

PRODUCT INFORMATION

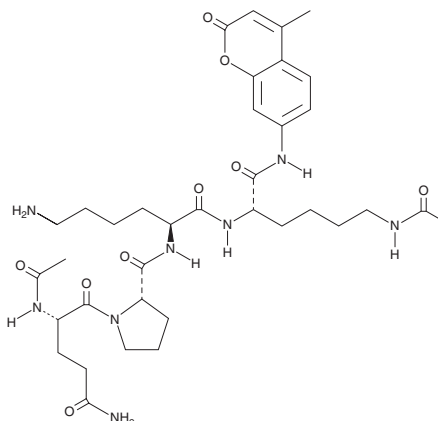


Ac-QPKK(Ac)-AMC

Item No. 30790

CAS Registry No.: 1387005-23-3
Formal Name: N²-acetyl-L-glutamyl-L-prolyl-L-lysyl-N⁶-acetyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-L-lysineamide
Synonyms: Ac-Gln-Pro-Lys-Lys-(Ac)-AMC, Ac-Gln-Pro-Lys-Lys-(Ac)-7-amino-4-methylcoumarin, p53₃₁₇₋₃₂₀ Substrate (Ac-QPKK(Ac)-AMC)

MF: C₃₆H₅₂N₈O₉
FW: 740.9
Purity: ≥98%
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-QPKK(Ac)-AMC is supplied as a solid. A stock solution may be made by dissolving the Ac-QPKK(Ac)-AMC in the solvent of choice, which should be purged with an inert gas. Ac-QPKK(Ac)-AMC is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Ac-QPKK(Ac)-AMC in these solvents is approximately 15 and 10 mg/ml, respectively. Ac-QPKK(Ac)-AMC is also slightly soluble in ethanol.

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-QPKK(Ac)-AMC can be prepared by directly dissolving the solid in aqueous buffers. The solubility of Ac-QPKK(Ac)-AMC 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-QPKK(Ac)-AMC is a fluorogenic substrate for sirtuin 1 (SIRT1), SIRT2, and SIRT3.¹ It is selectively deacetylated by SIRT1-3 over SIRT6. Upon enzymatic cleavage by SIRT1, SIRT2, or SIRT3, 7-amino-4-methylcoumarin (AMC) is released and its fluorescence can be used to quantify SIRT1, SIRT2, and SIRT3 activity. AMC displays excitation/emission maxima of 340-360/440-460 nm, respectively.

Reference

1. Galleano, I., Schiedel, M., Jung, M., *et al.* A continuous, fluorogenic sirtuin 2 deacetylase assay: Substrate screening and inhibitor evaluation. *J. Med. Chem.* **59**(3), 1021-1031 (2017).

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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