DESCRIPTION

With its particular emphasis on the constitutive activity of G-protein-coupled receptors (GPCRs), this book comprehensively discusses an important biological process that has not yet been covered in such depth in any other existing books on GPCRs. The international team of highly distinguished authors addresses in detail current models and concepts, to introduce medicinal chemists, physiologists, pharmacologists, and medical researchers into the advances in the understanding of GPCR activation and constitutive activity. In addition, the book provides an overview on methods of investigating constitutive GPCR activity. The text is well illustrated by selected experimental data and schemes. The chapters are all cross-referenced with each other and cover general mechanisms, methodological approaches and cover selected important GPCR systems, the consequences for drug action, including side effects, and rational drug design for GPCR targets. A highly recommended reference for researchers in academia and industry.

The international team of highly distinguished authors addresses in detail current models and concepts, so as to introduce pharmaceutical chemists, physiologists and medical researchers to the advances in the understanding of GPCR activation and constitutive activity, and provides an overview of the methods of investigating GPCR activity. The text is backed by abundant case studies and methodological advice for analyzing GPCRs, covering selected pharmacologically relevant GPCR systems, the consequences for drug action, including unwanted side effects, and rational drug design for GPCR targets.

A highly practical reference for researchers in academia and industry.
Roland Seifert was born in 1960 in Berlin, Germany. He was fellow of the Merit Scholar Foundation of Germany and earned his MD degree at the Free University of Berlin in 1986. From 1986-1995 he worked in the group of Professor Günter Schultz in the Department of Pharmacology of the Free University of Berlin. From 1995-1998, he worked with Dr. Brian Kobilka at Stanford University, CA, USA. From 1998-2004 he was Associate Professor in the Department of Pharmacology and Toxicology of The University of Kansas, Lawrence, KS, USA before taking over the Chair of Pharmacology and Toxicology at The University of Regensburg, Germany. His research focuses on the molecular mechanisms of GPCR-activation, G-protein function and adenylyl cyclase regulation.

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