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API

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Only quality ingredients, because health can't be compromised

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Active Pharmaceutical Ingredients

We synthesize high-quality API solutions for leading therapeutic areas. Spread over 80,000 sq. meters, our API manufacturing facility at Ankleshwar, Gujarat is globally accredited by US FDA, PMDA Japan, EDQM Europe, WHO Geneva, etc. Recognized as the world's top API supplier, our cost competitiveness and quality obsession has been critically influential in driving growth.

Global Accreditations

US FDA

Health Canada

FDA 식품의약품안전청

World Health Organization Geneva

Pmda JAPAN

TGA, Australia

ISO 9001:2008

ISO 14001:2004

Cofepris Comisión Federal para la Protección contra Riesgos Sanitarios

OHSAS 18001:2007

Our USP

- Located in Ankleshwar, Gujarat and spread over 80,000 square meters
- Accredited by US FDA, WHO - Geneva, TGA - Australia, Health Canada, PMDA - Japan, etc.
- Novel laboratory called Process Engineering Research Lab (PERL) for research, innovation and optimization of API manufacturing process engineering
- In-house cGMP compliant Pilot Plant and centralized Analytical Research Laboratory conforming to international standards

DMF Filings

- 30 US DMFs
- 23 EDMFs
- 22 Taiwan DMFs
- 03 Russian DMFs
- 02 China DMFs
- 13 CEPs
- 12 Japan DMFs
- 08 Australia DMFs
- 09 Korea DMFs
- 12 Canada DMFs

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Product List

Therapeutic category	Product Name	Pharmacopoeia	USDMF	CEP	EDMF	JDMF	KDMF	TGA	TPD Canada	China IDL	TDMF	Russia	Cofepris
Anti-asthmatic	Pranlukast Hydrate	JP											
Anti-depressant	Atomoxetine HCl	EP/USP											
Anti-depressant	Bupropion HCl	USP											
Anti-depressant	Escitalopram Oxalate	USP											
Anti-depressant	Fluoxetine HCl	EP/USP											
Anti-depressant	Venlafaxine HCl	EP/USP											
Anti-depressant	O-Desmethyl Venlafaxine	In House											
Anti-diabetic	Glibenclamide/Glyburide	EP/USP/JP											
Anti-diabetic	Nateglinide HCl	EP/USP/JP											
Anti-histaminic	Desloratadine	EP/USP											
Anti-histaminic	Loratadine	EP/USP											
Anti-histaminic	Rupatadine Fumarate	EP											
Anti-hypertensive	Nebivolol HCl	In House/IP											
Anti-hypertensive	Olmesaratan Medoxomil	USP											
Anti-hypertensive	Valsartan	USP											
Anti-hypertensive	Irbesartan	EP/USP											
Anti-hypertensive	Amlodipine Besylate	EP/USP/JP											
Anti-hypertensive	Phthaloyl Amlodipine	In House											
Anti-hyperlidemia	Atorvastatine Cal. Form-1	EP/USP											
Anti-inflammatory	Celecoxib	EP/USP											
Anti-inflammatory	Meloxicam	JP											
Anti-emetic	Ondansetron HCl	EP/USP											
Anti-osteoporotic	Alendronate Sodium	EP/USP/JP											
Anti-osteoporotic	Raloxifene HCl	USP											
Anti-psychotic	Aripiprazole Type 1	USP/EP											
Anti-psychotic	Olanzapine Form 1	EP/USP											
Anti-thrombic	Cilostazol	USP/JP											
Anti-tuberculosis	Ethambutol HCl	EP/USP/JP											

Available Approved Approval Awaited / Acknowledgment of filing awaited

Disclaimer : This list of products and reference to any product therein should not be construed and/or constituted transaction where it is not permitted under Patent law of the country and/or is not authorized by other laws and regulations of the country.

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Product List

Therapeutic category	Product Name	Pharmacopoeia	USDMF	CEP	EDMF	JDMF	KDMF	TGA	TPD Canada	China IDL	TDMF	Russia	Cofepris
Cardiotonic	Bosentan Monohydrate	In House											
Cardiovascular	Carvedilol	EP/USP/JP											
Disinfectant	Chlorhexidine Base	In House											
Disinfectant	Chlorhexidine Gluconate 20%	EP/USP/JP											
Disinfectant	Chlorhexidine HCl	EP/USP/JP											
Erectile dysfunction	Sildenafil Citrate	EP/USP											
Gastroprokinetic	Itopride HCl	In House											
Anti-convulsants	Pregabalin	EP/USP											
Anti-psychotic	Paliperidone	USP											
Iron-chelating agent	Deferasirox	IH/IP											
Prostatic hyperplasia	Silodosin	EP/IP/IH											

Available Approved Approval Awaited / Acknowledgment of filing awaited

Disclaimer : This list of products and reference to any product therein should not be construed and/or constituted transaction where it is not permitted under Patent law of the country and/or is not authorized by other laws and regulations of the country.

Under Development :

Therapeutic category	Product Name
Anti-diabetic	Sitagliptin
Anti-gout	Febuxostat
Anti-hypertensive	Labetalol
Anti-hypertensive	Telmisartan
Anti-rheumatic	Etoricoxib
Proton Pump Inhibitor	Rabeprazole Sodium
Anti-diabetic	Vildagliptin

Therapeutic category	Product Name
Antiviral	Acyclovir
Anti-hypertensive	Verapamil
Anti-psychotic	Donepezil
Anti-hyperlipidemic	Gemfibrozil
Anti-hyperlipidemic	Rosuvastatin
Anti-hypertensive	Hydralazine

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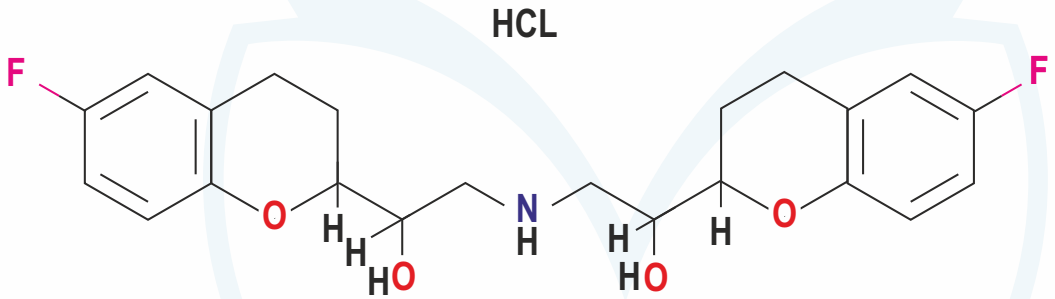
NEBIVOLOL HCl

IUPAC Name
1-(6-fluoro-3,4-dihydro-2H-chromen-2-yl)-2-[[2-(6-fluoro-3,4-dihydro-2H-chromen-2-yl)-2 - hydroxyethyl]amino]ethanol;hydrochloride

CAS Number
152520-56-4

Structural Formula



Molecular Weight
441.895946 g/mol

Molecular Formula
$C_{22}H_{26}ClF_2NO_4$

Features

- Highly cardio-selective vasodilatory beta1 receptor blocker used in treatment of hypertension. Mild vasodilating properties, possibly due to an interaction with the L-arginine/nitric oxide pathway.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Nebivolol is a selective & beta;1 receptor antagonist. Activation of & beta;1 receptors by epinephrine increases the heart rate and the blood pressure, and the heart consumes more oxygen.
- Nebivolol blocks these receptors which reverses the effects of epinephrine, lowering the heart rate and blood pressure.
- In addition, beta blockers prevent the release of renin, which is a hormone produced by the kidneys which leads to constriction of blood vessels. At high enough concentrations, this drug may also bind beta 2 receptors.

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ITOPRIDE HCl

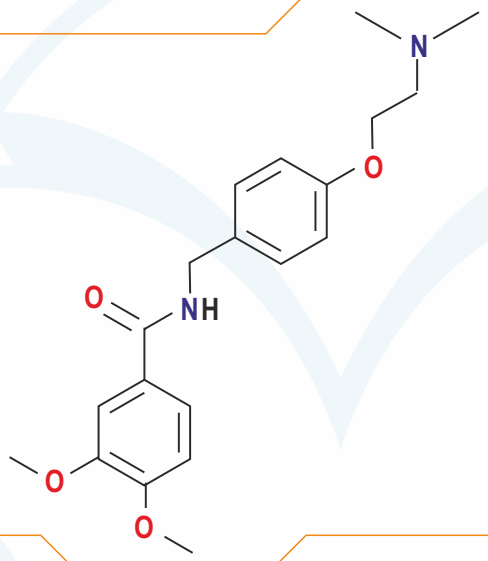
IUPAC Name

N-[[4-[2-(dimethylamino)ethoxy]phenyl]methyl]-3,4-dimethoxybenzamide; hydrochloride

CAS Number

122892-31-3

Structural Formula



Molecular Weight

394.89238 g/mol

Molecular Formula

$C_{20}H_{27}ClN_2O_4$

Features

- A prokinetic benzamide derivative having a gastrokinetic effect.
- Itopride is indicated for the treatment of functional dyspepsia and other gastrointestinal conditions. It is a combined D2 receptor antagonist and acetylcholinesterase inhibitor.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Itopride increases acetylcholine concentrations by inhibiting dopamine D2 receptors and acetylcholinesterase. Higher acetylcholine increases GI peristalsis, increases the lower esophageal sphincter pressure, stimulates gastric motility, accelerates gastric emptying, and improves gastro-duodenal coordination.
- Itopride given as a single dose study found that it also raises levels of motilin, somatostatin and lowers levels of cholecystokinin, as well as adrenocorticotropic hormone. These effects may also contribute to itopride's pharmacology.

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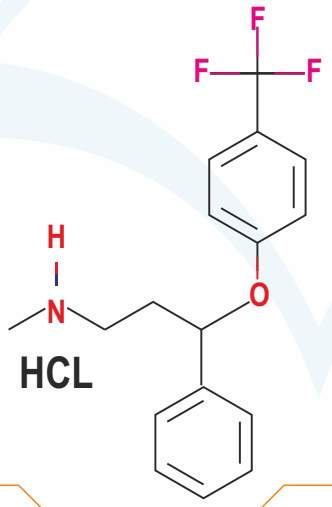
FLUOXETINE HCl

IUPAC Name
N-methyl-3-phenyl-3-[4-(trifluoromethyl) phenoxy]propan-1-amine;hydrochloride

CAS Number
56296-78-7

Structural Formula



Molecular Weight
345.78707 g/mol

Molecular Formula
$C_{17}H_{19}ClF_3NO$

Features

- Highly specific serotonin uptake inhibitor. It is used as an antidepressant and often has a more acceptable side-effects profile than traditional antidepressants.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

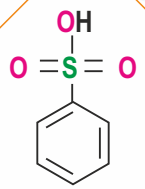
- Fluoxetine has been shown to selectively inhibit the reuptake of serotonin (5-HT) at the presynaptic neuronal membrane.
- Fluoxetine-induced inhibition of serotonin reuptake causes increased synaptic concentrations of serotonin in the CNS, resulting in numerous functional changes associated with enhanced serotonergic neurotransmission.

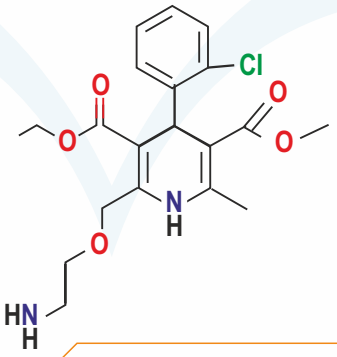
AMLODIPINE BESYLATE

IUPAC Name
Benzenesulfonic acid;3-O-ethyl 5-O-methyl 2-(2-aminoethoxymethyl)-4-(2-chlorophenyl) -6-methyl-1,4-dihydropyridine-3,5-dicarboxylate

CAS Number
111470-99-6

Structural Formula





Molecular Weight
567.05094 g/mol

Molecular Formula
$C_{26}H_{31}ClN_2O_8S$

Features
- Long-acting di-hydropyridine calcium channel blocker. It is effective in the treatment of ANGINA PECTORIS and HYPERTENSION.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action
- Amlodipine is an angio-selective calcium channel blocker and inhibits the movement of calcium ions into vascular smooth muscle cells and cardiac muscle cells which inhibits the contraction of cardiac muscle and vascular smooth muscle cells. Amlodipine inhibits calcium ion influx across cell membranes, with a greater effect on vascular smooth muscle cells. This causes vasodilation and a reduction in peripheral vascular resistance, thus lowering blood pressure. Its effects on cardiac muscle also prevent excessive constriction in the coronary arteries.
- Amlodipine has additionally been found to act as an antagonist of the mineralocorticoid receptor, or as an anti-mineralocorticoid.

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RUPATADINE FUMARATE

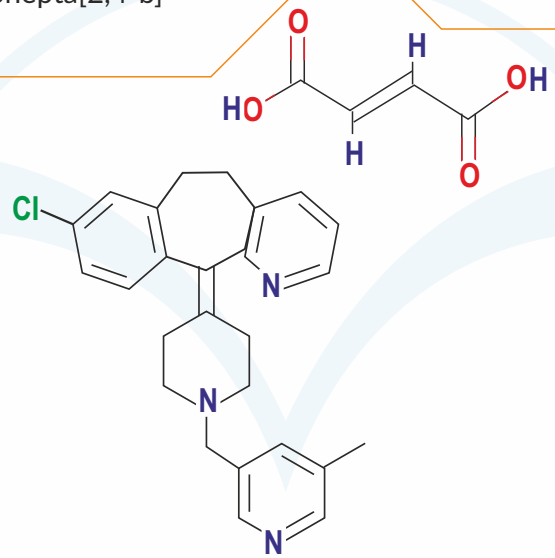
IUPAC Name

(E)-but-2-enedioic acid;8-chloro-11-[1-[(5-methylpyridin-3-yl)methyl]piperidin-4-ylidene]-5,6-dihydrobenzo[1,2]cyclohepta[2,4-b]pyridine.

CAS Number

182349-12-8

Structural Formula



Molecular Weight

532.0299 g/mol

Molecular Formula

$C_{30}H_{30}ClN_3O_4$

Features

- Rupatadine Fumarate is a dual antagonist of histamine H1 and platelet-activating factor receptors.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

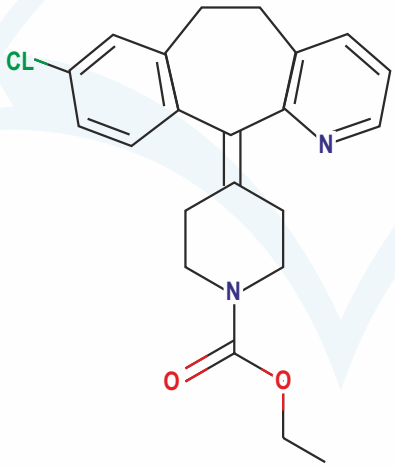
- Rupatadine is a second generation, non-sedating, long-acting histamine antagonist with selective peripheral H1 receptor antagonist activity. It further blocks the receptors of the platelet-activating factor (PAF) according to in vitro and in vivo studies.
- Rupatadine possesses anti-allergic properties such as the inhibition of the degranulation of mast cells induced by immunological and non-immunological stimuli, and inhibition of the release of cytokines, particularly of the tumor necrosis factors (TNF) in human mast cells and monocytes.

LORATADINE

IUPAC Name
Ethyl 4-(8-chloro-5,6-dihydrobenzo[1,2] cyclohepta[2,4-b]pyridin-11-ylidene) piperidine-1-carboxylate

CAS Number
79794-75-5

Structural Formula



Molecular Weight
382.88 g/mol

Molecular Formula
$C_{22}H_{23}ClN_2O_2$

Features

- A second-generation histamine H1 receptor antagonist used in the treatment of allergic rhinitis and urticaria. Unlike most classical antihistamines (HISTAMINE H1 ANTAGONISTS) it lacks central nervous system depressing effects such as drowsiness.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.

Mechanism of Action

- Loratadine, a tricyclic antihistamine, acts as a selective inverse agonist of peripheral histamine H1 receptors.
- Loratadine binds to H1 histamine receptors found on the surface of epithelial cells, endothelial cells, eosinophils, neutrophils, airway cells, and vascular smooth muscle cells among others. Histamine binding to the H1-receptor facilitates cross linking between transmembrane domains III and V, stabilizing the active form of the receptor.

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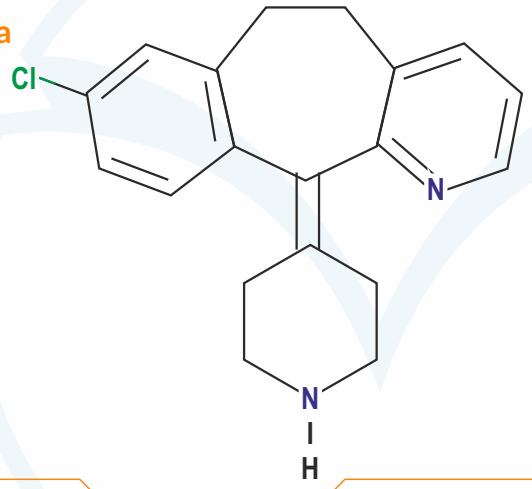
DESLORATADINE

IUPAC Name
8-chloro-11-piperidin-4-ylidene-5,6-dihydrobenzo [1,2]cyclohepta[2,4-b]pyridine

CAS Number
100643-71-8

Structural Formula



Molecular Weight
310.82056 g/mol

Molecular Formula
$C_{19}H_{19}ClN_2$

Features

- Desloratadine is a second generation, tricyclic antihistamine that which has a selective and peripheral H1-antagonist action. It is the active descarboethoxy metabolite of loratidine (a second generation histamine).
- Desloratidine has a long-lasting effect and does not cause drowsiness because it does not readily enter the central nervous system.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Like other H1-blockers, Desloratadine competes with free histamine for binding at H1 receptors in the GI tract, uterus, large blood vessels, and bronchial smooth muscle. This blocks the action of endogenous histamine, which subsequently leads to temporary relief of the negative symptoms (eg. nasal congestion, watery eyes) brought on by histamine.

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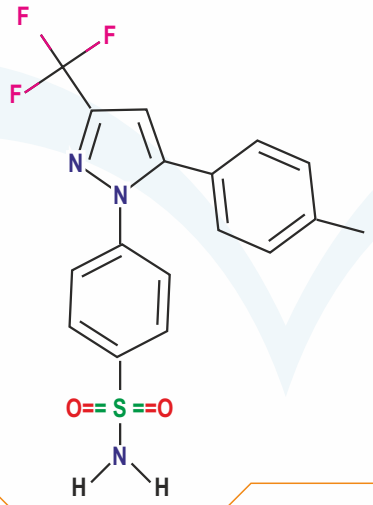
CELECOXIB

IUPAC Name
4-[5-(4-methylphenyl)-3-(trifluoromethyl) pyrazol-1-yl]benzenesulfonamide

CAS Number
169590-42-5

Structural Formula



Molecular Weight
381.37217 g/mol

Molecular Formula
$C_{17}H_{14}F_3N_3O_2S$

Features

- Celecoxib is a non-steroidal anti-inflammatory drug (NSAID) used in the treatment of osteoarthritis, rheumatoid arthritis, acute pain.
- Celecoxib is as a Cyclooxygenase Inhibitor.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- The mechanism of celecoxib is believed to be due to inhibition of prostaglandin synthesis, primarily via inhibition of cyclooxygenase-2 (COX-2), and at therapeutic concentrations in humans, celecoxib does not inhibit the cyclooxygenase-1 (COX-1) isoenzyme.
- It binds with its polar sulfonamide side chain to a hydrophilic side pocket region close to the active COX-2 binding site. Both COX-1 and COX-2 catalyze the conversion of arachidonic acid to prostaglandin (PG) H2, the precursor of PGs and thromboxane.

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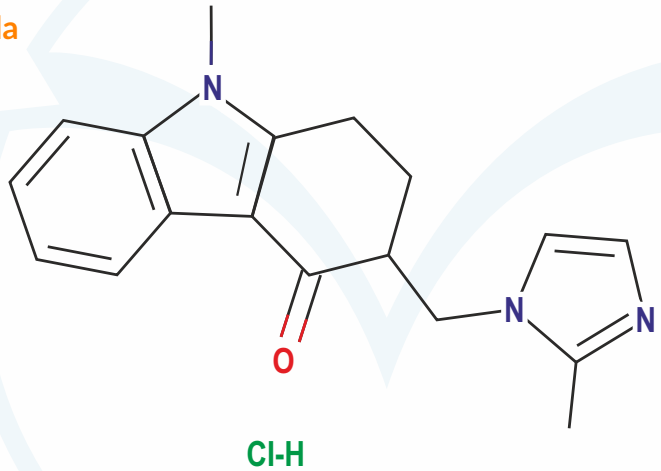
ONDANSETRON HCL

IUPAC Name
·9-methyl-3-[(2-methylimidazol-1-yl)methyl]
-2,3-dihydro-1H-carbazol-4-one;hydrochloride

CAS Number
99614-01-4

Structural Formula



Molecular Weight
329.8239 g/mol

Molecular Formula
$C_{18}H_{20}ClN_3O$

Features

- Ondansetron is competitive serotonin type 3 receptor antagonist.
- It is effective in the treatment of nausea and vomiting caused by cytotoxic chemotherapy drugs, including cisplatin, and has reported anxiolytic and neuroleptic properties.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Ondansetron block the serotonin receptors in the chemoreceptor trigger zone (CTZ) within the medulla oblongata. The CTZ communicates with the vomiting center to initiate vomiting. By blocking the serotonin receptors, there's less serotonin that enters the CTZ, which decreases communication with the vomiting center. Ultimately, the patient experiences reduced nausea and vomiting.

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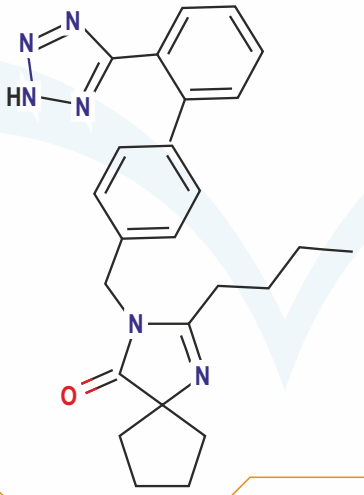
IRBESARTAN

IUPAC Name
2-butyl-3-[[4-[2-(2H-tetrazol-5-yl)phenyl]phenyl] methyl]-1,3-diazaspiro[4.4]non-1-en-4-onede

CAS Number
138402-11-6

Structural Formula



Molecular Weight
428.52942 g/mol

Molecular Formula
$C_{25}H_{28}N_6O$

Features
- Irbesartan is an angiotensin receptor blocker (ARB) used mainly for the treatment of hypertension.
- It competes with angiotensin II for binding at the AT1 receptor subtype. Unlike ACE inhibitors, ARBs do not have the adverse effect of dry cough.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action
- Irbesartan prevents angiotensin II binding to the AT1 receptor in tissues like vascular smooth muscle and the adrenal gland.
- Irbesartan and its active metabolite bind the AT1 receptor with 8500 times more affinity than they bind to the AT2 receptor.
- Irbesartan's prevention of angiotensin II binding causes vascular smooth muscle relaxation and prevents the secretion of aldosterone, lowering blood pressure. Angiotensin II would otherwise bind to the AT1 receptor, inducing vasoconstriction and aldosterone secretion, raising blood pressure

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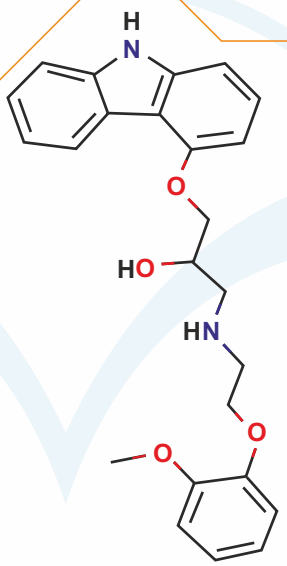
CARVEDILOL

IUPAC Name
1-(9H-carbazol-4-yloxy)-3-[2-(2-methoxyphenoxy) ethylamino]propan-2-ol

CAS Number
72956-09-3

Structural Formula



Molecular Weight
406.47424 g/mol

Molecular Formula
$C_{24}H_{26}N_2O_4$

Features
- Carvedilol is a non-selective beta blocker indicated in the treatment of mild to moderate congestive heart failure (CHF). It blocks beta-1 and beta-2 adrenergic receptors as well as the alpha-1 adrenergic receptors.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys

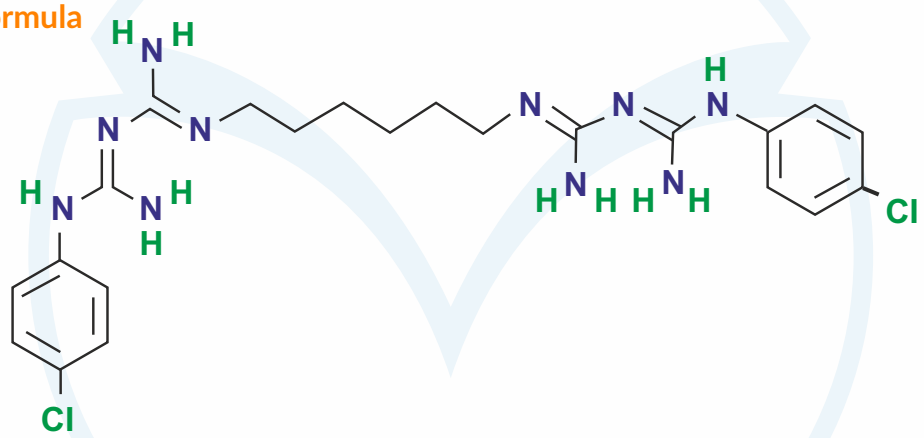
Mechanism of Action
- Carvedilol is both a non-selective beta adrenergic receptor blocker (β1, β2) and an alpha adrenergic receptor blocker (α1). The S(-) enantiomer accounts for the beta blocking activity whereas the S(-) and R(+) enantiomer have alpha blocking activity.
- Carvedilol reversibly binds to beta adrenergic receptors on cardiac myocytes. Inhibition of these receptors prevents a response to the sympathetic nervous system, leading to decreased heart rate and contractility. This action is beneficial in heart failure patients where the sympathetic nervous system is activated as a compensatory mechanism.
- Carvedilol blockade of α1 receptors causes vasodilation of blood vessels. This inhibition leads to decreased peripheral vascular resistance and an antihypertensive effect. There is no reflex tachycardia response due to carvedilol blockade of β1 receptors on the heart.

CHLORHEXIDINE BASE

IUPAC Name
(1E)-2-[6-[[amino-[(Z)-[amino-(4-chloroanilino) methylidene]amino]methylidene]amino]hexyl]-1-[amino-(4-chloroanilino)methylidene]guanidine

CAS Number
55-56-1

Structural Formula



Molecular Weight
505.4466 g/mol

Molecular Formula
$C_{22}H_{30}Cl_2N_{10}$

Features

- A disinfectant and topical anti-infective agent used also as mouthwash to prevent oral plaque. The physiologic effect of chlorhexidine is by means of Decreased Cell Wall Integrity.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

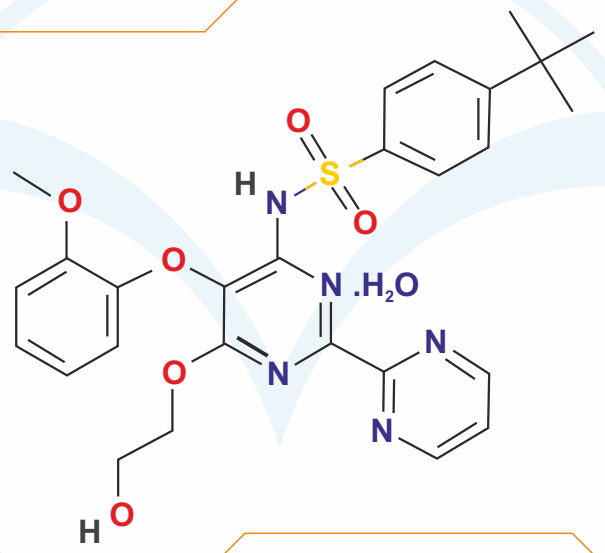
- Chlorhexidine is a cationic compound and the antibacterial activity of the drug is the result of attraction between positively charged chlorhexidine and negatively charged bacterial cell surfaces. Chlorhexidine becomes absorbed onto the cell surfaces of susceptible organisms, with specific and strong adsorption to certain phosphate-containing compounds. This disrupts the integrity of the cell membrane and increases permeability.

BOSENTAN MONOHYDRATE

IUPAC Name
4-tert-butyl-N-[6-(2-hydroxyethoxy)-5-(2-methoxyphenoxy)-2-pyrimidin-2-ylpyrimidin-4-yl]benzenesulfonamide

CAS Number
157212-55-0

Structural Formula



Molecular Weight
569.6 g/mol

Molecular Formula
$C_{27}H_{31}N_5O_7S$

Features

- Bosentan is a dual endothelin receptor antagonist important in the treatment of pulmonary artery hypertension (PAH) by blocking the action of endothelin molecules that would otherwise promote narrowing of the blood vessels and lead to high blood pressure.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Bosentan is a competitive antagonist of endothelin-1 at the endothelin-A (ET-A) and endothelin-B (ET-B) receptors. Under normal conditions, endothelin-1 binding of ET-A receptors causes constriction of the pulmonary blood vessels.
- Bosentan blocks both ET-A and ET-B receptors, but is thought to exert a greater effect on ET-A receptors, causing a total decrease in pulmonary vascular resistance.

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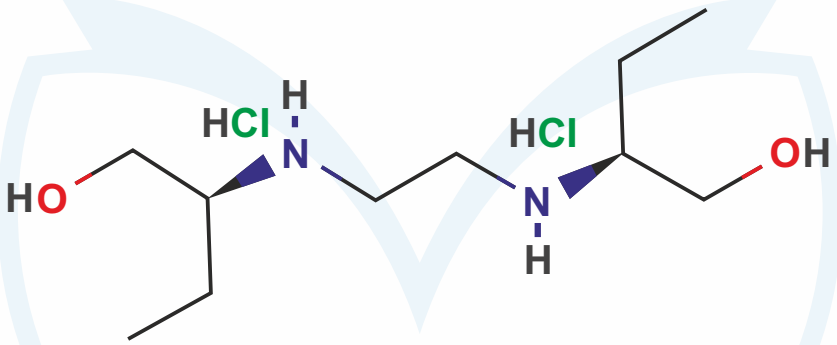
ETHAMBUTOL HCL

IUPAC Name
(2S)-2-[2-[[(2S)-1-hydroxybutan-2-yl] amino]ethylamino]butan-1-ol;dihydrochloride

CAS Number
1070-11-7

Structural Formula



Molecular Weight
277.23164 g/mol

Molecular Formula
$C_{10}H_{26}Cl_2N_2O_2$

Features

- Ethambutol HCl is a chemotherapeutic agent which is specifically effective against actively growing microorganisms of the genus Mycobacterium, including M. tuberculosis including tuberculous.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

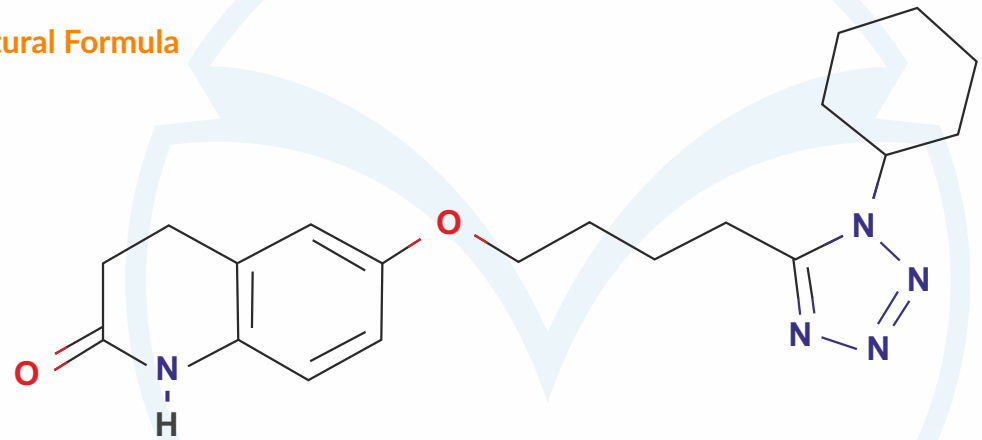
- Ethambutol is bacteriostatic against actively growing TB bacilli. It works by obstructing the formation of cell wall.
- It disrupts arabinogalactan synthesis by inhibiting the enzyme arabinosyl transferase. Disruption of the arabinogalactan synthesis inhibits the formation of this complex and leads to increased permeability of the cell wall..

CILOSTAZOL

IUPAC Name
6-[4-(1-cyclohexyltetrazol-5-yl)butoxy]-3,
4-dihydro-1H-quinolin-2-one

CAS Number
73963-72-1

Structural Formula



Molecular Weight
369.46068 g/mol

Molecular Formula
$C_{20}H_{27}N_5O_2$

Features

- Cilostazol is a quinolinone derivative and antiplatelet agent with vasodilating properties.
- It is used in the alleviation of the symptom of intermittent claudication in individuals with peripheral vascular disease.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

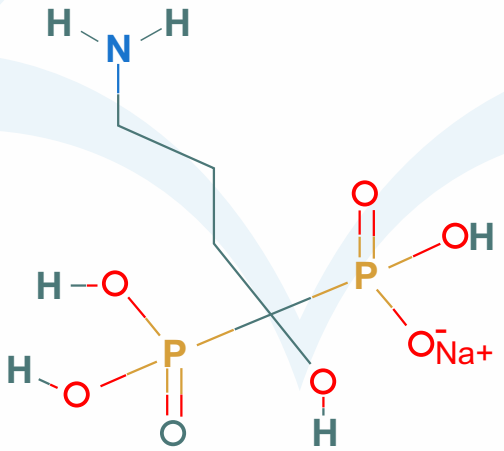
- Cilostazol and several of its metabolites are cyclic AMP (cAMP) phosphodiesterase III inhibitors (PDE III inhibitors), inhibiting phosphodiesterase activity and suppressing cAMP degradation with a resultant increase in cAMP in platelets and blood vessels, leading to inhibition of platelet aggregation and vasodilation.

ALENDRONATE SODIUM

IUPAC Name
Sodium;(4-amino-1-hydroxy-1-phosphonobutyl)
-hydroxyphosphinate

CAS Number
129318-43-0

Structural Formula



Molecular Weight
271.077873 g/mol

Molecular Formula
$C_4H_{12}NNaO_7P_2$

Features

- Alendronate Sodium is a bisphosphonate that is used for the treatment of some forms of osteoporosis and Paget's disease. This drug builds healthy bone, restoring some of the bone loss as a result of osteoporosis.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Alendronate specifically inhibits bone resorption without any effect on mineralization at pharmacologically achievable doses. Its inhibition of bone-resorption is dose-dependent and approximately 1,000 times stronger than the equimolar effect of the first bisphosphonate drug.
- Under therapy, normal bone tissue develops, and alendronate is deposited in the bone-matrix in a pharmacologically inactive form. For optimal action, enough calcium and vitamin-D are needed in the body in order to promote normal bone development.

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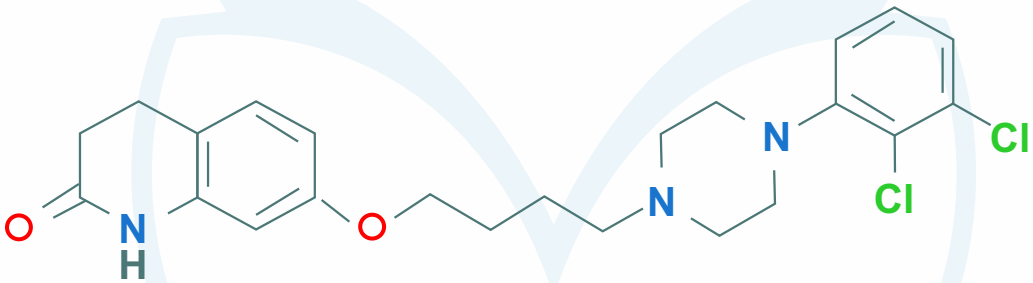
ARIPIPRAZOLE

IUPAC Name
7-[4-[4-(2,3-dichlorophenyl)piperazin-1-yl]butoxy]
-3,4-dihydro-1H-quinolin-2-one

CAS Number
129722-12-9

Structural Formula



Molecular Weight
448.38538 g/mol

Molecular Formula
$C_{23}H_{27}Cl_2N_3O_2$

Features

- Aripiprazole is an Atypical Antipsychotic used for the treatment of schizophrenia.
- It has also recently received FDA approval for the treatment of acute manic and mixed episodes associated with bipolar disorder.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Aripiprazole's antipsychotic activity is likely due to a combination of antagonism at D2 receptors in the mesolimbic pathway and 5HT2A receptors in the frontal cortex. Antagonism at D2 receptors relieves positive symptoms while antagonism at 5HT2A receptors relieves negative symptoms of schizophrenia.

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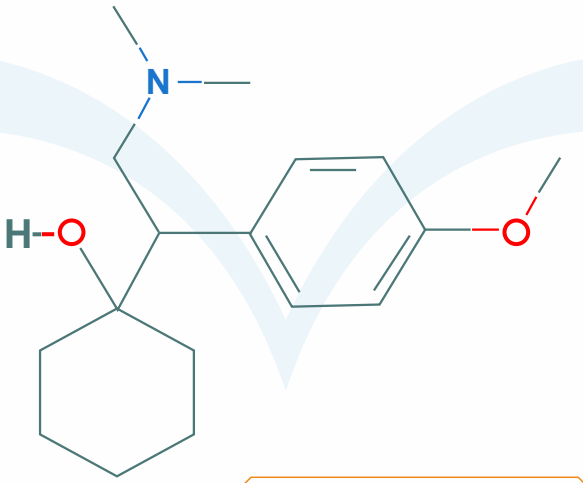
VENLAFAXINE HCL

IUPAC Name
1-[2-(dimethylamino)-1-(4-methoxyphenyl) ethyl]cyclohexan-1-ol;hydrochloride

CAS Number
99300-78-4

Structural Formula



Molecular Weight
313.86272 g/mol

Molecular Formula
$C_{17}H_{28}ClNO_2$

Features

- Venlafaxine is an antidepressant within the serotonin-norepinephrine reuptake inhibitor (SNRI) class of medications.
- It is used to treat major depressive disorder (MDD), generalized anxiety disorder (GAD), panic disorder, and social phobia.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

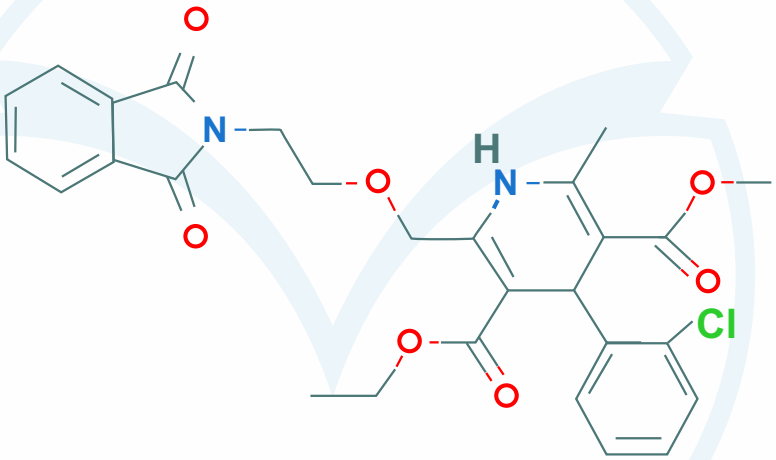
- The exact mechanism of action of venlafaxine is unknown, but appears to be associated with the potentiation of neurotransmitter activity in the CNS. Venlafaxine and its active metabolite, O-desmethylvenlafaxine (ODV), inhibit the reuptake of both serotonin and norepinephrine with a potency greater for the 5-HT than for the NE reuptake process.

PHTHALOYL AMLODIPINE

IUPAC Name
3-O-ethyl 5-O-methyl 4-(2-chlorophenyl)-2-[2-(1,3-dioxoisoindol-2-yl)ethoxymethyl]-6-methyl-1,4-dihydropyridine-3,5-dicarboxylate.

CAS Number
88150-62-3

Structural Formula



Molecular Weight
538.981 g/mol

Molecular Formula
$C_{28}H_{27}ClN_2O_7$

Features

- It is a calcium channel blocker and belongs to the family of anti-anginal and anti-hypertensive reagents.
- It is an intermediate of Amlodipine Besylate.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

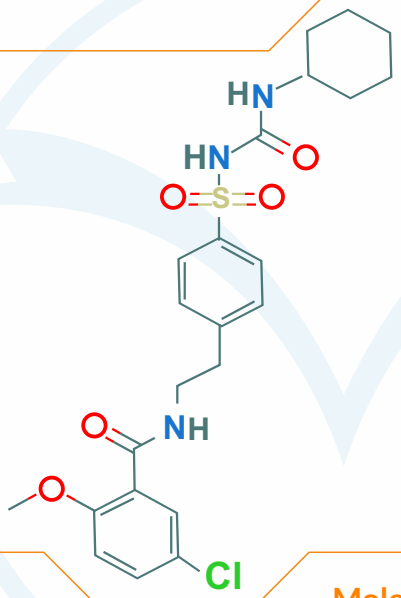
-

GLIBENCLAMIDE

IUPAC Name
5-chloro-N-[2-[4-(cyclohexylcarbamoylsulfamoyl)phenyl]ethyl]-2-methoxybenzamide.

CAS Number
10238-21-8

Structural Formula



Molecular Weight
494.00352 g/mol

Molecular Formula
$C_{23}H_{28}ClN_3O_5S$

Features

- An antidiabetic sulfonylurea derivative with actions similar to those of chlorpropamide.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Glibencalmide works by binding to and inhibiting the ATP-sensitive potassium channels (KATP) inhibitory regulatory subunit sulfonylurea receptor 1 (SUR1) in pancreatic beta cells. This inhibition causes cell membrane depolarization, opening voltage-dependent calcium channels resulting in an increase in intracellular calcium in the pancreatic beta cell and subsequent stimulation of insulin release.

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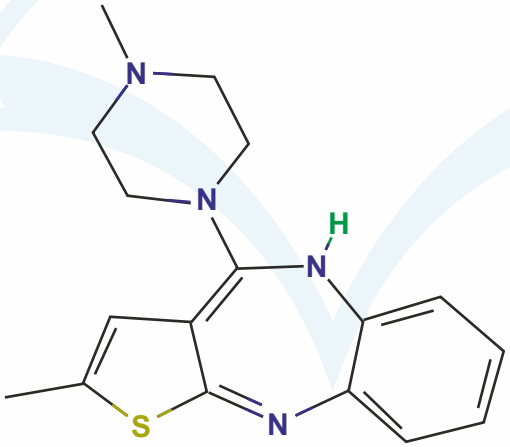
OLANZAPINE

IUPAC Name
2-methyl-4-(4-methylpiperazin-1-yl)-10H-thieno[3,2-c][1,5]benzodiazepine

CAS Number
132539-06-1

Structural Formula



Molecular Weight
312.4325 g/mol

Molecular Formula
$C_{17}H_{20}N_4S$

Features
- Olanzapine is an atypical antipsychotic primarily used to treat schizophrenia and bipolar disorder.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action
- The activity of olanzapine is achieved by the antagonism of multiple neuronal receptors including the dopamine receptor D1, D2, D3 and D4 in the brain, the serotonin receptors 5HT2A, 5HT2C, 5HT3 and 5HT6, the alpha-1 adrenergic receptor, the histamine receptor H1 and multiple muscarinic receptors.
- Olanzapine presents a wide profile of targets, however, its antagonistic effect towards the dopamine D2 receptor in the mesolimbic pathway is key as it blocks dopamine from having a potential action at the post-synaptic receptor. The binding of olanzapine to the dopamine D2 receptors is easily dissociable and hence, it allows for a certain degree of dopamine neurotransmission.

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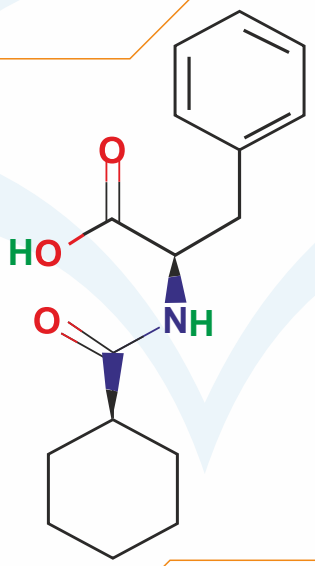
NATEGLINIDE

IUPAC Name
(2R)-3-phenyl-2-[(4-propan-2-ylcyclohexanecarbonyl)amino]propanoic acid

CAS Number
105816-04-4

Structural Formula



Molecular Weight
317.42258 g/mol

Molecular Formula
$C_{19}H_{27}NO_3$

Features

- Nateglinide is an amino-acid derivative that lowers blood glucose levels by stimulating insulin secretion from the pancreas.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Nateglinide activity is dependent on the presence functioning cells and glucose.
- Nateglinide has no effect on insulin release in the absence of glucose. Rather, it potentiates the effect of extracellular glucose on ATP-sensitive potabium channel and has little effect on insulin levels between meals and overnight.
- Nateglinide appears to be selective for pancreatic cells and does not appear to affect skeletal or cardiac muscle.

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CHLORHEXIDINE GLUCONATE

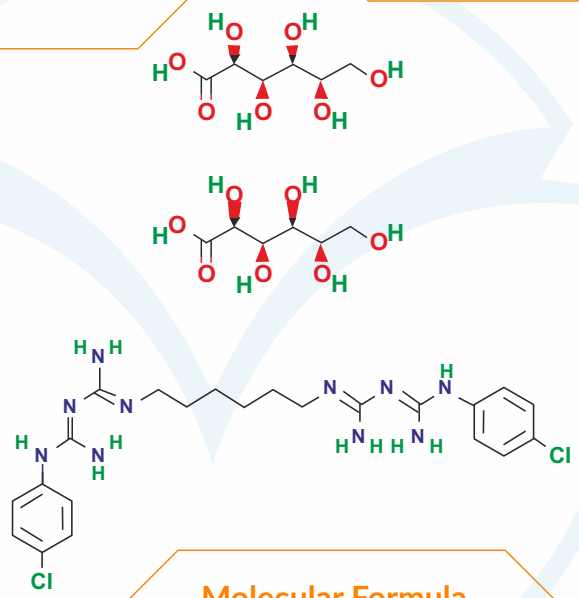
IUPAC Name

(1E)-2-[6-[[amino-[(E)-[amino-(4-chloroanilino) methylidene]amino]methylidene]amino]hexyl]-1-[amino-(4-chloroanilino)methylidene] guanidine;(2R,3S,4R,5R)-2,3,4,5,6-pentahydroxyhexanoic acid

CAS Number

18472-51-0

Structural Formula



Molecular Weight

897.75716 g/mol

Molecular Formula

$C_{34}H_{54}Cl_2N_{10}O_{14}$

Features

- Anti-Infective Agent.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Bactericidal. Because of its positive charge, the chlorhexidine molecule reacts with the microbial cell surface to destroy the integrity of the cell membrane. The chlorhexidine molecule penetrates into the cell and precipitates the cytoplasm, and the cell dies.

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CHLORHEXIDINE HCL

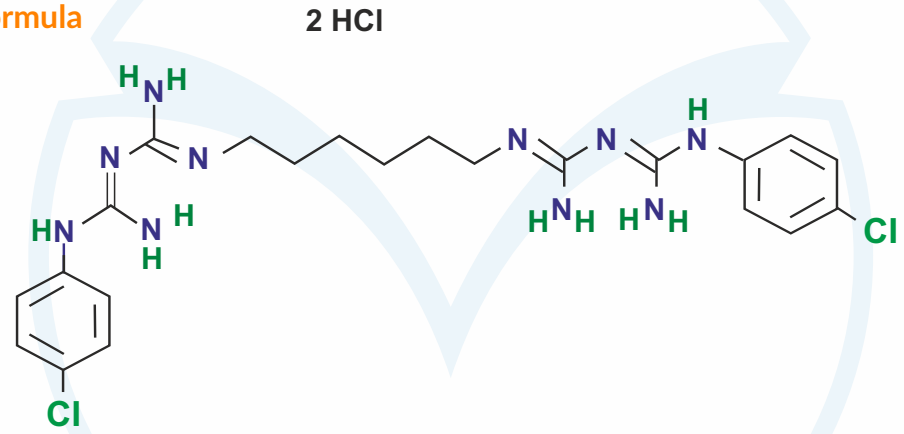
IUPAC Name

(1E)-2-[6-[[amino-[(E)-[amino-(4-chloroanilino) methylidene]amino]methylidene]amino]hexyl]-1-[amino-(4-chloroanilino)methylidene]guanidine; dihydrochloride

CAS Number

3697-42-5

Structural Formula



Molecular Weight

578.36848 g/mol

Molecular Formula

$C_{22}H_{32}Cl_4N_{10}$

Features

- Good CHEMICAL PLAQUE CONTROL with outstanding bacteriostatic and bactericidal properties. Effective on both gram positive and gram negative bacteria.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Antiplaque activity: Three mechanism for inhibition of plaque by Chlorhexidine hydrochloride:
  - o Effective blocking of the acidic group of salivary glycoproteins will reducing their adsorption to hydroxyapatite and formation of acquired pellicle.
  - o The ability of bacteria to bind to tooth surface may be reduced by adsorption of CHX to the extracellular polysaccharides of their capsule
  - o The CHX may compete with calcium ions for acidic agglutination factors in plaque.

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SILDENAFIL CITRATE

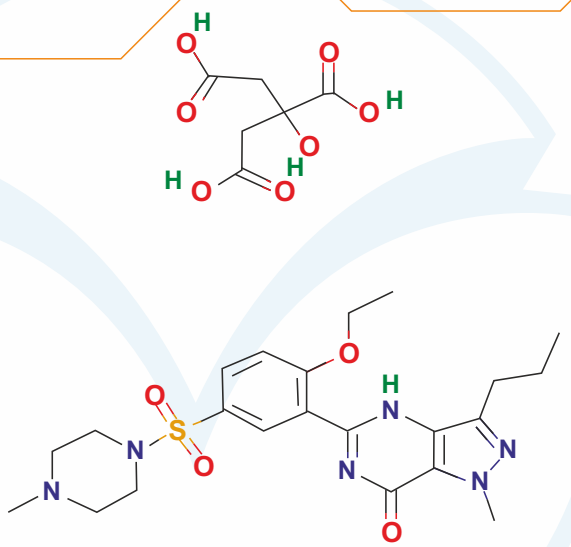
IUPAC Name

5-[2-ethoxy-5-(4-methylpiperazin-1-yl)sulfonyl phenyl]-1-methyl-3-propyl-4H-pyrazolo[4,3-d] pyrimidin-7-one;2-hydroxypropane-1,2,3-tricarboxylic acid.

CAS Number

171599-83-0

Structural Formula



Molecular Weight

666.69992 g/mol

Molecular Formula

$C_{28}H_{38}N_6O_{11}S$

Features

- Drugs used to cause dilation of the blood vessels. Drugs used in the treatment of urogenital conditions and diseases such as URINARY.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Sildenafil is a selective inhibitor of phosphodiesterase type 5 (PDE5), an enzyme responsible for degrading cyclic guanosine monophosphate (cGMP) in the corpus cavernosum. By diminishing the effect of PDE5, sildenafil facilitates the effect of nitric oxide during sexual stimulation; cGMP levels increase, smooth muscle relaxes, and blood flows into the corpus cavernosum, producing an erection.

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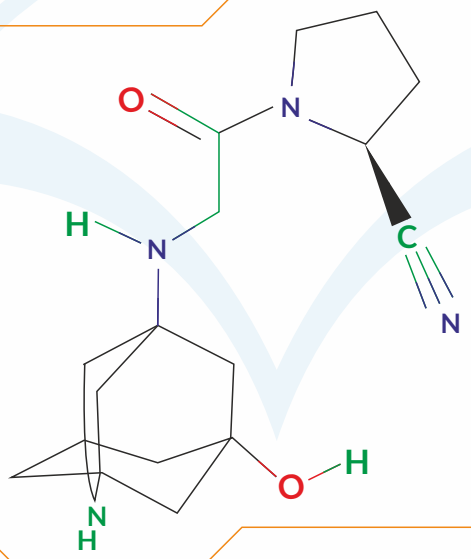
VILDAGLIPTIN

IUPAC Name
(2S)-1-[2-[(3-hydroxy-1-adamantyl) amino]acetyl]pyrrolidine-2-carbonitrile

CAS Number
274901-16-5

Structural Formula



Molecular Weight
303.3993 g/mol

Molecular Formula
$C_{17}H_{25}N_3O_2$

Features
- Vildagliptin, is a new oral anti-hyperglycemic agent (anti-diabetic drug).
- Vildagliptin inhibits the inactivation of GLP-1 and GIP by DPP-4, allowing GLP-1 and GIP to potentiate the secretion of insulin in the beta cells and suppre glucaon release by the alpha cells of the islets of Langerhans in the pancreas.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action
- Vildagliptin inhibits dipeptidyl peptidase-4 (DPP-4). This in turn inhibits the inactivation of GLP-1 by DPP-4, allowing GLP-1 to potentiate the secretion of insulin in the beta cells. Dipeptidyl peptidase-4's role in blood glucose regulation is thought to be through degradation of GIP and the degradation of GLP-1.

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PALIPERIDONE

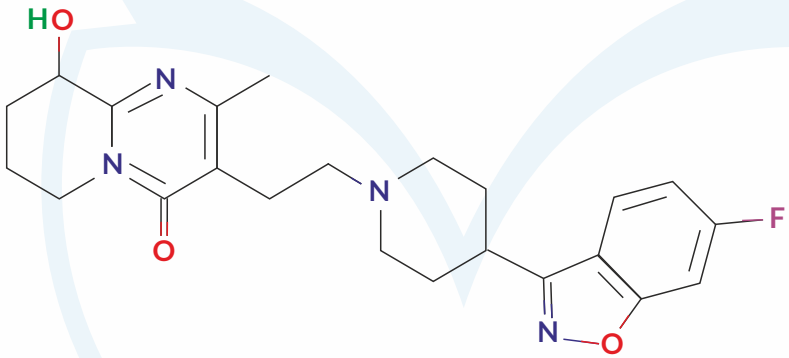
IUPAC Name

[±] 3-[2-[4-(6-fluoro-1,2-benzoxazol-3-yl) piperidin-1-yl]ethyl]-9-hydroxy-2-methyl-6, 7,8,9-tetrahydropyrido[1,2-a]pyrimidin-4-one

CAS Number

144598-75-4

Structural Formula



Molecular Weight

426.483883 g/mol

Molecular Formula

$C_{23}H_{27}FN_4O_3$

Features

- Paliperidone is the primary active metabolite of the older antipsychotic risperidone.
- Paliperidone is also active as an antagonist at alpha 1 and alpha 2 adrenergic receptors and H1 histaminergic receptors.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- The mechanism of action of paliperidone, as with other drugs having efficacy in schizophrenia, is unknown, but it has been proposed that the drug's therapeutic activity in schizophrenia is mediated through a combination of central dopamine Type 2 (D2) and serotonin Type 2 (5HT2A) receptor antagonism.

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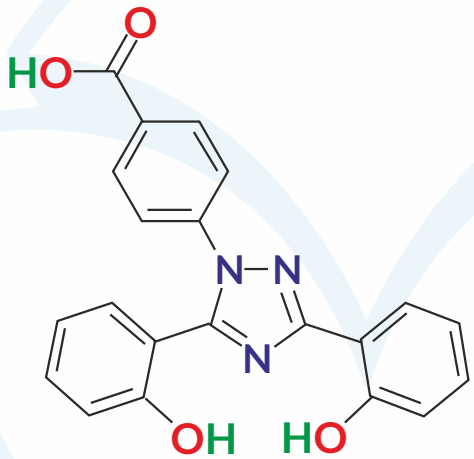
DEFERASIROX

IUPAC Name
4-[3, 5-bis (2-hydroxyphenyl)-1, 2, 4-triazol-1-yl] benzoic acid

CAS Number
201530-41-8

Structural Formula



Molecular Weight
373.3615 g/mol

Molecular Formula
$C_{21}H_{15}N_3O_4$

Features

- Deferasirox is an oral iron chelator mainly used is to reduce chronic iron overload in patients who are receiving long term blood transfusions for conditions such as beta-thalassemia and other chronic anaemias.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Deferasirox is an orally active chelator that is selective for iron (as Fe3+). It is a tridentate ligand that binds iron with high affinity in a 2:1 ratio. Iron depletion improves insulin resistance in patients with non-alcoholic fatty liver disease and diabetes and also stabilizes the hypoxia-inducible factor (HIF)-1, resulting in increased glucose uptake in vitro.

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SILODOSIN

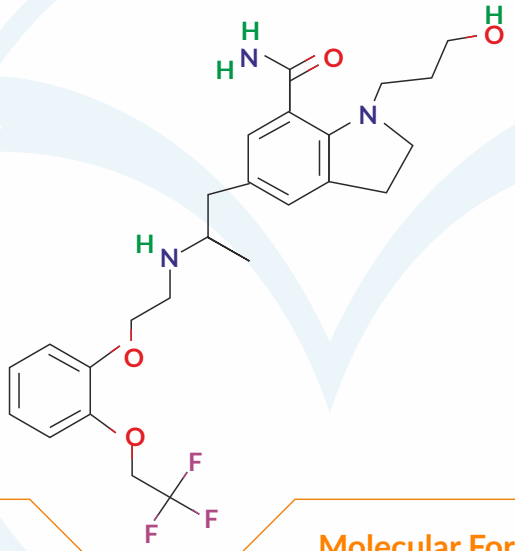
IUPAC Name

1-(3-hydroxypropyl)-5-[(2R)-2-[2-[2-(2,2,2-trifluoroethoxy)phenoxy]ethylamino]propyl]-2,3-dihydroindole-7-carboxamide

CAS Number

160970-54-7

Structural Formula



Molecular Weight

495.53449 g/mol

Molecular Formula

$C_{25}H_{32}F_3N_3O_4$

Features

- Silodosin is an orally available, alpha-1 adrenoceptor antagonist that is selective for the prostate. Silodosin is for symptomatic treatment of benign prostatic hyperplasia.
- Manufactured in an USFDA, WHO GMP, ISO 9001, OHSAS 18001 approved site.
- Available in standard pack size of 25 Kgs Net packed in HDPE Carbouys.

Mechanism of Action

- Benign prostate hyperplasia (BPH), or an enlarged prostate, is a condition found only in men and is characterized by a non-cancerous enlargement of the prostate gland.
- Silodosin is highly uroselective for the alpha (1A) receptors located in the prostate, urethrea and bladder trigone in the lower urinary tract.
- Blocking these receptors relaxes the smooth muscles, resulting in an improvement in urine flow and a reduction in BPH symptoms. The selective binding of silodosin to the alpha (1A) receptors is substantially greater than the binding to the cardiovascular-associated alpha (1B) receptors and thereby maximizes target organ activity while minimizing the potential for blood pressure effects.

About Cadila Pharma

Cadila Pharmaceuticals Ltd. is one of the largest privately-held pharmaceutical companies in India. We have been spreading universal wellness through high quality, affordable medication. For over six decades, we have been developing, manufacturing and selling medicines for patients across the world. Our core therapeutic areas include gastroenterology, cardiology, respiratory, oncology, gynaecology, cardiovascular, diabetology, anti-infective and urology.

Research plays a pivotal role in our company, be it biotechnology, APIs, formulations, plant tissue culture or phytochemistry. Over 300 scientists work towards producing innovative miracles in therapeutic areas with high unmet medical needs. This pursuit has led to the development of many first-in-the-world innovations for the treatment of cardiovascular diseases, tuberculosis, lung cancer and seasonal influenza.

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