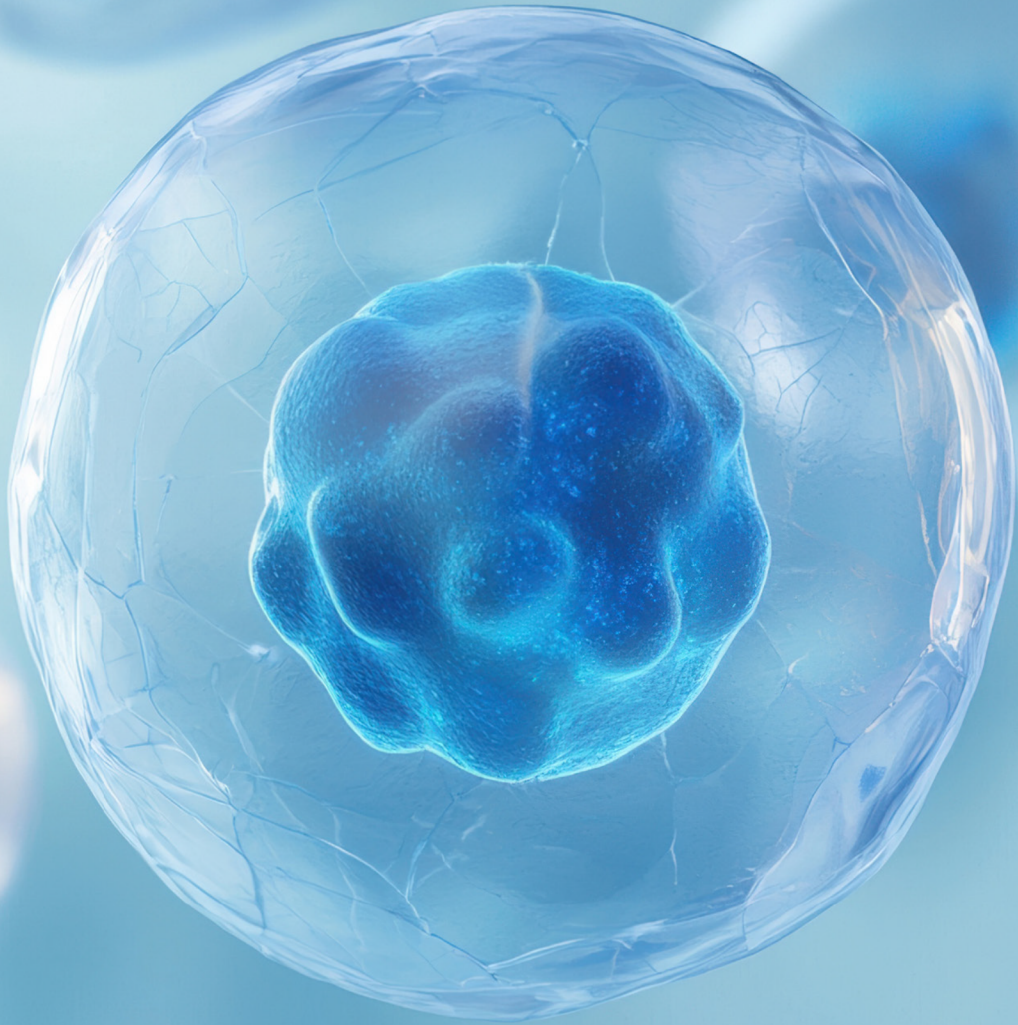




Re:ancel[®] Cell Recovery Solution

Cellulase-based solution to degrade the nanocellulose network





Re:ancel® Cell Recovery Solution

Re:ancel® Cell Recovery Solution is a cellulase-based reagent developed by ANPOLY for the efficient recovery of cells, spheroids, and organoids from the Re:ancel® Bio 3D culture system. When used together with Re:ancel® Bio, ANPOLY's plant-based scaffold, it enables gentle and highly efficient cell harvesting while maintaining cell viability.

Introduction

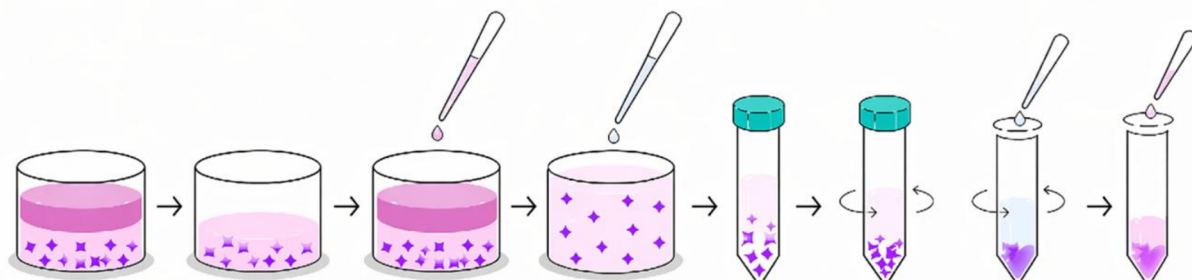
Re:ancel® Cell Recovery Solution is a cellulase-based solution specifically developed to degrade the nanocellulose network present in Re:ancel® Bio. The solution is designed to support the recovery of cells, spheroids, or organoids from Re:ancel® Bio 3D culture samples for subsequent downstream analysis or further culture.

The recovery process is straightforward. Re:ancel® Cell Recovery Solution is added to Re:ancel® Bio and incubated at 37°C overnight until the hydrogel structure is sufficiently degraded. After enzymatic digestion, recovered cells, spheroids, or organoid-like aggregates can be collected by centrifugation and used for downstream applications such as protein extraction, RNA extraction, cell counting, imaging, or plating.

The amount of Re:ancel® Cell Recovery Solution required depends on the amount and concentration of Re:ancel® Bio present in the well. Under the recommended conditions, one 2.5 mL vial can digest approximately 8 mL of 1% Re:ancel® Bio.

Re:ancel® Cell Recovery Solution is for research use only and should not be used for diagnostic, therapeutic, or clinical purposes.

Simple workflow

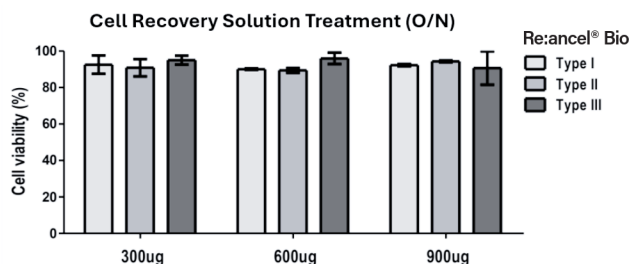


Sample preparation → Media removal → Cell Recovery Solution treatment → Incubation → Add PBS → Transfer to tube and centrifuge → Wash with PBS and centrifuge → Cell resuspension

Product information

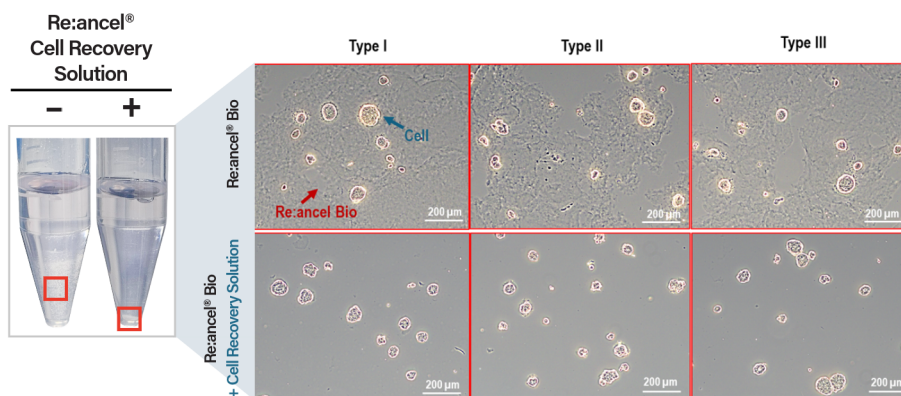
Product type	Cellulase-based solution
Formulation	20 mg/mL cellulase mixture
pH	6 (MES buffer)
Volume	2.5 mL
Storage	-20°C
Use	For research use only

Cell viability after treatment with Re:ancel® Cell Recovery Solution



HepG2 cells cultured in Re:ancel® Bio Type I, II, and III were treated with different doses of Re:ancel® Cell Recovery Solution at 37°C overnight. Cell viability was maintained at approximately 90% or higher across all tested conditions.

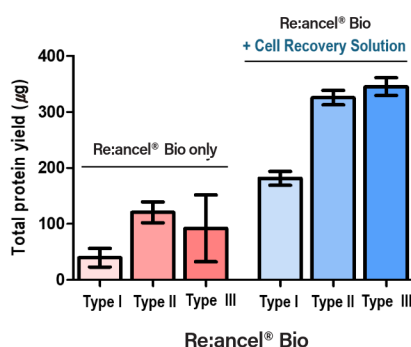
Removal of Re:ancel® Bio while maintaining HepG2 spheroid



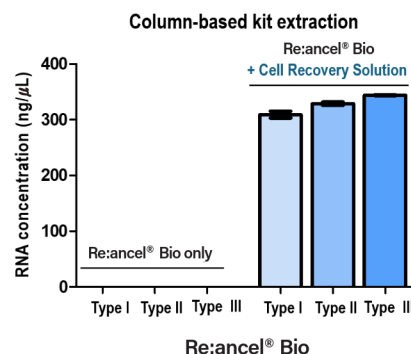
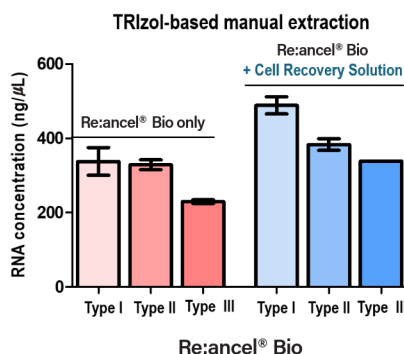
HepG2 cells cultured in Re:ancel® Bio for 6 days to form spheroids. After overnight treatment with Re:ancel® Cell Recovery Solution, the visible Re:ancel® Bio matrix was reduced, while recovered HepG2 spheroids maintained their spheroid morphology.

Re:ancel® Cell Recovery Solution supports downstream molecular analysis

Protein extraction from Re:ancel® Bio 3D culture



RNA extraction from Re:ancel® Bio 3D culture



After 6 days of HepG2 3D culture in Re:ancel® Bio, Re:ancel® Cell Recovery Solution increased total protein and RNA recovery from Re:ancel® Bio 3D culture samples. By degrading the Re:ancel® Bio, the solution facilitates the release of cells and cellular materials for downstream molecular analysis.