**Product Name:** E 64d  
**CAS Number:** 88321-09-9  
**IUPAC Name:** (2S,3S)-3-[[3-methylbutyl]amino]carbonyl]-2-oxiranecarboxylic acid ethyl ester

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**1. PHYSICAL AND CHEMICAL PROPERTIES**

- **Batch Molecular Formula:** \( C_{17}H_{30}N_2O_5 \)
- **Batch Molecular Weight:** 342.43
- **Physical Appearance:** White lyophilised solid
- **Solubility:** DMSO to 20 mM
- **Storage:** Store at -20°C

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**2. ANALYTICAL DATA**

- **HPLC:** Shows 98.8% purity
- **Mass Spectrum:** Consistent with structure
Product Name: E 64d
Catalog No.: 4545       Batch No.: 1

CAS Number:     88321-09-9
IUPAC Name:     (2S,3S)-3-[[1S]-3-Methyl-1-[[3-methylbutyl]amino]carbonyl]butyl]amino]carbonyl]-2-oxiranecarboxylic acid ethyl ester

Description:
Inhibitor of cathepsins B and L; also thought to inhibit calpain. Inhibits lysosomal proteases and interferes with autolysosomal digestion when used in combination with pepstatin A (Cat. No. 1190). Lysosome and cell permeable.

Physical and Chemical Properties:
Batch Molecular Formula: C_{39}H_{53}N_{7}O_{8}
Batch Molecular Weight: 342.43
Physical Appearance: White lyophilised solid
Minimum Purity: >98%

Storage: Store at -20°C

Solubility & Usage Info:
DMSO to 20 mM

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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