MG-132 (Z-Leu-Leu-Leu-CHO)

N-(benzyloxycarbonyl)leucinyl-leucinyl-leucinal

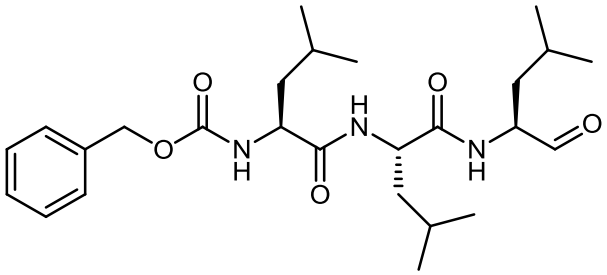
Cat. # SI9710

Background: MG132 is a potent, cell-permeable inhibitor of the proteasome (IC_{50} = 0.1 μM) and calpain (IC_{50} = 1.2 μM). MG132 inhibits TNF-α-induced NF-κB activation and IκBα degradation (IC_{50} =3 μM). It also reduces the degradation of ubiquitin-conjugated proteins in different cell types and promotes apoptosis via activation of c-Jun N-terminal kinase (JNK1).

Application: Inhibition of 26S proteasome chymotrypsin-like activity.

Product Information

CAS No.	133407-82-6
Purity:	> 98% (HPLC)
Molecular Weight:	475.6
Physical State:	White powder
Quantity:	10 mg, 25 mg
Solubility:	DMSO (45mg/ml) or Ethanol (45mg/ml)
Storage:	Store desiccated as supplied at 4°C for up to 2 years. Store solutions at -20°C for up to one week.



Formula: $C_{26}H_{41}N_3O_5$

References

1. Tsubuki S et al. Differential inhibition of calpain and proteasome activities by peptidyl aldehydes of di-leucine and tri-leucine. *J. Biochem.* 1996, **119:**572
2. Wu WK et al. Macroautophagy and ERK phosphorylation counteract the antiproliferative effect of proteasome inhibitor in gastric cancer cells. *Autophagy*, 2010, **6:**22.
3. Meriin AB et al. Proteasome inhibitors activate stress kinases and induce Hsp72. Diverse effects on apoptosis. *J. Biol. Chem.* 1998, **273:**6373