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Cancer Research

Product Handbook





Cancer

With the increased rate of morbidity and mortality worldwide, cancer has become the leading cause of death and a global public health problem. According to statistics of Globocan 2022, there were an estimated 19.98 million new cases and nearly 10 million deaths from cancer^[1].

The most common cases of cancer in 2022 (in terms of new cases) were of breast cancer (2.48 million cases), lung cancer (2.3 million cases), colon and rectum cancer (1.93 million cases). The most common causes of death due to cancer in 2022 were from lung cancer (1.82 million deaths), colon, rectum cancer (904,019 deaths) and liver cancer (758,725 deaths).

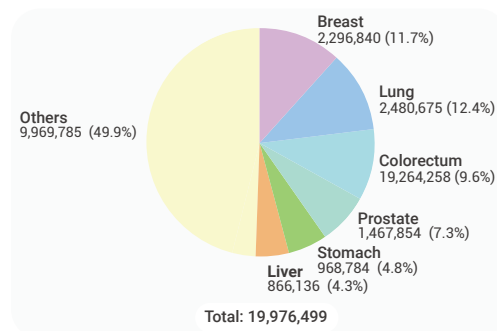


Figure 1. Estimated number of new cases in 2022, World, both sexes, all ages^[1].

The traditional hallmarks of cancer include sustaining proliferative signaling, evading growth suppressors, resisting cell death, enabling replicative immortality, inducing angiogenesis, activating invasion and metastasis, reprogramming of energy metabolism, evading immune destruction. Nowadays, unlocking phenotypic plasticity, nonmutational epigenetic reprogramming, polymorphic microbiomes and senescent cells are also included as new hallmarks of cancer^[2].

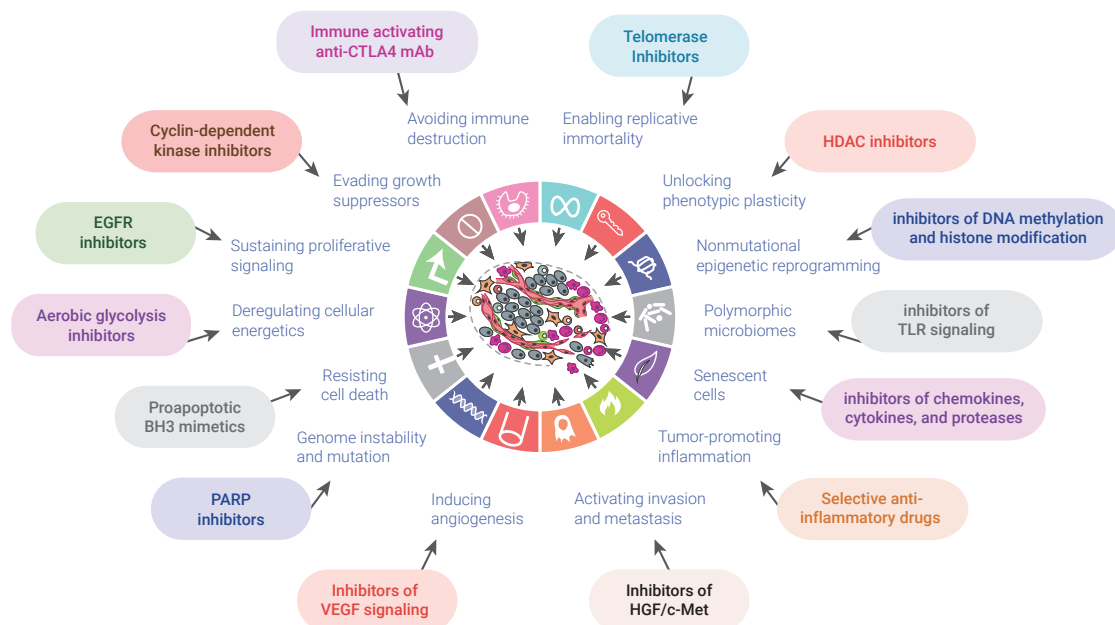
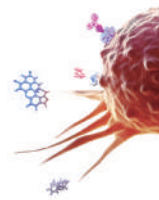


Figure 2. Therapeutic Targeting of the Hallmarks of Cancer^[2].

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Cancer Metabolism

Abnormal cancer metabolism, such as altered aerobic glycolysis and increased anabolic pathways have important role in tumorigenesis, metastasis, drug resistance, and cancer stem cells^[3]. Warburg effect or altered aerobic glycolysis indicates that cancer cells consume tremendous amounts of glucose and metabolize it into lactate despite the presence of oxygen. Lactate and pyruvate generated in altered aerobic glycolysis, and intermediates from shortened TCA cycle can guarantee the sufficient biomass for synthesizing lipids, nucleotides and amino acids that are needed for proliferating cancer cells. What's more, a high level of lactate offers an acidic immunosuppressive environment for cancer cells. Enzymes and signaling pathways involved in glycolysis such as glutaminase, PI3K/AKT/mTOR signaling pathway, and isocitrate dehydrogenase are promising targets for anti-cancer therapy.

In addition to carbohydrate metabolism, the metabolism of other molecules i.e., amino acid and fat metabolism pathways are also altered in cancer cells. Because of the inability to synthesize some non-essential amino acids, an extra supply of energy is necessary for the survival of cancer cells; targeting those molecules such as phosphoglycerate dehydrogenase (PHGDH) (which is involved in synthesis of amino acid, serine) is a potential anti-cancer approach. The majority of cancer cells can synthesize lipid de novo, which ensures a continuous supply of raw materials to build a cell membrane. Acetyl-CoA carboxylase (ACC) and fatty acid synthase (FASN) are the key enzymes in lipid synthesis and might be important targets for anti-cancer therapy.

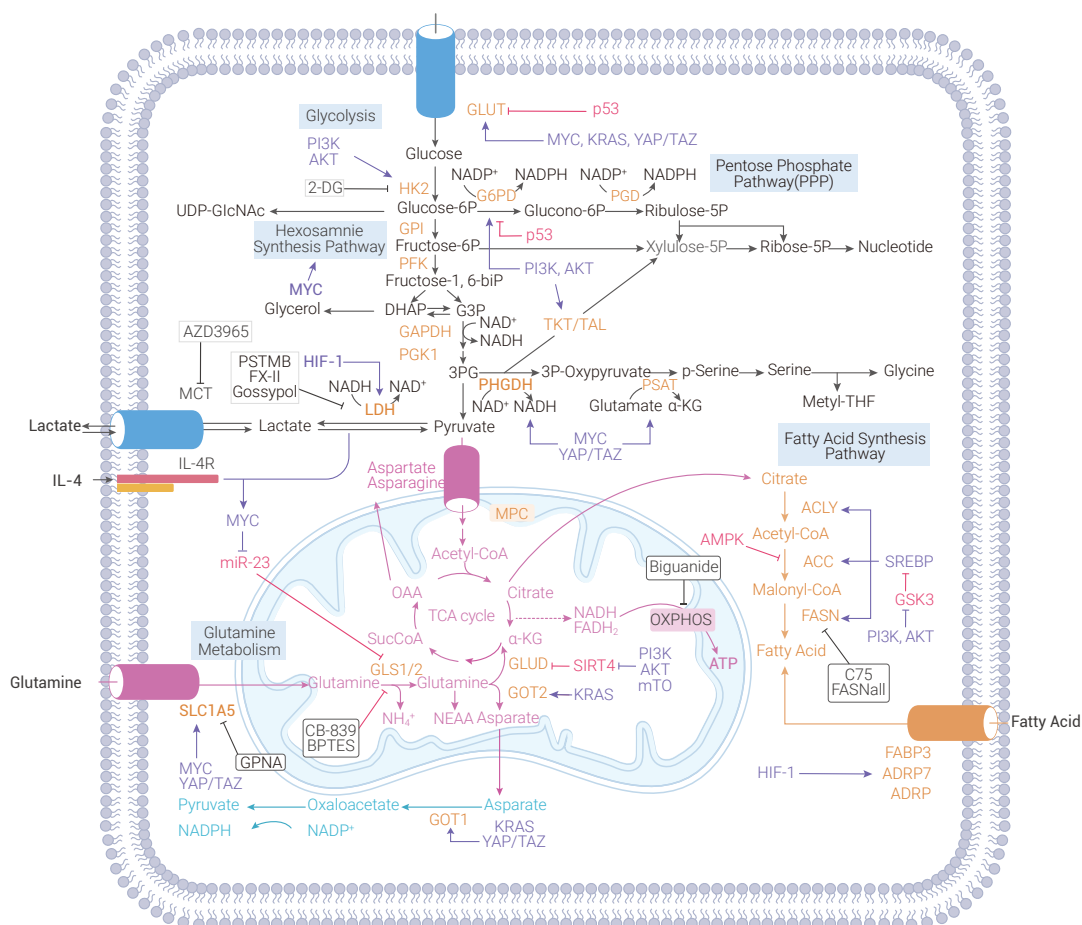


Figure 3. Main metabolic pathways deregulated in cancers^[3].



Related Products

Cat. No. HY-100116A

Mitoquinone (mesylate)

A TPP-based, mitochondrially targeted antioxidant.

Cat. No. HY-12040

Elesclomol

Potent copper ionophore and promotes cuproptosis.

Cat. No. HY-100681

GSK2837808A

A selective lactate dehydrogenase A (LDHA) inhibitor.

Cat. No. HY-100017

BAY-876

An orally active GLUT1 inhibitor, inhibits glycolytic metabolism and ovarian cancer growth.

Cat. No. HY-10450

Dapagliflozin

A sodium/glucose cotransporter 2 (SGLT2) inhibitor, induces HIF1 expression & attenuates renal IR injury.

Cat. No. HY-16214

FX-11

A selective LDHA inhibitor, reduces ATP levels and induces oxidative stress, ROS production and cell death.

Cat. No. HY-17386

Rosiglitazone

A PPAR γ agonist, TRPC5 activator and TRPM3 inhibitor.

Cat. No. HY-P73090

GSK-3 β

A key downstream protein of the PI3 kinase/Akt signaling pathway.

Cat. No. HY-P73718

PDK1

Serine/threonine protein kinase.

Cat. No. HY-Y0445A

Sodium dichloroacetate

Regulates various metabolism-related processes such as oxygen glycolysis, reactive oxygen species (ROS) production, etc.

Cat. No. HY-B0988

Deferoxamine mesylate

An iron chelator (binds to Fe (III) and many other metal cations), reduces iron accumulation and deposition.

Cat. No. HY-P7744

Catalase

Key enzymes for H₂O₂ and reactive nitrogen metabolism.

Compound Screening Libraries

Glycolysis Compound Library

Cat. No. : HY-L058

A unique collection of **800+** glycolysis-related small molecules targeting hexokinase, glucokinase, enolase, pyruvate kinase, PDHK, etc.

Glutamine Metabolism Compound Library

Cat. No. : HY-L064

A unique collection of **1,200+** glutamine metabolism-related small molecules targeting glucose transporter, glutamate dehydrogenase, glutaminase, c-Myc, etc.

Anti-Cancer Metabolism Compound Library

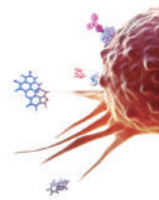
Cat. No. : HY-L083

A unique collection of **2,600+** cancer metabolism-related small molecules that can be used in cancer metabolism research and anti-cancer drug discovery.

Glucose Metabolism Compound Library

Cat. No. : HY-L092

A unique collection of **1,200+** small molecule compounds targeting GLUT, Hexokinase, Pyruvate Kinase, IDH, etc.



Cancer Immunotherapy

Cancer immunotherapy (CIT) is a type of biological therapy aiming to improve anti-tumor immune response with less off-target effects than chemotherapy. Different forms of cancer immunotherapy including oncolytic virus therapies, cancer vaccines, cytokine therapies, adoptive cell transfer (ACT), and immune checkpoint inhibitors (ICIs) have evolved and shown promise in clinical trials^[4]. A variety of proteins/receptors are now being investigated as potential targets for cancer immunotherapy, in which immune checkpoints and tumor microenvironment (TME) are promising research areas^[4].

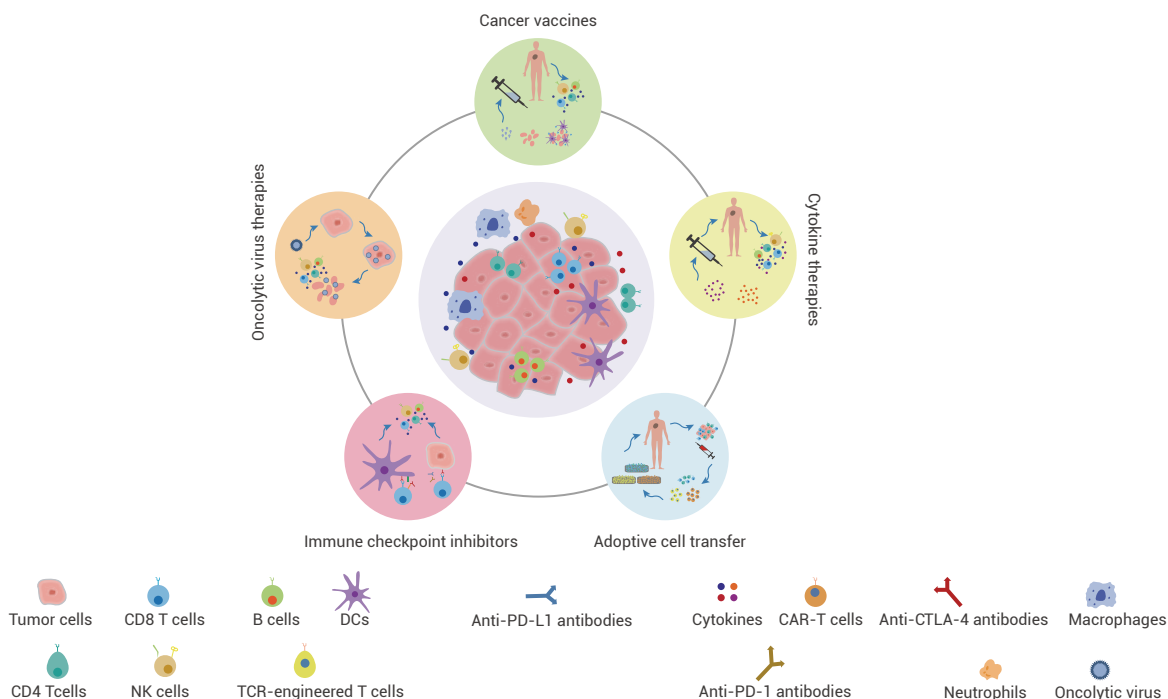


Figure 4. The major categories of immunotherapy^[4].

Immune checkpoints are regulators of the immune system which include stimulatory checkpoint molecules and inhibitory checkpoint molecules. Stimulatory checkpoint molecules such as CD28 and TCR (T Cell Receptor) are necessary for activation of T cells whereas inhibitory checkpoint molecules i.e., PD-1 and CTLA4 cause inhibition of T cells. Targeting the inhibitory checkpoints using antibodies or small molecules is a promising treatment strategy for cancer^[5].

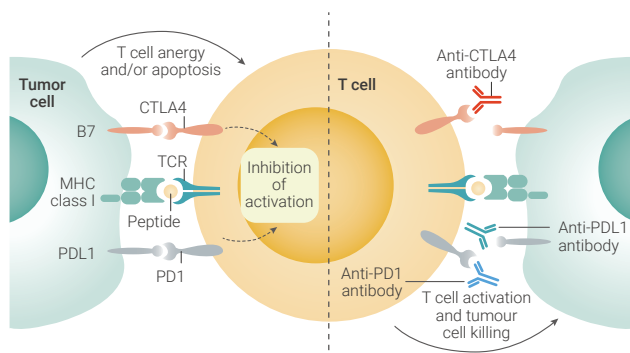


Figure 5. Targets of currently FDA-approved immune checkpoint inhibitors^[5].

The tumor microenvironment (TME) is the cellular environment in which tumor exists and includes surrounding blood vessels, the extracellular matrix (ECM), other non-malignant cells, and signaling molecules etc^[6]. Researchers have recognized that normal cells in TME are stromal cells, immune cells, and endothelial cells, etc. Except toxic T cells and B cells, regulatory T cells, natural killer (NK) cells, neutrophils, tumor-associated macrophages (TAMs), and myeloid derived suppressor cells (MDSCs) are also part of tumor microenvironment. The immune surveillance functions of immune cells are often suppressed by multiple mechanisms. The growth factors secreted by stromal cells and cancer-associated fibroblasts (CAFs) can not only promote growth and survival of malignant cells but also function as negative regulators of the immune response. All the components contribute to an immunosuppressive TME. Molecules associated with TME such as cytokine receptors and metabolic enzymes are crucial targets in cancer immunotherapy. These include ROR γ t, Chemokine receptor (CXCR), STING, IDO, and TLR, etc^[6].

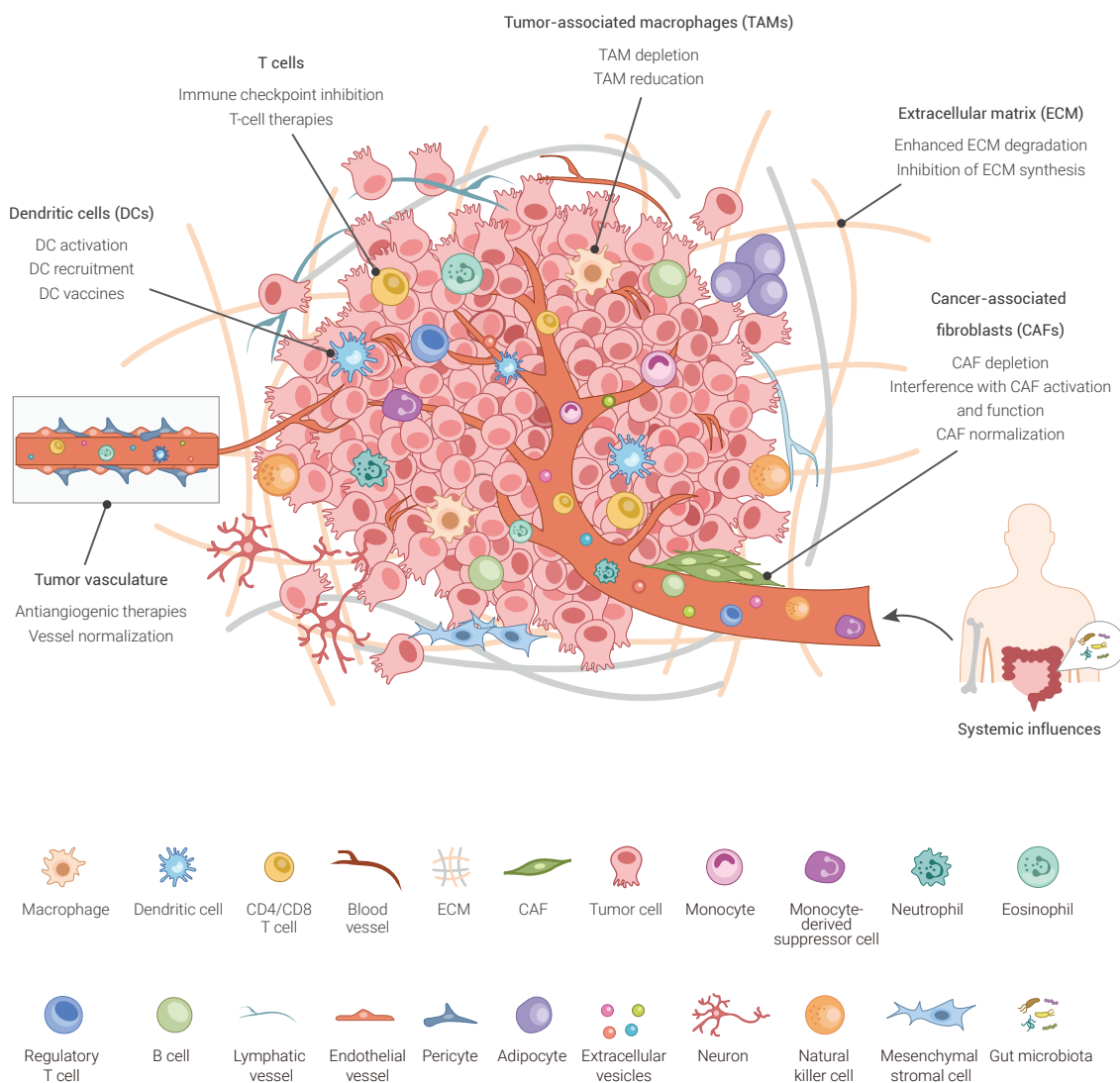


Figure 6. The TME is composed of diverse cell types and secreted factors that represent targets for anti-cancer therapies^[6].



Related Products

Cat. No. HY-111789

Subasumstat

A first in class inhibitor of the SUMOylation enzymatic cascade, with potential immune-activating and antineoplastic activities.

Cat. No. HY-13756

Tacrolimus

A macrocyclic lactone with immunosuppressive properties, inhibits T-lymphocyte signal transduction and IL-2 transcription.

Cat. No. HY-11109

Resatorvid

A selective TLR4 inhibitor, inhibits NO, TNF- α and IL-6 production.

Cat. No. HY-101979

Numidargistat (CB-1158)

An orally active inhibitor of arginase. Immuno-oncology agent.

Cat. No. HY-136927

MSA-2

A STING agonist, stimulates interferon- β secretion in tumors, induces tumor regression.

Cat. No. HY-B0579

Cyclosporin A

An immunosuppressant, inhibits calcineurin and CD11a/CD18 adhesion.

Cat. No. HY-16046

Rimiducid

A dimerizer agent that acts by cross-linking the FKBP domains.

Cat. No. HY-19991

BMS-1

Inhibits the PD-1/PD-L1 protein/protein interaction.

Cat. No. HY-12885B

ADU-S100 ammonium salt

An STING activator, leads to systemic tumor regression and antitumor immunity.

Cat. No. HY-P70684

CTLA-4

A leukocyte differentiation antigen, acts as an immune checkpoint and downregulates the immune response.

Cat. No. HY-P7326

CD276/B7-H3

B7 molecular family of immune checkpoints.

Cat. No. HY-P73361

PD-L1

Regulates the immune system by suppressing T-cell inflammatory activity.

Cat. No. HY-P9901

Ipilimumab

A fully human mAb that blocks CTLA-4.

Cat. No. HY-P9902

Pembrolizumab

An anti-human PD-L1 mAb.

Cat. No. HY-P99029

Magrolimab

An anti-human CD47 mAb.

Cat. No. HY-P9903

Nivolumab

An anti-human PD-1 mAb.

Cat. No. HY-P9905

Cetuximab

An anti-human EGFR mAb.

Compound Screening Library

Small Molecule Immuno-Oncology Compound Library

Cat. No. : HY-L031

A unique collection of **600+** bioactive tumor immunology compounds that target some important checkpoints such as PD1/PD-L1, CXCR, STING, IDO, TLR, etc.

Cancer Targeted Therapy

Cancer targeted therapy is the foundation of precision medicine, it uses drugs or other substances to target specific genes and proteins that control cancer cells' growth, multiplication and metastasis. Compared to traditional chemotherapy drugs, targeted-drugs can specifically act on cancer cells with high efficacy without affecting normal cells. Drugs used in cancer targeted therapy mainly include small molecules and large molecules (e.g., monoclonal antibodies), that can target cancer cells and other cells in the tumor microenvironment to activate the immune system. Targeted therapy is a useful strategy in treatment of cancer either alone or in combination with traditional chemotherapy. At present, targeted therapy has proved significant clinical success in treating many types of cancer including breast, colorectal, leukemia, ovarian, and lung cancers.

Anti-angiogenesis drugs, such as those targeting vascular endothelial growth factor (VEGF), epidermal growth factor receptor (EGFR), transforming growth factor (TGF)- α , TGF- β , Tumor necrosis factor (TNF)- α , and platelet-derived endothelial growth factor (PDGFR) inhibit the proliferation and metastasis of cancer cells. In recent years, the proportion of antibody drugs (therapeutic antibodies) against angiogenesis in cancer treatment has also increased and received approval from FDA^[7].

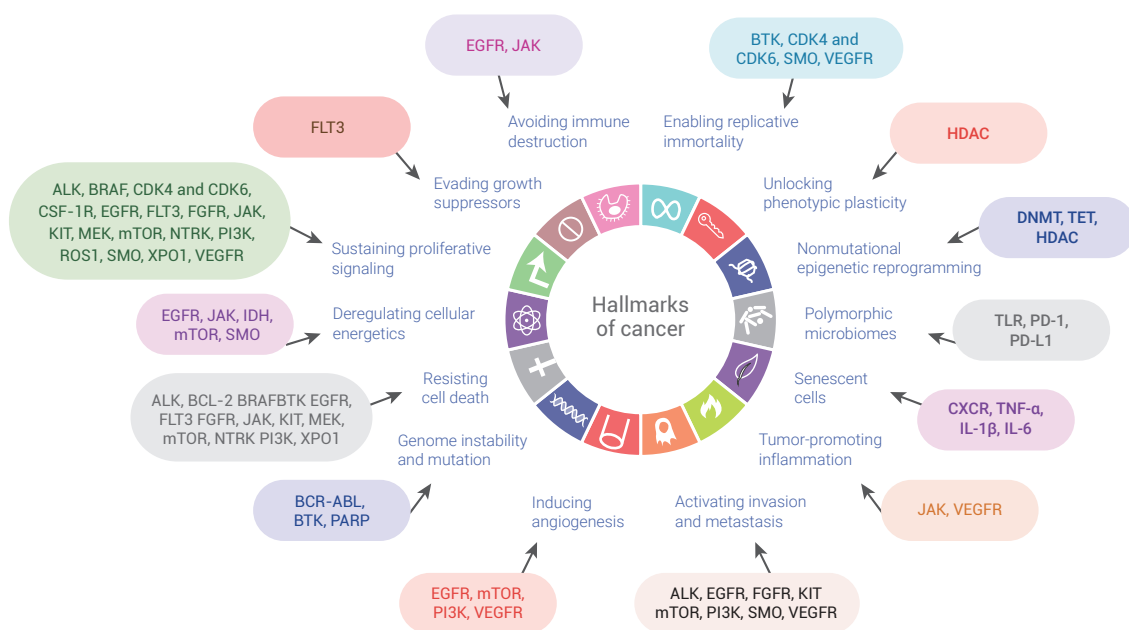


Figure 7. Targets of approved small molecule inhibitors^[7].

Related Products

Cat.No. HY-100741

S63845

A selective myeloid cell leukemia 1 (MCL1) inhibitor.

Cat.No. HY-10087

Navitoclax

An inhibitor of multiple anti-apoptotic Bcl-2 family proteins (Bcl-x_L, Bcl-2 and Bcl-w).



Related Products

Cat. No. HY-10162

Olaparib

An orally active PARP inhibitor, induces autophagy and mitophagy.

Cat. No. HY-10201

Sorafenib

An orally active, multi-targeted inhibitor targeting Raf, VEGFR2, VEGFR3, PDGFR β , FLT3 and c-Kit.

Cat. No. HY-10261

Afatinib

An orally active, dual specific inhibitor of ErbB family (EGFR and HER2).

Cat. No. HY-10374

Semaxinib

A selective inhibitor of VEGFR (Flk-1/KDR).

Cat. No. HY-10981

Lenvatinib

A multi-targeted inhibitor, inhibits VEGFR1-3, FGFR1-4, PDGFR, KIT, and RET.

Cat. No. HY-134813

MRTX1133

A noncovalent, potent, and selective KRAS G12D inhibitor.

Cat. No. HY-130149

Adagrasib (MRTX849)

An orally active, and mutation selective covalent KRAS G12C inhibitor.

Cat. No. HY-132167

Saruparib

A PARP inhibitor, inhibits growth in cells with deficiencies in DNA repair.

Cat. No. HY-114277

Sotorasib

A first-in-class, orally active, and selective KRAS G12C covalent inhibitor.

Cat. No. HY-134836

STM2457

A first-in-class, selective and orally active METTL3 inhibitor.

Cat. No. HY-15244

Alpelisib

A potent, selective, and orally active PI3K α inhibitor.

Cat. No. HY-15431

Capivasertib

An orally active and potent pan-AKT kinase inhibitor.

Cat. No. HY-15531

Venetoclax

A highly potent, selective and orally active Bcl-2 inhibitor, induces autophagy.

Cat. No. HY-15772

Osimertinib

An orally active, mutant-selective EGFR inhibitor against L858R/T790M.

Cat. No. HY-16749

Pexidartinib (PLX-3397)

An ATP-competitive colony stimulating factor 1 receptor (CSF1R) and c-Kit inhibitor.

Cat. No. HY-50767

Palbociclib

A CDK4 and CDK6 inhibitor, induces cell cycle arrest in cancer cells.

Cat. No. HY-50904

Nintedanib

A potent triple angiokinase inhibitor for VEGFR1/2/3, FGFR1/2/3 and PDGFR α/β .

Cat. No. HY-70002

Enzalutamide

An androgen receptor (AR) antagonist. An autophagy activator.

Cat. No. HY-P9910

Obinutuzumab

A novel glycoengineered Type II CD20 humanized IgG1 mAb.

Cat. No. HY-P9912

Pertuzumab

An anti-human HER2 mAb for metastatic HER2-positive breast cancer research.

Cat. No. HY-P9913

Rituximab

An anti-human CD20 mAb, for the reserach of autoimmune diseases and types of cancer.



Related Products

Cat. No. HY-50905

Dovitinib

An inhibitor of FLT3, c-Kit, CSF-1R, VEGFR, FGFR and PDGFR.

Cat. No. HY-P9920

Ramucirumab

An anti-human VEGFR-2 mAb, used in cancer study.

Cat. No. HY-P9976

Isatuximab

A monoclonal antibody targeting CD38, with antitumor activity.

Cat. No. HY-30237

(R)-Roscovitine

An inhibitor of CDK5, Cdc2, and CDK2.

Cat. No. HY-18009

(Z)-LFM-A13

An inhibitor of BTK, JAK2, and PLK.

Cat. No. HY-10517

Orantinib

An inhibitor of Flt-1, PDGFR β and FGFR1.

Cat. No. HY-10202

Tandutinib

A selective inhibitor of FLT3, and also inhibits c-Kit and PDGFR.

Cat. No. HY-10331

Regorafenib

An inhibitor of VEGFR1/2/3, PDGFR β , Kit, RET and Raf-1, shows antitumor and antiangiogenic activity.

Cat. No. HY-P9915

Daratumumab

A first-in-class human-specific anti-CD38, has anti-multiple myeloma (MM) effect.

Compound Screening Libraries

Anti-Cancer Compound Library

Cat. No. : HY-L025

A unique collection of **9,000+** bioactive anti-cancer compounds for the discovery of anti-cancer drugs.

Targeted Therapy Drug Library

Cat. No. : HY-L080

A unique collection of **100+** targeted therapy drugs targeting include EGFR, Bcr-Abl, ALK, JAK, Epigenetics, etc. Targeted Therapy Drug Library is a useful tool for the research of targeted therapy.

Chemotherapy Drug Library

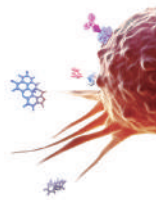
Cat. No. : HY-L112

A unique collection of **150+** chemotherapy drugs for cancer treatment research.

FDA-Approved Anticancer Drug Library

Cat. No. : HY-L122

A unique collection of **1,400+** approved drugs with anti-cancer activity for anti-cancer research and drug repurposing.



Cancer Stem Cells

Heterogeneity is one of the most relevant features of cancer cells within different tumor types and is responsible for treatment failure and recurrence. Cancer stem cells (CSCs) are a population of cells with stem cell properties that are considered to be the root cause of tumor heterogeneity because of their ability of self-renewal and differentiation into all cancer cell types.

CSCs are generally considered insensitive to traditional chemotherapy drugs. Conventional therapy kills non-CSCs but leaves CSCs untouched, leading to tumor relapse. Killing the CSCs may result in eventual tumor eradication. During anti-CSC cancer therapy, CSCs differentiation into non-CSCs is enhanced and self-renewal property of CSCs is inhibited. CSCs present in tumor microenvironment are promising targets. What's more, molecules or pathways directly related to drug resistance shown by CSCs such as multidrug resistance proteins and anti-apoptotic pathways have also been explored.

To date, the most studied signaling pathways associated with the self-renewal of CSCs are the Hedgehog signaling, Notch signaling pathway, and Wnt/ β -catenin signaling pathway. For enhancing differentiation of CSCs, bone morphogenic protein (BMP) signaling and PI3K/mTOR signaling are among the most studied signaling pathways^[8].

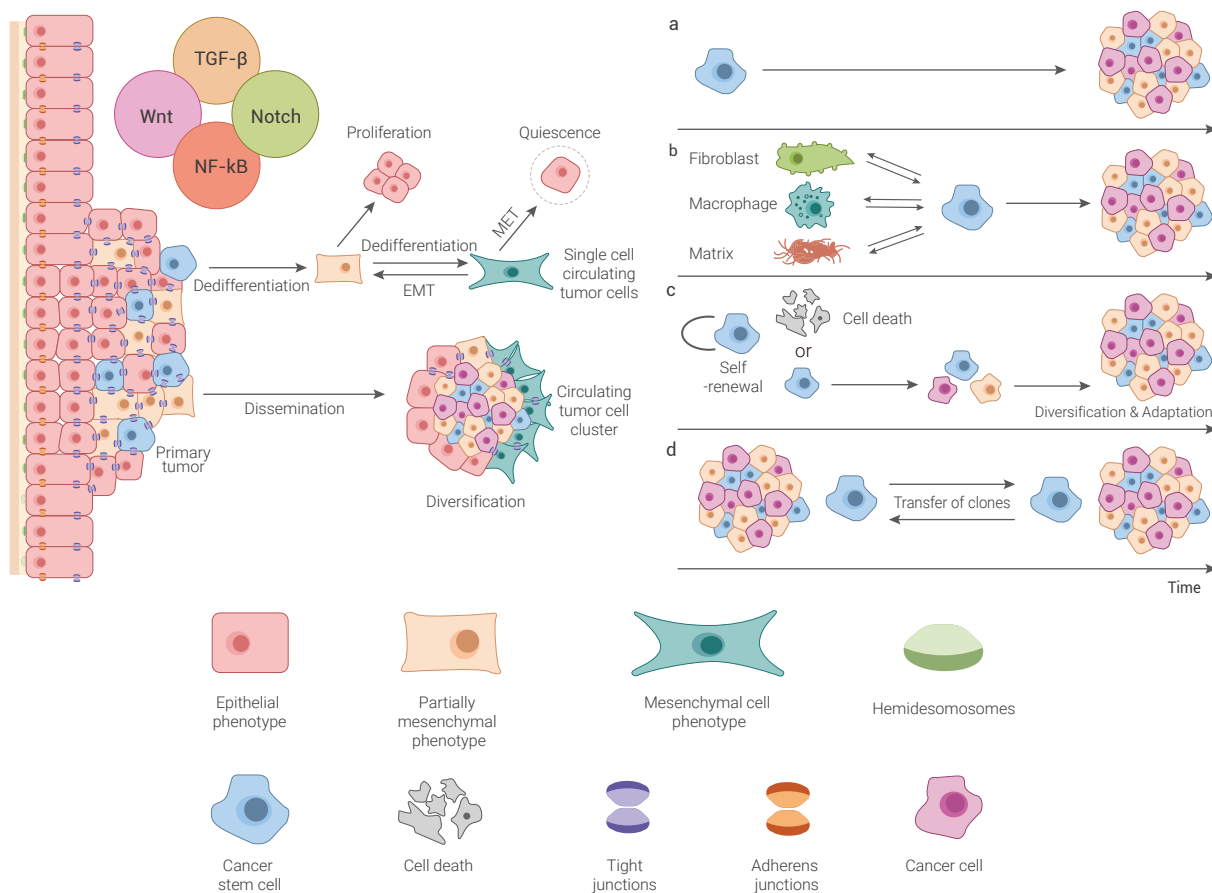


Figure 8. The role of CSCs in metastatic and heterogeneous cancer progression^[8].



Related Products

Cat. No. HY-100526

XMU-MP-1

A selective MST1/2 inhibitor.

Cat. No. HY-10409

Fedratinib

An ATP-competitive JAK2 inhibitor.

Cat. No. HY-15315

Baricitinib

A selective JAK1 and JAK2 inhibitor.

Cat. No. HY-10182

Laduviglusib

A GSK-3 α / β inhibitor and Wnt/ β -catenin signaling pathway activator, enhances mouse and human embryonic stem cells self-renewal.

Cat. No. HY-10583

Y-27632 dihydrochloride

An orally active and ATP-competitive ROCK (Rho-kinase) inhibitor with antiepileptic effects.

Cat. No. HY-12302

Kenpaullone

An inhibitor of CDK1/cyclin B, GSK-3 β and KLF4, reduces self-renewal of breast cancer stem cells and cell motility in vitro.

Cat. No. HY-12238

IWR-1

A tankyrase inhibitor, inhibits Wnt/ β -catenin signaling pathway.

Cat. No. HY-13257

Thiazovivin

A ROCK inhibitor, improves the efficiency of iPSC generation.

Cat. No. HY-13901

GANT 61

An inhibitor of Gli1 and Gli2 targeting the Hedgehog/GLI pathway.

Cat. No. HY-13919

Napabucasin

A STAT3 inhibitor which blocks stem cell activity in cancer cells.

Cat. No. HY-10440

Vismodegib

An orally active hedgehog pathway inhibitor.

Cat. No. HY-15392

Chroman 1

A ROCK and MRCK inhibitor.

Cat. No. HY-40354

Tofacitinib

An orally available JAK3/2/1 inhibitor.

Cat. No. HY-P70505

CD19 Protein

A myeloma cancer stem cell markers.

Cat. No. HY-P70809

CD24 Protein

Breast cancer stem cell markers.

Cat. No. HY-50856

Ruxolitinib

A JAK1/2 inhibitor, induces autophagy and kills tumor cells through toxic mitophagy.

Cat. No. HY-P71219

Podoplanin Protein

A Glioma/Medulloblastoma cancer stem cell marker.

Cat. No. HY-P72197

FOXM1 Protein

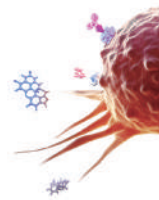
A cancer stem cell transcription factor.

Compound Screening Library

Cancer Stem Cells Compound Library

Cat. No. : HY-L135

A unique collection of **2,600+** bioactive tumor immunology compounds that target some important checkpoints such as PD1/PD-L1, CXCR, STING, IDO, TLR, etc.



PROteolysis-TArgeting Chimeras (PROTACs)

PROTACs or Proteolysis Targeting Chimeric Molecules are structurally comprised of two recognition motifs linked by a linker. One recognition motif is a small molecule ligand for the protein of interest or target protein whereas the other ligand recognizes a specific E3 ligase. A PROTAC can recruit an E3 ligase in close proximity to a target protein, then E3 ligase transfer ubiquitin on target protein. After ubiquitination, the target protein is destined for degradation via ubiquitin-proteasome pathway.

All components of PROTACs (target protein ligand, E3 ligase ligand and linker) are extensively used in designing new PROTACs. Recently, epigenetic targets (e.g., bromodomain and extraterminal (BET) proteins), nuclear receptors (such as RAR, ER, and AR) and kinases (CDK, RIPK2) have successfully been targeted by PROTACs. The E3 ligases commonly used in PROTACs are VHL, Cereblon, IAP, and MDM2, etc.

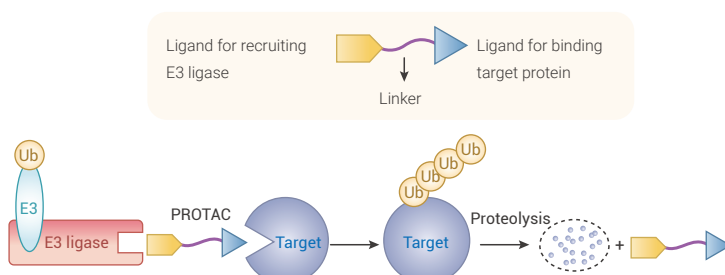


Figure 9. Structure of PROTACs^[9].

800+

PROTAC

Heterobifunctional nanomolecules that structurally comprised of two functional motifs linked by a linker.

3,000+

PROTAC Linker

Connects two functional motifs of a PROTAC, a target protein binder and an E3 ligase recruiter.

350+

Ligand for E3 Ligase

Binds to a pocket or surface of the E3 ligase, to provide a suitable starting point for the design of the bifunctional PROTACs.

35+

Target Protein Ligand-Linker Conjugate

Incorporates a ligand for the target protein and a linker. When binding to an E3 ligand, the conjugate will be a PROTAC to induce ubiquitylation and subsequent degradation of target proteins.

700+

E3 Ligase Ligand-Linker Conjugate

One part of PROTACs, incorporates a ligand for the E3 ubiquitin ligase and a linker.

10+

PROTAC-linker Conjugate for PAC

Comprises an antibody conjugated via a linker to a PROTAC.

250+

Ligand for Target Protein for PROTAC

Leads to attachment of a PROTAC to target proteins for ubiquitylation and subsequent degradation.

30+

SNIPER

Induces IAP-mediated ubiquitylation and proteasomal degradation of target proteins.



Related Products

Cat.No. HY-100972

ARV-771

A BET PROTAC based on E3 ligase von Hippel-Lindau.

Cat.No. HY-114312

MD-224

A MDM2 PROTAC, consists of ligands for Cereblon and MDM2.

Cat.No. HY-138642

Vepdegestrant

A estrogen receptor PROTAC protein degrader for breast cancer research.

Cat.No. HY-100947

VH-298

A PROTAC degrader of the VHL:HIF- α interaction.

Cat.No. HY-13001

Quizartinib

A Type II FLT3 tyrosine kinase inhibitor, acts as a ligand for target protein for PROTAC.

Cat.No. HY-101488

CC-885

A Cereblon (CRBN) modulator with potent anti-tumour activity, acts as a molecular glue.

Cat.No. HY-148333

MS177

An effective and fast-acting PROTAC-based EZH2 degrader.

Cat.No. HY-128359

ACBI1

A SMARCA2, SMARCA4 and PBRM1 PROTAC, shows anti-proliferative activity.

Cat.No. HY-107425

MZ 1

A PROTAC connected by ligands for von Hippel-Lindau and BRD4.

Cat.No. HY-134582

dCBP-1

A p300/CBP PROTAC based on Cereblon ligand.

Cat.No. HY-A0003

Lenalidomide

A Ligand of CRBN, acts as a molecular glue.

Cat.No. HY-13030

(+)-JQ-1

A BET bromodomain inhibitor, acts as a ligand for target protein for PROTAC.

Cat.No. HY-129395

Mezigidomide

A Cereblon E3 ubiquitin ligase modulating drug (CELMoD), acts as a molecular glue.

Cat.No. HY-145765

JQAD1

A CRBN-dependent PROTAC that selectively targets EP300 for degradation.

Cat.No. HY-112588

dBET6

A PROTAC connected by ligands for Cereblon and BET.

Cat.No. HY-145388

AU-15330

A PROTAC degrader of the SWI/SNF ATPase subunits, SMARCA2 and SMARCA4.

Cat.No. HY-16954

ARV-825

A PROTAC connected by ligands for Cereblon and BRD4.

Cat.No. HY-10997

Ibrutinib

A Btk inhibitor, acts as a ligand for target protein for PROTAC.

Cat.No. HY-101291

Iberdomide

A Cereblon (CRBN) E3 ligase modulator, has antitumor and immunostimulatory activities.

Cat.No. HY-B0579

Cyclosporin A

An immunosuppressant, binds to the cyclophilin and inhibits phosphatase activity of calcineurin, acts as a molecular glue.

Cat.No. HY-117690

dBRD9

A selective PROTAC-based BRD degrader.



Antibody-Drug Conjugates (ADCs)

Antibody-Drug Conjugates (ADCs) are potent biopharmaceutical cancer-targeted drugs comprised of a humanized or human monoclonal antibody conjugated with cytotoxic drugs (payloads) via a chemical linker.

ADCs exhibit high selectivity and toxicity to the tumor, and become one of the fastest-growing classes of therapeutics. To date, several ADCs (Mylotarg, Adcetris, Kadcyla, Besponsa, Lumoxiti, Polivy) have been approved for tumor treatment and hundreds of ADCs are currently in clinical trials.

MCE provides **2,000+** ADC related products, including ADC Linkers (1,100+), Drug-Linker Conjugates for ADCs (330+), Payloads (300+), ADC Antibodies (40+), Antibody-Drug Conjugates (ADCs) (80+).

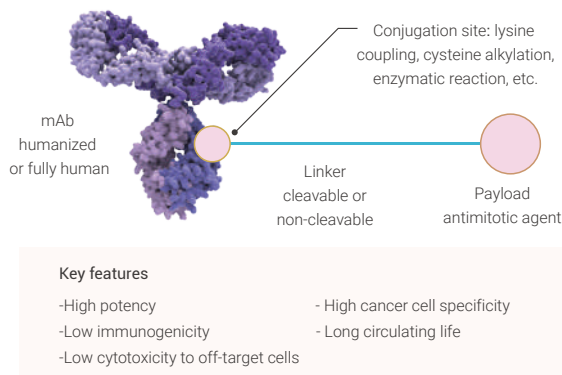


Figure 10. Structure of ADCs^[10].

Related Products

Cat. No. HY-132254

Sacituzumab govitecan

An ADC targeting Trop-2 for delivery of SN-38 (topoisomerase I inhibitor).

Cat. No. HY-138298A

Trastuzumab deruxtecan

An ADC targeting HER2 for delivery of Dxd (topoisomerase I inhibitor).

Cat. No. HY-19609

Calicheamicin

An antitumor antibiotic, causes double-strand DNA breaks.

Cat. No. HY-14519

Methotrexate

An antimetabolite and antifolate agent, inhibits the enzyme dihydrofolate reductase and DNA synthesis.

Cat. No. HY-12454

DM4

An antitubulin agent that inhibits cell division.

Cat. No. HY-15584

Taltobulin

A potent antimicrotubule agent, induces mitotic arrest and apoptosis.

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