

Keratin 84 (N-15): sc-168321

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 84, also known as KRT84, HB4 or KRTHB4, is a 600 amino acid protein that is expressed in hair follicles. Keratin 84 is a basic/neutral type II Keratin protein which heterodimerizes with type I Keratins to create hair and nails. The gene encoding Keratin 84 maps to human chromosome 12q13.13 which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis and Kniest dysplasia.

REFERENCES

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3. Langbein, L., et al. 2002. A novel epithelial keratin, hK6irs1, is expressed differentially in all layers of the inner root sheath, including specialized huxley cells (Flügelzellen) of the human hair follicle. *J. Invest. Dermatol.* 118: 789-799.
4. Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
5. Langbein, L., et al. 2003. K6irs1, K6irs2, K6irs3, and K6irs4 represent the inner-root-sheath-specific type II epithelial keratins of the human hair follicle. *J. Invest. Dermatol.* 120: 512-522.
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. Schweizer, J., et al. 2006. New consensus nomenclature for mammalian keratins. *J. Cell Biol.* 174: 169-174.
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CHROMOSOMAL LOCATION

Genetic locus: KRT84 (human) mapping to 12q13.13.

SOURCE

Keratin 84 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Keratin 84 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-168321 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Keratin 84 (N-15) is recommended for detection of Keratin 84 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Keratin 84 (N-15) is also recommended for detection of Keratin 84 in additional species, including bovine.

Suitable for use as control antibody for Keratin 84 siRNA (h): sc-95922, Keratin 84 shRNA Plasmid (h): sc-95922-SH and Keratin 84 shRNA (h) Lentiviral Particles: sc-95922-V.

Molecular Weight of Keratin 84: 65 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.