

Product Data Sheet

Product Name: Ac-QPKK(Ac)-AMC acetate

Cat. No.: GC80333

Chemical Properties

Cas. No.

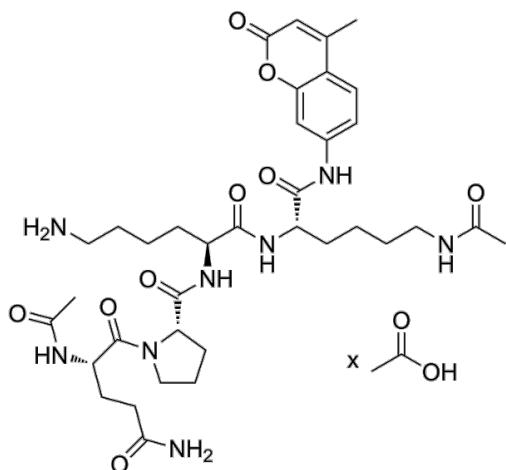
Formula $C_{36}H_{52}N_8O_9 \cdot xC_2H_4O_2$ M.Wt 740.85

Solubility DMSO: 10 mg/mL (Need ultrasonic) Storage Sealed storage, away from moisture and light

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.

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

Structure



Background

Ac-QPKK(Ac)-AMC acetate is a p53-derived peptide conjugated with a fluorophore, which serves as a fluorescent peptide substrate for detecting the deacylase activity of zinc-dependent HDACs and sirtuins (Ex = 360 nm; Em = 460 nm) [1].

In Vitro, Ac-QPKK(Ac)-AMC (4a) (50 μM; 60 min) acetate is acted upon by recombinant human

Caution: Product has not been fully validated for medical applications. For research use only.

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HDAC1, HDAC2, and HDAC3/NCoR2 which exhibit potent deacetylase activity toward the peptide substrate in vitro, with HDAC3/NCoR2 being the most potent^[1]. Ac-QPKK(Ac)-AMC (2a) acetate is deacetylated by recombinant SIRT1, SIRT2 and SIRT3 in vitro with distinct catalytic efficiencies, whereas SIRT6 shows negligible deacetylase activity toward this substrate^[2].

References:

- [1]. Moreno-Yruela C, et al. Class I histone deacetylases (HDAC1–3) are histone lysine deacetylases. *Sci Adv.* 2022 Jan 19;8(3):eabi6696.
- [2]. Galleano I, et al. A Continuous, Fluorogenic Sirtuin 2 Deacetylase Assay: Substrate Screening and Inhibitor Evaluation. *J Med Chem.* 2016;59(3):1021-1031.

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