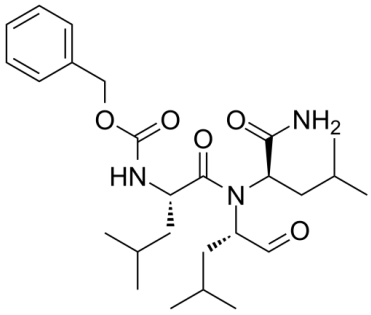
Data Sheet

Product Name:	(R)-MG-132
Cat. No.:	CS-0021842
CAS No.:	1211877-36-9
Molecular Formula:	C26H41N3O5
Molecular Weight:	475.62
Target:	Proteasome
Pathway:	Metabolic Enzyme/Protease
Solubility:	DMSO : ≥ 100 mg/mL;H_2O : < 0.1 mg/mL



BIOLOGICAL ACTIVITY:

(R)-MG-132 is the enantiomer of MG-132. (R)-MG-132 is a **proteasome** inhibitor with weaker cell cytotoxicity than MG-132. (S,R,S)-(-)-MG-132 stereoisomer is a more potent **proteasome** inhibitor than MG-132[1]. IC50 & Target: Proteasome[1] **In Vitro:** (R)-MG-132, the stereoisomer of MG-132, is studied as a potential inhibitor of chymotrypsin-like, trypsin-like, and peptidylglutamyl peptide hydrolyzing activities of proteasome[1].

MG-132 and (S,R,S)-(-)-MG-132 are investigated for inhibition of ChTL, trypsin-like (TL) and peptidylglutamyl peptide hydrolyzing (PGPH) activities of purified 20S proteasomes isolated from human erythrocytes. For MG-132, the **IC_{50}**s of 0.89 μM, 104.43 μM, and 5.7 μM for ChTL, TL, and PGPH, respectively. For (S,R,S)-(-)-MG-132, the **IC_{50}**s of 0.22 μM, 34.4 μM, and 2.95 μM for ChTL, TL, and PGPH, respectively[1].

References:

[1]. Mroczkiewicz M, et al. Studies of the synthesis of all stereoisomers of MG-132 proteasome inhibitors in the tumor targeting approach. J Med Chem. 2010 Feb 25;53(4):1509-18.

CAIndexNames:

D-Leucinamide, N-[(phenylmethoxy)carbonyl]-L-leucyl-N-[(1S)-1-formyl-3-methylbutyl]-

SMILES:

CC(C)C[C@H](C(N)=O)N(C([C@H](CC(C)C)NC(OCC1=CC=CC=C1)=O)=O)[C@H](C=O)CC(C)C

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