

# Vitamin B6 Pyridoxine Pyridoxal Phosphate

## General:

**Biochemistry:** 3 naturally occurring and biologically active derivatives of hydroxy-5-hydroxymethylpyridine (pyridoxine, pyridoxal, pyridoxamine) are summarized as vitamin B6. In the cell, pyridoxine is transferred into the coenzyme pyridoxal phosphate in an ATP-dependant phosphorylation reaction and involved in decarboxylation, transamination of amino acids.

**Physiology:** daily requirement 2.0-2.6 mg, in pregnancy > 4 mg. In addition to nutritional intake, microbial synthesis in the intestinal tract contributes to the supply. Occurrence: liver, kidney, brain, meat, fish, egg yolk, yeast, grain and rice.

## Clinical symptoms:

**Skin:** Eczema-like changes similar to seborrheic dermatitis around eyes, nose and mouth; cheilosis; glossitis.

**Pediatrics:** cerebral cramp attacks, Vit-B6 dependent anemias, xanthurenaciduria, cysthathioninuria, homocystinuria, hyperornithinemia and oxalosis type I can appear in newborns (deficiency during pregnancy).

**Hypervitaminosis** occur >2 g/day. Symptoms: neuropathy with ataxia, cerebral convulsions with changes in the EEGs, hypochromic anemias and seborrheic dermatitis.

**Indication:** Suspicion of deficiency or over-dosage

**Material:** 2 ml EDTA-plasma, **Frozen**

**Preanalytics:** Please send frozen EDTA-plasma: centrifuge EDTA-blood immediately, freeze the EDTA-plasma and ship to FML frozen.

**TAT:** 5-7 days\*

**Method:** HPLC

**Units:** ng/ml

**Ref.- range:** see report

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>