Cytokeratin 1 (4D12B3): sc-65999

BACKGROUND

Cytokeratins are a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins constitute up to 85% of a mature keratinocyte in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization, and they function to maintain the overall structural integrity of epithelial cells. The α-helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins are useful markers of tissue differentiation and they aid in the characterization of malignant tumors. Cytokeratin 1 is highly expressed in several malignancies including epithelioid hemangioendotheliomas, angiosarcomas, schwannomas, epithelioid sarcomas and synodal sarcomas. The gene encoding human Cytokeratin 1 maps to chromosome 12q13.13. Mutations in the gene encoding human Cytokeratin 1 lead to abnormal filament associations and epidermolytic hyperkeratosis.

CHROMOSOMAL LOCATION

Genetic locus: KRT1 (human) mapping to 12q13.13; Krt1 (mouse) mapping to chromosome 12q13.13. Mutations in the gene encoding human Cytokeratin 1 lead to abnormal filament associations and epidermolytic hyperkeratosis.

SOURCE

Cytokeratin 1 (4D12B3) is a mouse monoclonal antibody raised against purified truncated recombinant Cytokeratin 1 of human origin.

PRODUCT

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

Cytokeratin 1 (4D12B3) is available conjugated to agarose (sc-65999 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65999 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-65999 PE), fluorescein (sc-65999 FITC), Alexa Fluor® 488 (sc-65999 AF488), Alexa Fluor® 546 (sc-65999 AF546), Alexa Fluor® 594 (sc-65999 AF594) or Alexa Fluor® 647 (sc-65999 AF647), 200 µg/ml, for WB, IF, (HCP) and FCM; and to either Alexa Fluor® 680 (sc-65999 AF680) or Alexa Fluor® 790 (sc-65999 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Cytokeratin 1 (4D12B3) is recommended for detection of Cytokeratin 1 of mouse, rat and 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 1 siRNA (h): sc-43285, Cytokeratin 1 siRNA (m): sc-142762, Cytokeratin 1 shRNA Plasmid (h): sc-43285-SH, Cytokeratin 1 shRNA Plasmid (m): sc-142762-SH, Cytokeratin 1 shRNA (h) Lentiviral Particles: sc-43285-V and Cytokeratin 1 shRNA (m) Lentiviral Particles: sc-142762-V.

Molecular Weight of Cytokeratin 1: 67 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, SW480 cell lysate: sc-2219 or A-431 whole cell lysate: sc-2201.

STORAGE

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

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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

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