

Serotonin

General:

Serotonin is a monoamine neurotransmitter. It is found extensively in the gas-trointestinal tract of animals, and about 80 to 90 percent of the human body's total serotonin is found in the enterochromaffin cells of the gut, where it is used to regulate peristaltic movements. Serotonin is also synthesized in serotonergic neurons with different functions and effects, including control of appetite, mood and anger.

In blood, serotonin is stored in platelets and is active wherever platelets bind: as a vasoconstrictor to stop bleeding, but also as activator of fibrocytic mitoses to support healing. Because of these effects, overdoses of se-rotinin, or serotonin agonist drugs, may cause acute or chronic pulmonary hypertension from pulmonary vasoconstriction, or else syndromes of retro-peritoneal fibrosis or endocardial fibrosis from overstimulation of serotonin growth receptors on fibrocytes. Extremely high levels of serotonin can have toxic and potentially fatal effects, causing a condition known as serotonin syndrome.

The following tests are available:

- **Serotonin in EDTA-plasma**

Material: 1 ml EDTA-plasma, **frozen**

Preanalytics: Centrifuge EDTA-blood immediately and send us the frozen plasma

TAT: 7-10 days*

Method: HPLC

Units: ng/ml

Ref.- range: 22-240

- **Serotonin in serum**

Material: 1 ml serum, **Frozen**

TAT: 7-10 days*

Method: HPLC

Units: ng/ml

Ref.- range: 40 - 200

- **Serotonin in urine**

see 5-HIAA

Material: 10 ml 24h urine, **frozen**

TAT: 7-10 days*

Method: RECH

Units: µg/24h

Ref.range: 50-250

- **Serotonin IgM antibodies**

Material: 1 ml serum, **frozen**

TAT: 7-10 days*

Method: EIA

Units: OD

Ref.range: <200

- **Serotonin IgG antibodies**

Material: 1 ml serum, **frozen**

TAT: 7-10 days*

Method: EIA

Units: OD

Ref.-range: <200

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit

<http://www.fml-dubai.com/parameter-listings/>