Human Neuronal Nitric Oxide Synthase (nNOS) ELISA Kit

Product Code	CSB-E13872h
Abbreviation	NOS1
Target Name	nitric oxide synthase 1 (neuronal)
Uniprot No.	P29475
Alias	IHPS1, NOS, nNOS, nitric oxide synthase 1, neuronal
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, cell culture supernates
Detection Range	0.156 IU/mL-10 IU/mL
Sensitivity	0.039 IU/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Neuroscience
Gene Names	NOS1
Tag Info	quantitative
Protein Description	Sandwich

Description

This human nNOS ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of human nNOS in multiple samples, including serum, plasma, and cell culture supernates. It also uses the enzyme-substrate chromogenic reaction to visualize and analyze the analyte levels through the color intensity. The intensity of the colored product is in direct proportion to the nNOS levels in the sample and is measured at 450 nm through a microplate reader.

nNOS, also called NOS1, is predominantly localized in the macula densa, neurons, Bowman's capsule, and collecting duct, where it takes part in the control of glomerular hemodynamics, renin release, and sodium excretion. NOS1 is the predominant nitric oxide (NO)-generating enzyme highly enriched in the brain. It is known to mediate multiple functions, ranging from learning and memory development to maintaining synaptic plasticity and neuronal development, Alzheimer's disease (AD), psychiatric disorders, and behavioral deficits. NOS1 is the major regulator of cardiac function and intracellular Ca2+

fluxes. Considering the physiological actions of NOS1 in the kidney, this enzyme may be involved in the pathogenesis of renal hemodynamic changes associated with diabetes.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%
Three samples of known concentration were tested twenty times on one plate to assess.
Inter-assay Precision (Precision between assays): CV%<10%
Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human nNOS in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:5	Average %	87
	Range %	82-90
1:10	Average %	105
	Range %	101-110
1:20	Average %	83
	Range %	80-86
1:40	Average %	97
	Range %	91-103

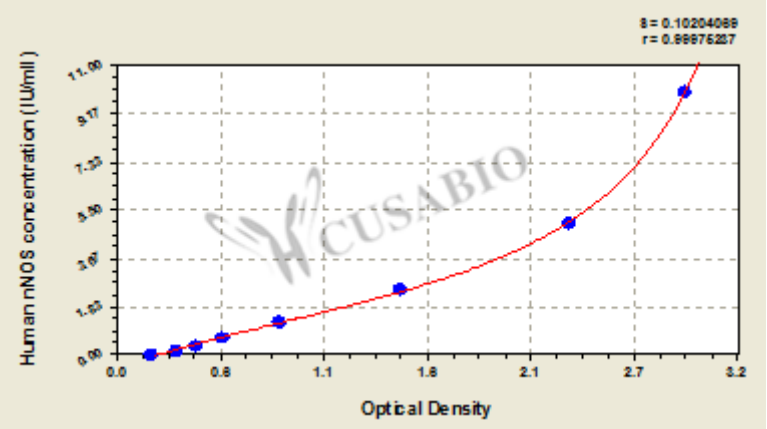
Recovery

The recovery of human nNOS spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	89	85-93
EDTA plasma (n=4)	100	95-105

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



IU/ml	OD1	OD2	Average	Corrected
10	2.902	2.963	2.933	2.743
5	2.313	2.365	2.339	2.149
2.5	1.469	1.465	1.467	1.277
1.25	0.878	0.822	0.850	0.660
0.625	0.568	0.545	0.557	0.367
0.312	0.407	0.435	0.421	0.231
0.156	0.314	0.326	0.320	0.130
0	0.192	0.187	0.190	

Msds

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