SANTA CRUZ BIOTECHNOLOGY, INC.

Trichohyalin (F-2): sc-515130

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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 granules: co-localization of 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 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.

CHROMOSOMAL LOCATION

Genetic locus: TCHH (human) mapping to 1q21.3; Tchh (mouse) mapping to 3 F2.1.

SOURCE

Trichohyalin (F-2) is a mouse monoclonal antibody raised against amino acids 36-209 mapping at the N-terminus of Trichohyalin of mouse origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Trichohyalin (F-2) is available conjugated to agarose (sc-515130 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515130 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515130 PE), fluorescein (sc-515130 FITC), Alexa Fluor® 488 (sc-515130 AF488), Alexa Fluor® 546 (sc-515130 AF546), Alexa Fluor® 594 (sc-515130 AF594) or Alexa Fluor® 647 (sc-515130 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515130 AF680) or Alexa Fluor® 790 (sc-515130 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Trichohyalin (F-2) is recommended for detection of Trichohyalin of mouse, rat and 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 siRNA (m): sc-61711, Trichohyalin shRNA Plasmid (h): sc-106636-SH, Trichohyalin shRNA Plasmid (m): sc-61711-SH, Trichohyalin shRNA (h) Lentiviral Particles: sc-106636-V and Trichohyalin shRNA (m) Lentiviral Particles: sc-61711-V.

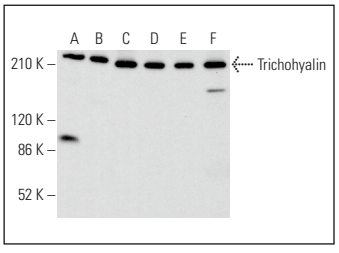
Molecular Weight of Trichohyalin: 200-220 kDa.

Positive Controls: mouse colon extract: sc-364238, A549 cell lysate: sc-2413 or mouse lung extract: sc-2390.

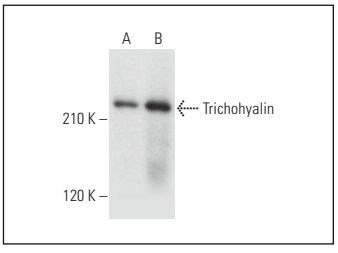
RECOMMENDED SUPPORT REAGENTS

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 (F-2): sc-515130. Western blot analysis of Trichohyalin expression in F9 (**A**), AMJ2-C8 (**B**), Y79 (**C**), NTERA-2 cl.D1 (**D**) and A549 (**E**) whole cell lysates and rat testis tissue extract (**F**).



Trichohyalin (F-2): sc-515130. Western blot analysis of Trichohyalin expression in mouse colon (**A**) and mouse lung (**B**) tissue extracts.

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.