

Rapid ferritin iron release using FMN reductase

ABSTRACT

Iron deficiency anaemia is very common in developing countries and affects approximately two billion people worldwide. To test for iron deficiency, the common practice is to detect the body's ferritin level using an automated machine. However, ferritin level can be confounded by inflammation which does not affect the iron level that is available in the ferritin cage. Therefore, we designed a novel assay to achieve rapid ferritin iron release for the detection of iron deficiency anaemia using various biochemical compounds including reducing agents, oxygen scavenger compounds and chaotropic agents.

Keyword: Iron deficiency anaemia; Ferritin iron; ferritin, Rapid assay