# SANTA CRUZ BIOTECHNOLOGY, INC.

# SYDE2 (D-17): sc-248758



### BACKGROUND

SYDE2 (synapse defective protein 1 homolog 2), also known as Rho GTPaseactivating protein SYDE2, is a 1,194 amino acid protein that acts as a GTPase activator for the Rho-type GTPases by converting them to an inactive GDPbound state. Expressed as two isoforms produced by alternative splicing events, SYDE2 contains one C2 domain and one RHO-GAP domain. The gene that encodes SYDE2 maps to human chromosome 1, which is the largest human chromosome spanning about 260 million base pairs and making 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. Notably, Hutchinson-Gilford progeria, Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are all associated with human chromosome 1.

### REFERENCES

- Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. J. Exp. Med. 172: 263-272.
- Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
- 3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
- Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
- Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. Schizophr. Bull. 32: 409-416.
- 6. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. Nature 440: 32-34.
- 7. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.
- McClintock, D., et al. 2006. Hutchinson-Gilford progeria mutant lamin A primarily targets human vascular cells as detected by an anti-Lamin A G608G antibody. Proc. Natl. Acad. Sci. USA 103: 2154-2159.
- 9. Scaffidi, P. and Misteli, T. 2006. Lamin A-dependent nuclear defects in human aging. Science 312: 1059-1063.

#### CHROMOSOMAL LOCATION

Genetic locus: SYDE2 (human) mapping to 1p22.3; Syde2 (mouse) mapping to 3 H2.

#### SOURCE

SYDE2 (D-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SYDE2 of human origin.

### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

## PRODUCT

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

Blocking peptide available for competition studies, sc-248758 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

SYDE2 (D-17) is recommended for detection of SYDE2 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 SYDE1.

SYDE2 (D-17) is also recommended for detection of SYDE2 in additional species, including equine.

Suitable for use as control antibody for SYDE2 siRNA (m): sc-153970, SYDE2 shRNA Plasmid (m): sc-153970-SH and SYDE2 shRNA (m) Lentiviral Particles: sc-153970-V.

Molecular Weight of SYDE2 isoforms: 133/96 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) Immunofluo-rescence: use 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.

#### PROTOCOLS

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