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 downstream eicosanoids. In addition, the sodium-hydrogen antiporter is inhibited, and enzymes of catecholamine synthesis are induced. The I1-imidazoline receptor may belong to the neurocytokine receptor family, since its signaling pathways are similar to those of interleukins.
# Imidazoline Receptor 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:** 98.36%
- **Clinical Data:** No Development Reported
- **Size:** 10 mM × 1 mL, 100 mg

## Idazoxan hydrochloride
(RX 781094 hydrochloride)

**Cat. No.:** HY-14561A

Idazoxan hydrochloride (RX 781094 hydrochloride) is an α₂-adrenoceptor antagonist and is also a imidazoline receptors (IRs) antagonist competitively antagonized the centrally induced hypotensive effect of imidazoline-like drugs (IMs).

- **Purity:** >98%
- **Clinical Data:** No Development Reported
- **Size:** 10 mg, 50 mg, 100 mg

## Moxonidine
(BDF5895)

**Cat. No.:** HY-B0374

Moxonidine is a selective agonist at the imidazoline receptor subtype 1, used as antihypertensive agent.

- **Purity:** 99.91%
- **Clinical Data:** Launched
- **Size:** 10 mM × 1 mL, 10 mg, 50 mg, 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.

- **Purity:** >98%
- **Clinical Data:** Launched
- **Size:** 10 mg, 50 mg, 100 mg