ADMA *Xpress*



Risk of heart attack & stroke

ELISA for the quantitative determination of ADMA in human EDTA-plasma and serum

- Results in only 3 hours
- Temperature robust
- Automatable
- Suitable for small sample volumes
- Excellent correlation with LC-MS/MS analysis
- High precision, no cross reactivity with other arginines



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ADMA

Endogenous NO-synthase inhibitor as prognostic factor for arteriosclerosis

Asymmetric dimethylarginine (ADMA) is an endogenous inhibitor of NO synthase, an enzyme that catalyses the production of nitric oxide from the amino acid arginine. Nitric oxide (NO) is an endothelium-derived vasoactive mediator and is

involved in the modulation of the blood flow and the blood pressure. Inhibition of NO-production leads to dysfunction of the vascular endothelium and therefore of the vascular tone Hypertension Diabetes mellitus Chronic renal fa

and vascular structure. Because of these properties NO has also been described as an endogenous **anti-arteriosclerotic molecule**. Elevated ADMA concentrations in blood cause

deficiency of endothelial produced NO and lead to

dysfunction of the vascular system. ADMA derived endothelial dysfunctions are an essential contribution to the development of arteriosclerosis. In dialysis patients for example, the degree of arteriosclerosis correlates significantly with elevated



ADMA levels in blood. ADMA is hence an important prognostic cardiovascular risk factor for patients with arteriosclerosis, coronary artery disease, peripheral arterial oc-

clusive disease, hypertension, chronic heart failure, hypercholesterolemia, chronic renal failure or diabetes mellitus. ADMA predicts cardiovascular risk independently of other variables and is therefore a novel cardiovascular risk factor.



- ADMA serum concentration correlates significantly with the degree of arteriosclerosis in dialysis patients.
- Elevated ADMA levels are a prognostic risk factor for heart attack and stroke in many cardiovascular diseases.

ADMA Xpress ELISA (K 7860): fast, easy, robust!

- Direct competitive ELISA in microtiter formate
- Results in only 3 hours
- Temperature robust, no cooling necessary
- Suitable for small sample volumes: 25 μl per determination, dilutable
- Automatable (e.g. Dynex)
- Excellent correlation with LC-MS/MS
- High precision
- No elevated data due to controls and standards based on ADMA-free plasma
- Best linearity in the range of 0.1 μM 2 μM
- No cross reactivity with L-Arginine, SDMA and N-Monomethylarginine

Best correlation of the ADMA *Xpress* ELISA with LC-MS/MS



ADMAXpress ELISA 🤇 🤆

Sample volume	25 μl
Matrix	EDTA Plasma, Serum
Test principle	ELISA
Cat. No.	K 7860 (Human)

Baseline values (serum/plasma) n = 70 $0,45 \mu mol/l (0,45 \pm 0,19 \mu mol/l)$

ADMA ELISA (overnight version)

Sample volume	50 µl
Matrix	EDTA- & Citrat Plasma, Serum
Test principle	ELISA
Cat. No.	K 7828 (Human)

ADMA ELISA (mouse / rat)*

Sample volume	25 μl
Matrix	EDTA Plasma, Serum, Cell
	culture supernatant
Test principle	ELISA
Cat. No.	KR3001

* For research use only

ADMA ELISA (overnight version)*

Sample volume	20 µl
Matrix	Urine
Test principle	ELISA
Cat. No.	K 7830

* For research use only

Literature

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