Formamidopyrimidine DNA Glycosylase (Fpg)

Catalog：RK20520

Reagents Supplied

Components Name	Component number	Concentration	500 U	2500 U
Fpg	RM20510	8,000 U/mL	65 μL	320 μL
10X ABuffer A	RM20125	10 X	1.25 mL	1.25 mL × 2
Recombinant Albumin (20 mg/mL)	RM20543	20 mg/mL	600 μL	600 μL

Product Information

Formamidopyrimidine-DNA glycosylase (Fpg), also known as 8-oxoguanine DNA glycosylase, possesses two activities: N-glycosylase and apurinic/apyrimidinic (AP) site lyase. The former acts to excise damaged purine bases in dsDNA, creating an AP site; the latter can cleave at the 3' and 5' ends of an AP site, generating a gapped DNA molecule with 3' and 5' phosphate termini. The damaged bases primarily recognized by Fpg include: 7,8-dihydro-8-oxoguanine (8-oxoguanine), 8-oxoadenine, formamidopyrimidine (fapy) guanine, methyl-fapy-guanine, fapy adenine, aflatoxin B1-fapy-guanine, 5-hydroxy-cytosine, and 5-hydroxy-uracil.

Product Source

An E.coli strain that carries the cloned fpg gene

Unit Definition

1 unit (U) is defined as the amount of enzyme required to cleave 10 pmol of a 34-bp oligonucleotide duplex containing a single 8-oxoguanine paired with cytosine, under the conditions of a 1-hour reaction at 37℃ in a 10 μL reaction system.

Reaction Conditions

1X ABuffer A

Supplement with 100μg/mL Recombinant Albumin

Incubate at 37℃

1X ABuffer A

10mMBis-Tris-Propane-HCl

10mMMgCl2

1mMDTT

pH7@25℃

Storage Temperature

-20℃

Storage Buffer

20 mM Tris-HCl

50 mM NaCl

0.5 mM EDTA

50% Glycerol

pH8.0 @25℃

Heat Inactivation

60℃, 10min

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