



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis

Catalog No. AGE-M03

Anti GA-pyridine

BACKGROUND

Glycolaldehyde formed as a result of the myeloperoxidase-H₂O₂ (MPO) reaction can react with proteins to yield various AGEs. Recently, a novel specific GA-derived AGE, called GA-pyridine, has been described in foam cells and the extracellular matrix of human atherosclerotic fibrotic lesions, glomerular mesangial and Bruch's membrane and choroid.

Product type	Primary antibody
Immunogen	GA-LDL
Host Species	Mouse
Fusion Partner	P3U1
Clone Designation	2A2
Isotype	IgG1
Host	Mouse
Source	Ascites
Purification	Protein G
Form	Liquid
Formulation Buffer	PBS containing 0.1% proclin and 2% sorbitol as a preservative
Concentration	0.2 mg / ml
Volume	100 ul
Label	Unlabeled
Specificity	GA-pyridine
Cross species reactivity	-
Storage	Store below -20°C (below -70°C for prolonged storage) Aliquot to avoid cycles of freeze/thaw.

- Application notes**
- **Western blotting:** 1/200 - 1/2000
 - **Immunofluorescence:** 1/200 - 1/400
 - **ELISA:** 1/200 - 1/400

Other applications have not been tested.
Optimal dilutions/concentrations should be determined by the end user.

- References**
- 1) Nagai R., Hayashi CM., Xia L., Takeya M., Horiuchi S: Identification in human atherosclerotic lesions of GA-pyridine, a novel structure derived from glycolaldehyde-modified proteins. J Biol Chem. 277, 48905-48912 (2002)
PMID: [12377783](#)
 - 2) Glenn JV., Mahaffy H., Wu K., Smith G., Nagai R., Simpson DAC., Boulton ME., Stitt AW. Advanced Glycation End Product (AGE) Accumulation on Bruch's Membrane: Links to Age-Related RPE Dysfunction. Invest. Ophth. Vis. Sci. 50, 441-451 (2009)
PMID: [18676633](#)

ANTIBODY CHARACTERIZATION

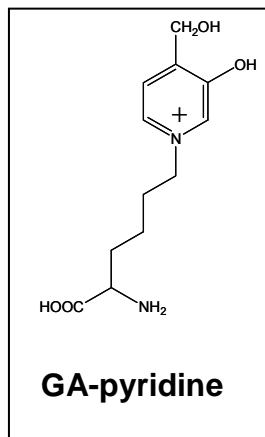


Fig.1 GA-pyridine structure

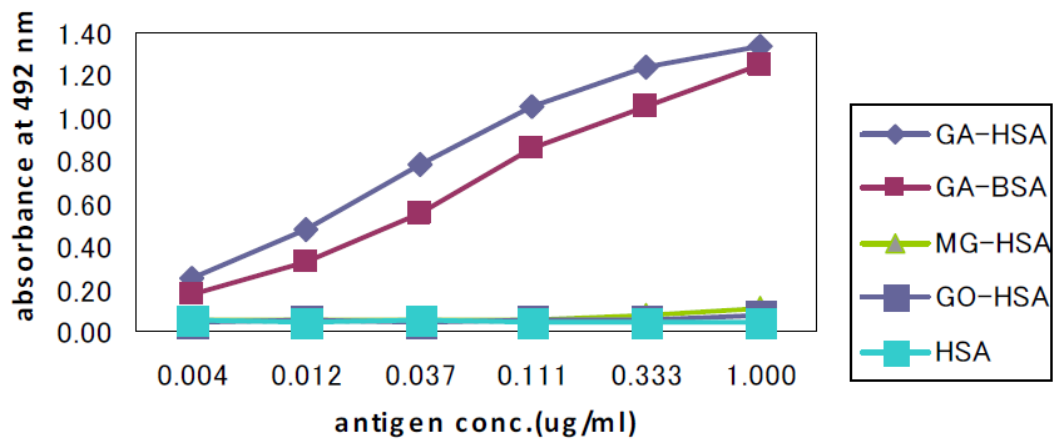


Fig.2 Immunoreactivity of the GA-pyridine (2A2) monoclonal antibody to GA-HAS, GA-BSA, MG-HAS, GO-HSA and HSA

ELISA protocol

Coating

- 1) Distribute 100 ul / well of the sample solution (1 ug/mL in PBS) to 96 well microtiter plates (Thermo, MaxiSorp).
- 2) Incubate the plates 2h at RT or overnight at 4 degrees.
- 3) Discard the supernatant of sample solution.
- 4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

Blocking

- 1) Distribute 200 ul / well of 0.5% gelatin-PBS to 96 well microtiter plates
- 2) Incubate the plates 1h at RT.
- 3) Discard the the supernatant of 0.5% gelatin-PBS
- 4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

Primary antibody

- 1) Distribute 100 ul / well of Primary antibodies diluted with washing buf. as suggested in the APPLICATIONS to each well.
- 2) Incubate the plates 1h at RT.
- 3) Discard the supernatant of Primary antibody solution.
- 4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

Secondary antibody

- 1) Distribute 100 ul / well of secondary antibodies (HRP-anti mouse IgG) diluted with washing buf. as suggested in the APPLICATIONS to each well.
- 2) Incubate the plates 1h at RT.
- 3) Discard the supernatant of secondary antibody.
- 4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

OPD color reaction

- 1) Reaction for 2-10 minutes at RT..
- 2) Distribute 100 uL / well of 2M H₂SO₄ to each well and stop enzyme reaction.
- 3) After gentle mixing, determine the absorbance at 492 nm of each well by a spectrophotometer.

RELATED PRODUCTS:

Product Name	Quantity	Maker	Cat#
Anti N ^F -(carboxymethyl) lysine [CML] (2G11) Monoclonal Antibody	100 ul	CAC	AGE-M01
Anti N ^F -(carboxyethyl) lysine [CEL] (CEL-SP) Monoclonal Antibody	100 ul	CAC	AGE-M02
Anti GA-pyridine (2A2) Monoclonal Antibody	100 ul	CAC	AGE-M03
Anti N ^ω -(carboxymethyl) arginine [CMA] (3F5) Monoclonal Antibody	100 ul	CAC	AGE-M04
CML-BSA/Nε-(carboxymethyl) lysine-BSA	200 ul	CSR	AGE-GP01
CEL-BSA/Nε-(carboxyethyl) lysine-BSA	200 ul	CSR	AGE-GP02
GA-BSA/Glycolaldehyde-BSA	200 ul	CSR	AGE-GP03
Ribose-gelatin	500 ul	CSR	AGE-GP04
Mild-AGE-BSA	200 ul	CSR	AGE-GP05

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