MONOCLONAL ANTIBODY TO HUMAN CML (CARBOXYLMETHYL-LYSINE)
clone CML26

Catalog no
HM5013 (lot number and expiry date are indicated on the label)

Description
The monoclonal antibody CML26 recognizes human CML (carboxymethyl-lysine). CML is known to be formed from the oxidation of both carbohydrates and lipids. This makes CML a biomarker of general oxidative stress. Carboxymethyl-lysine (CML) is a well-characterized glycoxidation product that accumulates in tissues with age, and its rate of accumulation is accelerated in diabetes. Glycoxidation products are a subset of advanced glycation endproducts (AGEs) that are formed by the nonenzymatic glycation and subsequent irreversible oxidation of proteins. Oxidative stress and protein modification have been implicated in the pathogenesis of the chronic complications of diabetes, including nephropathy and atherosclerosis. The accumulation of CML in long-lived tissue such as skin collagen reflects oxidative stress over an extended period of the life-span, and has been shown to be greater in patients with diabetic complications than those without complications.

Immunogen
CML-KLH

Species
Mouse IgG1, predominantly. Other isotypes may be present.

Cross reactivity
Cross reactant | Reactivity
---------------|----------------
Multispecies   | Yes

Formulation
1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.1% bovine serum albumin and 0.02% sodium azide

Application

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<th>FC</th>
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<th>IF</th>
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<th>P1-8</th>
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N.D. = Not Determined; F = Frozen sections; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IF = Immuno Fluorescence; IP = Immuno Precipitation; P = Paraffin sections; W = Western blot

Application notes
P: fixation in 4% formalin; cardiac tissue sections (4 mm) deparaffinised for 10 min in xylene at room temperature, dehydrated by decreasing ethanol. Sections stained with haematoxylin and eosin. Blocking endogenous peroxidase activity with 0.3% hydrogen peroxide in methanol for 30 min. No heating to prevent artificial induction of CML. (Ref 1)

IF: After fixation in 2% phosphate-buffered glutaraldehyde solution the heart tissue was post-fixed in 1% osmium tetroxide. The tissue was dehydrated through a graded series of ethanol. 0.5–3.0-mm-thick sections were cut with a glass knife. (Ref 1)

References

**Use**

For immunohistochemistry, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user’s experimental setting.

**Positive control**

Intramyocardial arteries

**Storage and stability**

Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year. The exact expiry date is indicated on the label.

**Precautions**

For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

**Also available**

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<th>Product Code</th>
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