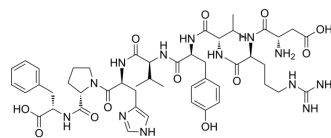


## Angiotensin II 5-valine

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:	Sealed storage, away from moisture and light
	Powder    -80°C    2 years
	-20°C    1 year



\* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 100 mg/mL (96.89 mM); Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		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.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 33.33 mg/mL (32.29 mM); Clear solution; Need ultrasonic				

### 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). 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

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ANG II levels are elevated to a greater extent than in rats not treated with losartan ( $289\pm 20$  v  $119\pm 14$  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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