Adrenergic Receptor Inhibitors
(inhibitors, agonists and modulators)

Adrenergic receptors are a class of G protein-coupled receptors that are targets of the catecholamines, especially norepinephrine and epinephrine. Many cells possess these receptors, and the binding of a catecholamine to the receptor will generally stimulate the sympathetic nervous system. The sympathetic nervous system is responsible for the fight-or-flight response, which includes widening the pupils of the eye, mobilizing energy, and diverting blood flow from non-essential organs to skeletal muscle.
**O-desmethyl Mebeverine alcohol hydrochloride - CAS 856620-39-8**

Catalog Number:

**Molecular Weight:** 287.83  
**Molecular Formula:** C15H26ClNO2

**Description:** O-desmethyl Mebeverine alcohol hydrochloride, a metabolite of Mebeverine, is a potent inhibitor of α1 receptor, causing relaxation of the gastrointestinal tract.

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**Falintolol, (Z) - CAS 106401-52-9**

Catalog Number:

**Molecular Weight:** 228.33  
**Molecular Formula:** C12H24N2O2

**Description:** Falintolol, (Z)- is a novel β-adrenergic antagonist.

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**DG5128 - CAS 79689-25-1**

Catalog Number:

**Molecular Weight:** 324.25  
**Molecular Formula:** C16H19Cl2N3

**Description:** DG5128, a new oral hypoglycemic agent, is an orally available preferential antagonist of α2-adrenoceptor with 7.4 times higher affinity toward α2-adrenoceptor than α1-adrenoceptor.

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**L-771688 - CAS 200050-59-5**

Catalog Number:

**Molecular Weight:** 557.59  
**Molecular Formula:** C28H33F2N5O5

**Description:** L-771688, also known as SNAP 6383, is a new potent and highly selective α1A-adrenoceptor antagonist with 500-fold selective over α1B and α1D-adrenoceptors.
Bometolol Hydrochloride - CAS 65023-16-7
Catalog Number: 
Molecular Weight: 508.99  Molecular Formula: C25H33ClN2O7 
Description: Bometolol is a beta-adrenergic blocking drug.

Fenmetozole Tosylate - CAS 83474-08-2
Catalog Number: 
Molecular Weight: 417.31  Molecular Formula: C17H18Cl2N2O4S 
Description: Fenmetozole, also known as DH-S24, is an antagonist of a2-adrenergic receptor and also antagonizes the actions of ethanol.

AR-08 - CAS 226081-74-9
Catalog Number: 
Molecular Weight: 240.26  Molecular Formula: C12H12N6 
Description: AR-08 is an agonist of a2-adrenergic receptor undergone in phase II clinical trials by Arbor Pharmaceuticals for the treatment of attention deficit and hyperactivity disorder (ADHD).

ZK-90055 hydrochloride - CAS84638-81-3
Catalog Number: 
Molecular Weight: 342.82  Molecular Formula: C16H23ClN2O4 
Description: ZK-90055, a β-Adrenoceptor agonist, is a B-2 bronchodilator drug.

MG 1 - CAS 148274-76-4
Catalog Number: 
Molecular Weight: 303.4  Molecular Formula: C17H25N3O2 
Description: An α1 adrenergic receptor antagonist
**Fiduxosin - CAS 208993-54-8**

**Catalog Number:**
- S55.65

**Molecular Formula:** C30H29N5O4S

**Description:** Fiduxosin is a potent antagonist of \(\alpha_1\)-adrenoceptor, with \(K_i = 0.160\) nM, 24.9 nM, and 0.920 nM for \(\alpha_1\)-a, \(\alpha_1\)-b, and \(\alpha_1\)-d-adrenoceptors, respectively. Fiduxosin was found to have improved uroselectivity relative to tamsulosin.

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**D2343 - CAS 72734-63-5**

**Catalog Number:**
- D2343

**Molecular Weight:** 329.43

**Molecular Formula:** C20H27NO3

**Description:** D2343 is a dual inhibitor of \(\beta_2\)-adrenoceptor and \(\alpha_1\)-adrenoceptor. Inhaled D2343 has a longer bronchodilating effect than terbutaline.

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**\(\alpha_1\) adrenoceptor-MO-1 - CAS 161905-64-2**

**Catalog Number:**
- \(\alpha_1\) adrenoceptor-MO-1

**Molecular Weight:** 385.89

**Molecular Formula:** C20H24ClN5O

**Description:** An \(S\) enantiomer which has affinity at alpha 1 adrenergic receptor.

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**(4E)-SUN9221 - CAS 222318-55-0**

**Catalog Number:**
- (4E)-SUN9221

**Molecular Weight:** 454.54

**Molecular Formula:** C25H31FN4O3

**Description:** (4E)-SUN9221 is a potent antagonist of \(\alpha_1\)-adrenergic receptor and 5-HT2 receptor, with antihypertensive and anti-platelet aggregation activities.

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**QF0301B - CAS 149247-12-1**

**Catalog Number:**
- QF0301B

**Molecular Weight:** 364.48

**Molecular Formula:** C23H28N2O2

**Description:** QF0301B is a \(\alpha_1\) adrenergic receptor antagonist and shows noncompetitive low action in 5-HT3, muscarinic and nicotinic receptors, or as Ca2+ antagonist.
(RS)-Butyryltimolol

Catalog Number: [Image]
Molecular Weight: 386.51
Molecular Formula: C17H30N4O4S

Description: (RS)-Butyryltimolol is the racemate of Butyryltimolol which is the butyryl ester of Timolol. Timolol, in the non-selective β blocker family of medication, has been shown to lower internal pressure in the normal and the glaucomatous rabbit eye.

Nifenalol HCl - CAS 5704-60-9

Catalog Number: [Image]
Molecular Weight: 260.71
Molecular Formula: C11H17ClN2O3

Description: Nifenalol, also known as INPEA, is a novel antagonist of β-adrenoceptors.

B-HT 933 dihydrochloride - CAS 36067-72-8

Catalog Number: [Image]
Molecular Weight: 254.16
Molecular Formula: C9H15N3O.2HCl

Description: B-HT 933 dihydrochloride is a selective α2-adrenoceptor agonist displaying 300-fold selectivity for the α2-adrenoceptor over the α1-adrenoceptor. B-HT 933 decreases blood pressure and cardiac output in cats, and exhibits antinociceptive activity in mice.

Efaroxan hydrochloride - CAS 89197-00-2

Catalog Number: [Image]
Molecular Weight: 252.74
Molecular Formula: C13H16N2O.HCl

Description: Efaroxan hydrochloride is a potent and selective α2 adrenoceptor antagonist and imidazoline I1 receptor ligand (pKi = 7.87, 7.42, 5.74, 7.28 and < 5 for α 2A, α2B, α2C, I1, and I2 receptors, respectively). Efaroxan promotes insulin secretion, at a site distinct from I1 or I2 (the putative I3 receptor) in vitro and in vivo.
Dexmedetomidine HCl - CAS 145108-58-3
Catalog Number: B0084-051384 Price: $299/1 g
Molecular Weight: 236.74 Molecular Formula: C13H16N2.HCl
Description: Dexmedetomidine HCl is a highly selective and potent alpha-2 adrenoceptor agonist, which reduces anesthetic requirements for patients by providing significant sedation.

Tamsulosin - CAS 106133-20-4
Catalog Number: 106133-20-4
Molecular Weight: 408.51 Molecular Formula: C20H28N2O5S
Description: Tamsulosin could block on the sympathetic α1 receptor, especially selectively bind to the α1A receptor and has been found to be effective in the treatment of benign prostatic hyperplasia.

GMC 2-83 - CAS 183140-98-9
Catalog Number:
Molecular Weight: 441.42 Molecular Formula: C19H18F3N3O4S
Description: GMC 2-83 is an atypical antipsychotic without muscarinic activity.

B-HT 958 dihydrochloride - CAS 36085-44-6
Catalog Number:
Molecular Weight: 366.74 Molecular Formula: C14H16ClN3S.2HCl
Description: B-HT 958 dihydrochloride is a dopamine D2 receptor agonist and a α2-adrenoceptor partial agonist.

Xylometazoline HCl - CAS 1218-35-5
Catalog Number: 1218-35-5
Molecular Weight: 280.84 Molecular Formula: C16H24N2.HCl
Description: Xylometazoline is a α-adrenoceptor agonist commonly used as nasal decongestant, exhibits highest potency at α2B-adrenoceptor subtype with EC50 of 99 μM.
Fenoterol - CAS 13392-18-2

**Catalog Number:** 13392-18-2  
**Molecular Weight:** 303.36  
**Molecular Formula:** C17H21NO4  
**Description:** Fenoterol, a phenol derivative, is a β2-adrenoceptor agonist and could be used as a bronchodilator and an antiasthmatic.

Pindolol - CAS 13523-86-9

**Catalog Number:** 13523-86-9  
**Molecular Weight:** 248.32  
**Molecular Formula:** C14H20N2O2  
**Description:** Pindolol, an Indole derivative, could be used in the treatment of hypertension and arrhythmia for acting as a 5-HT1A/1B receptor antagonist. IC50: 33nM (Ki).

Hydrocortisone-17-butyrate - CAS 13609-67-1

**Catalog Number:** 13609-67-1  
**Molecular Weight:** 432.55  
**Molecular Formula:** C25H36O6  
**Description:** Hydrocortisone-17-butyrate, a glucocorticoid compound, could be used as antiinflammatory and immunosuppresive agent.

Alprenolol - CAS 13655-52-2

**Catalog Number:** 13655-52-2  
**Molecular Weight:** 249.35  
**Molecular Formula:** C15H23NO2  
**Description:** Alprenolol is a non-selective Beta-Adrenergic receptor and 5-HT1A receptor antagonist for the treatment of angina pectoris.
**Yohimbine - CAS 146-48-5**

**Catalog Number:** 146-48-5  
**Molecular Weight:** 354.45  
**Molecular Formula:** C21H26N2O3  
**Description:** Yohimbine, an indolalkylamine alkaloid, blocks presynaptic alpha-2 adrenergic receptors. IC50= 0.6 μM KI: 1.05 nM, alpha2Areceptor.

**Carmoterol - CAS 147568-66-9**

**Catalog Number:** 147568-66-9  
**Molecular Weight:** 368.43  
**Molecular Formula:** C21H24N2O4  
**Description:** Carmoterol, a quinolin derivative, has been found to a β2-adrenoceptor agonist that could be an effective bronchodilating agent.

**Ivabradine HCl - CAS 148849-67-6**

**Catalog Number:** 148849-67-6  
**Molecular Weight:** 505.05  
**Molecular Formula:** C27H36N2O5.HCl  
**Description:** Ivabradine HCl, a new If inhibitor with IC 50 of 2.9 μM which acts specifically on the pacemaker activity of the sinoatrial node, is a pure heart rate lowering agent.

**Oxymetazoline - CAS 1491-59-4**

**Catalog Number:** 1491-59-4  
**Molecular Weight:** 260.38  
**Molecular Formula:** C16H24N2O  
**Description:** Oxymetazoline, an imidazol derivative, has been found to be an adrenergic receptor agonist that could be an effective topical decongestant.
Lusaperidone - CAS 214548-46-6

Catalog Number:
Molecular Weight: 359.42  Molecular Formula: C22H21N3O2

Description: Lusaperidone, also known as R107474, is an $\alpha_2$ adrenergic receptor antagonist. R107474 showed high affinity for $\alpha_2A$, $\alpha_2B$, and $\alpha_2C$-adrenoceptors, stably expressed in CHO cells. The compound bound preferentially to the $\alpha_2A$- and $\alpha_2C$-adrenoceptor subtypes (Ki = 0.13 and 0.15 nM, respectively) and was seven times less potent in binding to the $\alpha_2B$-adrenoceptors (Ki = 1.03 nM).

Lofexidine hydrochloride - CAS 21498-08-8

Catalog Number: 21498-08-8
Molecular Weight: 295.59  Molecular Formula: C11H13Cl3N2O

Description: Lofexidine hydrochloride is the hydrochloride salt form of Lofexidine. Lofexidine, an analogue of clonidine, is an $\alpha_2A$-adrenergic receptor agonist for the treatment of opioid withdrawal symptoms as well as an antihypertensive.

Guanadrel Hemisulfate - CAS 22195-34-2

Catalog Number: 22195-34-2
Molecular Weight: 524.636  Molecular Formula: C10H19N3O2.1/2H2O4S

Description: Guanadrel, as an antihypertensive agent, is an orally active postganglionic sympathetic inhibitor.

Metipranolol - CAS 22664-55-7

Catalog Number: 22664-55-7
Molecular Weight: 309.40  Molecular Formula: C17H27NO4

Description: Metipranolol is a non-selective beta blocker used in eye drops to treat glaucoma.
Terbutaline - CAS 23031-25-6

**Catalog Number:** 23031-25-6  
**Molecular Weight:** 225.29  
**Molecular Formula:** C12H19NO3  
**Description:** Terbutaline, also called as Bronclyn, as a fast-acting bronchodilator it is a β2 adrenergic receptor agonist used to treat asthma and premature labor.

Terbutaline Sulfate - CAS 23031-32-5

**Catalog Number:** 23031-32-5  
**Molecular Weight:** 548.65  
**Molecular Formula:** C24H38N2O6.H2O4S  
**Description:** Terbutaline Sulfate is a selective β2-adrenergic receptor agonist with IC50 of 53 nM, used as a “reliever” inhaler in the management of asthma symptoms and as a tocolytic (anti-contraction medication) to delay preterm labor for up to 48 hours.

Xylazine hydrochloride - CAS 23076-35-9

**Catalog Number:** 23076-35-9  
**Molecular Weight:** 256.79  
**Molecular Formula:** C12H16N2S.HCl  
**Description:** Xylazine is an α2-Adrenergic receptor agonist, used as a sedative and muscle relaxant. It is used for sedation, anesthesia, muscle relaxation, and analgesia in animals such as horses, cattle and other non-human mammals.

Ritodrine Hydrochloride - CAS 23239-51-2

**Catalog Number:** 23239-51-2  
**Molecular Weight:** 323.81  
**Molecular Formula:** C17H21NO3.HCl  
**Description:** Ritodrine HCl is a hydrochloride salt of ritodrine which is a β-2 adrenergic receptor agonist. Ritodrine (discontinued preparation: Yutopar) is a tocolytic drug, used to stop premature labor. This drug has been removed from the US market, according to FDA Orange Book. It was available in oral tablets or as an injection and was typically used as the hydrochloride salt, ritodrine hydrochloride.
**Timolol Maleate - CAS 26921-17-5**

**Catalog Number:** 26921-17-5  
**Molecular Weight:** 432.49  
**Molecular Formula:** C13H24N4O3S.C4H4O4  
**Description:** Timolol Maleate is a non-selective, beta-adrenergic receptor antagonist for \( \beta_1/\beta_2 \) with Ki of 1.97 nM/2.0 nM.

**Indacaterol - CAS 312753-06-3**

**Catalog Number:** 312753-06-3  
**Molecular Weight:** 392.5  
**Molecular Formula:** C24H28N2O3  
**Description:** Indacaterol Maleate is an ultra-long-acting \( \beta \)-adrenoceptor agonist.

**Labetalol hydrochloride - CAS 32780-64-6**

**Catalog Number:** 32780-64-6  
**Molecular Weight:** 364.87  
**Molecular Formula:** C19H25ClN2O3  
**Description:** Labetalol HCl is a dual antagonist for both selective alpha1-adrenergic and nonselective beta-adrenergic receptors, used in the treatment of high blood pressure.

**Metaraminol tartrate - CAS 33402-03-8**

**Catalog Number:** 33402-03-8  
**Molecular Weight:** 317.29  
**Molecular Formula:** C9H13NO2.C4H6O6  
**Description:** Metaraminol is a stereoisomer of meta-hydroxynorephedrine, acts as an adrenergic agonist that increases both systolic and diastolic blood pressure.
### Acebutolol hydrochloride - CAS 34381-68-5

**Catalog Number:** 34381-68-5  
**Molecular Weight:** 372.89  
**Molecular Formula:** C18H28N2O4.HCl  
**Description:** Acebutolol is a β-adrenergic receptors antagonist used in the treatment of hypertension, angina pectoris and cardiac arrhythmias.

![Acebutolol hydrochloride structure](image)

### Levalbuterol - CAS 34391-04-3

**Catalog Number:**  
**Molecular Weight:** 239.315  
**Molecular Formula:** C13H21NO3  
**Description:** Levalbuterol is a short-acting beta 2 adrenergic agonist. It is used to treat wheezing and shortness of breath caused by breathing problems (such as asthma, chronic obstructive pulmonary disease).

![Levalbuterol structure](image)

### Clonidine Hydrochloride - CAS 4205-91-8

**Catalog Number:** 4205-91-8  
**Molecular Weight:** 266.5  
**Molecular Formula:** C9H9Cl2N3.HCl  
**Description:** Clonidine HCl is a direct-acting α2 adrenergic agonist with an ED50 of 0.02±0.01 mg/kg.

![Clonidine hydrochloride structure](image)

### Formoterol Hemifumarate - CAS 43229-80-7

**Catalog Number:** 43229-80-7  
**Molecular Weight:** 402.40  
**Molecular Formula:** C19H24N2O4.1/2C4H4O4  
**Description:** Formoterol Hemifumarate is a potent, selective and long-acting β2-adrenoceptor agonist to β2 and β1 receptors with pKD of 8.12 and 5.58, respectively.

![Formoterol hemifumarate structure](image)
Dobutamine HCl - CAS 49745-95-1

**Catalog Number:** 49745-95-1
**Molecular Weight:** 337.84
**Molecular Formula:** C18H24ClNO3
**Description:** Dobutamine is a sympathomimetic drug used in the treatment of heart failure and cardiogenic shock. Its primary mechanism is direct stimulation of \( \beta_1 \) receptors of the sympathetic nervous system.

Scopine - CAS 498-45-3

**Catalog Number:** 498-45-3
**Molecular Weight:** 155.19
**Molecular Formula:** C8H13NO2
**Description:** Scopine is the metabolite of anisodine, which is a \( \alpha_1 \)-adrenergic receptor agonist and used in the treatment of acute circulatory shock.

Tizanidine - CAS 51322-75-9

**Catalog Number:** 51322-75-9
**Molecular Weight:** 253.71
**Molecular Formula:** C9H8ClN5S
**Description:** Tizanidine, a short-acting drug, is an agonist at \( \alpha_2 \)-adrenergic receptor reducing spasticity by increasing presynaptic inhibition of motor neurons.

Epinephrine Bitartrate - CAS 51-42-3

**Catalog Number:** B0084-070160
**Price:** $188/10 g
**Molecular Weight:** 333.29
**Molecular Formula:** C9H13NO3.C4H6O6
**Description:** Epinephrine Bitartrate is an alpha- and beta-adrenergic receptor stimulator. It can be used for the treatment of asthma and cardiac failure via stimulating the heart, and dilates bronchi and cerebral vessels.
<table>
<thead>
<tr>
<th>Compound</th>
<th>CAS Number</th>
<th>Catalog Number</th>
<th>Price</th>
<th>Molecular Weight</th>
<th>Molecular Formula</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carteolol Hydrochloride</td>
<td>51781-21-6</td>
<td>B0084-070272</td>
<td>$169/200 mg</td>
<td>328.83</td>
<td>C16H25ClN2O3</td>
<td>Carteolol HCl is a (\beta)-adrenoceptor antagonist, used for the treatment of glaucoma.</td>
</tr>
<tr>
<td>Tetrahydrozoline Hydrochloride</td>
<td>522-48-5</td>
<td></td>
<td></td>
<td>236.74</td>
<td>C19H16N2.HCl</td>
<td>Tetrahydrozoline HCl is an imidazoline derivative with alpha receptor agonist activity.</td>
</tr>
<tr>
<td>Isoetarine</td>
<td>530-08-5</td>
<td></td>
<td></td>
<td>239.31</td>
<td>C13H21NO3</td>
<td>Isoetarine is a selective adrenergic beta-2 agonist. It is used as fast acting bronchodilator for emphysema, bronchitis and asthma. It has been listed.</td>
</tr>
<tr>
<td>Mabuterol hydrochloride</td>
<td>54240-36-7</td>
<td></td>
<td></td>
<td>347.203</td>
<td>C13H19Cl2F3N2O</td>
<td>Mabuterol hydrochloride is a salt form of Mabuterol, which is a selective (\beta)2 adrenoreceptor agonist.</td>
</tr>
<tr>
<td>Naphazoline hydrochloride</td>
<td>550-99-2</td>
<td></td>
<td></td>
<td>246.74</td>
<td>C14H14N2?HCl</td>
<td>Naphazoline hydrochloride is an ocular vasoconstrictor used in eye drops.</td>
</tr>
</tbody>
</table>
Tulobuterol hydrochloride - CAS 56776-01-3

Catalog Number:
Molecular Weight: 264.19
Molecular Formula: C12H19Cl2NO

Description: Tulobuterol hydrochloride is a salt form of Tulobuterol, which is a long-acting beta2-adrenergic receptor agonist.

Celiprolol hydrochloride - CAS 57470-78-7

Catalog Number:
Molecular Weight: 415.95
Molecular Formula: C20H33N3O4.HCl

Description: Celiprolol hydrochloride is a cardioselective β1-adrenergic blocker with potential antianginal and antihypertensive properties.

Carazolol - CAS 57775-29-8

Catalog Number:
Molecular Weight: 298.386
Molecular Formula: C18H22N2O2

Description: Carazolol is a β-adrenergic receptor antagonist.

Orciprenaline - CAS 586-06-1

Catalog Number: 586-06-1
Molecular Weight: 211.26
Molecular Formula: C11H17NO3

Description: Orciprenaline is a moderately selective beta-adrenergic agonist used in the treatment of asthma and bronchospasms. It stimulates receptors of the smooth muscle in the lungs, uterus, and vasculature supplying skeletal muscle, with minimal or no effect on alpha-adrenergic receptors. It is believed to work by activating adenylate cyclase, the enzyme responsible for producing the cellular mediator cAMP. It was developed by Boehringer-Ingelheim and has been withdrawn from the market.
**Brimonidine - CAS 59803-98-4**

**Catalog Number:** 59803-98-4  
**Molecular Weight:** 292.13  
**Molecular Formula:** C11H10BrN5  
**Description:** Brimonidine is α2-Adrenoceptor agonist. It is a drug used as eye drops to treat open-angle glaucoma or ocular hypertension. It acts via decreasing synthesis of aqueous humor, and increasing the amount that drains from the eye through uveoscleral outflow.

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**Tolazoline - CAS 59-98-3**

**Catalog Number:** 59-98-3  
**Molecular Weight:** 160.22  
**Molecular Formula:** C10H12N2  
**Description:** Tolazoline is a non-selective competitive α-adrenergic receptor antagonist used in treatment of persistent pulmonary hypertension of the newborn.

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**Methoxamine Hydrochloride - CAS 61-16-5**

**Catalog Number:** 61-16-5  
**Molecular Weight:** 247.72  
**Molecular Formula:** C11H18ClNO3  
**Description:** Methoxamine Hydrochloride is an alpha-1 adrenergic agonist, similar in structure to butaxamine and 2,5-DMA. It causes prolonged peripheral vasoconstriction. It is used for the treatment of paroxysmal supraventricular tachycardia and is used as a booster in the state of low blood pressure.

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**Procaterol hydrochloride - CAS 62929-91-3**

**Catalog Number:** 62929-91-3  
**Molecular Weight:** 326.82  
**Molecular Formula:** C16H23ClN2O3  
**Description:** Procaterol hydrochloride is a long-acting, very potent and specific beta-2-adrenergic receptor agonist. It acts as a vaso dialator for long term treatment of asthma. It was developed by Pfizer.
**Betaxolol - CAS 63659-18-7**

Catalog Number: 63659-18-7  
Molecular Weight: 307.43  
Molecular Formula: C18H29NO3  
Description: Betaxolol is a selective beta1 adrenergic receptor blocker used in the treatment of hypertension and glaucoma.

**Tizanidine HCl - CAS 64461-82-1**

Catalog Number: 64461-82-1  
Molecular Weight: 290.17  
Molecular Formula: C9H8ClN5S· HCl  
Description: Tizanidine HCl is an α2-adrenergic receptor agonist and inhibits neurotransmitter release from CNS noradrenergic neurons.

**Oxprenolol - CAS 6452-71-7**

Catalog Number: 6452-71-7  
Molecular Weight: 265.35  
Molecular Formula: C15H23NO3  
Description: Oxprenolol is a lipophilic, non-selective beta-adrenergic blocker. It has some intrinsic sympathomimetic activity and is used for the treatment of angina pectoris, abnormal heart rhythms, anxiety, and hypertension, but it should not be administered to asthmatics under any circumstances.

**Phentolamine Mesylate - CAS 65-28-1**

Catalog Number: 65-28-1  
Molecular Weight: 377.46  
Molecular Formula: C17H19N3O· CH4O3S  
Description: Phentolamine Mesylate is a nonselective alpha-adrenergic antagonist with IC50 of 0.1 μM.
**Asenapine - CAS 65576-45-6**

**Catalog Number:** 65576-45-6  
**Molecular Weight:** 285.7724  
**Molecular Formula:** C17H16ClNO  
**Description:** Asenapine is an atypical antipsychotic multireceptor neuroleptic drug by combining serotonin (5HT2) and dopamine (D2) receptor antagonist; structurally related to Mianserin.

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**Practolol - CAS 6673-35-4**

**Catalog Number:** 6673-35-4  
**Molecular Weight:** 266.34  
**Molecular Formula:** C14H22N2O3  
**Description:** Practolol is a selective beta-1 adrenergic antagonist that has been used in the emergency treatment of cardiac arrhythmias. It inhibits the effects of the catecholamines epinephrine and norepinephrine and decreases heart rate, cardiac output, and systolic and diastolic blood pressure. It has anti-hypertensive activity.

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**Brimonidine Tartrate - CAS 70359-46-5**

**Catalog Number:** 70359-46-5  
**Molecular Weight:** 442.22  
**Molecular Formula:** C15H16BrN5O6  
**Description:** Brimonidine Tartrate is a highly selective α-adrenergic receptor agonist with EC50 of 0.45 nM for the α2A adrenoreceptor, and used to treat open-angle glaucoma or ocular hypertension.

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**Formoterol - CAS 73573-87-2**

**Catalog Number:** 73573-87-2  
**Molecular Weight:** 344.41  
**Molecular Formula:** C19H24N2O4  
**Description:** Formoterol is a Beta 2 adrenergic receptor agonist. It can be used in the treatment of asthma and COPD. Formoterol can be used as "symptom controllers" to supplement prophylactic corticosteroid therapy.
**Doxazosin - CAS 74191-85-8**

**Catalog Number:** 74191-85-8  
**Molecular Weight:** 451.48  
**Molecular Formula:** C23H25N5O5  
**Description:** Doxazosin is a quinazoline-derivative and long-lasting α1 adrenergic receptor blocker. It inhibits the binding of norepinephrine, which is released from sympathetic nerve terminals, to the α-1 receptors on the membrane of vascular smooth muscle cells. It is widely used to treat benign prostatic hyperplasia and lower urinary tract symptoms.

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**Isoproterenol - CAS 7683-59-2**

**Catalog Number:** 7683-59-2  
**Molecular Weight:** 211.26  
**Molecular Formula:** C11H17NO3  
**Description:** Isoproterenol can be used for the treatment of bradycardia (slow heart rate), heart block, and rarely for asthma. It is a non-selective β adrenoreceptor agonist and TAAR1 agonist that is structurally similar to epinephrine.

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**Esmolol HCl - CAS 81161-17-3**

**Catalog Number:** 81161-17-3  
**Molecular Weight:** 331.83  
**Molecular Formula:** C16H26ClNO4  
**Description:** Esmolol is a cardioselective beta1 receptor blocker with rapid onset, a very short duration of action, and no significant intrinsic sympathomimetic or membrane stabilising activity at therapeutic dosages.

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**Alfuzosin - CAS 81403-80-7**

**Catalog Number:** 81403-80-7  
**Molecular Weight:** 389.45  
**Molecular Formula:** C19H27N5O4  
**Description:** Alfuzosin is a pharmaceutical drug of the alpha-1 blocker class. It works by relaxing the muscles in the prostate and bladder neck. It is used to treat benign prostatic hyperplasia (BPH). It offers an alternative to prostatectomy in patients who require surgery but are unfit for this treatment, and in patients requiring symptomatic relief while awaiting surgery.
**Bambuterol HCl - CAS 81732-46-9**

**Catalog Number:** 81732-46-9  
**Molecular Weight:** 403.9  
**Molecular Formula:** C18H30ClN3O5  
**Description:** Bambuterol is a long acting beta-adrenoceptor agonist (LABA) used in the treatment of asthma.

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**Bambuterol - CAS 81732-65-2**

**Catalog Number:** 81732-65-2  
**Molecular Weight:** 367.44  
**Molecular Formula:** C18H29N3O5  
**Description:** Bambuterol is a long acting beta-adrenoceptor agonist (LABA) and is used in the treatment of asthma. It has a strong role in bronchial dilation and used for obstructive airway diseases, such as bronchial asthma, chronic bronchitis, tremor and cardiac side effects. It has the adverse effects, including fatigue, nausea, palpitations, headache, dizziness and tremor.

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**Levonordefrin - CAS 829-74-3**

**Catalog Number:** 829-74-3  
**Molecular Weight:** 183.20  
**Molecular Formula:** C9H13NO3  
**Description:** Levonordefrin is a adrenergic receptor agonist and can be used as a topical nasal decongestant and vasoconstrictor in dentistry in the United States. Levonordefrin is also a metabolite of the antihypertensive drug methyldopa.

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**Naphazoline - CAS 835-31-4**

**Catalog Number:** 835-31-4  
**Molecular Weight:** 210.28  
**Molecular Formula:** C14H14N2  
**Description:** Naphazoline is Alpha adrenergic receptor agonist. It is a vasoconstrictor with a rapid action in reducing swelling when applied to mucous membrane. It acts on alpha-receptors in the arterioles of the conjunctiva to produce constriction, resulting in decreased congestion.
**Nyldrin hydrochloride - CAS 849-55-8**

**Catalog Number:** 849-55-8  
**Molecular Weight:** 335.87  
**Molecular Formula:** C19H26NO2Cl  
**Description:** Nyldrin hydrochloride is a beta-adrenergic agonist. It is used in the treatment of peripheral vascular disorders and premature labor. It also can be used as anti-allergic agent. It is one of the FDA approved drug as Inhibitors of the Human Sodium Taurocholate Cotransporting Polypeptide (NTCP).

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**ICI141292 - CAS 86880-51-5**

**Catalog Number:**  
**Molecular Weight:** 369.41  
**Molecular Formula:** C20H23N3O4  
**Description:** ICI141292, also known as Epanolol, is a adrenergic β-antagonist with a greater affinity for β1- than β2-adrenoceptors, which is used for treatment of hypertension, cardiac arrhythmias, angina pectoris, glaucoma, migraine headaches, and anxiety.

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**Salmeterol - CAS 89365-50-4**

**Catalog Number:** 89365-50-4  
**Molecular Weight:** 415.57  
**Molecular Formula:** C25H37NO4  
**Description:** Salmeterol is a long-acting beta2-adrenergic receptor (beta 2AR) agonist. It is used clinically in the maintenance and prevention of asthma symptoms and maintenance of chronic obstructive pulmonary disease (COPD) symptoms. It is also used to prevent breathing difficulties during exercise.

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**Detomidine HCl - CAS 90038-01-0**

**Catalog Number:** B0084-079213  
**Price:** $298/500 mg  
**Molecular Weight:** 222.71  
**Molecular Formula:** C12H14N2· HCl  
**Description:** Detomidine is a selective α2-adrenoceptor agonist (Ki = 1.62 nM) that binds to α-adrenoceptors with much weaker potency (Ki = 415 nM).
**Salmeterol Xinafoate - CAS 94749-08-3**

**Catalog Number:** 94749-08-3  
**Molecular Weight:** 603.75  
**Molecular Formula:** C36H45NO7  
**Description:** Salmeterol Xinafoate is a long-acting β2-adrenergic receptor agonist with anti-inflammatory effects, used in the treatment of asthma symptoms and chronic obstructive pulmonary disease (COPD) symptoms.

**Moxisylyte hydrochloride - CAS 964-52-3**

**Catalog Number:** 964-52-3  
**Molecular Weight:** 315.84  
**Molecular Formula:** C16H26ClNO3  
**Description:** Moxisylyte hydrochloride is alpha 1-adrenoceptor antagonist. It can vasodilates cerebral vessels without reducing blood pressure. It is used as peripheral vasodilator. It is also used locally in the eye to reverse the mydriasis caused by phenylephrine.

**Metoprolol succinate - CAS 98418-47-4**

**Catalog Number:** 98418-47-4  
**Molecular Weight:** 652.83  
**Molecular Formula:** C34H56N2O10  
**Description:** Metoprolol succinate is a selective β-adrenoceptor antagonist. It is used in treatment of several diseases of the cardiovascular system. It is a drug used in the treatment of patients suffering from hypertension, coronary heart disease, chronic heart failure and arrhythmia.

**Atipamezole - CAS 104054-27-5**

**Catalog Number:** 104054-27-5  
**Molecular Weight:** 212.29  
**Molecular Formula:** C14H16N2  
**Description:** Atipamezole, a 4-substituted imidazole derivative, is an alpha2-adrenoceptor blocker which could be used for animals to recover from the anesthesia by lowering blood pressure and increasing heart rate and breathing rate.
Atipamezole hydroChloride - CAS 104075-48-1

**Catalog Number:** 104075-48-1  
**Molecular Weight:** 248.75  
**Molecular Formula:** C14H16N2.HCl  
**Description:** The hydrochloride salt form of atipamezole that is an alpha2-adrenoceptor blocker which could be used for animals to recover from the anesthesia by lowering blood pressure and increasing heart rate and breathing rate.

L-nebivolol - CAS 118457-14-0

**Catalog Number:**  
**Molecular Weight:** 405.442  
**Molecular Formula:** C22H25F2NO4  
**Description:** Nebivolol, a highly selective β1-adrenergic receptor inhibitor, has vasodilatory effect so that could be effective against hypertension. It was just withdrawn a Phase II/III trial for Hypertension in patients with chronic obstructive pulmonary disease.

Nebivolol - CAS 152520-56-4

**Catalog Number:** 152520-56-4  
**Molecular Weight:** 441.9  
**Molecular Formula:** C22H25F2NO4.HCl  
**Description:** Nebivolol selectively inhibits β1-adrenoceptor with IC50 of 0.8 ng/mL.

Silodosin - CAS 160970-54-7

**Catalog Number:** 160970-54-7  
**Molecular Weight:** 495.53  
**Molecular Formula:** C25H32F3N3O4  
**Description:** Silodosin shows high selectivity for the alpha (1A)-AR subtype.

Salmefamol - CAS 18910-65-1

**Catalog Number:** 18910-65-1  
**Molecular Weight:** 331.41  
**Molecular Formula:** C19H25NO4  
**Description:** Salmefamol is a beta2-adrenoceptor agonist which is useful for treatment of respiratory diseases.
**Amezinium methylsulfate - CAS 30578-37-1**

**Catalog Number:** 30578-37-1  
**Molecular Weight:** 313.33  
**Molecular Formula:** C11H12N3O.CH3O4S  
**Description:** Amezinium methylsulfate, a sympathomimetic drug used for the treatment of low blood pressure, increases the arterial blood pressure and heart rate of anaesthetized animals and of pithed rats by stimulating vascular alpha- and cardiac beta 1-adrenoceptors.

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**Clorprenaline - CAS 3811-25-4**

**Catalog Number:**  
**Molecular Weight:** 213.705  
**Molecular Formula:** C11H16ClNO  
**Description:** Clorprenaline is a beta-adrenergic receptor agonist.

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**Metoprolol - CAS 51384-51-1**

**Catalog Number:** 51384-51-1  
**Molecular Weight:** 267.37  
**Molecular Formula:** C15H25NO3  
**Description:** Metoprolol is a a selective β1 receptor blocker for the treatment of a variety of cardiovascular disorder.

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**Metoprolol Tartrate - CAS 56392-17-7**

**Catalog Number:** 56392-17-7  
**Molecular Weight:** 684.81  
**Molecular Formula:** 2C15H25NO3.C4H6O6  
**Description:** Metoprolol Tartrate is a cardioselective β-adrenergic receptor blocker with IC50 of 42 ng/mL.

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**Setiptiline - CAS 57262-94-9**

**Catalog Number:** 57262-94-9  
**Molecular Weight:** 261.36  
**Molecular Formula:** C19H19N  
**Description:** Setiptiline is is a serotonin receptor antagonist acts as a noradrenergic and specific serotonergic antidepressant.
Apraclonidine - CAS 66711-21-5

Catalog Number: 66711-21-5
Molecular Weight: 245.11
Molecular Formula: C9H10Cl2N4
Description: Apraclonidine is a clonidine derivative with relatively selective alpha-2-adrenergic agonistic activity. It is an α2 adrenergic receptor agonist and a weak α1 adrenergic receptor agonist.

Doxazosin Mesylate - CAS 77883-43-3

Catalog Number: 77883-43-3
Molecular Weight: 547.58
Molecular Formula: C24H29N5O8S
Description: Doxazosin mesylate is an α1-selective alpha blocker used to treat high blood pressure and urinary retention associated with benign prostatic hyperplasia.

Alfuzosin HCl - CAS 81403-68-1

Catalog Number: 81403-68-1
Molecular Weight: 425.91
Molecular Formula: C19H28ClN5O4
Description: Alfuzosin HCl is an alpha1 receptor antagonist used to treat benign prostatic hyperplasia (BPH).

Olodaterol - CAS 868049-49-4

Catalog Number: 868049-49-4
Molecular Weight: 386.44
Molecular Formula: C21H26N2O5
Description: Olodaterol, also referred to as BII744, is a long acting β2-agonist (β2-ARs; EC50s = 97.7 and 2,725 nM for human β2- and β1-ARs, respectively) used as an inhalation for treating patients with chronic obstructive pulmonary disease (COPD), manufactured by Boehringer-Ingelheim.

Sotalol hydrochloride - CAS 959-24-0

Catalog Number: 959-24-0
Molecular Weight: 308.82
Molecular Formula: C12H21ClN2O3S
Description: Sotalol hydrochloride is a non-selective beta adrenergocceptor antagonist and potassium channel blocker (IC50 = 43 μM)
Propranolol Hydrochloride - CAS 3506-09-0

Catalog Number: 3506-09-0
Molecular Weight: 295.8  Molecular Formula: C16H22ClNO2
Description: Propranolol Hydrochloride is a β-adrenergic antagonist used to treat high blood pressure, a number of types of irregular heart rate, thyrotoxicosis, capillary hemangiomas, performance anxiety, and essential tremors.

Brombuterol - CAS 41937-02-4

Catalog Number:
Molecular Weight: 366.097  Molecular Formula: C12H18Br2N2O
Description: Brombuterol is found to be a novel β-adrenergic agonist that can increase the meat-to-fat ratio but it is banned in animal feeds.

A 80426 mesylate - CAS 152148-64-6

Catalog Number:
Molecular Weight: 445.57  Molecular Formula: C23H27NO2.CH3SO3H
Description: A 80426 mesylate is a potent α2-adrenoceptor antagonist and a selective 5-HT uptake inhibitor (Ki = 2.01 and 3.77 nM, respectively). It displays low affinity for a panel of structurally homologous GPCRs.

CGP 20712 dihydrochloride - CAS 1216905-73-5

Catalog Number:
Molecular Weight: 567.39  Molecular Formula: C23H25F3N4O5.2HCl
Description: CGP 20712 dihydrochloride is a potent and selective β1-adrenoceptor antagonist (IC50 = 0.7 nM) with 10,000-fold selectivity over β2-adrenoceptors.
BRL 44408 maleate - CAS 681806-46-2

Catalog Number:  
Molecular Weight: 331.37  
Molecular Formula: C13H17N3.C4H4O4  
Description: BRL 44408 maleate is a selective α2A-adrenoceptor antagonist (Ki = 1.7 nM and 144.5 nM at α2A and α2B-adrenergic receptors, respectively). BRL 44408 increases hippocampal noradrenalin release following systemic administration.

Fenoldopam hydrochloride - CAS 181217-39-0

Catalog Number:  
Molecular Weight: 342.22  
Molecular Formula: C16H16ClNO3.HCl  
Description: Fenoldopam hydrochloride is a selective partial agonist of dopamine D1 receptor (EC50 = 57 nM). It also acts as an a2-adrenoceptor antagonist in vitro (Ki = 15 - 25 nM). Fenoldopam can be used as a vasodilator and antihypertensive.

Pronetalol - CAS 54-80-8

Catalog Number: 54-80-8  
Molecular Weight: 229.32  
Molecular Formula: C15H19NO  
Description: Pronethalol is a non-selective beta-adrenergic blocking agent used in treatment due to carcinogenic properties.

Hoku-81 - CAS 58020-43-2

Catalog Number: 58020-43-2  
Molecular Weight: 243.73  
Molecular Formula: C12H18ClNO2  
Description: Hoku 81 is a bronchodilator, and one of the metabolites of tulobuterol.
**Rauwolscine hydrochloride - CAS 6211-32-1**

**Catalog Number:**

**Molecular Weight:** 390.9  
**Molecular Formula:** C21H27ClN2O3

**Description:** Rauwolscine hydrochloride is the hydrochloride salt of Rauwolscine which is a potent, reversible and specific α2-adrenergic receptor antagonist with Ki values are 3.5, 4.6, and 0.6 nM at cloned human α2A-AR, α2B-AR, and α2C-AR adrenoceptors, respectively.

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**P2647 - CAS 63-12-7**

**Catalog Number:**

**Molecular Weight:** 404.5  
**Molecular Formula:** C22H32N2O5

**Description:** P2647, also known as Benzquinamide, is a discontinued antiemetic compound with antihistaminic, mild anticholinergic, and sedative properties. P2647 binds to the α2A, α2B, and α2C adrenergic receptors (α2-AR) with Ki values of 1,365, 691, and 545 nM, respectively.

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**Carvedilol - CAS 72956-09-3**

**Catalog Number:** 72956-09-3

**Molecular Weight:** 406.47  
**Molecular Formula:** C24H26N2O4

**Description:** Carvedilol is a non-selective beta blocker/alpha-1 blocker with an IC50 of 3.8 μM for inhibition of LDL oxidation.

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**Detomidine - CAS 76631-46-4**

**Catalog Number:** 76631-46-4

**Molecular Weight:** 186.25  
**Molecular Formula:** C12H14N2

**Description:** Detomidine is an imidazole derivative and a α2-adrenergic agonist. It is usually used in the form of detomidine hydrochloride. It is used as a large animal sedative with analgesic properties, primarily used in horses. It also has cardiac and respiratory effects and an antidiuretic action due to inhibition of the sympathetic nervous system.
**Scopine HCl - CAS 85700-55-6**

**Catalog Number:** 85700-55-6  
**Molecular Weight:** 191.66  
**Molecular Formula:** C8H14ClNO2  
**Description:** Scopine HCl is the hydrochloride of Scopine, which is the metabolite of anisodine, which is a α1-adrenergic receptor agonist and used in the treatment of acute circulatory shock.

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**Medetomidine - CAS 86347-14-0**

**Catalog Number:** 86347-14-0  
**Molecular Weight:** 200.28  
**Molecular Formula:** C13H16N2  
**Description:** Medetomidine is a potent, highly selective α2-adrenoceptor agonist, which Ki values are 1.08 and 1750 nM for α2- and α1-adrenoceptors respectively. It is often used as the hydrochloride salt, medetomidine hydrochloride. It is a racemic mixture of two stereoisomers and dexmedetomidine is the isomer with more useful effects.

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**CGP 12177 - CAS 81047-99-6**

**Catalog Number:** 81047-99-6  
**Molecular Weight:** 279.34  
**Molecular Formula:** C14H21N3O3  
**Description:** CGP 12177 is a partial β3-adrenoceptor agonist with $K_i$ value of 88 nM. It is also a β1- and β2-adrenoceptors antagonist with $K_i$ values of 0.9 nM and 4 nM for β1-, β2 adrenoceptors. CGP12177 can slightly activate L-type Ca2+ current in human ventricular myocytes.

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**A 61603 hydrobromide - CAS 107756-30-9**

**Catalog Number:**  
**Molecular Weight:** 390.29  
**Molecular Formula:** C14H19N3O3S.HBr  
**Description:** A 61603 hydrobromide is a potent and selective α-adrenoceptor agonist with 35-fold selectivity for α1A over α1B or α1D sites. Activation of the α1A-adrenergic receptor by A 61603 induces dose response increases in spontaneous Ca2+ transients in rat ventricular myocytes in vitro ($EC_{50} = 6.9 \text{ nmol/L}$).
**CGP-12388 - CAS 108929-47-1**

**Catalog Number:** 108929-47-1

**Molecular Weight:** 263.29

**Molecular Formula:** C13H19N3O3

**Description:** CGP-12388 is a beta-adrenoceptor antagonist-derived radioligands. It is used for cardiac PET imaging due to its high hydrophilicity and affinity to beta-adrenoceptor.

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**Levobetaxolol HCl - CAS 116209-55-3**

**Catalog Number:** 116209-55-3

**Molecular Weight:** 343.89

**Molecular Formula:** C18H29NO3.HCl

**Description:** Levobetaxolol exhibits a higher affinity at cloned human β1 and β2 receptors with Ki value of 0.76 nM and 32.6 nM, respectively.

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**Mirabegron - CAS 223673-61-8**

**Catalog Number:** 223673-61-8

**Molecular Weight:** 396.506

**Molecular Formula:** C21H24N4O2S

**Description:** Mirabegron (formerly YM-178, trade name Myrbetriq) is a drug for the treatment of overactive bladder. Mirabegron activates the β3 adrenergic receptor in the detrusor muscle in the bladder, which leads to muscle relaxation and an increase in bladder capacity.

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**Phenylephrine HCl - CAS 61-76-7**

**Catalog Number:** 61-76-7

**Molecular Weight:** 203.67

**Molecular Formula:** C9H14ClNO2

**Description:** Phenylephrine HCl is a selective α1-adrenergic receptor agonist of the phenethylamine class used primarily as a decongestant, as an agent to dilate the pupil, and to increase blood pressure.

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**Naftopidil - CAS 57149-07-2**

**Catalog Number:** 57149-07-2

**Molecular Weight:** 392.49

**Molecular Formula:** C24H28N2O3

**Description:** Naftopidil is a selective α1-adrenergic receptor antagonist or alpha blocker with a Ki of 58.3 nM.
**Betaxolol HCl - CAS 63659-19-8**

**Catalog Number:** 63659-19-8  
**Molecular Weight:** 343.89  
**Molecular Formula:** C18H29NO3· HCl  
**Description:** Betaxolol is a β1 adrenergic receptor blocker with IC50 of 6 μM.

**Bisoprolol fumarate - CAS 104344-23-2**

**Catalog Number:** 104344-23-2  
**Molecular Weight:** 441.52  
**Molecular Formula:** C22H35NO8  
**Description:** Bisoprolol is a beta-adrenoceptor blocking drug (beta-blocker). More specifically, it is a selective type β1 adrenergic receptor blocker.

**Adrenaline HCl - CAS 62-13-5**

**Catalog Number:** 62-13-5  
**Molecular Weight:** 217.65  
**Molecular Formula:** C9H12ClNO3  
**Description:** Adrenaline is an adrenergic agonist used as a topical vasoconstrictor and hemostatic, mainly acts on alpha-1 adrenergic receptors.

**Pirbuterol acetate - CAS 65652-44-0**

**Catalog Number:** 65652-44-0  
**Molecular Weight:** 300.35  
**Molecular Formula:** C14H24N2O5  
**Description:** Pirbuterol acetate is a short-acting β2 adrenoreceptor agonist. It has bronchodilating action and is used as a bronchodilator. It is also used in the treatment of asthma as a breath-activated metered-dose inhaler.
**Bopindolol Malonate - CAS 62658-64-4**

**Catalog Number:** 62658-64-4  
**Molecular Weight:** 484.54  
**Molecular Formula:** C26H32N2O7

**Description:** Bopindolol Malonate is a potent, non-selective, long-acting beta adrenoceptor antagonist. It demonstrates inhibition of H2O2-induced lipid peroxidation. It is an ester which acts as a prodrug for its active metabolite 4-(3-t-butylamino-2-hydroxypropoxy)-2-methylindole.

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**BRL-37344 sodium - CAS 127299-93-8**

**Catalog Number:** 127299-93-8  
**Molecular Weight:** 385.82  
**Molecular Formula:** C19H21ClNNaO4

**Description:** BRL37344 is a selective β3-adrenergic receptor agonist originated by GlaxoSmithKline. BRL37344 can decrease nerve-evoked contractions in human detrusor smooth muscle isolated strips, it can also stimulate fuel oxidation by soleus muscle in vitro. BRL37344 increases glucose transport into L6 myocytes.

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**DL-Octopamine hydrochloride - CAS 770-05-8**

**Catalog Number:** 770-05-8  
**Molecular Weight:** 189.64  
**Molecular Formula:** C8H12ClNO2

**Description:** Octopamine hydrochloride is an α-adrenoceptor agonist.

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**(+)-Nebivolol - CAS 118457-15-1**

**Catalog Number:** 118457-15-1  
**Molecular Weight:** 405.44  
**Molecular Formula:** C22H25F2NO4

**Description:** This active molecular is a β-adrenergic receptor antagonist. Dexnebivolol is an enantiomer of Nebivolol which is a β1 receptor blocker with nitric oxide-potentiating vasodilatory effect used in treatment of hypertension and left ventricular failure in Europe. It is highly cardioselective under certain circumstances. In Apr 2015, US FDA approved an ANDA for nebivolol submitted by Amerigen.
**(-)-Nebivolol - CAS 118457-16-2**

**Catalog Number:** 118457-16-2  
**Molecular Weight:** 405.44  
**Molecular Formula:** C22H25F2NO4  
**Description:** This active molecular is a β-adrenergic receptor antagonist. Levonebivolol is an enantiomer of Nebivolol which is a β1 receptor blocker with nitric oxide-potentiating vasodilatory effect used in treatment of hypertension and left ventricular failure in Europe. It is highly cardioselective under certain circumstances.

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**Cimbuterol - CAS 54239-39-3**

**Catalog Number:**  
**Molecular Weight:** 233.315  
**Molecular Formula:** C13H19N3O  
**Description:** Cimbuterol is a β-adrenergic agonist.

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**Clenproperol - CAS 38339-11-6**

**Catalog Number:**  
**Molecular Weight:** 263.162  
**Molecular Formula:** C11H16Cl2N2O  
**Description:** Clenproperol is a β-adrenergic agonist.

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**ICI 118551 hydrochloride - CAS 72795-01-8**

**Catalog Number:** 72795-01-8  
**Molecular Weight:** 313.86  
**Molecular Formula:** C17H27NO2.HCl  
**Description:** ICI 118551 hydrochloride is a highly selective β2 adrenergic antagonist (Ki values are 1.2, 120 and 257 nM for β2, β1 and β3 receptors respectively), inhibited cAMP accumulation by 50% (IC50 = 1.5 microM and 1.7 microM, respectively).
Tolazoline HCl - CAS 59-97-2

**Catalog Number:** 59-97-2  
**Molecular Weight:** 196.68  
**Molecular Formula:** C10H12N2.HCl  
**Description:** Tolazoline is a non-selective competitive α-adrenergic receptor antagonist.

CGP 12177 hydrochloride - CAS 64208-32-8

**Catalog Number:**  
**Molecular Weight:** 315.8  
**Molecular Formula:** C14H21N3O3.HCl  
**Description:** CGP 12177 hydrochloride is a partial agonist of β3-adrenoceptors, and also an antagonist of β1- and β2-adrenoceptors (Ki = 0.9, 4 and 88 nM for β1, β2 and β3 receptors respectively).

CL 316243 sodium - CAS 138908-40-4

**Catalog Number:** 138908-40-4  
**Molecular Weight:** 465.79  
**Molecular Formula:** C20H18ClNNa2O7  
**Description:** CL 316243 is a highly selective β3-adrenoceptor agonist with EC50 value of 3 nM; > 10000-fold selective over β1 and β2 receptors. CL 316243 can restore the expression of down-regulated fatty acid oxidation genes in type 2 diabetic mice and enhance insulin-stimulated glucose disposal in nonobese rats.

Deoxycorticosterone acetate - CAS 56-47-3

**Catalog Number:** 56-47-3  
**Molecular Weight:** 372.5  
**Molecular Formula:** C23H32O4  
**Description:** Deoxycorticosterone acetate is a steroid hormone used for intramuscular injection for replacement therapy of the adrenocortical steroid.
**MK-912 hydrochloride - CAS 119942-70-0**

**Catalog Number:** 119942-70-0  
**Molecular Weight:** 375.90  
**Molecular Formula:** C20H26ClN3O2  
**Description:** MK-912 is a potent new selective alpha 2-adrenergic receptor antagonist that is originated by Merck & Co for the treatment of Major depressive disorder. In Dec 1999, Phase-II clinical trials for Depression in USA were on going, but now it is discontinued.

**Prazosin Hydrochloride - CAS 19237-84-4**

**Catalog Number:** 19237-84-4  
**Molecular Weight:** 419.86  
**Molecular Formula:** C19H21N5O4· HCl  
**Description:** Prazosin HCl, a quinazoline derivative, is the first of a new chemical class of antihypertensives.

**Propranolol Hydrochloride - CAS 318-98-9**

**Catalog Number:** 318-98-9  
**Molecular Weight:** 295.80  
**Molecular Formula:** C16H22ClNO2  
**Description:** Propranolol hydrochloride, with antihypertensive, antianginal and antiarrhythmic (class II) properties, is a non-cardioselective adrenergic-beta antagonist and used in hypertrophic obstructive cardiomyopathies.

**Terazosin HCl - CAS 70024-40-7**

**Catalog Number:** 70024-40-7  
**Molecular Weight:** 459.92  
**Molecular Formula:** C19H30ClN5O6  
**Description:** Terazosin is a selective alpha 1 antagonist used for treatment of symptoms of an enlarged prostate (BPH).

**Fiduxosin hydrochloride - CAS 208992-74-9**

**Catalog Number:** 208992-74-9  
**Molecular Weight:** 592.11  
**Molecular Formula:** C30H29N5O4S.HCl  
**Description:** Fiduxosin hydrochloride is an alpha(1)-adrenoceptor antagonist used for the treatment of benign prostatic hyperplasia.
Synephrine - CAS 94-07-5
Catalog Number: B0084-32S296  Price: $229/25 g
Molecular Weight: 167.21  Molecular Formula: C9H13NO2
Description: Synephrine is an α-adrenergic receptor agonist used as a vasoconstrictor.

Prazosin - CAS 19216-56-9
Catalog Number: 19216-56-9
Molecular Weight: 383.40  Molecular Formula: C19H21N5O4
Description: Prazosin, a selective and orally active antagonist of adrenergic alpha-1, is a synthetic piperazine derivative to treat high blood pressure and anxiety, PTSD, and panic disorder.

Methyldopa - CAS 555-30-6
Catalog Number: 555-30-6
Molecular Weight: 211.21  Molecular Formula: C10H13NO4
Description: Methyldopa (Aldomet) is a DOPA decarboxylase competitive inhibitor with an ED50 of 21.8 mg/kg.

Synephrine Hydrochloride - CAS 5985-28-4
Catalog Number: 5985-28-4
Molecular Weight: 167.21  Molecular Formula: C9H14ClNO2
Description: SynephrineHCl (Oxedrine, p-Synephrine) is a sympathomimetic α-adrenergic receptor (AR) agonist.

Phenoxybenzamine HCl - CAS 63-92-3
Catalog Number: 63-92-3
Molecular Weight: 340.3  Molecular Formula: C18H22ClNO·HCl
Description: Phenoxybenzamine HCl is a non-specific, irreversible alpha antagonist with an IC50 of 550 nM.
Isoprenaline HCl - CAS 51-30-9
Catalog Number: B0084-350898  Price: $279/50 g
Molecular Weight: 247.72  Molecular Formula: C11H17NO3.HCl
Description: Isoprenaline is a non-selective beta-adrenergic receptor agonist, used for the treatment of bradycardia and heart block. It would increase cAMP levels and activate protein kinase A and ERK1/2 through its effect on β-adrenoceptor.

Fenspiride Hydrochloride - CAS 5053-08-7
Catalog Number: 5053-08-7
Molecular Weight: 296.79  Molecular Formula: C15H20N2O2.HCl
Description: Fenspiride is a bronchodilator with anti-inflammatory properties, inhibiting phosphodiesterase 4 and phosphodiesterase 3 activities with logIC50 values of 4.16 and 3.44, respectively, in human isolated bronchi.

Guanabenz Acetate - CAS 23256-50-0
Catalog Number: 23256-50-0
Molecular Weight: 291.13  Molecular Formula: C8H8Cl2N4.C2H4O2
Description: Guanabenz Acetate is a selective agonist of α2a-adrenergic receptor, α2b-adrenergic receptor and α2c-adrenergic receptor with pEC50 of 8.25, 7.01 and ~5, respectively. It is used as an antihypertensive drug.

DL-Adrenaline - CAS 329-65-7
Catalog Number: 329-65-7
Molecular Weight: 183.2  Molecular Formula: C9H13NO3
Description: DL-Adrenaline is a hormone and a neurotransmitter secreted by the medulla of the adrenal glands.

B-HT 920 dihydrochloride - CAS 36085-73-1
Catalog Number: 36085-73-1
Molecular Weight: 282.23  Molecular Formula: C10H15N3S • 2HCl
Description: Talipexole is a D2 dopamine receptor agonist, displaying anti-Parkinsonian activity.
Metaproterenol hemisulfate salt - CAS 5874-97-5
Catalog Number: 5874-97-5
Molecular Weight: 260.30  Molecular Formula: C11H18NO5S1/2
Description: Metaproterenol hemisulfate salt is the hemisulfate salt form of Metaproterenol, which is a moderately selective beta-adrenergic agonist. It is used in the treatment of asthma and bronchospasms.

ARC239 dihydrochloride - CAS 67339-62-2
Catalog Number: 67339-62-2
Molecular Weight: 480.43  Molecular Formula: C24H31Cl2N3O3
Description: ARC239 dihydrochloride is a potent and selective α2 B adrenoceptor antagonist. It is used as an α-adrenoceptor blocking drug. It competitively antagonizes pressor responses to adrenaline and inhibits pressor responses to noradrenaline, tyramine, phenylephrine and dimethylphenylpiperazinium.

Xylazine - CAS 7361-61-7
Catalog Number: 7361-61-7
Molecular Weight: 220.33  Molecular Formula: C12H16N2S
Description: Xylazine is an analogue of clonidine, which is an agonist at the α2 class of adrenergic receptor. It is a drug used for sedation, anesthesia, muscle relaxation and analgesia in animals such as cattle, horses and other non-human mammals. It is also used as an emetic, especially in cats by veterinarians.

Levobunolol hydrochloride - CAS 27912-14-7
Catalog Number: 27912-14-7
Molecular Weight: 327.85  Molecular Formula: C17H26ClNO3
Description: Levobunolol hydrochloride, a beta1- and beta2-adrenergic blocking agent, has proved to be an effective ocular hypotensive agent to treat glaucoma.
**Medetomidine HCl - CAS 86347-15-1**

**Catalog Number:** 86347-15-1  
**Molecular Weight:** 236.74  
**Molecular Formula:** C13H16N2·HCl  
**Description:** Medetomidine is a selective α2-adrenoceptor agonist, with Ki of 1.08 nM, exhibits 1620-fold selectivity over α1-adrenoceptor.

**Penbutolol sulfate - CAS 38363-32-5**

**Catalog Number:** 38363-32-5  
**Molecular Weight:** 291.43  
**Molecular Formula:** C18H29NO2  
**Description:** Penbutolol is a sympathomimetic drug used to treat mild to moderate high blood pressure by binding to both beta-1 adrenergic receptors and beta-2 adrenergic receptors.

**Terazosin - CAS 63590-64-7**

**Catalog Number:** 63590-64-7  
**Molecular Weight:** 387.44  
**Molecular Formula:** C19H25N5O4  
**Description:** Terazosin, works by blocking the action of adrenaline on smooth muscle of the bladder and the blood vessel walls, is a selective alpha1-antagonist used for treatment of symptoms of benign prostatic hyperplasia (BPH).

**Sunepitron hydrochloride - CAS 148408-65-5**

**Catalog Number:**  
**Molecular Weight:** 365.86  
**Molecular Formula:** C17H23N5O2·HCl  
**Description:** Sunepitron hydrochloride is a potent and selective serotonin 5-HT1A autoreceptor agonist, α2-adrenergic antagonist, and dopamine D2 agonist. The phase III clinical trial for the treatment of depression is discontinued.

**Trecadrine - CAS 90845-56-0**

**Catalog Number:**  
**Molecular Weight:** 383.53  
**Molecular Formula:** C27H29NO  
**Description:** Trecadrine, a new β3-adrenergic agonist, decreases fat content and increases gastrocnemius muscle UCP2 gene expression in a diet-induced obesity model.
**Clenhexerol - CAS 78982-88-4**

Catalog Number:  
Molecular Weight: 305.243  
Molecular Formula: C14H22Cl2N2O  
Description: Clenhexerol is a β-adrenergic agonist.

**Clenpenterol hydrochloride - CAS 37158-47-7**

Catalog Number:  
Molecular Weight: 327.68  
Molecular Formula: C13H21Cl3N2O  
Description: Clenbuterol, marketed as Dilaterol, Spiropent, Ventipulmin, and also generically as Dilaterol and Spiropent, a representative of the class of beta-adrenergic agents, had been used as a tocolytic, bronchodilator, and heart tonics in human and veterinary medicine.

**Tertatolol - CAS 83688-84-0**

Catalog Number:  
Molecular Weight: 295.44  
Molecular Formula: C16H25NO2S  
Description: Tertatolol, a benzothiopyran derivative, is a potent dual antagonist of beta-adrenoceptor and 5-HT receptor, with antihypertensive effect.

**Guanoxabenz - CAS 24047-25-4**

Catalog Number:  
Molecular Weight: 247.08  
Molecular Formula: C8H8Cl2N4O  
Description: Guanoxabenz, a metabolite of guanafen, is an α2 adrenergic receptor agonist.

**Levalbuterol tartrate - CAS 661464-94-4**

Catalog Number: 661464-94-4  
Molecular Weight: 389.40  
Molecular Formula: C17H27NO9  
Description: Levosalbutamol tartrate, the R-enantiomer of salbutamol, is a short-acting β2 adrenergic receptor agonist used in the treatment of asthma and chronic obstructive pulmonary disease (COPD).
Indacaterol Maleate - CAS 753498-25-8

**Catalog Number:** 753498-25-8  
**Molecular Weight:** 508.56  
**Molecular Formula:** C24H28N2O3·C4H4O4  
**Description:** Indacaterol is an ultra-long-acting β-adrenoceptor agonist with pKi of 7.36.

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Zoleprodolol - CAS 158599-53-2

**Catalog Number:** 158599-53-2  
**Molecular Weight:** 351.40  
**Molecular Formula:** C17H25N3O5  
**Description:** Zoleprodolol, an oxadiazol derivative, has been found to be an adrenergic receptor antagonist.

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Milveterol hydrochloride - CAS 804518-03-4

**Catalog Number:** 804518-03-4  
**Molecular Weight:** 471.98  
**Molecular Formula:** C25H30ClN3O4  
**Description:** Milveterol is a long-acting β(2)-adrenoceptor agonist under the development of GlaxoSmithKline. Phase II trials for the treatment of Chronic obstructive pulmonary disease were continued.

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Rezatomidine - CAS 847829-38-3

**Catalog Number:** 847829-38-3  
**Molecular Weight:** 232.35  
**Molecular Formula:** C13H16N2S  
**Description:** Rezatomidine is a selective α2-adrenoreceptor antagonist under the development of Allergan. No recent development was reported for the treatment of Diabetic neuropathies and Fibromyalgia.
**Vilanterol - CAS 503068-34-6**

- **Catalog Number:** B0084-462253
- **Price:** $188/25 mg
- **Molecular Weight:** 486.42852
- **Molecular Formula:** C24H33Cl2NO5
- **Description:** Vilanterol (GW642444; GW 642444X) is a novel, inhaled, long-acting β (2) agonist with inherent 24-h activity under development as a once-daily combination therapy with an inhaled corticosteroid for COPD and asthma.

**Vilanterol trifenate - CAS 503070-58-4**

- **Catalog Number:** 503070-58-4
- **Molecular Weight:** 486.43
- **Molecular Formula:** C24H33Cl2NO5
- **Description:** Vilanterol, also known as GW-642444, is a long-acting beta-2 agonist drug, which in May 2013 was approved in combination with fluticasone furoate for sale as Breo Ellipta by GlaxoSmithKline for the treatment of chronic obstructive pulmonary disease (COPD).

**L-α-Methyl DOPA Hydrate - CAS 41372-08-1**

- **Catalog Number:**
- **Molecular Weight:** 238.241
- **Molecular Formula:** C10H13NO4.3/2H2O
- **Description:** L-α-Methyl DOPA Hydrate is an alpha-adrenergic agonist used as a sympatholytic or antihypertensive.

**Salbutamol Sulfate - CAS 51022-70-9**

- **Catalog Number:** 51022-70-9
- **Molecular Weight:** 576.7
- **Molecular Formula:** C26H44N2O10S
- **Description:** Salbutamol Sulfate is a Non-selective 2-adrenergic receptor agonist (IC50=8.93 µM).

**Carvedilol Phosphate - CAS 610309-89-2**

- **Catalog Number:** 610309-89-2
- **Molecular Weight:** 504.47
- **Molecular Formula:** C24H29N2O8P
- **Description:** Carvedilol phosphate hemihydrate is a nonselective beta (β1, β2) blocker and alpha (α1) blocker, inhibits LDL oxidation (IC50 = 3.8 µM).
**(R,R)-Formoterol - CAS 67346-49-0**

**Catalog Number:** 67346-49-0  
**Molecular Weight:** 344.41  
**Molecular Formula:** C19H24N2O4  
**Description:** (R,R)-Formoterol is a long acting beta-adrenoceptor agonist acts as a novel highly β2-selective adrenergic agonist and holds promise as a β2-agonist that could impart selective beneficial metabolic effects.

**Fenoterol HBr - CAS 1944-12-3**

**Catalog Number:** 1944-12-3  
**Molecular Weight:** 384.26  
**Molecular Formula:** C17H21NO4. HBr  
**Description:** Fenoterol hydrobromide is a β2 adrenergic agonist designed to open up the airways to the lungs, is classed as sympathomimetic β2 agonist and asthma medication.

**Tamsulosin HCl - CAS 106463-17-6**

**Catalog Number:** 106463-17-6  
**Molecular Weight:** 444.97  
**Molecular Formula:** C20H28N2O5S· HCl  
**Description:** The hydrochloride salt form of Tamsulosin which could block on the sympathetic α1 receptor, especially selectively bind to the α1A receptor so that has been found to be effective in the treatment of benign prostatic hyperplasia.

**Asenapine hydrochloride - CAS 1412458-61-7**

**Catalog Number:** 1412458-61-7  
**Molecular Weight:** 322.23  
**Molecular Formula:** C17H17Cl2NO  
**Description:** Asenapine hydrochloride, also called Org S222 and HSDB 8061, shows high affinity for numerous receptors including 5-HT receptor and adrenergic receptor.
Salbutamol - CAS 18559-94-9

**Catalog Number:** 18559-94-9  
**Molecular Weight:** 239.31  
**Molecular Formula:** C13H21NO3  
**Description:** Salbutamol is a short-acting agonist that specifically targets β2-adrenergic receptor to alleviate bronchospasm in conditions such as asthma and chronic obstructive pulmonary disease (COPD).

Guanfacine - CAS 29110-47-2

**Catalog Number:** 29110-47-2  
**Molecular Weight:** 246.10  
**Molecular Formula:** C9H9Cl2N3O  
**Description:** Guanfacine, a selective agonist of α2A receptor, is a sympatholytic drug to treat attention deficit hyperactivity disorder (ADHD) and hypertension. It lowers both systolic and diastolic blood pressure due to activating the central nervous system α2A norep.

Guanfacine HCl - CAS 29110-48-3

**Catalog Number:** 29110-48-3  
**Molecular Weight:** 282.56  
**Molecular Formula:** C9H10Cl3N3O  
**Description:** Guanfacine HCl is the hydrochloride salt of Guanfacine. Guanfacine, a selective agonist of α2A receptor, is a sympatholytic drug to treat attention deficit hyperactivity disorder (ADHD) and hypertension. It lowers both systolic and diastolic blood pressure.

Atenolol - CAS 29122-68-7

**Catalog Number:** 29122-68-7  
**Molecular Weight:** 266.34  
**Molecular Formula:** C14H22N2O3  
**Description:** Atenolol, with antianginal and antiarrhythmic properties, is a cardioselective beta-adrenergic blocker and used in hypertension control.
**Moxonidine hydrochloride - CAS 75536-04-8**

**Catalog Number:** 75536-04-8  
**Molecular Weight:** 278.14  
**Molecular Formula:** C9H13Cl2N5O

**Description:** Moxonidine hydrochloride is a mixed agonist of α2-adrenergic receptor (α2AR) and imidazoline-1 receptor (I1R). Its Ki values is 4.2±3.2 nmol/L, 13.0±4.2 nmol/L, 9.5±4.1 nmol/L and 15.6±9.8 nmol/L for I1R, α2AAR, α2BAR and α2CAR, respectively. It is used as antihypertensive agent. It displays 40-fold higher affinity for I1 receptors versus α2-adrenoceptors.

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**MK-351 hydrochloride - CAS 884-39-9**

**Catalog Number:** 884-39-9  
**Molecular Weight:** 247.68  
**Molecular Formula:** C10H14ClNO4

**Description:** MK-351 hydrochloride is an alpha-adrenergic agonist selective for α2-adrenergic receptors. It is a psychoactive drug used as a sympatholytic or antihypertensive.

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**Abanoquil mesilate - CAS 118931-00-3**

**Catalog Number:** 118931-00-3  
**Molecular Weight:** 491.56  
**Molecular Formula:** C23H29N3O7S

**Description:** This molecular is an active biochemical as a Alpha 1 adrenergic receptor antagonist. However, no developments were reported for Ischaemic heart disorders and Arrhythmias.

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**VIBEGRON - CAS 1190389-15-1**

**Catalog Number:** 1190389-15-1  
**Molecular Weight:** 444.54  
**Molecular Formula:** C26H28N4O3

**Description:** This active molecular is a selective Beta 3 Adrenergic Receptor Agonist and was developed by Kyorin Pharmaceutical for the treatment of OAB (Overactive Bladder). Now, Vibegron is in Phase 3 human clinical trials for the treatment of OAB.
**TAK-259 HCl - CAS 1192347-42-4**

**Catalog Number:** 1192347-42-4  
**Molecular Weight:** 410.69  
**Molecular Formula:** C14H14Cl3N3O3S  
**Description:** This active molecular is a selective α1D Adrenergic Receptor antagonist. (Ki value of 1.1 nM, 200 folds selective over α1A and 800 fold selective over α1B). TAK-259 exhibited a larger MRTpo value and potent antiurinary frequency efficacy.

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**Liafensine - CAS 1198790-53-2**

**Catalog Number:** 1198790-53-2  
**Molecular Weight:** 366.47  
**Molecular Formula:** C24H22N4  
**Description:** This active molecular is a SNDR (serotonin-norepinephrine-dopamine reuptake) inhibitor. It was originated by Bristol-Myers Squibb for the treatment of major depressive disorder. In Feb 2013, Phase-II clinical trials in Major depressive disorder (treatment-experienced) in Argentina were on-going.

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**Arbutamine - CAS 128470-16-6**

**Catalog Number:** 128470-16-6  
**Molecular Weight:** 317.38  
**Molecular Formula:** C18H23NO4  
**Description:** Arbutamine is β-adrenergic receptor originated by SICOR. It is a cardiac stimulant. Arbutamine is a synthetic catecholamine with positive chronotropic and inotropic properties and be applied in echocardiography and diagnostic coronary angiography. It can bind to and activate β-1 adrenergic receptors in the myocardium, so it can increase heart rate and force of myocardial contraction.

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**MK-467 - CAS 130466-38-5**

**Catalog Number:** 130466-38-5  
**Molecular Weight:** 454.98  
**Molecular Formula:** C20H27ClN4O4S  
**Description:** MK-467 is a peripheral Alpha2-adrenoceptor antagonist originated by Merck & Co. It can dose-dependently attenuate the bradycardia associated with dexmedetomidine, and shorten the sedative effect without altering its quality. Clinical for Diabetes mellitus in USA was discontinued in 1994.
**Midodrine - CAS 133163-28-7**

**Catalog Number:** 133163-28-7  
**Molecular Weight:** 254.29  
**Molecular Formula:** C12H18N2O4  
**Description:** Midodrine is a Alpha adrenergic receptor under the development of Shire for the treatment of dysautonomia and orthostatic hypotension. In September 2011, Shire announced that it was continuing the process to work with the FDA towards a final approval of the drug.

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**Landiolol - CAS 133242-30-5**

**Catalog Number:** 133242-30-5  
**Molecular Weight:** 509.60  
**Molecular Formula:** C25H39N3O8  
**Description:** Landiolol is an ultra-short-acting Beta 1 adrenergic receptor antagonist using for managing supraventricular tachyarrhythmias in sepsis. It is also used as an anti-arrhythmic agent.

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**Etiguanfacine - CAS 1346686-31-4**

**Catalog Number:** 1346686-31-4  
**Molecular Weight:** 318.16  
**Molecular Formula:** C12H13Cl2N3O3  
**Description:** Etiguanfacine is a α2-Adrenoceptor agonist using for the treatment of ADHD (Attention deficit hyperactivity disorder).

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**Garomefrine hydrochloride - CAS 137431-04-0**

**Catalog Number:** 137431-04-0  
**Molecular Weight:** 284.74  
**Molecular Formula:** C9H14ClFN2O3S  
**Description:** Garomefrine hydrochloride is a Alpha 1A adrenergic receptor agonist under the development of Nippon Shinyaku. Phase II clinical trials for the treatment of Stress incontinence and Urinary incontinence was discontinued in USD in 2001.
**Nolomirole hydrochloride - CAS 138531-51-8**

**Catalog Number:** 138531-51-8  
**Molecular Weight:** 369.89  
**Molecular Formula:** C19H28ClNO4  
**Description:** Nolomirole is an Alpha 2 adrenergic receptor and Dopamine D2 receptor agonist. Nolomirole can attenuate the heart failure signs in the monocrotaline-induced congestive heart failure. Phase-III clinical trial for Congestive heart failure in Europe was discontinued.

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**Landiolol hydrochloride - CAS 144481-98-1**

**Catalog Number:** 144481-98-1  
**Molecular Weight:** 546.06  
**Molecular Formula:** C25H40ClN3O8  
**Description:** Landiolol is an ultra-short-acting Beta 1 adrenergic receptor antagonist using for managing supraventricular tachyarrhythmias in sepsis. It is also used as an anti-arrhythmic agent.

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**CL-316243 - CAS 183720-02-7**

**Catalog Number:** 183720-02-7  
**Molecular Weight:** 419.794  
**Molecular Formula:** C20H20ClNNa2O7  
**Description:** CL-316243 is a potent and highly selective β3-adrenoceptor agonist (EC50 = 3 nM) with > 10000-fold selective over β1 and β2 receptors. CL 316243 possesses anti-obesity and anti-diabetic effects due to increasing brown adipose tissue thermogenesis and metabolic rate.

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**GYKI-16084 - CAS 185739-21-3**

**Catalog Number:** 185739-21-3  
**Molecular Weight:** 301.346  
**Molecular Formula:** C16H19N3O3  
**Description:** GYKI-16084 is a postsynaptic alpha2-blocker with the potential to treat benign prostatic hyperplasia.
**Fenoterol hydrochloride - CAS 1944-10-1**

**Catalog Number:** 1944-10-1

**Molecular Weight:** 339.81  
**Molecular Formula:** C17H22ClNO4

**Description:** Fenoterol hydrochloride is a β2 adrenoreceptor agonist used as a bronchodilator for the treatment and prophylaxis of reversible bronchospasm, administered by inhalation.

**CP-331684 - CAS 207922-70-1**

**Catalog Number:** 207922-70-1

**Molecular Weight:** 331.37  
**Molecular Formula:** C17H21N3O4

**Description:** CP-331684 is a β3-adrenergic receptor agonist used as an antidiabetic drug.

**MK-0634 - CAS 211031-01-5**

**Catalog Number:** 211031-01-5

**Molecular Weight:** 624.697  
**Molecular Formula:** C31H27F3N4O3S2

**Description:** MK-0634, also called as L-796568, is a β3 adrenergic receptor agonist that was progressed into clinical studies for the treatment of obesity in the early 2000s but discontinued due to unacceptable toxicity.

**MK-0634 dihydrochloride - CAS 211031-81-1**

**Catalog Number:** 211031-81-1

**Molecular Weight:** 697.61  
**Molecular Formula:** C31H29Cl2F3N4O3S2

**Description:** MK-0634, also called as L-796568, is a β3 adrenergic receptor agonist that was progressed into clinical studies for the treatment of obesity in the early 2000s but discontinued due to unacceptable toxicity.

**Guanfacine Hydrochloride - CAS 249-443-3**

**Catalog Number:** 249-443-3

**Molecular Weight:** 282.55  
**Molecular Formula:** C9H10Cl3N3O

**Description:** Guanfacine Hydrochloride is a centrally acting alpha-2 adrenergic agonist that has been available as an FDA-approved hypotensive agent for more than two decades. It has several significant advantages over clonidine.
SNAP-8719 HCl - CAS 255893-38-0
Catalog Number: 255893-38-0
Molecular Weight: 459.94  Molecular Formula: C22H29ClF3N3O2
Description: SNAP-8719, structurally very similar to BMY-7378, is a selective, orally active α1D-AR antagonist with lower binding affinity for the 5-HT1A receptor.

ABT-866 - CAS 258526-74-8
Catalog Number: 258526-74-8
Molecular Weight: 265.33  Molecular Formula: C12H15N3O2S
Description: ABT-866 is a novel alpha-adrenoceptor agent that demonstrates intrinsic activity at the α1A-adrenoceptor subtype present in the rabbit urethra (pD2=6.22, with 80% of the phenylephrine response).

Solabegron hydrochloride - CAS 451470-34-1
Catalog Number:
Molecular Weight: 447.361  Molecular Formula: C23H23ClN2O3.HCl
Description: Solabegron hydrochloride is a selective β3-adrenergic receptor agonist used for the treatment of irritable bowel syndrome.

CHIR 2279 - CAS 158198-45-9
Catalog Number: 158198-45-9
Molecular Weight: 564.67  Molecular Formula: C34H36N4O4
Description: CHIR 2279, an isoquinolin derivative, was once studied against hypertension as an α1 adrenergic receptors antagonist.

CP-114271 - CAS 162326-86-5
Catalog Number: 162326-86-5
Molecular Weight: 404.40  Molecular Formula: C17H19F3N2O4S
Description: CP-114271, a thiazole derivative, has been found to be a β3 adrenergic receptor agonist that was once studied in obesity therapy.
**BMS-196085 - CAS 170686-10-9**

**Catalog Number:** 170686-10-9  
**Molecular Weight:** 492.54  
**Molecular Formula:** C24H26F2N2O5S  
**Description:** BMS-196085, a sulfanilamide derivative, has been found to be a β-adrenergic receptor agonist that was once studied in obesity as well as type 2 diabetes mellitus.

**BMS-194449 - CAS 170686-12-1**

**Catalog Number:** 170686-12-1  
**Molecular Weight:** 544.52  
**Molecular Formula:** C24H24F4N2O6S  
**Description:** BMS-194449 was found to be a β-adrenergic receptor agonist that was once studied in antihyperglyc as well as obesity therapy.

**Fenspiride - CAS 5053-06-5**

**Catalog Number:** 5053-06-5  
**Molecular Weight:** 260.34  
**Molecular Formula:** C15H20N2O2  
**Description:** Fenspiride is an α-adrenergic and H1 histamine receptor antagonist. It is an oxazolidinone spiro compound. It is used as a drug in the treatment of certain respiratory diseases. It is also used for the treatment of acute and chronic inflammatory diseases of ENT organs and respiratory tract, as well as for maintenance treatment of asthma in Russia.

**Tedatixetine - CAS 508233-95-2**

**Catalog Number:** 508233-95-2  
**Molecular Weight:** 283.43  
**Molecular Formula:** C18H21NS  
**Description:** Tedatixetine is an antidepressant agent. It acts as a triple reuptake inhibitor and 5-HT2A, 5-HT2C, 5-HT3 and α1A-adrenergic receptor antagonist. It was discovered by scientists at Lundbeck and then developed by Lundbeck and Takeda together.
## Lerimazoline - CAS 54765-26-3

**Catalog Number:** 54765-26-3  
**Molecular Weight:** 202.30  
**Molecular Formula:** C13H18N2  
**Description:** Lerimazoline is an α-adrenergic receptor agonist. It inhibits secretion of asal mucus. It causes hypertension. It is common used in the form of hydrochloride.

![Lerimazoline](image)

## Mephentermine sulfate dihydrate - CAS 6190-60-9

**Catalog Number:** 6190-60-9  
**Molecular Weight:** 460.63  
**Molecular Formula:** C22H40N2O6S  
**Description:** Mephentermine sulfate dihydrate is a sympathomimetic agent with specificity for α₁-adrenergic receptors. It is used to maintain blood pressure in hypotensive states such as following spinal anesthesia. It is also a cardiac stimulant. It has been listed.

![Mephentermine sulfate dihydrate](image)

## Milveterol - CAS 652990-07-3

**Catalog Number:** 652990-07-3  
**Molecular Weight:** 435.52  
**Molecular Formula:** C25H29N3O4  
**Description:** Milveterol is a long-acting β(2)-adrenoceptor agonist. It is potentially useful for the treatment of chronic obstructive pulmonary disease (COPD) and asthma. It was developed by GlaxoSmithKline and Theravance together.

![Milveterol](image)

## MK-761 - CAS 65321-41-7

**Catalog Number:** 65321-41-7  
**Molecular Weight:** 249.31  
**Molecular Formula:** C13H19N3O2  
**Description:** MK-761 has beta adrenoceptor antagonist and vasodilating properties in a single molecule. It has beta adrenoceptor blocking activity in the isolated cat heart papillary muscle and isolated rat atria in vitro.

![MK-761](image)
Aptazapine - CAS 71576-40-4

**Catalog Number:** 71576-40-4  
**Molecular Weight:** 253.35  
**Molecular Formula:** C16H19N3  
**Description:** Aptazapine is a tetracyclic antidepressant. It was assayed in clinical trials for the treatment of depression in the 1980s but was never marketed. Aptazapine is a α2-adrenergic receptor antagonist. It is also a 5-HT2 receptor antagonist and H1 receptor inverse agonist, while having no significant effects on the reuptake of serotonin or norepinephrine.

Aptazapine maleate - CAS 71576-41-5

**Catalog Number:** 71576-41-5  
**Molecular Weight:** 369.42  
**Molecular Formula:** C16H19N3.C4H4O4  
**Description:** Aptazapine is a tetracyclic antidepressant. It was assayed in clinical trials for the treatment of depression in the 1980s but was never marketed. Aptazapine is a α2-adrenergic receptor antagonist. It is also a 5-HT2 receptor antagonist and H1 receptor inverse agonist, while having no significant effects on the reuptake of serotonin or norepinephrine.

Batefenterol - CAS 743461-65-6

**Catalog Number:** 743461-65-6  
**Molecular Weight:** 740.25  
**Molecular Formula:** C40H42ClN5O7  
**Description:** Batefenterol is a Beta 2 adrenergic receptor agonist and also a Muscarinic receptor antagonist. It shows high affinity for hM2 (Ki = 1.4 nM), hM3 muscarinic receptors (Ki = 1.3 nM) and hβ2-adrenoceptors (Ki = 3.7 nM). Batefenterol is a β2-adrenoceptor agonist with EC50 value of 0.29 nM for stimulation of cAMP levels.

CP 59430 - CAS 86329-06-8

**Catalog Number:** 86329-06-8  
**Molecular Weight:** 434.45  
**Molecular Formula:** C21H22N8O3  
**Description:** CP 59430 is an azide analog of prazosin. It is a selective alpha 1-adrenergic receptor antagonist.
**Olodaterol Hydrochloride - CAS 869477-96-3**

**Catalog Number:** 869477-96-3  
**Molecular Weight:** 422.91  
**Molecular Formula:** C_{21}H_{27}ClN_{2}O_{5}  
**Description:** Olodaterol is an ultra-long-acting β adrenoreceptor agonist. It can be used as an inhalation for treating patients with chronic obstructive pulmonary disease (COPD).

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**Phenylethanolamine A - CAS 1346746-81-3**

**Catalog Number:**  
**Molecular Weight:** 344.4  
**Molecular Formula:** C_{19}H_{24}N_{2}O_{4}  
**Description:** Phenylethanolamine A is a novel beta-agonist naturally occurring in animal species.

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**Colterol acetate - CAS 10255-14-8**

**Catalog Number:**  
**Molecular Weight:** 285.336  
**Molecular Formula:** C_{14}H_{23}NO_{5}  
**Description:** Colterol acetate is a short-acting β₂-adrenoreceptor agonist. Bitolterol is the prodrug of Colterol used for the treatment of asthma and chronic obstructive pulmonary disease (COPD).

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**Nifenalol HCl**

**Catalog Number:**  
**Molecular Weight:** 260.718  
**Molecular Formula:** C_{11}H_{17}CIN_{2}O_{3}  
**Description:** The hydrochloride of Nifenalol. Nifenalol is a beta-adrenoreceptor antagonist used for the treatment of cardiovascular and cerebrovascular diseases such as hypertension.