Memorandum: Referral Testing #6

To: UNC Hospitals Attending Physicians, House staff, Nursing Coordinators, Department Heads and Supervisors

From: Herbert C. Whinna, MD, PhD
Medical Director, McLendon Clinical Laboratories

Jason Merker, MD, PhD
Director, Referral Testing Laboratory

Date: 8/10/2026

Subject: **Test Obsolete: NK FUNCTION, Cincinnati Children's**

Effective Monday, August 10, 2026, Cincinnati Children's CBDI Clinical Laboratory will no longer accept samples for NK Function Assay (Test# 2900800). The Orderable test NK FUNCTION REFERRAL [LAB8015] will be removed from Epic.

Explanation:

The NK FUNCTION test is being discontinued due to challenges related to operational feasibility and radioactive reagent availability. For evaluation of suspected genetic causes of hemophagocytic lymphohistiocytosis (HLH) and related conditions, several assays are available and may be ordered depending on the clinical need. These include:

- **CD107a Mobilization (NK Cell Degranulation) (Test #2905400)**
  - **EPIC CODE - CD107A MOBILIZATION [LAB5399]**
- **Perforin/Granzyme B**
  - **EPIC CODE - PERFORIN/GRANZYME B [LAB5903]**
- **SAP and XIAP**
  - **EPIC CODE - XLP (SAP & XIAP) EXPRESSION [LAB5749]**

For further details, see the official memo from Cincinnati Children's CBDI Clinical Laboratory on the following page.

Please contact Referral Testing Services with questions:
Reftest@unchealth.unc.edu
984-974-1414

July 13, 2026

Test Discontinuation: NK Function Assay (Test# 2900800)

Dear Cincinnati Children's CBDI Clinical Laboratory Clients:

We are sending this notice to inform you that effective **Monday, August 10, 2026**, we will discontinue the **NK Function Assay (Test# 2900800).** This assay measures Natural Killer (NK) cell function by incubating patient lymphocytes with Chromium-51–labeled K562 target cells (a human erythroleukemia cell line) and quantifying NK-mediated lysis based on chromium release. The test is being discontinued due to challenges related to operational feasibility and radioactive reagent availability.

For evaluation of suspected *genetic causes* of hemophagocytic lymphohistiocytosis (HLH) and related conditions, several assays are available and may be ordered depending on the clinical need. These include:

- **CD107a Mobilization (NK Cell Degranulation) (Test #2905400)**
- **Perforin/Granzyme B**
- **SAP and XIAP**

The **CD107a Mobilization assay** evaluates the cytotoxic machinery of NK cells by assessing degranulation via flow cytometry. Upon degranulation, CD107a is expressed on the NK cell surface and can be detected with antibody staining. This assay can help identify or assess variants in genes such as *UNC13D, STXBP2, STX11, LYST,* and *RAB27A* which cause defects in degranulation.

Perforin/Granzyme B can screen for genetic variants in *PRF1* which cause perforin deficiency. **SAP and XIAP** can screen for X-linked defects in *SH2D1A* and *XIAP/BIRC4 which cause X-linked lymphoproliferative disease (XLP) type 1 and type 2/XIAP deficiency.*

Several biomarkers are available to aid in the diagnosis of a *syndrome* of HLH, including

- **soluble IL-2Rα**
- **CXCL9**
- **IL-18**

Please note that the CD107a Mobilization (NK Cell Degranulation) assay has specific specimen volume requirements that depend on the patient's absolute lymphocyte count (ALC). Refer to our Lab Test Directory (https://www.testmenu.com/cincinnatichildrens) for detailed and up-to-date specimen collection requirements for this and other tests. If you have any questions or need further clarification, please do not hesitate to contact the **CBDI Clinical Laboratories** at **(513) 636-4685.**

Thank you for choosing the CBDI Clinical Laboratories for your testing needs.

The CBDI Clinical Laboratories
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