SANTA CRUZ BIOTECHNOLOGY, INC.

Slfn12 (N-13): sc-138620

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The Power to Question

BACKGROUND

Schlafen family members are preferentially expressed in lymphoid tissues and are differentially regulated during thymocyte maturation. Schlafen proteins function as suppressors of cell growth and are thought to play a role in the maintenance of T cell quiescence. All members of the Schlafen family contain a conserved core domain and are substantially diversified at the N terminus. The prototype member of the Schlafen family, Slfn1, is transcriptionally unregulated during thymocyte positive selection and its induction leads to G_0/G_1 arrest, suggesting that Slfn1 participates in the regulation of cell cycle and potentially acts as a determining factor for apoptosis. Slfn1 and Slfn2 are both unregulated during the double-positive (DP) and single-positive (SP) stages of thymocyte development, whereas Slfn4 is down regulated at these stages. Changes in Schalfen protein expression may contribute to phenotypic differences seen in thymic subsets. Slfn12 (schlafen family member 12), also known as SLFN3, is a 578 amino acid protein belonging to the Schlafen family.

REFERENCES

1. Marrack, P., et al. 1997. Positive selection of thymocytes bearing $\alpha\ \beta$ T cell receptors. Curr. Opin. Immunol. 9: 250-255.
2. Mehr, R., et al. 1997. Regulatory feedback pathways in the thymus. Immunol. Today 18: 581-585.
3. Takeuchi, T., et al. 1997. Transgenic expression of a novel thymic epithelial cell antigen stimulates abberant development of thymocytes. J. Immunol. 159: 726-733.
4. Schwarz, D.A., et al. 1998. Schlafen, a new family of growth regulatory genes that affect thymocyte development. Immunity 9: 657-668.
5. Hershberger, P.A., et al. 1998. *In vitro* thymocyte maturation is associated with reduced cellular susceptibility to Fas-mediated apoptosis. Cell. Immunol. 185: 134-145.
6. Schwarz, D.A., et al. 1998. Schlafen, a new family of growth regulatory genes that affect thymocyte development. Immunity 9: 657-668.
7. Benoist, C., et al. 1999. T-cell development: a new marker of differentiation state. Curr. Biol. 9: R59-R61.
8. Brady, G., et al. 2005. Schlafen-1 causes a cell cycle arrest by inhibiting induction of cyclin D1. J. Biol. Chem. 280: 30723-30734.
9. Neumann, B., et al. 2008. Subcellular localization of the Schlafen protein family. Biochem. Biophys. Res. Commun. 370: 62-66.

CHROMOSOMAL LOCATION

Genetic locus: SLFN12 (human) mapping to 17q12.

SOURCE

Slfn12 (N-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Slfn12 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 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138620 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Slfn12 (N-13) is recommended for detection of Slfn12 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other Slfn family members.

Suitable for use as control antibody for Slfn12 siRNA (h): sc-93836, Slfn12 shRNA Plasmid (h): sc-93836-SH and Slfn12 shRNA (h) Lentiviral Particles: sc-93836-V.

Molecular Weight of Slfn12: 67 kDa.

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) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ 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.