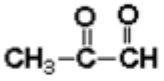
Antibodies

Data Sheet

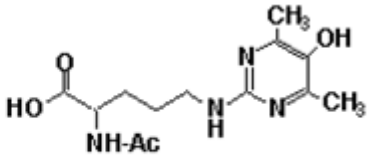
METHYLGLYOXAL (MG)

ANTIBODY, MONOCLONAL

Catalog no.:	AA1013.1
Immunogen:	Methylglyoxal (MG)-modified KLH
Host:	Mouse Balb/c
Clone no.:	3C
Isotype:	$IgG_{2a\ (kappa)}$
Matrix:	Cell culture supernatant, Protein A purified, 10mM PBS, 0.1% NaN_3, 0.5% BSA
Specificity:	MG-modified protein, especially Argpyrimidine



Methylglyoxal



Argpyrimidine

Contents:	30 µg (frozen; 100 µg/ml)
Known applications:	ELISA[2], immunohistochemistry (paraffin sections, 0.5-1.0 µg/ml)

This antibody has not been tested for use in all applications. This does not necessarily exclude its use in non-tested procedures. The stated dilutions are recommendations only. End users should determine optimal dilutions in their system using appropriate negative/positive controls.

Store at: - 20 °C

Repeated thawing and freezing must be avoided

References:

1. Uchida K, Khor OT, Oya T, Osawa T, Yasuda Y, Miyata T. (1997). Protein modification by a Maillard reaction intermediate methylglyoxal. Immunochemical detection of fluorescent 5-methylimidazolone derivatives in vivo. *FEBS Lett.* **410** (2-3), p313-318.

2. Oya T, Hattori N, Mizuno Y, Miyata S, Maeda S, Osawa T, Uchida K (1999). Methylglyoxal modification of protein. Chemical and immunochemical characterization of methylglyoxal-arginine adducts. *J Biol Chem* **274**(26)**:** 18492-18502.

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3. Miyata T, Horie K, Ueda Y, Fujita Y, Izuhara Y, Hirano H, Uchida K, Saito A, van Ypersele de Strihou C, Kurokawa K. (2000). Advanced glycation and lipidoxidation of the peritoneal membrane: respective roles of serum and peritoneal fluid reactive carbonyl compounds. *Kidney Int*. **58**(1), p425-435.

4. Padayatti PS, Ng AS, Uchida K, Glomb MA, Nagaraj RH. (2001). Argpyrimidine, a blue fluorophore in human lens proteins: high levels in brunescent cataractous lenses. *Invest Ophthalmol Vis Sci.* **42**(6), p1299-1304.

5. Padayatti PS, Jiang C, Glomb MA, Uchida K, Nagaraj RH. (2001). High concentrations of glucose induce synthesis of argpyrimidine in retinal endothelial cells. *Curr Eye Res.* **23**(2), p106-115.

6. WEN-HSIUNG CHAN, HSIN-JUNG WU and YAN-DER HSUUW. (2005) Curcumin Inhibits ROS Formation and Apoptosis in Methylglyoxal- Treated Human Hepatoma G2 Cells. *Ann. N.Y. Acad. Sci.* **1042**: 372-378

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