RNA 6000 Ladder

Store below –70°C.

Catalog # (P/N):	AM7152
Volume:	3 x 20 µL
Concentration:	150 ng/µL
Product Description:	The RNA 6000 Ladder is a set of six transcripts, 0.2, 0.5, 1.0, 2.0, 4.0 and 6.0 kb in length, designed for use with the Agilent 2100 Bioanalyzer. The 0.2 kb RNA is at a concentration of 20 ng/µL (A_{260}).
Storage Conditions:	Store below –70°C. Avoid multiple freeze-thaw cycles. The product may be stored short-term at –20°C.
Storage Buffer:	0.1 mM EDTA

USER INFORMATION

General Information: Slight variations in the signal intensities of the ladder peaks may be seen between different reagent lots (as shown in Figure 1). These minor variations will not compromise assay performance.

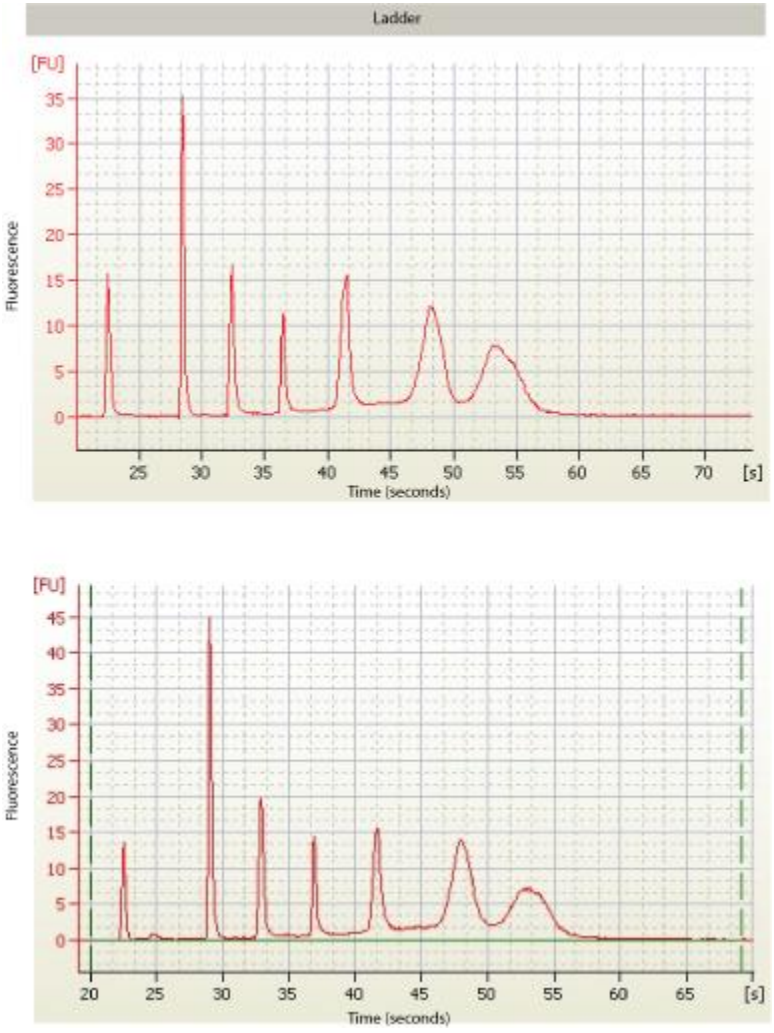

Figure 1: Typical signal intensity variations seen between two different lots of RNA 6000 Ladder.

Handling Instructions:

This product is very sensitive to degradation by exogenous ribonucleases introduced during handling. Wear gloves when handling this product. Use RNase-free reagents, tubes, and barrier pipette tips. **A degraded ladder can lead to erroneous quantitation.**

Thawing instructions
Thaw just to completion at 37°C, vortex for a few seconds when fully thawed, and place on ice. Aliquot the RNA, if necessary, to minimize freeze-thaw cycles (≤5).

Applications:

The RNA 6000 Ladder is designed for use with the Agilent 2100 bioanalyzer and the RNA 6000 LabChip® kits.

Prior to use, centrifuge the tube for a few seconds to collect the contents of the bottom of the tube. Each of the three tubes contains 20 µL of RNA 6000 Ladder. Since only 1 µL is used per chip, it may be advisable to aliquot the product into several RNase-free microcentrifuge tubes. Generally when degradation occurs, the high molecular weight peaks disappear. If the RNA peak pattern changes dramatically from the examples on this data sheet, the product may be degraded and a fresh tube of RNA 6000 Ladder should be used.

Ladder Denaturation
The RNA 6000 ladder must be heat denatured before use. Each day, dispense a 1-day supply of the product into a fresh microcentrifuge tube and heat the tube at 70°C for 2 min. Place the tube directly on ice for 5 min to snap-cool. Briefly centrifuge to clear any condensate from the tube's walls and cap. Keep the RNA 6000 Ladder on ice throughout the day.

QUALITY CONTROL

Functional Testing:

150 ng (1 µL) will generate 6 distinct bands when run on a RNA LabChip using the Total RNA or mRNA assay. The ladder remains intact when incubated at 37°C overnight.

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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For research use only. Not for use in diagnostic procedures.

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