

PRODUCT INFORMATION



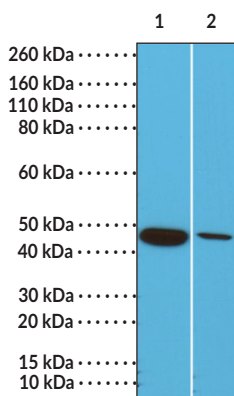
Cytokeratin 18 Rabbit Monoclonal Antibody (Clone RM279)

Item No. 32229

Overview and Properties

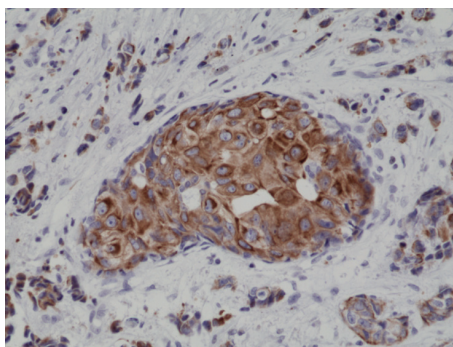
Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	CK-18, Keratin-18, Keratin, Type II Cytoskeletal 18 , KRT18
Immunogen:	Peptide from the N-terminal region of human cytokeratin 18
Cross Reactivity:	(+) Cytokeratin 18
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM279
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:1,000-1:4,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: MCF-7 cell lysates
Lane 2: HeLa cell lysates

WB of MCF-7 and HeLa cell lysates using Cytokeratin 18 Rabbit Monoclonal Antibody (Clone RM279) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue using Cytokeratin 18 Rabbit Monoclonal Antibody (Clone RM279) at a 1:4,000 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

Cytokeratin 18 (CK18) is an intermediate filament protein and a member of the cytokeratin protein family.¹ It is a type I acidic cytokeratin expressed in epithelial tissues, including those found in liver, lung, kidney, pancreas, and the gastrointestinal tract, and is localized in the cytoplasm and perinuclear region. CK18 is co-expressed with the type II neutral-basic cytokeratin CK8, with which it forms intermediate filaments essential to cytoplasmic structure. During apoptosis, CK18 is cleaved by caspases and released from the cell, and is commonly used as a marker of epithelial cell death.² Plasma levels of CK18 positively correlate with the magnitude of hepatocyte apoptosis in patients with non-alcoholic fatty liver disease (NAFLD) and are independently predictive of non-alcoholic steatohepatitis (NASH).³ Serum levels of CK18 are elevated in patients with cardiometabolic disorders, including diabetes and hypertension, in an NAFLD-independent manner.² CK18 tumor expression positively correlates with poorly differentiated oral squamous cell carcinoma (OSCC) tumors and poor prognosis.⁴ Cayman's Cytokeratin 18 Rabbit Monoclonal Antibody (Clone RM279) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Weng, Y.-R., Cui, Y., and Fang, J.-Y. Biological functions of cytokeratin 18 in cancer. *Mol. Cancer Res.* **10(4)**, 485-493 (2012).
2. Qian, L., Zhang, L., Wu, L., *et al.* Elevated serum level of cytokeratin 18 M65ED is an independent indicator of cardiometabolic disorders. *J. Diabetes Res.* 5198359 (2020).
3. Feldstein, A.E., Wieckowska, A., Lopez, A.R., *et al.* Cytokeratin-18 fragment levels as noninvasive biomarkers for nonalcoholic steatohepatitis: A multicenter validation study. *Hepatology* **50(4)**, 1072-1078 (2009).
4. Makino, T., Yamasaki, M., Takeno, A., *et al.* Cytokeratins 18 and 8 are poor prognostic markers in patients with squamous cell carcinoma of the oesophagus. *Br. J. Cancer* **101(8)**, 1298-1306 (2009).

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