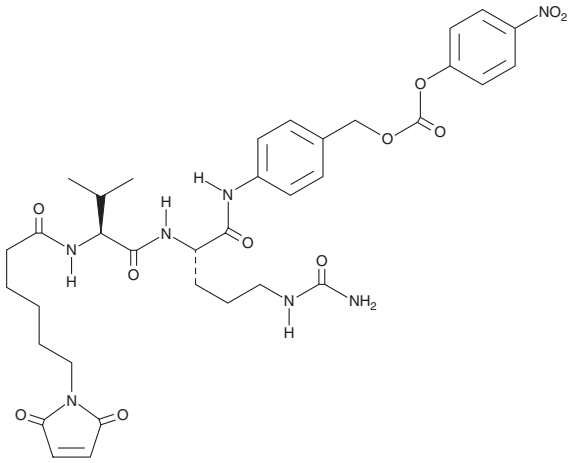
PRODUCT INFORMATION

Mc-Val-Cit-PABC-PNP

Item No. 23881



CAS Registry No.:	159857-81-5
Formal Name:	N-[6-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxohexyl]-L-valyl-N^5-(aminocarbonyl)-N-[4-[[[(4-nitrophenoxy)carbonyl]oxy]methyl]phenyl]-L-ornithinamide
Synonym:	Maleimidocaproyl-L-Valine-L-Citrulline-*p*-Aminobenzyl Alcohol *p*-Nitrophenyl Carbonate
MF:	$C_{35}H_{43}N_7O_{11}$
FW:	737.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 254 nm
Supplied as:	A crystalline 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

Mc-Val-Cit-PABC-PNP is supplied as a crystalline solid. A stock solution may be made by dissolving the Mc-Val-Cit-PABC-PNP in the solvent of choice, which should be purged with an inert gas. Mc-Val-Cit-PABC-PNP is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Mc-Val-Cit-PABC-PNP in these solvents is approximately 20 and 25 mg/ml, respectively.

Mc-Val-Cit-PABC-PNP is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Mc-Val-Cit-PABC-PNP should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Mc-Val-Cit-PABC-PNP has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Mc-Val-Cit-PABC-PNP is a peptide linker molecule used in the synthesis of antibody-drug conjugates (ADCs).[1] It contains a maleimidocaproyl (Mc) group that can be conjugated to an antibody and a *p*-nitrophenol (PNP) group that allows the peptide to be linked to anticancer compounds, such as doxorubicin (Item No. 15007) or monomethyl auristatin E (MMAE; Item No. 16267).[1,2] ADCs target specific cell populations to induce a selective response, such as cell death in cancer cells.

References

1. Jeffrey, S.C., Nguyen, M.T., Andreyka, J.B., *et al.* Dipeptide-based highly potent doxorubicin antibody conjugates. *Bioorg. Med. Chem. Lett.* **16(2)**, 358-362 (2006).
2. Doronina, S.O., Mendelsohn, B.A., Bovee, T.D., *et al.* Enhanced activity of monomethylauristatin F through monoclonal antibody delivery: Effects of linker technology on efficacy and toxicity. *Biconjug. Chem.* **17(1)**, 114-124 (2006).

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