



Peptide 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

1. Agonist

2. Antagonist

3. Antibody

4. Channel blocker

5. Gating inhibitor

6. Inhibitor

Agonist



Target	Cat.No	CAS	Product Name	Specification	Type	Action
ACKR3	C118581	96827-03-1	Calcitonin Gene Related Peptide rat	≥97% (HPLC)	Agonist	Agonist
AM1,AM2 receptor	C118581	96827-03-1	Calcitonin Gene Related Peptide rat	≥97% (HPLC)	Agonist	Full agonist
AMY1,AMY2,AMY3 receptor	A288235	124447-81-0	Amylin (rat)	-	Agonist	Full agonist
AMY1,AMY2,AMY3 receptor	D118757	122384-88-7	Diabetes Associated Peptide Amide human	≥97% (HPLC)	Agonist	Full agonist
apelin receptor	A276194	217082-57-0	Apelin 17	≥95%	Agonist	Agonist
apelin receptor	P275806	217082-60-5	[Pyr1]-Apelin 13	≥95%	Agonist	Full agonist
apelin receptor	A276010	252642-12-9	Apelin 36 (human)	-	Agonist	Full agonist
AT1,AT2receptor	A119706	4474-91-3	Human angiotension II Relative Molecular Weight	Angiotensin II:1045.5	Agonist	Full agonist
AT2 receptor	A303869	51833-78-4	Angiotensin 1-7	>98%	Agonist	Agonist
B1,B2 receptor	B304069	58-82-2	Bradykinin	>98%	Agonist	Full agonist
B1 receptor	L286717	71800-36-7	Lys-[Des-Arg9]Bradykinin	-	Agonist	Full agonist
B1,B2 receptor	B118776	15958-92-6	Bradykinin Fragment 1-8 acetate salt hydrate	≥95% (HPLC)	Agonist	Full agonist
B1 receptor	S287120	126959-88-4	Sar-[D-Phe8]-des-Arg9-Bradykinin	-	Agonist	Full agonist
B2 receptor	L286717	71800-36-7	Lys-[Des-Arg9]Bradykinin	-	Agonist	Partial agonist
BB1,BB2 receptor	B118773	31362-50-2(free basis)	Bombesin acetate salt hydrate	≥97% (HPLC)	Agonist	Full agonist
BB1,BB2 receptor	L119002	55749-97-8	Litorin	≥97% (HPLC)	Agonist	Full agonist
BB1,BB2 receptor	R118913	29451-71-6	Ranatensin	≥95% (HPLC)	Agonist	Full agonist
BB2 receptor	B118773	31362-50-2(free basis)	Bombesin acetate salt hydrate	≥97% (HPLC)	Agonist	Agonist
BB2 receptor	L119002	55749-97-8	Litorin	≥97% (HPLC)	Agonist	Agonist
chemerin receptor 1	C287731	676367-27-4	Chemerin-9, Human	≥95%(HPLC)	Agonist	Full agonist
chemerin receptor 2	C287731	676367-27-4	Chemerin-9, Human	≥95%(HPLC)	Agonist	Agonist
C5a ₁ ,C5a ₂ receptor	C501128	80295-54-1	C5a desArg Anaphylatoxin (Not Recombinant)	0.5 mg/ml	Agonist	Full agonist
CCK ₁ receptor	C276294	25126-32-3	CCK Octapeptide sulfated	≥97%	Agonist	Agonist
CCK ₁ ,CCK ₂ receptor	C276294	25126-32-3	CCK Octapeptide sulfated	≥97%	Agonist	Full agonist
CCK ₁ ,CCK ₂ receptor	G118956	10047-33-3	Gastrin I , human	≥97% (HPLC)	Agonist	Full agonist
CCK ₁ ,CCK ₂ receptor	P101719	5534-95-2	Pentagastrin	≥95%(HPLC)	Agonist	Full agonist
CCK ₂ receptor	G118956	10047-33-3	Gastrin I , human	≥97% (HPLC)	Agonist	Agonist
CGRP receptor	C118581	96827-03-1	Calcitonin Gene Related Peptide rat	≥97% (HPLC)	Agonist	Full agonist
CRF ₁ ,CRF ₂ receptor	U118944	176591-49-4	Urocortin human	≥85% (HPLC)	Agonist	Full agonist
CT receptor	A288235	124447-81-0	Amylin (rat)	-	Agonist	Full agonist
CT receptor	D118757	122384-88-7	Diabetes Associated Peptide Amide human	≥97% (HPLC)	Agonist	Full agonist
Delta Receptor	E118899	61214-51-5	β-Endorphin, human	≥96% (HPLC)	Agonist	Full agonist
Delta Receptor	P292815	64963-01-5	tetrapeptide-3	≥95.0%	Agonist	Full agonist
Delta Receptor	D275239	122752-16-3	[D-Ala2]-Deltorphin II	-	Agonist	Full agonist
Delta Receptor	E118808	189388-22-5	Endomorphin 1	-	Agonist	Full agonist

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Delta Receptor	L304070	58822-25-6	[Leu5]-Enkephalin,Tyr-Gly-Gly-Phe-Leu,YGGFL,ICI-114740,Leu-enkephalin,Leucine enkephalin,Leucyl-enkephalin	BR	Agonist	Full agonist
ET _B receptor	E118811	117399-93-6	Endothelin 3 human, rat	≥97% (HPLC), powder	Agonist	Full agonist
FPR1	N475315	59880-97-6	N-Formyl-Met-Leu-Phe	BioReagent Plus, ≥99.0% (TLC)	Agonist	Full agonist
FPR2/ALX	N475315	59880-97-6	N-Formyl-Met-Leu-Phe	BioReagent Plus, ≥99.0% (TLC)	Agonist	Full agonist
FPR2/ALX	M275466	271246-66-3	MMK1	≥98%	Agonist	Full agonist
FSH receptor	U139597	97048-13-0	Urofollitropin	>100 IU/mg	Agonist	Agonist
GAL ₁ ,GAL ₂ ,GAL ₃ receptor	G118937	119418-04-1	Galanin, human	≥97% (HPLC)	Agonist	Full agonist
ghrelin receptor	H463173	140703-51-1	Hexarelin Acetate	≥90% (HPLC)	Agonist	Full agonist
ghrelin receptor	G274880	258279-04-8	Ghrelin (human)	≥95%	Agonist	Full agonist
ghrelin receptor	G416685	158861-67-7	GHRP-2	-	Agonist	Full agonist
GHRH receptor	G118960	83930-13-6	Growth Hormone Releasing Factor human	≥95% (HPLC)	Agonist	Agonist
GIP receptor	G118955	100040-31-1	Gastric Inhibitory Polypeptide human	≥95% (HPLC)	Agonist	Agonist
GIP receptor	T412109	2023788-19-2	Tirzepatide (LY3298176)	99%	Agonist	Agonist
GIP receptor	G118955	100040-31-1	Gastric Inhibitory Polypeptide human	≥95% (HPLC)	Agonist	Full agonist
GLP-1 receptor	E107854	141758-74-9	Exendin-4	97%,Contains acetic acid:0-15%	Agonist	Agonist
GLP-1 receptor	S304954	910463-68-2	Semaglutide	≥98%	Agonist	Agonist
GLP-1 receptor	T412109	2023788-19-2	Tirzepatide (LY3298176)	99%	Agonist	Agonist
GLP-1 receptor	E107854	141758-74-9	Exendin-4	97%,Contains acetic acid:0-15%	Agonist	Full agonist
GLP-1 receptor	G118963	9007-92-5	Glucagon	≥97.0% (HPLC)	Agonist	Full agonist
GLP-1 receptor	G288877	107444-51-9	Glucagon-like peptide 1 (7-36) amide (human, rat)	-	Agonist	Full agonist
GLP-1 receptor	G287230	106612-94-6	GLP-1 (7-37)	-	Agonist	Full agonist
GLP-1 receptor	L276430	204656-20-2	Liraglutide	≥99%	Agonist	Full agonist
GLP-2 receptor	G288053	223460-79-5	GLP-2 (human)	-	Agonist	Full agonist
GLP-2 receptor	G274758	195262-56-7	Glucagon-Like Peptide II (rat)	≥95%	Agonist	Full agonist
glucagon receptor	G118963	9007-92-5	Glucagon	≥97.0% (HPLC)	Agonist	Full agonist
GnRH ₁ receptor	D275681	57773-63-4	[D-Trp6]-LH-RH	≥98%	Agonist	Full agonist
kisspeptin receptor	K274916	374675-21-5	Kisspeptin-13 (4-13) (human) (KISS-1 (112-121))	≥95%	Agonist	Full agonist
kisspeptin receptor	M288276	374683-24-6	Metastin (human)	-	Agonist	Full agonist
KOR,MOR	E118899	61214-51-5	β-Endorphin, human	≥96% (HPLC)	Agonist	Full agonist
KOR	L304070	58822-25-6	[Leu5]-Enkephalin,Tyr-Gly-Gly-Phe-Leu,YGGFL,ICI-114740,Leu-enkephalin,Leucine enkephalin,Leucyl-enkephalin	BR	Agonist	Full agonist
KOR	E118899	61214-51-5	β-Endorphin, human	≥96% (HPLC)	Agonist	Partial agonist
KOR	D275414	78123-71-4	DAMGO	≥95%	Agonist	Partial agonist
MAS1	A303869	51833-78-4	Angiotensin 1-7	>98%	Agonist	Agonist

Agonist



Target	Cat.No	CAS	Product Name	Specification	Type	Action
MC ₁ , MC ₃ , MC ₄ , MC ₅ receptor	N118984	75921-69-6	[Nle ⁴ , D-Phe ⁷]- α -Melanocyte Stimulating Hormone trifluoroacetate salt	\geq 95% (HPLC)	Agonist	Full agonist
MC ₃ receptor	M286707	72629-65-3	γ 1-MSH	-	Agonist	Full agonist
MOR	P292815	64963-01-5	Tetrapeptide-3	\geq 95.0%	Agonist	Full agonist
MOR	D275414	78123-71-4	DAMGO	\geq 95%	Agonist	Full agonist
MOR	E118808	189388-22-5	Endomorphin 1	-	Agonist	Full agonist
MOR	E118809	141801-26-5	Endomorphin-2	98%	Agonist	Full agonist
MOR	L304070	58822-25-6	[Leu ⁵]-Enkephalin,Tyr-Gly-Gly-Phe-Leu,YGGFL,ICI-114740,Leu-enkephalin,Leucine enkephalin,Leucyl-enkephalin	BR	Agonist	Partial agonist
motilin receptor	L464324	116283-54-6	[Leu ¹³]-Motilin porcine	\geq 97% (HPLC)	Agonist	Full agonist
MRGPRX1	B275334	412961-36-5	BAM (8-22) (Bovine Adrenal Medulla 8-22)	\geq 95%	Agonist	Full agonist
MRGPRX2	S287982	74315-46-1	Somatostatin 1-28	-	Agonist	Agonist
MRGPRX2	S303463	33507-63-0	Substance P,Neurokinin P,Arg-Pro-Lys-Pro-Gln-Gln-Phe-Phe-Gly-Leu-Met-NH ₂ ,RPKPQQFFGLM-NH ₂	>98%	Agonist	Agonist
MRGPRX2	P288203	196305-05-2	PAMP-12 (human, porcine)	-	Agonist	Full agonist
NK ₁ ,NK ₃ receptor	E287473	69-25-0	Eledoisin	\geq 98% (HPLC)	Agonist	Full agonist
NK ₁ ,NK ₃ receptor	K355662	63968-82-1	Kassinin	-	Agonist	Full agonist
NK ₁ ,NK ₂ ,NK ₃ receptor	N275098	86933-74-6	Neurokinin A	\geq 95%	Agonist	Full agonist
NK ₁ ,NK ₂ ,NK ₃ receptor	N287134	86933-75-7	Neurokinin B (human, porcine)	-	Agonist	Full agonist
NK ₁ receptor	P343311	26145-48-2	Phyllomedusin	-	Agonist	Full agonist
NK ₁ ,NK ₂ ,NK ₃ receptor	S303463	33507-63-0	Substance P,Neurokinin P,Arg-Pro-Lys-Pro-Gln-Gln-Phe-Phe-Gly-Leu-Met-NH ₂ ,RPKPQQFFGLM-NH ₂	>98%	Agonist	Full agonist
NK ₂ receptor	N275098	86933-74-6	Neurokinin A	\geq 95%	Agonist	Agonist
NK ₂ receptor	G287958	137593-52-3	GR 64349	-	Agonist	Full agonist
NK ₃ receptor	S288372	106128-89-6	Senktide	-	Agonist	Agonist
NK ₃ receptor	S288372	106128-89-6	Senktide	-	Agonist	Full agonist
NMU1,NMU2 receptor	N275827	312306-89-1	Neuromedin U-25 (human) (NMU)	-	Agonist	Agonist
NMU1,NMU2 receptor	N275827	312306-89-1	Neuromedin U-25 (human) (NMU)	-	Agonist	Full agonist
NOP receptor	N274936	170713-75-4	Nociceptin (Orphanin FQ)	-	Agonist	Agonist
NOP receptor	N274936	170713-75-4	Nociceptin (Orphanin FQ)	-	Agonist	Full agonist
NPS receptor	N287329	412938-67-1	Neuropeptide S (human)	-	Agonist	Full agonist
NTS ₁ receptor	J288611	139026-66-7	JMV 449	-	Agonist	Full agonist
NTS ₁ ,NTS ₂ receptor	N287380	92169-45-4	Neuromedin N (rat, mouse, porcine, canine)	-	Agonist	Full agonist
NTS ₁ ,NTS ₂ receptor	N274706	55508-42-4	Neurotensin	97%	Agonist	Full agonist
NTS ₂ receptor	X118952	144092-28-4	Xenin 25 acetate salt	\geq 95% (HPLC)	Agonist	Full agonist
OT receptor	A275994	113-80-4	[Arg ⁸]-Vasotocin	\geq 95%	Agonist	Full agonist
OT receptor	D123296	16679-58-6	Desmopressin Acetate	\geq 97.0%(HPLC)	Agonist	Full agonist

Agonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
OX ₁ ,OX ₂ receptor	O275498	205640-90-0	Orexin A (bovine, human, mouse, rat)	≥90%	Agonist	Full agonist
PAC ₁ ,VPAC ₁ ,VPAC ₂ receptor	P274811	127317-03-7	PACAP (1-27) (human)	≥95%	Agonist	Agonist
PTH1,PTH2 receptor	T416683	52232-67-4	Teriparatide Acetate	-	Agonist	Full agonist
SST ₁ ,SST ₂ ,SST ₃ ,SST ₄ ,SST ₅	B274873	133073-82-2	BIM 23052	-	Agonist	Full agonist
SST ₁ ,SST ₂ ,SST ₃ ,SST ₄ ,SST ₅	S287982	74315-46-1	Somatostatin 1-28	-	Agonist	Full agonist
SST ₂ ,SST ₃ ,SST ₅ receptor	B275021	150155-61-6	BIM 23056	-	Agonist	Full agonist
SST ₂ ,SST ₃ ,SST ₅ receptor	L275571	108736-35-2	Lanreotide	≥95%	Agonist	Full agonist
SST ₂ ,SST ₃ ,SST ₅ receptor	S288936	81377-02-8	Seglitide	-	Agonist	Full agonist
TRH ₁ ,TRH ₂ receptor	P413167	24305-27-9	Protirelin	98%	Agonist	Full agonist
V _{1A} ,V _{1B} ,V ₂ receptor	A275994	113-80-4	[Arg8]-Vasotocin	≥95%	Agonist	Full agonist
V _{1A} ,V _{1B} ,V ₂ receptor	D123296	16679-58-6	Desmopressin Acetate	≥97.0%(HPLC)	Agonist	Full agonist
V _{1B} receptor	D123296	16679-58-6	Desmopressin Acetate	≥97.0%(HPLC)	Agonist	Partial agonist
VPAC ₁ receptor	G118960	83930-13-6	Growth Hormone Releasing Factor human	≥95% (HPLC)	Agonist	Agonist
XCR1	N357056	13477-95-7	Nickel(II) cyanide tetrahydrate	-	Agonist	Agonist
Y ₁ ,Y ₂ receptor	N275391	90880-35-6	Neuropeptide Y (NPY) (human)	≥95%	Agonist	Agonist
Y ₁ ,Y ₂ receptor	P118902	118997-30-1	Peptide YY human	≥97% (HPLC)	Agonist	Agonist
Y ₁ ,Y ₂ ,Y ₄ ,Y ₅ receptor	N275391	90880-35-6	Neuropeptide Y (NPY) (human)	≥95%	Agonist	Full agonist
Y ₁ ,Y ₂ ,Y ₄ receptor	N286938	83589-17-7	Neuropeptide Y (porcine)	-	Agonist	Full agonist
Y ₁ ,Y ₂ ,Y ₄ receptor	P118902	118997-30-1	Peptide YY human	≥97% (HPLC)	Agonist	Full agonist
Y ₁ ,Y ₂ ,Y ₄ ,Y ₅ receptor	P118904	126339-09-1	Peptide YY Fragment 3-36 human	≥95% (HPLC), lyophilized powder	Agonist	Full agonist
Y ₄ ,Y ₅ receptor	G287845	158859-98-4	GR 231118	-	Agonist	Full agonist

Antagonist

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Delta Receptor	C118803	103429-32-9	CTAP	≥95%	Antagonist	Antagonist
Delta Receptor	I287539	89352-67-0	ICI 174,864	-	Antagonist	Inverse agonist
ETB receptor	I287193	169545-27-1	IRL-2500	≥99%(HPLC)	Antagonist	Antagonist
GLP-1 receptor	E101622	133514-43-9	Exendin Fragment 9-39	≥95%(HPLC)	Antagonist	Antagonist
GluN2A,GluN2B,GluN2C,GluN2D	C287536	93438-65-4	Conantokin G	-	Antagonist	Antagonist
MOR	C118803	103429-32-9	CTAP	≥95%	Antagonist	Antagonist
MOR	C275118	103429-31-8	CTOP	≥95%	Antagonist	Antagonist
natriuretic peptide receptor 3	A288690	124833-45-0	AP 811	-	Antagonist	Binding
nicotinic acetylcholine receptor α1 subunit	C412497	76862-65-2	α-Conotoxin GI	-	Antagonist	Antagonist
PrRP receptor	N275391	90880-35-6	Neuropeptide Y (NPY) (human)	≥95%	Antagonist	Antagonist
SST ₅ receptor	B275021	150155-61-6	BIM 23056	-	Antagonist	Antagonist
UT receptor	U288432	669089-53-6	Urantide	-	Antagonist	Antagonist
Y ₁ ,Y ₄ receptor	G287845	158859-98-4	GR 231118	-	Antagonist	Antagonist

Channel blocker

Target	Cat.No	CAS	Product Name	Specification	Type	Action
K _v 1.1,K _v 1.2	M287709	145808-47-5	Margatoxin	-	Channel blocker	Inhibition
K _v 11.3	B288057	524962-01-4	BeKm 1	-	Channel blocker	Pore blocker
K _{2p} 3.1	A119706	4474-91-3	Human angiotension II Relative Molecular Weight	Angiotensin II:1045.5	Channel blocker	Others
K _{Ca} 1.1	I275380	129203-60-7	Iberiotoxin	≥95%	Channel blocker	Others
K _v 1.1,K _v 1.3	K335125	145199-73-1	Kaliotoxin	-	Channel blocker	Others
K _v 1.3,K _v 1.7	M287709	145808-47-5	Margatoxin	-	Channel blocker	Others
K _v 11.1	B288057	524962-01-4	BeKm 1	-	Channel blocker	Others

Gating inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Na _v 1.5	J288925	925463-91-8	Jingzhaotoxin III	-	Gating inhibitor	Voltage-dependent inhibition
K _v 11.2	B288057	524962-01-4	BeKm 1	-	Gating inhibitor	Others
K _v 2.1	J288925	925463-91-8	Jingzhaotoxin III	-	Gating inhibitor	Others

Inhibitor

Target	Cat.No	CAS	Product Name	Specification	Type	Action
Aminopeptidase N	O346764	864084-88-8	Opiorphin	≥95%	Inhibitor	Inhibition
calpain 1	C274691	117591-20-5	Calpeptin	≥98%	Inhibitor	Inhibition
cathepsin K	C274691	117591-20-5	Calpeptin	≥98%	Inhibitor	Inhibition
coagulation factor II, thrombin	B416680	128270-60-0	Bivalirudin Trifluoroacetate	-	Inhibitor	Inhibition
CoV 3C-like (main) protease	C274691	117591-20-5	Calpeptin	≥98%	Inhibitor	Inhibition
integrin α4β1	B288747	187735-94-0	BIO 1211	-	Inhibitor	Inhibition
myosin light chain kinase	M287814	224579-74-2	MLCK inhibitor peptide 18	-	Inhibitor	Inhibition
Others	C302746	206645-99-0	Compstatin,ICVVQDWGHRCT	>98%	Inhibitor	Inhibition
plasminogen	A105534	9087-70-1	Aprotinin from bovine lung	lyophilized powder, 3-8 TIU/mg solid	Inhibitor	Binding

aladdin®

aladdin®

Aladdin Scientific Corporation

Official website: www.aladdinsci.com

Phone: +1 (833) 552-7181

Email for purchasing: sales@aladdinsci.com

Email for customer service: custserv@aladdinsci.com

Email for technical support: support@aladdinsci.com

Submit a ticket: <https://www.aladdinsci.com/customersupport>

Address: 14078 Meridian Parkway, Riverside, CA. 92518 USA

