

Blood Bank Dithiothreitol (DTT) Testing for Patients Receiving Anti-CD38 Therapy

February 12, 2026

Effective February 17, 2026, Pacific Diagnostic Laboratories (PDL) is offering Dithiothreitol (DTT) testing as part of our in-house Blood Bank test menu. DTT treatment allows for performance of antibody screen for patients receiving anti-CD38 monoclonal antibody therapy, such as daratumumab.

EXTENDED PHENOTYPE NO LONGER NEEDED BEFORE ANTI-CD38 MEDICATION

Why is DTT testing needed:

Anti-CD38 medications bind to CD38 antigens expressed on red blood cells, causing pan-agglutination during serological testing. This interference can mask clinically significant underlying alloantibodies, cause incompatible crossmatches and result in delays in providing blood products for transfusion.

DTT treatment removes this interference, allowing us to identify any clinically significant antibodies. Previously, we were sending extended red blood cell phenotype requests to our Blood Bank referral lab for these patients.

Benefits:

- Red Blood Cell (RBC) extended antigen phenotype testing is **no longer required** prior to initiation of anti-CD38 medications.
- Prefer baseline type and screen be performed prior to initiation of therapy.
- Faster turnaround time (TAT) for blood bank test results and crossmatching of compatible blood products.
- Patients with no underlying antibodies will be eligible for electronic crossmatch, rather than serologic crossmatch, which will further expedite blood product availability for these patients.
- Reliable detection of clinically significant alloantibodies
- Reduces the need to sign non-standard release forms for incompatible blood products.
- More cost effective than RBC extended phenotyping.

Limitation:

- DTT treatment destroys Kell blood group antigens on reagent cells, preventing detection of anti-K antibodies.
- For patients with unknown or K-negative antigen status, K-negative red blood cell units will be transfused to ensure patient safety.

If you have questions about this new testing protocol or specific patient cases, please contact Demet Gomak, Transfusion Services Technical Specialist at 805-324-9818.

Test Information:

NEW Test	Interface Code	LOINC	Charge Info	
REFLEX TUBE SCREEN WITH DTT TREATMENT	LAB11150	890-4		
<i>Result name</i>	<i>Interface Code</i>	<i>Result LOINC</i>	<i>CPT</i>	<i>CDM</i>
Antibody Screen with DTT	1230019571	890-4	86850 86970	30200468 30201063