

SAS10 (H-300): sc-135392

BACKGROUND

SAS10 (something about silencing protein 10), also known as UTP3 or CRLZ1 (charged amino acid-rich leucine zipper 1), is a small subunit (SSU) processome component. The SSU processome is a complex involved in ribosome biogenesis and is required for pre-18S rRNA maturation. SAS10 localizes to the nucleus and also plays a role in forming the structure of silenced chromatin. SAS10 is the human homolog of the *S. cerevisiae* Sas10 protein. In *S. cerevisiae*, the overexpression of Sas10 disrupts gene silencing. This suggests another role of SAS10 in gene silencing. In addition, SAS10 is believed to be involved in the development of the brain. Upon DNA damage, SAS10 is phosphorylated by ATM or ATR.

REFERENCES

1. Kamakaka, R.T. and Rine, J. 1998. Sir- and silencer-independent disruption of silencing in *Saccharomyces* by SAS10p. *Genetics* 149: 903-914.
2. Sakuma, T., Li, Q.L., Jin, Y., Choi, L.B., Kim, E.G., Ito, K., Ito, Y., Nomura, S. and Bae, S.C. 2001. Cloning and expression pattern of a novel PEBP2 β -binding protein (charged amino acid rich leucine zipper-1[Cr1-1]) in the mouse. *Mech. Dev.* 104: 151-154.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 611614. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Bernstein, K.A., Gallagher, J.E., Mitchell, B.M., Granneman, S. and Baserga, S.J. 2004. The small-subunit processome is a ribosome assembly intermediate. *Eukaryotic Cell* 3: 1619-1626.
5. Bleichert, F., Granneman, S., Osheim, Y.N., Beyer, A.L. and Baserga, S.J. 2006. The PINc domain protein Utp24, a putative nuclease, is required for the early cleavage steps in 18S rRNA maturation. *Proc. Natl. Acad. Sci. USA* 103: 9464-9469.
6. Lim, J.H., Cho, S.J., Park, S.K., Kim, J., Cho, D., Lee, W.J. and Kang, C.J. 2006. Stage-specific expression of two neighboring *Cr1z1* and *IgJ* genes during B cell development is regulated by their chromatin accessibility and histone acetylation. *J. Immunol.* 177: 5420-5429.
7. Kim, J.Y., Park, S.K., Kim, H.G., Cho, S.J., Kim, J. and Kang, C.J. 2006. The HSS3/4 enhancer of *Cr1z1-IgJ* locus is another target of EBF in the pre-B cell stage of B cell development. *Immunol. Lett.* 107: 63-70.

CHROMOSOMAL LOCATION

Genetic locus: UTP3 (human) mapping to 4q13.3; Utp3 (mouse) mapping to 5 E1.

SOURCE

SAS10 (H-300) is a rabbit polyclonal antibody raised against amino acids 180-479 mapping at the C-terminus of SAS10 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SAS10 (H-300) is recommended for detection of SAS10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

SAS10 (H-300) is also recommended for detection of SAS10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SAS10 siRNA (h): sc-89202, SAS10 siRNA (m): sc-153227, SAS10 shRNA Plasmid (h): sc-89202-SH, SAS10 shRNA Plasmid (m): sc-153227-SH, SAS10 shRNA (h) Lentiviral Particles: sc-89202-V and SAS10 shRNA (m) Lentiviral Particles: sc-153227-V.

Molecular Weight of SAS10: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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 or our catalog for detailed protocols and support products.


 MONOS
Satisfaction
Guaranteed

Try **SAS10 (2950C2a): sc-81639**, our highly recommended monoclonal alternative to SAS10 (H-300).