

Trichohyalin (E-11): sc-376684

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 1. 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

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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. 1994. Existence of Trichohyalin-keratohyalin hybrid granules: co-localization of two major intermediate filament-associated proteins in non-follicular epithelia. *Differentiation* 58: 65-75.
4. Tarcza, E., et al. 1997. The fate of Trichohyalin. Sequential posttranslational modifications by peptidyl-arginine deiminase 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 (E-11) is a mouse monoclonal antibody raised against amino acids 23-215 mapping near the N-terminus of Trichohyalin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Trichohyalin (E-11) is available conjugated to agarose (sc-376684 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376684 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376684 PE), fluorescein (sc-376684 FITC), Alexa Fluor® 488 (sc-376684 AF488), Alexa Fluor® 546 (sc-376684 AF546), Alexa Fluor® 594 (sc-376684 AF594) or Alexa Fluor® 647 (sc-376684 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376684 AF680) or Alexa Fluor® 790 (sc-376684 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Trichohyalin (E-11) is recommended for detection of Trichohyalin 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

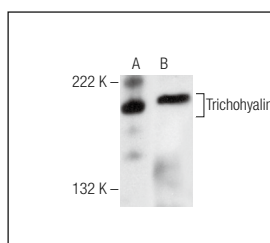
Molecular Weight of Trichohyalin: 200-220 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263, Hs 732.Sk/Mu whole cell lysate: sc-364362 or human lung extract: sc-363767.

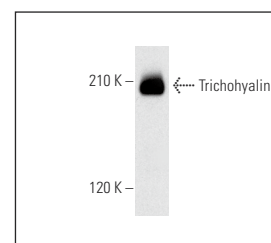
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Trichohyalin (E-11): sc-376684. Western blot analysis of Trichohyalin expression in CCD-1064Sk whole cell lysate (A) and human lung tissue extract (B).



Trichohyalin (E-11): sc-376684. Western blot analysis of Trichohyalin expression in Hs 732.Sk/Mu whole cell lysate.

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.

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