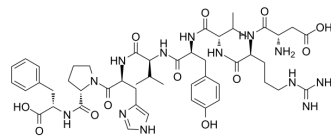


## Angiotensin II 5-valine

Cat. No.:	HY-P0108
CAS No.:	58-49-1
Molecular Formula:	C <sub>49</sub> H <sub>69</sub> N <sub>13</sub> O <sub>12</sub>
Molecular Weight:	1032.15
Sequence:	Asp-Arg-Val-Tyr-Val-His-Pro-Phe
Sequence Shortening:	DRVYVHPF
Target:	Angiotensin Receptor
Pathway:	GPCR/G Protein
Storage:	Protect from light
	Powder    -80°C    2 years
	-20°C    1 year



\* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)

### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 100 mg/mL (96.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		0.9689 mL	4.8443 mL	9.6885 mL
	5 mM		0.1938 mL	0.9689 mL	1.9377 mL
	10 mM		0.0969 mL	0.4844 mL	0.9689 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Angiotensin II 5-valine is an agonist of angiotensin receptor.

#### IC<sub>50</sub> & Target

Angiotensin receptor<sup>[1]</sup>.

#### In Vivo

By day 12, systolic blood pressure (SBP) increases significantly in Angiotensin II 5-valine infused rats (197±7 mm Hg). As shown, the development of hypertension in ANG II infused rats is prevented by losartan treatment. Blood and kidney samples are harvested, subjected to HPLC to separate Angiotensin II 5-valine (exogenous) from Ile5-ANG II (endogenous) and the fractions are measured by radioimmunoassay. In the Angiotensin II 5-valine infused rats treated with losartan, total plasma ANG II levels are elevated to a greater extent than in rats not treated with losartan (289±20 v 119±14 fmol/mL). However, losartan markedly decrease by 88% the enhancement of intrarenal Val5-ANG II content that occurred in the rats infused with Val5-ANG II alone<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## PROTOCOL

### Animal Administration <sup>[1]</sup>

#### Rats<sup>[1]</sup>

Male Sprague Dawley rats are uninephrectomized and divided into three groups: control (n=6), Angiotensin II 5-valine (exogenous form) infused (n=8), and Angiotensin II 5-valine infused rats treat with losartan (n=8). Angiotensin II 5-valine, which has the same biological and immunoreactive properties as endogenous ANG II, was infused at 40 ng/min via an osmotic minipump implant subcutaneously<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

[1]. Zou LX et al. Renal uptake of circulating angiotensin II in Val5-angiotensin II infused rats is mediated by AT1 receptor. *Am J Hypertens.* 1998 May;11(5):570-8.

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

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