SANTA CRUZ BIOTECHNOLOGY, INC.

SUGT1 (YQ-R3): sc-81822

BACKGROUND

SUGT1 (suppressor of G_2 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 G_1/S and G_2/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, an SGS domain, a p23 domain and three tetratricopeptide repeats (TPR). The function of SUGT1 is conserved across eukaryotes. SUGT1 associates with Skp1 p19 and CUL-1, 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., Skowyra, D., Elledge, S.J., Harper, J.W. and Hieter, P. 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/

CHROMOSOMAL LOCATION

Genetic locus: SUGT1 (human) mapping to 13q14.3; Sugt1 (mouse) mapping to 14 D3.

SOURCE

SUGT1 (YQ-R3) is a mouse monoclonal antibody raised against recombinant SUGT1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SUGT1 (YQ-R3) is recommended for detection of SUGT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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.

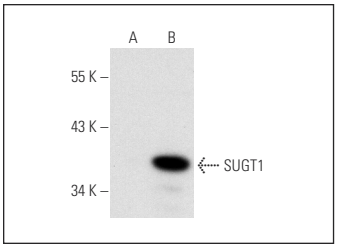
Molecular Weight of SUGT1: 38 kDa.

Positive Controls: SUGT1 (h): 293 Lysate: sc-110596, SUGT1 (m): 293T Lysate: sc-110248 or HeLa whole cell lysate: sc-2200.

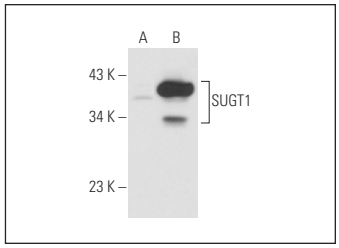
RECOMMENDED SUPPORT REAGENTS

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.

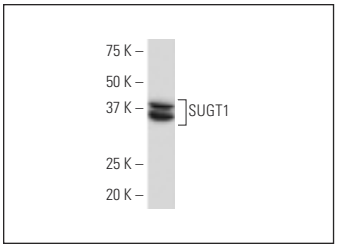
DATA



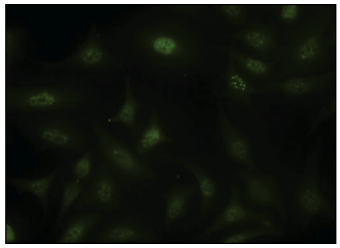
SUGT1 (YQ-R3): sc-81822. Western blot analysis of SUGT1 expression in non-transfected: sc-110760 (**A**) and human SUGT1 transfected: sc-110596 (**B**) 293 whole cell lysates.



SUGT1 (YQ-R3): sc-81822. Western blot analysis of SUGT1 expression in non-transfected: sc-117752 (**A**) and mouse SUGT1 transfected: sc-110248 (**B**) 293T whole cell lysates.



SUGT1 (YQ-R3): sc-81822. Western blot analysis of SUGT1 expression in HeLa whole cell lysate.



SUGT1 (YQ-R3): sc-81822. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Li, Y., et al. 2020. Long noncoding RNA SAM promotes myoblast proliferation through stabilizing Sugt1 and facilitating kinetochore assembly. Nat. Commun. 11: 2725.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.