

Yeast tRNA

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

Catalog # (P/N):	AM7119
Concentration:	10 mg/mL
Volume:	0.5 mL
Appearance:	Clear to brownish liquid. (Color does not affect performance.)
Storage Conditions:	Store at -20°C . Do not store in a frost-free freezer.
Storage Buffer:	Nuclease-free Water

USER INFORMATION

Product Description: Ambion[®] Yeast tRNA is purified from brewer's yeast. It is suitable as a coprecipitant in nucleic acid precipitation or as a blocking agent in hybridization reactions when RNA probes are being used (e.g., in situ hybridization, Northern and dot blot analysis). Yeast tRNA, however, is not recommended for precipitating nucleic acids for subsequent use in polynucleotide kinase or terminal transferase reactions, since the yeast tRNA would compete with the intended substrate for the enzyme activity. While it cannot be used in reactions inhibited by exogenous RNA, it is the most inexpensive source of a high quality coprecipitant.

Handling Instructions: RNA 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.

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:

Precipitation of Nucleic Acids

Adjust the monovalent cation concentration of the solution (e.g., to 0.5 M NH_4OAc , to 0.25 M NaCl or to 0.3 M NaOAc). Add yeast tRNA to a final concentration of 10–20 $\mu\text{g/mL}$. Mix well, and then add 2 volumes of ethanol. Chill at least 15 min at -20°C or below. Centrifuge for at least 15 min at $\geq 10,000 \times g$. Carefully remove the supernatant fluid, and resuspend the pellet in an appropriate buffer.

Note: Small amounts of nucleic acid are not precipitated quantitatively with yeast tRNA as a carrier when isopropanol is used instead of ethanol. For ethanol precipitation of end-labeled oligonucleotides (e.g., 35-mers), linear acrylamide or glycogen are more effective coprecipitants than yeast tRNA.

QUALITY CONTROL

Nonspecific Endonuclease Activity: A sample is incubated for 14–16 hr with supercoiled plasmid DNA and analyzed by agarose gel electrophoresis.

Exonuclease Activity: A sample is incubated for 14–16 hr with labeled double-stranded DNA, followed by PAGE analysis.

RNase Activity: A sample is incubated for 14–16 hr with labeled RNA, followed by PAGE analysis.

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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