

TERTmonitor (TERTm-RT50, TERTm-RT100)

Product Type	Real-Time PCR kit for TERTp hotspot mutations detection (includes mastermix)
Species	Human
Catalog number	TERTm-RT50, TERTm-RT100
Batch number	See box and tubes
Shipping	Dry Ice
Storage	-20°C

Storage and stability: This product is shipped in dry ice. Upon arrival TERTmonitor reagents must be stored at -20°C and are stable for up to 2 years. Once opened, each reagent is stable to 5 freeze-thaws.

Expiry: The expiration date is printed on the box and on each tube label. This product will maintain its performance until that date. Its performance is not guaranteed after the expiration date.

Quality control: The quality of TERTmonitor is tested on a lot-to-lot basis. Triplicate amplification of independent DNA's for each of the alterations ensures accuracy, specificity and efficiency of the batch.

Notes: For Life Science Research Use Only. Not For Use in Diagnostics Procedures.

Product description

The **TERTmonitor** uses proprietary reaction compositions that comprise mastermix, amplification primers and genotyping probes for the detection of c.-124C>T and c.-146C>T mutations within the hTERTp through Real-time PCR. These mutations have been associated with bladder carcinoma, thyroid carcinoma, skin cancer (squamous cell carcinoma, basal cell carcinomas, melanoma), central nervous system cancer, hepatocellular carcinoma, and others. The **TERTmonitor** primer/probe sequences and compositions are particularly effective detecting trace amounts of c.-124 C>T and c.-146 C>T mutations due to its high sensitivity and specificity. The **TERTmonitor** is validated for use with DNA extracted from frozen tissue, formalin-fixed paraffin embedded (FFPE) tissue, and urine samples. Mutation detection is achieved in a suitable Real-time PCR instrument through the use allele-specific probes in multiplex reactions (see table below). Each reaction contains the respective internal control (IC), as well as negative and positive DNA controls for sample validation and qualitative analysis.

	Target	Reporter
●	TERT_124_Mut	FAM
	TERT_124_IC	HEX
	TERT_146_Mut	FAM
	TERT_146_IC	HEX

Kit components

Assay	Component	TERTm-RT50	TERTm-RT100
●	RTA-124/146	116 µL	232 µL
	RTB-124/146	116 µL	232 µL
	R1-124	26 µL	52 µL
	R2-124	26 µL	52 µL
	R1-146	26 µL	52 µL
	R2-146	26 µL	52 µL
●	TERT_NC	30 µL	60 µL
	TERT_124/146+	30 µL	60 µL
○	Mastermix	1x 1300 µL	2x 1300 µL
	H2O	1x 1000 µL	2x 1000 µL

Handling requirements

- Allow reagent/controls to thaw on ice immediately before use. Keep them on ice while in use. All reagents and mixes must be prepared and stored protected from direct light.

- To prevent DNA/RNA contamination, use disposable plasticware. Automatic pipettes and non-disposable glassware or plasticware should be sterile/DNA/RNA free and should only be used for pre-amplification procedures. Gloves should be always worn, when handling/performing the full protocol.

- Change the tip when pipetting different components during reaction mixes preparation as well as when pipetting samples/controls into a different well.

- As with any test procedure, good laboratory practices are essential for the proper performance of this assay. Due to the high analytical sensitivity of this test, care should be taken to keep reagents and amplification mixtures free from contamination.

Safety precautions

The TERTmonitor contains no substances which at their given concentration, are hazardous to health. TERTmonitor Material Safety Data Sheet (MSDS) documentation is available for download at www.u-monitor.eu.

Technical support

For any technical enquiries, please contact our Technical Support team via email at lab@uromonitor.com.

User Guidelines

- The TERTmonitor is a qualitative test. The test is not for quantitative measurements of percent mutation.
- The TERTmonitor has been validated for use with 2.5-25 ng of DNA per replicate. DNA input amounts below 2.5 ng or above 25 ng per replicate are not recommended.
- The TERTmonitor detects down to 3.125% mutant sequences in a background of wild-type DNA for the TERT promoter mutations.

Please, always follow the procedures described in the Instructions. Digital and printed versions of the instructions are provided with the product.