

Catalog #10-3024 ALLN

110044-82-1 Ac-Leu-Leu-Nle-CHO; Ac-LL-norleucinal Lot # X101712

Cell-permeable, peptide aldehyde inhibitor of calpain I (K_i =190 nM), calpain II (K_i =150 nM), cathepsin L (K_i =0.5 nM) and other neutral cysteine proteases.¹ Inhibits cell cycle progression at G1/S and metaphase/anaphase in CHO cells by inhibiting cyclin B degradation.² Inhibits proteolytic degradation of IkB α and IkB β in RAW macrophages induced with LPS.³ Blocks AIF-mediated necroptosis.⁴ Cell permeable.

- 1) Sasaki et al. (1990), Inhibitory effect of di- and tripeptidyl aldehydes on calpains and cathepsins; J.Enzyme Inhib. **3** 195
- 2) Sherwood et al. (1993) In vivo inhibition of cyclin B degradation and induction of cell-cycle arrest in mammalian cells by the neutral cysteine protease inhibitor N-acetylleucylleucylnorleucinal; Proc.Natl.Acad.Sci USA **90** 3353
- 3) Schow and Joly (1997), N-acetyl-leucinyl-leucinyl-norleucinal inhibits lipopolysaccharide-induced NF-kappaB activation and prevents TNF and IL-6 synthesis in vivo; Cell Immunol. 175 199
- 4) Shang et al. (2014) Calpain: a molecule to induce AIF-mediated necroptosis in RGC-5 following elevated hydrostatic pressure; BMC Neurosci. **15** 63

PHYSICAL DATA

 $\begin{array}{ll} \mbox{Molecular Weight:} & 383.53 \\ \mbox{Molecular Formula:} & C_{20}\mbox{H}_{37}\mbox{N}_3\mbox{O}_4 \\ \mbox{Purity:} & >98\% \ (\mbox{HPLC}) \end{array}$

NMR: (Conforms)

Solubility: DMSO (10 mg/mL) and ethanol (5 mg/mL)

Physical Description: 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.