

Catalog # 10-3220

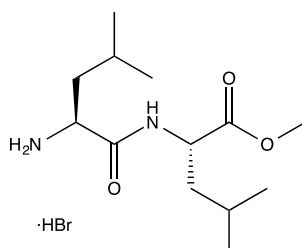
Leu-Leu-OMe HBr

CAS# 16689-14-8

Leucyl-leucine methyl ester hydrobromide

LLME

Lot # X107856



Leu-Leu-OMe is a lysosomal damaging agent (lysosomotropic). It is condensed into a membranolytic polymer via the transpeptidase action of cathepsin C within lysosomes.^{1,2} May be used to induce a lysosomal damage model in cells.^{3,4} LLOMe-induced lysosomal damage elicits ubiquitin puncta formation on lysosomes¹. Induces apoptosis in human mast cells via lysosome destabilization leaving fibroblasts and HEK-293 cells largely resistant⁵. Induces lysophagy.⁴

- 1) Maejima et al. (2013), *Autophagy sequesters damaged lysosomes to control lysosomal biogenesis and kidney injury*; EMBO J., **32** 2336
- 2) Fujita et al. (2013), *Recruitment of the autophagic machinery to endosomes during infection is mediated by ubiquitin*; J. Cell Biol., **203** 115
- 3) Chauhan et al. (2016), *TRIM5 and Galectins Globally Cooperate and TRIM16 and Galectin-3 Co-directed Autophagy in Endomembrane Damage Homeostasis*; Dev. Cell, **39** 13
- 4) Otomo and Yoshimori (2017), *Lysophagy: A Method for Monitoring Lysosomal Rupture Followed by Autophagy-Dependent Recovery*; Methods Mol. Biol. **1594** 141
- 5) Melo et al. (2011), *Lysosomal membrane permeabilization induces cell death in human mast cells*; Scand. J. Immunol., **74** 354

PHYSICAL DATA

Molecular Weight:	339.27
Molecular Formula:	C ₁₃ H ₂₆ N ₂ O ₃ HBr
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 35 mg/ml) or in Water (up to 40 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or distilled water may be stored at -20°C for up to 1 month.

Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.