

# Pan Cytokeratin Monoclonal Antibody (AE1/AE3), Alexa Fluor 488, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Dog, Human, Mouse, Non-human primate, Rabbit, Rhesus monkey
Published Species	Human, Mouse
Host/Isotope	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	AE1/AE3
Conjugate	Alexa Fluor® 488
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage Conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_1834350

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	Assay-Dependent	5 Publications
Immunofluorescence (IF)	Assay-Dependent	10 Publications
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	-
Immunohistochemistry (Paraffin) (IHC (P))	Assay-Dependent	2 Publications
Flow Cytometry (Flow)	-	1 Publication
Immunohistochemistry (IHC)	-	3 Publications

## Product Specific Information

Description: The monoclonal antibodies AE1 and AE3 recognize many of the acidic and basic cytokeratin family members. Cytokeratins are intermediate filament proteins comprising one component of the cytoskeleton. There are two large families of cytokeratins, acidic and basic, but all contain the same basic domains (i.e. an alpha-helical core with an N- and C-terminal domain). The proteins are expressed in epithelial cells, but are developmentally regulated. Many tumors also express these proteins and their expression can help identify the origin of a neoplasm.

The AE3 monoclonal antibody recognizes the 65 to 67 triplet, 64, 59, 58, 56, 54 and 52kDa proteins also known as cytokeratin 1, 2, 3, 4, 5, 6, 7, and 8 while the AE1 antibody recognizes 56.5, 54, 50, 50', 48, and 40 kDa proteins (also known as CK10, 14, 15, 16 and 19). These antibodies can be used on a wide array of tissue samples from mouse, human, rat, primates (cynomolgus and rhesus), dog, cat, rabbit, and chicken.

Applications Reported: This AE1/AE3 antibody has been reported for use in immunohistochemical staining, immunocytochemistry,

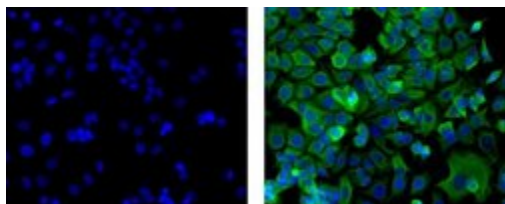
immunohistochemical staining of frozen tissue sections, and immunohistochemical staining of formalin-fixed paraffin embedded tissue sections.

Applications Tested: This AE1/AE3 antibody has been tested by immunofluorescent staining of formaldehyde-fixed and permeabilized or methanol-fixed MCF7 cells and can be used at less than or equal to 1 µg/mL. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Excitation: 488 nm; Emission: 519 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

### Product Images For Pan Cytokeratin Monoclonal Antibody (AE1/AE3), Alexa Fluor 488, eBioscience™



#### Pan Cytokeratin Antibody (53-9003-82) in ICC

Immunocytochemistry of fixed and permeabilized MCF-7 cells using 1 µg/mL of Mouse IgG1 K Isotype Control Alexa Fluor® 488 (left) or 1 µg/mL of Anti-Pan Cytokeratin (AE1/AE3) Alexa Fluor® 488 (right). Nuclei are stained with DAPI.

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## Immunofluorescence (10)

### NPJ breast cancer

#### Neither epithelial nor mesenchymal circulating tumor cells isolated from breast cancer patients are tumorigenic in NOD-*scid Il2rg* mice.

Authors: Donnenberg VS, Huber A, Basse P, Rubin JP, Donnenberg AD

**Species**  
Human  
Not Applicable

**Dilution**  
1:100  
Not Cited

**Year**  
2020

### NPJ genomic medicine

#### Workflow optimization of whole genome amplification and targeted panel sequencing for CTC mutation detection.

"53-9003 was used in Immunocytochemistry-immunofluorescence to demonstrate the feasibility of a workflow for clinically relevant monitoring of tumour genetics in real time and over the course of a patient's therapy using circulating tumour cells."

Authors: Liu HE, Triboulet M, Zia A, Vuppapalaty M, Kidess-Sigal E, Collier J, Natu VS, Shokoohi V, Che J, Renier C, Chan NH, Hanft VR, Jeffrey SS, Sollier-Christen E

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2020

[View more IF references on thermofisher.com](#)

## Immunohistochemistry (Paraffin) (2)

### NPJ breast cancer

#### Neither epithelial nor mesenchymal circulating tumor cells isolated from breast cancer patients are tumorigenic in NOD-*scid Il2rg* mice.

Authors: Donnenberg VS, Huber A, Basse P, Rubin JP, Donnenberg AD

**Species**  
Human  
Not Applicable

**Dilution**  
1:100  
Not Cited

**Year**  
2020

### Nature cell biology

#### A breast cancer stem cell niche supported by juxtacrine signalling from monocytes and macrophages.

"53-9003 was used in Immunohistochemistry on paraffin embedded tissues to investigate the interactions between cancer stem cells and their surrounding microenvironment."

Authors: Lu H, Clauser KR, Tam WL, Fröse J, Ye X, Eaton EN, Reinhardt F, Donnenberg VS, Bhargava R, Carr SA, Weinberg RA

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2014

## More applications with references on thermofisher.com

ICC (5)

IHC (3)

Flow (1)

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