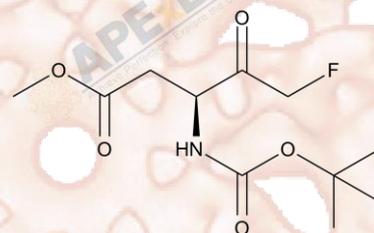


Product Data Sheet

Boc-D-FMK

Cat. No.:	A1904
CAS No.:	187389-53-3,634911-80-1
Formula:	C ₁₁ H ₁₈ FNO ₅
M.Wt:	263.26
Synonyms:	Caspase Inhibitor III, Boc-Asp(OMe)-FMK, Boc-D(OMe)-FMK, Caspase3-Inhibitor BOC-D-FMK, Boc-Asp(OMe)-fluoromethylketone
Target:	Apoptosis
Pathway:	Caspase
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥11.65 mg/mL in DMSO; ≥41.65 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Mass		1mg	5mg	10mg
	Solvent	Concentration			
		1 mM	3.7985 mL	18.9926 mL	37.9853 mL
		5 mM	0.7597 mL	3.7985 mL	7.5971 mL
		10 mM	0.3799 mL	1.8993 mL	3.7985 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Pan-caspase inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	C57BL/6 mice renal endothelial cells
Preparation method:	The solubility of this compound in DMSO is >11.65 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes

		and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
	Reacting conditions:	100 µM for 3 h
	Applications:	Renal EC apoptosis after 4 h of TNF exposure was strongly inhibited by pretreatment with the broad-spectrum caspase inhibitor Boc-D-fmk, as well as caspase-3 inhibitor z-DQMD-fmk. Pretreatment with broad-spectrum caspase inhibitor Boc-D-fmk significantly inhibited TNF-induced ICAM-1 and VCAM-1 mRNA expression.
In Vivo	Animal experiment	
	Animal models:	Male Sprague–Dawley rats
	Dosage form:	1.5 mg/kg, i.p.
	Applications:	When compared with sham operation, common bile duct ligation with ZFA-fmk (placebo) significantly increased hepatocyte apoptosis. When compared with the OBZFA group, Boc-D-FMK significantly diminished the increased hepatocyte apoptosis in the OBBOC-D group. There is no difference in hepatocyte apoptosis between OBBOC-D and SHAM groups. After endotoxin challenge, the 48 h survival rates were 100%, 87.5% and 62.5% for the SHAM, OBBOC-D and OBZFA groups, respectively.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Sandlin RD, Wong KHK, et al. "Preservative solution that stabilizes erythrocyte morphology and leukocyte viability under ambient conditions." *Sci Rep.* 2017 Jul 18;7(1):5658. PMID:28720788

See more customer validations on www.apexbt.com.

References

[1] 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.

[2] 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. Shortterm 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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