Anti-methylglyoxal (MG) Monoclonal Antibody

O O CH₃-C-CH

Methylglyoxal

HO N CH

Argpyrimidine

Methylglyoxal (MG), an endogenous metabolite that increases in diabetes and is a common intermediate in the Maillard reaction (glycation), reacts with proteins and forms advanced glycation end products. MG reacts with arginine residue in protein and forms numerous numbers of adducts, such as argpyrimidine. This antibody is specific for argpyrimidine.

Catalog #:

MMG-030n (30 μ g of lgG)

Clone #:

3C

Immunogen:

MG-modified keyhole-lympet hemocyanine

Subclass:

Mouse IgG2a

Application:

Immunohistochemistry; It is recommended that the antibody be tried at 0.5-1.0 μ g/mL on paraformaldehyde fixed tissue.

Buffer

Frozen. 100 g/mL of IgG in 10mM PBS containing 0.1 %NaN3 and

Concentration:

0.5% BSA. Protein A purified.

Specificity:

Specific for MG-modified protein (especially Argpyrimidine).

Storage:

Less than -20°C

Stability:

Maintain at -20°C undiluted aliquots for up to 6 months after date of receipt. For long term storage, aliquot product into individual tubes and freeze at -20 or -70°C. Avoid repeated freeze/defrost cycles. (Stable for at least 7days if stored at room temperature.)

Reference:

- 1) Farrukh A Shamsi, Andreea Partal, Candace Sady, Marcus A Glomb, Ramanakoppa H Nagaraj.: Immunological evidence for methylglyoxal-derived modifications in vivo. J. Biol. Chem. Vol. 279(12), p6928-6936 (1998)
- 2) Pius S Padayatti, Alan S Ng, Koji Uchida, Marcus A Glomb, Ram H Nagaraj.: Argpyrimidine, a blue fluorophore in human lens proteins: High levels in brunescent cataractous lenses. Invest Ophthalmol Vis Sci. 42: p1299-1304. (2001)

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