SDE2 (S-24): sc-130992



The Power to Question

BACKGROUND

Telomeres are DNA-protein structures that protect the ends of linear chromosomes and help maintain genomic stability and cell phenotype. Telomere maintenance involves the cooperation of several telomeric factors, including telomerase. Protein SDE2 of *Schizosaccharomyces pombe* is a nuclear protein that is suggested to be critical for telomeric silencing and genomic stability by interacting with telomere regulators. SDE2 (SDE2 telomere maintenance homolog *(S. pombe))*, also known as C1orf55 or dJ671D7.1, is a 451 amino acid coil-coil domain containing protein that belongs to the SDE2 family and exists as 3 alternatively spliced isoforms. SDE2 is encoded by a gene that is located on human chromosome 1q42.12. Human chromosome 1 is the largest chromosome and spans about 260 million base pairs and makes up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1.

REFERENCES

- Counter, C.M., et al. 1992. Telomere shortening associated with chromosome instability is arrested in immortal cells which express telomerase activity. EMBO J. 11: 1921-1929.
- Kim, N.W., et al. 1994. Specific association of human telomerase activity with immortal cells and cancer. Science 266: 2011-2015.
- Greider, C.W. 1996. Telomere length regulation. Ann. Rev. Biochem. 65: 337-365.
- Harrington, L., et al. 1997. A mammalian telomerase-associated protein. Science 275: 973-977.
- Nakayama, J., et al. 1997. TLP1: a gene encoding a protein component of mammalian telomerase is a novel member of WD repeats family. Cell 88: 875-884.
- Nakamura, T.M., et al. 1997. Telomerase catalytic subunit homologs from fission yeast and human. Science 277: 955-959.
- 7. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
- 8. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321
- Sugioka-Sugiyama, R. and Sugiyama, T. 2011. Sde2: a novel nuclear protein essential for telomeric silencing and genomic stability in Schizosaccharomyces pombe. Biochem. Biophys. Res. Commun. 406: 444-448.

CHROMOSOMAL LOCATION

Genetic locus: SDE2 (human) mapping to 1q42.12; Sde2 (mouse) mapping to 1 H4.

SOURCE

SDE2 (S-24) is an affinity purified rabbit polyclonal antibody raised against synthetic SDE2 peptide of human origin.

PRODUCT

Each vial contains 50 μg lgG in 500 μl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

SDE2 (S-24) is recommended for detection of SDE2 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SDE2 siRNA (h): sc-88617, SDE2 siRNA (m): sc-141568, SDE2 shRNA Plasmid (h): sc-88617-SH, SDE2 shRNA Plasmid (m): sc-141568-SH, SDE2 shRNA (h) Lentiviral Particles: sc-88617-V and SDE2 shRNA (m) Lentiviral Particles: sc-141568-V.

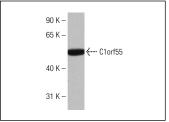
Molecular Weight of SDE2: 50/49/39 kDa.

Posistive Controls: 721 B whole cell lysate.

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).

DATA



C1orf55 (S-24): sc-130992. Western blot analysis of C1orf55 expression in 721 B whole cell lysate.

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.

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