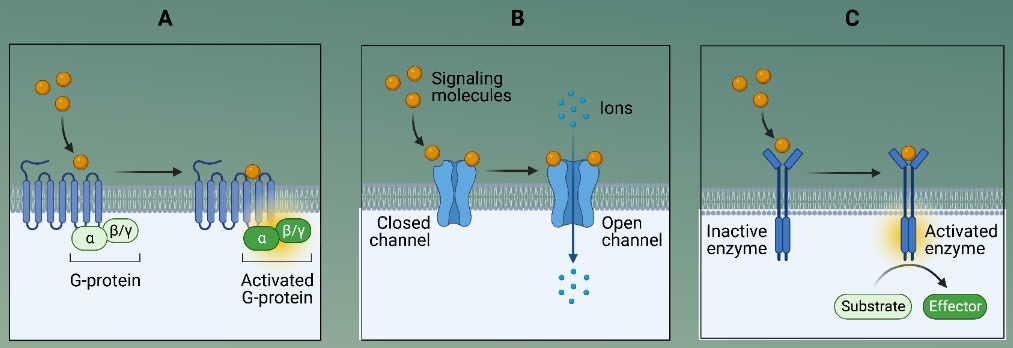
EBCL-0021

Membrane Receptor Ligands

Membranes are the boundaries of cells that divide the inside and the outside of the cell. These barriers prevent inner molecules from leaking out of the cell and unwanted molecules from diffusing in. For transport purposes, they contain specific transport systems (membrane receptors) that allow the cell to accept concrete molecules and remove unwanted ones. The small molecules can be cytokines, growth factors, hormones, nutrients, neurotransmitters, and many others. Membrane receptors are differentiated into three various classes: the G-protein coupled receptors, ion channel linked receptors, and enzyme-linked receptors. They represent important molecular targets for medicinal chemistry research.

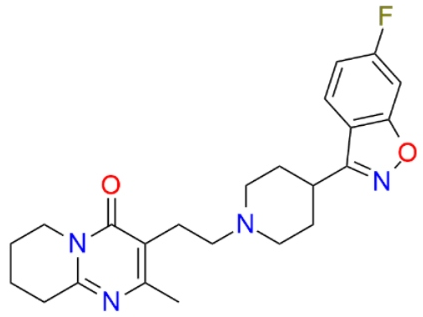
Membrane Receptor Ligands Library contains 1251 small ligands, some representative molecules are given below: Risperidone, 5-HT2 receptor blocker, D2 receptor antagonist; VU0071063, ATP dependent potassium channel activator; CU-T12-9, TLR1/2 antagonist; LY354740, mGlu2/3 receptor agonist.

Related terms: *5-Hydroxytryptamine receptor, adrenoceptor, adenosine, dopamine, acetylcholine, histamine, metabotropic glutamate, cannabinoid receptor*

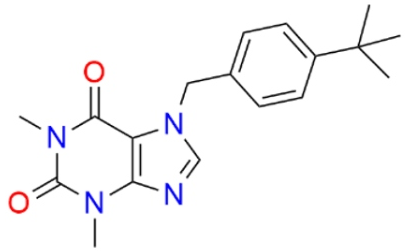


A:the G-protein coupled receptor; B: ion channel linked receptor; C:enzyme-linked receptor *(Created by BioRender.com)*

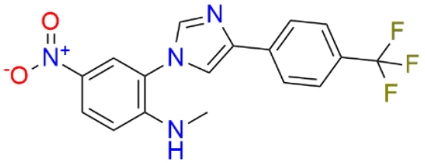
Highlights



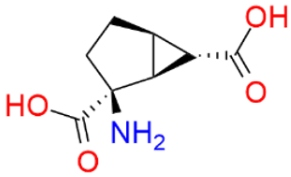
EBC-13572
CAS: 106266-06-2
Risperidone, 5-HT2 receptor blocker, D2 receptor antagonist. Target class: G protein-coupled receptors



EBC-08519
CAS: 333415-38-6
VU0071063, ATP dependent potassium channel activator. Target class: ion channel linked receptors



EBC-08976
CAS: 1821387-73-8
CU-T12-9, TLR1/2 antagonist. Target class: enzyme-linked receptors



EBC-07723
CAS: 176199-48-7
LY354740, mGlu2/3 receptor agonist. Target class: G protein-coupled receptors

Library Composition

Name	Occurrence in the library, times
5-Hydroxytryptamine receptors	246
Adrenoceptors	146
Adenosine receptors	137
Dopamine receptors	130
Acetylcholine receptors (muscarinic)	86
Histamine receptors	78
Metabotropic glutamate receptors	58
Cannabinoid receptors	34
Chemokine receptors	25
Opioid receptors	21
Prostanoid receptors	17

Melatonin receptors	•	16
Trace amine receptor	•	15
Free fatty acid receptors	•	15
Angiotensin receptors	•	13
Taste 1 receptors	•	13
Heat shock proteins	•	9
Lysophospholipid (S1P) receptors	•	8
Endothelin receptors	•	8
Somatostatin receptors	•	8
Toll-like receptor family	•	8
Class A Orphans	•	6
Glycoprotein hormone receptors	•	5
Bile acid receptor	•	5

Tachykinin receptors	•	5
Leukotriene receptors	•	3
Cholecystokinin receptors	•	3
Formylpeptide receptors	•	3
Neuropeptide Y receptors	•	3
Taste 2 receptors	•	3
Vasopressin and oxytocin receptors	•	3
P2Y receptors	•	2
GABAB receptors	•	2
Neurotensin receptors	•	2
Proteinase-activated receptors	•	2
Calcium-sensing receptor	•	2
Melanocortin receptors	•	2

Platelet-activating factor receptor	•	2
VIP and PACAP receptors	•	2
Corticotropin-releasing factor receptors	•	1
Melanin-concentrating hormone receptors	•	1
Motilin receptor	•	1
Relaxin family peptide receptors	•	1