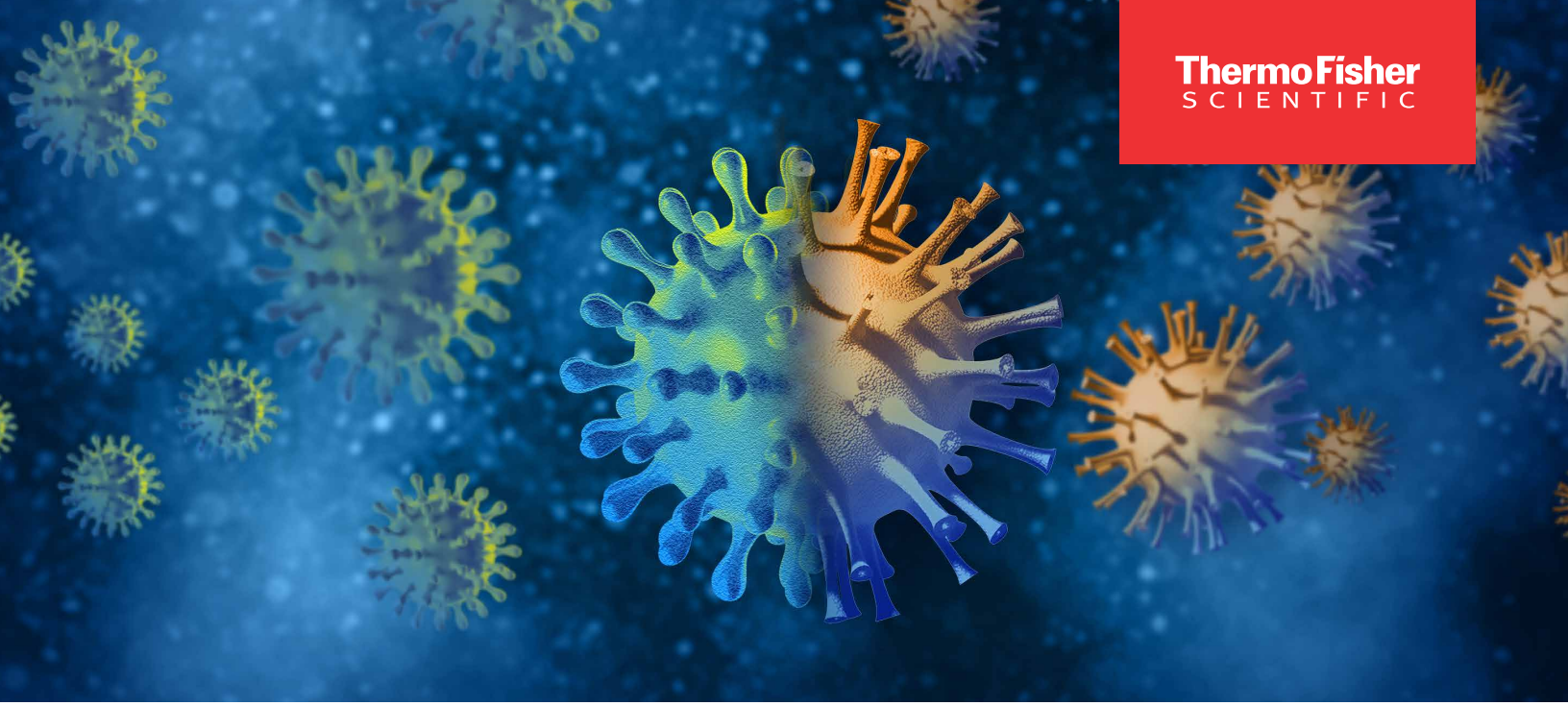

Sample prep

Extract samples from dried blood spots for HIV-1 drug resistance detection

HIV drug resistance (HIVDR) compromises the effectiveness of antiretroviral therapy and leaves individuals vulnerable to HIV-associated illnesses. Drug resistance surveillance is critical for understanding and minimizing the spread of HIVDR.

Current efforts to expand drug resistance testing are limited due to several key challenges:

- High cost per sample
- Difficulty of shipping to rural areas
- Patient reticence toward drawing blood
- Lack of a complete workflow solution

Labs in rural, low-income, and middle-income regions require a convenient, cost-effective sample type that can enable testing at greater volumes. Where larger blood samples are logistically and culturally impractical, dried blood spots (DBS) may be a more feasible alternative specimen type.

The Applied Biosystems™ MagMAX™ Viral/Pathogen Nucleic Acid Isolation Kit for HIV-1 Dried Blood Spots is an affordable, robust sample preparation solution for resource-limited countries.

Features include:

- **Easy transportation**—can be transported at ambient temperatures, enabling sample integrity even during transport delays; it is shipped through regular mail as nonhazardous materials, reducing hassle and shipping costs
- **Flexible sample types**—works for both plasma and DBS
- **Small sample size**—requires less blood (50–100 µL per spot), which promotes patient comfort and makes samples easier to obtain
- **Complete workflow available**—compatible with the Applied Biosystems™ HIV-1 Genotyping Kit for a straightforward workflow and easier purchasing and shipping

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Part of the complete workflow:

~3 hr Total hands-on time*	30 min	15 min	20 min	30 + 20 min	30 min	10 min	10 min	30 min
~15 hr Total run time	1 hr	3.5 hr	3 hr	0.5 + 0.5 hr	2.5 hr	0.5 hr	1.5 hr/run	None
	Specimen processing	RNA extraction	RT-PCR	Nested PCR	Confirm and purify PCR	Cycle sequencing	Sequence purification	Sequence detection	Data analysis
	Plasma or dried blood spot (DBS)**	MagMAX Viral/ Pathogen Nucleic Acid Isolation Kit for HIV-1 Dried Blood Spots	HIV-1 Genotyping Kit Amplification Module			HIV-1 Genotyping Kit, Cycle Sequencing Module			Easy-to-read sequencing results with free access to Exatype™ Platform for assembly and interpretation
		1  Viral RNA/DNA purification	2  RT and nested PCR RNA + control			3  Sequencing mixes, pGEM control			4 

Scalable; ~3 hours hands-on time, ~15 hours from sample to result

Ordering information

MagMAX Viral/Pathogen Nucleic Acid Isolation Kit for HIV-1 Dried Blood Spots	
Cat. No.	A53770
Quantity	100 reactions
Kit components	• Dried Blood Spot Lysis Solution, 60 mL • Binding Solution, 55 mL • Wash Solution, 100 mL • Elution Solution, 10 mL • Proteinase K, 1 mL • DNA/RNA Binding Beads, 2 mL
Kit storage temperature	15°C to 25°C
Sample types	DBS and plasma
Instrument required	• Magnetic stand (manual protocol) • Thermo Scientific™ KingFisher™ Sample Purification System (automated protocol)

* Numbers reflect estimated hands-on time for 24 samples.
** DBS samples must be processed within 2 weeks of collection under ambient storage conditions.

Learn more or order now at **thermofisher.com/magmax-dbs**

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