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Product datasheet for AM26325BT-N

Mpo Mouse Monoclonal Antibody [Clone ID: 8F4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	8F4
Applications:	ELISA, IHC
Recommended Dilution:	Immunohistochemistry on frozen sections (3,4): The typical starting working dilution is 1:50. Flow cytometry (2,5): The typical starting working dilution is 1:50. Immunoassays (1,3). Positive control: Neutrophils isolated from digested infarcts. Negative control: Lymphocytes isolated from digested infarcts. Does not work in Immunohistochemistry on paraffin sections.
Reactivity:	Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Purified mouse MPO from WEHI-3 cells
Specificity:	The monoclonal antibody 8F4 recognizes mouse myeloperoxidase (MPO).
Formulation:	PBS Label: Biotin State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Biotin
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	myeloperoxidase
Database Link:	Entrez Gene 17523 Mouse P11247

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Background:

MPO is a glycoprotein produced as a single precursor, which is subsequently cleaved into a alpha and beta chain. In human the biologically active MPO is a 150kDa tetramer composed of 2 glycosylated alfa chains of 59-64 kDa and 2 beta chains of 14 kDa. MPO is stored in azurophilic granules of polymorphonuclear leukocytes and is rapidly released into the phagosome and extracellular space during inflammatory conditions.The enzyme catalyzes the conversion of chloride and hydrogen peroxide to hypochlorite, a potent oxidant, which functions in host defense against microorganisms.
Involvement of MPO has been described in several human diseases, such as cardiovascular disease, airway inflammation, lung cancer, Alzheimer's disease and multiple sclerosis. A positive correlation between elevated MPO levels in serum and cardiovascular disease suggest an interesting role for MPO as an diagnostic marker, making it possible to identify patients at risk for future cardiac events. Furthermore, there are some autoimmune diseases, in which MPO is targeted by antineutrophil cytoplasm antibodies. Studies with MPO-knockout mice have shown an increased susceptibility to pneumonia following intratracheal infections. Moreover, MPO deficient mice are more susceptible to experimental autoimmune encephalitis, a T cell-dependent neuronal disease, and have an increased expression of arteriosclerotic plaques compared to wild-type mice.

Synonyms:

MPO