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(Suc-Leu-Leu-Val-Tyr)2-Rhodamine110

Cat. # G1110, G1111

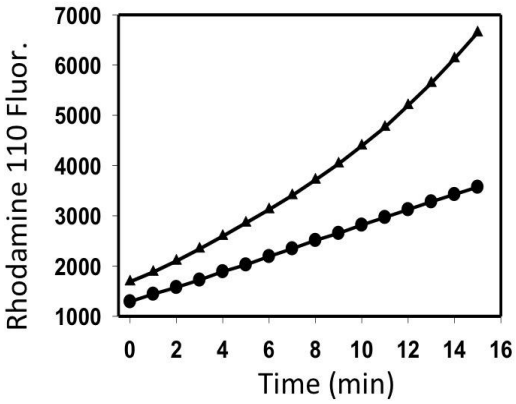
Also Known as: (Suc-LLVY)2-Rhodamine 110
NCBI Reference: N/A
MW (no tag): 1507.7 Da
Species: N/A
Source: Synthetic
Tag: N/A
Stock Buffer: Powder
Solubility: Soluble in DMSO up to 50 mM
Concentration: N/A
Quality Assurance: >98% by HPLC and NMR
Description: (Suc-LLVY)2-Rhodamine is a fluorogenic substrate for the chymotrypsin – like activity of the 20S and 26S proteasomes. The working concentration of this substrate is 20-100 µM. The released rhodamine 110 fluorescence can be detected by a fluorimeter or plate reader at excitation/emission of 495 nm/520nm, respectively. Compared to AMC, rhodamine 110 is excited at longer wavelength that can significantly enhance the signal/noise ratio. This substrate is extremly valuable for screening small chemical inhibitors of proteasomes by avoiding the interference from chemical compound autofluorescence that often occurs at shorter wavelengths around UV or near-UV regions.

When used to determine proteasome activity in cell lysates, cell lysates that are pre-treated with a proteasome inhibitor such as MG132, PS341 or epoxomicin should be used to determine the fluorescence contributed by other cellular proteases that cleave this substrate. Readings from proteasome inhibitor-treated lysates can be subtracted as backgroud.

Storage: Eligible for room temperature shipping. Store at -20°C upon receiving; avoid multiple freeze-thaw cycles after dissolving in DMSO.

Note: Briefly spin the tube before openning the cap.

Images:



Time course-dependent release of rhodamine 110 in reactions containing 10 nM purified bovine 26S proteasome (solid circle) or 50 µg HEK293T cell lysates (solid triangle) with 20 µM (Suc-Leu-Leu-Val-Tyr)2-Rhodamine110. Readings from 100 µM MG132-treated proteasome or cell lysates were subtracted as background.