



## VITAMIN B6

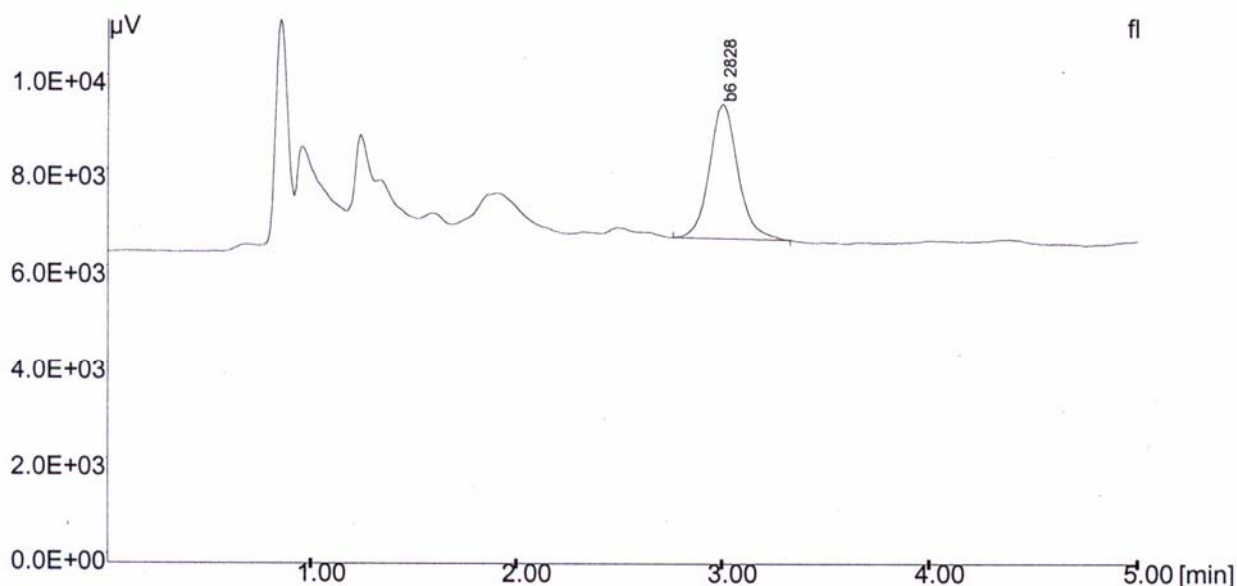
### DETERMINATION OF VITAMIN B6 IN WHOLE BLOOD

- HPLC Fluorescence Method
- Use EDTA-blood
- No need for second pump system
- No need for post column system
- Runtime 6 minutes
- Wavelength 370 Ex, 455 Em



Products	Product no.	Quantity
<b>Complete Set</b> (contains according to product insert): <b>Vitamin B6 Reagent Set</b>	2781	50 - 70 Determinations
<b>Components:</b>		
Vitamin B6 Calibration Standard	2428	1 x 2 ml
Vitamin B6 Deproteinization Reagent	2429	1 x 60 ml
Vitamin B6 Derivatization Reagent	2430	1 x 6 ml
Vitamin B6 Mobile Phase Reagent	2832	1 x 500 ml
<b>Additional :</b>		
Vitamin B1/B6 Control Blood Low Level	2490	10 x 4 ml
Vitamin B1/B6 Control Blood Normal level	2489	10 x 4 ml
Vitamin B1/B6 Control Blood High Level	2811	10 x 4 ml
Analytical Column, Polaris C18-A, 5µm, 100 x 3 mm	A2000100R030	1 x 1 pcs
Chromsep Guard column RP, SS 10 x 2 mm	28141	1 x 5 pcs

## Vitamine B-6





## SUMMARY

### CLINICAL BACKGROUND AND ASSAY PRINCIPLE

Vitamin B6 is the generic term for three naturally occurring nonphosphorylated vitamins (pyridoxine, pyridoxal and pyridoxamine) and their 5-phosphorylated forms. The biologically most active member pyridoxal 5-phosphate (PLP) is the cofactor directly involved in the cellular amino acid metabolism.

After extraction is converted into its semicarbazone by a pre-column reaction. Separation of the PLP is done on an Analytical Column, Polaris C18-A.

The fluorescence of the semicarbazones is detected fluorometrically. The fluorescence of the other forms are low and causes only negligible interference.

A high number of enzymes, especially those in the metabolism of proteins, use PLP as cofactor. However, several PLP enzymes show a high sensitivity to hormones and drugs.

Vitamin B6 deficiency may be associated with hyperoxaluria, irreversible hypochromic microcytic anaemia with a high serum iron, epileptiform seizures and pregnancy.

Collect blood samples into EDTA. Store samples at -20 °C when not directly analyzed. Before analysis frozen samples must be thawed at room temperature.

### ANALYTICAL CONDITIONS

Analytical Column : Polaris C18-A, 5µm, 100 x 3mm, artnr.: A2000100R030  
Guard Column : SS 10 x 2 mm Chromsep, artnr. 28141  
Flow Rate : 0.8 ml/min  
Detection : Fluorescence (excitation 370 nm, emission 455 nm)  
Injection volume : 50 µl  
Run time : Samples; 5 minutes,  
: Controls; 20 minutes.

### EXPECTED VALUES

PLP concentration: 35 - 107 nmol/l

### PERFORMANCE

Linearity: Up to 1089 nmol/l

### QUALITY CONTROLS

Lyophilised human blood preparation with analytical results for Vitamin B1 (TDP and thiamine) and Vitamin B6 by HPLC.

Product name	Product no.	Quantity
Vitamin B1/B6 Control Blood Low (human)	2490	10 x 4 ml
Vitamin B1/B6 Control Blood Normal (human)	2489	10 x 4 ml
Vitamin B1/B6 Control Blood High (human)	2811	10 x 4 ml

### NOTES

1. For in vitro diagnostic use only.
2. For professional use only.
3. Always contact INstruChemie for the complete product insert and latest edition.
4. Printed in the Netherlands, Vitamin B6-summary-290317-1.FEN