

# Citrulline

## General:

Citrulline is an amino acid generated in plants and animals and is found in high concentrations for example in the water melon *citrullus vulgaris*. It is considered an intermediate product of the urea cycle. Citrulline has pathogenic significance in the autosomal recessively inherited citrullinemia due to a reduced activity of argininosuccinic acid synthetase (subsequent argininosuccinic synthetase is encoded by genes distributed on at least 8 chromosomes). This leads to accumulation of citrulline (citrullinemia), alanine, glutamine and ammonia in plasma, CSF and urine. The hyperammonemia leads to microcephaly, vomiting, comatose conditions, oligophrenia, ataxia.

The following tests are available:

- **Citrulline in serum**

Indication: suspicion of citrullinemia

Note: see **amino acids**

- **Citrulline in urine**

Indication: suspicion of citrullinemia

Material: 10 ml urine

TAT: 7-10 days\*

Method: HPLC

Units: mmol/mol crea

Ref.- range: see report

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