Resolution of soluble cytosolic proteins from membrane vesicles and organelles: a bibliography

There are three Application Sheets listed in the Application Sheet Index under “Protein localization (membrane versus cytosol)” which describe different gradient strategies; they can be found on the OptiPrep™ Applications flash drive or accessed via the following website www.axis-shield-density-gradient-media.com (click on “Methodology”, then “Organelles and subcellular membranes” and follow the links from the Index):

♦ Discontinuous gradient: Application Sheet S35
♦ Self-generated gradient: Application Sheet S36
♦ A special strategy for rapid resolution of protein complexes and cytosol: Application Sheet S37
♦ Note that the resolution of mammalian cell exosomes and other microvesicles from soluble proteins is covered in Mini-Review MS17 and the similar resolution of bacterial and fungal microvesicles in Mini-Review MS16.

The reference list, which follows, includes principally papers describing the separation of membranes and soluble (cytosolic) proteins (Section 1); it is divided alphabetically into source material (cell or tissue type). It includes both mammalian and non-mammalian sources and in each of the 25 sections, references are listed alphabetically according to first author.

Some papers report the study of previously prepared subcellular membranes to determine the distribution of a particular protein between the soluble fraction and the organelle(s). Others papers describe the separation of vesicles either budded from the cells or obtained from permeabilized cells. These are listed in Section 2. In some cases gradients also resolve lipid droplets.

Because a significant number of papers use the methodology for the study of virus processing, these may be listed both in the main cell/tissue references (Section 1) and in Section 3, which is devoted solely to virus processing.

♦ To facilitate identification of references of scientific interest key words in titles are highlighted in light blue.

1. Cells or tissues
1.1. Algae

1.2. Bacteria

1.3. Brain
Ding, T.T., Lee, S-J., Rochet, J-C. and Lansbury, Jr., P.T. (2002) Annular α-synuclein protofibrils are produced when spherical protofibrils are incubated in solution or bound to brain-derived membranes Biochemistry, 41, 10209-10217
1.4. Carcinoma cells/tissues


Guan, J-J., Zhang, X-D., Sun, W., Qi, L., Wu, J-C. and Qin, Z-H. (2015) DRAM1 regulates apoptosis through increasing protein levels and lysosomal localization of BAX Cell Death Dis., 6: e1624


1.5. CHO cells


1.6. COS cells


Lee, H-J., Choi, C. and Lee, S-J. (2002) Membrane-bound α-synuclein has a high aggregation propensity and the ability to seed the aggregation of cytosolic form J. Biol. Chem., 277, 671-678

1.7. Glioblastoma cells


1.8. HEK cells

Burnett, A. and Spearman, P. (2007) APOBEC3G multimers are recruited to the plasma membrane for packaging into human immunodeficiency virus type 1 virus-like particles in an RNA-dependent process requiring the NC basic linker J. Virol., 81, 5000-5013


1.9. Hepatocytes

1.10. Hepatoma cells

1.11 Insect cells

1.12. Jurkat cells

1.13. Kidney proximal tubule cells (incl. LLC-PK1)

1.14. Liver

1.15. MDCK cells

1.16. Monkey kidney cells
McKenzie, J., Johannes, L., Taguchi, T.and Sheff, D. (2009) *Passage through the Golgi is necessary for Shiga toxin B subunit to reach the endoplasmic reticulum* FEBS J., 276, 1581–1595

1.17. Mouse embryo fibroblasts

1.18. Neuroblastoma cells
1.19 NRK cells

1.20 Pheochromocytoma (PC12) cells

1.21 Plant cells

1.22 Squid axons

1.23 Vero cells

1.24 Xenopus

1.25 Yeast
2. Subcellular membranes

2.1 Golgi membranes


2.2 Lysosomes/endosomes


2.3 Vesicles (budded and from permeabilized cells)


3. Virus processing

Burnett, A. and Spearman, P. (2007) APOBEC3G multimers are recruited to the plasma membrane for packaging into human immunodeficiency virus type 1 virus-like particles in an RNA-dependent process requiring the NC basic linker J. Virol., 81, 5000-5013


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