Comparison of Major Lysosome Isolation Kits

Lysosomes are membranous vesicles that are rich in hydrolytic enzymes capable of breaking down proteins, nuclei acids, carbohydrates and other cellular components. There are several commercial kits available for lysosome isolation. However, by mechanism of isolation, there are only two types of kits: traditional density gradient centrifugation-based and novel spin column-based.

Brand/manufacturer	Brand# 1	Brand# 2	Brand# 3	Invent Biotech
Product Name	Lysosome Isolation Kit from Tissue and Cultured Cells	Lysosome Isolation Kit	Lysosome Enrichment Kit for Tissue and Cultured cells	Minute™ Lysosome Isolation Kit
Mechanism of Isolation	Density gradient centrifugation	Density gradient centrifugation	Density gradient centrifugation	Spin column-based - precipitation
Average sample size	Tissue (100 mg) Cells (20 million)	Tissue (4g) Cells (300 million)	Tissue (125 mg) Cells (125 mg)	Tissue (25 mg) Cells (25 million)
Number of buffers and reagents used	5	7	3	2
Buffer preparation prior to use	Required	Required	Required	Not required
Homogenizer	Required	Required	Required	Not required
Density gradient formation	Required	Required	Required	Not required
Ultracentrifugation	Required	Required	Required	Not required
Purity of Isolated Lysosomes	Enriched lysosomes	Enriched lysosome	Enriched lysosome	Enriched lysosome
Protocol Time	About 3h	5-12h	About 3h	About 1.2h

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