

1. Record Nr.	UNINA9911018657103321
Autore	Sabarwal Akash
Titolo	Receptor Tyrosine Kinases in Cancer // edited by Akash Sabarwal, Saba Tabasum, Soumitro Pal
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	9783031938948 9783031938931
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (575 pages)
Collana	Cancer Drug Discovery and Development, , 2196-9914
Altri autori (Persone)	TabasumSaba PalSoumitro
Disciplina	571.978 616.994
Soggetti	Cancer Molecular biology Biophysics Cell interaction Cancer Biology Molecular Biology Mechanobiological Cell Signaling
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	An Introduction to Receptor Tyrosine Kinases Signal Transduction and Cancer Progression -- Tyrosine Kinases and Inflammatory Signaling in Cancer -- Molecular Mechanisms of Acquired Therapeutic Resistance to Tyrosine Kinase Targeted Therapy -- AXL and its Role in Cell Migration and Epithelial to Mesenchymal Transition -- VEGFR and its Role in Tumor Angiogenesis -- c-MET Therapeutic Target and Biomarker in Cancer -- Receptor Tyrosine Kinase signaling and Mitochondria -- Therapeutic Potential of Targeting Immune Checkpoints Along with RTKs -- Combination therapies involving RTK inhibitors -- RTKs as a Therapeutic Target by Natural Compounds in Cancer Treatment.
Sommario/riassunto	Receptor tyrosine kinases (RTKs) play a critical role in a variety of cellular processes including growth, differentiation, motility, and metabolism. RTKs are frequently overexpressed and their aberrant

signalling is associated with various diseases including cancer. Thus, RTKs have become one of the most important druggable targets for the treatment of cancer. The emergence of small kinase inhibitors in cancer treatment offers a strategic approach to the management of cancer that surpasses the efficacy of traditional drugs. Understanding RTK signaling mechanisms is of paramount importance, especially as the US FDA and other global regulatory agencies have approved several small-molecule tyrosine inhibitors. Moreover, pharmaceutical companies are actively developing new compounds for the treatment of various malignancies. This comprehensive book addresses a timely need by presenting the latest advances and cutting-edge insights into RTKs in cancer research. The chapters provide overviews and recent developments regarding the roles of key RTKs —such as, c-Met, AXL, VEGFR, EGFR, among others—in pro-tumorigenic signaling, therapeutic resistance, and targeted inhibition across different cancer types. This volume serves as an essential resource for researchers and students seeking to deepen their understanding of this rapidly evolving field. .
