

Arg(Arginine) ELISA Kit

Description

Alternative Names:	(S)-2-Amino-5-Guanidinopentanoic Acid
Catalogue No.	7925ELK
Size	96T
Reactivity	General
Range	1.57-100 µg/mL
Sensitivity	0.51 µg/mL
Assay Type	Competitive Inhibition
Sample Type	serum, plasma, tissue homogenates and other biological fluids
Assay Length	2h
Research Area	Metabolic pathway; Nutrition metabolism;

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



Standard Curve	CONCENTRATION (NG/ML)		OD	
	100.00		0.175	µg
	50.00		0.352	µg
	25.00		0.621	µg
	12.50		0.861	µg
	6.25		1.152	µg
	3.13		1.565	µg
	1.57		1.775	µg
	0.00		2.115	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 Arg and calculated by comparing the measured value to the expected amount of Arg.		
Recovery	MATRIX	RECOVERY RANGE	
	serum(n=5)	78-92%	
	EDTA plasma(n=5)	78-90%	
	Heparin plasma(n=5)	85-99%	
	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 recovery to the expected.		
Linearity	MATRIX	1:2	1:4
	serum(n=5)	87-98%	92-101%
	EDTA plasma(n=5)	95-104%	93-102%
	Heparin plasma(n=5)	85-92%	87-101%
Note	For Research Use Only		
Date Created			
2024/07/03			