Technical Data Sheet

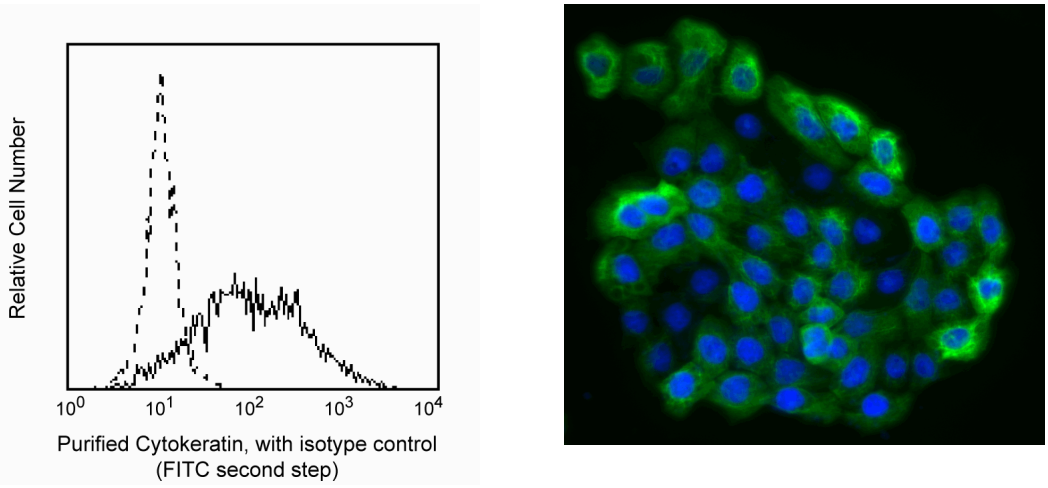
Purified Mouse Anti-Human Cytokeratin 14, 15, 16 and 19

Product Information

Material Number:	**550951**
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	KA4
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The KA4 monoclonal antibody specifically binds to cytokeratins 14, 15, 16 and 19 present in the cytoplasm of a wide variety of human simple epithelium. Human epithelium has been shown to contain cytoplasmic filaments of the cytokeratin type. There have been 19 different polypeptides identified and they demonstrate a characteristic pattern for each type of epithelium. This antibody is useful for intracellular staining and flow cytometric analysis, Western blot and immunohistochemical staining of both, acetone-fixed frozen tissue sections and formalin-fixed paraffin embedded tissue sections with citrate pretreatment.



Flow cytometry and Immunoflourescent analysis of Cytokeratin 14, 15, 16 and 19 in human A431 cells.

(Left Panel) A431 cells were fixed with 1% paraformaldehyde, permeabilized with 0.1% Triton™ X-100 buffer, stained with second step reagent with FITC Goat Anti-Mouse IgG/IgM (Cat. No. 555988), and analyzed by flow cytometry.

(Right Panel) Human A431 cells (Human epithelial carcinoma; ATCC CRL-1555) were fixed with BD Cytofix™ Fixation Buffer (Cat. No. 554655), permeabilized with 0.1% Triton™ X-100 buffer, and stained with purified Mouse Anti-Human Cytokeratin 14, 15, 16 and 19 monoclonal antibody (Cat. No. 550951; pseudo-colored green) at 5µg/mL. The second step reagent was Alexa Fluor® 488 Goat Anti-Mouse Ig (Life Technologies) and the counter-staining of cell nuclei was with BD Pharmingen™ DAPI Solution (pseudo-colored blue). The images were captured on a BD Pathway™ 435 Cell Analyzer and merged using BD Attovision™ software. Permeabilization with BD Perm/Wash™ (Cat No. 554723) or BD Phosflow™ Perm Buffer III (Cat. No. 558050) is also suitable for use with this antibody.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
Immunofluorescence	Tested During Development

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.268.5430	32.2.400.98.95	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**

Suggested Companion Products

Catalog Number	Name	Size	Clone
555746	Purified Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal
554656	Stain Buffer (FBS)	500 mL	(none)
554655	Fixation Buffer	100 mL	(none)
564907	DAPI Solution	1 mg	(none)
554723	Perm/Wash Buffer	100 mL	(none)
558050	Perm Buffer III	125 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.
5. Triton is a trademark of the Dow Chemical Company.
6. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Nagle RB, Lucas DO, McDaniel KM, Clark VA, Schmalzel GM. Paget's cells. New evidence linking mammary and extramammary Paget cells to a common cell phenotype. *Am J Clin Pathol.* 1985; 83(4):431-438. (Biology)
Nagle RB, Moll R, Weidauer H, Nemetschek H, Franke WW. Different patterns of cytokeratin expression in the normal epithelia of the upper respiratory tract. *Differentiation.* 1985; 30(2):130-140. (Biology)

BD Biosciences
bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.268.5430	32.2.400.98.95	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**