

Elastase 1 in serum

Template:Zkontrolováno thumb|Markery akutní pankreatitidy

Introduction

- **Elastase-1** (EC 3.4.21.11) is secreted as proelastase and activated by trypsinem.
- We distinguish:
 1. elastase-1 (Mr 30 000; anodic fraction), which occurs in serum in free form and in complex with α_1 -proteinase inhibitor
 2. elastase-2 (Mr 25 000; cathodic fraction).
- The enzyme is secreted by the pancreatic juice into the duodena and the protein sequence selected for [immunochemical detection]] při stanovení elastase-1 in stool.
- In inflammatory processes, there is also a retrograde release into the bloodstream and quantification of serum levels of human pancreatic elastase is a suitable marker of acute pancreatitis, such as post-ERCP, and pancreatic cancer.

Characteristics

- Serum elastase-1 (determined by ELISA) has the highest of all enzymes for pancreatic cancer specificity and sensitivity.
- Serum elastase-1 levels are elevated in both acute and chronic recurrent pancreatitis, and the increase persists longer and correlates better with clinical status than α -amylase.
- The reference range (for RIA methodology) is 1.3–4.3 $\mu\text{g/l}$. The latest study in the determination of serum elastase 1 is based on a latex immunoassay.

Links

Source

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