SANTA CRUZ BIOTECHNOLOGY, INC.

APNG (H-232): sc-292808

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Maintenance of DNA sequences is necessary for vertebrates and other life. DNA is under constant stress by a plethora of DNA-damaging agents present in both the environment and within cells. The potentially deleterious effects of DNA lesions in cells are elegantly resolved by sophisticated DNA repair systems, including base excision repair (BER), nucleotide excision repair (NER) and DNA repair methyltransferase (MTase). Methylated bases, such as 3-methyladenine (3MeA) and 7-methylguanine (7MeG) can be formed by agents in the environment and by endogenous cellular processes. Consequently, in the absence of exposure to environmental agents, DNA methylation damage can be incurred on the genomic DNA of normal mammalian cells. DNA N-glycosylases are base excision-repair proteins that locate and cleave damaged bases from DNA as the first step in restoring the sequence. 3MeA DNA glycosylases initiate base excision repair by removing 3MeA. These glycosylases also remove a broad spectrum of spontaneous and environmentally induced base lesions. The human N-methylpurine-DNA glycosylase gene maps to chromosome 16p13.3 and encodes a 298 amino acid protein, known as APNG.

CHROMOSOMAL LOCATION

Genetic locus: MPG (human) mapping to 16p13.3; Mpg (mouse) mapping to 11 A4.

SOURCE

APNG (H-232) is a rabbit polyclonal antibody raised against amino acids 67-298 mapping at the C-terminus of APNG of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

APNG (H-232) is recommended for detection of APNG of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

APNG (H-232) is also recommended for detection of APNG in additional species, including equine, canine and porcine.

Suitable for use as control antibody for APNG siRNA (h): sc-37390, APNG siRNA (m): sc-37391, APNG shRNA Plasmid (h): sc-37390-SH, APNG shRNA Plasmid (m): sc-37391-SH, APNG shRNA (h) Lentiviral Particles: sc-37390-V and APNG shRNA (m) Lentiviral Particles: sc-37391-V.

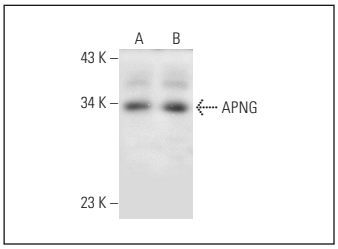
Molecular Weight of APNG: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



APNG (H-232): sc-292808. Western blot analysis of APNG expression in HeLa (**A**) and Jurkat (**B**) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **APNG (D-2): sc-390684** or **APNG (3D1): sc-101237**, our highly recommended monoclonal alternatives to APNG (H-232).