

EcoZyme RNase A, powder

Troubleshooting Guide

50 mg, 100 mg, 500 mg

Cat No: EZRA50, EZRA100, EZRA500

Use this guide for common preparation and RNA-digestion problems encountered with EcoZyme RNase A powder. The product is a DNase- and protease-free RNase A preparation intended for RNA digestion in plasmid and genomic DNA purification procedures.

Before You Start - Quick Checks

1. Store the powder at -20°C.
2. The datasheet does not specify a universal reconstitution buffer or concentration for the powder; use the validated protocol for the intended workflow.
3. EcoZyme RNase A is described as DNase- and protease-free and is pretreated to remove DNase I.
4. The enzyme specifically degrades single-stranded RNA at C and U residues.
5. Record the reconstitution concentration and volume so the same RNase A dose can be reproduced between experiments.

Problem	Most likely cause	Recommended action
Residual RNA remains after treatment	The reconstituted RNase A concentration or dose may be insufficient.	Recheck the preparation calculation and use the amount validated for the plasmid or genomic DNA purification workflow.
Reconstituted concentration is uncertain	The powder mass or reconstitution volume may have been recorded incorrectly.	Recalculate concentration from the supplied mass and actual reconstitution volume and document the preparation.
Powder does not dissolve uniformly	The reconstitution procedure may be incomplete.	Use the buffer and preparation method validated for the intended workflow and ensure complete dissolution before aliquoting.
RNA removal varies between aliquots	The stock may not have been homogeneous before aliquoting or dosing may be inconsistent.	Ensure complete dissolution and uniform mixing before aliquoting and use the same calculated dose for comparable samples.
DNA yield or integrity is unexpectedly poor	The datasheet describes the RNase A as DNase-free, so another step may be responsible.	Confirm the reagent identity and dose, then review the DNA purification workflow for other causes of DNA loss or degradation.
Low performance after storage	The powder or prepared stock may not have been stored under validated conditions.	Store the powder at -20°C and use validated storage conditions for the reconstituted stock.
RNA removal is poor in high-input samples	The prepared RNase A dose may be too low for the sample input.	Keep sample input within the validated purification procedure or optimize the RNase A dose for the larger input.
Results differ from ready-to-use RNase A solution	The powder preparation may not match the premade solution concentration or formulation.	Do not assume equivalence; calculate and validate the powder-derived stock concentration separately.
Unexpected contamination between samples	Reused tips or contaminated handling may transfer nucleic acids between samples.	Use fresh tips and clean handling practices throughout reconstitution and sample treatment.

Still having trouble? Confirm -20°C storage, recheck the reconstitution calculation, and verify complete dissolution. Because the datasheet does not specify one universal reconstitution condition for the powder, use and document a validated preparation method before comparing results between experiments.