

Slfn11 (E-4): sc-374339

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 G₀/G₁ 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 Schlafen protein expression may contribute to phenotypic differences seen in thymic subsets. Slfn11 (Schlafen family member 11), also known as SLFN8/9, is a 901 amino acid protein belonging to the Schlafen family.

REFERENCES

1. Marrack, P. and Kappler, J. 1997. Positive selection of thymocytes bearing α β 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.

CHROMOSOMAL LOCATION

Genetic locus: SLFN11 (human) mapping to 17q12.

SOURCE

Slfn11 (E-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 733-765 near the C-terminus of Slfn11 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Slfn11 (E-4) is available conjugated to agarose (sc-374339 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374339 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374339 PE), fluorescein (sc-374339 FITC), Alexa Fluor[®] 488 (sc-374339 AF488), Alexa Fluor[®] 546 (sc-374339 AF546), Alexa Fluor[®] 594 (sc-374339 AF594) or Alexa Fluor[®] 647 (sc-374339 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-374339 AF680) or Alexa Fluor[®] 790 (sc-374339 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374339 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

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

APPLICATIONS

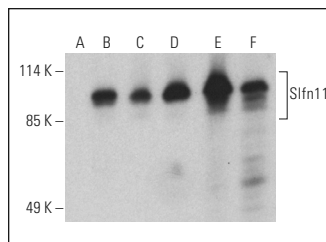
Slfn11 (E-4) is recommended for detection of Slfn11 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 Slfn11 siRNA (h): sc-93615, Slfn11 shRNA Plasmid (h): sc-93615-SH and Slfn11 shRNA (h) Lentiviral Particles: sc-93615-V.

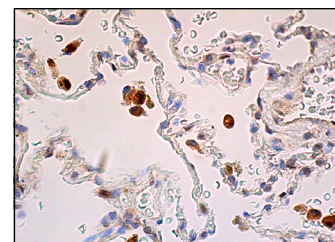
Molecular Weight of Slfn11: 103 kDa.

Positive Controls: Slfn11 (h): 293T Lysate: sc-129785, MOLT-4 cell lysate: sc-2233 or Caki-1 cell lysate: sc-2224.

DATA



Slfn11 (E-4): sc-374339. Western blot analysis of Slfn11 expression in non-transfected 293T: sc-117752 (A), human Slfn11 transfected 293T: sc-129785 (B), MOLT-4 (C), Caki-1 (D), HL-60 (E) and U-937 (F) whole cell lysates.



Slfn11 (E-4): sc-374339. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of macrophages.

SELECT PRODUCT CITATIONS

1. Abdel-Mohsen, M., et al. 2013. Expression profile of host restriction factors in HIV-1 elite controllers. *Retrovirology* 10: 106.
2. Lok, B.H., et al. 2017. PARP inhibitor activity correlates with Slfn11 expression and demonstrates synergy with temozolomide in small cell lung cancer. *Clin. Cancer Res.* 23: 523-535.
3. Murai, J., et al. 2018. Slfn11 blocks stressed replication forks independently of ATR. *Mol. Cell* 69: 371-384.e6.
4. Malone, D., et al. 2019. Dephosphorylation activates the interferon-stimulated Schlafen family member 11 in the DNA damage response. *J. Biol. Chem.* 294: 14674-14685.
5. Zhou, C., et al. 2020. Slfn11 inhibits hepatocellular carcinoma tumorigenesis and metastasis by targeting RPS4X via mTOR pathway. *Theranostics* 10: 4627-4643.
6. Okamoto, Y., et al. 2021. Slfn11 promotes stalled fork degradation that underlies the phenotype in Fanconi anemia cells. *Blood* 137: 336-348.

RESEARCH USE

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