

SUGT1 (B-10): sc-398625



The Power to Question

BACKGROUND

SUGT1 (suppressor of G₂ allele of Skp1 p19 homolog, *S. cerevisiae*), also known as SGT1, is a homolog of the yeast protein Sgt1, a regulator of the cell cycle that is essential for G₁/S and G₂/M transitions. SUGT1 is a highly soluble protein and shares 26% overall amino acid identity and 30% overall similarity with its yeast counterpart. Localizing to the nucleus and cytoplasm, SUGT1 contains a CS domain, a SGS domain, a p23 domain and three tetratricopeptide repeats (TPR). The function of SUGT1 is conserved across eukaryotes. SUGT1 associates with Skp1 p19 and CUL1, subunits of the SCF (Skp1-Cullin-F-box) ubiquitin ligase complex, and is believed to play a role in protein degradation. In addition, SUGT1 is required for the assembly of kinetochores and functions as a co-chaperone for HSP 90. An additional isoform, SUGT1B (also known as SGT1B), exists for SUGT1 due to alternative splicing events.

REFERENCES

1. Kitagawa, K., et al. 1999. SGT1 encodes an essential component of the yeast kinetochore assembly pathway and a novel subunit of the SCF ubiquitin ligase complex. *Mol. Cell* 4: 21-33.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604098. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Niikura, Y. and Kitagawa, K. 2003. Identification of a novel splice variant: human SGT1B (SUGT1B). *DNA Seq.* 14: 436-441.
4. Steensgaard, P., et al. 2004. SGT1 is required for human kinetochore assembly. *EMBO Rep.* 5: 626-631.
5. Zou, X., et al. 2004. Molecular cloning and characterization of SGT1.2, a novel splice variant of *Homo sapiens* SGT1. *DNA Seq.* 15: 140-143.

CHROMOSOMAL LOCATION

Genetic locus: SUGT1 (human) mapping to 13q14.3; Sgt1 (mouse) mapping to 14 D3.

SOURCE

SUGT1 (B-10) is a mouse monoclonal antibody raised against amino acids 141-365 mapping at the C-terminus of SUGT1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SUGT1 (B-10) is available conjugated to agarose (sc-398625 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398625 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398625 PE), fluorescein (sc-398625 FITC), Alexa Fluor® 488 (sc-398625 AF488), Alexa Fluor® 546 (sc-398625 AF546), Alexa Fluor® 594 (sc-398625 AF594) or Alexa Fluor® 647 (sc-398625 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398625 AF680) or Alexa Fluor® 790 (sc-398625 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

SUGT1 (B-10) is recommended for detection of SUGT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for SUGT1 siRNA (h): sc-76605, SUGT1 siRNA (m): sc-153916, SUGT1 shRNA Plasmid (h): sc-76605-SH, SUGT1 shRNA Plasmid (m): sc-153916-SH, SUGT1 shRNA (h) Lentiviral Particles: sc-76605-V and SUGT1 shRNA (m) Lentiviral Particles: sc-153916-V.

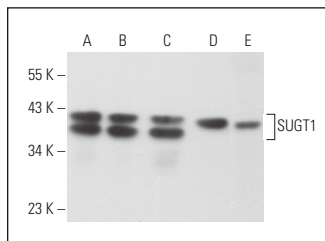
Molecular Weight of SUGT1: 38 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HUV-EC-C whole cell lysate: sc-364180 or K-562 whole cell lysate: sc-2203.

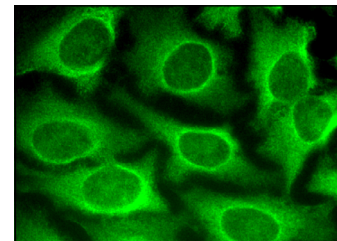
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SUGT1 (B-10): sc-398625. Western blot analysis of SUGT1 expression in HeLa (A), HUV-EC-C (B), K-562 (C) and EOC 20 (D) whole cell lysates and rat lung tissue extract (E).



SUGT1 (B-10): sc-398625. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Yeung, T.K., et al. 2021. One-step multiplex toolkit for efficient generation of conditional gene silencing human cell lines. *Mol. Biol. Cell* 32: 1320-1330.

STORAGE

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

RESEARCH USE

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