

pTRI- β -actin-125-Human Antisense Control Template

Store at -20°C .
Do not store in a frost-free freezer.

NOTE: Commercial use of this vector requires a license from Ambion.

Catalog # (P/N):	AM7425
Amount:	10 μg
Concentration:	0.5 mg/mL
Storage Conditions:	Store at -20°C . This product is shipped at ambient temperature. This in no way affects its high-quality performance. Upon receipt, store at -20°C . Avoid multiple freeze-thaw cycles. Do not store in a frost-free freezer. Aliquots of the product may be stored short-term at 4°C .
Storage Buffer:	10 mM Tris-HCl pH 7.5, 1 mM EDTA

USER INFORMATION

Product Description:	<p>Ambion® pTRI-β-actin-125-Human Antisense Control Template contains a 131 bp cDNA fragment of the human β-actin gene (nucleotides 950–820 of Accession #X00351) [1]. The fragment is inserted between the KpnI–EcoRI sites of an Ambion TRIPLExcript™ vector. Ambion patented TRIPLExcript vectors have tandem SP6, T7, and T3 promoters, allowing the use of any of the corresponding RNA polymerases to synthesize antisense probes (US patent 5547862). The RNA probes transcribed from this template will be complementary to human β-actin mRNA. The sequence of this human β-actin insert is shown in Figure 1, in the antisense orientation.</p> <p>The plasmid has been linearized with XbaI and HindIII and is ready for use as a template for in vitro transcription reactions. When transcribed with the following RNA polymerases, antisense transcripts of the indicated lengths are produced by this template: SP6=222 bases; T7=192 bases; T3=164 bases.</p>
Applications:	<p>Transcripts synthesized from this template can be used as probes in ribonuclease and S1 nuclease protection assays, Northern and dot blots as an internal standard or reference to establish the relative amount of RNA in each sample. Hybridization of the transcript to human total RNA will protect a 127 nucleotide fragment of human β-actin mRNA. The size of the human β-Actin mRNA is 2.1 kb [2].</p> <p>Allelic differences may exist in the human population in the sequence of the β-actin gene, especially at third-base codon positions.</p> <p>Application Note We recommend gel purification of probes for nuclease protection assays.</p>
References:	<ol style="list-style-type: none">1. Ponte P, Ng SY, Engel J, Gunning P, and Keddes L (1984) <i>Nucl. Acids Res.</i> 12: 1687–1696.2. Nakajima-Iijima S, Hamada H, Reddy P, and Kukunaga T (1985) <i>Proc. Natl. Acad. Sci. USA</i> 82: 6133–6137.

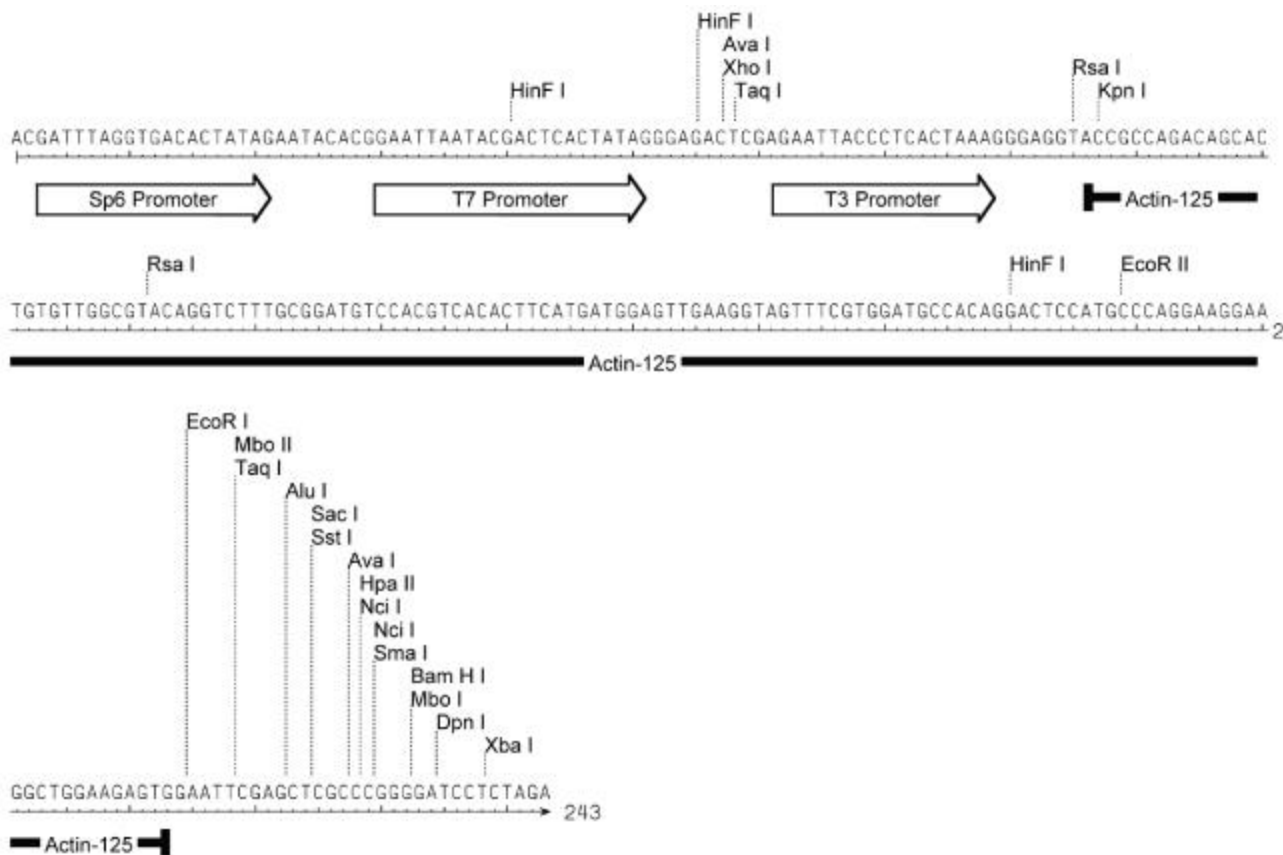


Figure 1. Annotated Sequence of pTRI- β -actin-125-Human Antisense Control Template. This sequence is available at www.ambion.com/techlib/sequence_list.html.

QUALITY CONTROL

Functional Testing:

Linearized pTRI- β -actin-125-Human Antisense Control Template migrates as a single band of the expected size (3.18 kbp) on a 1% agarose gel. 0.5 μ g template is tested functionally using the Ambion MAXIscrip Kit (P/N AM1308-AM1326) reagents and 20 units each of SP6, T7, or T3 RNA Polymerase. The sequence of the human β -actin fragment has been confirmed by dideoxynucleotide sequencing.

OTHER INFORMATION

Material Safety Data Sheets:

Material Safety Data Sheets (MSDSs) can be printed or downloaded from product-specific links on our website at the following address: www.ambion.com/techlib/msds. Alternatively, e-mail your request to MSDS_Inquiry_CCRM@appliedbiosystems.com. Specify the catalog or part number(s) of the product(s), and we will e-mail the associated MSDSs unless you specify a preference for fax delivery. For customers without access to the internet or fax, our technical service department can fulfill MSDS requests placed by telephone or postal mail. (Requests for postal delivery require 1-2 weeks for processing.)

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