Enalapril maleate salt

Product Number E 6888
Store at Room Temperature

Product Description
Molecular Formula: C_{20}H_{28}N_{2}O_{5} • C_{4}H_{4}O_{4}
Molecular Weight: 492.5
CAS Number: 76095-16-4
Melting Point: 143-144.5 °C
Specific Rotation: -42.2° (10 mg/ml, methanol, 25 °C)
pK_a: 3.0, 5.4
Synonyms: (S)-1-[N-1-(ethoxycarbonyl)-3-phenylpropyl]-L-alanyl-L-proline maleate; 1-[N-[(S)-1-carboxy-3-phenylpropyl]-L-alanyl]-L-proline 1'-ethyl ester maleate

Enalapril is an angiotensin-converting enzyme (ACE) inhibitor that exerts its activity in vivo after it is converted to its diacid metabolite enlaprilat. It is used in cardiovascular research and in studies on hypertension. A review of the effects of enalapril on smooth muscle contractile proteins, and arterial wall structure in the context of hypertension has been published.

Enalapril and other ACE inhibitors have been used at 1-60 µM in cultured bovine aortic endothelial cells to probe their effects on endothelial nitric oxide production and action, and on endothelial oxidative stress. The effect of enalapril on the expression of tissue factor and TNF-α, IL-6 and IL-10 in co-cultured U-937 cells and human coronary artery endothelial cells has been studied. A study in rats of TGF-β and fibronectin levels with and without enalapril treatment has been described.

A multiwell plate method for the analysis of enalapril and enalaprilat that incorporates solid phase extraction and LC/tandem MS has been published.

Precautions and Disclaimer
For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions
This product is soluble in methanol (50 mg/ml), with heat as needed, yielding a clear, colorless to yellow solution. It has also been reported to be soluble in water (25 mg/ml) and in ethanol (8 mg/ml). This product is also soluble in dimethylformamide.

References
1. The Merck Index, 12th ed., Entry# 3605.