SANTA CRUZ BIOTECHNOLOGY, INC.

Suppressin (F-7): sc-515174

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Suppressin, also known as DEAF1 (deformed epidermal autoregulatory factor 1), SPN, NUDR (nuclear DEAF-1-related transcriptional regulator), or ZMYND5 (zinc finger MYND domain-containing protein 5), is a transcription factor required for embryonic development. Suppressin contains one SAND domain and one C-terminal MYND-type zinc finger. It interacts with LMO4 and CLIM-2, suggesting that it plays a role mediating cell fate and embryonic pattern formation. Suppressin is expressed in a variety of tissues and localizes to the nucleus. Several isoforms exist due to alternative splicing and, depending on the isoform, Suppressin is secreted in some cell types. Secreted Suppressin can function to inhibit cell proliferation, arresting cells in the G_0 or G_1 phase. Mutations in the gene encoding Suppressin may result in a growth advantage leading to the development and progression of neoplasia. This suggest that Supressin is a potential target for cancer therapy.

REFERENCES

1. Huggenvik, J.I., et al. 1998. Characterization of a nuclear deformed epidermal autoregulatory factor-1 (DEAF-1)-related (NUDR) transcriptional regulator protein. Mol. Endocrinol. 12: 1619-1639.
2. Michelson, R.J., et al. 1999. Nuclear DEAF-1-related (NUDR) protein contains a novel DNA binding domain and represses transcription of the heterogeneous nuclear ribonucleoprotein A2/B1 promoter. J. Biol. Chem. 274: 30510-30519.
3. Bottomley, M.J., et al. 2001. The SAND domain structure defines a novel DNA-binding fold in transcriptional regulation. Nat. Struct. Biol. 8: 626-633.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602635. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Lemonde, S., et al. 2003. Impaired repression at a 5-hydroxytryptamine 1A receptor gene polymorphism associated with major depression and suicide. J. Neurosci. 23: 8788-8799.
6. Jensik, P.J., et al. 2004. Identification of a nuclear export signal and protein interaction domains in deformed epidermal autoregulatory factor-1 (DEAF-1). J. Biol. Chem. 279: 32692-32699.
7. Choi, K.O., et al. 2005. Inhibition of the catalytic activity of hypoxia-inducible factor-1α-prolyl-hydroxylase 2 by a MYND-type zinc finger. Mol. Pharmacol. 68: 1803-1809.

CHROMOSOMAL LOCATION

Genetic locus: DEAF1 (human) mapping to 11p15.5.

SOURCE

Suppressin (F-7) is a mouse monoclonal antibody raised against amino acids 220-519 mapping within an internal region of Suppressin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Suppressin (F-7) is recommended for detection of Suppressin of human origin by Western Blotting (starting dilution 1:100, 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 Suppressin siRNA (h): sc-76613, Suppressin shRNA Plasmid (h): sc-76613-SH and Suppressin shRNA (h) Lentiviral Particles: sc-76613-V.

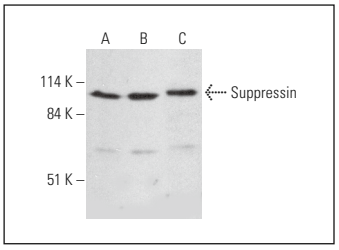
Molecular Weight of Suppressin: 90 kDa.

Positive Controls: Suppressin (h): 293T Lysate: sc-178000, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

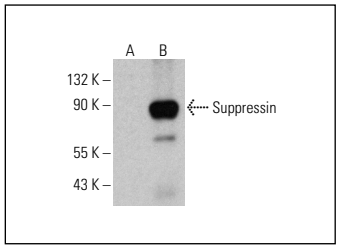
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Suppressin (F-7): sc-515174. Western blot analysis of Suppressin expression in HeLa (**A**), SH-SY5Y (**B**) and A549 (**C**) whole cell lysates.



Suppressin (F-7): sc-515174. Western blot analysis of Suppressin expression in non-transfected: sc-117752 (**A**) and human Suppressin transfected: sc-178000 (**B**) 293T 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 for detailed protocols and support products.