

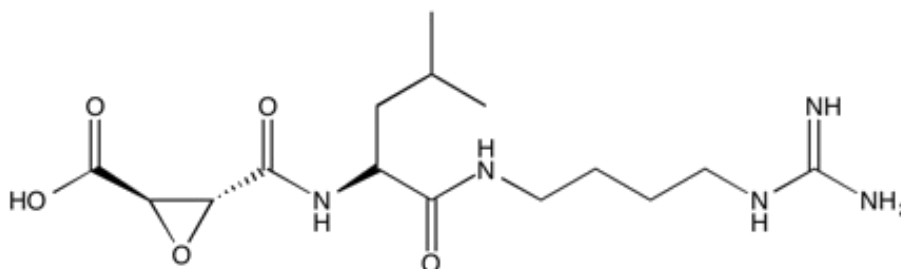
Catalog # 10-1345

E-64

CAS# 66701-25-5

(2S,3S)-trans-Epoxy succinyl-L-leucylamido-(4-guanidino) butane

Lot # X101487



Cell-permeable, epoxysuccinyl peptide irreversible inhibitor of calpain and other cysteine proteases.^{1,2} Inhibits calpain-dependent apoptosis pathway in T cells³ but promotes heat-induced apoptosis in FM3A cells. Typical working concentration is 0.5-10 µg/ml.⁴

- 1) Wang and Yuen (1994), *Calpain inhibition: an overview of its therapeutic potential*; Trends Pharmacol. Sci., **15** 412
- 2) Barrett *et al.* (1982), *L-trans-Epoxy succinyl-leucylamido(4-guanidino)butane (E-64) and its analogues as inhibitors of cysteine proteinases including cathepsins B, H, and L*; Biochem. J., **201** 189
- 3) Sarin *et al.* (1994), *Inhibition of activation-induced programmed cell death and restoration of defective immune responses of HIV+ donors by cysteine protease inhibitors*; J. Immunol., **153** 862
- 4) Zhu *et al.* (1996), *Promotion of heat-induced apoptosis in FM3A cells by protease inhibitors*; Biochem. Biophys. Res. Commun., **225** 924

PHYSICAL DATA

Molecular Weight:	357.41
Molecular Formula:	C ₁₅ H ₂₇ N ₅ O ₅
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	Soluble in a 1:1 mixture of water and ethanol (up to 20 mg/ml)
Physical Description:	White or off-white solid
Storage and Stability:	Store as supplied, at -20°C for up to 1 year from the date of purchase. Solutions in 1:1 ethanol/water may be stored at -20°C for up to 1 month.

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