

Keratin 33B (S-28): sc-100928

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 28 (keratin, type I cytoskeletal 28), also known as Keratin-25D or type I inner root sheath-specific keratin-K25irs4, is a 464 amino acid cytoplasmic protein that belongs to the intermediate filament family. Highly expressed in scalp and skin, Keratin 28 is found at lower levels in thymus and the medulla of beard hair. The gene encoding Keratin 28 maps to human chromosome 17q21.2 and mouse chromosome 11 D.

REFERENCES

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2. Rogers, M.A., Nischt, R., Korge, B., Krieg, T., Fink, T.M., Lichter, P., Winter, H. and Schweizer, J. 1995. Sequence data and chromosomal localization of human type I and type II hair keratin genes. *Exp. Cell Res.* 220: 357-362.
3. Rogers, M.A., Langbein, L., Praetzel, S., Moll, I., Krieg, T., Winter, H. and Schweizer, J. 1997. Sequences and differential expression of three novel human type-II hair keratins. *Differentiation* 61: 187-194.
4. Bowden, P.E., Hainey, S.D., Parker, G., Jones, D.O., Zimonjic, D., Popescu, N. and Hodgins, M.B. 1998. Characterization and chromosomal localization of human hair-specific keratin genes and comparative expression during the hair growth cycle. *J. Invest. Dermatol.* 110: 158-164.
5. 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.
6. Rogers, M.A., Winter, H., Langbein, L., Bleiler, R. and Schweizer, J. 2004. The human type I keratin gene family: characterization of new hair follicle specific members and evaluation of the chromosome 17q21.2 gene domain. *Differentiation* 72: 527-540.

CHROMOSOMAL LOCATION

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

SOURCE

Keratin 33B (S-28) is a mouse monoclonal antibody raised against recombinant Keratin 33B of human origin.

PRODUCT

Each vial contains 100 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Keratin 33B (S-28) is recommended for detection of Keratin 33B of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 Keratin 33B siRNA (h): sc-93591, Keratin 33B shRNA Plasmid (h): sc-93591-SH and Keratin 33B shRNA (h) Lentiviral Particles: sc-93591-V.

Molecular Weight of Keratin 33B: 46 kDa.

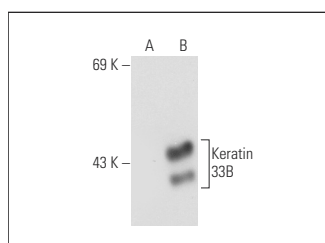
Positive Controls: MCF7 whole cell lysate: sc-2206 or Keratin 33B (h): 293 Lysate: sc-174844.

RECOMMENDED SUPPORT REAGENTS

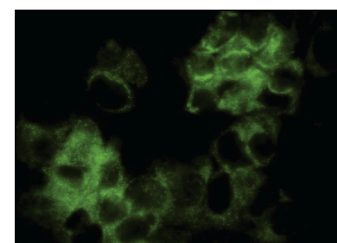
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



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.



Keratin 33B (S-28): sc-100928. Immunofluorescence staining of paraformaldehyde-fixed MCF7 cells showing cytoplasmic localization.

STORAGE

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

PROTOCOLS

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