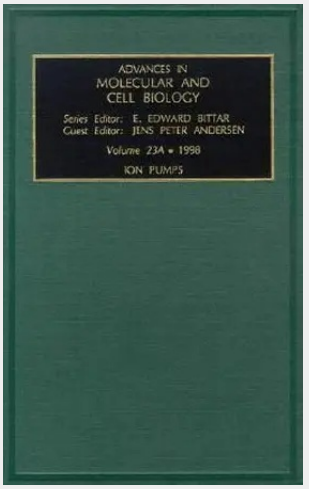
Andersen

Ion Pumps, Part a

Volume 23

Both eukaryotic and prokaryotic cells depend strongly on the function of ion pumps present in their membranes. The term ion pump, synonymous with active ion-transport system, refers to a membrane-associated protein that translocates ions uphill against an electrochemical potential gradient. Primary ion pumps utilize energy derived from chemical reactions or from the absorption of light, while secondary ion pumps derive the energy for uphill movement of one ionic species from the downhill movement of another species. In the present volume, various aspects of ion pump structure, mechanism, and regulation are treated using mostly the ion-transporting ATPases as examples. One chapter has been devoted to a secondary ion pump, the Na+-Ca2+ exchanger, not only because of the vital role played by this transport system in regulation of cardiac contractility, but also because it exemplifies the interesting mechanistic and structural similarities between primary and secondary pumps.

Both eukaryotic and prokaryotic cells depend strongly on the function of ion pumps present in their membranes. The term ion pump, synonymous with active ion-transport system, refers to a membrane-associated protein that translocates ions uphill against an electrochemical potential gradient. Primary ion pumps utilize energy derived from chemical reactions or from the absorption of light, while secondary ion pumps derive the energy for uphill movement of one ionic species from the downhill movement of another species. In the present volume, various aspects of ion pump structure, mechanism, and regulation are treated using mostly the ion-transporting ATPases as examples. One chapter has been devoted to a secondary ion pump, the Na+-Ca2+ exchanger, not only because of the vital role played by this transport system in regulation of cardiac contractility, but also because it exemplifies the interesting mechanistic and structural similarities between primary and secondary pumps.



109,50 €
109,50 € (zzgl. MwSt.)

Nicht mehr lieferbar

Artikelnummer: 9780762302871
Medium: Buch
ISBN: 978-0-7623-0287-1
Verlag: Elsevier Science
Erscheinungstermin: 19.11.1997
Sprache(n): Englisch
Auflage: Erscheinungsjahr 1997
Produktform: Gebunden
Gewicht: 1116 g
Seiten: 248
Format (B x H): 163 x 239 mm