

3-NT(3-Nitrotyrosine) ELISA Kit

Description

Alternative Names:	3-Nitro-L-Tyrosine; 3-Nitrotyrosine; Nitrotyrosine
Catalogue No.	6687ELK
Size	96T
Reactivity	General
Range	4.69-300 ng/mL
Sensitivity	1.35 ng/mL
Assay Type	Competitive Inhibition
Sample Type	serum, plasma and other biological fluids
Assay Length	2h
Research Area	Metabolic pathway; Infection immunity; Rheumatology;

Test principle
 This assay employs the competitive inhibition enzyme immunoassay technique. The microplate provided in this kit has been pre-coated with Nitrotyrosine(NT) protein. Samples are added to the appropriate microtiter plate wells then with a biotin-conjugated Nitrotyrosine(NT). Next, Avidin conjugated to Horseradish Peroxidase (HRP) is added to the microplate well and incubated. After TMB substrate solution is added. The reaction is terminated by the addition of sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450nm \pm 10nm. The concentration of the samples is then determined by comparing the OD of the samples to the standard curve.



	CONCENTRATION (NG/ML)	OD	
Standard Curve	300.00	0.217	µg
	150.00	0.467	µg
	75.00	0.793	µg
	37.50	0.967	µg
	18.75	1.236	µg
	9.38	1.596	µg
	4.69	1.861	µg
	0.00	2.265	µg

Intra-assay Precision (Precision within an assay) $\frac{1}{4}$ CV% < 8%

Three samples of known concentration were tested twenty times on one precision.

Precision

Inter-assay Precision (Precision between assays) $\frac{1}{4}$ CV% < 10%

Three samples of known concentration were tested in forty separate assay precision.

Matrices listed below were spiked with certain level of recombinant 3-NT calculated by comparing the measured value to the expected amount of 3-NT.

Recovery	MATRIX	RECOVERY RANGE	
	serum(n=5)		92-107%
	EDTA plasma(n=5)		87-99%
	Heparin plasma(n=5)		78-92%

The linearity of the kit was assayed by testing samples spiked with appropriate concentrations and their serial dilutions. The results were demonstrated by the percentage of measured value to the expected.

Linearity	MATRIX	1:2		1:4	
		serum(n=5)	86-93%	91-105%	88-93%
	EDTA plasma(n=5)	85-95%	79-96%	85-95%	89-96%
	Heparin plasma(n=5)	87-96%	81-93%	87-96%	86-93%

For Research Use Only

Date Created

2024/07/03