

SPR1 (W-13): sc-169421

BACKGROUND

SPR1, also known as psors1c2 (psoriasis susceptibility 1 candidate gene 2 protein homolog), is a 134 amino acid secreted protein. SPR1 is expressed in psoriasis as well as normal skin tissue. One of four single-nucleotide polymorphisms (SNPs) found in SPR1 is known to associate with psoriasis, a chronic autoimmune disease of the skin that results in red, scaly lesions. Abnormal keratinocyte differentiation, epidermal hyperproliferation, and infiltration of T cells and mononuclear cells are also characteristic of psoriasis, as well as possible reduction in physical and mental functioning. SPR1 may also contribute to the genetic risk of graft versus host disease, a complication that results from rejection of transplanted stem cells or bone marrow.

REFERENCES

- Farber, E.M. and Nall, M.L. 1974. The natural history of psoriasis in 5,600 patients. *Dermatologica* 148: 1-18.
- Kartasova, T., Darwiche, N., Kohno, Y., Koizumi, H., Osada, S., Huh, N., Lichti, U., Steinert, P.M. and Kuroki, T. 1996. Sequence and expression patterns of mouse SPR1: Correlation of expression with epithelial function. *J. Invest. Dermatol.* 106: 294-304.
- Song, H.J., Poy, G., Darwiche, N., Lichti, U., Kuroki, T., Steinert, P.M. and Kartasova, T. 1999. Mouse Sprr2 genes: a clustered family of genes showing differential expression in epithelial tissues. *Genomics* 55: 28-42.
- Rapp, S.R., Feldman, S.R., Exum, M.L., Fleischer, A.B. and Reboussin, D.M. 1999. Psoriasis causes as much disability as other major medical diseases. *J. Am. Acad. Dermatol.* 41: 401-407.
- Holm, S.J., Carlen, L.M., Mallbris, L., Stahle-Bäckdahl, M. and O'Brien, K.P. 2003. Polymorphisms in the SEEK1 and SPR1 genes on 6p21.3 associate with psoriasis in the Swedish population. *Exp. Dermatol.* 12: 435-444.
- Chang, Y.T., Shiao, Y.M., Chin, P.J., Liu, Y.L., Chou, F.C., Wu, S., Lin, Y.F., Li, L.H., Lin, M.W., Liu, H.N. and Tsai, S.F. 2004. Genetic polymorphisms of the HCR gene and a genomic segment in close proximity to HLA-C are associated with patients with psoriasis in Taiwan. *Br. J. Dermatol.* 150: 1104-1111.
- Chang, Y.T., Liu, H.N., Shiao, Y.M., Lin, M.W., Lee, D.D., Liu, M.T., Wang, W.J., Wu, S., Lai, C.Y. and Tsai, S.F. 2005. A study of PSORS1C1 gene polymorphisms in Chinese patients with psoriasis. *Br. J. Dermatol.* 153: 90-96.
- Schmidt, S., Rainieri, S., Witte, S., Matern, U. and Martens, S. 2011. Identification of a *Saccharomyces cerevisiae* glucosidase that hydrolyzes flavonoid glucosides. *Appl. Environ. Microbiol.* 77: 1751-1757.
- Agusti-Mejias, A., Messegue, F., García-Ruiz, R., de Unamuno, B., Perez-Ferriols, A., Sánchez-Carazo, J.L. and Alegre de Miquel, V. 2011. Concomitant dermatitis herpetiformis and plaque psoriasis: possible skin manifestations of Celiac disease. *Actas Dermosifiliogr.* Epublished.

STORAGE

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

CHROMOSOMAL LOCATION

Genetic locus: Psors1c2 (mouse) mapping to 17 B1.

SOURCE

SPR1 (W-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPR1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-169421 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPR1 (W-13) is recommended for detection of SPR1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 SPR1 siRNA (m): sc-152565, SPR1 shRNA Plasmid (m): sc-152565-SH and SPR1 shRNA (m) Lentiviral Particles: sc-152565-V.

Molecular Weight of SPR1: 14 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.