



مختبر فرايبورج الطبي الشرق الأوسط (ذ.م.م.)  
FREIBURG MEDICAL LABORATORY MIDDLE EAST (L.L.C.)

## First Trimester Screening at FML Certified by the Fetal Medicine Foundation

Freiburg Medical Laboratory offers the First Trimester Screening (FTS) as a non-invasive pregnancy evaluation, performed at 11+0 – 13+6 week. The screening involves a combination of ultrasonographic measurement of nuchal translucency (NT) and biochemical analysis of maternal serum levels of two pregnancy-related proteins: **free beta-hCG** (beta-human chorionic gonadotropin) and **PAPP-A** (Pregnancy Associated Plasma Protein-A). Please note that numerous studies have revealed that the first trimester screening is far more sensitive for detecting Down syndrome than the second trimester screening (Triple test). It is currently the most effective non-invasive screening for Down Syndrome risk calculation available.

By combining the results of the ultrasound and blood test along with the age, ethnic origin and weight of the mother, a statistic evaluation of the biochemical parameters gives the NT-adjusted risk calculation which allows an early recognition of **approx. 90% of Down syndrome cases** as well as trisomies 13 + 18 at a false-positive rate of approx. 5%.

To ensure accurate results, it is mandatory that ultrasonographers and laboratories are certified by the Fetal Medicine Foundation (FMF). Please refer to the web page: [www.fetalmedicine.com](http://www.fetalmedicine.com). FML together with experts in Fetal Medicine can support you in obtaining this certification.

Freiburg Medical Laboratory calculates the risk of the FTS with FMF-certified software. A calculation is possible starting with week of gestation 11 + 0 and a crown-rump length of 45-84 mm. In our results we indicate the adjusted (combined) risk for trisomy 21 apart from the risk based on the mother's age. For a risk greater than **1:150** further clarification is recommended. Similarly, a negative result does not completely rule out these abnormalities, but instead decreases the specific risks for Down syndrome and trisomies 13 + 18.

Order:	FTS, first trimester screening
Required patient data:	DOB mother, CRL (crown rump length), NT, weight of mother, date of withdrawal, smoker status, ethnic origin
Material:	serum from the same day of NT measurement
Pre-analytic:	sample must be cooled or frozen, no whole blood! Heating up or long transportation times will cause false values of free $\beta$ -HCG.
Method:	Electrochemiluminescence Immunoassay (ECLIA)
TAT:	48 h when received

In case of any questions please contact FREIBURG MEDICAL LABORATORY [www.fml-dubai.com](http://www.fml-dubai.com)

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