

OxiSelect Advanced Glycation End Product (AGE) ELISA Kit

OxiSelect Advanced Glycation End Product (AGE) Competitive ELISA Kit

CATALOG #
AAA11421

PRODUCT SYNONYMS

OxiSelect Advanced Glycation End Product (AGE); OxiSelect Advanced Glycation End Product (AGE) Competitive ELISA Kit; OxiSelect Advanced Glycation End Product (AGE) elisa kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, aliquot and store the Anti-AGE Antibody, AGE-BSA Standard, AGE Conjugate and 100X Conjugate Diluent at -20 degree C to avoid multiple freeze/thaw cycles. Store all other kit components at 4 degree C.

IMAGES

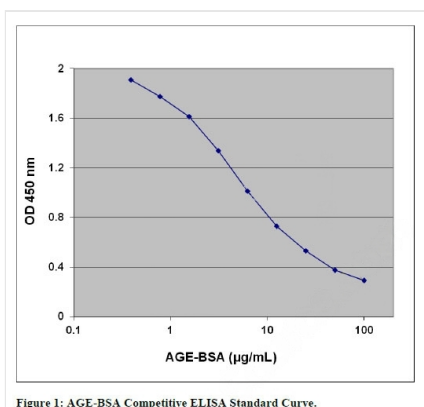


Figure 1: AGE-BSA Competitive ELISA Standard Curve.

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for OxiSelect Advanced Glycation End Product (AGE) elisa kit

Principle of the Assay: First, an AGE conjugate is coated on an ELISA plate. The unknown AGE protein samples or AGE-BSA standards are then added to the AGE conjugate preabsorbed ELISA plate. After a brief incubation, an anti-AGE polyclonal antibody is added, followed by an HRP conjugated secondary antibody. The content of AGE protein adducts in unknown samples is determined by comparison with a predetermined AGE-BSA standard curve.

Background/Introduction: The non-enzymatic reaction of reducing carbohydrates with lysine side chains and N-terminal amino groups of macromolecules (proteins, phospholipids and nucleic acids) is called the Maillard reaction or glycation. The products of this process, termed advanced glycation end products (AGEs), adversely affect the functional properties of proteins, lipids and DNA. For example, N-epsilon-(Carboxymethyl) lysine (CML), one of the prevalent AGEs, has been implicated in oxidative stress and vascular damage. Tissue levels of AGE increase with age and the formation of AGEs is predominantly endogenous, though these products can also be derived from exogenous sources such as food and tobacco smoke. AGE modification of proteins can contribute to the pathophysiology of aging and long-term complications of diabetes, atherosclerosis and renal failure. AGEs also interact with a variety of cell-surface AGE-binding receptors (RAGE), leading either to their endocytosis and degradation or to cellular activation and pro-oxidant or pro-inflammatory events. OxiSelect™ AGE Competitive ELISA Kit is an enzyme immunoassay developed for rapid detection and quantitation of AGE protein adducts. The quantity of AGE adduct in protein samples is determined by comparing its absorbance with that of a known AGE-BSA standard curve. Each kit provides sufficient reagents to perform up to 96 assays, including standard curve and unknown protein samples.

Product Categories/Family for OxiSelect Advanced Glycation End Product (AGE) elisa kit	Oxidative Stress/Damage; Protein Oxidation/Nitration; Advanced Glycation End Products; AGE Assays and Reagents; AGE Competitive ELISA
References	1. Monnier, V., and Cerami, A. (1981) Science 211, 491-493. 2. Dunn, J. A., Patrick, J. S., Thorpe, S. R., and Baynes, J. W. (1989) Biochemistry 28, 9464-9468. 3. Ahmed, M. U., Brinkmann Frye, E., Degenhardt, T. P., Thorpe, S. R., and Baynes, J. W. (1997) Biochem. J. 324, 565-570. 4. Sell, D. R., and Monnier, V. M. (1989) J. Biol. Chem. 264, 21597-21602. 5. Onorato, J., Jenkins, A., Thorpe, S., and Baynes, J. (2000) J. Biol. Chem. 275, 21177-21184. Foster, D. et al. (2014). AGE Metabolites: A Biomarker Linked to Cancer Disparity? Cancer Epidemiol Biomarkers Prev. 23:2186-2191.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/elisa-kits/oxiselect-advanced-glycation-end-product-age/11421>