

PRODUCT INFORMATION



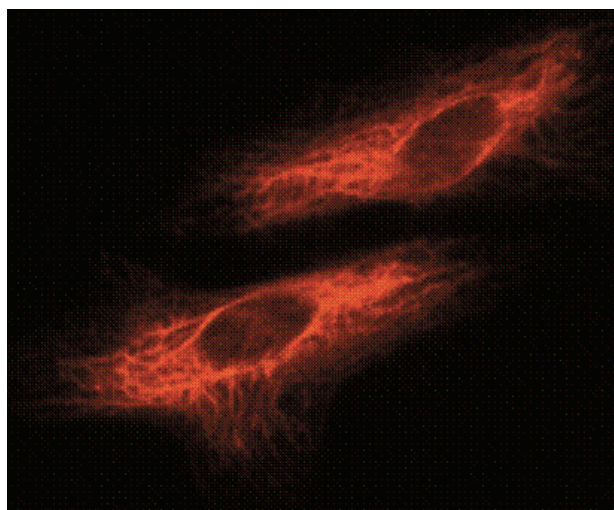
Cytokeratin Monoclonal Antibody (Clone C-11)

Item No. 10004600

Overview and Properties

Contents:	This vial contains 100 µg of ammonium sulfate-purified monoclonal antibody.
Synonym:	CKs, pan-Cytokeratin, Keratin
Cross Reactivity:	(+) Human cytokeratins 4, 5, 6, 8, 10, 13, and 18
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS, pH 7.2
Clone:	C-11
Host:	Mouse
Isotype:	IgG1
Applications:	Flow cytometry (FC), immunofluorescence (IF), immunohistochemistry (IHC), and Western blot (WB); the recommended starting dilution for FC, IF, and WB is 1:200 and 1:50 for IHC. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Human cervical carcinoma cells stained with Cytokeratin Monoclonal Antibody (1 µg/ml) followed by visualization with goat anti-mouse IgG-Cy3.

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

Cytokeratins (CKs) are intermediate filaments proteins and members of the cytokeratin protein family.¹⁻³ The cytokeratin family is composed of at least 20 unique gene products, which fall into two categories: type I acidic cytokeratins, CK9-CK20, and type II neutral-basic cytokeratins, CK1-CK8.² Each cytokeratin is composed of a central rod containing four α -helical domains, which are important for self-assembly, and non-helical head and tail domains at the N- and C-termini, respectively.^{2,3} Cytokeratins are major structural proteins expressed in epithelial cells and localized to the cytoplasm where they form heterozygous type I-type II pairs.^{1,4} They primarily function to protect epithelial cells from mechanical and non-mechanical stresses that induce cell rupture and death.² Cytokeratins have additional isoform- and tissue-specific functions, including the modulation of protein synthesis and cell size during epithelial growth and roles in skin pigmentation. Cayman's Cytokeratin Monoclonal Antibody (Clone C-11) can be used for flow cytometry (FC), immunofluorescence (IF), immunohistochemistry (IHC), and Western blot (WB) applications. This antibody recognizes cytokeratins 4, 5, 6, 8, 10, 13, and 18 from human samples.

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. Gu, L.-H. and Coulombe, P.A. Keratin function in skin epithelia: A broadening palette with surprising shades. *Curr. Opin. Cell Biol.* **19(1)**, 13-23 (2007).
3. Eldirany, S.A., Lomakin, I.B., Ho, M., *et al.* Recent insight into intermediate filament structure. *Curr. Opin. Cell Biol.* **68**, 132-143 (2021).
4. Ditzel, H.J., Strik, M.C.M., Larsen, M.K., *et al.* Cancer-associated cleavage of cytokeratin 8/18 heterotypic complexes exposes a neopeptide in human adenocarcinomas. *J. Biol. Chem.* **277(24)**, 21712-21722 (2002).

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