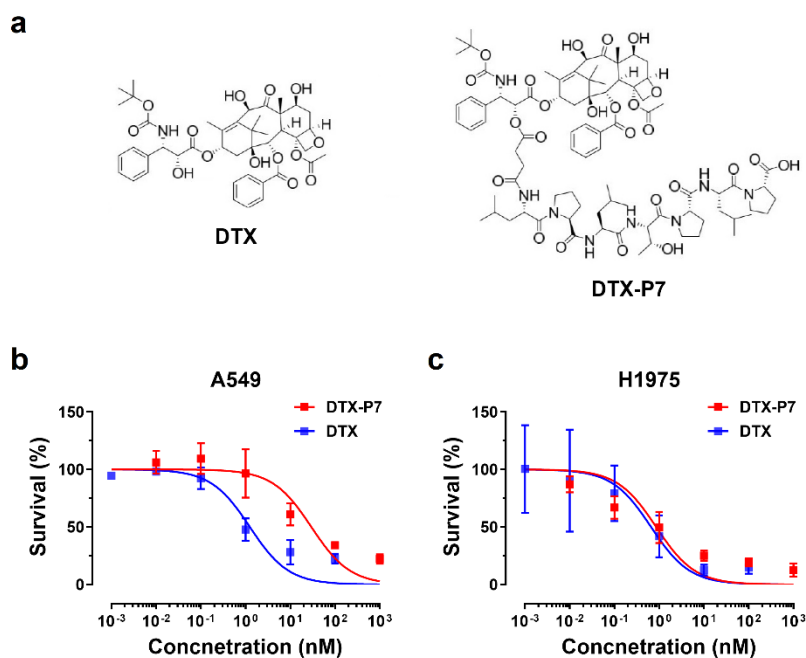


## Supplemental Material

### DTX-P7, a peptide-drug conjugate, is highly effective for non-small cell lung cancer

#### DTX-P7 suppresses NSCLC cell survival

To determine the effectiveness of DTX-P7 in suppressing cancer cell survival, we performed cytotoxicity assay of the conjugate against lung cancer A549 and H1975 cells. DTX-P7 showed comparable effect with DTX in the two cell lines (supplemental Fig. S1b, c). IC<sub>50</sub> values of DTX and DTX-P7 for A549 cells were 1.11 nM and 11.4 nM, respectively, while IC<sub>50</sub> values of DTX and DTX-P7 for H1975 cells were 0.50 nM and 0.62 nM, respectively.



**Fig.S1. Characterization of DTX-P7 conjugate.** **a)** Chemical structures of DTX and DTX-P7. DTX, molecular formula: C<sub>43</sub>H<sub>53</sub>NO<sub>14</sub>, molecular weight: 807.9 g/mol, white powder. DTX-P7, molecular formula: C<sub>84</sub>H<sub>118</sub>N<sub>8</sub>O<sub>25</sub>, molecular weight: 1,639.90 g/mol, white powder. **b-c)** Cell viability of DTX-P7 and DTX in A549 (b) and H1975 (c) cells following 48-h treatment. IC<sub>50</sub> values: A549 cells, DTX-P7 11.4 nM, DTX 1.11 nM; H1975 cells, DTX-P7 0.62 nM, DTX 0.50 nM.