CREATIVE BIOMART®
Assay Kit

Granzyme B drug discovery assay Kit

Product Information

Cat.No.	Kit-0392

Size

96 wells

Description

Granzyme B is a serine protease found in the lymphocyte granules of cytotoxic T-lymphocytes (CTLs) and natural killer (NK) cells. Activated granzyme B prefers an aspartic acid residue at the P1 site of its substrates; a preference shared by only one other group of mammalian proteases, the caspases. Granzyme B is required for the rapid apoptotic signal delivered by CTLs and NK cells, an effect mediated by its ability to cleave and activate various procaspases. Granzyme B plays a crucial role in the development of acute graft-vs.-host disease. Thus, the inhibition of this enzyme may prove to be an important tool in controlling immune responses. Conversely, the failure of granzyme B-induced apoptosis may contribute to certain pathologies. Such apoptosis is important for the elimination of virus-infected and malignant cells and resistance to granzyme B action, conferred by the serpin PI-9, may aid in the escape of some tumors from immune surveillance. The Granzyme B Assay Kit for Drug Discovery is a complete assay system designed to measure the protease activity of granzyme B. It contains a colorimetric substrate (IEPD-pNA) to measure this activity; cleavage of the p-nitroanilide (pNA) group from the colorimetric substrate increases absorption at 405nm. The assays are performed in a convenient, 96-well microplate format. The kit is useful to screen for inhibitors of granzyme B, a potential therapeutic target. An inhibitor, 3, 4-Dichloroisocoumarin, is also included for use as a control.

Applications

Colorimetric detection, HTS

Storage

-80°C

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