

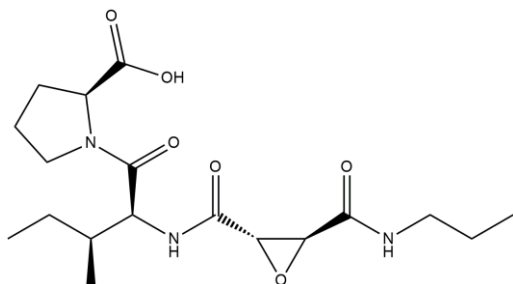
CA-074

01/20

ALTERNATE NAMES: (2S)-1-[(2S,3S)-3-methyl-2-[[[(2S,3S)-3-(propylcarbamoyl)oxirane-2-carbonyl]amino]pentanoyl]pyrrolidine-2-carboxylic acid; Cathepsin B Inhibitor III; N-[[[(2S,3S)-3-(propylcarbamoyl)oxiran-2-yl]carbonyl]-L-isoleucyl-L-proline

CATALOG #: B2971-1 1 mg
B2971-5 5 mg

STRUCTURE:



MOLECULAR FORMULA: C₁₈H₂₉N₃O₆

MOLECULAR WEIGHT: 383.44

CAS NUMBER: 134448-10-5

APPEARANCE: Solid

PURITY: 98%

SOLUBILITY: ~8 mg/ml in DMSO

DESCRIPTION: CA-074 is an epoxysuccinyl peptide inhibitor of cathepsin B. It selectively inhibits cathepsin B with an IC₅₀ of 2.24 nM over other cysteine proteinases such as cathepsins L and H, and calpains. It inhibits cathepsins H, L and calpain with IC₅₀ values of 172 μM, 420 μM and 200 μM. Intraperitoneal administration (50 mg/kg) of CA-074 reduces metastasis in 4T1.2 mouse xenograft model. It reduces mercury induced expression of inflammatory cytokines in mice.

STORAGE TEMPERATURE: -20°C

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

REFERENCES:

1. Murata, M., Miyashita, S., Tokoo, C., et al. Novel epoxysuccinyl peptides. Selective inhibitors of cathepsin B, invitro. FEBS Letters 280(2), 307-310 (1991).
2. Toomey, C.B., Cauvi, D.M., Hamel, J.C., et al. Cathepsin B regulates the appearance and severity of mercury-induced inflammation and autoimmunity. Toxicol. Sci. 142(2), 339-349 (2014).
3. Withana, N.P., Blum, G., Sameni, M., et al. Cathepsin B inhibition limits bone metastasis in breast cancer. Cancer Res. 72(5), 1199-1209 (2012).

RELATED PRODUCTS:

Cathepsin B&L Inhibitor Z-Phe-Phe-FMK (Cat. No. 1126)
MDL 28170 (Cat. No. 2195)
Cathepsin G Inhibitor (Cat. No. 1982)
Balicatib (Cat. No. 2596)
Odanacatib (Cat. No. B1617)

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