

1. Record Nr.	UNINA9910298305703321
Titolo	T Lymphocytes as Tools in Diagnostics and Immunotoxicology // edited by Stefan F. Martin
Pubbl/distr/stampa	Basel : , : Springer Basel : , : Imprint : Springer, , 2014
ISBN	3-0348-0726-0
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (184 p.)
Collana	Experientia Supplementum, , 2504-3692 ; ; 104
Disciplina	616.0797
Soggetti	Medicine - Research Biology - Research Immunology Biomedical Research
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The use of T cells in Hazard Characterization of Chemical and Drug Allergens and integration in testing strategies -- Activation of the TCR complex by peptide-MHC and superantigens -- Activation of the TCR complex by small chemical compounds -- T Cell Responses to Contact Allergens -- Contact hypersensitivity: Quantitative aspects, susceptibility and risk factors -- Tools and methods for identification and analysis of rare antigen-specific T lymphocytes -- Human T cell priming assay. Depletion of peripheral blood lymphocytes in CD25+ cells improves the in vitro detection of weak allergen-specific T cells -- Correlation of contact sensitizer potency with T cell frequency and TCR repertoire diversity -- On the role of co-inhibitory molecules in dendritic cell – T helper cell co-culture assays aimed to detect chemical induced contact allergy -- T cell responses to drugs and drug metabolites -- Hypersensitivity reactions to betalactams.
Sommario/riassunto	This book summarizes the state-of-the art in the development of T cell-based in vitro assays, which offer useful tools for hazard identification, risk assessment and improvement of diagnostics. It will be of interest to scientists, the chemical and pharmaceutical industry, and regulators involved in the replacement of animal testing methods. The identification of hazardous chemicals and drugs is essential to

ensuring human health. The ban on animal testing for the cosmetics industry since 2009 and international efforts to reduce and replace animal testing in research and immunotoxicology call for alternative in vitro methods. The most specific immune response to chemicals and drugs that cause allergic contact dermatitis, respiratory disease and adverse drug reactions is the highly antigen-specific T lymphocyte response. Therefore the use of T cells as tools for identifying contact allergens and drugs that may cause health problems is of great interest.
