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. Cytokeratin 8 expression is seen in epithelium and epithelium-derived tumors. The Cytokeratin 8 and 18 pair are normally expressed in simple epithelia, but not in stratified epithelial cells. Research indicates that squamous cell carcinomas derived from stratified epithelia show abnormal expression of Cytokeratin 8 and 18, although it is not known whether these proteins contribute to the malignant phenotype of the cells. Expression of Cytokeratin 8 and 18 in oral squamous cell carcinomas is an independent prognostic marker that indicates a poor prognosis. Cytokeratin 8 expression correlates with malignancy in leukoplakia and carcinomas of the head and neck; it is expressed in all non-small-cell lung cancers. Cytokeratin 8 has been shown to possess extracellular epitopes on tumor cells, which may represent valuable targets for therapy.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: KRT8 (human) mapping to 12q13.13.

SOURCE

Cytokeratin 8 (19) is a mouse monoclonal antibody raised against recombinant Cytokeratin 8 of human origin.

PRODUCT

Each vial contains 200 µg IgG2b kappa lightchain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Cytokeratin 8 (19) is recommended for detection of Cytokeratin 8 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Cytokeratin 8 siRNA (h): sc-35156, Cytokeratin 8 shRNA Plasmid (h): sc-35156-SH and Cytokeratin 8 shRNA (h) Lentiviral Particles: sc-35156-V.

Molecular Weight of Cytokeratin 8: 40-55 Kd.

Positive Controls: A-431 whole cell lysate: sc-2201, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

DATA

Cytokeratin 8 (19): sc-130312. Western blot analysis of Cytokeratin 8 expression in Hep G2 (A), NIH/3T3 (B), Sol9 (C), 39H/10T/1/2 (D) and RA72 (E) whole cell lysates.

Cytokeratin 8 (19): sc-130312. Western blot analysis of Cytokeratin 8 expression in Hep G2 (A) and A-431 (B) whole cell lysates.

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.

CONJUGATES

See Cytokeratin 8 (C51): sc-8020 for Cytokeratin 8 antibody conjugates, including AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647.