

PRODUCT INFORMATION



AGE (GA-Pyridine Specific) Monoclonal Antibody (Clone 3G2)

Item No. 27272

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)
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:	3G2
Host:	Mouse
Isotype:	IgG2b
Applications:	ELISA and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: GA-Ovalbumin (200 ng)
Lane 2: AGE-Ovalbumin (200 ng)
Lane 3: CEL-Ovalbumin (200 ng)
Lane 4: GO-Ovalbumin (200 ng)
Lane 5: MG-Ovalbumin (200 ng)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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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 3G2) 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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WWW.CAYMANCHEM.COM