

PRODUCT INFORMATION



D-Val-Leu-Lys-AMC (hydrochloride)

Item No. 44136

Formal Name: D-valyl-L-leucyl-N-(4-methyl-2-oxo-2H-1-benzopyran-7-yl)-L-lysineamide, hydrochloride

Synonyms: D-Val-L-Leu-L-Lys-7-amino-4-methylcoumarin, vLK-AMC, vLK-7-amino-4-methylcoumarin

MF: C₂₇H₄₁N₅O₅ • XHCl

FW: 515.7

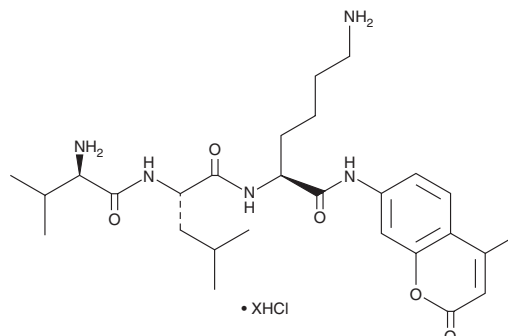
Purity: ≥98%

EX./Em. Max: 340-360/440-460 nm

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

D-Val-Leu-Lys-AMC (vLK-AMC) (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the vLK-AMC (hydrochloride) in the solvent of choice, which should be purged with an inert gas. vLK-AMC (hydrochloride) is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) 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 vLK-AMC (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. vLK-AMC (hydrochloride) is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

D-Val-Leu-Lys-AMC (vLK-AMC) is a fluorogenic substrate for plasmin.¹ Upon enzymatic cleavage by plasmin, 7-amino-4-methylcoumarin (AMC) is released and its fluorescence can be used to quantify plasmin activity. AMC displays excitation/emission maxima of 340-360/440-460 nm, respectively. vLK-AMC has been used to quantify plasmin activity in primary human lung fibroblasts.²

References

1. Toul, M., Strunga, A., Damborsky, J., *et al.* Thrombolytic proteins profiling: High-throughput activity, selectivity, and resistance assays. *FEBS Open Bio* (2025).
2. Zeitlmayr, S., Zierler, S., Staab-Weijnitz, C.A., *et al.* TRPM7 restrains plasmin activity and promotes transforming growth factor-β1 signaling in primary human lung fibroblasts. *Arch. Toxicol.* **96**(10), 2767-2783 (2022).

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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