

# Keratin 33A (Q-12): sc-168258

## 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 33A, also known as HA3I (hair Keratin, type I Ha3-I), Krt1-3 or KRTHA3A, is a 404 amino acid protein that is a member of the acidic class I Keratin protein family. Expressed in the human hair follicle, Keratin 33A forms heterodimers with type II Keratins to form nails and hair. The gene encoding Keratin 33A maps to human chromosome 17. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1. Malfunction or loss of p53 expression is associated with malignant cell growth and Li-Fraumeni syndrome. Like p53, BRCA1 is directly involved in DNA repair, and is linked to predisposition of cancers of the ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: KRT33A (human) mapping to 17q21.2.

## STORAGE

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

## SOURCE

Keratin 33A (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Keratin 33A 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-168258 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Keratin 33A (Q-12) is recommended for detection of Keratin 33A of human 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); may cross-react with KRT31, KRT33B and KRT34.

Suitable for use as control antibody for Keratin 33A siRNA (h): sc-94159, Keratin 33A shRNA Plasmid (h): sc-94159-SH and Keratin 33A shRNA (h) Lentiviral Particles: sc-94159-V.

Molecular Weight of Keratin 33A: 46 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.