

#### **HOE-140**

Product Number **H-157** Storage Temperature –20 °C

Cas #: 138614-30-9

Synonyms: H<sub>2</sub>N-D-Arg-Arg-Pro-Hyp-Gly-Thi-Ser-D-Tic-Oic-Arg-OH; D-Arginyl-L-arginyl-L-prolyl-trans-4-hydroxy-L-prolylglycyl-3-(2-thienyl)-L-alanyl-L-seryl-D-

1,2,3,4-tetrahydro-3-isoquinolinecarbonyl-L-

 $(2\alpha,3\beta,7\alpha\beta)$ -octahydro-1H-indole-2-carbonyl-L-arginine

## **Product Description**

Mol. Formula:  $C_{59}H_{89}N_{19}O_{13}S$  MW: 1304.6 (peptide free base)

Synthetic White powder

Purity: >90% by HPLC

Peptide content: approx. 60%; remainder is salt and

water of hydration.

HOE 140 is a selective B<sub>2</sub> bradykinin receptor antagonist. There are two known receptors for bradykinin, both of which are G-protein linked. The B<sub>2</sub> receptor is constitutively expressed on most cell types, while B<sub>1</sub> receptors are induced in response to inflammation, tissue damage or bacterial infection. The B<sub>2</sub> receptor appears to be involved in normal cardiovascular regulation and preservation of cardiac structure. B<sub>2</sub> antagonists increase heart rate and blood pressure. B<sub>2</sub> knockout mice develop cardiomyopathy. B<sub>2</sub> agonists are potent pain inducers and have proinflammatory activity. HOE-140 has been shown to have analgesic and anti-inflammatory effects in some models.

### **Preparation Instructions**

Allow HOE 140 to come to room temperature in a desiccator prior to opening the container. Dissolve the peptide at 1 mg/ml in distilled water. The solution may be sonicated briefly to aid in solubilization. Buffer or saline should be added only after the peptide is fully in solution. Solutions should be stored at pH 5-7 in single-use aliquots at  $-20~^{\circ}\text{C}$ .

# **ProductInformation**

### Storage/Stability

Store tightly sealed at -20 °C.

### References

Bock, M.G., and Longmore, J., Bradykinin antagonists: new opportunities. Curr. Opin. Chem. Biol., **4**, 401-406 (2000).

Levy, D., and Zochodne, D.W., Increased mRNA expression of the B1 and B2 bradykinin receptors and antinociceptive effects of their antagonists in an animal model of neuropathic pain. Pain, **86**, 265-271 (2000).

Poole, S., et al., Bradykinin B1 and B2 receptors, tumour necrosis factor alpha and inflammatory hyperalgesia. Br. J. Pharmacol., **126**, 649-656 (1999).

Feletou, M. et al., Agonistic and antagonistic properties of the bradykinin B<sub>2</sub> receptor antagonist, HOE 140, in isolated blood vessels from different species. Br. J. Pharmacol., **112**, 683-689 (1994).

Wirth, K., et al., Hoe 140, a new potent and long acting bradykinin antagonist: *In vivo* studies. Br. J. Pharmacol., **102**, 774-777 (1991).

Trifilieff, A., et al., Effect of HOE 140, a new  $B_2$  noncompetitive antagonist, on guinea pig tracheal bradykinin receptors. J. Pharmacol. Exp. Ther., **263**, 1377-1382 (1992).

Nossaman, B.D., et al., Analysis of responses to bradykinin and influence of HOE 140 in the isolated perfused rat lung. Am. J. Physiol. **266**, H2452-H2461 (1994).

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