

Technical Data Sheet

PE-CF594 Mouse Anti-Human Cytokeratin

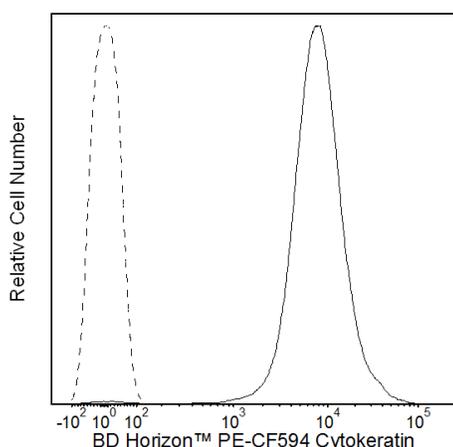
Product Information

Material Number:	563615
Alternate Name:	Cytokeratin-7/-8; CK-7/CK-8;
Size:	50 tests
Vol. per Test:	5 µl
Clone:	CAM5.2
Immunogen:	Human HT29 colorectal carcinoma cell line
Isotype:	Mouse (BALB/c) IgG2a
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The CAM5.2 monoclonal antibody specifically recognizes cytokeratin having a primary reactivity with human keratin proteins that correspond to Moll's peptides #7 (48 kDa) and #8 (52 kDa). Cytokeratin 7 and 8 are type II cytoskeletal keratins. These cytoskeletal proteins provide structural integrity for epithelial cells and may serve other functions as well. They are expressed in epithelia cells that comprise normal human tissues. Although these cytokeratins are not normally expressed in stratified squamous epithelium, they may be expressed in some squamous cell carcinomas. The CAM 5.2 antibody stains most epithelial-derived tissue, including liver, renal tubular epithelium, and hepatocellular and renal cell carcinomas.

This antibody is conjugated to BD Horizon™ PE-CF594, which has been developed exclusively by BD Biosciences as a better alternative to PE-Texas Red®. PE-CF594 excites and emits at similar wavelengths to PE-Texas Red® yet exhibits improved brightness and spectral characteristics. Due to PE having maximal absorption peaks at 496 nm and 564 nm, PE-CF594 can be excited by the blue (488-nm), green (532-nm) and yellow-green (561-nm) lasers and can be detected with the same filter set as PE-Texas Red® (eg 610/20-nm filter).



Flow cytometric analysis of cytokeratin expression in human SK-BR-3 cells. Cells from the human SK-BR-3 (Breast adenocarcinoma, ATCC HTB-30) cell line were incubated with 1X BD FACS™ Lysing Solution (Cat. No. 349202), permeabilized with BD FACS™ Permeabilizing Solution 2 (Cat. No. 340973/347692), and washed with BD Pharmingen™ Stain Buffer (FBS) (Cat. No. 554656). The cells were then stained with either BD Horizon™ PE-CF594 Mouse Anti-Human Cytokeratin antibodies (Cat. No. 563615; solid line histogram) or BD Horizon™ PE-CF594 Mouse IgG2a, κ Isotype Control (Cat. No. 562306; dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated with BD Horizon™ PE-CF594 under optimum conditions, and unconjugated antibody and free PE-CF594 were removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
---	------------------

Recommended Assay Procedure:

Note: The CAM5.2 antibody can also be used to stain cells that have been fixed and permeabilized using BD Cytofix™ Fixation Buffer (Cat. No. 554655) and BD Perm/Wash™ Buffer (Cat. No. 554723).

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD



Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562306	PE-CF594 Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
349202	BD FACSTM Lysing Solution	100 ml	(none)
340973	Permeabilizing Solution 2	25 ml	(none)
347692	Permeabilizing Solution 2	10 ml	(none)
563484	PE-CF594 Mouse IgG2a, κ Isotype Control	50 μ g	MOPC-173

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
6. Texas Red is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. CFTM is a trademark of Biotium, Inc.
8. When excited by the yellow-green (561-nm) laser, the fluorescence may be brighter than when excited by the blue (488-nm) laser.
9. This product is provided under an Agreement between BIOTIUM and BD Biosciences. The manufacture, use, sale, offer for sale, or import of this product is subject to one or more patents or pending applications owned or licensed by Biotium, Inc. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. This product is for research use only. Diagnostic uses require a separate license from Biotium, Inc. For information on purchasing a license to this product including for purposes other than research, contact Biotium, Inc., 3159 Corporate Place, Hayward, CA 94545, Tel: (510) 265-1027. Fax: (510) 265-1352. Email: btinfo@biotium.com.
10. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using multi-laser cytometers, which may directly excite both PE and CFTM594.
11. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
12. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

- Battifora H. Diagnostic uses of antibodies to keratins: A review and immunohistochemical comparison of seven monoclonal and three polyclonal antibodies. In: Fenoglio-Preiser C, Wolff M, Rilke F, ed. *Progress in Surgical Pathology*. 1988:1-15. (Biology)
- Cooper D, Schermer A, Sun TT. Biology of disease classification of human epithelia and their neoplasms using monoclonal antibodies to keratins: strategies, applications and limitations. *Lab Invest*. 1985; 52:243-256. (Clone-specific)
- Leader M, Patel J, Makin C, Henry K. An analysis of the sensitivity and specificity of the cytokeratin marker CAM 5.2 for epithelial tumors: results of a study of 203 sarcomas, 50 carcinomas, and 28 malignant melanomas. *Histopathology*. 1986; 10:1315-1324. (Clone-specific: Immunohistochemistry)
- Makin C, Bobrow L, Bodmer W. Monoclonal antibody to cytokeratin for use in routine histopathology. *J Clin Pathol*. 1984; 37(9):975-983. (Immunogen)
- Moll R, Franke W, Schiller D, Geiger B, Krepler R. The catalog of human cytokeratins: patterns of expression in normal epithelia, tumors, and cultured cells. *Cell*. 1982; 31:11-24. (Clone-specific)
- Smedts F, Ramaekers F, Robben H, et al. Changing patterns of keratin expression during progression of cervical intraepithelial neoplasia. *Am J Pathol*. 1990; 136(3):657-668. (Clone-specific: Immunohistochemistry, Western blot)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit bdbiosciences.com/contact

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton, Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

Unless otherwise noted, BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD

