

Laboratory Medicine Care Division

Immunology

Smooth muscle/mitochondrial antibodies, including liver kidney microsomal (LKM), and gastric parietal cell (GPC) antibodies (Liver Autoantibody Screen)

General information

Smooth muscle antibodies at a high titre are associated with chronic active hepatitis, and at low titres are more likely to be triggered by infection. Mitochondrial antibodies are associated with primary biliary cirrhosis.

Further information on interpretation of autoantibody patterns: [Autoimmune Hepatitis: Serum Autoantibodies in Clinical Practice - PMC \(nih.gov\)](#)

Specimen transport: At room temperature

Repeat frequency: At significant change of clinical symptoms

Special precautions: None

Laboratory information

Analytes: Smooth muscle antibodies, mitochondrial antibodies, liver kidney microsomal (LKM) antibodies, and gastric parietal cell (GPC) antibodies

Normal reference range: Negative

Volume and sample type: 4ml serum

Method: Immunofluorescence

Turnaround time (calendar days from sample receipt to authorised result): Median – 3

Participation in EQA scheme: UK NEQAS for Liver Antibodies & UK NEQAS for Anaemia Related Antigens

Clinical information

Indications for the test:

Gastric parietal cells: Pernicious anaemia (PA), atrophic gastritis and are seen in 5-10% of healthy individuals. Present in the early stages of PA, frequently diminish with disease progression.

Factors affecting the test: Unable to determine gastric parietal cell antibodies in the presence of mitochondrial antibodies.

(Last updated January 2026)