LKT Laboratories, Inc.

Valsartan

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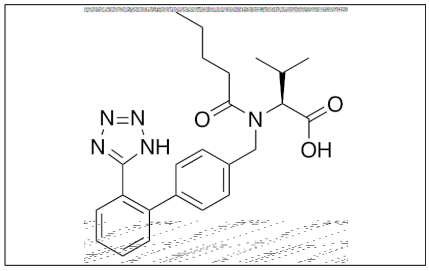
Product Information

Product ID V0146
CAS No. 137862-53-4
Chemical Name N-(1-Oxopentyl)-N-[[2'-1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-L-valine
Synonym



Formula $C_{24}H_{29}N_5O_3$
Formula Wt. 435.52
Melting Point 116-117°C
Purity ≥98%
Solubility

Bulk quanitites available upon request

Product ID	Size
V0146	50 mg
V0146	1 g
V0146	5 g
V0146	25 g

Store Temp Ambient
Ship Temp Ambient

Description Valsartan is an angiotensin II (ATII) type 1 receptor (AT1) inhibitor that is clinically used to lower blood pressure and coronary resistance, and to decrease cardiac hypertrophy. Valsartan exhibits antihypertensive, cardioprotective, neuroprotective, anti-angiogenic, and anti-inflammatory activities. Inhibition of the ATII type 1 receptor results in inhibition of NF-κB and AP-1 activation. Valsartan induces autophagy through alteration of Akt/mTOR signaling in the rat heart, decreasing infarct size in an ischemia-reperfusion model. In neurons, valsartan promotes spinogenesis, increasing the number of AMPA receptors on the cell surface and altering levels of CaMKIIα and phospho-CDK5. In vivo, valsartan prevents induction of cardiotrophin-1, inhibiting increases in creatine kinase, atrial natriuretic peptide, and the heart weight/body weight ratio during heart failure. Additionally, inhibition of the angiotensin II type 1 (AT1) receptor prevents phosphorylation of Akt and decreases expression of VEGF in bone marrow stromal cells. Valsartan also inhibits release of pro-inflammatory cytokines such as IL-6, TNF-α, and IL-1β independent of its activity on ATII type 1 receptors.

References

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