

CA19-9 (Carbohydrate Antigen 19-9)

Analyte: Carbohydrate Antigen 19-9

Specimen Type: Serum, EDTA Plasma

Optimum Volume: 0.5 mL

Stability:

2-8 Degrees C	-20 Degrees C	-70 Degrees C
3 days	3 months	N.A.

Reporting Units: U/mL

Method: Electrochemiluminescence

Biological or Clinical Significance:

The CA 19-9 (carbohydrate antigen 19-9) values measured are defined by the use of the monoclonal antibody 1116N-NS-19-9. The 1116-NS-19-9 reactive determinants on a glycolipid having a molecular weight of approximately 10000 daltons are measured. This mucin corresponds to a hepten of Lewis-a blood group determinants and is a component on a number of mucous membrane cells. 3-7 % of the population have the Lewis a-negative/b-negative blood group configuration and are unable to express the mucin with the reactive determinant CA 19-9. This must be taken into account when interpreting the findings.

Mucin occurs in fetal gastric, intestinal, and pancreatic epithelia. Low concentrations can also be found in adult tissue in the liver, lungs and pancreas.

CA19-9 values can assist in the differential diagnosis and monitoring of patients with pancreatic carcinoma (sensitivity 70 – 87%). There is no correlation between tumor mass and the CA 19-9 assay values. However, patients with CA 19-9 serum levels above 1000 U/mL almost always have distal metastasis.

The determination of CA 19-9 cannot be used for the early detection of pancreatic carcinoma.

As the mucin is excreted exclusively via the liver, even slight cholestasis can lead to clearly elevated CA 19-9 serum levels in some cases.

The assay is indicated for the serial measurement of CA 19-9 to aid in the management of patients diagnosed with cancers of the exocrine pancreas. The test is useful as an aid in the monitoring of disease status in those patients having confirmed pancreatic cancer who have levels of CA 19-9 at some point in their disease process exceeding the median concentration for the healthy cohort.

Principle of Test Method:

The CA 19-9 assay is a sandwich electrochemiluminescent immunoassay.