abcam

Product datasheet

Anti-SMUG1 antibody [EPR15624] ab192240





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Overview

Product name Anti-SMUG1 antibody [EPR15624]

Description Rabbit monoclonal [EPR15624] to SMUG1

Host species Rabbit

Tested applications Suitable for: IP, WB Species reactivity Reacts with: Human

Immunogen Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.

Positive control WB: HAP1, 293 and MOLT4 cell lysates.

General notes This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity - Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 40% Glycerol, 59% PBS, 0.05% BSA

Purity Protein A purified

Clonality Monoclonal Clone number EPR15624

Isotype ΙgG

Applications

The Abpromise guarantee

Our <u>Abpromise guarantee</u> covers the use of ab192240 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		1/100.
WB	**** (1)	1/1000 - 1/10000. Detects a band of approximately 30 kDa (predicted molecular weight: 30 kDa).

Target

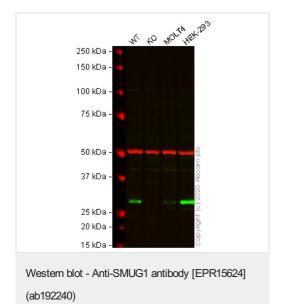
Function

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 localization

Nucleus.

Images



All lanes: Anti-SMUG1 antibody [EPR15624] (ab192240) at

1/1000 dilution

Lane 1: Wild-type HAP1 cell lysate

Lane 2: SMUG1 knockout HAP1 cell lysate

Lane 3 : MOLT-4 cell lysate
Lane 4 : HEK-293 cell lysate

Lysates/proteins at 20 µg per lane.

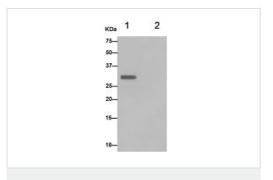
Performed under reducing conditions.

Predicted band size: 30 kDa
Observed band size: 30 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab192240 observed at 30 kDa. Red - loading control <u>ab7291</u> (Mouse anti-

Alpha Tubulin [DM1A]) observed at 55kDa.

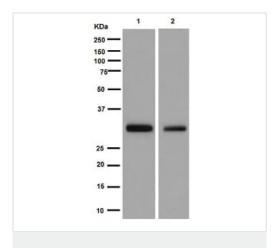
ab192240 was shown to react with SMUG1 in wild-type HAP1 cells in western blot with loss of signal observed in SMUG1 knockout sample. Wild-type and SMUG1 knockout HAP1 cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3% milk in TBS-T (0.1% Tween[®]) before incubation with ab192240 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye[®] 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye[®] 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-SMUG1 antibody [EPR15624] (ab192240)

Western blot analysis of immunoprecipitation pellet from 293 cell lysate immunoprecipitated using ab192240 at 1/100 dilution (lane 1) or PBS control (lane 2).

Secondary: Anti-Rabbit lgG (HRP), specific to the non-reduced form of lgG at 1/1500 dilution.



Western blot - Anti-SMUG1 antibody [EPR15624] (ab192240)

All lanes : Anti-SMUG1 antibody [EPR15624] (ab192240) at 1/5000 dilution

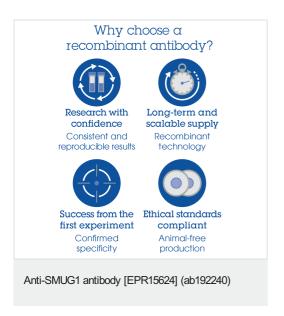
Lane 1 : MOLT4 cell lysate
Lane 2 : 293 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit lgG, (H+L), Peroxidase conjugate at 1/1000 dilution

Predicted band size: 30 kDa



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