

Dr Test Doctor (Test Doctor) Test Clinic. 123 Test Street, Test Suburb Victoria 3125

Lab ID
Patient ID P000060
Ext ID 26116-0011

TEST PATIENT

Sex: Male • 75yrs • 01-Jan-51
16 TEST STREET, BURWOOD VIC 3125

RECEIVED
12-Jun-26

METHYLATION PROFILE

Specimen type - Blood-Serum

Specimen type - Blood-EDTA

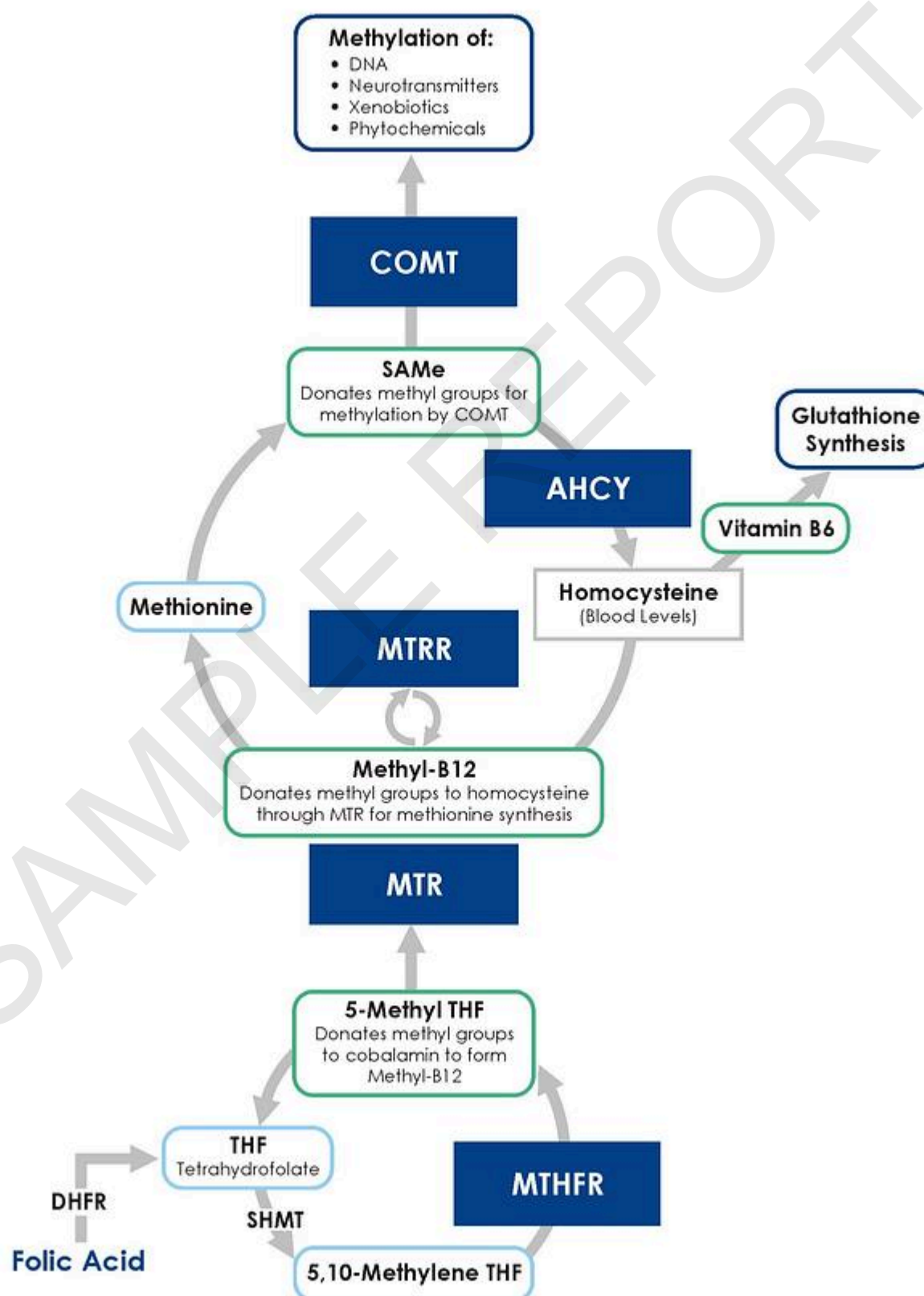
Specimen type - Blood-K2EDTA

Collected

12-Jun-26 08:48am

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METHYLATION CYCLE

TEST	RESULT	H/L		REFERENCE	UNITS
Methionine	15.8			(4.0-44.0)	nmol/ml
S-Adenosyl Methionine (SAME)	90.7			(86.0-145.0)	nmol/L
S-Adenosyl Homocysteine (SAHe)	13.1			(10.0-22.0)	nmol/L
SAMe/SAHe Ratio	6.9			(>4.0)	ratio
Homocysteine	17.0	H		(5.0-15.0)	umol/L
Betaine	22.8			(20.0-65.0)	nmol/L

FOLATE CYCLE

TEST	RESULT	H/L	REFERENCE	UNITS
Folate	22		(6-45)	nmol/L
Tetrahydrofolate (THF)	1.9		(0.6-6.8)	nmol/L
Folinic Acid	16.8		(9.0-35.5)	nmol/L
5-Methyl Tetrahydrofolate (5MTHF)	8.3		(6.6-39.9)	nmol/L
Serine	52.3		(43.8-187.0)	nmol/ml
5MTHF/THF Ratio	4.4		(>2.0)	ratio

B-VITAMIN COFACTORS

[illegible]

TRANS-SULPHURATION PATHWAY

TEST	RESULT	H/L		REFERENCE	UNITS
S-Adenosyl Homocysteine (SAHe)	13.1			(10.0-22.0)	nmol/L
Homocysteine	17.0	H		(5.0-15.0)	umol/L
Serine	52.3			(43.8-187.0)	nmol/ml
Cystathionine	0.21			(0.02-0.60)	nmol/ml
Taurine	35.8			(29.0-300.8)	nmol/ml

ELEVATED HOMOCYSTEINE:

Elevated homocysteine levels may result from low levels of folic acid, vitamin B6, or vitamin B12, some drugs and renal impairment, as well as several inherited defects. However, an elevated plasma homocysteine may also be due to high protein/Paleo diet.

The following genetic SNPs in CBS, MTHFR, MTR, MTRR may also impact levels of plasma homocysteine.

NOTE: Fasting overnight is required for this test. A falsely elevated result can occur if the blood has not been preserved appropriately and there is a delay in separation of the plasma from cells.

Cofactors Comment

ACTIVE B12 WITHIN RANGE:

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This active B12 result indicates that the patient is vitamin B12 sufficient. For patients with renal impairment, correlation with Total B12, homocysteine and/or methylmalonate is required.

The most common causes of vitamin B12 deficiency are malabsorption due to pernicious anemia or aging, insufficient dietary intake, and other acquired defects. Physiologic deficiency can be confirmed by performing Methylmalonic acid (MMA) levels and/or Homocysteine plus Folate assays. Screening for Pernicious Anaemia with intrinsic factor antibodies (IF-Ab) and gastric parietal cell antibodies (GPC-Ab) is recommended.

SERUM FOLATE COMMENT:

High/Normal Folate levels do not necessarily reflect adequate levels of 5 MTHF (the most readily useable form of folate in the body). If the serum Folate level is low, look at the Homocysteine level which will be elevated, whilst MMA levels will be normal. Further assessments to consider: Folate Metabolism Profile (THF, Folinic Acid, 5-MTHF), MTHFR gene status.

Methodology

Automated Chemistry/Immunochemistry, Liquid Chromatography-Mass Spectrometry (LC-MS/MS/MS)