Advanced Glycation End Product (AGE) Active Protein

PRODUCT OVERVIEW

Product Name	Advanced Glycation End Product (AGE), Active Protein
Full Product Name	Active Advanced Glycation End Product (AGE)
Product Gene Name	AGE active protein
Host	Bovine
Form/Format	10mM PBS, pH7.4, containing 5% trehalose.
Purity/Purification	Purity: >90% as determined by SDS-PAGE. Purification Methods: Salt co-precipitation and ionic-Exchange chromatography.
Concentration	Original Concentration: 2000ug/mL (lot specific)
Preparation and Storage	**Storage:** Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. **Stability Test:** The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.
Supply Chain Verification	Manufactured in a lab with traceable raw materials. Bulk orders can typically be prepared to the customer's specifications, please inquire.
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Source	Glycosylation of extracted BSA, catalyzed by CuSO4
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Traits	Freeze-dried powder
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Product Categories/Family for AGE active protein	Metabolic pathway; Endocrinology; Cardiovascular biology; Hormone metabolism
ISO Certification	Manufactured in an ISO 9001:2015 and ISO 13485:2016 Certified Laboratory.
Applications Tested/Suitable for AGE active protein	Cell culture; Activity Assays.
Application Notes for AGE active protein	(May be suitable for use in other assays to be determined by the end user.)
Related Product Information for AGE active protein	MBS2097354 is an active protein targeting AGE. Also known as Active Advanced Glycation End Product (AGE). Host: Bovine.
Other Notes	Small volumes of AGE active protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

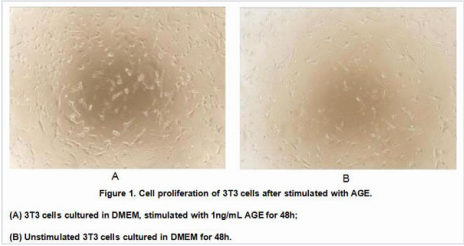


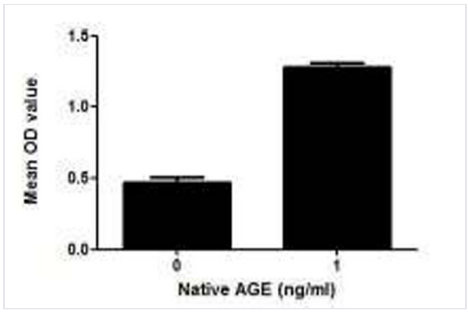
Figure 1. Cell proliferation of 3T3 cells after stimulated with AGE.

(A) 3T3 cells cultured in DMEM, stimulated with 1ng/mL AGE for 48h;

(B) Unstimulated 3T3 cells cultured in DMEM for 48h.

Activity Data of AGE active protein

Glucose and other reducing sugars can react non-enzymatically with the amino groups of proteins to form compounds called advanced glycation end products (AGEs). AGEs exert their cellular functions via the interaction with receptor for advanced glycation end products (RAGE). It has been reported that AGE stimulates the differentiation and proliferation of 3T3, thus a proliferation assay was conducted using 3T3 cells. Briefly, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of AGE. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10uL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37 degree C. Proliferation of 3T3 cells after incubation with AGE for 48h observed by inverted microscope was shown in Figure1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant AGE for 48h. The result was shown in Figure 2. It was obvious that AGE significantly increased cell viability of 3T3 cells.



Activity Data of AGE active protein

Figure 2. Cell proliferation of 3T3 cells after stimulated with AGE.

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Online datasheet: https://www.mybiosource.com/active-protein/advanced-glycation-end-product-age/2097354