

PRODUCT INFORMATION



Ac-DMQD-CHO (trifluoroacetate salt)

Item No. 27103

Formal Name: N-acetyl-L- α -aspartyl-L-methionyl-N¹-[(1S)-2-carboxy-1-formylethyl]-L-glutamamide, trifluoroacetate salt

Synonyms: Ac-Asp-Met-Gln-Asp-CHO, Caspase-3 Inhibitor

MF: C₂₀H₃₁N₅O₁₀S • XCF₃COOH

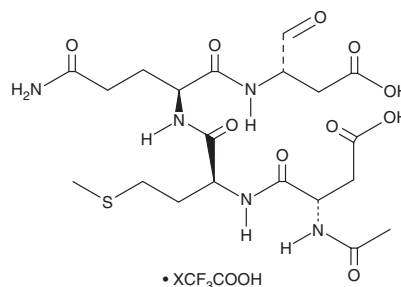
FW: 533.6

Purity: ≥95%

Supplied as: A 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-DMQD-CHO (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the Ac-DMQD-CHO (trifluoroacetate salt) in water. The solubility of Ac-DMQD-CHO (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Ac-DMQD-CHO is a peptide inhibitor of caspase-3 (IC₅₀ = 39 nM).¹ It is selective for caspase-3 over caspase-1 and caspase-8 (IC₅₀s = 148 and 1,100 nM, respectively). Ac-DMQD-CHO inhibits apoptosis induced by camptothecin (Item No. 11694) in immortalized human T/C 28a4 chondrocytes and primary human chondrocytes. *In vivo*, Ac-DMQD-CHO (1 mg/kg, i.v.) reduces the number of apoptotic cells, cavitation, and demyelination in a rat model of traumatic injury to the spinal cord.²

References

1. Nuttall, M.E., Nadeau, D.P., Fisher, P.W., *et al.* Inhibition of caspase-3-like activity prevents apoptosis while retaining functionality of human chondrocytes *in vitro*. *J. Orthop. Res.* **18(3)**, 356-363 (2000).
2. Akdemir, O., Berksoy, I., Karaođlan, A., *et al.* Therapeutic efficacy of Ac-DMQD-CHO, a caspase 3 inhibitor, for rat spinal cord injury. *J. Clin. Neurosci.* **15(6)**, 672-678 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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