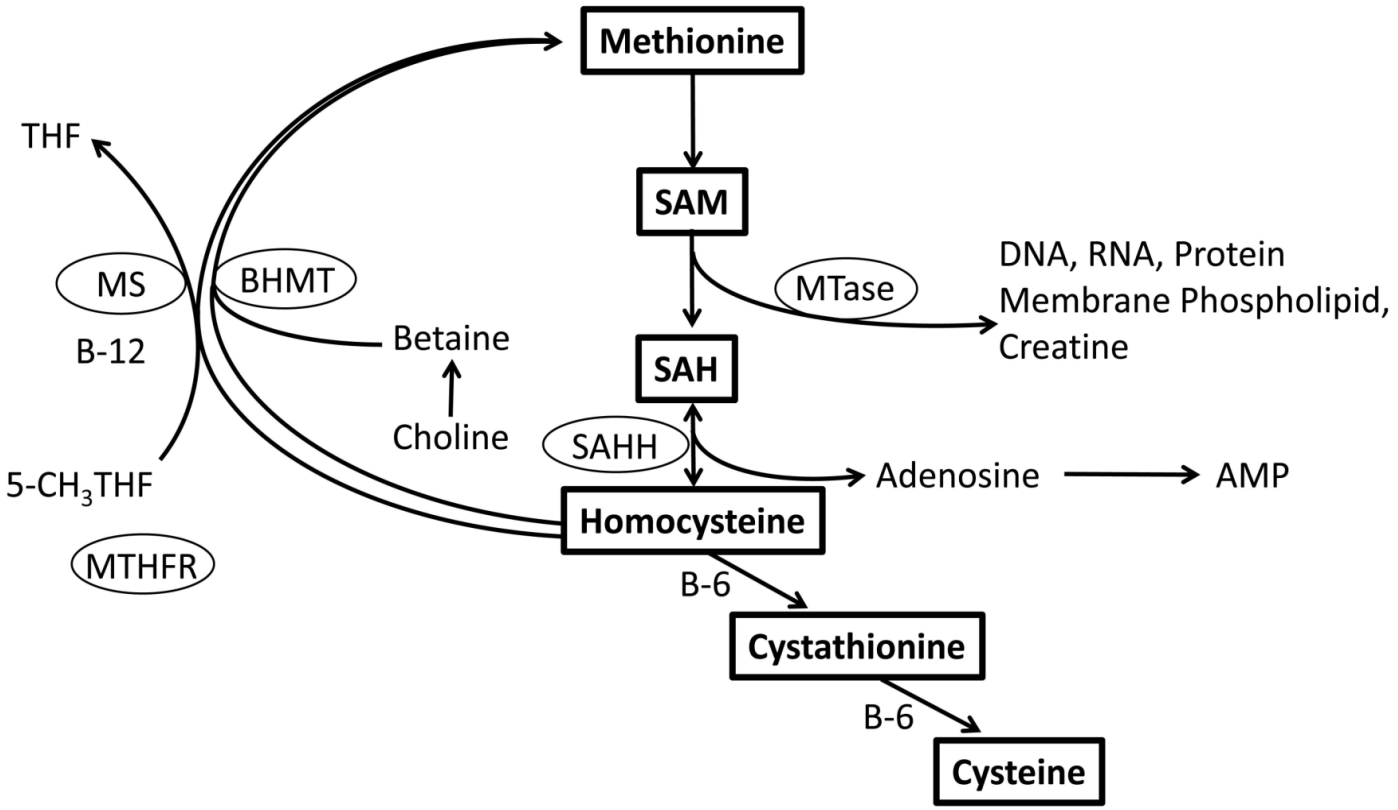
LAB #: B231012-2235-1
PATIENT: Paul Matthews
ID: MATTHEWS-P-00589
SEX: Male
DOB: 08/05/1977 AGE: 46

CLIENT #: 32250
DOCTOR: Lloyd Fielder, DC
Direct Healthcare Access II
411 E Business Center Dr #107
Mount Prospect, IL 60056 U.S.A.

Methylation Profile; plasma

PRIMARY & INTERMEDIATE METABOLITES	RESULT/UNIT	REFERENCE INTERVAL	PERCENTILE (2.5th, 16th, 50th, 84th, 97.5th)
Methionine	**2.3 µmol/dL**	1.6 - 3.6	
Cysteine	**28 µmol/dL**	20 - 38	
S-adenosylmethionine (SAM)	**88 nmol/L**	86 - 145	
S-adenosylhomocysteine (SAH)	**21.9 nmol/L**	10 - 22	
			68th, 95th
Homocysteine	**7.3 µmol/L**	< 11	
Cystathionine	**0.02 µmol/dL**	< 0.05	

METHYLATION INDEX	RESULT	REFERENCE INTERVAL	PERCENTILE (68th, 95th)
SAM : SAH	**4.0**	> 4	



SPECIMEN DATA

Comments:

Date Collected: **10/02/2023**
Date Received: **10/12/2023**
Date Reported: **10/17/2023**
Method: **LCMS**

<dl: **less than detection limit**

v02.11

Introduction

This test assesses metabolism of the essential amino acid methionine (Met). Methionine is paramount in two metabolic processes; (1) transmethylation that is critical for the methylation of hundreds of important molecules such as DNA, RNA, proteins, neurotransmitters and membrane phosphatidylcholine, and (2) transsulfuration that leads to the biosynthesis of cysteine and hence glutathione , both of which have many important protective / detoxification functions. Aberrant Met metabolism can be caused by nutritional deficiencies, exposures to environmental toxicants and/or genetic polymorphisms and can have significant adverse health consequences. Identification of such abnormalities can guide appropriate nutritional intervention towards normalization of methionine metabolism and decreased risk and incidence of adverse health effects.

The amino acids and intermediary amino acid metabolites were measured by liquid chromatography - mass spectrometry. Reference values are age and sex specific. If patient values deviate from normal, comprehensive descriptive paragraphs will be presented as part of the test report.