Z-IE(OMe)TD(OMe)-FMK (Caspase 8 Inhibitor)

Catalog No:	**NBP2-29397**
Sequence:	**Z-Ile-Glu(OMe)-Thr-Asp(OMe)-FMK Caspase Inhibitor** **Z-IE(OMe)TD(OMe)-FMK** **Z-IETD-FMK**
Molecular Weight:	654
Formula:	$C_{30}H_{43}N_4O_{11}F$
Storage:	Key cool and dry. The solid product is stable in the dessicator at room temperature or 4°C for 1 year. However, we recommend storing dessicated at -20°C
Form:	Yellow solid
Analytical Data:	Mass Spec: M+1=655.1 TLC: EtOAc: 100%, Rf:0.3 NMR: All functional groups are present

Background

Members of the caspase family play key roles in apoptosis and inflammation. Z-IE(OMe)TD(OMe)-FMK is a cellpermeable caspase peptide inhibitor that irreversibly binds to the catalytic site of caspases proteases, and inhibits caspase mediated apoptosis by preventing the processing of pro-caspases to their active forms (reviewed in 1-3). ZIETD-FMK was first described is an irreversible and cell permeable inhibitor of Caspase 8.

The Z-IE(OMe)TD(OMe)-FMK peptide is O-methylated in the P1 and P3 positions providing enhanced stability and increased cell permeability. Z-IE(OMe)TD(OMe)-FMK (Z-IETD-FMK) is typically used in assays to inhibit apoptosis. Z-IETD-FMK has been used in many different types of apoptosis assays and published using a number of model system. Users may want to consult the literature for additional information regarding applications for Z-IETDD-FMK. Z-IETD-FMK is recommended as a search term for identifying references in PubMed using this peptide inhibitor.

Solubility

Make a stock solution of 5, 10 or 20 mM in high purity DMSO (>99.9%). The stock solution is stable at -20°C for 6-8 months. Avoid repeated freeze/thaw cycles of the stock solution. For multiple uses, we suggest aliquoting the stock solution prior to freezing. Bring the solution to room temperature before opening the vial cap.

Reference:

1. Thornberry, N.A., and Lazebnik, Y. 1998. *Science* 281:1312-1316
2. Gregoli, P.A., and M.C. Bondurant. 1999. *J. Cell Pysiol.* 178:133-143.
3. Schrantz, N., D.A. Blanchard, M.T. Auffredou, S. Sharma, G. Leca, and A. Vazquez. 1999. *Oncogene* 18:3511-3519.