MAYO CLINIC LABORATORIES

Test Definition: PAMY

Amylase, Pancreatic, S

Overview

Useful For

Aiding in the evaluation of acute pancreatitis

This test is **not useful for** diagnosing or characterizing pancreatic cancer or cysts.

Method Name

Colorimetric Reaction

NY State Available

Yes

Specimen

Specimen Type

Serum

Ordering Guidance

For amylase pancreatic cyst or fluid testing, order AMLPC / Amylase, Pancreatic Cyst Fluid.

For amylase testing using other body fluid specimens (eg, peritoneal, pleural), order AMBF / Amylase, Body Fluid.

Specimen Required

Collection Container/Tube:

Preferred: Serum gel

Acceptable: Red top

Submission Container/Tube: Plastic vial

Specimen Volume: 1 mL

Collection Instructions: Centrifuge and aliquot 1 mL of serum into plastic vial. Send refrigerated.

Forms

If not ordering electronically, complete, print, and send a Gastroenterology and Hepatology Client Test Request (T728) with the specimen.

Reject Due To

Gross hemolysis	Reject
Gross lipemia	Reject
Gross icterus	Reject

Specimen Minimum Volume

0.5 mL

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container

Serum	Refrigerated (preferred)	30 days	
	Frozen	30 days	
	Ambient	7 days	

Clinical & Interpretive

Clinical Information

Amylases degrade complex carbohydrates (starches) into simple sugars. Two isoenzymes, pancreatic and salivary, are found in serum. Serum pancreatic amylase should always be interpreted in a context of total amylase to determine the relative contribution of salivary and pancreatic isoenzymes.
Imaging tests have become the diagnostic tests of choice for diagnosing pancreatitis. Pancreatic isoamylase may be used as an adjunct to totally serum amylase, serum lipase, and imaging tests.

Reference Values

0-<24 months: 0-20 U/L
2-<18 years: 9-35 U/L
> or =18 years: 13-53 U/L

Interpretation

Increased concentrations of pancreatic amylase isoenzymes in a context of elevated total serum amylase may indicate pancreatitis.

Cautions

Elevations of pancreatic amylase may be seen in patients that have macroamylase present. This elevation is caused by the inability of macroamylase to be excreted in the urine and is not diagnostic for pancreatitis, pancreatic cancer or cysts. The presence or absence of macroamylase may be determined by utilizing serum lipase and urinary amylase tests.
Detection of chronic pancreatitis can only be aided by pancreatic amylase during acute episodes.
Icodextrin-based medications may lead to decreased amylase values.
In very rare cases of gammopathy, in particular type IgM (Waldenstrom macroglobulinemia), may cause unreliable results.

Clinical Reference

Panteghini M: Laboratory evaluation of pancreatic diseases. Biochimica Clinica. 2010;34(1):19-25

Performance

Method Description

After immunoinhibition with antibodies against human salivary alpha-amylase the amount of pancreatic alpha-amylase in a sample is selectively determined by an enzymatic colorimetric method using the substrate 4,6-ethylidene-p-nitrophenyl-alpha-D-maltoheptaoside (ethylidene-G7PNP).(Package insert: Alpha-Amylase EPS Pancreatic, Roche Diagnostics; V 13.0. 01/2020)

PDF Report

No

Specimen Retention Time

7 days

Performing Laboratory Location

Rochester

Fees & Codes

Test Classification

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

CPT Code Information

82150