

Cytokeratin 18 (DC-10): sc-6259

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. Cytokeratins have been found to be useful markers of tissue differentiation which is directly applicable to the characterization of malignant tumors. For example, Cytokeratins 10 and 13 are expressed highly in a subset of squamous cell carcinomas while Cytokeratin 18 is expressed in a majority of adenocarcinomas and basal cell carcinomas. Cytokeratin 18 contains two major phosphorylation sites on Ser 33 and Ser 52. Phosphorylation of Ser 18 is essential for the association of cytokeratin 18 with 14-3-3 proteins and is involved in keratin organization and distribution.

CHROMOSOMAL LOCATION

Genetic locus: KRT18 (human) mapping to 12q13.13.

SOURCE

Cytokeratin 18 (DC-10) is a mouse monoclonal antibody raised against PMC-42 human breast carcinoma cells.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cytokeratin 18 (DC-10) is available conjugated to agarose (sc-6259 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6259 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-6259 PE), fluorescein (sc-6259 FITC), Alexa Fluor[®] 488 (sc-6259 AF488), Alexa Fluor[®] 546 (sc-6259 AF546), Alexa Fluor[®] 594 (sc-6259 AF594) or Alexa Fluor[®] 647 (sc-6259 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-6259 AF680) or Alexa Fluor[®] 790 (sc-6259 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Cytokeratin 18 (DC-10) is recommended for detection of Cytokeratin 18 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Cytokeratin 18 siRNA (h): sc-35151, Cytokeratin 18 shRNA Plasmid (h): sc-35151-SH and Cytokeratin 18 shRNA (h) Lentiviral Particles: sc-35151-V.

Molecular Weight of Cytokeratin 18: 45 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Hep G2 cell lysate: sc-2227 or T24 cell lysate: sc-2292.

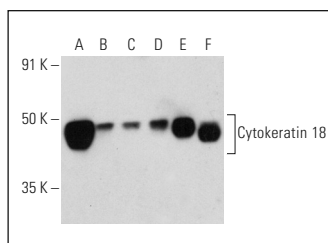
STORAGE

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

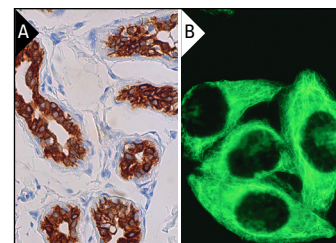
RESEARCH USE

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

DATA



Cytokeratin 18 (DC-10) HRP: sc-6259 HRP. Direct western blot analysis of Cytokeratin 18 expression in MCF7 (A), HeLa (B), Hep G2 (C), T24 (D), SK-BR-3 (E) and ECV304 (F) whole cell lysates.



Cytokeratin 18 (DC-10): sc-6259. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic and membrane staining of sweat glandular cells (A). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoskeletal localization (B).

SELECT PRODUCT CITATIONS

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PROTOCOLS

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

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