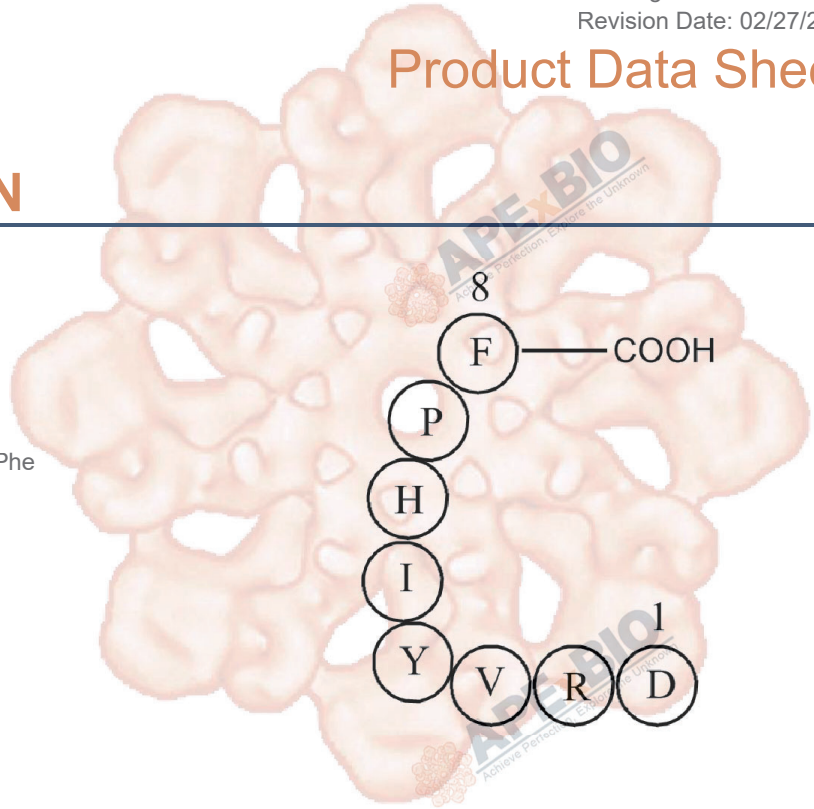


Product Data Sheet

Angiotensin II HUMAN

Cat. No.: A1042
CAS No.: 4474-91-3
Formula: C₅₀H₇₁N₁₃O₁₂
M.Wt: 1046.2
Synonyms: Asp-Arg-Val-Tyr-Ile-His-Pro-Phe
Target: Cardiovascular
Pathway:
Storage: Desiccate at -20°C



Solvent & Solubility

≥234.6 mg/mL in DMSO; insoluble in EtOH; ≥76.6 mg/mL in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
Concentration	1 mM	0.9558 mL	4.7792 mL	9.5584 mL
	5 mM	0.1912 mL	0.9558 mL	1.9117 mL
	10 mM	0.0956 mL	0.4779 mL	0.9558 mL

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

Biological Activity

Shortsummary

Potent vasopressor and a powerful stimulus for production and release of aldosterone from the adrenal cortex.

IC₅₀ & Target

Cell Viability Assay

In Vitro

Cell Line: Vascular smooth muscle cells
Preparation method: The solubility of this peptide in sterile water is >10 mM. Stock solution should be split and stored at -80°C for several months.

	Reacting conditions:	100 nM, 4 hours
	Applications:	Treatment of Angiotensin II caused a large increase in both NADH and NADPH oxidase activity, both in terms of initial rate and peak response. The increase in oxidase activity was not apparent until ~ 1 hour and continued to increase for at least 6 hours.
In Vivo	Animal experiment	
	Animal models:	C57BL/6J (apoE ^{-/-}) mice
	Dosage form:	Drugs were delivered through the minipumps placed into the subcutaneous space in the back of the neck. 500 or 1000 ng/min/kg for 28 days.
	Applications:	Ang II infusion promotes the development of abdominal aortic aneurysms. The region in the abdominal aorta from an Ang II-infused mouse was markedly increased in size. The tissue encompassing this region was resistant to the dissection process typically used to remove adventitial tissue. The bulbous aortic abdominal shape occurred in 20% and 33% of mice in the groups infused with 500 and 1,000 ng/min/kg of Ang II, respectively.
	Other notes:	Please test the solubility of all compounds in vivo, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Griendling K K, Minieri C A, Ollerenshaw J D, et al. Angiotensin II stimulates NADH and NADPH oxidase activity in cultured vascular smooth muscle cells. *Circulation research*, 1994, 74(6): 1141-1148.

[2] Daugherty A, Manning M W, Cassis L A. Angiotensin II promotes atherosclerotic lesions and aneurysms in apolipoprotein E-deficient mice. *Journal of Clinical Investigation*, 2000, 105(11): 1605-1612.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for

long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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