

# Keratin 40 (S-14): sc-243153

## BACKGROUND

Keratin 40 (KRT40), also known as Cytokeratin-40 (CK-40) or KA36, is a 431 amino acid protein that belongs to the intermediate filament family. As a heterotetramer of two type I and two type II keratins, Keratin 40 may play a role in late hair differentiation. While weakly expressed in tongue, breast, colon and small intestine, Keratin 40 is highly expressed in skin and scalp. The gene that encodes Keratin 40 consists of approximately 9,420 bases and maps to human chromosome 17q21.2. Encoding more than 1,200 genes, chromosome 17 comprises over 2.5% of the human genome. 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, though specifically it is recognized as a genetic determinant of early onset breast cancer and predisposition to cancers of ovary, colon, prostate gland and fallopian tubes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: KRT40 (human) mapping to 17q21.2.

## SOURCE

Keratin 40 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Keratin 40 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-243153 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Keratin 40 (S-14) is recommended for detection of Keratin 40 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); non cross-reactive with other Keratin family members.

Suitable for use as control antibody for Keratin 40 siRNA (h): sc-94005, Keratin 40 shRNA Plasmid (h): sc-94005-SH and Keratin 40 shRNA (h) Lentiviral Particles: sc-94005-V.

Molecular Weight of Keratin 40: 48 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](http://www.scbt.com) or our catalog for detailed protocols and support products.