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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Assembly and function of the precursor B-cell receptor -- Receptor Dissociation and B cell activation -- Molecular mechanisms of B cell antigen gathering and endocytosis -- BTK signaling in B cell differentiation and autoimmunity -- The memory function of the B cell antigen receptor -- PI3K signaling in normal B cells and chronic lymphocytic leukemia (CLL) -- Role of Calcium Signaling in B Cell Activation and Biolog -- Roles of the NF-kappaB pathway in B-lymphocyte biology -- MAP kinase cascades in antigen receptor signaling and physiology.
Sommario/riassunto	This volume details our current understanding of the architecture and signaling capabilities of the B cell antigen receptor (BCR) in health and disease. The first chapters review new insights into the assembly of BCR components and their organization on the cell surface. Subsequent contributions focus on the molecular interactions that connect the BCR with major intracellular signaling pathways such as Ca2+ mobilization, membrane phospholipid metabolism, nuclear translocation of NF-kB or the activation of Bruton’s Tyrosine Kinase and MAP kinases. These

elements orchestrate cytoplasmic and nuclear responses as well as cytoskeleton dynamics for antigen internalization. Furthermore, a key mechanism of how B cells remember their cognate antigen is discussed in detail. Altogether, the discoveries presented provide a better understanding of B cell biology and help to explain some B cell-mediated pathogenicities, like autoimmune phenomena or the formation of B cell tumors, while also paving the way for eventually combating these diseases.