

Nitrotyrosine ELISA Kit ab210603

9 References 1 Image

Overview

Product name	Nitrotyrosine ELISA Kit			
Detection method	Colorimetric			
Precision	Intra-assay			
	Sample	n	Mean	SD
	3 Samples	30		CV%
				< 10%
	Inter-assay			
	Sample	n	Mean	SD
	3 Samples	30		CV%
				< 15%
Sample type	Urine, Serum, Plasma, Other biological fluids, Cell Lysate			
Assay type	Competitive			
Sensitivity	= 50 nM			
Range	62.5 nM - 8000 nM			
Assay time	2h 00m			
Assay duration	Multiple steps standard assay			
Product overview	Abcam's Nitrotyrosine <i>in vitro</i> ELISA (Enzyme-Linked Immunosorbent Assay) kit (ab210603) is designed for the competitive measurement of Free Nitrotyrosine protein in plasma, serum, cell lysates, urine, and other sample matrices. The ELISA utilizes an Nitrotyrosine-coated plate and an HRP-conjugated antibody for detection which allows for an assay range of 62.5 to 8000 nM Free Nitrotyrosine, with a sensitivity of 50 nM. The other highlights of this kit are a quick incubation time of 60 minutes, stable reagents, and an easy to use protocol.			
Notes	Nitrotyrosine has been identified as a marker of inflammation and NO production. Nitrotyrosine is formed in presence of the active metabolite NO. Various pathways including the formation of peroxynitrite lead to nitrotyrosine production. Since nitrotyrosine is a stable end product of peroxynitrite oxidation, assessment of its plasma concentration may be useful as a marker of NO-dependent damage in vivo. Since NO _x is only an indicator for enhanced NO production, protein associated nitrotyrosine might be a more suitable marker for damage induced by reactive nitrogen intermediates derived from NO. Furthermore, most proteins have a longer half-life in the circulation than NO _x levels. The presence of nitrotyrosine has been detected in various			

inflammatory processes including atherosclerotic plaques, celiac disease, rheumatoid arthritis, chronic renal failure and septic shock. In normal plasma low, undetectable, levels of nitrotyrosine are present.

Nitrosylation of the amino acid tyrosine occurs both for free tyrosine and for protein bound tyrosine.

Platform Microplate

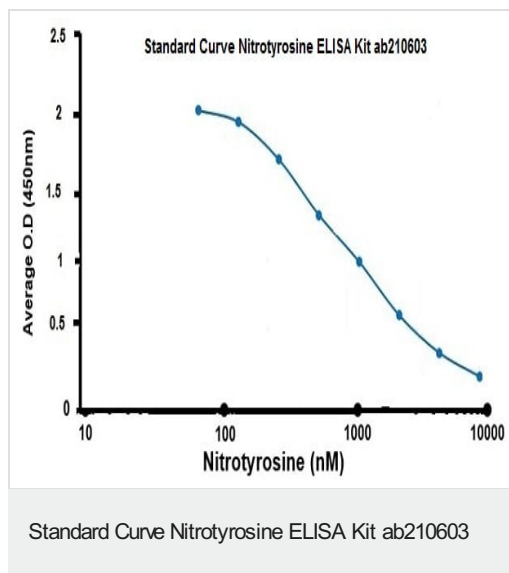
Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	Identifier	1 x 96 tests
Anti-Nitrotyrosine:HRP Conjugated Detection Antibody		1 x 75µl
Nitrosylated BSA Coated Plate		1 x 96 tests
Nitrotyrosine Antibody Diluent	Blue	1 x 13ml
Nitrotyrosine Standard		1 x 110µl
Plate Cover		2 units
Sample and Standard Diluent	Red	1 x 50ml
Stop Solution		1 x 13ml
TMB Substrate		1 x 13ml
Wash Buffer Concentrate (10X)		1 x 50ml

Relevance The cellular production of highly reactive nitrogen species derived from nitric oxide, such as peroxynitrite, nitrogen dioxide and nitryl chloride, leads to the nitration of tyrosine residues in tissue proteins. The extent of protein nitrotyrosine formation provides an index of the production of reactive nitrogen species and potential cell damage over a period of time. Nitrotyrosine can be measured by amino-acid analysis of protein hydrolysates and detected, estimated semi-quantitatively and located in cells and tissues by immunocytochemical techniques using antibodies directed against the nitrotyrosine hapten.

Images



Standard Curve Nitrotyrosine ELISA Kit ab210603

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