

SMUG1 Antibody (N-Terminus)
Goat Polyclonal Antibody
Catalog # ALS12329**Specification**

SMUG1 Antibody (N-Terminus) - Product Information

Application	WB, IHC-P, E
Primary Accession	Q53HV7
Reactivity	Human, Monkey
Host	Goat
Clonality	Polyclonal
Calculated MW	30kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A E~~N/A

SMUG1 Antibody (N-Terminus) - Additional Information**Gene ID** 23583**Other Names**

Single-strand selective monofunctional uracil DNA glycosylase, 3.2.2.-, SMUG1

Target/Specificity

Human SMUG1.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

SMUG1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

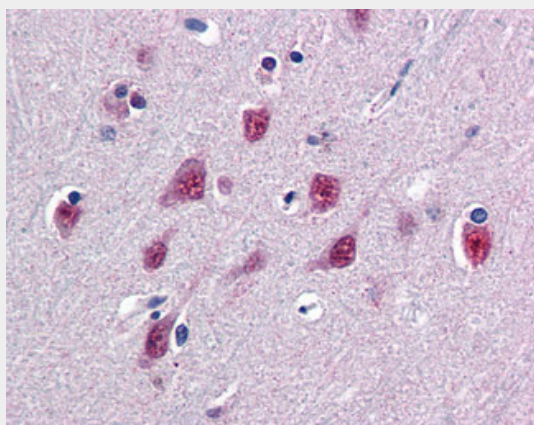
SMUG1 Antibody (N-Terminus) - Protein Information**Name** SMUG1**Function**

Recognizes base lesions in the genome and initiates base excision DNA repair. Acts as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA with a preference for single-stranded DNA substrates. The activity is greater toward mismatches (U/G) compared to matches (U/A). Excises uracil (U), 5-formyluracil (fU) and uracil derivatives bearing an oxidized group at C5 [5-hydroxyuracil (hoU) and 5-hydroxymethyluracil (hmU)] in ssDNA and dsDNA, but not analogous cytosine derivatives (5-hydroxycytosine and 5-formylcytosine), nor other oxidized bases. The activity is damage-specific and salt-dependent. The substrate preference is the following: ssDNA > dsDNA (G pair) = dsDNA (A pair) at low salt concentration, and dsDNA (G pair) > dsDNA (A pair) > ssDNA at high salt concentration.

Cellular Location
Nucleus**SMUG1 Antibody (N-Terminus) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMUG1 Antibody (N-Terminus) - Images

Anti-SMUG1 antibody IHC of human brain, cortex.

SMUG1 Antibody (N-Terminus) - Background

Responsible for recognizing base lesions in the genome and initiating base excision DNA repair. Acts as a monofunctional DNA glycosylase specific for uracil (U) residues in DNA and has a preference for single-stranded DNA substrates. The activity is greater against mismatches (U/G) than against matches (U/A). Excised uracil (U), 5-formyluracil (fU) and uracil derivatives bearing an oxidized group at C5 [5-hydroxyuracil (hoU) and 5-hydroxymethyluracil (hmU)] in ssDNA and dsDNA but not analogous cytosine derivatives (5-hydroxycytosine and 5-formylcytosine) and other oxidized damage. The activity is damage specificity and salt concentration-dependent. The general order of the preference for ssDNA and dsDNA is the following: ssDNA > dsDNA (G pair) = dsDNA (A pair) at the low salt concentration. At the high concentration dsDNA (G pair) > dsDNA (A pair) > ssDNA.

SMUG1 Antibody (N-Terminus) - References

Haushalter K.A., et al. Curr. Biol. 9:174-185(1999).
Masaoka A., et al. Biochemistry 42:5003-5012(2003).
Ota T., et al. Nat. Genet. 36:40-45(2004).
Suzuki Y., et al. Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.

