

# PRODUCT INFORMATION



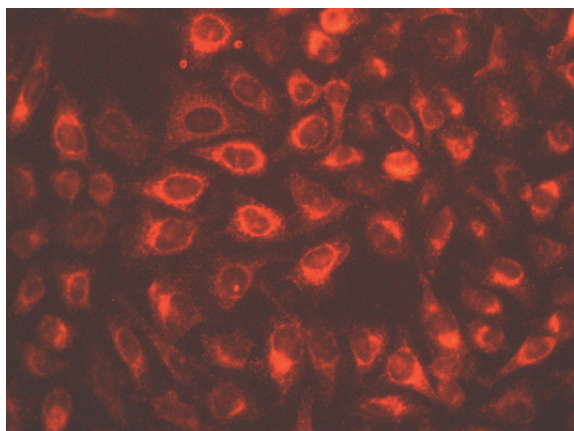
## Cytokeratin Monoclonal PE Antibody (Clone C-11)

Item No. 10478

### Overview and Properties

<b>Contents:</b>	This vial contains 100 µg of protein A-purified, PE-labeled monoclonal antibody.
<b>Synonyms:</b>	CKs, pan-Cytokeratin, Keratin
<b>Cross Reactivity:</b>	(+) Cytokeratins 4, 5, 6, 8, 10, 13, and 18
<b>Species Reactivity:</b>	(+) Human
<b>Form:</b>	Lyophilized
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	100 mM sodium phosphate, pH 7.4, with 50 mM sucrose, 150 mM sodium chloride, 0.1% BSA, and 2 mM sodium azide when reconstituted in 1 ml double distilled water
<b>Clone:</b>	C-11
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Applications:</b>	Flow cytometry (FC) and Immunofluorescence (IF). The recommended starting dilution for FC and IF is 5-10 µg/ml. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.
<b>Miscellaneous:</b>	Avoid exposure to heat and light

### Image



HeLa cells stained with Cytokeratin Monoclonal PE Antibody (Clone C-11), 10 µg/ml.

**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

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Cytokeratins (CKs) are intermediate filaments proteins and members of the cytokeratin protein family.<sup>1-3</sup> 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.<sup>2</sup> Each cytokeratin is composed of a central rod containing four  $\alpha$ -helical domains, which are important for self-assembly, and non-helical head and tail domains at the N- and C-termini, respectively.<sup>2,3</sup> Cytokeratins are major structural proteins expressed in epithelial cells and localized to the cytoplasm where they form heterozygous type I-type II pairs.<sup>1,4</sup> They primarily function to protect epithelial cells from mechanical and non-mechanical stresses that induce cell rupture and death.<sup>2</sup> 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 PE Antibody (Clone C-11) can be used for flow cytometry (FC) and immunofluorescence (IF) applications. This antibody recognizes cytokeratins 4, 5, 6, 8, 10, 13, and 18 from human samples.

## References

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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. 15723Gu, 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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