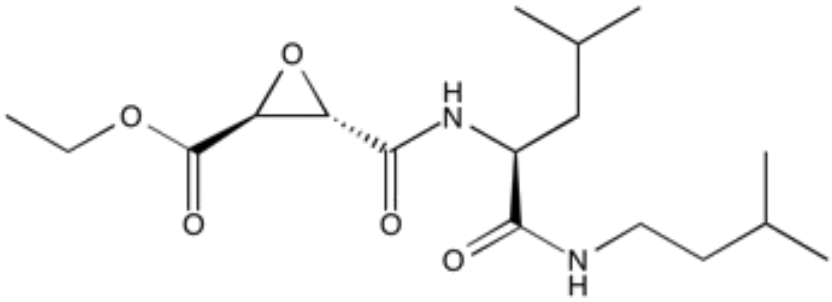
Catalog # 10-1347

E-64d

CAS# 88321-09-9

2S,3S-trans-(Ethoxycarbonyloxirane-2-carbonyl)-L-leucine-(3-methylbutyl)amide

Lot # X101467



Cell-permeable derivative of E-64c, an inhibitor of calpain and other cysteine proteases, such as papain, cathepsin B and cathepsin L.[1,2] Addition to cell cultures should be done in serum-free media as esterases in serum will cleave the ethyl ester and reduce cell permeability. Typical working concentration is 0.5-10 µg/ml. Inhibits degradation of autophagic cargo inside autolysosomes[3]

1) McGowan *et al*. (1989), *Inhibition of calpain in intact platelets by the thiol protease inhibitor E-64d*; Biochem. Biophys. Res. Commun., **158** 432

2) Wilcox and Mason (1992), *Inhibition of cysteine proteinases in lysosomes and whole cells*; Biochem. J., **285** 495

3) Mizushima *et al*. (2010), *Methods in mammalian autophagy research*; Cell, **140** 313

PHYSICAL DATA

Molecular Weight:	342.43
Molecular Formula:	$C_{17}H_{30}N_2O_5$
Purity:	98% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (up to 20 mg/ml), or Ethanol (up to 10 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 DMSO or ethanol may be stored at -20°C for up to 1 month.

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