

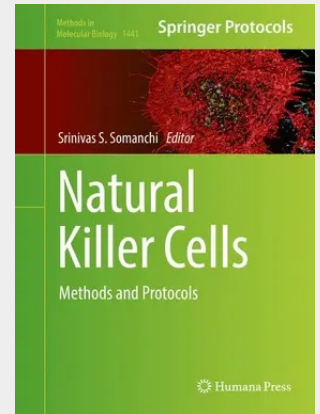
Natural Killer Cells

Methods and Protocols

This volume contains collection of Natural Killer Cell methodologies relevant for both basic and translational research. These methodologies present new developments in the natural killer (NK) cell field, such as understanding the influence of NK cells metabolism on its function, identifying complexity of NK cell subsets through mass cytometry, and determining the emergence of memory NK cells in murine model of MCMV infection. Methods that study NK cell migration and cytotoxicity through endpoint analysis or live single cell imaging are also discussed. Chapters also describe methods pertaining to translational application of NK cells, such as *ex vivo* expansion of NK cells on K562 cell lines genetically modified to express either membrane bound IL-15 or membrane bound IL-21, large scale NK cell culture, current techniques for engineering NK cells to express chimeric antigen receptors or chemokine receptors using retroviral vectors, electroporation of mRNA, and the natural phenomenon of trogocytosis. Written in the highly successful *Methods in Molecular Biology* series format, these chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls.

Cutting edge and thorough, *Natural Killer Cells: Methods and Protocols* is a valuable resource for researchers who not only want to understand mechanisms that govern NK cell behavior and diversity, but also for those who want to understand how to systematically evaluate NK cells for adoptive immunotherapy applications.

This volume contains collection of Natural Killer Cell methodologies relevant for both basic and translational research. These methodologies present new developments in the natural killer (NK) cell field, such as understanding the influence of NK cells metabolism on its function, identifying complexity of NK cell subsets through mass cytometry, and determining the emergence of memory NK cells in murine model of MCMV infection. Methods that study NK cell migration and cytotoxicity through endpoint analysis or live single cell imaging are also discussed. Chapters also describe methods pertaining to translational application of NK cells, such as *ex vivo* expansion of NK cells on K562 cell lines genetically modified to express either membrane bound IL-15 or membrane bound IL-21, large scale NK cell culture, current techniques for engineering NK cells to express chimeric antigen receptors or chemokine receptors using retroviral vectors, electroporation of mRNA, and the natural phenomenon of trogocytosis. Written in the highly successful *Methods in Molecular Biology* series format, these chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Cutting edge and thorough, *Natural Killer Cells: Methods and Protocols* is a valuable resource for researchers who not only want to understand mechanisms that govern NK cell behavior and diversity, but also for those who want to understand how to systematically evaluate NK cells for adoptive immunotherapy applications.



181,89 €

169,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9781493936823

Medium: Buch

ISBN: 978-1-4939-3682-3

Verlag: Humana

Erscheinungstermin: 13.05.2016

Sprache(n): Englisch

Auflage: 1. Auflage 2016

Serie: Methods in Molecular Biology

Produktform: Gebunden

Gewicht: 8635 g

Seiten: 365

Format (B x H): 183 x 260 mm

