Record Nr. UNINA9910253946403321 IgM and Its Receptors and Binding Proteins [[electronic resource] /] / **Titolo** edited by Hiromi Kubagawa, Peter D. Burrows Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-64526-9 Edizione [1st ed. 2017.] 1 online resource (IX, 117 p. 30 illus., 15 illus. in color.) Descrizione fisica Collana Current Topics in Microbiology and Immunology, , 0070-217X;; 408 Disciplina 616.9706 Soggetti **Immunology** Infectious diseases Rheumatology Infectious Diseases Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto The appearance and diversification of receptors for IgM during vertebrate evolution. -- Authentic IgM Fc Receptor (FcR) -- FCRLA - A resident endoplasmic reticulum protein that associates with multiple immunoglobulin isotypes in B lineage cells -- Specific IgM and regulation of antibody responses -- Role of Natural IgM autoantibodies (IgM- NAA) and IgM anti-leucocyte antibodies (IgM-ALA) in regulating inflammation. Sommario/riassunto This volume reviews the current state of research on the IgM antibody and its multiple receptors and binding proteins. Interactions of the IgM ligands with these molecules are important for protection against infections as a first line of defense, as well as for regulation of immune responses to pathogens and self-antigens. The book includes up-todate information on: (i) the phylogeny of three IgM-binding receptors [polymeric Ig receptor (plgR), Fc receptor for both IgA and IgM (Fc/μR), and Fc receptor for IgM only (FcμR)]; (ii) the lymphocyterestricted distribution and unique ligand-binding activity of FcµR; (iii) the definition and potential function of Fc receptor-like molecule A (FCRLA) as a resident endoplasmic reticulum protein that binds IgM,

but also IgG and IgA; (iv) IgM antibody-mediated enhancement of

humoral immune responses, highlighting the importance of

complement and its receptors, (v) the numerous important roles of IgM natural antibodies in regulation of inflammation. It is an invaluable resource for researchers and clinicians alike.