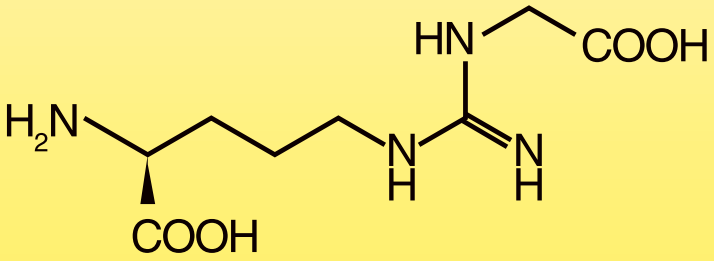
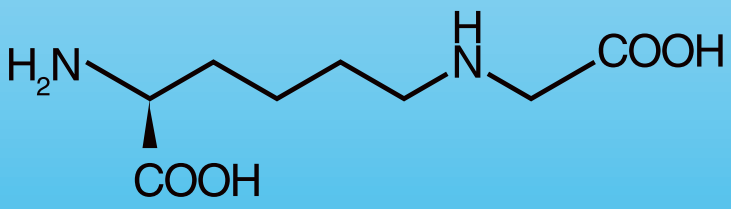
AGEs

Advanced glycation end products

Glucose and other reducing sugars react with an amino group nonenzymatically to form complex compounds. This process, so-called glycation, involves post-translational protein modification and possibly causes various diseases.
In particular, the accumulation of advanced glycation end products (AGEs) in long-lived tissues is thought to be implicated in diabetic complications and aging.



CMA : N^{ω}-(Carboxymethyl)-L-arginine



CML : N^{ε}-(Carboxymethyl)-L-lysine

AGEs standard

CMA (N^{ω}- carboxymethylarginine)

2mg(CD:CMA-102) ¥18,600
5mg(CD:CMA-105) ¥37,300

CMA is glyoxal derived acid-labile AGE for arginine residue. It was found (from) in vitro-glycated collagen. CMA exists (is detected) *in vivo*, and its serum level is elevated in diabetic patients.
[Odani et al, Biochem.Biophys.Res.Commun., 2001]
[Iijima et al, Biochem.J., 2000]

CML (N^{ε}- carboxymethyllysine)

5mg(CD:CML-105) ¥9,300
10mg(CD:CML-110) ¥15,000

CML is major AGE for lysine residue and is reported as a major antigenic AGE structure. CML is generated by the oxidative cleavage of Amadori products or directly reaction between lysine residue and glyoxal.
CML is suggested to be an important biological marker of oxidative stress *in vivo*.
[Kislinger et al., J.Biol.Chem., 1999]

Glycated BSA standard

CML-BSA

1mg（1mg/mL, 1mL） ¥30,000 （Frozen）

2.3 mol of CML is generated in 1 mol of BSA by incubation with glyoxilic acid.
HPLC purified this material is ready to use as standard in ELISA.

CEL-BSA

1mg（1mg/mL, 1mL） ¥30,000 （Frozen）

2.6 mol of CEL is generated in 1 mol of BSA by incubation with pyruvic acid.
HPLC purified this material is ready to use as standard in ELISA.
*Nε-(carboxyethyl) lysine (CEL) is thought to generate from the reaction between lysine residue and methylglyoxal (MG) *in vivo* proteins.

AGEs-BSA

1mg（1mg/mL, 1mL） ¥30,000 （Frozen）

BSA is incubated with glucose and some kinds of AGEs are generated in this glycated BSA. The content of CML is determined as 0.4 mol per 1mol of BSA.

Anti AGEs antibody (mouse monoclonal)

Anti CML monoclonal antibody (clone : 2G11, mouse)

50μg（0.125mL） ¥40,000 （Frozen）

Antigen : CML-HSA, Isotype : IgG1
[Mera et al., J.Immunol.Methods., 2008]

Anti CEL monoclonal antibody (clone : CEL-SP, mouse)

50μg（0.125mL） ¥40,000 （Frozen）

Antigen : CEL-BSA, Isotype : IgG1
*Nε-(carboxyethyl) lysine (CEL) is thought to generate from the reaction between lysine residue and methylglyoxal (MG) *in vivo* proteins.
[Nagai et al., J.Immunol.Methods., 2008]

Tax not included

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