Version 26-04/24

User's Manual

Anti-CML Mouse autoAntibody ELISA Kit

REF **DEIABL517**

Σ **96T**

RUO

This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

Creative Diagnostics

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PRODUCT INFORMATION

Intended Use

The Anti-CML mouse autoantibody ELISA Kit is used for the semi-quantitative measurement of IgG class anti-CML/Nε-(carboxymethyl) lysine mouse autoantibody in mouse serum and plasma.

General Description

Reducing sugars react with protein amino groups to form a diverse group of protein-bound moieties with fluorescent and cross-linking properties. These compounds, called advanced glycosylation end products (AGEs), have been implicated in the structural and functional alterations of proteins that occur during aging and long-term diabetes. Although several AGE structures have been reported, it was demonstrated that Nε-(carboxymethyl) lysine (CML) is a major antigenic AGE structure. CML concentration is also 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-B and enhances the expression of vascular cell adhesion molecule-1 in human umbilical vein endothelial cells. It has been postulated that AGE structures present in vivo could serve as an immunological epitope to raise autoantibodies against AGE structures, particularly CML. Shibayama et al. showed the presence of autoantibodies against AGE structures, particularly those against CML adduct in streptozotocin (STZ)-induced diabetic rats and patients with several diseases. The autoantibody against CML adduct was higher in patients with renal failure than in normal subjects or diabetic patients without renal failure. These results suggest that autoantibody against CML might play a possible role in the development of diabetic nephropathy or chronic renal failure.

Reagents And Materials Provided

Microplate

10X Wash Buffer

Dilution Buffer

Mouse Visfatin/PBEF Standard

HRP conjugated Detection Antibody

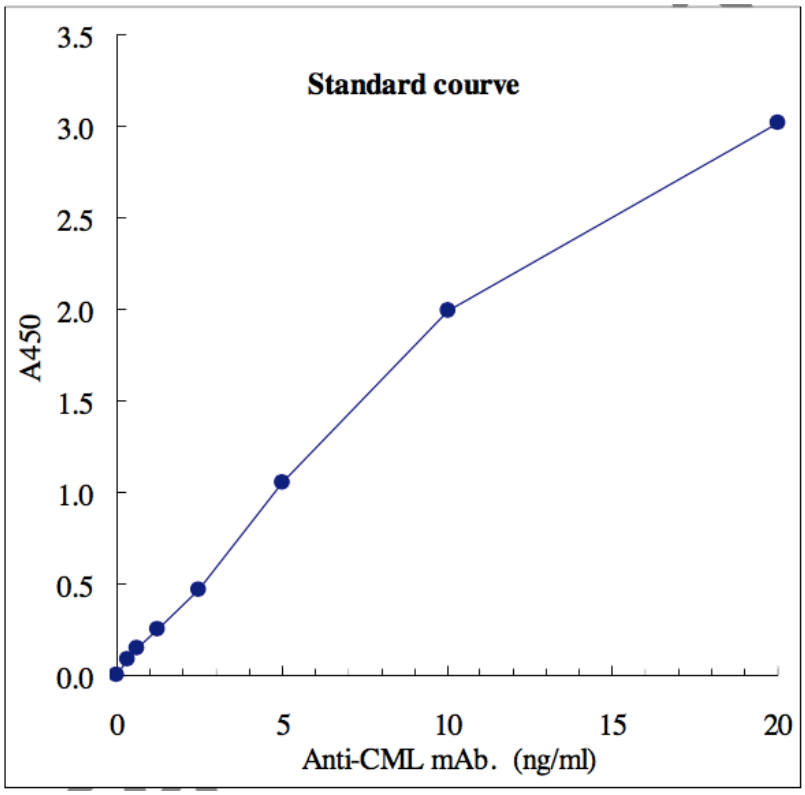
Substrate Reagent

Stop Solution

Storage

- Upon receipt store all components at 4°C.
- Don't expose reagents to excessive light.

Typical Standard Curve



Precision

Intra-assay (Within-Run, n=8) CV=5.7 %

Inter-assay (Run-to-Run, n=4) CV=8.9 %

Sensitivity

The limit of detection (defined as such a concentration of anti-CML antibody giving absorbance lower than mean absorbance plus three standard deviations of the absorbance of Blank: Blank + 3*SD Blank) is better than 0.162 ng/mL of sample.