

Cathepsin D Inhibitor Screening Kit

Cat. No. Kit-0264 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	CTSD Inhibitor Screening Kit is used for screening cathepsin D inhibitor.
Description	Apoptosis can be mediated by mechanisms other than the traditional caspase-mediated cleavage cascade. There is growing recognition that alternative proteolytic enzymes such as the lysosomal cathepsin proteases may initiate or propagate proapoptotic signals. Cathepsins are lysosomal enzymes that are also used as sensitive markers in various toxicological investigations. The Cathepsin D Activity Assay kit is a fluorescence-based assay that utilizes the preferred cathepsin D substrate sequence GKPIFFRLK(DNP)-D-R- NH₂) labeled with MCA. Cathepsin D will cleave the synthetic substrate to release the quenched fluorescent group MCA, which can then easily be measured using a fluorometer or fluorescence plate reader at Ex/Em = 328/460 nm. The relative efficacy of test inhibitors are compared to the positive control inhibitor, Pepstatin A (IC₅₀ < 0.1 nM). The Cathepsin D assay is simple, straightforward, and can be adapted to 96-well plate assays and is suitable for high throughput screening (HTS).
Target Species	Mammals
Usage	For research use only (RUO)
Storage	Store kit at -20°C (Store CD Reaction Buffer at 4°C after opening). Protect CD Substrate from light. Store Cathepsin D vial at -80°C. All reagents are stable for 6 months under proper storage conditions.

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Kit Components	CD Reaction Buffer. Cap color: WM. 10 mlCD Substrate (1 mM). Cap color: brown. 0.2 mlCathepsin D, human (lyophilized). Cap color: green. 1 vialPepstatin A (1 mM in DMSO). Cap color: blue. 20 µl
Detection method	Fluorometric

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