### New Service Announcement

# RHD Weak D Analysis Performed at Carter BloodCare Tyler



Investigation of RHD typing discrepancies
Identification of weak D type 1, 2, or 3 for classification and recommendations for RHIG administration and transfusion



D Antigen Typing: 86901x4 Weak D Analysis: 81479



**BACKGROUND:** Current blood banking practices appear to be highly successful in preventing alloimmunization to the D antigen and hemolytic disease of the newborn due to the D antibody. However, the use of Rh immune globulin and Rh negative red blood cells for transfusion can be reduced by identifying weak D genotypes in pregnant women and women of childbearing age. Approximately 80% of people exhibiting a weak D phenotype were shown to be weak D type 1, 2, or 3 when RHD genotyping was including in testing, and these individuals can safely be treated as D positive. It is estimated that 13,360 pregnant women currently treated as D negative could be managed as D positive, reducing injections of Rh immune globulin by 24,700 annually and avoiding transfusion of Rh negative red blood cells when Rh positive red blood cells could be safely transfused.<sup>1</sup>

Genotyping patients serologically identified as weak D or patients with a D typing discrepancy can be useful in determining if administration of RH immune globulin or transfusion of RH negative blood is necessary.



**METHOD:** ID RHD<sup>XT</sup> assay, part of the BLOODchip<sup>ID</sup> family of tests, is a genetic test that uses purified human genomic DNA to type allelic variants of genes encoding for the following allelic variants of the RHD gene: RHD\*weak D type 1, RHD\*weak D type 2, RHD\*weak D type 3, RHD deletion, RHD\*Pseudogene and RHD\*DIIIa-CE(3-7)-D and ITGB3 gene (HPA-1 system): HPA1a and HPA1b.



### LIMITATIONS

- ID RHD<sup>XT</sup> is for Research Use Only (RUO)
- ID RHD<sup>XT</sup> may not detect alleles containing unreported mutations at primer binding sites or at probe binding sites.
- The predicted phenotype generated by the ID RHD<sup>XT</sup> test is inferred only from the alleles described in the Intended Use.
- ID RHD<sup>XT</sup> will not detect any Weak D types other than 1, 2 or 3.



### SPECIMEN REQUIREMENTS

5 ml EDTA (purple top) blood sample collected and shipped at room temperature.



PRICE INCLUDING DNA EXTRACTION \$165



Testing performed at least once per week



# **RHD Weak D Analysis**

Performed at Carter BloodCare Tyler

Helping our partners meet AABB and CAP guidance standards for pregnant women and other females of childbearing potential.<sup>1</sup>



**SHIPPING REQUIREMENTS:** Please notify the laboratory in advance of sending a patient sample for RHD analysis. Samples for testing and the accompanying paperwork should be delivered to one of the following addresses:

### **ATTN: Reference and Transfusion Laboratory**

Carter BloodCare 2205 Highway 121 South Bedford, TX 76021 817.412.5740 Carter BloodCare 815 South Baxter Avenue Tyler, TX 75701 903.363.0470

### Samples may be delivered to Carter BloodCare by:

- Calling your local Reference laboratory to arrange for a sample pick-up.
- Utilizing your own courier service to deliver the sample to your local Reference laboratory.
- If patient samples will be mailed directly to Tyler, please call 903.363.0470 prior to shipping.



## Your Partner in Optimizing Patient Care

At Carter BloodCare, we strive to offer quality services to our clients that offer cost-savings; reduce the strain on internal resources; yield laboratory efficiencies; deliver concierge service with an intentional focus on exceeding client needs; and, together, optimize patient care.

#### REFERENCES

1. Joint Statement on Phasing-In RHD Genotyping for Pregnant Women and Other Females of Childbearing Potential with a Serologic Weak D Phenotype, http://www.aabb.org/advocacy/statements/Pages/statement150722.aspx?PF=1