

BIOXYTECH® Nitrotyrosine-EIA Assay (Catalog Number 21055)

Immunoassay for Nitrotyrosine

For Research Use Only. Not For Use In Diagnostic Procedures.

INTRODUCTION

Nitrotyrosine is a relatively stable product formed from various reaction pathways. Perhaps most notable is the reaction of peroxynitrite (formed from Superoxide and nitric oxide radicals) with tyrosine. As a strong oxidant and nitrating agent, peroxynitrite mediates tyrosine nitration reactions on proteins resulting in inactivation of certain housekeeping enzymes (e.g. α 1-antiproteinase) as well as endogenous antioxidant enzymes such as catalase and SOD. This form of protein nitration has been shown to be involved in the pathology of several human conditions such as chronic myocardial dysfunction, respiratory distress syndrome, inflammatory bowel disease, lung injury, asthma, atherosclerosis, rheumatoid arthritis, chronic renal failure, ALS, septic shock and others.

The Oxis Research™ Nitrotyrosine-EIA is a “sandwich” ELISA. Antigen captured by a solid phase monoclonal antibody is detected with a biotin-labeled goat polyclonal anti-nitrotyrosine. A streptavidin peroxidase conjugate then binds to the biotinylated antibody. The tetramethylbenzidine (TMB) substrate is added and the yellow product is measured at 450 nm. Demonstration of nitrotyrosine in biological samples is useful in determining oxidative stress level and specifically infers the presence of peroxynitrite or related nitrogen-centered oxidants. The Nitrotyrosine ELISA kit from OxisResearch™ provides a simple reproducible method of NT detection in tissues, plasma and urine.

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| Catalog Number | 21055 |
| Intended Use | Quantitative measurement of nitrotyrosine in biological samples. |
| Format | 2 X 96 well plate |
| Kit Contents | Nitrotyrosine Antibody Streptavidin Peroxidase TMB Substrate Substrate Buffer Substrate Diluting Buffer Wash Buffer Stop Solution Pre-coated Plates w/Frame |
| Specimen Requirements | Tissue, Plasma, Urine |
| Storage and Stability | 12 Months from date of manufacture when stored as specified |
| Assay Precision | Intra Assay (%CV) 2.32 Inter Assay (%CV) 11.17 |
| Sensitivity | LLD = 2Nm |