CREATIVE BIOMART®
Assay Kit

Collagen AGEs Assay Kit (CML-Specific, Glyoxal)

Product Information

Cat.No.

Kit-0238

Description

Although carbohydrates are indispensable for ATP production, excess amounts of carbohydrates modify amino residues of amino acids such as lysine and arginine, and results in the irreversible functional disorders of proteins by changingthe three-dimensional structure and net negative charge in patients with disordered metabolism. Since this reaction was first reported by Louis Camille Maillard in 1912, the reaction is called the Maillard reaction, or glycation. The Maillard reactionis divided by early and advanced stages. Early stage generates Amadori rearrangement products, such as haemoglobin A1c, whereas advanced stage generates the AGEs (advanced glycation end products), which is characterized by colour in brown andprotein cross-linking. Collagen, the structural protein that forms skin, blood vessel wall and bone, also undergo glycation reaction. CML is generated by the oxidative cleavage of Amadori products by hydroxyl radicals, peroxynitrite and hypochloric acid, thus suggesting that CML is an important biological marker of oxidative stress in vivo. CML concentration, adjusted for age and duration of diabetes, is further increased in patients who have severe complications, includingnephropathy, retinopathy, and atherosclerosis. CML ELISA Assay Kit provides rapid detection of CML formed by glycation with glyoxal on the collagen coating plate. This kit is suitable to the research for functional foods and cosmeticmaterials which have anti-glycation activity.

Storage

4°C

Kit Components

1. 96-well Collagen coated plate: One strip-well plate;2. Microplate seal: 2 sheets;3. Anti-CML Antibody (100X): 100 uL;4. Blocking Buffer: 50 mL;5. HRP Conjugate Secondary Antibody (100X): 100 μL; 6. Sample Dilution Buffer: 30 mL; 7. Washing Buffer (10X): 50 mL; 8. Substrate Solution: 10 mL; 9. Stop Solution: 10 mL; 10.Glyoxal Solution 5 mL; Aminoguanidin Solution (10 mM) □ positive control: 250 μL;□ The kit provides sufficient reagents to perform up to 96 assays.

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