Human Single-strand selective monofunctional uracil DNA glycosylase (SMUG1) ELISA Kit

Catalog No: #EK7220

Package Size: #EK7220-1 48T #EK7220-2 96T

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Human Single-strand selective monofunctional uracil DNA glycosylase (SMUG1) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Human (Homo sapiens)
Other Names	FDG; HMUDG; MGC104370; UNG3; single-strand selective monofunctional uracil DNA glycosylase
Accession No.	Q53HV7
Uniprot	Q53HV7
GeneID	23583;
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.156-10 ng/mL

Sensitivity:0.051 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate SMUG1 in samples. An antibody specific for SMUG1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anySMUG1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for SMUG1 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of SMUG1 bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:SMUG1 is a glycosylase that removes uracil from single- and double-stranded DNA in nuclear chromatin, thus contributing to base excision repair. The deduced 270-amino acid protein has a calculated molecular mass of about 30 kD. Human SMUG1 shares 60% identity with the Xenopus protein. Fluorescence-tagged SMUG1 localized predominantly to the nucleus of transiently transfected HeLa cells.

SMUG1 showed broader substrate specificity than UNG2, and AP endonuclease had a strong stimulatory effect on SMUG1 against double-stranded uracil, apparently due to enhance dissociation of SMUG1 from AP sites in double-stranded DNA. SMUG1 accumulated within nucleoli in cultured epithelial cells, while UNG2 was excluded from nucleoli.

Note: This product is for in vitro research use only