

Slfn11 (D-2): sc-515071

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.

CHROMOSOMAL LOCATION

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

SOURCE

Slfn11 (D-2) is a mouse monoclonal antibody raised against amino acids 154-203 mapping within an internal region of Slfn11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Slfn11 (D-2) is available conjugated to agarose (sc-515071 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515071 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515071 PE), fluorescein (sc-515071 FITC), Alexa Fluor® 488 (sc-515071 AF488), Alexa Fluor® 546 (sc-515071 AF546), Alexa Fluor® 594 (sc-515071 AF594) or Alexa Fluor® 647 (sc-515071 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515071 AF680) or Alexa Fluor® 790 (sc-515071 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Slfn11 (D-2) 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 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 Slfn11 siRNA (h): sc-93615, Slfn11 shRNA Plasmid (h): sc-93615-SH and Slfn11 shRNA (h) Lentiviral Particles: sc-93615-V.

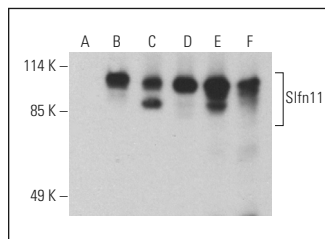
Molecular Weight of Slfn11: 103 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, MOLT-4 cell lysate: sc-2233 or Slfn11 (h): 293T Lysate: sc-129785.

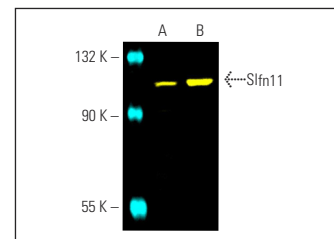
STORAGE

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

DATA



Slfn11 (D-2): sc-515071. 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 (D-2) Alexa Fluor® 488: sc-515071 AF488. Direct fluorescent western blot analysis of Slfn11 expression in HL-60 (A) and HEK293 (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214, Cruz Marker® Molecular Weight Standards detected with Cruz Marker® MW Tag-Alexa Fluor® 647: sc-516791.

SELECT PRODUCT CITATIONS

- Murai, J., et al. 2018. Slfn11 blocks stressed replication forks independently of ATR. *Mol. Cell* 69: 371-384.e6.
- Murai, J., et al. 2019. Schlafen 11 (Slfn11), a restriction factor for replicative stress induced by DNA-targeting anti-cancer therapies. *Pharmacol. Ther.* 201: 94-102.
- Murai, J., et al. 2020. Chromatin remodeling and immediate early gene activation by Slfn11 in response to replication stress. *Cell Rep.* 30: 4137-4151.e6.
- Moribe, F., et al. 2021. Epigenetic suppression of Slfn11 in germinal center B-cells during B-cell development. *PLoS ONE* 16: e0237554.
- Murai, Y., et al. 2021. Schlafen 11 expression in human acute leukemia cells with gain-of-function mutations in the interferon-JAK signaling pathway. *iScience* 24: 103173.
- Ueno, H., et al. 2022. TAS1553, a small molecule subunit interaction inhibitor of ribonucleotide reductase, exhibits antitumor activity by causing DNA replication stress. *Commun. Biol.* 5: 571.
- Taniyama, D., et al. 2022. Prognostic impact of Schlafen 11 in bladder cancer patients treated with platinum-based chemotherapy. *Cancer Sci.* 113: 784-795.
- Hamada, S., et al. 2023. Schlafen family member 11 indicates favorable prognosis of patients with head and neck cancer following platinum-based chemoradiotherapy. *Front. Oncol.* 12: 978875.
- Onji, H., et al. 2024. Schlafen 11 further sensitizes BRCA-deficient cells to PARP inhibitors through single-strand DNA gap accumulation behind replication forks. *Oncogene* 43: 2475-2489.

RESEARCH USE

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