# Imidazoline Receptor

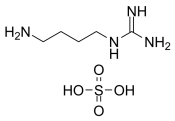
Imidazoline receptors are the primary receptors on which clonidine and other imidazolines act. There are three classes of imidazoline receptors: I1 receptor – mediates the sympatho-inhibitory actions of imidazolines to lower blood pressure, (NISCH or IRAS, imidazoline receptor antisera selected), I2 receptor - an allosteric binding site of monoamine oxidase and is involved in pain modulation and neuroprotection, I3 receptor - regulates insulin secretion from pancreatic beta cells. Activated I1-imidazoline receptors trigger the hydrolysis of phosphatidylcholine into DAG. Elevated DAG levels in turn trigger the synthesis of second messengers arachidonic acid and downstreameicosanoids. In addition, the sodium-hydrogen antiporter is inhibited, and enzymes of catecholamine synthesis are induced. The I1-imidazoline receptor may belong to the neurocytokine receptorfamily, since its signaling pathways are similar to those of interleukins.

# Imidazoline Receptor Inhibitors, Agonists & Antagonists

## Agmatine sulfate

Cat. No.: HY-101238

Agmatine sulfate exerts modulatory action at multiple molecular targets, such as neurotransmitter systems, ion channels and nitric oxide synthesis. It is an endogenous agonist at **imidazoline receptor** and a **NO synthase** inhibitor.



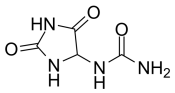
**Purity:** ≥98.0%
**Clinical Data:** No Development Reported
**Size:** 10 mM × 1 mL, 100 mg, 500 mg, 1 g

## Allantoin

**(5-Ureidohydantoin)**

Cat. No.: HY-N0543

Allantoin is a skin conditioning agent that promotes healthy skin, stimulates new and healthy tissue growth.

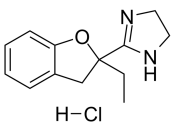


**Purity:** 99.85%
**Clinical Data:** Launched
**Size:** 10 mM × 1 mL, 100 mg

## Efaroxan hydrochloride

Cat. No.: HY-B1416A

Efaroxan hydrochloride is a potent, selective and orally active **α2-adrenoceptor** antagonist, with antidiabetic activity. Efaroxan hydrochloride is a selective **I1-Imidazoline receptor** antagonist. Efaroxan hydrochloride can be used for the research of cardiovascular disease.

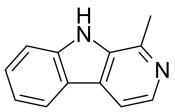


**Purity:** 99.94%
**Clinical Data:** No Development Reported
**Size:** 5 mg, 10 mg, 50 mg, 100 mg

## Harmane

Cat. No.: HY-101392

Harmane, a β-Carboline alkaloid (BCA), is a potent neurotoxin that causes severe action tremors and psychiatric manifestations. Harmane shows 1000-fold selectivity for **I1-Imidazoline receptor** ($IC_{50}$=30 nM) over **α2-adrenoceptor** ($IC_{50}$=18 μM).

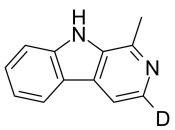


**Purity:** 99.81%
**Clinical Data:** No Development Reported
**Size:** 100 mg

## Harmane-d1

Cat. No.: HY-101392S

Harmane-d1 is the deuterium labeled Harmane. Harmane, a β-Carboline alkaloid (BCA), is a potent neurotoxin that causes severe action tremors and psychiatric manifestations.

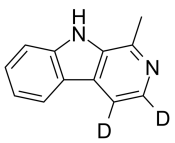


**Purity:** 95.19%
**Clinical Data:** No Development Reported
**Size:** 5 mg, 10 mg

## Harmane-d2

Cat. No.: HY-101392S1

Harmane-d2 is the deuterium labeled Harmane. Harmane, a β-Carboline alkaloid (BCA), is a potent neurotoxin that causes severe action tremors and psychiatric manifestations.



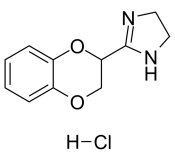
**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 1 mg, 5 mg

## Idazoxan hydrochloride

**(RX 781094 hydrochloride)**

Cat. No.: HY-14561A

Idazoxan hydrochloride (RX 781094 hydrochloride) is an $\alpha_2$-**adrenoceptor** antagonist and is also a **imidazoline receptors (IRs)** antagonist competitively antagonized the centrally induced hypotensive effect of imidazoline-like drugs (IMs).



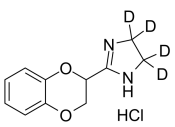
**Purity:** 98.21%
**Clinical Data:** No Development Reported
**Size:** 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

## Idazoxan-d4 hydrochloride

**(RX 781094-d4 hydrochloride)**

Cat. No.: HY-14561AS

Idazoxan-d4 (RX 781094-d4) hydrochloride is the deuterium labeled Idazoxan hydrochloride.



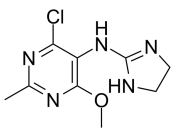
**Purity:** >98%
**Clinical Data:** No Development Reported
**Size:** 1 mg, 10 mg

## Moxonidine

**(BDF5895)**

Cat. No.: HY-B0374

Moxonidine(BDF5895) is a selective agonist at the imidazoline receptor subtype 1, used as antihypertensive agent. Target: I1-R Moxonidine is a centrally acting antihypertensive agent.



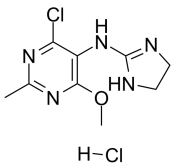
**Purity:** 99.72%
**Clinical Data:** Launched
**Size:** 10 mM × 1 mL, 100 mg

## Moxonidine hydrochloride

**(BDF5895 hydrochloride)**

Cat. No.: HY-B0374A

Moxonidine Hydrochloride is a selective agonist at the imidazoline receptor subtype 1, used as antihypertensive agent. Target: I1-R Moxonidine Hydrochloride is a centrally acting antihypertensive agent.



**Purity:** >98%
**Clinical Data:** Launched
**Size:** 1 mg, 5 mg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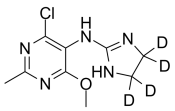
## Moxonidine-d4

Cat. No.: HY-B0374S

Moxonidine-d4 (BDF5895-d4) is the deuterium labeled Moxonidine. Moxonidine(BDF5895) is a selective agonist at the imidazoline receptor subtype 1, used as antihypertensive agent.

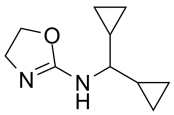


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

## Rilmenidine

Cat. No.: HY-100490

Rilmenidine, an innovative antihypertensive agent, is an orally active, selective **I1 imidazoline receptor** agonist. Rilmenidine is an **alpha 2-adrenoceptor** agonist. Rilmenidine induces **autophagy**.

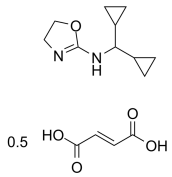


Purity: >98%
Clinical Data: Launched
Size: 1 mg, 5 mg

## Rilmenidine hemifumarate

Cat. No.: HY-100490A

Rilmenidine hemifumarate, an innovative antihypertensive agent, is an orally active, selective **I1 imidazoline receptor** agonist. Rilmenidine hemifumarate is an **alpha 2-adrenoceptor** agonist. Rilmenidine hemifumarate induces autophagy.

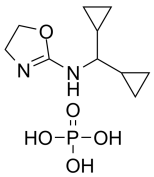


Purity: 99.82%
Clinical Data: Launched
Size: 5 mg, 10 mg

## Rilmenidine phosphate

Cat. No.: HY-100490B

Rilmenidine phosphate, an innovative antihypertensive agent, is an orally active, selective **I1 imidazoline receptor** agonist. Rilmenidine phosphate is an **alpha 2-adrenoceptor** agonist. Rilmenidine phosphate induces **autophagy**.

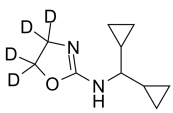


Purity: ≥98.0%
Clinical Data: Launched
Size: 5 mg, 10 mg, 25 mg

## Rilmenidine-d4

Cat. No.: HY-100490S

Rilmenidine-d4 is the deuterium labeled Rilmenidine. Rilmenidine, an innovative antihypertensive agent, is an orally active, selective **I1 imidazoline receptor** agonist. Rilmenidine is an **alpha 2-adrenoceptor** agonist. Rilmenidine induces **autophagy**.



Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg