

Reverse Transcription at its best

Tetro Reverse Transcriptase Tetro cDNA Synthesis Kit



- Produces high-quality cDNA
- Unique RT enzyme for ultra-high sensitivity
- Broad dynamic range: 10pg to 2µg of RNA
- High yield of full length cDNA

Reverse transcriptase for long genes and rare transcripts

Tetro Reverse Transcriptase (Tetro RTase) from Bioline is a highly stable Moloney Murine Leukemia Virus (MMLV) reverse transcriptase, which exhibits unrivalled stability and affinity for RNA, making Tetro RTase highly sensitive, even when the amount of template is a limiting factor. Tetro RTase therefore provides robust, efficient and sensitive transcription, from as little as 10pg and up to 2µg of RNA (fig. 1).

Some RNA transcripts form stable secondary structures at the commonly used lower temperatures, making them poor templates for RT-PCR, Tetro RTase however is active up to 45°C, making it the ideal choice even for these more challenging transcripts.

Tetro RTase has been validated with total RNA, mRNA and *in vitro* transcribed RNA, giving exceptional performance with gene-specific primers, Oligo (dT) and random hexamers. Tetro RTase is also perfect for cDNA library construction and for the production of templates used in RT-PCR analysis.

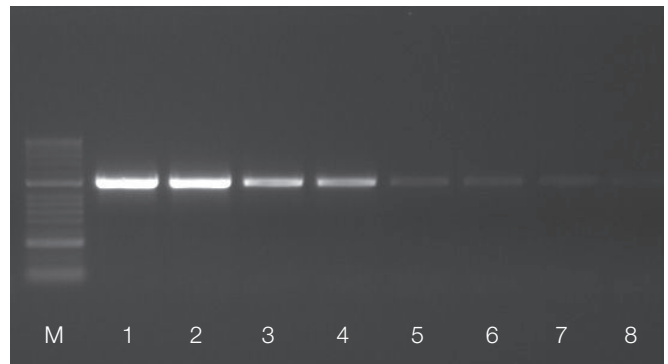


Fig. 1 High sensitivity of Tetro Reverse Transcriptase with mouse total RNA.
A five-fold serial dilution of total RNA from mouse brain (1µg to 10pg) was reverse transcribed using 50 units of Tetro Reverse Transcriptase, oligo (dT)₁₈ and random hexamers in a 20µl reaction volume. The resultant cDNA was then used as a template in a PCR using primers for amplification of a 1kb fragment from mouse calnexin. PCR was performed using MyTaq HS in a 20µl reaction. Lanes 1-8 correspond to PCR product from the serial dilution above. HyperLadder 50bp (M).

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Tetro Reverse Transcriptase Tetro cDNA Synthesis Kit



Everything you need to generate high quality cDNA

Bioline **Tetro cDNA Synthesis Kit** contains all necessary components to generate high quality cDNA from any RNA template over a wide range of total RNA concentrations (10pg-2µg), such that long and low-abundance cDNAs can be detected by amplification after cDNA synthesis. The generated cDNA is suitable for PCR with gene-specific primers or for other downstream applications.

The components of the Tetro cDNA Synthesis Kit have been optimized to work together in a convenient, reliable and reproducible way. The kit contains Tetro RTase, oligo (dT)₁₈ and random hexamer primers, ultra-pure dNTPs to increase yield of the PCR product and RiboSafe RNase Inhibitor to reduce template degradation.

Wide range of applications

The high quality first-strand cDNA generated makes it perfect for qualitative and quantitative analyses of cellular RNAs, characterization of RNA splice variants, cDNA library construction, mRNA 5' end mapping by primer extension, End-labelling of DNA, dideoxynucleotide sequencing and gene cloning.

Product Citations:

1. Morrow, C. A., *et al. Acta Cryst* **66(9)**, 1104-1107 (2010).
2. Comerford, I., *et al. Blood* **116(20)**, 4130-4140 (2010).
3. Paliege, A., *et al. Kidney Int.* **77**, 312-318 (2010).
4. Harwich, M. D., *et al. BMC Genomics* **11**, 375 (2010).
5. Giordani, L., *et al. J. Leukocyte Biol.* **86**, 261-271 (2009).
6. Passante, E., *et al. Immflam. Res.* **58(9)**, 611-618 (2009).

Ordering Information

PRODUCT	PACK SIZE	CAT NO.
Tetro Reverse Transcriptase	10,000u	BIO-65050
Tetro Reverse Transcriptase	4 x 10,000u	BIO-65051
Tetro cDNA Synthesis Kit	30 reactions	BIO-65042
Tetro cDNA Synthesis Kit	100 reactions	BIO-65043

PSGBL0615V1.5

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