

Goat Anti-SMUG1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2011a**Specification**

Goat Anti-SMUG1 Antibody - Product Information

Application	WB
Primary Accession	Q53HV7
Other Accession	NP_055126 , 23583
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	29862

Goat Anti-SMUG1 Antibody - Additional Information**Gene ID** 23583**Other Names**

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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-SMUG1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-SMUG1 Antibody - 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

Goat Anti-SMUG1 Antibody - 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](#)

Goat Anti-SMUG1 Antibody - Images



AF2011a staining (0.5 µg/ml) of Molt-4 lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-SMUG1 Antibody - Background

SMUG1 is a glycosylase that removes uracil from single- and double-stranded DNA in nuclear chromatin, thus contributing to base excision repair.

Goat Anti-SMUG1 Antibody - References

Polymorphisms in the base excision repair pathway and graft-versus-host disease. Arora M, et al. Leukemia, 2010 Aug. PMID 20574454.

Variation within DNA repair pathway genes and risk of multiple sclerosis. Briggs FB, et al. Am J Epidemiol, 2010 Jul 15. PMID 20522537.

Association between genetic variants in the base excision repair pathway and outcomes after hematopoietic cell transplantations. Thyagarajan B, et al. Biol Blood Marrow Transplant, 2010 Aug. PMID 20226869.

Polymorphisms in uracil-processing genes, but not one-carbon nutrients, are associated with altered

DNA uracil concentrations in an urban Puerto Rican population. Chanson A, et al. Am J Clin Nutr, 2009 Jun. PMID 19403629.

Opposite-base dependent excision of 5-formyluracil from DNA by hSMUG1. Knaevelsrud I, et al. Int J Radiat Biol, 2009 May. PMID 19365746.