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15-4009: E-64d

Alternative Name : Aloxistatin, E-64c ethyl ester,EP 453, EST, Loxistatin, NSC 694281

Description

Molecular Formula: $C_{17}H_{30}N_2O_5$

Molecular Weight: 342.4

Cysteine proteases are a class of enzymes containing an active-site cysteine residue that is important in protein degradation pathways. E-64d, a synthetic analog of E-64 and ethyl ester of E-64c, is an irreversible, membrane-permeable inhibitor of lysosomal and cytosolic cysteine proteases.E-64d inhibits calpain and the cysteine proteases cathepsins F, K, B, H, and L. By disrupting protease activity, E-64d, at concentrations between 20-200 µM, has been shown to arrest human epidermoid carcinoma A431 cells at mitotic metaphase.It also inhibits protease-resistant prion protein accumulation in scrapie-infected neuroblastoma cells with an IC50 value of 0.5 µM.

Product Info

Amount :	1 mg / 5 mg
Purification :	â‰¥98%
Content :	E-64d is supplied as a crystalline solid.
Storage condition :	Store at -20°C, product is stable for at least two years.

Application Note

A stock solution may be made by dissolving the E-64d in the solvent of choice. E-64d is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of E-64d in ethanol is approximately 10 mg/ml and approximately 30 mg/ml in DMSO and DMF.

E-64d is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, E-64d should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. E-64d has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

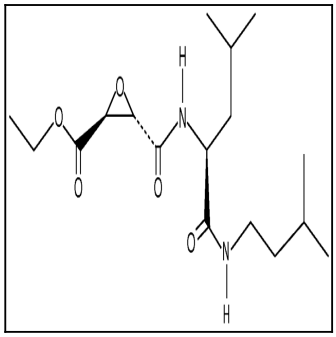


Figure-1: Structure of E-64d.

For Research Use Only. Not for use in diagnostic/therapeutics procedures.