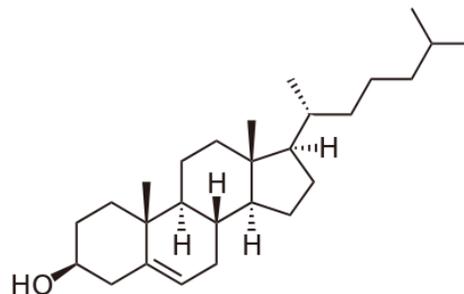


# Quantification of total cholesterol in serum/plasma by HPLC-UV

Cholesterol is a sterol lipid molecule and is biosynthesized by all animal cells because it is an essential structural component of animal cell membranes that is required to maintain both membrane structural integrity and fluidity. Cholesterol also serves as a precursor for the biosynthesis of steroid hormones, bile acids, and vitamin D.

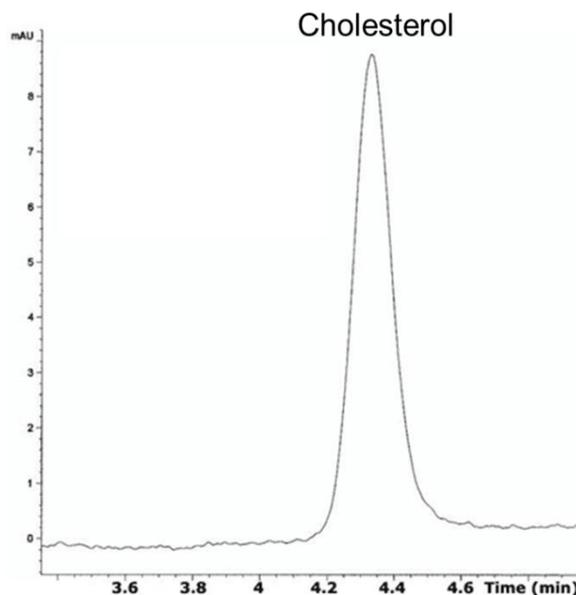
Serum Cholesterol should be 2.9-6.1 mmol/L. Elevated values > 5 mmol/L is often associated with increased risk of CVD. Reference ranges are age dependent.

Vitas AM-299 is a HPLC-UV assay that determines total cholesterol in human Serum/plasma after chemical hydrolysis of cholesterol esters.



Molecular structure of Cholesterol

HPLC-UV chromatogram of serum cholesterol



## Method details:

- Technique: HPLC-UV
  - Sample Matrix: Plasma ,serum
  - Species: All
  - Anticoagulant: All
  - Required sample volume: 100 µL
  - Shipping: Dry Ice
  - Method Range : 0.6-12 mmol/L
  - LOD: 0.05 mmol/L
  - Precision: 4.5 %
- Accuracy: Seronorm™ Lipid

Vitas is a Norwegian GMP certified chemical analysis contract lab, with 20 years experience in providing a high quality, custom chromatographic analytical service based on cutting-edge knowledge and technology.