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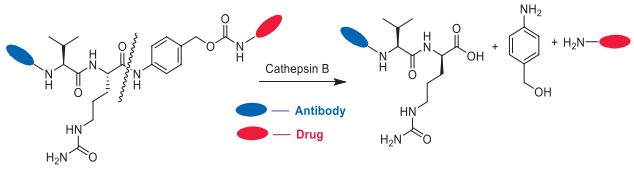
Advancing ADCs with Cathepsin Cleavable Val Cit Linkers

Stable circulation with lysosome triggered payload release

Traditional linker systems can limit the precision, stability, and control required in modern antibody-drug conjugates (ADCs). Cathepsin cleavable Val Cit linkers are a well validated solution, combining stability in circulation with selective lysosomal activation for controlled, reliable payload release.

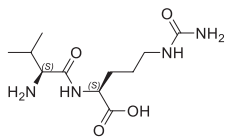
Their key strengths include:

- Selective cathepsin driven activation
- High stability in systemic circulation
- Broad payload compatibility
- Clinically proven linker design

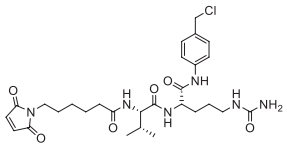


Scheme 1. Cathepsin mediated Val Cit cleavage and payload release mechanism.[1]

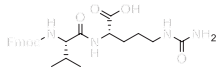
Our Val Cit Linker Portfolio for Reliable ADC Development



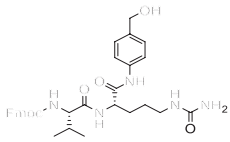
L-Valyl-L-citrulline
934321



Mc-Val-Cit-PAB-Cl
943630



Fmoc-Val-Cit-OH
936413



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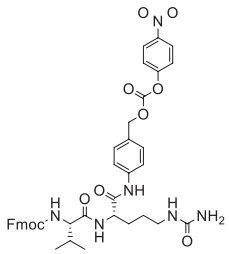

Fmoc-Val-Cit-PAB-PNP
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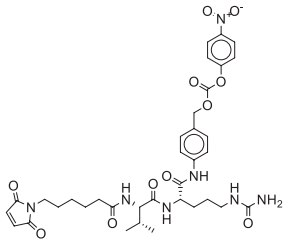

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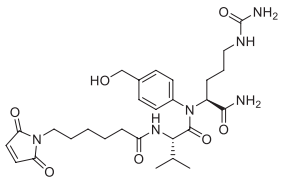

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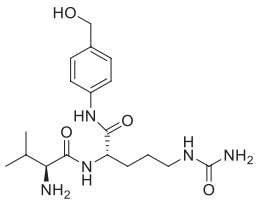

Val-Cit-PAB-OH
934356

- Selective cleavage by cathepsin B, ensuring lysosomal payload activation
- Versatile linker formats for ADC workflows, including Val-Cit-OH, Boc-Val-Cit-OH, Val-Cit-PAB-OH, Fmoc-Val-Cit-OH, and PEG-functionalized variants

References

1. Parshad, B., Arora, S., Singh, B. et al. Towards precision medicine using biochemically triggered cleavable conjugation. Commun Chem 8, 100 (2025). https://doi.org/10.1038/s42004-025-01491-5

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