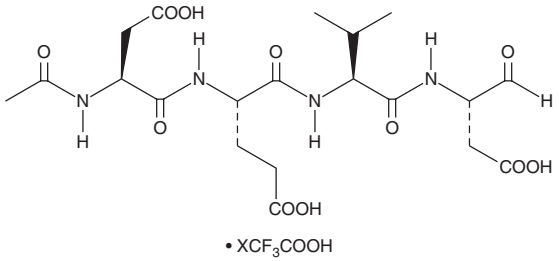
PRODUCT INFORMATION

Ac-DEVD-CHO (trifluoroacetate salt)

Item No. 10017

Formal Name:	N-acetyl-L-α-aspartyl-L-α-glutamyl-N-(2-carboxyl-1-formylethyl)-L-valinamide, 2,2,2-trifluoroacetate
Synonym:	N-Ac-Asp-Glu-Val-Asp-CHO
MF:	$C_{20}H_{30}N_4O_{11} \bullet XCF_3COOH$
FW:	502.5
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ac-DEVD-CHO (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the Ac-DEVD-CHO (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Ac-DEVD-CHO (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Ac-DEVD-CHO (trifluoroacetate salt) in ethanol is approximately 30 mg/ml and approximately 25 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Ac-DEVD-CHO (trifluoroacetate salt) can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of Ac-DEVD-CHO (trifluoroacetate salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ac-DEVD-CHO is a potent inhibitor of the Group II caspases, caspase-3 and caspase-7 (K_is = 0.23 and 1.6 nM, respectively).[1-2] Notably, it also inhibits other caspases (K_is = 18, 1710, 132, 205, 31, 0.92, 60, and 12 nM for caspases-1, -2, -4, -5, -6, -8, -9, and -10, respectively).[1] Caspase inhibitors in the aldehyde form, like this compound, are typically reversible, whereas methyl ketone forms, like Ac-DEVD-CMK (Item No. 14465), are irreversible.[1] Caspase inhibitors interfere with the initiation of apoptosis and have numerous possible clinical applications.[3]

References

1. Garcia-Calvo, M., Peterson, E.P., Leiting, B., *et al.* Inhibition of human caspases by peptide-based and macromolecular inhibitors. *J. Biol. Chem.* **273(49)**, 32608-32613 (1998).
2. Talanian, R.V., Quinlan, C., Trautz, S., *et al.* Substrate specificities of caspase family proteases. *J. Biol. Chem.* **272(15)**, 9677-9682 (1997).
3. Nicholson, D.W., Ali, A., Thornberry, N.A., *et al.* Identification and inhibition of the ICE/CED-3 protease necessary for mammalian apoptosis. *Nature* **376(6535)**, 37-43 (1995).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM