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Product datasheet for AM26221PU-N

PR3 (PRTN3) Mouse Monoclonal Antibody [Clone ID: WGM2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	WGM2
Applications:	ELISA, FN, IHC, WB
Recommended Dilution:	**Flow Cytometry.** **Immunoassays.** **Western blot.** The typical starting working dilution is 1/10. **Functional assays:** Blocks the PR3 activity and partially inhibits the binding of human PR3-ANCA to PR3. **Immunohistochemistry on Frozen and Paraffin Sections.**
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This Monoclonal antibody WGM2 reacts with Human Proteinase 3 (PR3), a 30 kDa protein.
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% BSA Preservative: None
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C. **DO NOT FREEZE!**
Stability:	Shelf life: one year from despatch.
Gene Name:	proteinase 3

View online »

Database Link: Entrez Gene 5657 Human
P24158

Background: 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.

Synonyms: Myeloblastin, MBN, Leukocyte proteinase 3, Proteinase 3, PRTN3, PR-3, Neutrophil proteinase 4, NP-4, P29, Wegener autoantigen, AGP7