

Sciellin (N-16): sc-49318

BACKGROUND

Sciellin (SCEL) is a precursor protein of the keratinocyte cornified envelope which is formed beneath the inner surface of the cell membrane during terminal differentiation. The central domain of Sciellin contains 16 repeats of approximately 20 amino acids each that are rich in putative transglutaminase substrates (glutamine and lysine). The C-terminal region contains one LIM domain, a motif that is presumably involved in protein-protein interactions. Northern blot analysis shows Sciellin expression solely in esophagus tissue, and *in situ* hybridization of human foreskin sections exhibit expression in the upper stratum spinosum and the stratum granulosum. Sciellin also demonstrates peripheral cytoplasmic localization in the upper cell layers of the epidermis and in stratified squamous epithelia.

REFERENCES

1. Kvedar, J.C., et al. 1992. Characterization of Sciellin, a precursor to the cornified envelope of human keratinocytes. *Differentiation* 49: 195-204.
2. Champlaud, M.F., et al. 1998. cDNA c keratinocyte cornified envelope. *J. Biol. Chem.* 273: 31547-31554.
3. Champlaud, M.F., et al. 2001. Gene characterization of Sciellin (SCEL) and protein localization in vertebrate epithelia displaying barrier properties. *Genomics* 70: 264-268.
4. Champlaud, M.F., et al. 2003. The expression of vitamin D-upregulated protein 1 in skin and its interaction with Sciellin in cultured keratinocytes. *J. Invest. Dermatol.* 121: 781-785.
5. Corona, W., et al. 2004. Analysis of Sciellin (SCEL) as a candidate gene in esophageal squamous cell carcinoma. *Anticancer Res.* 24: 1417-1419.
6. Alibardi, L., et al. 2005. Localization and characterization of specific cornification proteins in avian epidermis. *Cells Tissues Organs* 178: 204-215.
7. Baden, H.P., et al. 2005. Targeted deletion of the Sciellin gene resulted in normal development and maturation. *Genesis* 42: 219-228.

CHROMOSOMAL LOCATION

Genetic locus: SCEL (human) mapping to 13q22.3; Scel (mouse) mapping to 14 E2.3.

SOURCE

Sciellin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Sciellin of human 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-49318 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Sciellin (N-16) is recommended for detection of Sciellin of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Sciellin (N-16) is also recommended for detection of Sciellin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Sciellin siRNA (h): sc-61501, Sciellin siRNA (m): sc-61502, Sciellin shRNA Plasmid (h): sc-61501-SH, Sciellin shRNA Plasmid (m): sc-61502-SH, Sciellin shRNA (h) Lentiviral Particles: sc-61501-V and Sciellin shRNA (m) Lentiviral Particles: sc-61502-V.

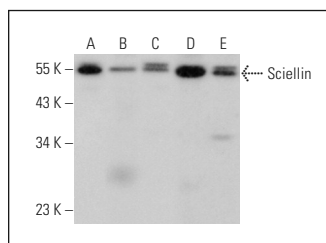
Molecular Weight of Sciellin: 55/62 kDa.

Positive Controls: A-375 cell lysate: sc-3811, human tonsil tissue extract: sc-364263 or mouse skin extract: sc-364251.

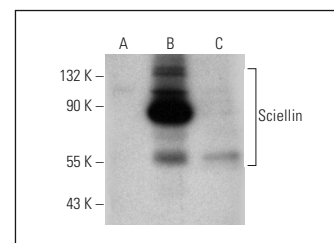
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Sciellin (N-16): sc-49318. Western blot analysis of Sciellin expression in A-375 (A), NCI-H292 (B) and HeLa (C) whole cell lysates and mouse skin (D) and human tonsil (E) tissue extracts.



Sciellin (N-16): sc-49318. Western blot analysis of Sciellin expression in non-transfected CHO (A), human Sciellin transfected CHO (B) and A-431 (C) whole cell lysates.

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.