SANTA CRUZ BIOTECHNOLOGY, INC.

pan-Cytokeratin (80): sc-58825

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Gatter, K.C., et al. 1985. Human lung tumours: a correlation of antigenic profile with histological type. Histopathology 9: 805-823.
2. Pulford, K.A., et al. 1985. The characterization of two monoclonal anti-keratin antibodies and their use in the study of epithelial disorders. Histopathology 9: 825-840.
3. Broekaert, D., et al. 1990. An investigation of cytokeratin expression in skin epithelial cysts and some uncommon types of cystic tumours using chain-specific antibodies. Arch. Dermatol. Res. 282: 383-391.
4. van der Velden, L.A., et al. 1993. Cytokeratin expression in normal and (pre)malignant head and neck epithelia: an overview. Head Neck 15: 133-146.
5. Silen, A., et al. 1994. Evaluation of a new tumor marker for Cytokeratin 8 and 18 fragments in healthy individuals and prostate cancer patients. Prostate 24: 326-332.
6. Marceau, N. and Loranger, A. 1995. Cytokeratin expression, fibrillar organization and subtle function in liver cells. Biochem. Cell Biol. 73: 619-625.

SOURCE

pan-Cytokeratin (80) is a mouse monoclonal antibody raised against Cytokeratins isolated from callus cells of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin

APPLICATIONS

pan-Cytokeratin (80) is recommended for detection of most keratins 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); non cross-reactive with neurofilament, Vimentin, GFAP or Desmin.

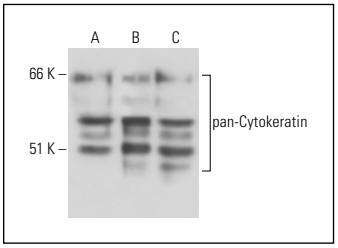
Molecular Weight of pan-Cytokeratin: 40-59 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 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



pan-Cytokeratin (80): sc-58825. Western blot analysis of pan-Cytokeratin expression in HeLa (**A**), A-431 (**B**) and Hep G2 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Liu, N., et al. 2008. Proteomics analysis of differential expression of cellular proteins in response to avian H9N2 virus infection in human cells. Proteomics 8: 1851-1858.
2. Alcolado, N.G., et al. 2014. Cystic fibrosis transmembrane conductance regulator dysfunction in VIP knockout mice. Am. J. Physiol., Cell Physiol. 307: C195-C207.
3. Date, Y., et al. 2020. Combined in silico analysis identified a putative tooth root formation-related gene, Chd3, which regulates DNA synthesis in HERS01a cells. Odontology 108: 386-395.
4. Garrido Castillo, L.N., et al. 2023. Polyploid giant cancer cells are frequently found in the urine of prostate cancer patients. Cancers 15: 3366.

RESEARCH USE

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

PROTOCOLS

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