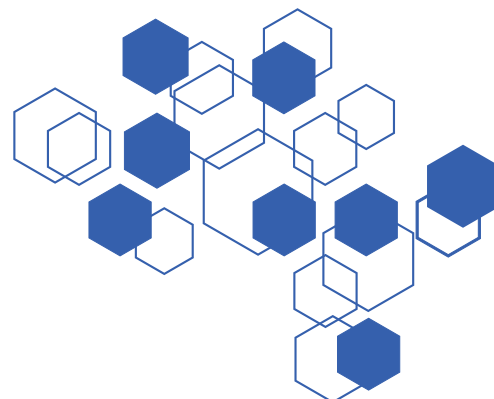




Releaselt[™] β -Agarase

TBE/TAE tolerant agarase

Cut your agarose-based DNA purification time in half with **Releaselt β -agarase**!

Background

Releaselt β -agarase has a high tolerance to inhibitors in electrophoretic buffers such as TBE and TAE, eliminating the need to perform a buffer exchange step before digestion.

Releaselt β -agarase has higher thermostability than other commercially available β -agarases, with a broad range of activity between 42 °C to 50 °C. Higher temperature digestion reduces the chances of residual agarose gelling at the end of the reaction, resulting in higher recovery of DNA or RNA.

Bulk **β -Agarase** is available (contact us for details).

Application Benefits

- Complete digestion of agarose, with no agarose fragments left after the digestion
- Obtain DNA or RNA faster - no buffer exchange needed, with direct digestion in TAE or TBE
- Broad range of activity between 42 °C and 50 °C

Properties

- **Concentration:** 1000 U/mL
- **Storage buffer:** 50 mM Tris-HCl, pH 7.5 + 50 mM KCl + 1 mM DTT + 0.1 mM EDTA + 50% glycerol
- **Operating Temperature:** 42-50 °C
- **Recommended temperature:** 50 °C
- **Storage temperature:** -20 °C

**These products are intended for research use only, not for diagnostic use. The safety and efficacy of these products in diagnostic or other clinical uses has not been established.*

Protocol for isolation of DNA from a low melt agarose gel

Agarose digestion

- 1) Separate DNA by electrophoresis in a low melt agarose gel prepared in 1X TAE or 0.5X TBE and stained with ethidium bromide.
- 2) Cut out the desired DNA band with a scalpel or razor blade from the gel under long wavelength UV light or a blue light transilluminator, minimizing the agarose around the band.
- 3) Determine the weight of the slice and then cut it into smaller pieces to enhance melting.
- 4) Transfer the agarose pieces to a microcentrifuge tube.
- 5) Melt the agarose at 70 °C for 10 min.
- 6) Transfer the tube to 50 °C and incubate for 10 min.
- 7) Add 1-2 units of **Releaselt β-agarase** for every 200 mg of agarose.
- 8) Mix gently and incubate at 50 °C for 60 min.

DNA precipitation

- 9) Adjust the salt concentration of the solution to 0.5 M NaCl, 0.3 M NaOAc or 2.5 M NH₄OAc for DNA precipitation. Mix with 2 volumes of isopropanol, mixing the solution by gently inverting the tube multiple times. Chill the tube on ice for 15 min.
- 10) Centrifuge at 15,000 X g for 15 min.
- 11) Remove the supernatant and wash the pellet with cold 80% ethanol.
- 12) Carefully remove the ethanol from the pellet.
- 13) Dry the pellet at 50 °C for 5-10 min with the cap open.
- 14) Resuspend the DNA pellet in an appropriate volume of TE buffer or low TE buffer.