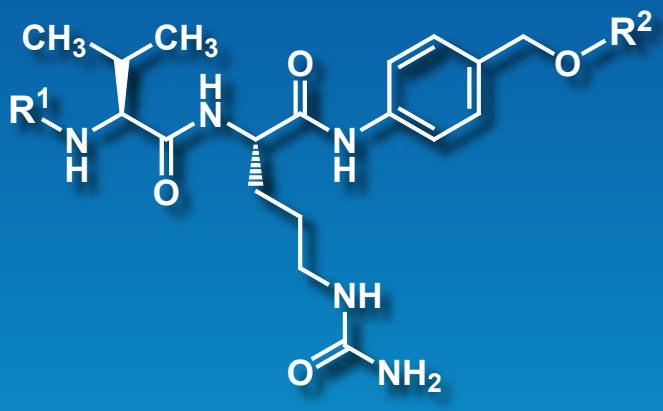
Enzymatically Cleavable Linkers for Antibody-Drug Conjugates (ADCs)



R^1 = H, R^2 = H
Val-Cit-PAB-OH 25mg / 100mg [V0155]

R^1 = Fmoc, R^2 = H
Fmoc-Val-Cit-PAB-OH 25mg / 100mg [F1223]

R^1 = Fmoc, R^2 = C(=O)O-pNP
Fmoc-Val-Cit-PAB-PNP 100mg / 500mg [F1114]

R^1 = Alloc, R^2 = H
Alloc-Val-Cit-PAB-OH 250mg / 1g [A3348]

R^1 = C(=O)$(CH_2)_5$-maleimide, R^2 = H
MC-Val-Cit-PAB-OH 100mg / 500mg [M3224]

R^1 = C(=O)$(CH_2)_5$-maleimide, R^2 = C(=O)O-pNP
MC-Val-Cit-PAB-PNP 500mg [M3209]

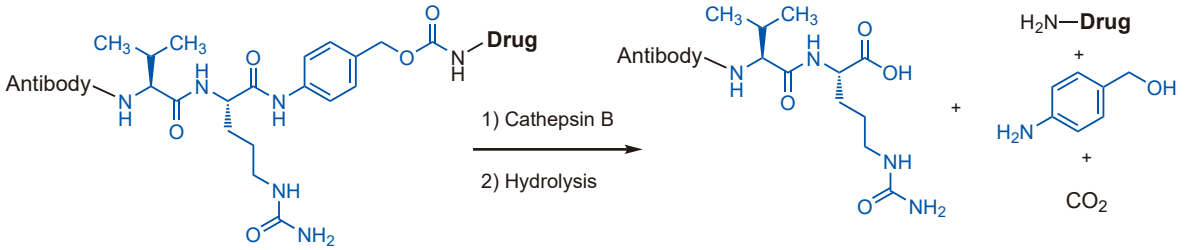
*TCI can offer these products on tens gram scale.

Advantages

- Contain peptide sequence degradable by a lysosome enzyme
- Have superior plasma stability comparable to that of non-cleavable linkers

Applications

Cathepsin B in the lysosome cleaves the peptide bond between Cit-PAB of dipeptide linkers containing Valine (Val)-citrulline (Cit) and *p*-aminobenzylalcohol (PAB). When PAB and a drug are binded covalently with carbamate bonds, the drug can be released by hydrolysis after cleavage of the peptide bond between Cit-PAB. Antibody-drug conjugates (ADCs) has been developed using this mechanism.



References G. M. Dubowchik, R. A. Firestone, L. Padilla, D. Willner, S. J. Hofstead, K. Mosure, J. O. Knipe, S. J. Lasch, P. A. Trail, *Bioconjugate Chem.* **2002**, *13*, 855.
Y. Yoneda, S. C. J. Steiniger, K. Čapková, J. M. Mee, Y. Liu, Gunnar, F. Kaufmann, K. D. Janda, *Bioorg. Med. Chem. Lett.* **2008**, *18*, 1632.
M. Dorywalska, P. Strop, *et al.*, *Bioconjugate Chem.* **2015**, *26*, 650.

For further information please refer to our website at www.TCIchemicals.com. ▶▶▶ linkers

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