## **Product** Data Sheet

## **D-Ala-Lys-AMCATFA**

Cat. No.: HY-111956A Molecular Formula:  $C_{23}H_{29}F_3N_4O_8$ 

Molecular Weight: 546.49

Target: Fluorescent Dye

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	D-Ala-Lys-AMCA TFA is a known proton-coupled oligopeptide transporter 1 (PEPT1) substrate that emits blue fluorescence. D-Ala-Lys-AMCA TFA may be transported into liver cancer cells and Caco-2 cells based on fluorescence analysis. D-Ala-Lys-AMCA TFA can be used for characterizing PEPT1-specific substrates or inhibitors <sup>[1][2]</sup> .
In Vitro	D-Ala-Lys-AMCA (25, 50 and 150 $\mu$ M, 3 h) TFA may be transported into liver cancer and Caco-2 cells <sup>[1]</sup> . D-Ala-Lys-AMCA (25 $\mu$ M, 10 min) TFA can be uptaken by absorptive enterocytes of all small intestine segments, whereas there is a complete lack of fluorescence in colonic samples <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## **REFERENCES**

[1]. Groneberg DA, et al. Intestinal peptide transport: ex vivo uptake studies and localization of peptide carrier PEPT1. Am J Physiol Gastrointest Liver Physiol. 2001 Sep;281(3):G697-704.

[2]. Gong Y, et al. Specific expression of proton-coupled oligopeptide transporter 1 in primary hepatocarcinoma-anovel strategy for tumor-targeted therapy. Oncol Lett. 2017 Oct;14(4):4158-4166.

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

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