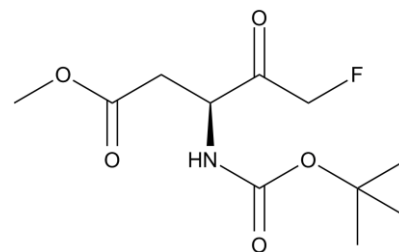


Product Data Sheet

Chemical Properties

Product Name:	Boc-D-FMK
Cas No.:	187389-53-3,634911-80-1
M.Wt:	263.26
Formula:	C ₁₁ H ₁₈ FNO ₅
Synonyms:	Caspase Inhibitor III, Boc-Asp(OMe)-FMK, Boc-D(OMe)-FMK, Caspase3-Inhibitor BOC-D-FMK, Boc-Asp(OMe)-fluoromethylke tone



Chemical Name:	methyl 5-fluoro-3-[(2-methylpropan-2-yl)oxycarbonylamino]-4-oxopentano ate
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Canonical SMILES: CC(C)(C)OC(=O)NC(CC(=O)OC)C(=O)CF

Solubility: Soluble in DMSO

Storage: Store at -20°C

General tips: For obtaining a higher solubility , please warm the tube at 37° C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20° C for several months.

Shopping Condition: Evaluation sample solution : ship with blue ice
All other available size: ship with RT , or blue ice upon request

Biological Activity

Targets :	Caspase
Pathways:	Apoptosis >> Caspase

Description:

Boc-D-FMK is a cell-permeable broad-spectrum caspase inhibitor that fully inhibits the pro-apoptotic effect of tumor necrosis factor- α (TNF α) with the half maximal inhibition concentration IC₅₀ value of 39 μ M [1].

Boc-D-FMK has been found to reduce the activation of nuclear factor kappa light chain enhancer of activated B cells (NF- κ B), suppress the phosphorylation of subunit nuclear factor kappa light polypeptide gene enhancer in B cells inhibitor α (I κ B α) and inhibits TNF-induced expression of intercellular adhesion molecule 1 (ICAM-1) and vascular cell adhesion molecule 1 (VCAM-1) [2]. Moreover, Boc-D-FMK has also effectively attenuated the hepatocyte apoptosis in bile duct-ligated rats potentially improving the survival rates [3].

Reference:

[1] Cowburn AS, White JF, Deighton J, Walmsley SR, Chilvers ER. z-VAD-fmk augmentation of TNF alpha-stimulated neutrophil apoptosis is compound specific and does not involve the generation of reactive oxygen species. *Blood*. 2005 Apr 1;105(7):2970-2. Epub 2004 Nov 30.

[2] Wu X, Guo R, Chen P, Wang Q, Cunningham PN. TNF induces caspase-dependent inflammation in renal endothelial cells through a Rho- and myosin light chain kinase-dependent mechanism. *Am J Physiol Renal Physiol*. 2009 Aug;297(2):F316-26. doi: 10.1152/ajprenal.00089.2009. Epub 2009 May 6.

[3] Sheen-Chen SM, Hung KS, Eng HL. Effect of Boc-D-Fmk on hepatocyte apoptosis after bile duct ligation in rat and survival rate after endotoxin challenge. *J Gastroenterol Hepatol*. 2008 Aug;23(8 Pt 1):1276-9. doi: 10.1111/j.1440-1746.2008.05368.x. Epub 2008 Mar 27.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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