

## Catalog # 10-2809

## Argatroban

74863-84-6

(2R,4R)-1-[(2S)-5-[(Aminoiminomethyl)amino]-1-oxo-2-[[(1,2,3,4-tetrahydro-3-methyl-8-quinolinyl)sulfonyl]amino]pentyl]-4-methyl-2-piperidinecarboxylic acid

Argidipine, MQPA Lot # X101251

Potent and selective thrombin inhibitor (K<sub>i</sub> = 19 nM).<sup>1</sup> Prevents platelet-rich arterial thrombosis in a rabbit model.<sup>2</sup> Ameliorates early brain injury and improves neurological outcomes after subarachnoid hemorrhage in a rat model.<sup>3</sup> Reduces breast cancer malignancy and metastasis via osteopontin-dependent and independent mechanisms.<sup>4</sup>

- 1) Kikumoto et al. (1984), Selective inhibition of thrombin by (2R,\$R)-4-methyl-1-[N2-[(3-methyl-1,2,3,4-tetrahydro-8-quinolinyl+++)sulfonyl]-l-arginyl)]-2-piperidinecarboxylic acid; Biochemistry, **23** 85
- 2) Jang et al. (1990), Prevention of platelet-rich arterial thrombosis by selective thrombin inhibition; Circulation, 81 219
- 3) Sugawara et al. (2009), Thrombin inhibition by argatroban ameliorates early brain injury and improves neurological outcomes after experimental subarachnoid hemorrhage in rats; Stroke, **40** 1530
- 4) Schulze et al. (2008), The thrombin inhibitor Argatroban reduces breast cancer malignancy and metastasis via osteopontin-dependent and osteopontin-independent mechanisms; Breast Cancer Res. Treat., **112** 243

## **PHYSICAL DATA**

Molecular Weight: 508.63

Molecular Formula:  $C_{23}H_{36}N_6O_5S$ Purity: 99% by HPLC

NMR: (Conforms)

Solubility: DMSO (up to 50 mg/ml)

Physical Description: White solid

Storage and Stability: Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in

DMSO may be stored at -20°C for up to 1 month.

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