

Validation data for MG-132

<https://www.invivogen.com/mg-132>

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Version 22F20-MM

MG-132 is a peptide aldehyde that selectively blocks the proteolytic activity of the 26S proteasome. The 26S proteasome is a large protease complex that degrades ubiquitinated proteins into smaller peptides. It plays a central role in the regulation of proteins that control cell-cycle progression and apoptosis. The ability of MG-132 to inhibit the 26S proteasome was validated using InvivoGen's RAW-Blue™ cells (**Figure 1**). This reporter cell line is derived from RAW 264.7 macrophages. RAW-Blue™ cells stably express an NF- κ B-inducible secreted embryonic alkaline phosphatase (SEAP) gene. These cells express all TLRs (with the exception of TLR5). Stimulation of this cell line with Pam3CSK4 activates the TLR2 pathway inducing SEAP production.

Dose-dependent inhibition of the 26S proteasome

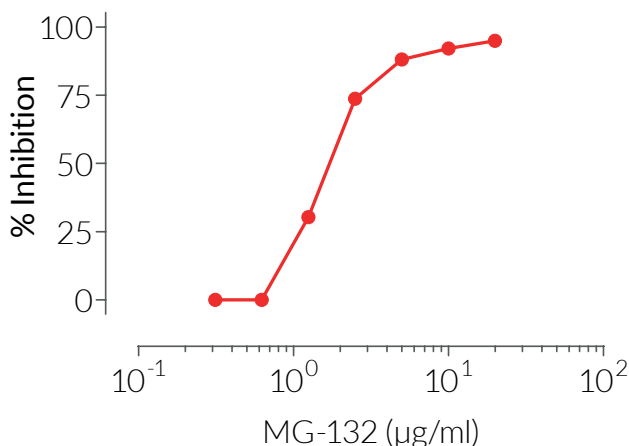


Figure 1: MG-132 is a potent inhibitor of the 26S proteasome.

RAW-Blue™ cells were incubated overnight at 37°C in the presence of increasing concentrations of MG-132 together with 1 µg/ml of Pam3CSK4. The next day, the inhibitory activity of MG-132 was determined by measuring the reduction of SEAP production in the supernatant using the QUANTI-Blue™ Solution detection reagent. Data are shown as percentage (%) inhibition.

TECHNICAL SUPPORT

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