# Product Data Sheet

Product Name: Azilsartan medoxomil monopotassium
Cat. No.: GC10642

## Chemical Properties

| | | | |
|---|---|---|---|
| Cas. No. | 863031-24-7 | | |
| Chemical Name | potassium;(5-methyl-2-oxo-1,3-dioxol-4-yl)methyl 2-ethoxy-3-[[4-[2-(5-oxo-1-oxa-2-aza-4-azanidacyclopent-2-en-3-yl)phenyl]phenyl]methyl]benzimidazole-4-carboxylate | | |
| SMILES | CCOC1=NC2=CC=CC(=C2N1CC3=CC=C(C=C3)C4=CC=CC=C4C5=NOC(=O)[N-]5)C(=O)OCC6=C(OC(=O)O6)C.[K+] | | |
| Formula | $C_{30}H_{23}KN_4O_8$ | M.Wt | 606.62 |
| Solubility | Soluble in DMSO | Storage | Store at -20°C |
| General tips | For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months. | | |
| Shipping Condition | Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request. | | |
| Structure | | | |

## Background

Azilsartan medoxomil monopotassium is an orally administered angiotensin II receptor type 1 antagonist with IC50 of 0.62 nM, which used in the treatment of adults with essential hypertension. IC50 Value: 0.62 nM [2]Target: AT1 receptorin vitro: In aortic endothelial cells, azilsartan inhibited cell proliferation at concentrations as low as 1 μmol/l, whereas valsartan showed little or no antiproliferative effects at concentrations below 10 μmol/l. Antiproliferative effects of azilsartan were also observed in cells lacking AT1 receptors[1].in vivo: Oral administration of 0.1-3 mg/kg olmesartan medoxomil reduced blood pressure; however, only the two highest doses significantly reduced blood pressure 24h after dosing. ED(25) values were 0.41 and 1.3 mg/kg for azilsartan medoxomil and olmesartan medoxomil, respectively [2]. Over a longer treatment period of 24 weeks, azilsartan medoxomil showed sustained BP-lowering efficacy, with the reduction in 24-hour mean SBP at week 24 significantly greater with azilsartan


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medoxomil 40 or 80 mg once daily than with valsartan 320 mg once daily. Mean reductions from baseline in mean clinic SBP and DBP as well as DBP by ABPM were also significantly greater with azilsartan medoxomil 40 or 80 mg once daily than with valsartan[3]. In 4 randomized controlled trials (3 published to date), azilsartan medoxomil/chlorthalidone 40 mg/12.5 mg and 40 mg/25 mg reduced blood pressure (BP) significantly more than comparators did, including an approximately 5-mm Hg greater BP reduction than olmesartan medoxomil/hydrochlorothiazide 40 mg/25 mg and azilsartan medoxomil/hydrochlorothiazide [4].

References:

[1]. Kajiya T, Ho C, Wang J, Molecular and cellular effects of azilsartan: a new generation angiotensin II receptor blocker. J Hypertens. 2011 Dec;29(12):2476-83.
[2]. Kusumoto K, Igata H, Ojima M, Antihypertensive, insulin-sensitising and renoprotective effects of a novel, potent and long-acting angiotensin II type 1 receptor blocker, azilsartan medoxomil, in rat and dog models.
[3]. Perry CM. Azilsartan medoxomil: a review of its use in hypertension. Clin Drug Investig. 2012 Sep 1;32(9):621-39.
[4]. Pierini D, Anderson KV. Azilsartan medoxomil/chlorthalidone: a new fixed-dose combination antihypertensive. Ann Pharmacother. 2013 May;47(5):694-703.