

Table 12–2 Relative Amounts of Membrane Types in Two Kinds of Eucaryotic Cells

| MEMBRANE TYPE | PERCENTAGE OF TOTAL CELL MEMBRANE | |
|----------------------------|-----------------------------------|------------------------------|
| | LIVER HEPATOCYTE* | PANCREATIC EXOCRINE CELL* |
| Plasma membrane | 2 | 5 |
| Rough ER membrane | 35 | 60 |
| Smooth ER membrane | 16 | <1 |
| Golgi apparatus membrane | 7 | 10 |
| Mitochondria | | |
| Outer membrane | 7 | 4 |
| Inner membrane | 32 | 17 |
| Nucleus | | |
| Inner membrane | 0.2 | 0.7 |
| Secretory vesicle membrane | not determined | 3 |
| Lysosome membrane | 0.4 | not determined |
| Peroxisome membrane | 0.4 | not determined |
| Endosome membrane | 0.4 | not determined |

*These two cells are of very different sizes: the average hepatocyte has a volume of about $5000\ \mu\text{m}^3$ compared with $1000\ \mu\text{m}^3$ for the pancreatic exocrine cell. Total cell membrane areas are estimated at about $110,000\ \mu\text{m}^2$ and $13,000\ \mu\text{m}^2$, respectively.