

OLMESARTAN MEDOXOMIL

SYNONYMS

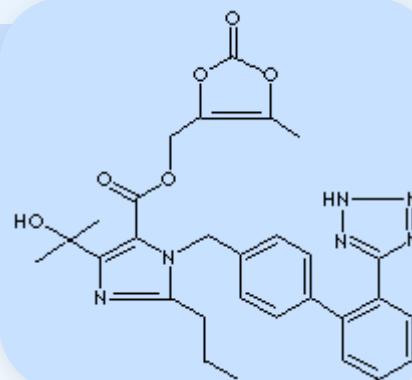
Azor; 4-(1-Hydroxy-1-methylethyl)-2-propyl-1-((2'-(1H-tetrazol-5-yl) (1,1'-biphenyl)-4-yl)methyl)-1H-imidazole-5-carboxylic acid (5-methyl-2-oxo-1,3-dioxol-4-yl) methyl ester; 5-Methyl-2-oxo-1,3-dioxol-4-yl)methyl 5-(2-hydroxypropan-2-yl)-2-propyl-3-((4-(2-(2H-tetrazol-5-yl)phenyl)phenyl)methyl)imidazole-4-carboxylate; Benicar; Olmetec; Votum;

PRODUCT IDENTIFICATION

| | |
|------------|---|
| CAS RN | 144689-63-4; 144689-24-7 (Parent) |
| EINECS RN | 219-719-8 |
| FORMULA | C ₂₉ H ₃₀ N ₆ O ₆ |
| MOL WEIGHT | 558.59 |

PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------|---|
| PHYSICAL STATE | white to off-white crystalline powder |
| MELTING POINT | 175 - 180 C |
| BOILING POINT | |
| DENSITY | |
| SOLUBILITY IN WATER | Insoluble (sparingly soluble in strong acid, soluble in strong base, pH 3 to 9) |
| pH | |
| VAPOR DENSITY | |
| REFRACTIVE INDEX | |
| FLASH POINT | |



GENERAL DESCRIPTION

Olmesartan medoxomil is a type of medicine called an angiotensin II antagonist. It works by preventing the action of a hormone in the body called angiotensin II. Angiotensin II normally acts on special receptors in the body, with two main results. Firstly, it causes the peripheral blood vessels to narrow, and secondly, it stimulates the production of another hormone called aldosterone. Aldosterone causes salt and water to be retained by the kidneys, which increases the volume of fluid in the blood vessels. Olmesartan blocks the receptors that angiotensin II acts on, and so prevents its actions. The main result of this is that the peripheral blood vessels are allowed to widen, which means that there is more space and less resistance in these blood vessels. This is the main mechanism by which the pressure in the blood vessels is lowered. Blocking the actions of angiotensin II also reduces the action of aldosterone on the kidneys. The result of this is an increase in the amount of fluid removed from the blood by the kidneys. This decreases the amount of fluid in the blood vessels, which also lessens the resistance and pressure in the blood vessels. The combined overall effect of these changes is to lower the blood pressure. (source: <http://www2.netdoctor.co.uk/>)

Olmesartan, a specific angiotensin II type 1 antagonist, is used alone or with other antihypertensive agents to treat hypertension. Unlike the angiotensin receptor antagonist losartan, olmesartan does not have an active metabolite or possess uricosuric effects. Blockade of the angiotensin II receptor inhibits the negative regulatory feedback of angiotensin II on renin secretion, but the resulting increased plasma renin activity and circulating angiotensin II levels do not overcome the effect of olmesartan on blood pressure. Mechanism of Action: Angiotensin II is formed from angiotensin I in a reaction catalyzed by angiotensin converting enzyme (ACE, kininase II). Angiotensin II is the principal pressor agent of the renin-angiotensin system, with effects that include vasoconstriction, stimulation of synthesis and release of aldosterone, cardiac stimulation and renal reabsorption of sodium. Olmesartan blocks the vasoconstrictor effects of angiotensin II by selectively blocking the binding of angiotensin II to the AT1 receptor in vascular smooth muscle. Its action is, therefore, independent of the pathways for angiotensin II synthesis. Olmesartan has more than a 12,500-fold greater affinity for the AT1 receptor than for the AT2 receptor. (source: <http://www.drugbank.ca/>)



OLMESARTAN MEDOXOMIL

Angiotensin II receptor antagonists

| Product | CAS RN. |
|--|-------------|
| 1-Sarcosine-8-iso-leucine angiotensin II | 9088-01-1 |
| Saralasin | 34273-10-4 |
| Losartan | 114798-26-4 |
| Losartan potassium | 124750-99-8 |
| Eprosartan | 133040-01-4 |
| Valsartan | 137862-53-4 |
| Abitesartan | 137882-98-5 |
| Irbesartan | 138402-11-6 |
| Candesartan | 139481-59-7 |
| Olmesartan | 144689-24-7 |
| Olmesartan medoxomil | 144689-63-4 |
| Telmisartan | 144701-48-4 |
| Candesartan cilexetil | 145040-37-5 |
| Azilsartan | 147403-03-0 |

STABILITY AND REACTIVITY

| | |
|------------------------|---|
| STABILITY | Stable under normal conditions. |
| INCOMPATIBLE MATERIALS | |
| DECOMPOSITION PRODUCTS | Carbon monoxide, Carbon dioxide, Nitrogen oxides, |
| POLYMERIZATION | |
| NFPA RATINGS | Health: 2, Flammability: 0, Reactivity: 0 |

SAFETY

| | |
|--------------|--|
| HAZARD NOTES | Toxic. Harmful. Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. |
| EYE | Cause eye irritation. |
| SKIN | Cause skin irritation. |
| INGESTION | Harmful. |
| INHALATION | Harmful. |
| CHRONIC | |

SALES SPECIFICATION

| | |
|---------------------|--|
| APPEARANCE | white to almost white crystalline powder |
| PURITY | 99.0% min |
| LOSS ON DRYING | 0.5% max |
| RESIDUE ON IGNITION | 0.1% max |
| MELTING POINT | 175 - 180 C |
| HEAVY METALS | 20ppm max |
| pH Value | 5.5 - 7.5 |

TRANSPORT & REGULATORY INFORMATION

| | |
|---------------|----|
| UN NO. | |
| HAZARD CLASS | |
| PACKING GROUP | |
| HAZARD SYMBOL | XN |



OLMESARTAN MEDOXOMIL

RISK PHRASES 20/21/22-36/37/38
SAFETY PHRASES 26-36

PACKING

PRICE

