

Alpha-1-Antitrypsin Phenotype, Serum

Test ID: A1APP

Explanation:

Due to a nationwide reagent shortage A1APP: Alpha-1-Antitrypsin Phenotype, Serum will become non-orderable effective April 13, 2022. There are currently no referral options available through Mayo Clinic Laboratories. An update will be provided when testing resumes.

Note:

The recommended alternative test is **AAT: Alpha-1-Antitrypsin, Serum**. If the results are within reference intervals consider deferring phenotype testing until reagent shortages have been resolved. The risk for Alpha-1-Antitrypsin deficiency is extremely low for a new case with normal AAT concentration.

If the provider is investigating a potential AAT deficiency phenotype or whether the patient is a carrier of a variant allele our recommended test would be **A1ALC: Alpha-1-Antitrypsin Proteotype S/Z, LC-MS/MS, Serum**. This alternative test employs a rapid and cost-effective liquid chromatography mass spectrometry method (proteotyping), to screen for the most common variant alleles (S and Z phenotypes) prior to considering isoelectric focusing (IEF) testing (phenotyping). The proteotype test is capable of identifying >97% of AAT deficiency cases, with 2-3% of tests reflexing to the IEF phenotyping test to look for the rarer allele variants.

Recommended Alternative Test:

Alpha-1-Antitrypsin, Serum

Test ID: AAT

Methodology:

Nephelometry

Reference Values:

100-190 mg/dL

Specimen Requirements:

Container/Tube:

Preferred: Red top

Acceptable: Serum gel

Specimen Volume: 1 mL
Minimum Volume: 0.5 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code:
82103

Day(s) Performed: Monday through Friday **Report Available:** 1 to 2 days

Recommended Alternative Test:
Alpha-1-Antitrypsin Proteotype S/Z, LC-MS/MS, Serum

Test ID: A1ALC

Methodology:
A1ASZ: Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
AATP: Nephelometry
A1APR: Isoelectric Focusing

Reference Values:
ALPHA-1-ANTITRYPSIN:
100-190 mg/dL

ALPHA-1-ANTITRYPSIN PROTEOTYPE:
Negative for S and Z phenotype (Non S Non Z)

Specimen Requirements:

Container/Tube:
Preferred: Red top
Acceptable: Serum gel
Specimen Volume: 1.25 mL
Minimum Volume: 0.5 mL

Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	28 days
	Ambient	28 days
	Frozen	28 days

CPT Code:

82103-Alpha-1-antitrypsin

82542-A1AT proteotype S/Z, LC-MS/MS

82104-Alpha-1-antitrypsin phenotype (if appropriate)

Day(s) Performed: Monday, Thursday

Report Available: 7 to 14 days

Questions

Contact Amy Ennis, Laboratory Technologist Resource Coordinator at 800-533-1710.