

[Open Peer Review on Qeios](#)

Ixazomib

National Cancer Institute

Source

National Cancer Institute. *Ixazomib*. NCI Thesaurus. Code C97940.

An active metabolite of MLN9708, a second generation, boron containing peptide proteasome inhibitor (PI) with potential antineoplastic activity. Ixazomib binds to and inhibits the 20S catalytic core of the proteasome, thereby blocking the targeted proteolysis normally performed by the proteasome, which results in an accumulation of unwanted or misfolded proteins; disruption of various cell signaling pathways may follow, resulting in the induction of apoptosis. Compared to first generation PIs, second generation PIs may have an improved pharmacokinetic profile with increased potency and less toxicity. Proteasomes are large protease complexes that degrade unneeded or damaged proteins that have been ubiquitinated.