

## Diphe-manil Methylsulfate, proteasome inhibitor

<b>Catalog No :</b>	<b>CAS Number:</b>	<b>Molecular formula :</b>	<b>Mol.Wt. (Da):</b>
A50049		C <sub>26</sub> H <sub>41</sub> N <sub>3</sub> O <sub>5</sub>	475.62

**Targets** Proteasome

**Storage** 3 years -20°C Powder;  
6 months -80°C in solvent (DMSO, water, etc.)

**Solubility** Dissolved in DMSO, and diluted in PBS

**Description** MG-132 is an inhibitor of proteasome with IC<sub>50</sub> of 100 nM, and also inhibits calpain with IC<sub>50</sub> of 1.2 μM.

**In vitro** Administration of MG-132 effectively rescues the expression levels and plasma membrane localization of dystrophin, β-dystroglycan, α-bdystroglycan, and α-sarcoglycan in skeletal muscle fibers from mdx mice, reduces muscle membrane damage, and ameliorates the histopathological signs of muscular dystrophy. MG-132 treatment significantly reduces immobilization-induced skeletal muscle atrophy in mice, by downregulating the muscle-specific ubiquitin ligases atrogen-1/MAFbx and MuRF-1 mRNA.

### Chemical structure

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