

Keratin 86 (L-14): sc-168332

BACKGROUND

The Keratin multigene family is made of "soft" epithelial cytokeratins and "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 Keratins: the acidic class I Keratin proteins and the basic/neutral class II Keratin proteins. Keratin 86, also known as KRT86, KRTHB6 or HB6, is a 486 amino acid protein that is that is a member of the basic/neutral class II Keratin protein family. Synthesis of Keratin 86 begins in the hair shaft and ends in the keratogeneous zone. Monilethrix is an autosomal dominant disorder caused by defects in the Keratin 85 gene, which causes follicular papules and alopecia. In most cases, only the scalp is affected but pubic hair, eyelashes, eyebrows and nails can also be affected. The gene encoding Keratin 86 maps to human chromosome 12q13.13.

REFERENCES

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2. Rogers, M.A., et al. 2000. Characterization of a 300 kbp region of human DNA containing the type II hair keratin gene domain. *J. Invest. Dermatol.* 114: 464-472.
3. Langbein, L., et al. 2001. The catalog of human hair keratins. II. Expression of the six type II members in the hair follicle and the combined catalog of human type I and II keratins. *J. Biol. Chem.* 276: 35123-35132.
4. Hesse, M., et al. 2001. Genes for intermediate filament proteins and the draft sequence of the human genome: novel keratin genes and a surprisingly high number of pseudogenes related to keratin genes 8 and 18. *J. Cell Sci.* 114: 2569-2575.
5. Langbein, L. and Schweizer, J. 2005. Keratins of the human hair follicle. *Int. Rev. Cytol.* 243: 1-78.
6. Rogers, M.A., et al. 2005. Characterization of new members of the human type II keratin gene family and a general evaluation of the keratin gene domain on chromosome 12q13.13. *J. Invest. Dermatol.* 124: 536-544.
7. van Steensel, M.A., et al. 2005. A missense mutation in the type II hair keratin hHb3 is associated with monilethrix. *J. Med. Genet.* 42: e19.
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CHROMOSOMAL LOCATION

Genetic locus: Krt86 (mouse) mapping to 15 F2.

SOURCE

Keratin 86 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Keratin 86 of mouse origin.

STORAGE

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

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-168332 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Keratin 86 (L-14) is recommended for detection of Keratin 86 of mouse and rat 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); non cross-reactive with other Keratin family members.

Suitable for use as control antibody for Keratin 86 siRNA (m): sc-146433, Keratin 86 shRNA Plasmid (m): sc-146433-SH and Keratin 86 shRNA (m) Lentiviral Particles: sc-146433-V.

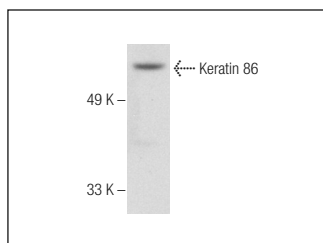
Molecular Weight of Keratin 86: 54 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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 Blotting 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



Keratin 86 (L-14): sc-168332. Western blot analysis of Keratin 86 expression in NIH/3T3 whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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