

# Cytokeratin 7 (C-68): sc-51585

## BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The  $\alpha$ -helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins are useful markers of tissue differentiation, and in addition, they aid in the characterization of malignant tumors. Cytokeratin 7 (also known as sarcolectin) agglutinates normal and transformed cells with a high affinity for simple sugars. Cytokeratin 7 also inhibits the synthesis of interferon-dependent secondary proteins thus reversing the antiviral effect of interferon induction and restoring cells to their status *ad primum*. In normal and transformed cells, Cytokeratin 7 localizes to the membrane.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: KRT7 (human) mapping to 12q13.13.

## SOURCE

Cytokeratin 7 (C-68) is a mouse monoclonal antibody raised against cytoskeleton preparation of HeLa cells of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Cytokeratin 7 (C-68) is recommended for detection of Cytokeratin 7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Cytokeratin 7 siRNA (h): sc-35154, Cytokeratin 7 shRNA Plasmid (h): sc-35154-SH and Cytokeratin 7 shRNA (h) Lentiviral Particles: sc-35154-V.

Molecular Weight of Cytokeratin 7: 54 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or Hep G2 cell lysate: sc-2227.

## 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) for detailed protocols and support products.



See **Cytokeratin 7 (RCK105): sc-23876** for Cytokeratin 7 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.