

HOMOCYSTEIN (HCY-O10)

24 months stability

Clinical significance

Abnormally high levels of homocysteine in the serum (above 15 $\mu\text{mol/L}$) is a medical condition called hyperhomocysteinemia. This has been claimed to be a significant risk factor for the development of a wide range of diseases, including thrombosis, neuropsychiatric illness, and fractures.

It is also found to be associated with microalbuminuria which is a strong indicator of risk of future cardiovascular disease and renal dysfunction.

Additionally, elevated homocysteine is found in megaloblastic anemia. Elevated homocysteine is also found in thiamine and B12 deficiency (in the case of B12 deficiency Methylmalonic acid will also be elevated).

Principle of the method

Enzymatic UV assay using Cystathionine β -Synthase, Cystathionine β -Lyase, L-Serinelyase and Lactate dehydrogenase.

The rate of NADH conversion in NAD will be proportional to the concentration of Homocysteine.

General features

- ✓ Measuring range: 0,7 to 50 $\mu\text{mol/L}$
- ✓ Reaction time: Less than 10 minutes
- ✓ Onboard stability: 35 days
- ✓ Calibrators standardized to references material NIST SRM 1955

Reference values

ADULT
 $\leq 15 \mu\text{mol/L}$

ELDER POP. (> 60 years)
15 – 20 $\mu\text{mol/L}$

Reference values

Reference

HCY-010

Presentation

UV liquid-stable reagent



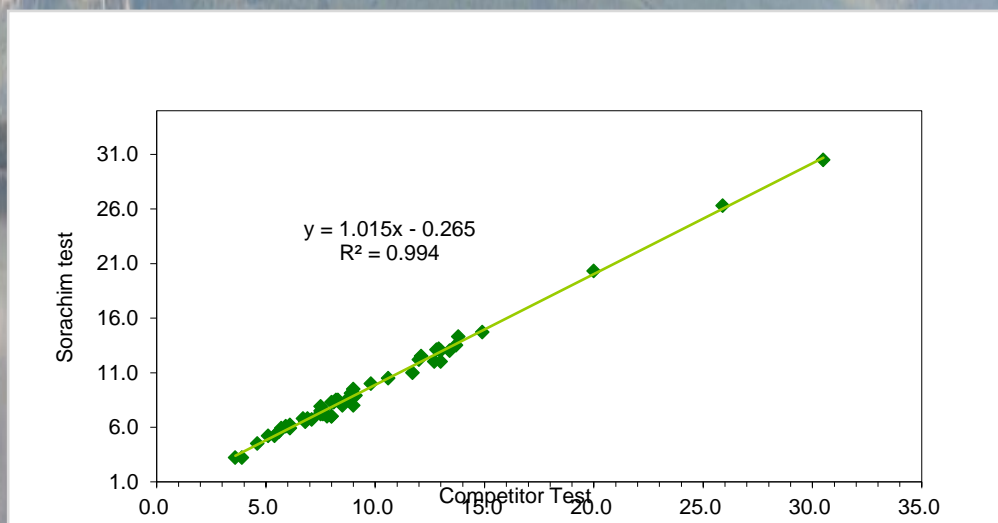
HOMOCYSTEIN (HCY-O10)

24 months stability

Precision

Within run (n=20)	Mean ($\mu\text{mol/L}$)	SD	%CV	Between run (n=20)	Mean ($\mu\text{mol/L}$)	SD	%CV
Level 1	4.83	0.05	0.95	Level 1	5.00	0.06	1.24
Level 2	27.47	0.05	0.17	Level 2	28.00	0.13	0.47

Correlation



Interferences

Bilirubin	up to 600 $\mu\text{mol/L}$
Haemolysis haemoglobin	up to 500 mg/dL
Lipemia	up to 500 mg/dL