

# Methylhistamine in urine

## General:

The diagnosis of **gastrointestinally mediated allergies** is difficult. Symptoms are flatulences up to bloody diarrhea, but also extraintestinal symptoms such as skin reactions, asthma, migraine, arthralgia and others might occur. A distinction to other disorders (chronic inflammatory intestinal disease, celiac disease, malabsorption etc.) is difficult or impossible due to the unspecific symptoms. The immunologically mediated inflammatory reaction is often restricted to mucosa and submucosa at clinical manifestation. With approx. 300m<sup>2</sup> of surface the mucosa of the gastrointestinal section (GIT) can bind a considerable quantity of specific IgE without significant rise of serum IgE. Especially in those allergy forms which are limited to mucosa/submucosa of the GIT, the screening diagnostics (prick-test, complete IgE, allergy specific IgE ) can fail to provide a clear result. However reaction mediators, like histamine, ECP (eosinoph. cationic protein, see **ECP** ) and mast- cell tryptase, are released.

Methylhistamine in urine as well as ECP in serum reflect the allergically triggered inflammation activity as a reduction product of histamine. The high sensitivity of these diagnostics is based on the large mucosal surface of the GIT and thus the larger part of the intestinally produced histamine will be biotransformed in the liver to the more stable methylhistamine.

Indication: Screening for gastrointestinally mediated allergy.

Material: 10 ml urine frozen

Preanalytics: 12 h collected urine, acidified, note urine quantity, size and weight of the patient

TAT: 7-10 days\*

Method: LCMS

Units: µg/mmol creatinine

Ref.- range: <6.5

Note: no food which is rich in histamines (fish, cheese, red wine, beer), antibiotics or antiallergics should be consumed. Histamine enhancing diseases (e.g. myeloid leukemia), chronic inflammatory intestinal diseases (celiac disease, M. Crohn) should be excluded.

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