

serum potassium was observed. (AstraZeneca LP, Wilmington, DE 19850, 2013, ©AstraZeneca 2010, 2013).

### **Absorption**

After administration of the candesartan cilexetil (prodrug), candesartan cilexetil is rapidly and completely bioactivated by ester hydrolysis at the ester link to form the active candesartan during absorption from the gastrointestinal (GI) tract McClellan and Goa, 1998. Oral administration of candesartan shows low bioavailability, approximately 15% in humans, due to its low water (pKa 6.0) solubility (Vijaykumar et al., 2009) and efflux by drug resistance pumps in the gastrointestinal tract, limiting the oral absorption (Zhang et al., 2012; Lee et al., 2009; Kamiyama et al., 2010; Zhou et al., 2009). High fat content diet shows no effect on the bioavailability of candesartan. (Joseph I. Boullata et al., 2010)

### **Distribution**

The volume of distribution of candesartan is 0.13 L/kg. Candesartan is highly bound to plasma proteins (>99%) and does not penetrate red blood cells. In rats, it has been demonstrated that candesartan crosses the blood-brain barrier poorly. It has also been demonstrated in rats that candesartan passes across the placental barrier and is distributed in the fetus. (Takara K, Kakumoto, *et al.* 2002).

### **Metabolism**

The prodrug candesartan cilexetil undergoes rapid and complete ester hydrolysis in the intestinal wall to form the active drug, candesartan. ( Shantanu Bandyopadhyay, 2013), 75% of candesartan eliminated unchanged in the urine and, by the biliary route, in the feces. Hepatic metabolism of candesartan (25%) occurs by O-