Contact and information

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Request form

Test request for fetal RhD determination from maternal blood

Literature

Legler et al.,
Arch Gynecol Obstet 2021

Clausen and van der Schoot,
Blood Transfus 2024

Fetal RhD determination from maternal blood

Precise diagnostics for targeted pregnancy care

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Targeted care during pregnancy

Non-invasive determination of the fetal Rhesus D status from maternal blood offers clear benefits:

- RhD-negative pregnant women carrying an RhD-negative fetus can avoid unnecessary anti-D prophylaxis.
- Anti-D prophylaxis is a human blood-derived product. Targeted administration helps conserve valuable resources and avoids potential risks associated with unnecessary treatment.

With fetal *RHD* determination, our laboratory expands its diagnostic portfolio within our core area of expertise – molecular blood group genotyping.

Fetal *RHD* testing from maternal blood represents a major advance in prenatal diagnostics. It enables early and reliable determination of the fetal *RHD* status in RhD-negative pregnant women and helps avoid anti-D prophylaxis in approximately 40% of cases.

Since 2020, the Swiss Society of Gynecology and Obstetrics (SSGO) has recommended this examination for all RhD-negative pregnant women between gestational weeks 18 and 24, regardless of whether it is a first or subsequent pregnancy.

Modern molecular diagnostics with the Fetognost® test

For fetal *RHD* determination, we use the CE-certified Fetognost®-RHD test. The assay is based on real-time PCR (analysis of exons 5, 7, and 10) and enables non-invasive **detection of the fetal *RHD* gene with high diagnostic accuracy (sensitivity > 99.9%, specificity > 99.6%;** Legler et al., 2021). The analysis is performed using circulating cell-free fetal DNA (cffDNA) originating from fetoplacental tissue and naturally present in maternal blood.

A standard EDTA whole blood sample (7–10 ml) is required. In addition to targeted detection of the *RHD* gene, the assay includes internal controls to minimize false-negative results.

The Fetognost®-RHD test is validated from gestational week 12 onwards for both singleton and multiple pregnancies.

"Non-invasive fetal *RHD* determination allows more targeted and safer care for pregnant women while avoiding unnecessary administration of anti-D prophylaxis."

Dr. rer. nat. S. Meyer

Your advantages

- Accredited fetal *RHD* testing performed in a Swiss competence center for molecular blood group diagnostics.
- Valuable additional service: reliable detection of rare maternal *RHD* gene variants with the possibility of direct genetic and serological clarification within our own laboratory.
- Personal consultation provided by an experienced expert team.

From sample collection to reporting

- Determination of fetal *RHD* status is recommended between gestational weeks 18 and 24 (Expert Letter No. 68, SSGO).
- Ideally, 7–10 ml EDTA whole blood from the pregnant woman is required for analysis.
- Samples should be stored at room temperature until arrival at the laboratory; please do not refrigerate or freeze.
- Samples should arrive within 72 hours, and no later than 5 days after blood collection.
- **Results are generally reported within 5 to 7 working days;** reports in FR/IT/EN are available on request (please indicate this on the request form).

Cost coverage

With appropriate medical indication, the analysis is generally reimbursed by health insurance according to the following fees:

Fetal *RHD* determination	CHF 201.60
DNA extraction	CHF 54.90
Total amount	**CHF 256.50**