

Candesartan is administered as candesartan cilexetil, commonly known as (±) -1-[[[(cyclohexyloxy)carbonyl]oxy]ethyl 2-ethoxy-1-[[2` -(1H-tetrazol -5- yl)[1,1`-biphenyl]-4-yl]methyl]-1h-benzimidazole-7-carboxylate 1, which has better availability than candesartan, the prodrug is rapidly and completely hydrolyzed to candesartan during absorption by the gastrointestinal tract.

Candesartan belongs to the class of ARBs and binds to angiotensin II receptor type1 selectively and competitively, thus preventing action of angiotensin II and decreasing the blood pressure levels.( Ferreirós N, *et al.*, 2007).

### **Candesartan is Metabolized by**

- CYP2C9 \*1, CYP2C9 \*2, and CYP2C9 \*3 to O-Deethylated candesartan
- UDP-glucuronosyltransferase 1-3 to Candesartan N2-glucuronide.
- Prostaglandin G/H synthase 1 to Candesartan O-glucuronide.( Hanatani T, *et al.* , 2001).

### **1.3.2 Mechanism of action**

Candesartan blocks the vasoconstrictor and aldosterone-secreting effects of angiotensin II by selectively blocking the binding of angiotensin II to the AT1 receptor in many tissues including vascular smooth muscle and the adrenal gland. and results in an overall decrease in blood pressure. ( Detroja C, *et al.*. 2011).

Candesartan does not bind to or block other hormone receptors or ion channels known to be important in cardiovascular regulation, and so its action is, independent of the pathways for angiotensin II synthesis. ( Easthope SE, *et al.*. 2002).