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Product Information

Ribonucleic Acid, transfer from wheat germ

Catalog Number **R7876**
Storage Temperature 2–8 °C

Synonym: tRNA

Product Description

Crude transfer RNA (tRNA), which is purified from wheat germ, contains many specific tRNA molecules that can be separated by different processes. Experiments for detailed investigation of structure and function using *in vitro* translation systems often require highly purified tRNA, which can be achieved by combinations of chromatographic separations and reversible biochemical modification of the tRNA.[1]

Wheat germ tRNA has been used for the purification of RNAse Z (tRNA 3′- processing endonucleases) from wheat germ. The purification included six steps, with the most efficient one using an affinity column made of wheat germ tRNA, to which the RNAse Z bound tightly.[2]

A wheat germ tRNA agarose affinity column was used in the purification of tRNA ligase protein from wheat germ.[3]

Purity: 15–19 UV absorbance units/mg-solid

Unit definition: One unit will yield an absorbance of 1.0 at 260 nm in 1.0 ml of water (1 cm light path).

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

The product is supplied as lyophilized powder and is soluble in water (~2 mg/ml), yielding a clear to hazy solution.

Storage/Stability

Store the product desiccated at 2–8 °C. Under these conditions, the product retains activity for at least 2 years.

References

1. Cayama, E. et al., New chromatographic and biochemical strategies for quick preparative isolation of tRNA, *Nucleic Acids Res.*, **28**, 1-8 (2000).
2. Schiffer, S., et al., Assigning a function to a conserved group of proteins: the tRNA 3′-processing enzymes, *EMBO J.*, **21**, 2769-2777 (2002).
3. Englert, M., and Beier, H., Plant tRNA ligases are multifunctional enzymes that have diverged in sequence and substrate specificity from RNA ligases of other phylogenetic origins, *Nucleic Acids Res.*, **33**, 388-399 (2005).

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