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ACCEPTED MANUSCRIPT

Chemical De-conjugation for Investigating the Stability of Small

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2	Molecule Drugs in Antibody-Drug Conjugates
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15	Graphical abstract
16	fx1
17	Highlights
18 19 20 21 22 23 24 25 26	 A chemical de-conjugation approach was developed to investigate the <i>in-situ</i> stability of small molecule drugs on antibody-drug conjugates (ADCs). This method has high specificity, excellent precision, wide linear range, and stability-indicating nature. This technique was successfully applied to study the <i>in-situ</i> stability of small molecule drugs on ADCs under different formulation pHs and storage temperatures. Major impurities and degradation products related to the small molecule drug were observed, monitored, and their structures were elucidated.

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