

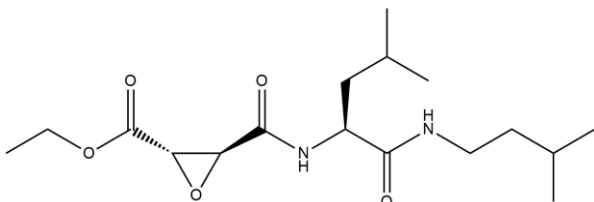
# E-64d

07/20

**ALTERNATE NAMES:** Aloxistatin; Loxistatin; ethyl (2S,3S)-3-[[[(2S)-4-methyl-1-(3-methylbutylamino)-1-oxopentan-2-yl]carbamoyl]oxirane-2-carboxylate; ethyl (+)-(2S,3S)-2,3-epoxy-N-((S)-1-(isopentylcarbamoyl)-3-methylbutyl)succinamate; (2S,3S)-ethyl 3-(((S)-1-(isopentylamino)-4-methyl-1-oxopentan-2-yl)carbamoyl)oxirane-2-carboxylate

**CATALOG #:** B3057-5 5 mg  
B3057-25 25 mg

**STRUCTURE:**



**MOLECULAR FORMULA:** C<sub>17</sub>H<sub>30</sub>N<sub>2</sub>O<sub>5</sub>

**MOLECULAR WEIGHT:** 342.43

**CAS NUMBER:** 88321-09-9

**APPEARANCE:** White to off-white solid powder

**PURITY:** ≥98%

**SOLUBILITY:** ~30 mg/ml in DMSO and DMF  
~10 mg/ml in ethanol

**DESCRIPTION:** E-64d is a synthetic analog of E-64 which is a membrane permeable inhibitor of lysosomal and cytosolic cysteine proteases. It inhibits cathepsins B and L in intact lysosomes and cells. It (20-200 µg/ml) induces cell cycle arrest at the G2/M phase in A431 human epidermoid carcinoma cells. E-64d inhibits the entry of SARS-Cov-2 into Caco-2 cells in combination with Camostat mesylate.

**STORAGE TEMPERATURE:** -20°C. Protect from air. Store under desiccating conditions.

**HANDLING:** Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

**REFERENCES:**

1. Wilcox, D., and Mason, R.W. Inhibition of cysteine proteinases in lysosomes and whole cells. *Biochem. J.* 285, 495-502 (1992).
2. Shoji-Kasai, Y., Senshu, M., Iwashita, S., et al. Thiol protease-specific inhibitor E-64 arrests human epidermoid carcinoma A431 cells at mitotic metaphase. *Proc. Natl. Acad. Sci. U.S.A.* 85, 146-150 (1988).
3. Hoffmann, M., Kleine-Weber, H., Schroeder, S., et al. SARS-CoV-2 cell entry depends on ACE2 and TMPRSS2 and is blocked by a clinically proven protease inhibitor. *Cell* 181(2), 271-280 (2020).

**RELATED PRODUCTS:**

Dexamethasone (Cat. No. 1042)  
E-64 (Cat. No. 1739)  
Camostat mesylate (Cat. No. B2145)  
Leupeptin, hemisulfate (Microbial) (Cat. No. 1648)  
PMSF (Cat. No. 1548)

**DISCLAIMER:** **FOR RESEARCH USE ONLY! Not to be used on humans.**