長の組換え体ラット DNA ポリメラーゼ β (文献 2)
Clone	
Isotype	

Application notes WB, IP 他 の用途（免疫染色、組織染色）についてはテストしていないが、使用できる可能性がある。

Recommended use

Recommended dilutions

ウェスタン・ブロッティング： 0.2~1 ug /ml

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

Cross reactivity ラット、ヒト、マウス

Storage -20°C (長期-70°C)

References 1) Friedberg EC, et al. DNA Repair and Mutagenesis 2nd ed., ASM Press (2006)

2) Date T. et al. Biochemistry 27: 2983 (1988) 2A1C11

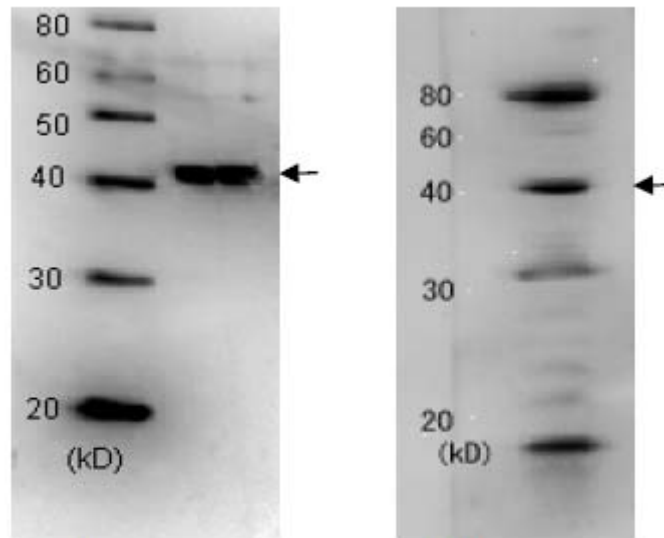


図 1

図 2

図 1. 組換え体 DNA ポリメラーゼ β (ラット) と本抗体のウェスタンブロットでの反応性。

図 2. ヒト MCF7 細胞粗抽出液中の DNA ポリメラーゼ β を本抗体を用いてウェスタンブロット法で同定。

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