

The plasma biomarkers miR-150-5p, miR-146b-5p, and miR-1 can serve for diagnosis in patients with aplastic anemia and miR-150-5p for disease monitoring

Discovery phase

Plasma samples

miRNAs

35



13 Aplastic anemia



11 Myelodysplastic syndrome



11 Healthy controls

179



Analysis with Serum/Plasma Focus microRNA PCR Panel

Validation phase

Plasma samples

miRNAs from discovery set

108



41 Aplastic anemia



24 Myelodysplastic syndrome



43 Healthy controls

19



Analysis with Serum/Plasma Focus microRNA PCR Panel



- 3 miRNAs could be validated as dysregulated (> 1.5 fold change) in aplastic anemia vs healthy controls and can predict the probability of a diagnosis of aplastic anemia



miR-150-5p



Aplastic anemia



miR-146b-5p



Aplastic anemia



miR-1



Aplastic anemia

- Dysregulated expression levels of the miRNAs were normalized after immunosuppressive therapy at 6 months.



miR-150-5p

expression was significantly reduced after successful immunosuppressive therapy, but did not change in non-responders