

# SAS10 (S-15): sc-162143

## 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  $\beta$ -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.

## CHROMOSOMAL LOCATION

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

## SOURCE

SAS10 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAS10 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-162143 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SAS10 (S-15) 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), 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); non cross-reactive with SAS.

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 donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
Satisfation  
Guaranteed

Try **SAS10 (2950C2a): sc-81639**, our highly recommended monoclonal alternative to SAS10 (S-15).