

# Trichohyalin (N-16): sc-47517

## BACKGROUND

Trichohyalin is a nine domain-containing structural protein that is produced in the medulla and inner root sheath of hair follicles. Among the structural motifs are two ERF-hand calcium-binding domains located in domain one. It is a member of the S100-fused protein family and a substrate of transglutaminase and peptidylarginine deaminase. Trichohyalin associates with keratin intermediate filaments (KIF) and peripheral cell envelope barrier proteins to coordinate cornified cell envelope organization.

## REFERENCES

1. O'Guin, W.M., et al. 1992. Interaction of Trichohyalin with intermediate filaments: three immunologically defined stages of Trichohyalin maturation. *J. Invest. Dermatol.* 98: 24-32.
2. Lee, S.C., et al. 1993. The structure of human Trichohyalin. Potential multiple roles as a functional EF-hand-like calcium-binding protein, a cornified cell envelope precursor, and an intermediate filament-associated (cross-linking) protein. *J. Biol. Chem.* 268: 12164-12176.
3. Manabe, M. and O'Guin, W.M. 1995. Existence of Trichohyalin-keratohyalin hybrid: two major intermediate filament-associated proteins in non-follicular epithelia. *Differentiation* 58: 65-75.
4. Tarcsa, E., et al. 1997. The fate of Trichohyalin. Sequential posttranslational modifications by peptidyl-arginine deaminase and transglutaminases. *J. Biol. Chem.* 272: 27893-27901.
5. Ishida-Yamamoto, A., et al. 1997. Distinctive expression of Filaggrin and Trichohyalin during various pathways of epithelial differentiation. *Br. J. Dermatol.* 137: 9-16.
6. Steinert, P.M., et al. 1998. Biochemical evidence that small proline-rich proteins and Trichohyalin function in epithelia by modulation of the biomechanical properties of their cornified cell envelopes. *J. Biol. Chem.* 273: 11758-11769.

## CHROMOSOMAL LOCATION

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

## SOURCE

Trichohyalin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Trichohyalin 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-47517 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

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

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

Suitable for use as control antibody for Trichohyalin siRNA (h): sc-106636, and as shRNA Plasmid control antibody for Trichohyalin shRNA Plasmid (h): sc-106636-SH.

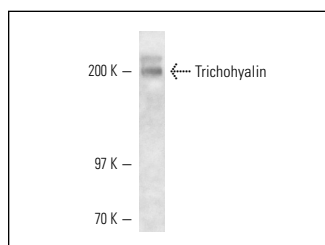
Molecular Weight of Trichohyalin: 200-220 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263.

## 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



Trichohyalin (N-16): sc-47517. Western blot analysis of Trichohyalin expression in CCD-1064Sk whole cell lysate.

## RESEARCH USE

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



Try **Trichohyalin (E-11): sc-376684** or **Trichohyalin (F-2): sc-515130**, our highly recommended monoclonal alternatives to Trichohyalin (N-16).