

# CD227 (Mucin 1) Monoclonal Antibody (SM3), eFluor™ 615, eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	SM3
Conjugate	eFluor™ 615
Excitation/Emission Max	595/614 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_10804634

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Paraffin) (IHC (P))	20 µg/mL	-
Immunocytochemistry (ICC/IF)	20 µg/mL	-

## Product Specific Information

**Description:** This SM3 monoclonal antibody reacts with the under-glycosylated form of human Mucin 1 (MUC1, CD227), a large glycoprotein belonging to the mucin protein family. Mucin 1 contains a polypeptide core consisting of multiple tandem repeats that become highly glycosylated. Mucin 1 is typically expressed in ductal or glandular epithelial cells and is localized to the apical membrane. In cancerous cells, Mucin 1 expression is increased and membrane-specific localization is lost resulting in expression throughout the membrane and cytoplasm. High levels of under-glycosylated Mucin 1 are thought to affect cell behavior during both invasion and metastasis as well as in immune recognition. In addition, under-glycosylated Mucin 1 is shed from the epithelial cell surface and can be detected in circulation. Alterations in Mucin 1 glycosylation are found in most adenocarcinomas of the breast, lung, pancreas, prostate, and ovary. Mucin 1 has recently been shown to co-localize and interact with members of the erbB receptor kinase family, proteins that are upregulated in more aggressive forms of breast cancer.

Please note this antibody sees a distinct epitope from other Mucin 1 antibodies.

**Applications Reported:** This SM3 antibody has been reported for use in immunohistochemical staining of formalin-fixed paraffin embedded tissue sections (IHC-P) and immunocytochemistry (ICC).

**Applications Tested:** This SM3 antibody has been tested by immunohistochemistry on formalin-fixed paraffin embedded human breast carcinoma tissue and by immunocytochemistry on fixed MCF7 cells at less than or equal to 20 µg/mL. It is

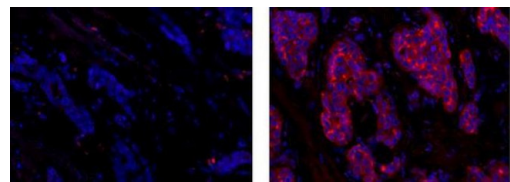
recommended that the antibody be carefully titrated for optimal performance in the assay of interest. This product has not been validated for flow cytometric analysis.

**Filter Recommendation:** When using this eFluor® 615 antibody conjugate, we recommend a filter that will capture the 615 emission wavelength (for example, Excitation 560/55, 585LP, Emission 645/75). A standard Alexa Fluor® 594 filter is acceptable.

**Excitation:** 595 nm; **Emission:** 615 nm.

**Filtration:** 0.2 µm post-manufacturing filtered.

**Product Images For CD227 (Mucin 1) Monoclonal Antibody (SM3), eFluor™ 615, eBioscience™**



**CD227 (Mucin 1) Antibody (42-9893-82) in IHC (P)**  
Immunohistochemistry on formalin-fixed paraffin embedded human breast carcinoma using 20 µg/mL of Mouse IgG1 Isotype Control eFluor® 615 (left) or 20 µg/mL Anti-Human CD227 (Mucin 1) eFluor® 615 (right). Nuclei are counterstained with DAPI.

**1 Reference**

**Immunohistochemistry (1)**

<b>Nanomedicine : nanotechnology, biology, and medicine</b>	
<b>Lipid-polymer nanoparticles encapsulating curcumin for modulating the vascular deposition of breast cancer cells.</b>	
"42-9893 was used in Immunohistochemistry to study the effect of lipid nanoparticles encapsulating curcumin on the formation of metastases and cancer progression in breast cancer."	
Authors: Palange AL,Di Mascolo D,Carallo C,Gnasso A,Decuzzi P	
	<b>Year</b> 2014
	<b>Species</b> Human

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