SANTA CRUZ BIOTECHNOLOGY, INC.

Cytokeratin 10 (RKSE60): sc-23877

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cytokeratin 10 (also designated KRT10 antibody, Keratin 10 antibody) 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. Cytokeratins 10 and 13 are present in the cytoskeletal region of a subset of squamous cell carcinomas. Cytokeratin 10 is a heterotetramer of two type I and two type II keratins, is generally associated with keratin 1, and is seen in all suprabasal cell layers including stratum corneum.

CHROMOSOMAL LOCATION

Genetic locus: KRT10 (human) mapping to 17q21.2; Krt10 (mouse) mapping to 11 D.

SOURCE

Cytokeratin 10 (RKSE60) is a mouse monoclonal antibody raised against Cytokeratins from the human epidermis.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cytokeratin 10 (RKSE60) is available conjugated to agarose (sc-23877 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23877 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23877 PE), fluorescein (sc-23877 FITC), Alexa Fluor® 488 (sc-23877 AF488), Alexa Fluor® 546 (sc-23877 AF546), Alexa Fluor® 594 (sc-23877 AF594) or Alexa Fluor® 647 (sc-23877 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23877 AF680) or Alexa Fluor® 790 (sc-23877 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Cytokeratin 10 (RKSE60) is recommended for detection of Cytokeratin 10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), 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).

Cytokeratin 10 (RKSE60) is also recommended for detection of Cytokeratin 10 in additional species, including canine.

Suitable for use as control antibody for Cytokeratin 10 siRNA (h): sc-35149, Cytokeratin 10 siRNA (m): sc-35150, Cytokeratin 10 shRNA Plasmid (h): sc-35149-SH, Cytokeratin 10 shRNA Plasmid (m): sc-35150-SH, Cytokeratin 10 shRNA (h) Lentiviral Particles: sc-35149-V and Cytokeratin 10 shRNA (m) Lentiviral Particles: sc-35150-V.

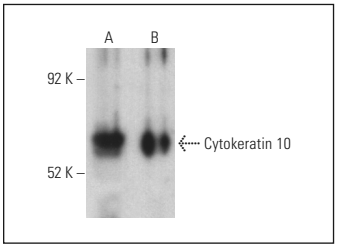
Molecular Weight of Cytokeratin 10: 57 kDa.

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

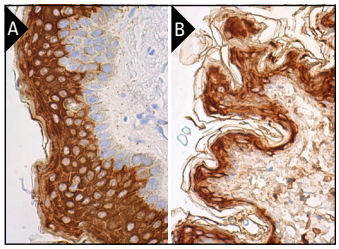
STORAGE

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

DATA



Cytokeratin 10 (RKSE60) HRP: sc-23877 HRP. Direct western blot analysis of Cytokeratin 10 expression in HeLa (**A**) and Hep G2 (**B**) whole cell lysates.



Cytokeratin 10 (RKSE60): sc-23877. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes and Langerhans cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat skin tissue showing cytoplasmic staining of epidermal cells (**B**).

SELECT PRODUCT CITATIONS

1. Covaciu, C., et al. 2010. Lethal autosomal recessive epidermolytic ichthyosis due to a novel donor splice-site mutation in KRT10. Br. J. Dermatol. 162: 1384-1387.
2. Shin, J.W., et al. 2017. The co-expression pattern of p63 and HDAC1: a potential way to disclose stem cells in interfollicular epidermis. Int. J. Mol. Sci. 18: 1360.
3. Goldie, S.J., et al. 2018. Loss of GRHL3 leads to TARC/CCL17-mediated keratinocyte proliferation in the epidermis. Cell Death Dis. 9: 1072.
4. Mollinedo, P., et al. 2019. Cellular and animal models of skin alterations in the autism-related ADNP syndrome. Sci. Rep. 9: 736.
5. Zhong, H., et al. 2020. Stagewise keratinocyte differentiation from human embryonic stem cells by defined signal transduction modulators. Int. J. Biol. Sci. 16: 1450-1462.
6. Ichijo, R., et al. 2021. Vasculature-driven stem cell population coordinates tissue scaling in dynamic organs. Sci. Adv. 7: eabd2575.
7. Gusho, E., et al. 2022. Human papillomaviruses sensitize cells to DNA damage induced apoptosis by targeting the innate immune sensor cGAS. PLoS Pathog. 18: e1010725.
8. Cui, H.S., et al. 2023. Effect of hypertrophic scar fibroblast-derived exosomes on keratinocytes of normal human skin. Int. J. Mol. Sci. 24: 6132.
9. Ferrara, F., et al. 2024. Vitamin C compounds mixture prevents skin barrier alterations and inflammatory responses upon real life multi pollutant exposure. Exp. Dermatol. 33: e15000.

RESEARCH USE

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