

# BC031781 (Q-16): sc-245653

## 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.
- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.

## CHROMOSOMAL LOCATION

Genetic locus: Sde2 (mouse) mapping to 1 H4.

## SOURCE

SDE2 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SDE2 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-245653 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SDE2 (Q-16) is recommended for detection of SDE2 of mouse origin and the corresponding rat homolog 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 SDE2 siRNA (m): sc-141568, SDE2 shRNA Plasmid (m): sc-141568-SH and SDE2 shRNA (m) Lentiviral Particles: sc-141568-V.

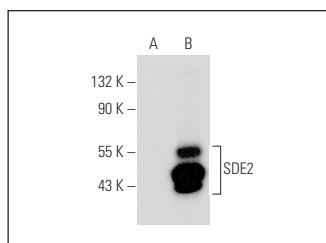
Molecular Weight of SDE2: 50/49/39 kDa.

Positive Controls: SDE2 (m): 293T Lysate: sc-118752, KNRK whole cell lysate: sc-2214 or F9 cell lysate: sc-2245.

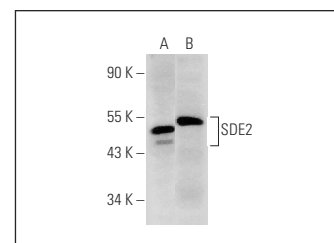
## RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



SDE2 (Q-16): sc-245653. Western blot analysis of SDE2 expression in non-transfected: sc-117752 (A) and mouse SDE2 transfected: sc-118752 (B) 293T whole cell lysates.



SDE2 (Q-16): sc-245653. Western blot analysis of SDE2 expression in F9 (A) and KNRK (B) whole cell lysates.

## 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.