

Psoriasin (H-8): sc-377084

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.
4. Jiang, W.G., et al. 2004. Psoriasin is aberrantly expressed in human breast cancer and is related to clinical outcomes. *Int. J. Oncol.* 25: 81-85.

CHROMOSOMAL LOCATION

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

SOURCE

Psoriasin (H-8) is a mouse monoclonal antibody raised against amino acids 1-101 representing full length Psoriasin of human origin.

PRODUCT

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

APPLICATIONS

Psoriasin (H-8) is recommended for detection of Psoriasin and S-100A15 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), 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).

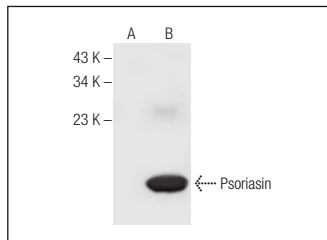
Molecular Weight of Psoriasin: 11 kDa.

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

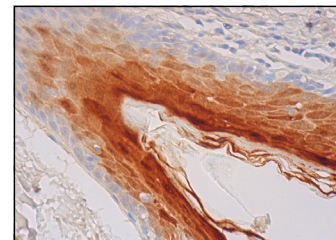
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Psoriasin (H-8): sc-377084. Western blot analysis of Psoriasin expression in non-transfected: sc-117752 (A) and human Psoriasin transfected: sc-113860 (B) 293T whole cell lysates.



Psoriasin (H-8): sc-377084. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic and nuclear staining of keratinocytes and Langerhans cells.

SELECT PRODUCT CITATIONS

1. Sakurai, M., et al. 2017. Interaction with adipocyte stromal cells induces breast cancer malignancy via S-100A7 upregulation in breast cancer microenvironment. *Breast Cancer Res.* 19: 70.
2. Kumar, D., et al. 2019. YAP promotes neural crest emigration through interactions with BMP and Wnt activities. *Cell Commun. Signal.* 17: 69.
3. Lee, J.Y., et al. 2019. YAP-independent mechanotransduction drives breast cancer progression. *Nat. Commun.* 10: 1848.

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.