# SANTA CRUZ BIOTECHNOLOGY, INC.

# SYF2 (P-12): sc-163410



#### BACKGROUND

SYF2 (SYF2 homolog, RNA splicing factor), also known as CCNDBP1-interactor or p29, is a 243 amino acid protein belonging to the SYF2 family. Localizing to nucleus, SYF2 is highly expressed in heart, skeletal muscle and kidney. SYF2 is likely involved in pre-mRNA splicing and cell cycle progression, and may function as a DNA replication checkpoint regulator. The gene encoding SYF2 maps to human chromosome 1p36.11. As the largest human chromosome, chromosome 1 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. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

### REFERENCES

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- 2. Ben-Yehuda, S., et al. 2000. Genetic and physical interactions between factors involved in both cell cycle progression and pre-mRNA splicing in Saccharomyces cerevisiae. Genetics 156: 1503-1517.
- 3. Dahan, O., et al. 2002. Mutations in genes of Saccharomyces cerevisiae encoding pre-mRNA splicing factors cause cell cycle arrest through activation of the spindle checkpoint. Nucleic Acids Res. 30: 4361-4370.
- 4. Vincent, K., et al. 2003. Genetic interactions with CLF1 identify additional pre-mRNA splicing factors and a link between activators of yeast vesicular transport and splicing. Genetics 164: 895-907.
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- 6. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
- 7. 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.
- 8. Millington, K., et al. 2008. Role of chromosome 1 pericentric heterochromatin (1q) in pathogenesis of myelodysplastic syndromes: report of 2 new cases. Exp. Mol. Pathol. 84: 189-193.

### CHROMOSOMAL LOCATION

Genetic locus: SYF2 (human) mapping to 1p36.11; Syf2 (mouse) mapping to 4 D3.

## SOURCE

SYF2 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SYF2 of human origin.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PRODUCT

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

Blocking peptide available for competition studies, sc-163410 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

# **APPLICATIONS**

SYF2 (P-12) is recommended for detection of SYF2 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).

Suitable for use as control antibody for SYF2 siRNA (h): sc-88280, SYF2 siRNA (m): sc-153971, SYF2 shRNA Plasmid (h): sc-88280-SH, SYF2 shRNA Plasmid (m): sc-153971-SH, SYF2 shRNA (h) Lentiviral Particles: sc-88280-V and SYF2 shRNA (m) Lentiviral Particles: sc-153971-V.

Molecular Weight (predicted) of SYF2: 29 kDa.

Molecular Weight (observed) of SYF2: 31-41 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<sup>™</sup> Mounting Medium: sc-24941.

# **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.