

Cytokeratin 16 (LL025): sc-53255

BACKGROUND

Cytokeratins comprise a diverse group of intermediate filament proteins that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. The cytokeratin proteins play a critical role in differentiation, as well as tissue specialization and function, to maintain the overall structural integrity of epithelial cells. Cytokeratins are also useful markers in identifying the origin of metastatic tumors. Cytokeratin 16 is expressed in benign stratified squamous epithelium and squamous cell carcinoma of the head and neck, as well as luminal cells of mammary gland and sweat ducts. It is absent in noninvasive breast carcinomas and normal breast tissue. Mutations in the Cytokeratin 16 gene cause various diseases, including pachyonychia congenita type 1 (PC1), nonepidermolytic palmoplantar keratoderma (NEPPK) and unilateral palmoplantar verrucous nevus (UPVN).

CHROMOSOMAL LOCATION

Genetic locus: KRT16 (human) mapping to 17q21.2; Krt16 (mouse) mapping to 11 D.

SOURCE

Cytokeratin 16 (LL025) is a mouse monoclonal antibody raised against a C-terminal synthetic peptide of Cytokeratin 16 of human origin.

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 16 (LL025) is available conjugated to agarose (sc-53255 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53255 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53255 PE), fluorescein (sc-53255 FITC), Alexa Fluor® 488 (sc-53255 AF488), Alexa Fluor® 546 (sc-53255 AF546), Alexa Fluor® 594 (sc-53255 AF594) or Alexa Fluor® 647 (sc-53255 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53255 AF680) or Alexa Fluor® 790 (sc-53255 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Cytokeratin 16 (LL025) is recommended for detection of Cytokeratin 16 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 16 siRNA (h): sc-60498, Cytokeratin 16 siRNA (m): sc-60499, Cytokeratin 16 shRNA Plasmid (h): sc-60498-SH, Cytokeratin 16 shRNA Plasmid (m): sc-60499-SH, Cytokeratin 16 shRNA (h) Lentiviral Particles: sc-60498-V and Cytokeratin 16 shRNA (m) Lentiviral Particles: sc-60499-V.

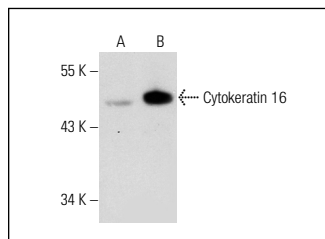
Molecular Weight of Cytokeratin 16: 48 kDa.

Positive Controls: Cytokeratin 16 (h): 293T Lysate: sc-113846 or HeLa whole cell lysate: sc-2200.

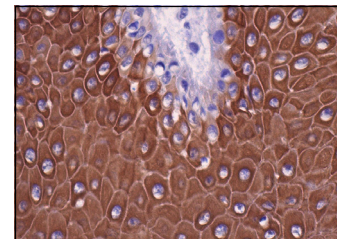
STORAGE

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

DATA



Cytokeratin 16 (LL025): sc-53255. Western blot analysis of Cytokeratin 16 expression in non-transfected: sc-117752 (A) and human Cytokeratin 16 transfected: sc-113846 (B) 293T whole cell lysates.



Cytokeratin 16 (LL025): sc-53255. Immunoperoxidase staining of formalin fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic staining of squamous epithelial cells.

SELECT PRODUCT CITATIONS

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- Sanz-Gómez, N., et al. 2020. Squamous differentiation requires G₂/mitosis slippage to avoid apoptosis. *Cell Death Differ.* 27: 2451-2467.
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- Domaszewska-Szostek, A., et al. 2021. An anhydrous sodium chloride skin preservation model for studies on keratinocytes grafting into the wounds. *Pharmaceutics* 13: 2078.

RESEARCH USE

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