antibodies - online.com







Publications



\sim			
	$ \backslash / \cap$	r\/I	$\triangle V$

Quantity:	100 μg	
Target:	PRTN3	
Reactivity:	Human	
Host:	Mouse	
Clonality:	Monoclonal	
Conjugate:	This PRTN3 antibody is conjugated to FITC	
Application:	Western Blotting (WB), Flow Cytometry (FACS), Immunohistochemistry (Frozen Sections) (IHC (fro)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunoassay (IA)	
Product Details		
Clone:	WGM2	

Clone:	WGM2
Sterility:	0.2 µm filtered

Target Details

PRTN3

Target:

Alternative Name:	Proteinase 3 (PRTN3 Products)	
Background:	Monoclonal antibody WGM2 reacts with human proteinase 3 (PR3), a 30 kDa protein. PR3 is a	
	major antigen recognized by autoantibodies directed against cytoplasmic proteins of	
	neutrophilic granulocytes and monocytes (so called anti-neutrophil cytoplasmic autoantibodies	
	(ANCA)). ANCA are able to activate primed neutrophils to produce oxygen radicals and release	
	lytic enzymes, including PR3. Proteinase 3 (PR3) was identified as the target antigen of ANCA in	

Wegener's granulomatosis (WG). ANCA directed against PR3 (PR3-ANCA) can interfere with the binding of PR3 to its physiological inhibitor alpha1-antitrypsin (alpha1-AT) and with the proteolytic activity of PR3. At the site of inflammation PR3 can cleave the complex between these inhibiting ANCA and PR3 itself, leaving active PR3. Autoantibodies to PR3 are potent activators of the 5-lipoxygenase pathway in primed human neutrophils. Extracellular free arachidonic acid, as present at an inflammatory focus, synergizes with such autoantibodies to evoke full-blown lipid mediator generation, granule secretion and respiratory burst. Proteinase 3 (PR3) is a neutral serine proteinase, which is localized in the azurophilic granules of neutrophils and in granules of monocytes and can be detected in the membrane of secretory vesicles. PR3 degrades a number of extracellular matrix proteins such as elastin and inactivates human C1 inhibitor. Membrane-associated PR3 is also able to activate caspase-3 without triggering apoptosis of neutrophils, which is possibly a neutrophil survival mechanism. In addition, PR3 is involved in myeloid differentiation and is, therefore, also called myeloblastin. Monoclonal antibody WGM2 blocks the PR3 activity and partially inhibits the binding of human PR3-ANCA to PR3.

Application Details

Application Notes:	For flow cytometry, Western blotting and immunohistology dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.	
Restrictions:	For Research Use only	
Handling		
Buffer:	PBS, containing 1 % bovine serum albumin and 0.02 % sodium azide.	
Preservative:	Sodium azide	
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.	
Storage:	4 °C	
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.	
Expiry Date:	12 months	

Product cited in:

Vetrano, Rescigno, Cera, Correale, Rumio, Doni, Fantini, Sturm, Borroni, Repici, Locati, Malesci, Dejana, Danese: "Unique role of junctional adhesion molecule-a in maintaining mucosal homeostasis in inflammatory bowel disease." in: **Gastroenterology**, Vol. 135, Issue 1, pp. 173-84, (2008) (PubMed).

Luo, Zhuo, Fukuhara, Rizzolo: "Effects of culture conditions on heterogeneity and the apical junctional complex of the ARPE-19 cell line." in: **Investigative ophthalmology & visual science**, Vol. 47, Issue 8, pp. 3644-55, (2006) (PubMed).

Faure, Cerini, Paul, Berland, Dignat-George, Brunet: "The uremic solute p-cresol decreases leukocyte transendothelial migration in vitro." in: **International immunology**, Vol. 18, Issue 10, pp. 1453-9, (2006) (PubMed).

Bazzoni, Martinez-Estrada, Orsenigo, Cordenonsi, Citi, Dejana: "Interaction of junctional adhesion molecule with the tight junction components ZO-1, cingulin, and occludin." in: **The Journal of biological chemistry**, Vol. 275, Issue 27, pp. 20520-6, (2000) (PubMed).