

Molecular Microscope®  
Diagnostic System **MMDx Heart & Kidney**

## Personalized Transplant Care Through Precision Medicine

### A Novel Test for Measuring Transplant Health

The Molecular Microscope® Diagnostic System for Heart and Kidney (MMDx® Heart and MMDx® Kidney) use microarray technology to measure mRNA transcript levels in biopsies with high precision (> 99%)<sup>1</sup>. An algorithm is then applied to quantitatively score<sup>2</sup> the transcript levels and produce a report to help stratify rejection and injury risk in kidney<sup>3</sup> and heart<sup>4</sup> transplant patients.

### Gene Expression Profiling for Individualized Care

This novel test can help **distinguish rejection or injury at the molecular level**, allowing you to rapidly target treatment to the patient's individual needs.

Your patients rely on you for comprehensive treatment to ensure the long-term success of their transplants. Make sure you have the most advanced tool for the job.

### What Does this test measure?

#### Rejection related:

- Risk of T-cell mediated rejection (TCMR)
- Risk of Antibody-mediated rejection (ABMR)
- Objective basis for therapeutic choices

#### Parenchymal injury & non-rejection disease:

- Acute parenchymal injury
- Irreversible injury (atrophy scarring)
- Risk of progression to failure

Learn how you can incorporate MMDx Heart or MMDx Kidney into your clinical practice: [go.1lambda.com/mmdx](https://go.1lambda.com/mmdx) or email us at [1lambda-mmdx@thermofisher.com](mailto:1lambda-mmdx@thermofisher.com)

#### References

- <sup>1</sup>K. S. Madill-Thomsen et al. Discrepancy Analysis Comparing Molecular and Histology Diagnoses in Kidney Transplant Biopsies. Am J Transplant. <https://doi.org/10.1111/ajt.15752>. Am J Transplant. 2020;20: 1314-13502
- <sup>2</sup>J. Reeve et al. Generating automated kidney transplant biopsy reports using ensembles of molecular classifiers. Am J Transplant 19 (10): 2719-2731, 2019.
- <sup>3</sup>MMDx-Kidney Clinical Trials are recruiting. See [clinicaltrials.gov](https://clinicaltrials.gov) identifier NCT01299168.
- <sup>4</sup>MMDx-Heart Clinical Trials are recruiting. See [clinicaltrials.gov](https://clinicaltrials.gov) identifier NCT02670408.
- <sup>5</sup>MMDx-Lung Clinical Trials are recruiting. See [clinicaltrials.gov](https://clinicaltrials.gov) identifier NCT02812290.



# The MMDx Process



## Ordering Information

- Go to [thermofisher.com/onelambda/mmdx](http://thermofisher.com/onelambda/mmdx)
- Click “Order a Specimen Collection Kit”
- Complete ordering form and click “send”
- A Specimen Kit will be delivered to your center



## Specimen Kit Includes:

- Instructions
- Specimen tube and labels
- Return containers and labels



## Specimen Handling

- Unpack your Specimen Kit and instructions.
- Place biopsy (Kidney: 3-5 mm of biopsy or portion of core) immediately from the needle or bite (Heart: 2 bites) in specimen tube provided in the kit. Washes will destroy the sample; please refrain from applying formalin, saline, or any other washes.
- Pack and ship. Pack samples and ship to address on the label provided in the kit.



## Biopsy Results

- Results are available within 48 hours after receipt of sample.
- Upon receipt of your sample, an account will be created for you on a secure client portal.
- You will receive an email notification once the report is available on the portal.



## Client Services Assistance

- Assist with result interpretation/consultation
- Specimen requirements and handling
- Requisition completion
- Report status
- Client supplies
- Cost and billing

## Service Lab & Billing Information

Kashi Clinical Laboratories, Inc.  
Portland, Oregon  
Phone: (877) 879-1815 or (503) 206-4989  
Fax: (503) 206-6939

**Hours of Operation**  
Monday – Friday: 7:00 am – 7:00 pm (PT)  
Weekend and Holidays: on-call coverage



## Sales & Technical Support

Email: [1lambda-mmdx@thermofisher.com](mailto:1lambda-mmdx@thermofisher.com)  
Website: [go.1lambda.com/mmdx](http://go.1lambda.com/mmdx)

One Lambda | A Thermo Fisher Scientific Brand  
22801 Roscoe Blvd, West Hills, CA 91304, USA  
TEL: 747.494.1000  
FAX: 747.494.1001

International: Contact your local distributor

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MMDx Heart and MMDx Kidney are tests that were developed and validated by Kashi Clinical Laboratories, Inc. The laboratory developed tests are used for clinical purposes by the CLIA-certified laboratory performing the test. These tests have not been cleared or approved by the US FDA or CE marked in the EU as an in vitro diagnostic test.

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