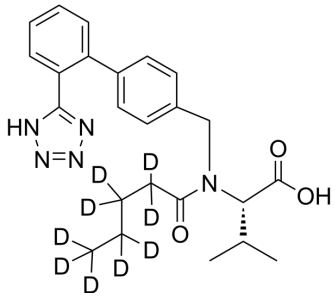
Valsartan-d_9

Cat. No.:	HY-18204S
CAS No.:	1089736-73-1
Molecular Formula:	$C_{24}H_{20}D_9N_5O_3$
Molecular Weight:	444.57
Target:	Angiotensin Receptor
Pathway:	GPCR/G Protein

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Valsartan-d_9 is deuterium labeled valsartan. Valsartan is an angiotensin II receptor antagonist and has the potential for high blood pressure and heart failure research[1].
IC_{50} & Target	AT1 Receptor
In Vitro	Valsartan is a synthetic non-peptide angiotensin II type 1 receptor antagonist that dilates blood vessels and reduces blood pressure by blocking the action of angiotensin. Valsartan significantly decreases the expression of AT1R in ageing aorta endothelial cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Animal Administration [4]

Rats: Rats are randomly divided into two groups: (i) valsartan-treated group that is given intravenously 3 mg/kg/day valsartan in 0.5 mL normal saline via the vein daily for 1 week; (ii) hydralazine-treated group receiving 0.2 mg/kg/day hydralazine injection in saline; and (iii) control group that receives saline injection in the same way (n=15 for each group)[4].

Mice: Valsartan is dissolved in water containing 0.5% methylcellulose solution. Valsartan (5-40 mg/kg/d) is administered by oral (p.o.) route in a volume of 10 mL/kg body weight using the gavage technique. Potential alteration in blood pressure in response to chronic treatment with valsartan is assessed with a commercial blood pressure analysis systemdesigned. The mice are trained for at least 2 consecutive days to adapt to the apparatus before the study is initiated. To record the blood pressure, the mice are placed on a heated pad (35°C) and measured with a programmable tail-cuff sphygmomanometer in steady state. The average of 10 readings from each mouse is recorded[5].

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REFERENCES

[1]. Shan H, et al. Valsartan ameliorates ageing-induced aorta degeneration via angiotensin II type 1 receptor-mediated ERK activity. J Cell Mol Med. 2014 Jun;18(6):1071-80.

Caution: Product has not been fully validated for medical applications. For research use only.

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