PRODUCT INFORMATION

AGE (GA-Pyridine Specific) Monoclonal Antibody (Clone 1F10)

Item No. 27271

Overview and Properties

Contents:	This vial contains 100 µg of protein G-purified monoclonal antibody.
Synonym:	Advanced Glycation End Products (Glycolaldehyde-pyridine)
Immunogen:	GA-Pyridine - BSA
Cross Reactivity:	(-) (Carboxyethyl)-lysine (CEL), Glyoxal (GO), Methyl-glyoxal (MG)
Species Reactivity:	(+) Human; other species not tested
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥3 years
Storage Buffer:	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone:	1F10
Host:	Mouse
Isotype:	IgG1
Applications:	ELISA and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:1000. Other applications were not tested, therefore optimal working concentration/ dilution should be determined empirically.

Image

Lane 1: GA - Ovalbumin (10 ng)
Lane 2: GA - Ovalbumin (25 ng)
Lane 3: GA - Ovalbumin (50 ng)
Lane 4: GA - Ovalbumin (100 ng)
Lane 5: AGE - Ovalbumin (100 ng)
Lane 6: GO - Ovalbumin (100 ng)
Lane 7: MG - Ovalbumin (100 ng)

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Description

Glycolaldehyde-pyridine (GA-pyridine) is an advanced glycation end product (AGE).[1,2] It is formed *via* the reaction of GA, a product of myeloperoxidase activity, with lysine and can therefore serve as an antigenic marker of protein modification resulting from myeloperoxidase activity.[1] GA-pyridine has been detected in the tubular epithelial cells, renal vasculature, and glomerular epithelium of both healthy and diseased human kidneys, and accumulates in the glomerular mesangium of patients with renal diseases, including diabetic nephropathy, Wegener's granulomatosis, mesangial proliferative glomerulonephritis, and focal glomerular sclerosis.[2] GA-pyridine also accumulates in the cytoplasm of foam cells and extracellularly in the atheromatous core of human atherosclerotic lesions.[1] Cayman's AGE (GA-Pyridine Specific) Monoclonal Antibody (Clone 1F10) can be used for Western blot and ELISA applications. This antibody recognizes GA AGE-modified proteins.

References

1. Nagai, R., Hayashi, C.M., Xia, L., *et al.* Identification in human atherosclerotic lesions of GA-pyridine, a novel structure derived from glycolaldehyde-modified proteins. *J. Biol. Chem.* **277(50)**, 48905-48912 (2002).
2. Greven, W.L., Waanders, F., Nagai, R., *et al.* Mesangial accumulation of GA-pyridine, a novel glycolaldehyde-derived AGE, in human renal disease. *Kidney Int.* **68(2)**, 595-602 (2005).

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