

Universal Multiplex Set A Kit (KT0005)





For Research Use Only. Not for use in diagnostic procedures.

Description

The Universal Multiplex Set A Kit (KT0005) enables straightforward, scalable multiplex detection for Countable PCR workflows without the need for target-specific hydrolysis probes. This kit includes four universal fluorophore-labeled probes (UM-1 to UM-4), each designed to pair with a standardized adapter sequence added to a primer. Together, they enable detection of up to four targets per reaction with minimal optimization.

Universal Multiplexing simplifies multiplex assay development by decoupling fluorophore detection from individual assay probe design. Each UM probe hybridizes to a complementary adapter region introduced by the UM primer during early PCR cycles, allowing you to reuse the same UM probes across multiple targets.

Kit Contents

Component	Catalog #	Quantity
 50X UM-1 Probe	PR0006	1 × 215 µL
 50X UM-2 Probe	PR0007	1 × 215 µL
 50X UM-3 Probe	PR0008	1 × 215 µL
 50X UM-4 Probe	PR0009	1 × 215 µL

Supports up to 192 Countable PCR reactions per kit (50 µL each).

Storage and Stability

- Store all components at -25°C to -15°C
- Protect from light
- Shelf life: 2 years from date of manufacture

Handling Instructions

- Thaw components at room temperature

Workflow Overview





See Countable PCR Setup Guide

Safety Information

This kit does not contain a reportable quantity for hazardous materials. Use in accordance with standard lab safety practices.

Additional Information

Adapter Primer Design and 50X Oligo Mix Preparation

- Add the designated UM Adapter sequence to the 5' end of one primer per target
- Order primers as standard desalted oligos (HPLC-purified recommended for sensitive applications)
- Match the UM probe to the adapter sequence according to channel:
 - UM-1 →  5'-TAGAAGGCACAGTCGAGG-3'
 - UM-2 →  5'-CAGAAGACGGCATAACGAGAT-3'
 - UM-3 →  5'-ACCGTAGAGTCCGAGCAA-3'
 - UM-4 →  5'-GAAGCGTTTATGCGGAAGAG-3'

Create a 50X primer mix for each UM target

- Dilute the UM Primer to a final concentration of 4 μ M and 20 μ M of Non-UM Primer to TE buffer. These are final concentrations within the 50X stock mix.
- Store the mix at -20°C. Prepare fresh dilutions as needed.
- 50X mix should be added at 1 μ L per 50 μ L reaction.

You may also explore combining Universal Multiplex probes with hydrolysis probe assays in the same reaction; however, this approach is assay-dependent and may require empirical optimization for balanced performance across targets.

For a full protocol and example assay setup, refer to the Countable PCR Setup Guide.

For technical guidance or design consultation, contact success@countablelabs.com.

For order assistance, contact order@countablelabs.com.

Visit www.countablelabs.com