CATALOG NUMBER: STA-014

STORAGE: -20°C

QUANTITY AND CONCENTRATION: 100 µg of affinity purified antibody at 0.6 mg/mL in 75 mM PBS, pH 7.2, containing 75 mM NaCl, 0.5 mM EDTA, and 0.02% NaN₃

Note: slight precipitation in the tube is normal; centrifuge before use

SHELF LIFE: 1 year from date of receipt under proper storage conditions; aliquot to avoid multiple freeze thaw cycles

HOST SPECIES: Rabbit

IMMUNOGEN: CML-KLH

SPECIFICITY: CML-modified proteins

APPLICATION: Immunoblot (1:200 to 1:20,000)
ELISA (1:200 to 1:20,000)

Background
The non-enzymatic reaction of reducing carbohydrates with lysine side chains and N-terminal amino groups of macromolecules (proteins, phospholipids and nucleic acids) is called the Maillard reaction or glycation. The products of this process, termed advanced glycation end products (AGEs), adversely affect the functional properties of proteins, lipids and DNA. Tissue levels of AGE increase with age and the formation of AGEs is predominantly endogenous, though these products can also be derived from exogenous sources such as food and tobacco smoke. AGE modification of proteins can contribute to the pathophysiology of aging and long-term complications of diabetes, atherosclerosis and renal failure. AGEs also interact with a variety of cell-surface AGE-binding receptors (RAGE), leading either to their endocytosis and degradation or to cellular activation and pro-oxidant or pro-inflammatory events.

Although several AGE structures have been reported, it was demonstrated that Nε-(carboxymethyl) lysine (CML) is a major antigenic AGE structure. CML concentration is increased in patients who have diabetes with complications, including nephropathy, retinopathy, and atherosclerosis. CML is also recognized by receptor for AGE (RAGE), and CML-RAGE interaction activates cell signaling pathways such as NF-κB.
Example of Results
The following figures demonstrate typical results. One should use the data below for reference only. This data should not be used to interpret actual results.

Figure 1. Immunoblot of CML-Modified BSA. Left: Ponceau S staining. Right: Immunoblot using Rabbit Anti-CML Polyclonal Antibody at 1:1000 dilution, followed by HRP-conjugated secondary antibody. Numbers indicate ng/lane.

Recent Product Citations

Warranty
These products are warranted to perform as described in their labeling and in Cell Biolabs literature when used in accordance with their instructions. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS EXPRESSED WARRANTY AND CELL BIOLABS DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR PARTICULAR PURPOSE. CELL BIOLABS’s sole obligation and purchaser’s exclusive remedy for breach of this warranty shall be, at the option of CELL BIOLABS, to repair or replace the products. In no event shall CELL BIOLABS be liable for any proximate, incidental or consequential damages in connection with the products.

This product is for RESEARCH USE ONLY; not for use in diagnostic procedures.

Contact Information
Cell Biolabs, Inc.
7758 Arjons Drive
San Diego, CA 92126
Worldwide: +1 858-271-6500
USA Toll-Free: 1-888-CBL-0505
E-mail: tech@cellbiolabs.com
www.cellbiolabs.com

©2011-2018: Cell Biolabs, Inc. - All rights reserved. No part of these works may be reproduced in any form without permissions in writing.