

OxiSelect Protein Carbonyl ELISA Kit

OxiSelect Protein Carbonyl ELISA Kit (1 plate)

CATALOG #

AAA11429

PRODUCT SYNONYMS

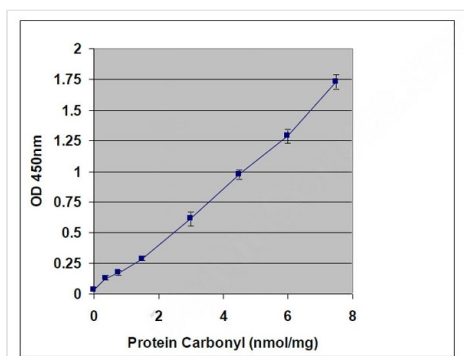
OxiSelect Protein Carbonyl; OxiSelect Protein Carbonyl ELISA Kit (1 plate); OxiSelect Protein Carbonyl elisa kit

PRODUCT SPECIFICATIONS

Preparation and Storage

Upon receipt, aliquot and store both the Reduced and Oxidized BSA Standards at -20 degree C to avoid multiple freeze/thaw cycles. Store all other components at 4 degree C until their expiration dates.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for OxiSelect Protein Carbonyl elisa kit	Principle of the Assay: BSA standards or protein samples (10 ug/mL) are adsorbed onto a 96-well plate for 2 hrs at 37 degree C. The protein carbonyls present in the sample or standard are derivatized to DNP hydrazone and probed with an anti-DNP antibody, followed by an HRP conjugated secondary antibody. The protein carbonyl content in unknown sample is determined by comparing with a standard curve that is prepared from predetermined reduced and oxidized BSA standards. Background/Introduction: Protein oxidation is defined as the covalent modification of a protein induced either directly by reactive oxygen species (ROS) or indirectly by reaction with secondary by-products of oxidative stress. Oxidative modification of proteins can be induced in vitro by a wide array of pro-oxidant agents and occurs in vivo during aging and in certain disease conditions. There are numerous types of protein oxidative modification. The most common products of protein oxidation in biological samples are the protein carbonyl derivatives of Pro, Arg, Lys, and Thr. These derivatives are chemically stable and serve as markers of oxidative stress for most types of ROS. Many of the current assays involve derivatization of the carbonyl group with dinitrophenylhydrazine (DNPH), followed by immunoblotting with an anti-DNP antibody. The Protein Carbonyl ELISA was first developed by Buss and co-workers, the protein samples (>4 mg/mL) react with DNPH and then adsorb to wells of an ELISA plate before probe with anti-DNPH antibody. In their method, protein samples containing low amounts of protein must be concentrated to at least 4 mg/mL by TCA precipitation. However, TCA precipitation results a 20% loss of the total carbonyl values, and loss of protein during precipitation is also expected. In OxiSelect™ Protein Carbonyl ELISA Kit, protein samples are first allowed to adsorb to wells of a 96-well plate and then react with DNPH. There is no need to concentrate protein in experimental and clinical samples with low amounts of protein (< 4 mg/mL) and the kit requires protein sample as little as 10 ug/mL. The OxiSelect™ Protein Carbonyl ELISA Kit is an enzyme immunoassay developed for rapid detection and quantitation of protein carbonyls. The quantity of protein carbonyls in protein sample is determined by comparing its absorbance with that of a known reduced/oxidized 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 Protein Carbonyl elisa kit	Oxidative Stress/Damage ; Protein Oxidation/Nitration ; Protein Carbonyl Assays

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Online datasheet: <https://stage.aaabiotech.com/elisa-kits/oxiselect-protein-carbonyl/11429>