

pan-Cytokeratin (C11): sc-8018



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

- Gatter, K.C., et al. 1985. Human lung tumours: a correlation of antigenic profile with histological type. *Histopathology* 9: 805-823.
- 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.

SOURCE

pan-Cytokeratin (C11) is a mouse monoclonal antibody raised against keratin-enriched epidermoid carcinoma cell line A-431 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.

pan-Cytokeratin (C11) is available conjugated to agarose (sc-8018 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8018 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8018 PE), fluorescein (sc-8018 FITC), Alexa Fluor® 488 (sc-8018 AF488), Alexa Fluor® 546 (sc-8018 AF546), Alexa Fluor® 594 (sc-8018 AF594) or Alexa Fluor® 647 (sc-8018 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-8018 AF680) or Alexa Fluor® 790 (sc-8018 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

pan-Cytokeratin (C11) is recommended for detection of Cytokeratin 4, 5, 6, 8, 10, 13 and 18 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1 µg per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Positive Controls: MCF7 whole cell lysate: sc-2206, HeLa whole cell lysate: sc-2200 or A549 cell lysate: sc-2413.

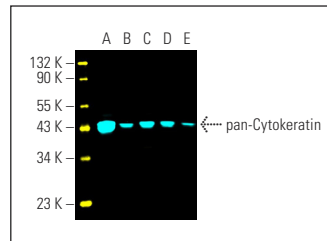
STORAGE

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

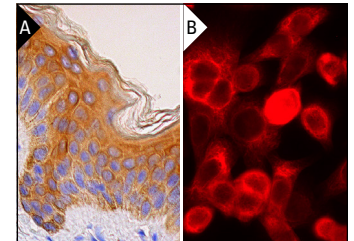
RESEARCH USE

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

DATA



pan-Cytokeratin (C11) Alexa Fluor® 647: sc-8018 AF647. Direct fluorescent western blot analysis of pan-Cytokeratin expression in MCF7 (A), HeLa (B), SW480 (C), A549 (D) and HEK293 (E) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 488: sc-516790.



pan-Cytokeratin (C11) HRP: sc-8018 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes (A). pan-Cytokeratin (C11) PE: sc-8018 PE. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoskeletal localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (B).

SELECT PRODUCT CITATIONS

- Reeves, R., et al. 2001. Architectural transcription factor HMGI(Y) promotes tumor progression and mesenchymal transition of human epithelial cells. *Mol. Cell. Biol.* 21: 575-594.
- Hennenberg, M., et al. 2015. Cooperative effects of EGF, FGF, and TGF-β1 in prostate stromal cells are different from responses to single growth factors. *Life Sci.* 123: 18-24.
- Wang, Y., et al. 2016. P21-activated kinase inhibitors FRAX486 and IPA3: inhibition of prostate stromal cell growth and effects on smooth muscle contraction in the human prostate. *PLoS ONE* 11: e0153312.
- Roth, M., et al. 2017. Broncho Vaxom (OM-85) modulates rhinovirus docking proteins on human airway epithelial cells via Erk1/2 mitogen activated protein kinase and cAMP. *PLoS ONE* 12: e0188010.
- Yu, Q., et al. 2018. Inhibition of prostatic smooth muscle contraction by the inhibitor of G protein-coupled receptor kinase 2/3, CMPD101. *Eur. J. Pharmacol.* 831: 9-19.
- Tonucci, F.M., et al. 2019. Identification of a CIP4 PKA phosphorylation site involved in the regulation of cancer cell invasiveness and metastasis. *Cancer Lett.* 461: 65-77.
- Sumransub, N., et al. 2020. Breast cancer stem cell RNA-pulsed dendritic cells enhance tumor cell killing by effector T cells. *Oncol. Lett.* 19: 2422-2430.
- Di Donato, M., et al. 2021. The androgen receptor/filamin A complex as a target in prostate cancer microenvironment. *Cell Death Dis.* 12: 127.

PROTOCOLS

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

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