

3534 Methylation Panel - Plasma & Whole Blood

Interpretation At-a-Glance

Methylation

SAH ▲
Homocysteine ▲
Choline ▼
Sarcosine ▲



Genetic Polymorphism

DOWNREGULATING SNPS

MTHFR

C677T

A1298C

COMT

V158M

MTRR

A66G

MAT1A

D18777A

SHMT1

C1240T

UPREGULATING SNPS

MTR

A2756G

CBS

C699T

BHMT

G742A

GNMT

C1289T

Not Ordered

Transsulfuration

Cystathionine ▲
Glycine ▲
Serine ▲



Methylation Status

SAM/SAH Ratio

Low

High

Methylation Balance

Un-methylated
Metabolites

Methyl Group
Donors

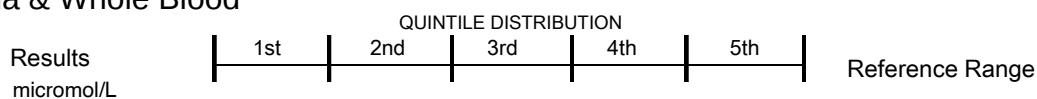
Met/Sulf Balance

Transsulfuration

Methylation

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Methodology: LCMSMS & Colorimetric



Methylation Capacity

Ratios

1. Methylation Index (SAM/SAH Ratio)	3.0		2.2-6.4
2. Methylation Balance Ratio	1.05		1.03-1.20
3. Met/Sulf Balance Ratio	0.61		0.55-0.64
4. Betaine/Choline Ratio	6.1		2.6-7.7

Methyl Group Donors

5. S-adenosylmethionine (SAM)	128		65-150 nanomol/L
6. Methionine	27		23-38
7. Choline	7.0		5.2-13.0
8. Betaine	43		21-71
9. Serine	146		91-161

Methyl Group Metabolites

10. S-adenosylhomocysteine (SAH)	43	H		16-41 nanomol/L
11. Homocysteine †	11.0	H		3.7-10.4
12. Dimethylglycine (DMG)	3.0			1.6-5.0
13. Sarcosine	7,343	H		3,670-6,743 nanomol/L
14. Glycine	361			181-440

Transsulfuration Metabolites

15. Cystathionine	331			74-369 nanomol/L
16. Cyst(e)ine	362			271-392
17. Taurine	84			50-139
18. Glutathione †	1,795			>=669

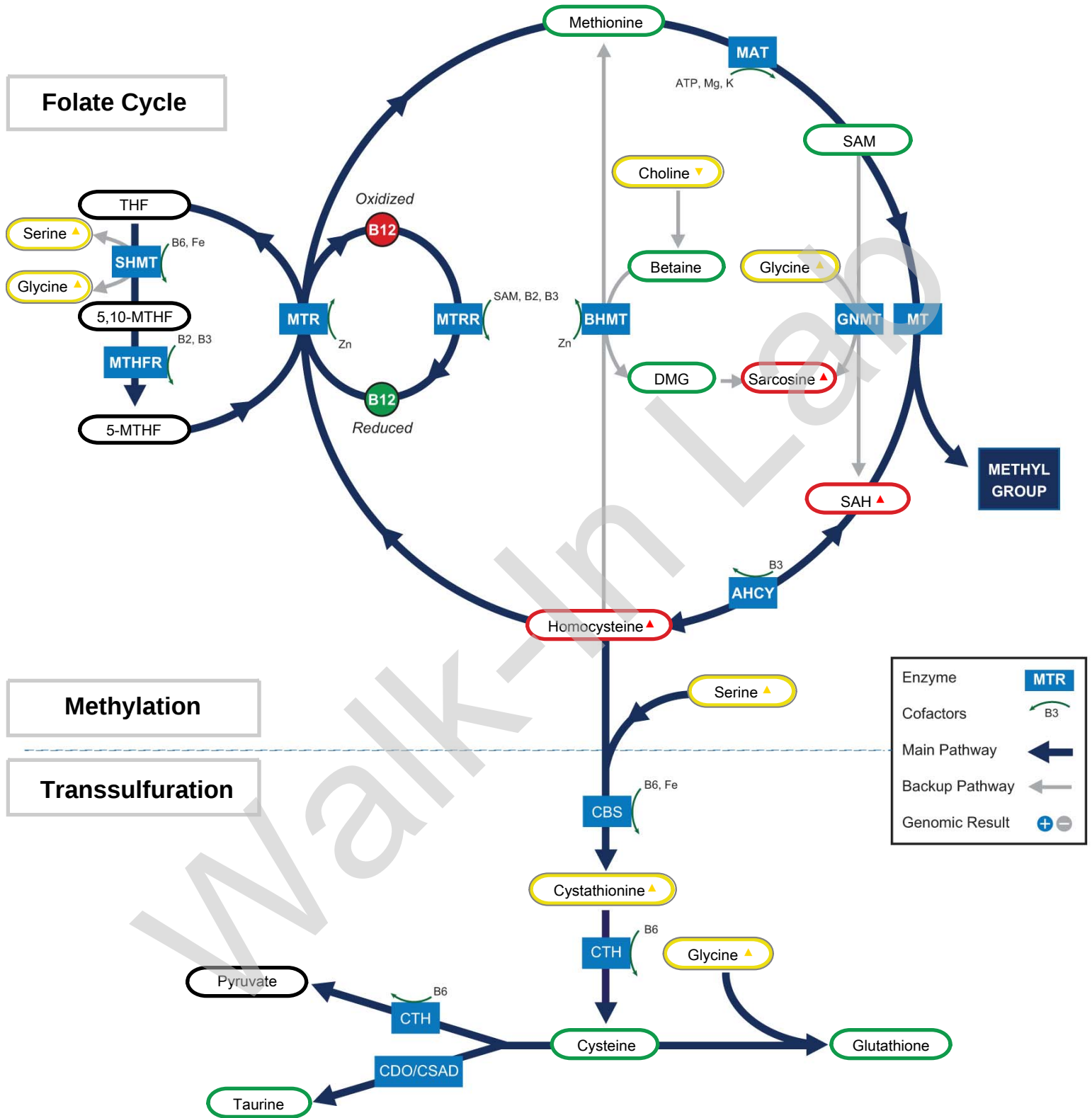
† These results are not represented by quintile values.

The reference ranges for the Methylation Panel are based on an adult population.

The performance characteristics of all assays have been verified by Genova Diagnostics, Inc. Unless otherwise noted with ♦, the assay has not been cleared by the U.S. Food and Drug Administration.

For more information regarding Methylation clinical interpretation, please refer to the Methylation Panel Support Guide at <https://www.gdx.net/core/support-guides/methylation-support-guide.pdf>

Methylation / Transsulfuration Pathway



Energy Production

Detoxification