

Psoriasin (47C1068): sc-52948

BACKGROUND

Psoriasin, also known as PSOR1 or S-100A7, is a 101 amino acid protein that belongs to the S-100 family of calcium binding proteins and is secreted via a non-classical secretory pathway into the cytoplasm. Expressed in fetal ear, tongue and skin, Psoriasin is thought to function in the regulation of many cellular processes, including the cell cycle, cell progression and cellular differentiation. Psoriasin contains two EF-hand domains and is highly upregulated in psoriatic epidermis, as well as in bladder squamous cell carcinoma and breast cancer tissue, suggesting a possible role in carcinogenesis. The gene encoding Psoriasin and the related S100A15 gene are thought to have diverged from one mouse gene, designated S100A15. In humans, the S100A15 gene encodes a calcium binding protein, also known as S-100A7A, that shares 95% sequence identity with Psoriasin.

REFERENCES

1. Brodersen, D.E., et al. 1998. EF-hands at atomic resolution: the structure of human Psoriasin (S-100A7) solved by MAD phasing. *Structure* 6: 477-489.
2. Ruse, M., et al. 2003. S-100A7 (Psoriasin) interacts with epidermal fatty acid binding protein and localizes in focal adhesion-like structures in cultured keratinocytes. *J. Invest. Dermatol.* 121: 132-141.
3. Wolf, R., et al. 2003. Molecular cloning and characterization of alternatively spliced mRNA isoforms from psoriatic skin encoding a novel member of the S-100 family. *FASEB J.* 17: 1969-1971.

CHROMOSOMAL LOCATION

Genetic locus: S100A7/S100A7A (human) mapping to 1q21.3.

SOURCE

Psoriasin (47C1068) is a mouse monoclonal antibody raised against full length Psoriasin of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Psoriasin (47C1068) is recommended for detection of Psoriasin and S-100A15 of human origin by Western Blotting (starting dilution 1:200, 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), 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).

Molecular Weight of Psoriasin: 11 kDa.

Positive Controls: Psoriasin (h): 293T Lysate: sc-113860 or SCC-4 whole cell lysate: sc-364363.

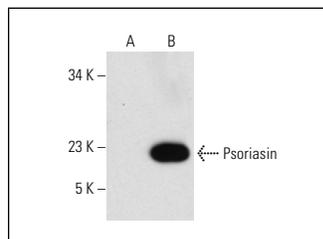
RESEARCH USE

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

STORAGE

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

DATA



Psoriasin (47C1068): sc-52948. Western blot analysis of Psoriasin expression in non-transfected: sc-117752 (A) and human Psoriasin transfected: sc-113860 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pène, J., et al. 2008. Chronically inflamed human tissues are infiltrated by highly differentiated Th17 lymphocytes. *J. Immunol.* 180: 7423-7430.
2. Tripathi, S.C., et al. 2010. Nuclear S100A7 is associated with poor prognosis in head and neck cancer. *PLoS ONE* 5: e11939.
3. Voisin, S.N., et al. 2011. Identification of novel molecular targets for endometrial cancer using a drill-down LC-MS/MS approach with iTRAQ. *PLoS ONE* 6: e16352.
4. Muehleisen, B., et al. 2012. Distinct innate immune gene expression profiles in non-melanoma skin cancer of immunocompetent and immunosuppressed patients. *PLoS ONE* 7: e40754.
5. Kaur, J., et al. 2014. S100A7 overexpression is a predictive marker for high risk of malignant transformation in oral dysplasia. *Int. J. Cancer* 134: 1379-1388.
6. Chauhan, S.S., et al. 2015. Prediction of recurrence-free survival using a protein expression-based risk classifier for head and neck cancer. *Oncogenesis* 4: e147.
7. Eichten, A., et al. 2016. Resistance to anti-VEGF therapy mediated by autocrine IL-6/Stat3 signaling and overcome by IL-6 blockade. *Cancer Res.* 76: 2327-2339.
8. Pucci-Minafra, I., et al. 2017. Retrospective proteomic screening of 100 breast cancer tissues. *Proteomes* 5 pii: E15.
9. Granata, M., et al. 2018. S100A7, Jab1, and p27^{kip1} expression in psoriasis and S100A7 CRISPR-activated human keratinocyte cell line. *J. Cell. Biochem.* 120: 3384-3392.
10. Granata, M., et al. 2019. S100A7 in psoriasis: immunodetection and activation by CRISPR technology. *Methods Mol. Biol.* 1929: 729-738.

PROTOCOLS

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