COSMO BIO CO., LTD.
Inspiration for Life Science

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**Catalog No. AGE-GP02**

# CEL-BSA/N$^{\varepsilon}$-(carboxyethyl) lysine-BSA

| | |
|---|---|
| **Product Description** | Bovine serum albumin (BSA) (50 mg/ml) was incubated at 37°C for 24 h with pyruvate and 100 mM sodium cyanoborohydride in 0.2 M sodium phosphate buffer (pH 7.8), followed by dialysis against PBS. The CEL content (2.6 mol CEL/mol BSA) was determined by amino acid analysis. |
| **Volume** | 200 ul |
| **Concentration** | 1 mg/ml |
| **Storage** | Store below -20°C (below -70°C for prolonged storage).<br>Aliquot to avoid cycles of freeze/thaw. |

**References**


1. Nagai R., Fujiwara Y., Mera K., Yamagata K., Sakashita N., Takeya M. Immunochemical detection of N$^{\varepsilon}$-(carboxyethyl)lysine using a specific antibody.
   J. Immunol. Methods 332, 112-120 (2008) **PMID**: 18242632
2. Koito W., Araki T., Horiuchi S., Nagai R. Conventional antibody against N$^{\varepsilon}$-(Carboxymethyl)lysine (CML) shows cross-reaction to N$^{\varepsilon}$-(Carboxyethyl)lysine (CEL): Immunochemical quantification of CML with a specific antibody.
   J Biochem. 136, 831-837 (2004) **PMID**: 15671494
3. Nagai R., Araki T., Hayashi CM., Hayase F., Horiuchi S.. Identification of N$^{\varepsilon}$-(carboxyethyl)lysine, one of the methylglyoxal-derived AGE structures, in glucose-modified protein: mechanism for protein modification by reactive aldehydes.
   J Chromatogr B Analyt Technol Biomed Life Sci. 788, 75-84 (2003) **PMID**: 12668073


**Characterization**

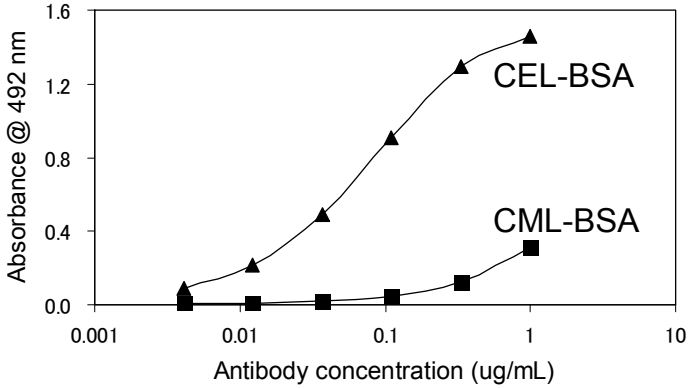


**Fig.1 Immunoreactivity of CEL(CEL-SP) monoclonal antibody to CEL-BSA and CML-BSA**

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**ELISA protocol**

**Coating**
1) Distribute 100 µl / well of the sample solution (1 ug/mL in PBS) to 96 well microtiter plates (Thermo, MaxiSorp).
2) Incubate the plates 2h at RT or overnight at 4 degrees.
3) Discard the supernatant of sample solution.
4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

**Blocking**
1) Distribute 200 µl / well of 0.5% gelatin-PBS to 96 well microtiter plates
2) Incubate the plates 1h at RT.
3) Discard the the supernatant of 0.5% gelatin-PBS
4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

**Primary antibody**
1) Distribute 100 µl / well of Primary antibodies diluted with washing buf. as suggested in the APPLICATIONS to each well.
2) Incubate the plates 1h at RT.
3) Discard the supernatant of Primary antibody solution.
4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

**Secondary antibody**
1) Distribute 100 µl / well of secondary antibodies (HRP-anti mouse IgG) diluted with washing buf. as suggested in the APPLICATIONS to each well.
2) Incubate the plates 1h at RT.
3) Discard the supernatant of secondary antibody.
4) Wash the plates three times with washing.buf.(PBS/0.05%Tween 20)

**OPD color reaction**
1) Reaction for 2-10 minutes at RT..
2) Distribute 100 µL / well of 2M $H_2SO_4$ to each well and stop enzyme reaction.
3) After gentle mixing, determine the absorbance at 492 nm of each well by a spectrophotometer.

**RELATED PRODUCTS:**

| Product Name | Quantity | Maker | Cat# |
|---|---|---|---|
| Anti $N^{\varepsilon}$-(carboxymethyl) lysine [CML] (2G11) Monoclonal Antibody | 100 ul | CAC | AGE-M01 |
| Anti $N^{\varepsilon}$-(carboxyethyl) lysine [CEL] (CEL-SP) Monoclonal Antibody | 100 ul | CAC | AGE-M02 |
| Anti GA-pyridine (2A2) Monoclonal Antibody | 100 ul | CAC | AGE-M03 |
| Anti $N^{\omega}$-(carboxymethyl) arginine [CMA] (3F5) Monoclonal Antibody | 100 ul | CAC | AGE-M04 |
| CML-BSA/Nε-(carboxymethyl) lysine-BSA | 200 ul | CSR | AGE-GP01 |
| CEL-BSA/Nε-(carboxyethyl) lysine-BSA | 200 ul | CSR | AGE-GP02 |
| GA-BSA/Glycolaldehyde-BSA | 200 ul | CSR | AGE-GP03 |
| Ribose-gelatin | 500 ul | CSR | AGE-GP04 |
| Mild-AGE-BSA | 200 ul | CSR | AGE-GP05 |

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COSMO BIO CO., LTD.
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TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN
URL: http://www.cosmobio.co.jp e-mail: export@cosmobio.co.jp
[Outside Japan] Phone : +81-3-5632-9617 [国内連絡先] Phone : +81-3-5632-9610
FAX : +81-3-5632-9618 FAX : +81-3-5632-9619