

Keratin 33B (h): 293 Lysate: sc-174844

BACKGROUND

The keratin multigene family is made of the "soft" epithelial cytokeratins and the "hard" hair keratins. While the epithelial cytokeratins are involved in the layering and formation of epithelia, the hair keratins are responsible for creating nails and hair. There are two types of hair keratins: the acidic type I hair keratin proteins and the basic/neutral type II hair keratin proteins. Keratin 33B, also known as KRT33B, HHA3-II, HKA3B or KRTHA3B, is a 404 amino acid member of the hair keratin family. Keratin 33B is an acidic type I hair keratin that, as is characteristic of the type I proteins, heterodimerizes with type II keratins and, through this association, forms hair and nail fibers. Defects in the gene encoding Keratin 33B can weaken the structural integrity of the hair and nail fibers, possibly causing various hereditary diseases.

REFERENCES

1. Yu, J., Yu, D.W., Checkla, D.M., Freedberg, I.M. and Bertolino, A.P. 1993. Human hair keratins. *J. Invest. Dermatol.* 101: 56S-59S.
2. Rogers, M.A., Schweizer, J., Kreig, T. and Winter, H. 1994. A novel human type I hair keratin gene: evidence for two keratin hHa3 isoforms. *Mol. Biol. Rep.* 20: 155-161.
3. Rogers, M.A., Winter, H., Wolf, C., Heck, M. and Schweizer, J. 1998. Characterization of a 190 kilobase pair domain of human type I hair keratin genes. *J. Biol. Chem.* 273: 26683-26691.
4. Langbein, L., Rogers, M.A., Winter, H., Praetzel, S., Beckhaus, U., Rackwitz, H.R. and Schweizer, J. 1999. The catalog of human hair keratins. I. Expression of the nine type I members in the hair follicle. *J. Biol. Chem.* 274: 19874-19884.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602762. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Schweizer, J., Bowden, P.E., Coulombe, P.A., Langbein, L., Lane, E.B., Magin, T.M., Maltais, L., Omary, M.B., Parry, D.A., Rogers, M.A. and Wright, M.W. 2006. New consensus nomenclature for mammalian keratins. *J. Cell Biol.* 174: 169-174.

CHROMOSOMAL LOCATION

Genetic locus: KRT33B (human) mapping to 17q21.2.

PRODUCT

Keratin 33B (h): 293 Lysate represents a lysate of human Keratin 33B transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Keratin 33B (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive Keratin 33B antibodies. Recommended use: 10-20 µl per lane.

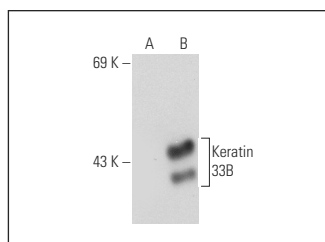
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

Keratin 33B (S-28): sc-100928 is recommended as a positive control antibody for Western Blot analysis of enhanced human Keratin 33B expression in Keratin 33B transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



Keratin 33B (S-28): sc-100928. Western blot analysis of Keratin 33B expression in non-transfected: sc-110760 (A) and human Keratin 33B transfected: sc-174844 (B) 293 whole cell lysates.

RESEARCH USE

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