

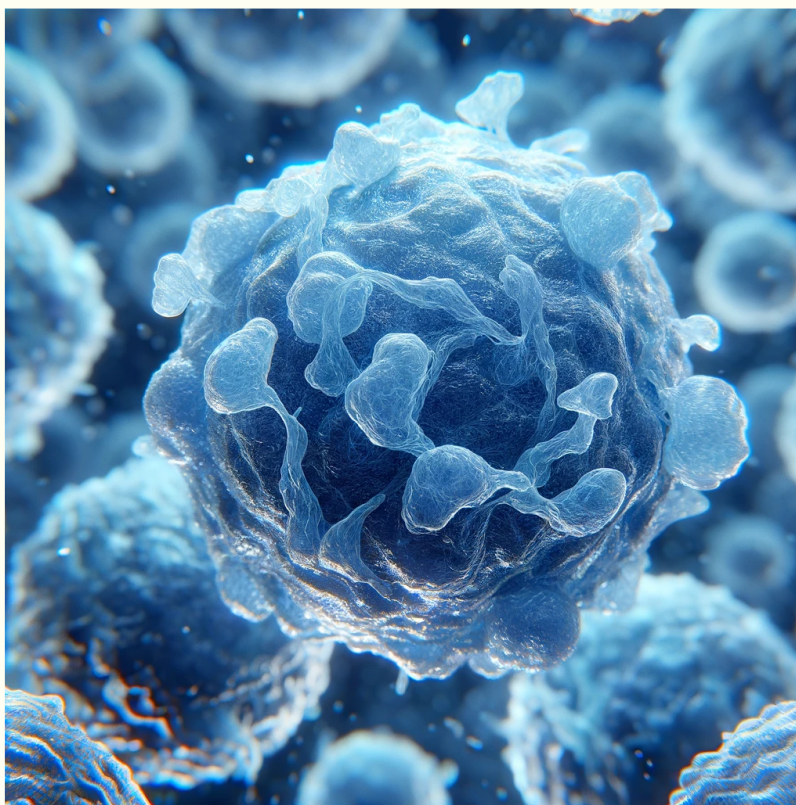


Cancer, with its various types and complexities, ability to evade the body's regulatory mechanisms, leading to tumor growth, metastasis, and disruption of normal bodily functions. Our library of small molecules aims to support research in this field. This collection encompasses a wide range of protein targets and biological pathways implicated in various types of cancers, providing a critical resource for the discovery and development of novel cancer therapeutics.

Our library is compiled from the latest data within the KEGG database, offers a comprehensive collection of targeted proteins and pathways crucial for cancer research. It encompasses various oncogenes, tumor suppressor genes, growth factors, and enzymes involved in cancer cell signaling, proliferation, and survival. Each molecule is intricately linked to specific targets within significant cancer-related pathways, providing valuable insights into their mechanisms and potential therapeutic uses.

The collection features compounds that have been experimentally tested and have known biological activity against cancer targets. This includes both approved drugs and investigational compounds, providing a rich source of data for research and drug development efforts. This library supports diverse cancer research applications. It aids in identifying drug candidates and repurposing compounds for new cancer targets. Detailed annotations help understand small molecule interactions with cancer cells, while library compounds assist in identifying biomarkers for cancer diagnosis, prognosis, and treatment response.

Related terms: cancer, epoxide hydrolase, A2A, A3 receptor, fatty acid amide hydrolase, acetylcholinesterase, butyrylcholinesterase, carboxylesterase, Janus kinase



Highlights

Library Composition

Name	Occurrence in the library, times
Cytochrome P450 family	1184
Non-specific serine/threonine protein kinase	830
Non-specific protein-tyrosine kinase	736
Receptor protein-tyrosine kinase	677
Growth factors	484
Nuclear receptors	382
Transcription factors	327
Ion channels	283
CDK family	213
G protein-coupled receptors	199
Histone deacetylases	181
Mitogen-activated protein kinase	143
Prostaglandin-endoperoxide synthase	143

Aldo-keto reductase family 1	120
ABC-type xenobiotic transporter	99
Tau-protein kinase	98
Histone modification proteins	93
Lipid-phosphate phosphatase	88
IkappaB kinase	76
cAMP-dependent protein kinase	73
Serine peptidases	65
Endocytosis	64
Ubiquitin system	64
Protein-tyrosine-phosphatase	60
Protein kinase C	59
Glycosaminoglycan binding proteins	58
Nitric-oxide synthase	57
11beta-hydroxysteroid dehydrogenase	55
Sulfotransferases	54
Rho GTPases	49
Myeloperoxidase	48
Carbonyl reductase (NADPH)	44
Histone acetyltransferase	42

CD molecules	41
Ca ²⁺ /calmodulin-dependent protein kinase	40
GPCR adaptor proteins	40
Protein serine/threonine phosphatases	40
Bcl-2 family	38
Gelatinase B	38
Interstitial collagenase	36
GTPase	35
GTP-binding proteins	34
Glutathione transferase	33
Adenylate cyclase	32
Cyclins	31
Cytochromes	31
Leukocyte elastase	31
Glucuronosyltransferase	29
Receptor protein serine/threonine kinase	29
Transporters	29
Beta-catenin	28
Succinate dehydrogenase	27
Mitogen-activated protein kinase kinase	24

Type II transmembrane serine protease	24
Phosphatidylinositol-4,5-bisphosphate 3-kinase	23
Gelatinase A	21
Pyruvate kinase	21
Chaperones and folding catalysts	20
Cathepsin L	19
RNA polymerase II system	18
Complex I	17
ATPases	17
Thioredoxin-disulfide reductase	17
Adapter molecule	12
DNA repair and recombination proteins	12
Interleukins	12
u-plasminogen activator	12
Centrosome formation proteins	11
Cytokines	11
RNA-directed DNA polymerase	11
ATP synthase-coupling factor 6, mitochondrial	10
Heme oxygenase	10
Hexokinase	10

Peroxidase	10
Phospholipase A2	10
Stromelysin 1	10
mRNA degradation factors	9
1-phosphatidylinositol-4-phosphate 5-kinase	8
Arylamine N-acetyltransferases	8
Endothelin	8
Hypoxia-inducible factor-proline dioxygenase	8
Rho GTPase associated proteins	8
Glucose-6-phosphate dehydrogenase	7
Notch proteins	7
Transmembrane protease serine 2	7
Catalase	6
Cysteine peptidases	6
Histones	6
NOD-like receptors	6
Protein-serine/threonine phosphatase	6
Actin-binding protein	5
Cyclin-dependent kinase inhibitor	4
Hepsin	4

Isocitrate dehydrogenase	4
Nuclear pore complex	4
RNA helicase	4
mTORC1 complex	4
Actin-binding proteins	3
NAD(P)H dehydrogenase	3
NADPH oxidases	3
Phospholipase D	3
Prostaglandin-E synthase	3
Peptidylprolyl isomerase	2
6-phosphofructokinase	2
Cell adhesion molecules	2
Cytoskeleton proteins	2
Isomerases	2
Mitogen-activated protein kinase kinase kinase	2
Myeloid leukemia factor	2
RISC (RNA-induced silencing complex)	2
Ribosomal proteins	2
Superoxide dismutases	2
Phosphoinositide phospholipase C	2

4-methylthio 2-oxobutanoate reductase

• 1

Adapter proteins

• 1

Apoptotic regulators

• 1

Choline kinase

• 1

Diacylglycerol kinase

• 1

Glutaminase

• 1

Integrins

• 1

Proteasome

• 1

S-malonyltransferase

• 1

Serine/threonine kinases

• 1

Transport factors

• 1

Y-family DNA polymerases

• 1