

## DIMETHYLGLYCINE

### Relevant disorders

Multiple Acyl CoA dehydrogenase deficiency (MADD) (GA2)

### Related Metabolic Tests

Acylcarnitines

### Indication for Test

An area of interest for this metabolite lies in its elevation in patients with Multiple Acyl CoA dehydrogenase deficiency (MADD) (GA2), whose DMDH and Sarcosine dehydrogenase are affected. Measurement of DMG may give useful information in the differential diagnosis of GA2 and follow up to neonatal screening by blood spot analysis by tandem mass spectrometry.

### Methodology

Stable isotope dilution gas chromatography mass spectrometry

### Sample requirements

2ml random urine in a plain tube.

### Turn Around Time

4 – 6 weeks

### Transport information/Contact details

Send by first class post to:

Department of Clinical Chemistry  
Sheffield Children's NHS Foundation Trust  
Western Bank, Sheffield  
S10 2TH, UK

0114 2717479 / 0114 2717307

## Reference Ranges

Interpretation will be provided with the report.

## References

- Burns S, Holmes H, Chalmers R, Johnson A, Iles R. Proton NMR spectroscopic analysis of multiple acyl-CoA dehydrogenase deficiency – capacity of the choline oxidation pathway for methylation in vivo. *Biochimica et Biophysica Acta* 1406 (1998) 274-282.