

Hydroxyproline

General:

Hydroxyproline is produced intracellularly by posttranslational hydroxylation of proline and constitutes approx. 12-14% of the total amino acid content in collagen. Hydroxyproline, released during resorption of the bone collagen, is not recycled and is eliminated in urine. The amount of hydroxyproline in urine is related to the bone resorption rate. However 90% of the circulating hydroxyproline is biotransformed in the liver and a significant portion in urine originates from newly synthesized collagen. Furthermore hydroxyproline is found in skin and is released during the metabolization of elastin and C1q.

Indication:

Course and therapy control of Morbus Paget (osteodystrophia deformans) and acromegaly, diagnosis and monitoring of primary hyperparathyroidism (in addition to calcium, phosphorus and parathormone), evaluation of bone metabolism in dialysis patients and in osteomalacia, evaluation of bone metastasis.

The following tests are available:

- **Hydroxyproline in serum**

Material: 1 ml serum, **Frozen**

TAT: 10-14 days*

Method: HPLC

Units: $\mu\text{mol/l}$

Ref.-
range: see report

- **Hydroxyproline in urine**

Material: 10 ml urine

Preanalytics: 24 hours urine, collected with 5-10 ml of HCl

TAT: 10-14 days*

Method: RIA

Units: mg/l

Ref.- range: see report

Note: The following products must be avoided 24 hours before and during urine

collection: meat, fish, sausage, gravy, yoghurt, candy, ice cream. Because of diet-related fluctuations of hydroxyproline metabolism, determination of the collagen-I-telopeptide in serum or of beta-crosslaps is recommended.

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