

Recombinant *E. coli* UNG protein ab68308

描述

产品名称	重组 <i>E. coli</i> UNG蛋白
生物活性	1 Unit is defined as the amount of UDG enzyme that catalyzes release of 60pmol of Uracil per minute from double-stranded, uracil-containing DNA in a total reaction volume of 50µl in 30 minutes at 37°C in 1X UNG Reaction Buffer (200mM Tris-HCl (pH 8.0 at 25°C), 10mM DTT and 10mM EDTA) with 1 Unit of UNG and 0.2µg [3H]-Uracil DNA (10 ⁴ - 10 ⁵ cpm/µg). The specific activity is 5 U/µl.
表达系统	Escherichia coli
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Escherichia coli
额外的序列信息	E.Coli Uracil DNA Glycosilase (UNG) catalyses the release of free Uracil from Uracil-containing DNA. UNG efficiently hydrolyzes uracil from single-stranded or double-stranded DNA.

技术指标

Our **Abpromise guarantee** covers the use of **ab68308** in the following tested applications.

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

应用	Functional Studies
形式	Liquid
补充说明	E.Coli UNG catalyses the release of free Uracil from Uracil-containing DNA. UNG efficiently hydrolyzes uracil from single-stranded or double-stranded DNA, but not from oligomers (6 fewer bases). It is active over a broad pH range with an optimum at pH-8.0, doesn't require divalent cation, and is inhibited by high ionic strength (>200mM). The abasic sites formed in DNA by UNG may be cleaved by heat, alkali-treatment or endonucleases that cleave specifically at abasic sites. This product can be used for: Glycosilase mediated single nucleotide polymorphism detection (GMPD). Site-directed mutagenesis. As a probe for protein-DNA interaction studies. Rapid and efficient cloning of PCR products. Elimination carry-over contamination in PCR.

制备和贮存

稳定性和存储

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

Preservative: None

Constituents: 50% Glycerol, 0.1mg/ml BSA, 50mM Potassium chloride, 10mM Tris HCl, 1mM DTT, 0.1mM EDTA, pH 7.4 (at 25°C)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

常规信息

功能

Excises uracil residues from the DNA which can arise as a result of misincorporation of dUMP residues by DNA polymerase or due to deamination of cytosine.

组织特异性

Isoform 1 is widely expressed with the highest expression in skeletal muscle, heart and testicles. Isoform 2 has the highest expression levels in tissues containing proliferating cells.

疾病相关

Defects in UNG are a cause of immunodeficiency with hyper-IgM type 5 syndrome (HIGM5) [MIM:608106]. Hyper-IgM syndrome is a condition characterized by normal or increased serum IgM concentrations associated with low or absent serum IgG, IgA, and IgE concentrations. HIGM5 is associated with profound impairment in immunoglobulin (Ig) class-switch recombination (CSR) at a DNA precleavage step.

序列相似性

Belongs to the uracil-DNA glycosylase family.

翻译后修饰

Isoform 1 is processed by cleavage of a transit peptide.

细胞定位

Mitochondrion and Nucleus.

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