

## — Metabolic & Endocrine Health

The endocrine system is the collection of glands, each of which secretes different types of hormones that regulate metabolism, growth and development, tissue function, sexual function, reproduction, ... [See more](#)

### Metabolic Health

METHYLMALONIC...

70

(nmol/L)

Range: 55-335

#### METHYLMALONIC ACID

(nmol/L)



#### Result Comments

Serum methylmalonic acid (MMA) levels are used to diagnose and monitor several rare inborn errors of metabolism, including methylmalonic aciduria. The enzymatic conversion of MMA to succinic acid requires vitamin B12 (adenosyl-cobalamin) as a cofactor. Serum MMA levels are also used for assessing functional vitamin B12 deficiency. Vitamin B12 is essential for fetal neurodevelopment, particularly early in pregnancy. Undiagnosed maternal vitamin B12 deficiency may be associated with adverse fetal/neonatal outcomes, such as neural tube defects and intrauterine growth restriction.

Quest Diagnostics utilized Multi-Modal Decomposition (MMD) analysis to establish first and second trimester-specific MMA reference intervals in pregnancy, as given below:

MMA, First trimester (<13 wks gestation): 58-167 nmol/L

MMA, Second trimester (13-23 wks gestation):

63-241 nmol/L

This test was developed and its analytical performance characteristics have been determined by Quest Diagnostics. It has not been cleared or approved by the FDA. This assay has been validated pursuant to the CLIA regulations and is used for clinical purposes.