

## Caspase Inhibitor

# Caspase-9 inhibitor Z-LEHD-FMK

Code No.  
4810-510

Quantity  
20  $\mu$ L (100 mM)

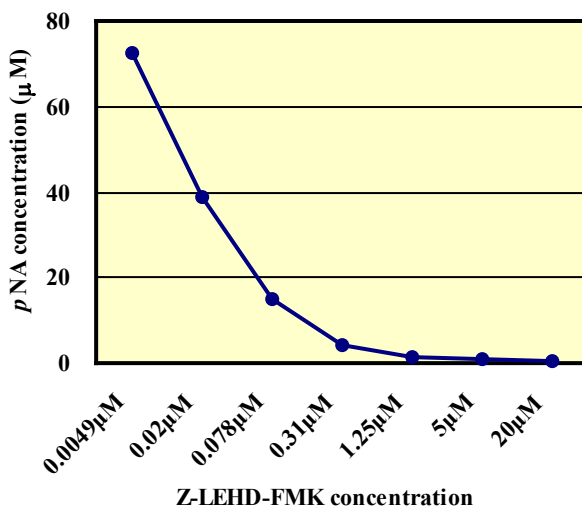
**BACKGROUND:** Caspase is a member of the cysteine aspartic acid-specific protease family, which is activated by a variety of signals of death receptor ligation, DNA damages, serum starvation and stresses *etc.* Active caspase recognizes a lot of several molecules as substrates to cleave them, occurring to biological events corresponding to the apoptosis. For example, ICAD (inhibitor of caspase-activated deoxyribonuclease) is inactivated and CAD (caspase-activated deoxyribonuclease) is indirectly activated by caspase-3, and it is related to chromatin fragmentation for nucleosome units. Caspase recognizes several structural proteins as a substrate to cleave them, and the cleavage is associated with the unique apoptosis cell morphology of chromatin condensation, nucleus fragmentation and cytoplasmic integrity. Tetra peptide sequence "LEHD" is preferentially recognized by caspase-9. Z-LEHD-FMK is an irreversible and cell permeable powerful inhibitor for caspase-9.

### REFERENCES:

- 1) Notoya K., *et al.*, *J Immunol.*, **165**, 3402-3410 (2000)
- 2) Ozoren N., *et al.*, *Cancer Res.*, **60**, 6259-65 (2000)

**FORMULATION:** 100 mM Z-LEHD-FMK in DMSO

**STORAGE:** This product is must be stored at  $-20^{\circ}\text{C}$ . Please see the label of this product for the expiration date.



**Inhibition of caspase-9 activity in cytosol of CH-11 treated Jurkat cells by Z-LEHD-FMK.** After Jurkat cells were treated with Fas monoclonal antibody CH-11 (100 ng/mL) for 4 hours, caspase-9 activity was measured with Ac-LEHD-pNA (final concentration 500  $\mu\text{M}$ ) in the presence of indicated concentration of Z-LEHD-FMK (code no 4810-510).

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