Natural Ligands

for Focused-Target

aladdin®

Preamble

In the multifaceted world of modern biochemistry, no domain has taken on as much significance as the complex interplay between ligands and their respective biological targets. This realm of interactions, at once minute in scale and massive in impact, is the cornerstone of countless biochemical processes and, indeed, life itself.

This handbook is designed to serve as a comprehensive guide to the study of ligands used for targets. Our aim is to provide readers with a profound understanding of the myriad aspects of ligand-target interactions, including the molecular intricacies, the physiological implications, and the therapeutic potential of these biochemical duos.

Ligands are entities, typically small molecules, proteins, or ions, which bind to specific targets, usually proteins such as receptors, ion channels, or enzymes, within organisms. The result of this binding action can be the modulation of the target's function, leading to an array of physiological effects, from signal transmission and immunological response to hormonal regulation and beyond. Not only are ligand-target interactions vital for normal biological function, but they also hold immense potential for therapeutic interventions.

In this handbook, we delve into the underlying principles of ligand-target interaction, exploring topics from fundamental biochemistry to advanced pharmacodynamics. We seek to illuminate how these interactions are integral to drug discovery and development processes, providing the scaffold for the creation of therapeutic strategies to combat a host of medical conditions.

We hope this handbook serves not only as a tool for learning but also as a catalyst for innovative thought, encouraging readers to explore and expand the boundaries of what we currently understand about ligands and their targets. The complex dance of molecular interaction waits for no one; it is our privilege to invite you to join in this exploration, to comprehend, and perhaps even to influence the rhythm of life.

As we embark on this journey through the world of ligands and targets, let us remember that the secrets of life are often found in the smallest of interactions. With the right understanding and application, these minute phenomena have the potential to instigate seismic shifts in our approach to health and disease.

Catalogue

Activator

Target	Cat.No	CAS	Product Name	Specification	Type	Action
CFTR	A106675	520-36-5	Apigenin	analytical standard, ≥98%	Activator	Potentiation
CFTR	C107691	404-86-4	Capsaicin	analytical standard, ≥95% (HPLC)	Activator	Potentiation
Kv11.1	G107681	14197-60-5	Ginsenoside Rg3	analytical standard, >98%	Activator	Activation
Kv11.1	R275595	82-08-6	Rottlerin	≥95%	Activator	Activation
Nav1.1	B336933	23509-16-2	Batrachotoxin	≥90%	Activator	Activation
Nav1.1	V275475	71-62-5	Veratridine	≥97%	Activator	Activation
Nav1.2	B336933	23509-16-2	Batrachotoxin	≥90%	Activator	Agonist
Nav1.2, Nav1.4, Nav1.5	V275475	71-62-5	Veratridine	≥97%	Activator	Partial agonist
Nav1.3, Nav1.6, Nav1.7, Nav1.8	B336933	23509-16-2	Batrachotoxin	≥90%	Activator	None
Nav1.3, Nav1.6, Nav1.7, Nav1.8	V275475	71-62-5	Veratridine	≥97%	Activator	None
Nav1.4, Nav1.5	B336933	23509-16-2	Batrachotoxin	≥90%	Activator	Full agonist
RyR1, RyR2, RyR3	R275320	15662-33-6	Ryanodine	≥98%	Activator	None
serpin family C member 1	H123383	9041-08-1	Heparin sodium salt	≥180 USP units/mg	Activator	Activation
serpin family C member 1	C139833	52665-69-7 (free acid)	A23187, Mixed Ca/ Mg salt	≥98% (HPLC)	Activator	Activation
TRPA1	O477630	289030-99-5	Oleocanthal	from Olea europaea	Activator	Activation
TRPA1	T118449	89-83-8	Thymol	Analysis standard, ≥99.9% (GC)	Activator	Activation
TRPA1, TRPV1	A303934	539-86-6	Allicin	Analytical reference	Activator	Agonist
TRPA1	E110640	97-53-0	Eugenol	99%	Activator	Agonist
TRPA1	G111261	23513-14-6	[6]-Gingerol	analytical standard, ≥98%	Activator	Agonist
TRPC5	D106438	486-66-8	Daidzein	≥98%	Activator	None
TRPC6	H275963	11079-53-1	Hyperforin dicyclohexy -lammonium salt	≥97%	Activator	None
TRPM8	E111235	470-82-6	Eucalyptol	>99.5% (GC), for Determination of o-Cresol	Activator	Partial agonist
TRPM8	G107517	106-24-1	Geraniol	Standard for GC, ≥99.0% (GC)	Activator	Partial agonist
TRPV1	C107691	404-86-4	Capsaicin	analytical standard, ≥95% (HPLC),	Activator	Agonist
TRPV1	P287371	175796-50-6	PPAHV	≥98% (HPLC)	Activator	Agonist
TRPV1	C110690	76-22-2	(±)-Camphor	96%	Activator	None
TRPV3	B109562	464-43-7	(+)-Borneol	analytical standard, ≥98% (GC)	Activator	Activation

Activator

Target	Cat.No	CAS	Product Name	Specification	Type	Action
TRPV3	C102530	99-48-9	(-)-Carveol, mixture of isomers	97%	Activator	Activation
TRPV3	C104134	5392-40-5	Citral	97%, mixture of cis and trans	Activator	Activation
TRPV3	C110690	76-22-2	(±)-Camphor	96%	Activator	Full agonist
TRPV3	C107162	499-75-2	Carvacrol	99%	Activator	Full agonist
TRPV3	E110640	97-53-0	Eugenol	99%	Activator	Full agonist
TRPV3	T118449	89-83-8	Thymol	Analysis standard, ≥99.9% (GC)	Activator	Full agonist
TRPV4	C110685	458-37-7	Curcumin	analytical standard	Activator	Activation
TRPV4	P111270	3681-99-0	Puerarin	98%	Activator	Activation

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
5-HT1A, 5-HT1B, 5-HT2A, 5-HT2B, 5-HT2C receptor	C274895	81409-90-7	Cabergoline	≥99%	Agonist	Full agonist
5-HT1A, 5-HT7 receptor	L353949	18016-80-3	Lisuride	-	Agonist	Full agonist
5-HT1A, 5-HT1D, 5-HT2C receptor	P160441	66104-22-1	Pergolide	>97.0% (HPLC)	Agonist	Partial agonist
5-HT1B, 5-HT2A, 5-HT2B, 5-HT6, 5-HT7 receptor	P160441	66104-22-1	Pergolide	>97.0% (HPLC)	Agonist	Full agonist
5-HT1B, 5-HT1D, 5-HT2A, 5-HT2C, 5-HT6 receptor	L353949	18016-80-3	Lisuride	-	Agonist	Partial agonist
5-HT1D receptor	C274895	81409-90-7	Cabergoline	≥99%	Agonist	Partial agonist
Alpha-2A, 2B, 2C adrenoceptor	P160441	66104-22-1	Pergolide	>97.0% (HPLC)	Agonist	Partial agonist
D1, D5 receptor	C274895	81409-90-7	Cabergoline	≥99%	Agonist	Full agonist
D1, D2, D5 receptor	P160441	66104-22-1	Pergolide	>97.0% (HPLC)	Agonist	Full agonist
D1, D2, D3, D4, D5 receptor	L353949	18016-80-3	Lisuride	-	Agonist	Partial agonist
D2, D3, D4 receptor	C274895	81409-90-7	Cabergoline	≥99%	Agonist	Partial agonist
D3, D4 receptor	P160441	66104-22-1	Pergolide	>97.0% (HPLC)	Agonist	Partial agonist
Estrogen-related receptor-α, β, γ	B106473	491-80-5	Biochanin A	analytical standard	Agonist	Agonist
Estrogen-related receptor-α, β, γ	D106438	486-66-8	Daidzein	≥98%	Agonist	Agonist
FFA2 receptor	T107164	80-59-1	Tiglic acid	98%	Agonist	Full agonist
FFA4 receptor	G288904	80557-12-6	Grifolic acid	≥98% (HPLC)	Agonist	Partial agonist

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Glucocorticoid receptor	B129941	51333-22-3	Budesonide	≥99%	Agonist	Full agonist
Glucocorticoid receptor	D129472	23674-86-4	Difluprednate	≥98%	Agonist	Full agonist
GluK1, GluK2, GluK4, GluK5	D132471	14277-97-5	domoic acid	90%	Agonist	Partial agonist
GluK1, GluK2, GluK3, GluK4, GluK5	K276587	487-79-6	Kainic acid (mM/ml)	≥99%	Agonist	Full agonist
GluK2	K276587	487-79-6	Kainic acid (mM/ml)	≥99%	Agonist	Partial agonist
GluK3	D132471	14277-97-5	domoic acid	90%	Agonist	Partial agonist
GPBA receptor	B101534	472-15-1	Betulinic acid	analytical standard, >98%	Agonist	Partial agonist
GPBA receptor	O110088	508-02-1	Oleanolic acid	97%	Agonist	Full agonist
GPR84	E135009	550-24-3	Embelin	≥98% (HPLC)	Agonist	Full agonist
HCA_3 receptor	P102441	20312-36-1	L- (-)-3-Phenyllactic acid	98%	Agonist	Partial agonist
KOR	S275638	83729-01-5	Salvinorin A (Divinorin A)	≥98%	Agonist	Partial agonist
M_1, M_2, M_3, M_4 receptor	A348021	63-75-2	Arecoline	98%	Agonist	Partial agonist
M_1 receptor	A348021	63-75-2	Arecoline	98%	Agonist	Agonist
M_5 receptor	A348021	63-75-2	Arecoline	98%	Agonist	Agonist
$mGlu_1$, $mGlu_5$ receptor	A137136	2552-55-8	Ibotenic acid	≥95%	Agonist	Full agonist
Mineralocorticoid receptor	B129941	51333-22-3	Budesonide	≥99%	Agonist	Partial agonist
motilin receptor	E431516	114-07-8	Erythromycin standard solution	1 mg/mL in H_2O	Agonist	Full agonist
NLRP1	N303924	53678-77-6	N-Acetylmuramyl-L-alanyl -D-isoglutamine hydrate	98%	Agonist	Full agonist
nucleotide binding oligomerization domain containing 2	N303924	53678-77-6	N-Acetylmuramyl-L-alanyl -D-isoglutamine hydrate	98%	Agonist	Partial agonist
Pregnane X receptor	H275963	11079-53-1	Hyperforin dicyclohexy -lammonium salt	≥97%	Agonist	Partial agonist
Pregnane X receptor	P106868	33069-62-4	Paclitaxel	analytical standard, ≥99%	Agonist	Partial agonist
Pregnane X receptor	R105455	13292-46-1	Rifampicin	97%	Agonist	Agonist
Pregnane X receptor	S115189	61281-38-7	Schisandrin A	analytical standard, >98%	Agonist	Agonist
Pregnane X receptor	L107709	75330-75-5	Lovastatin	98%	Agonist	Full agonist
Progesterone receptor	B129941	51333-22-3	Budesonide	≥99%	Agonist	Partial agonist
Progesterone receptor	U166815	51333-22-3	Ulipristal acetate	98% (HPLC)	Agonist	Agonist
TAS2R10	M101152	484-20-8	5-Methoxypsoralen	analytical standard, >98.0% (GC)	Agonist	Full agonist

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
TAS2R10	C348066	6199-67-3	Cucurbitacin B	98%	Agonist	Agonist
TAS2R10	T337474	546-80-5	(-)-α-Thujone	≥96%	Agonist	Agonist
TAS2R14	E464046	4049-38-1	Eriodictyol	≥95.0% (HPLC)	Agonist	Agonist
TAS2R14	L355093	468-28-0	Lupulone	≥97%	Agonist	Agonist
TAS2R14, TAS2R39	L107328	491-70-3	Luteolin	analytical standard, ≥98%	Agonist	Agonist
TAS2R14	N130078	478-01-3	Nobiletin	>95.0% (HPLC)	Agonist	Agonist
TAS2R14, TAS2R8	P115736	20554-84-1	Parthenolide	analytical standard, ≥98%	Agonist	Agonist
TAS2R14, TAS2R39	P127748	60-82-2	Phloretin	≥98%	Agonist	Agonist
TAS2R14, TAS2R46	P346776	17617-45-7	Picrotoxinin	-	Agonist	Agonist
TAS2R14, TAS2R39	P160369	94105-90-5	(±)-Equol	>98.0% (GC)	Agonist	Agonist
TAS2R14, TAS2R40	Q105030	130-95-0	Quinine	for fluorescence, ≥98.0%	Agonist	Agonist
TAS2R14	R107314	501-36-0	Resveratrol	analytical standard	Agonist	Agonist
TAS2R14	S161431	481-06-1	Santonin	>98.0% (HPLC)	Agonist	Agonist
TAS2R14	S109808	22888-70-6	Silibinin	analytical standard, ≥98%	Agonist	Agonist
TAS2R14, TAS2R20, TAS2R39	V431596	121-33-5	Vanillin	Pharmaceutical GMP grade	Agonist	Agonist
TAS2R16	P134941	35599-02-1	p-Nitrophenyl β-D -Mannopyranoside	≥97%	Agonist	Agonist
TAS2R16	P103807	1464-44-4	Phenyl β-D-glucopyranoside	98%	Agonist	Agonist
TAS2R16	S104922	138-52-3	D (-)-Salicin	99%	Agonist	Agonist
TAS2R20	M115185	298-81-7	8-Methoxypsoralen	analytical standard, ≥98%	Agonist	Agonist
TAS2R20	T100847	32986-56-4	Tobramycin	Potency ≥900uG/mg, 98%	Agonist	Agonist
TAS2R30, TAS2R46	A412888	1362-42-1	Absinthin	98%	Agonist	Agonist
TAS2R30, TAS2R43, TAS2R46, TAS2R50	A302770	21018-84-8	Amarogentin	97%	Agonist	Agonist
TAS2R38	D336104	13190-34-6	DL-Goitrin	≥98%	Agonist	Agonist
TAS2R38	P110661	103-85-5	N-Phenylthiourea	98%	Agonist	Agonist
TAS2R39	E432751	490-46-0	(-)-Epicatechin	≥90% (HPLC)	Agonist	Agonist
TAS2R39	E101658	1257-08-5	(-)-Epicatechin gallate	analytical standard, ≥98%	Agonist	Agonist
TAS2R39	E100888	970-74-1	(-)-Epigallocatechin	≥98% (HPLC)	Agonist	Agonist

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
TAS2R39	R136822	67604-48-2	(±)-Naringenin	97%	Agonist	Agonist
TAS2R39	S138949	529-53-3	Scutellarein	⩾98% (HPLC)	Agonist	Agonist
TAS2R4	S107707	57817-89-7	Stevioside hydrate	⩾98% (HPLC)	Agonist	Agonist
TAS2R43, TAS2R46	C139833	52665-69-7 (free acid)	A23187, Mixed Ca/ Mg salt	⩾98% (HPLC)	Agonist	Agonist
TAS2R5	E107404	989-51-5	(-)-Epigallocatechin gallate	98%	Agonist	Agonist
TAS2R8	O101532	32619-42-4	Oleuropein	analytical standard, ⩾98% (HPLC)	Agonist	Agonist
TLR2	A283251	12228-87-4	Ammonium tetraborate tetrahydrate	99%	Agonist	Agonist
TLR4, TLR5	N357056	13477-95-7	Nickel (II) cyanide tetrahydrate	-	Agonist	Agonist
TLR4	P106868	33069-62-4	Paclitaxel	analytical standard, ⩾99%	Agonist	Agonist
TRPV3	V431596	121-33-5	Vanillin	Pharmaceutical GMP grade	Agonist	Agonist

Allosteric modulator

Target	Cat.No	CAS	Product Name	Specification	Type	Action
M_1, M_2, M_3 receptor	V107385	1617-90-9	Vincamine	98%	Allosteric modulator	Neutral
M_1, M_2 receptor	S102392	62996-74-1	Staurosporine	98%	Allosteric modulator	Positive
M_4 receptor	S102392	62996-74-1	Staurosporine	98%	Allosteric modulator	Neutral
M_4 receptor	V107385	1617-90-9	Vincamine	98%	Allosteric modulator	Positive
P2X7	C303486	34316-15-9	Chelerythrine chloride	Analytical reference	Allosteric modulator	Negative

Antagonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
5-HT_{2B} receptor	L353949	18016-80-3	Lisuride	-	Antagonist	Antagonist
Adenosine A1, A2A, A3 receptor	F156758	525-82-6	Flavone	98%	Antagonist	Antagonist
Adenosine A1, A2A, A3 receptor	G100561	548-83-4	Galangin	98%	Antagonist	Antagonist
Adenosine A1, A2A receptor	A135920	480-16-0	Aluminum Ionophore I	>90.0% (HPLC)	Antagonist	Antagonist
Adenosine A1, A2A, A3 receptor	S412639	2957-21-3	Sakuranetin	-	Antagonist	Antagonist
Adenosine A1, A2A, A2B, A3 receptor	T107189	58-55-9	Theophylline	anhydrous, ⩾99%, powder	Antagonist	Antagonist

Antagonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Alpha-1A, 2A, 2B, 2C adrenoceptor	C274895	81409-90-7	**Cabergoline**	⩾99%	**Antagonist**	**Antagonist**
Alpha-1A, 2A, 2B, 2C adrenoceptor	L353949	18016-80-3	**Lisuride**	-	**Antagonist**	**Antagonist**
Alpha-2A adrenoceptor	A135946	51-55-8	**Atropine**	99%	**Antagonist**	**Antagonist**
Farnesoid X receptor	G276180	95975-55-6	**Guggulsterone (pregna-4,17-diene-3,16-dione)**	⩾98%	**Antagonist**	**Antagonist**
$GABA_A$ receptor α1, α2, α3, α4, α5, α6 subunit	B110235	485-49-4	**d-Bicuculline**	analytical standard	**Antagonist**	**Antagonist**
Glycine Receptor (All subtypes)	A135946	51-55-8	**Atropine**	99%	**Antagonist**	**Antagonist**
glycine receptor α1, α2, β subunit	B432637	33570-04-6	**(-)-Bilobalide from Ginkgo biloba leaves**	⩾93% (HPLC)	**Antagonist**	**Antagonist**
Guanylyl cyclase-A, B	C139833	52665-69-7 (free acid)	**A23187, Mixed Ca/ Mg salt**	⩾98% (HPLC)	**Antagonist**	**Antagonist**
IP_3R1	X275190	88903-69-9	**Xestospongin C**	⩾90%	**Antagonist**	**Antagonist**
M_1, M_2, M_3, M_4, M_5 receptor	A135946	51-55-8	**Atropine**	99%	**Antagonist**	**Antagonist**
M_1, M_2, M_3, M_4, M_5 receptor	H329511	6879-74-9	**Himbacine**	⩾98%	**Antagonist**	**Antagonist**
M_1, M_2, M_3, M_4, M_5 receptor	S302239	114-49-8	**(-)-Scopolamine hydrobromide trihydrate**	98%	**Antagonist**	**Antagonist**
nicotinic acetylcholine receptor α7 subunit	M275613	21019-30-7	**Methyllycaconitine citrate (MLA) (mM/ml)**	⩾98%	**Antagonist**	**Antagonist**
PAF receptor	G109811	15291-75-5	**Ginkgolide A from Ginkgo biloba leaves**	analytical standard, ⩾98%	**Antagonist**	**Antagonist**
PAF receptor	G101969	15291-77-7	**Ginkgolide B**	analytical standard, ⩾99%	**Antagonist**	**Antagonist**
PAF receptor	G101972	15291-76-6	**Ginkgolide C**	analytical standard, ⩾99%	**Antagonist**	**Antagonist**
PAF receptor	G114073	107438-79-9	**Ginkgolide J**	analytical standard	**Antagonist**	**Antagonist**
Peroxisome proliferator -activated receptor-γ	R107314	501-36-0	**Resveratrol**	analytical standard	**Antagonist**	**Antagonist**
Pregnane X receptor	T128049	114899-77-3	**Trabectedin**	-	**Antagonist**	**Antagonist**
Progesterone receptor	U166815	126784-99-4	**Ulipristal acetate**	98% (HPLC)	**Antagonist**	**Antagonist**
SMO	C125994	4449-51-8	**Cyclopamine**	⩾99%	**Antagonist**	**Antagonist**
TAS2R31, TAS2R43	N465364	100-88-9	**N-Cyclohexylsulfamic acid**	⩾98.0% (T)	**Antagonist**	**Antagonist**
TAS2R31	S412639	2957-21-3	**Sakuranetin**	-	**Antagonist**	**Antagonist**
TAS2R39	M157945	29976-75-8	**6-Methylflavone**	>98.0% (GC)	**Antagonist**	**Antagonist**
TAS2R4	A100953	14375-45-2	**(±)-Abscisic acid**	99%	**Antagonist**	**Antagonist**

Channel blocker

Target	Cat.No	CAS	Product Name	Specification	Type	Action
5-HT3A, 5-HT3AB	B432637	33570-04-6	(-)-Bilobalide from Ginkgo biloba leaves	≥93% (HPLC)	Channel blocker	None
5-HT3A, 5-HT3AB	G101969	15291-77-7	Ginkgolide B	analytical standard, ≥99%	Channel blocker	None
5-HT3A, 5-HT3AB	P346776	17617-45-7	Picrotoxinin	-	Channel blocker	None
AQP1	H106323	67-47-0	5-Hydroxymethyl-2 -furaldehyde	analytical standard, >99%	Channel blocker	Inhibition
ASIC3	S118533	69-72-7	Salicylic acid	for plant cell culture, ≥99 %	Channel blocker	None
CaCC	T305809	1401-55-4	Tannin	AR	Channel blocker	None
ClC-3	P127748	60-82-2	Phloretin	≥98%	Channel blocker	None
Glycine Receptor (All subtypes)	P346776	17617-45-7	Picrotoxinin	-	Channel blocker	None
glycine receptor α1, α2, α3, β subunit	G101969	15291-77-7	Ginkgolide B	analytical standard, ≥99%	Channel blocker	None
glycine receptor α1, α2, α3, β subunit	P346776	17617-45-7	Picrotoxinin	-	Channel blocker	None
K2P10.1, K2P16.1, K2P18.1, K2P5.1, K2P6.1	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	None
K2P18.1	Q105030	130-95-0	Quinine	for fluorescence, ≥98.0%	Channel blocker	None
KCa2.1, KCa2.2	B110235	485-49-4	d-Bicuculline	analytical standard	Channel blocker	Antagonist
KCa5.1	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	None
KNa1.1	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	Antagonist
KNa1.1	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	None
KNa1.2	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	Inhibition
Kv1.1, Kv1.7, Kv3.1	C107691	404-86-4	Capsaicin	analytical standard, ≥95% (HPLC)	Channel blocker	None
Kv1.2	C107691	404-86-4	Capsaicin	analytical standard, ≥95% (HPLC)	Channel blocker	Pore blocker
Kv1.4, Kv1.5, Kv1.7, Kv10.1, Kv4.2	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	None
Kv10.2	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	Pore blocker
Kv2.2	Q105030	130-95-0	Quinine	for fluorescence, ≥98.0%	Channel blocker	None
Nav1.1, Nav1.2, Nav1.3, Nav1.4, Nav1.5, Nav1.6, Nav1.7, Nav1.8, Nav1.9	T111387	4368-28-9	Tetrodotoxin	analytical standard, ≥99%	Channel blocker	Pore blocker
Nav1.5	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	Pore blocker
RyR1, RyR2	R275320	15662-33-6	Ryanodine	≥98%	Channel blocker	None
TRPC5	G100561	548-83-4	Galangin	98%	Channel blocker	None
TRPM3	I414404	480-43-3	Isosakuranetin	98%	Channel blocker	None

Channel blocker

Target	Cat.No	CAS	Product Name	Specification	Type	Action
TRPM3	R136822	67604-48-2	(±)-Naringenin	97%	Channel blocker	None
TRPM7	C107162	499-75-2	Carvacrol	99%	Channel blocker	Inhibition
TRPM8	S138949	529-53-3	Scutellarein	≥98% (HPLC)	Channel blocker	None
TRPV1	A303934	539-86-6	Allicin	Analytical reference	Channel blocker	None
TRPV2	C104134	5392-40-5	Citral	97%, mixture of cis and trans	Channel blocker	Inhibition
TRPV3	F336824	81525-13-5	Forsythoside B	98%	Channel blocker	Inhibition
TRPV3	I117946	2450-53-5	Isochlorogenic acid A	analytical standard, 99%	Channel blocker	Inhibition
TRPV3	I111373	14534-61-3	Isochlorogenic acid B	analytical standard, ≥98%	Channel blocker	Inhibition
TRPV3	O101698	484-12-8	Osthole	analytical standard, ≥99.5%	Channel blocker	Inhibition
TRPV3	V101318	61276-17-3	Verbascoside	analytical standard, ≥99 %	Channel blocker	Inhibition
VRAC	D329533	64657-18-7	1,9-Dideoxyforskolin	≥95%	Channel blocker	None
VRAC	G133787	303-45-7	(±)-Gossypol from cotton seeds	≥95%	Channel blocker	None
VRAC	N133726	500-38-9	Nordihydroguaiaretic Acid	≥95%	Channel blocker	None
VRAC	Q109702	56-54-2	Quinidine	≥98.0% (dried material, NT)	Channel blocker	None
VRAC	Q105030	130-95-0	Quinine	for fluorescence, ≥98.0%	Channel blocker	None

Gating inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
TRPA1	C110690	76-22-2	(±)-Camphor	96%	Gating inhibitor	Antagonist

Inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
5-LOX	H111272	35354-74-6	Honokiol	≥98% (HPLC)	Inhibitor	Inhibition
alpha glucosidase	D101242	19130-96-2	1-Deoxynojirimycin	analytical standard, ≥98%	Inhibitor	Inhibition
AQP9	P127748	60-82-2	Phloretin	≥98%	Inhibitor	None
CaCC	P127748	52665-69-7 (free acid)	A23187, Mixed Ca/ Mg salt	≥98% (HPLC)	Inhibitor	Inhibition
calcium/calmodulin-dependent protein kinase II beta subunit	S102392	62996-74-1	Staurosporine	98%	Inhibitor	Inhibition

Inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
CBR1	W124219	524-12-9	**Wedelolactone**	⩾98% (HPLC)	Inhibitor	Inhibition
CFTR	C139833	52665-69-7 (free acid)	**A23187, Mixed Ca/ Mg salt**	⩾98% (HPLC)	Inhibitor	Inhibition
COX-2	R107314	501-36-0	**Resveratrol**	analytical standard	Inhibitor	Inhibition
CYP1A1, CYP1B1	C110078	480-40-0	**Chrysin**	analytical standard, >98%	Inhibitor	Inhibition
CYP2A13	K107144	520-18-3	**Kaempferol**	analytical standard, ⩾98%	Inhibitor	Inhibition
CYP2A6	D118867	305-01-1	**6,7-Dihydroxycoumarin**	98%	Inhibitor	Inhibition
CYP2C9, CYP3A4	N302331	128-62-1	**Narcotine**	⩾97%	Inhibitor	Inhibition
CYP2D6	B414323	2086-83-1	**Berberine**	99%	Inhibitor	Inhibition
CYP4F2	S171302	607-80-7	**Sesamin**	98%	Inhibitor	Inhibition
death associated protein kinase 1	S102392	62996-74-1	**Staurosporine**	98%	Inhibitor	Inhibition
DNA gyrase subunit B	N329572	303-81-1	**Novobiocin**	⩾95%	Inhibitor	Competitive
DNA topoisomerase II alpha	A183027	23214-92-8	**Adriamycin**	97%	Inhibitor	Inhibition
dual specificity tyrosine phosphorylation regulated kinase 1A	E107404	989-51-5	**(-)-Epigallocatechin gallate**	98%	Inhibitor	Inhibition
dual specificity tyrosine phosphorylation regulated kinase 1A	H107067	442-51-3	**Harmine**	98%	Inhibitor	Inhibition
E1A binding protein p300	C110685	458-37-7	**Curcumin**	analytical standard	Inhibitor	Inhibition
E1A binding protein p300	E107404	989-51-5	**(-)-Epigallocatechin gallate**	98%	Inhibitor	Inhibition
E1A binding protein p300	G275583	78824-30-3	**Garcinol**	⩾95%	Inhibitor	Inhibition
E1A binding protein p300	P170552	481-42-5	**Plumbagin**	98%	Inhibitor	Inhibition
homeodomain interacting protein kinase 1	S102392	62996-74-1	**Staurosporine**	98%	Inhibitor	Inhibition
hydroxymethylglutaryl -CoA reductase	L107709	75330-75-5	**Lovastatin**	98%	Inhibitor	Competitive
hydroxymethylglutaryl -CoA synthase 1	H274952	29066-42-0	**(R,R)-Hymeglusin**	⩾95%	Inhibitor	Unknown
indoleamine 2,3 -dioxygenase 1	I302392	13220-57-0	**Indolo[2,1-b]quinazoline -6,12-dione**	97%	Inhibitor	Inhibition
inosine monophosphate dehydrogenase 1, 2	M110918	24280-93-1	**Mycophenolic acid**	98%	Inhibitor	Inhibition
lysine acetyltransferase 2B	E107404	989-51-5	**(-)-Epigallocatechin gallate**	98%	Inhibitor	Inhibition
lysine acetyltransferase 2B	G275583	78824-30-3	**Quinidine**	⩾95%	Inhibitor	Inhibition
lysine acetyltransferase 2B	P170552	481-42-5	**Plumbagin**	98%	Inhibitor	Inhibition

Inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
major facilitator superfamily domain containing 4B	P127748	60-82-2	**Phloretin**	⩾98%	**Inhibitor**	**Inhibition**
major facilitator superfamily domain containing 4B	P139206	60-81-1	**Phloridzin**	⩾98%	**Inhibitor**	**Inhibition**
mechanistic target of rapamycin kinase	W100984	19545-26-7	**Wortmannin**	98%	**Inhibitor**	**Inhibition**
mevalonate kinase	F113776	4602-84-0	**Farnesol**	mixture of isomers, 95%	**Inhibitor**	**Competitive**
Mitochondrial adenine nucleotide translocator 1	B347368	11076-19-0	**Bongkrekic acid**	⩾98%	**Inhibitor**	**Inhibition**
mitogen-activated protein kinase kinase 4, 6	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
OATP1A2	N107344	10236-47-2	**Naringin**	analytical standard, ⩾98%	**Inhibitor**	**Inhibition**
OATP1A2, OATP1B1, OATP1B3	R105455	13292-46-1	**Rifampicin**	97%	**Inhibitor**	**Inhibition**
OATP1B1, OATP1B3	G111375	1405-86-3	**Glycyrrhizic acid**	analytical standard	**Inhibitor**	**Inhibition**
p21 (RAC1) activated kinase 2	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
peptidyl arginine deiminase 3, 4	S102408	3930-19-6	**Streptonigrin**	95%	**Inhibitor**	**Inhibition**
phosphatidylinositol 4-kinase alpha, beta	W100984	19545-26-7	**Wortmannin**	98%	**Inhibitor**	**Inhibition**
phosphatidylinositol-4, 5-bisphosphate 3-kinase catalytic subunit alpha, beta, delta, gamma	W100984	19545-26-7	**Wortmannin**	98%	**Inhibitor**	**Inhibition**
phosphodiesterase 5A	B399226	113558-15-9	**Baohuoside I**	Analytical reference	**Inhibitor**	**Inhibition**
phosphorylase kinase catalytic subunit gamma 2	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
Plasma membrane monoamine transporter	Q109702	56-54-2	**Quinidine**	⩾98.0% (dried material, NT)	**Inhibitor**	**Inhibition**
Plasma membrane monoamine transporter	Q105030	130-95-0	**Quinine**	for fluorescence, ⩾98.0%	**Inhibitor**	**Inhibition**
Plasmodium falciparum purine nucleoside phosphorylase	Q105030	130-95-0	**Quinine**	for fluorescence, ⩾98.0%	**Inhibitor**	**None**
protein kinase A	C303486	34316-15-9	**Chelerythrine chloride**	Analytical reference	**Inhibitor**	**Inhibition**
protein kinase C delta	R275595	82-08-6	**Rottlerin**	⩾95%	**Inhibitor**	**Inhibition**
protein kinase C epsilon	C303486	34316-15-9	**Chelerythrine chloride**	Analytical reference	**Inhibitor**	**Inhibition**
protein kinase C iota	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
protein kinase N1	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
protein kinase, cAMP -dependent, catalytic, beta subunit	S102392	62996-74-1	**Staurosporine**	98%	**Inhibitor**	**Inhibition**
protein kinase, DNA -activated, catalytic subunit	W100984	19545-26-7	**Wortmannin**	98%	**Inhibitor**	**Inhibition**

Inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
protein tyrosine phosphatase non -receptor type 1	C109402	327-97-9	**Chlorogenic acid**	**95%**	**Inhibitor**	**Inhibition**
Proton-coupled Amino acid Transporter 1	I103959	327-97-9	**3-Indolepropionic acid (copy)**	**98%**	**Inhibitor**	**Inhibition**
regulator of G-protein signaling 17	C107671	34157-83-0	**Celastrol**	**analytical standard, ⩾98%**	**Inhibitor**	**Inhibition**
regulator of G-protein signaling 17	S303178	2447-54-3	**Sanguinarine**	**98%**	**Inhibitor**	**Inhibition**
serine/threonine kinase 3	S102392	62996-74-1	**Staurosporine**	**98%**	**Inhibitor**	**Inhibition**
SGLT6	P139206	60-81-1	**Phloridzin**	**⩾98%**	**Inhibitor**	**Inhibition**
SMIT	P139206	60-81-1	**Phloridzin**	**⩾98%**	**Inhibitor**	**Inhibition**
Sodium/glucose cotransporter 1, 2	E127439	864070-44-0	**Empagliflozin (BI 10773)**	**⩾99%**	**Inhibitor**	**Inhibition**
Sodium-dependent vitamin C transporter 1	P127748	60-82-2	**Phloretin**	**⩾98%**	**Inhibitor**	**Inhibition**
sodium/potassium -transporting ATPase subunit α-1	D102298	20830-75-5	**Digoxin**	**96%**	**Inhibitor**	**Inhibition**
squalene synthase	Z329476	142561-96-4	**Zaragozic Acid A**	**⩾98%**	**Inhibitor**	**Inhibition**
SUV39H1 histone lysine methyltransferase	C102377	28097-03-2	**Chaetocin from Chaetomium minutum**	**98%**	**Inhibitor**	**Inhibition**
TRAF2 and NCK interacting kinase	S102392	62996-74-1	**Staurosporine**	**98%**	**Inhibitor**	**Inhibition**
TRPV4	C414317	37921-38-3	**Cimifugin**	**98%**	**Inhibitor**	**Inhibition**
tubulin beta class I	P106868	33069-62-4	**Paclitaxel**	**analytical standard, ⩾99%**	**Inhibitor**	**Inhibition**
tubulin beta class I	V304030	57-22-7	**Vincristine**	**⩾98%**	**Inhibitor**	**Inhibition**
ubiquitin specific peptidase 5	V287012	858134-23-3	**Vialinin A**	**⩾98% (HPLC)**	**Inhibitor**	**Inhibition**

Subunit-specific

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Glycine Receptor (All subtypes)	A135946	51-55-8	Atropine	99%	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	B432637	33570-04-6	(-)-Bilobalide from Ginkgo biloba leaves	≥93% (HPLC)	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	G109811	15291-75-5	Ginkgolide A from Ginkgo biloba leaves	analytical standard, ≥98%	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	G101969	15291-77-7	Ginkgolide B	analytical standard, ≥99%	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	G101972	15291-76-6	Ginkgolide C	analytical standard, ≥99%	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	G114073	107438-79-9	Ginkgolide J	analytical standard	Subunit -specific	Inhibition
Glycine Receptor (All subtypes)	P346776	17617-45-7	Picrotoxinin	-	Subunit -specific	Inhibition

Others

Target	Cat.No	CAS	Product Name	Specification	Type	Action
LanC like 2	A100953	14375-45-2	(±)-Abscisic acid	99%	Others	Binding
Others	A107446	71963-77-4	Artemether	analytical standard, ≥98%	Others	None
Others	A110206	63968-64-9	Artemisinin	98%	Others	None
Others	A304568	75887-54-6	Arteether	≥97%	Others	None
Others	D140839	71939-50-9	Dihydroartemisinin	≥98%	Others	None
Others	L107328	491-70-3	Dihydroartemisinin	analytical standard, ≥98%	Others	None

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