



INTEGRATIVE LABORATORY SERVICES

New Markers and Updates to the Organic Acids Test (OAT)

On behalf of The Great Plains Laboratory we would like to announce some changes and improvements to the Organic Acids Test (OAT) bringing more value and a comprehensive tool for your practice.

- **Two new markers have been added to the Neurotransmitter Metabolites section: Dihydroxyphenylacetic or DOPAC (marker #36) and the HVA/DOPAC ratio (marker #37).**
 - HVA and DOPAC are the major metabolites of dopamine.
 - High DOPAC levels may be elevated due to factors that inhibit dopamine beta hydroxylase (DBH) like elevated Clostridia metabolites, deficiencies of S-adenosyl methione (SAM-e), or deficiencies of the enzyme that utilizes SAM-e, catechol O-methyl transferase (COMT).
 - Low DOPAC can be due to decreased intake or absorption of dopamine's precursor amino acids such as phenylalanine and/or tyrosine or decreased quantities of cofactors needed for biosynthesis of dopamine such as tetrahydrobiopterin and vitamin B6 coenzyme. DOPAC levels may also be low due to treatment with monoamine oxidase (MAO) inhibitors or genetic polymorphisms (SNPs) of MAO or aldehyde dehydrogenase (ALDH) that cause decreased enzyme activity.
 - An increase in the conversion of DOPAC to HVA might be due to excessive supplementation of SAM-e and/or supplements such as 5-methyltetrahydrofolate, betaine, or methylcobalamin that increase endogenous SAM-e.
- **One of the markers has been removed from the Neurotransmitter Metabolites section, the Quinolinic/5-HIAA ratio, since GPL found it had limited clinical utility.**
- **The order of some of the markers throughout the report has been changed, to create a more logical flow of information. Many interpretations have also been updated.**
- **A new figure for the Krebs Cycle has been added to page two of the report, which illustrates the difference in the Krebs cycle in both humans and Candida and indicates**

the mechanism by which Candida increases oxalates in humans. A figure outlining neurotransmitter metabolism is also included on the same page.

Please let us know if you require an updated sample report

Thank you!

If you have any questions regarding these changes, please contact:
news@iclabs.ca

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