TEST FOR DIAGNOSIS OF VITAMIN B$_{12}$ DEFICIENCY

DIAGNOSTICS
High-throughput assay for qualitative and quantitative analysis of dicarboxylic acids to facilitate testing for early-stage vitamin B$_{12}$ deficiency.

TECHNOLOGY SUMMARY
Vitamin B$_{12}$ plays an important role in the formation of red blood cells and the maintenance of the central nervous system. Vitamin B$_{12}$ deficiency causes a wide range of hematologic and neuropsychiatric disorders that can be reversed when treated early. Roughly 50 percent of patients, however, go undiagnosed because current tests rely on serum measurements that fail to identify increased methylmalonic acid levels in early disease states. A new test increases the sensitivity of methylmalonic testing to identify vitamin B$_{12}$ deficiency earlier. The test uses mass spectrometry and atmospheric pressure ionization to identify presence and quantity of dicarboxylic acids. This method also enables differentiation between isobaric dicarboxylic acids, such as methylmalonic acid and succinic acid. The diagnostic test can be performed using biological samples from blood, saliva, or urine.

FEATURES AND BENEFITS
- Facilitates rapid analysis of dicarboxylic acids, particularly methylmalonic acid and succinic acid.
- Provides enhanced vitamin B$_{12}$ deficiency testing.
- Exhibits increased sensitivity.

RECENT PUBLICATIONS

INVENTOR PROFILE
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