

Advanced Glycation End product-BSA (Glucose AGE-BSA)

CATALOG #:	2223-10	10 mg
ALTERNATE NAMES:	Glucose AGE-BSA	
PURITY:	≥98%	
FORM:	Liquid	
FORMULATION:	0.22 µm filter sterilized. Supplied in 1X PBS (10 mg/ml).	
STORAGE CONDITIONS:	Store at -20°C for long-term storage. Avoid multiple Freeze / thaw cycles.	

HANDLING: During extended storage, AGE-BSA may precipitate. In this case, sonication will be helpful to solubilize the precipitates.

DESCRIPTION: The Glucose AGE BSA II was produced by reacting BSA with glucose under sterile conditions followed by extensive dialysis and purification steps. Fluorescence of AGEs was confirmed by fluorescence spectrophotometry with Ex/Em = 370/440 nm. Glycated BSA shows > 50X increase in fluorescence in compared to control BSA.

BACKGROUND: 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. AGE are not only created from glucose per se, but also from dicarbonyl compounds derived from glycation, sugar autoxidation, and sugar metabolism. Various types of AGE, non-enzymatically glycated protein derivatives formed at an accelerated rate in diabetes, have been demonstrated to inhibit DNA synthesis and also induce apoptotic cell death in human mesangial cells.

FEATURES:

1. Modified with glucose for highest biological activity
2. Can pair with AGE-BSA (Cat# 2221-10) for competitive ELISA
3. Low endotoxin level.

REFERENCES: Valencia et al. (2004) Anal. Biochem. 324:68-78

RELATED PRODUCTS:

- BSA (10% in H₂O) (Cat. No. 2119-10)
- BSA Antibody (Cat. No. 5998-100)
- BSA (10 mg/ml BSA in PBS) (Cat. No. 2221-BSA)
- AGE-BSA (Cat. No. 2221-10)

FOR RESEARCH USE ONLY! Not to be used on humans.