

Loricrin (W-22): sc-133757

BACKGROUND

Involucrin, Loricrin and Sciellin are components of the keratinocyte cornified envelope, which is formed beneath the inner surface of the cell membrane and replaces the plasma membrane during terminal differentiation. Involucrin first appears in the cell cytosol, but ultimately becomes cross-linked to membrane proteins by transglutaminase. Loricrin localizes to the cytoplasm and the nucleus and is a substrate of transglutaminases. Mutations in LOR, the gene encoding Loricrin, may be involved in the skin disease Loricrin keratoderma (LK), an ichthyotic variant of Vohwinkel syndrome (VS). LK is characterized by progressive symmetric erythrokeratoderma or congenital ichthyosiform erythroderma. Clinical symptoms of LK include hyperkeratosis of the soles and palms along with digital constriction.

REFERENCES

- Hohl, D., et al. 1991. Characterization of human Loricrin. Structure and function of a new class of epidermal cell envelope proteins. *J. Biol. Chem.* 266: 6626-6636.
- Yoneda, K., et al. 1992. The human Loricrin gene. *J. Biol. Chem.* 267: 18060-18066.
- O'Driscoll, J., et al. 2002. A recurrent mutation in the Loricrin gene underlies the ichthyotic variant of Vohwinkel syndrome. *Clin. Exp. Dermatol.* 27: 243-246.
- Ishida-Yamamoto, A. 2003. Loricrin keratoderma: a novel disease entity characterized by nuclear accumulation of mutant Loricrin. *J. Dermatol. Sci.* 31: 3-8.
- Chaturvedi, V., et al. 2005. Defining the caspase-containing apoptotic machinery contributing to cornification in human epidermal equivalents. *Exp. Dermatol.* 15: 14-22.

CHROMOSOMAL LOCATION

Genetic locus: LOR (human) mapping to 1q21.3.

SOURCE

Loricrin (W-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic Loricrin peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Loricrin (W-22) is recommended for detection of Loricrin 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).

Suitable for use as control antibody for Loricrin siRNA (h): sc-60960, Loricrin shRNA Plasmid (h): sc-60960-SH and Loricrin shRNA (h) Lentiviral Particles: sc-60960-V.

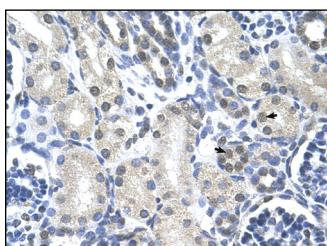
Molecular Weight of Loricrin: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Loricrin (W-22): sc-133757. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Simon, D., et al. 2013. Exposure to acute electromagnetic radiation of mobile phone exposure range alters transiently skin homeostasis of a model of pigmented reconstructed epidermis. *Int. J. Cosmet. Sci.* 35: 27-34.

RESEARCH USE

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