Supporting Information

Potent 5-Cyano-6-Phenyl-Pyrimidin-Based Derivatives Targeting DCN1-UBE2M Interaction

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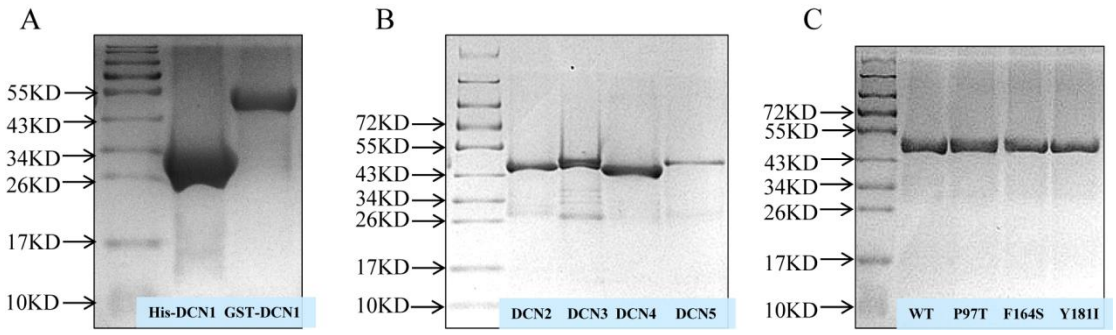


Figure S1. The purities and abundances of all the recombinant proteins. (A) His-tagged DCN1, GST-tagged DCN1, **(B)** DCN2, DCN3, DCN4, DCN5, **(C)** DCN1(Wild type, WT), DCN1-P97T, DCN1-F164S and DCN1-Y181I were determined by SDS-PAGE and Commassie Blue staining.

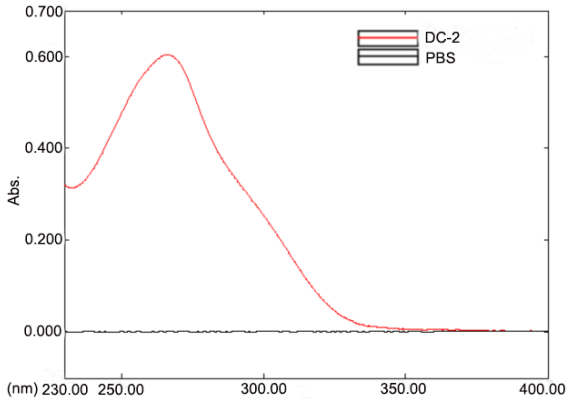


Figure S2. Solubility of compound DC-2 in phosphate buffer. UV-Vis absorption spectra of compound **DC-2** at pH value 7.4.

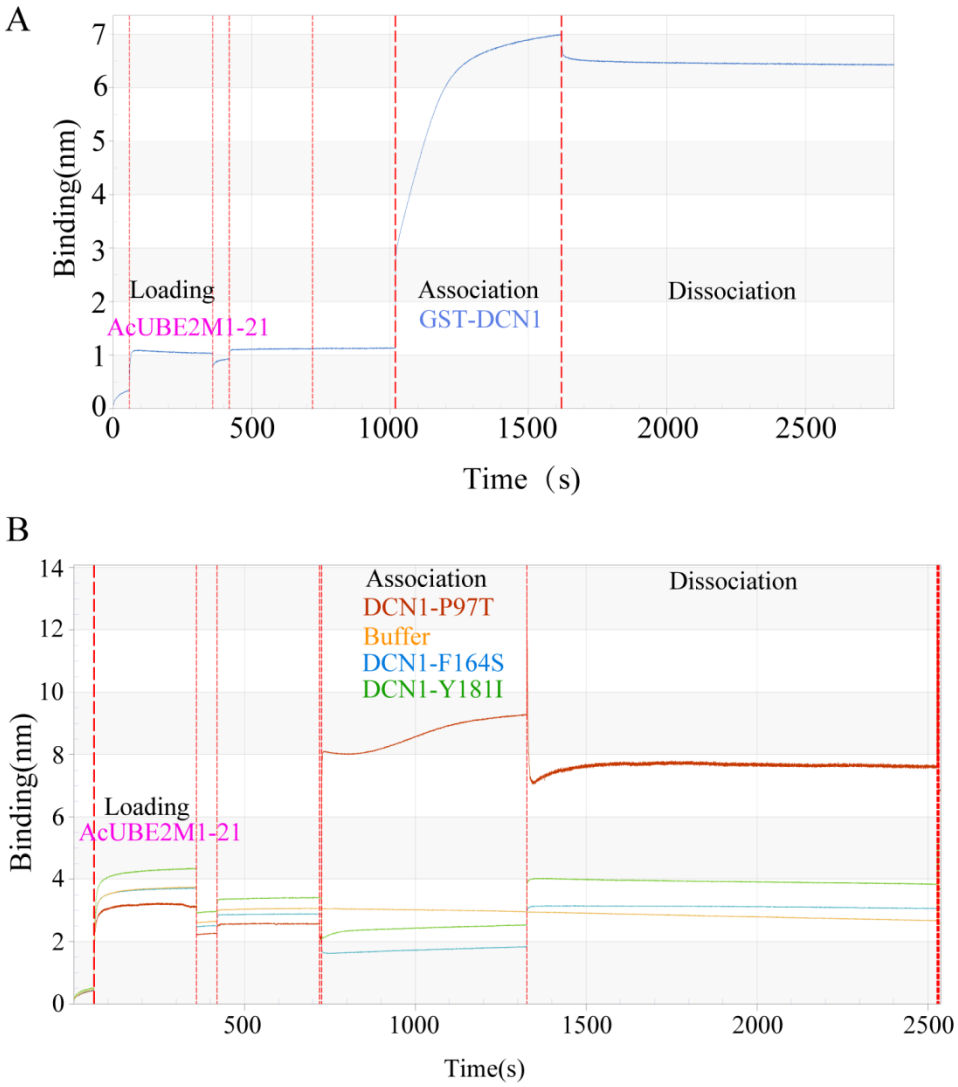
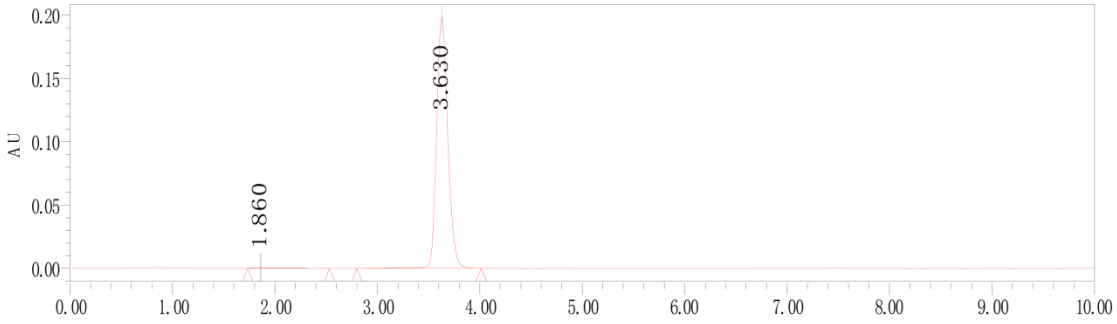


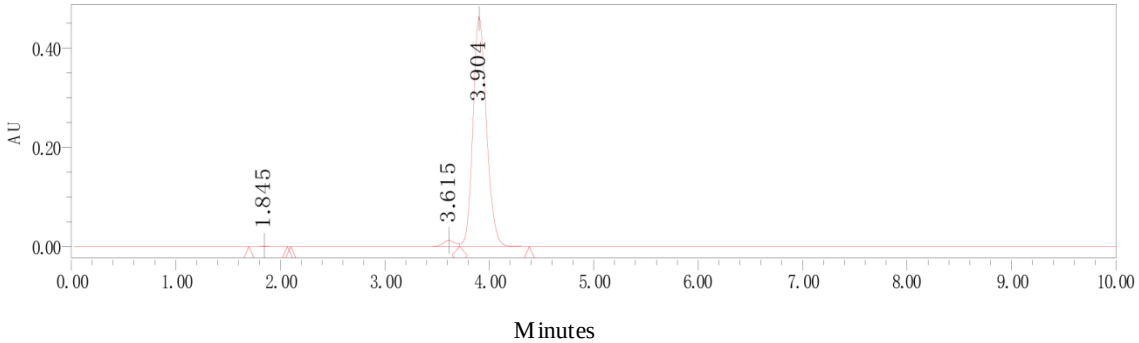
Figure S3. The direct interaction of Biotin-AcUBE2M$^{1-21}$ peptides with wild type DCN1(GST-DCN1)(A) and its mutants(P97T, F164S and Y181I)(B). After loading Biotin-AcUBE2M$^{1-21}$ peptides on Super Streptavidin (SSA) sensor, wild type DCN1(GST-DCN1)(A) and its mutants(P97T, F164S and Y181I) were added into the system, respectively. The signals were detected by Octet RED 96.

HPLC spectra of representative compounds.



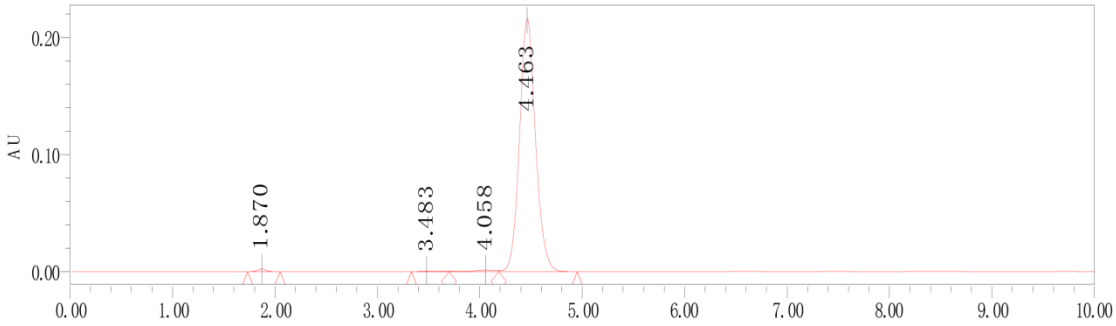
Peak	Retention Time	Area	% Area
1	1.86	4826	0.32
2	3.63	1489685	99.68

HPLC chromatogram of compound DC-2N



Peak	Retention Time	Area	% Area
1	1.85	2995	0.07
2	3.62	103881	2.44
3	3.90	4155191	97.49

HPLC chromatogram of compound 39



Peak	Retention Time	Area	% Area
1	1.87	12311	0.52
2	3.48	4238	0.18
3	4.06	19441	0.82
4	4.46	2348664	98.49

HPLC chromatogram of compound DC-2