



## Comparison of Major ER Isolation Kits

The endoplasmic reticulum (ER) is a membranous labyrinth extending throughout the cell. The ER is a major organelle and accounts for about 1/2 of total cellular membrane. It plays a critical role in protein synthesis and modification. There are a few commercial kits available for ER isolation with different mechanisms of actions.

Brand/manufacturer	Brand# 1	Brand# 2	Invent Biotech
Product Name	ER Enrichment Kit	Endoplasmic Reticulum Isolation Kit	Minute™ ER Enrichment Kit
Mechanism of Isolation	Differential centrifugation and precipitation	Density gradient centrifugation	Spin column-based - precipitation
Average sample size	Tissue (500 mg)	Tissue (3-7 g) Cells (2000 million)	Tissue (35 mg) Cells (30 million)
Number of buffers and reagents used	5	4	4
Buffer preparation prior to use	Required	Required	Not required
Homogenizer	Required	Required	Not required
Density gradient formation	Not Required	Required	Not required
Ultracentrifugation	Not Required	Required	Not required
Purity of Isolated ER	Enriched ER	Enriched ER	Enriched ER
Approximate Protocol Time	1-2h	1.5-5h	1.5h