

# Sickle cell anemia

The following tests are available:

- **Sickle cell mutation, genetic test**

General:

Sickle cell disease is observed frequently in the African/Asian population as well as in the Mediterranean/ Middle Eastern population. The most common problem is a combination of sickle cell and beta thalassemia genes.

Sickle cell anemia is an autosomal recessive inherited disorder caused by a mutation in the hemoglobin gene. The presence of two defective genes from mother and father causes sickle cell anemia. If each parent carries one sickle hemoglobin gene (S) and one normal gene (A), each child has a 25% chance of inheriting two defective genes and manifesting sickle cell anemia; a 25% chance of inheriting two normal genes (healthy); and a 50% chance of being an unaffected, heterozygous carrier (as with the parents).

The clinical course of sickle cell anemia does not follow a single pattern; some patients have mild symptoms, and some present very severe symptoms. The sickle-shaped red blood cells tend to stick to small blood vessels thereby blocking the blood flow. The following conditions are observed: hand-foot syndrome, fatigue, paleness, and shortness of breath, pain occurring unpredictably in any organ or joint, eye problems, growth retardation and delayed puberty.

Complications: infections, stroke, acute chest syndrome.

Material: 5 ml EDTA blood

TAT: 2 weeks\*

Method: PCR

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>