

Supplementary Material

Andrographolide exhibits anticancer activity against breast cancer cells (MCF-7 and MDA-MB-231 cells) through suppressing cell proliferation and inducing cell apoptosis via inactivation of ER- α receptor and PI3K/AKT/mTOR signaling

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Table S1. Lists of primer sequences used for qRT-PCR

Gene	Sequences (5'-3')	
	Forward	Reverse
Bcl-2	GGATAACGGAGGCTGGGATG	GGGCCAAACTGAGCAGAGTC
Bax	ACATGGAGCTGCAGAGGATG	CCAGTTGAAGTTGCCGTCAG
ER α	TGGGAATGATGAAAGGTGGGAT	CTCATGTCTCCAGCAGACCC
ER β	CATCTCCTCCCAGCAGCAAT	TCCATGCCCTTGTTACTCGC
GAPDH	GACAGTCAGCCGCATCTTCT	ACCAAATCCGTTGACTCCGA
Mature miRNA sequence (5'-3')		
miR-21-5p	UAGCUUAUCAGACUGAUGUUGA	

Figure S1. Full-length blots representing the protein expression of Bcl-2, Bax, and β -actin as shown in Figure 3E of the manuscript.

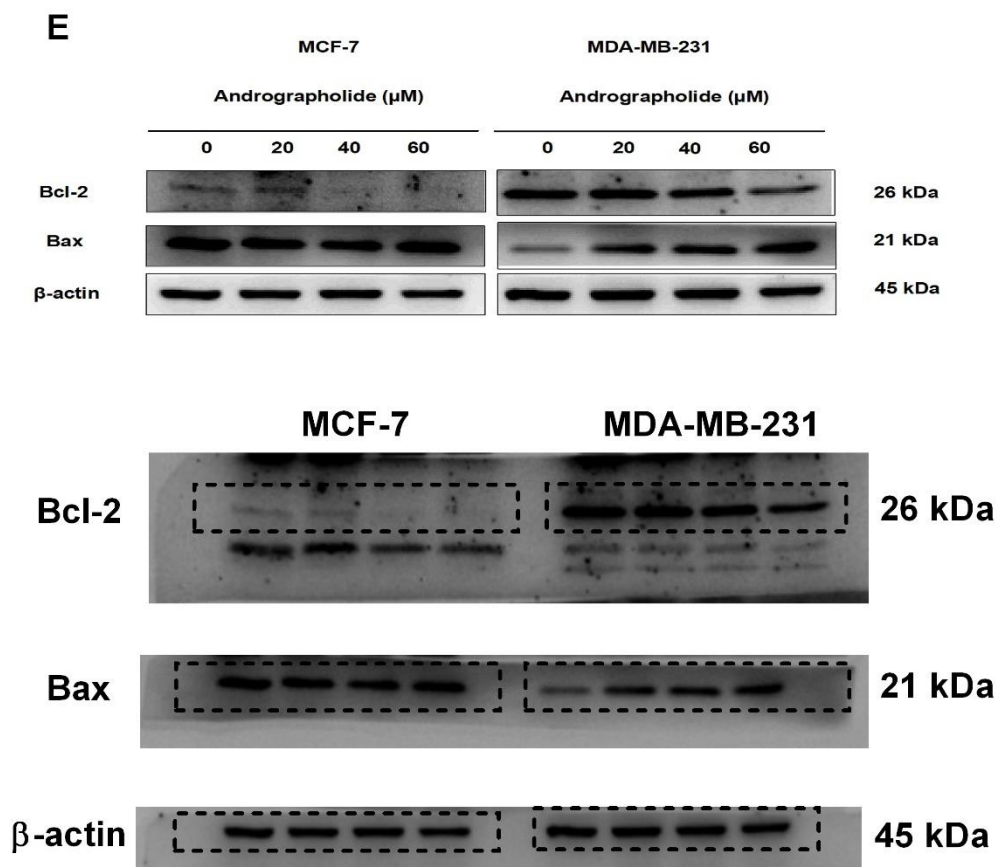


Figure S2. Full-length blots representing the protein expression of Bcl-2, Bax, and β -actin as shown in Figure 4A of the manuscript.

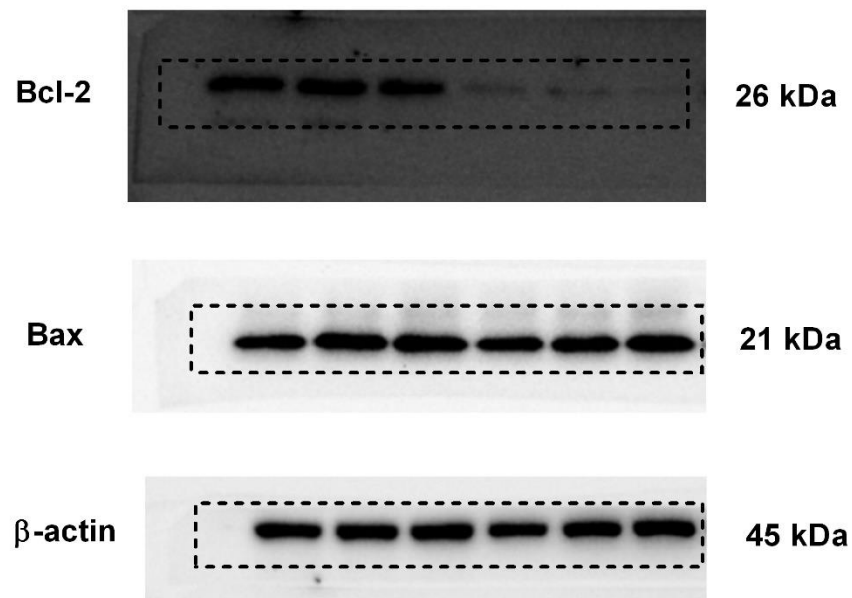
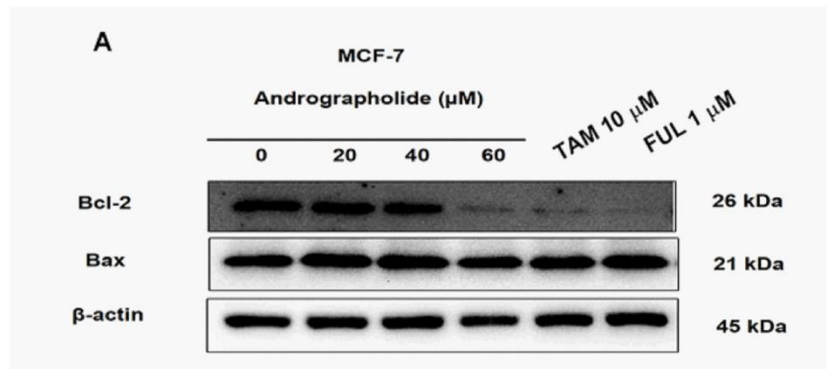


Figure S3. Full-length blots representing the protein expression of ER α , ER β , and β -actin as shown in Figure 5D and 5H of the manuscript, respectively.

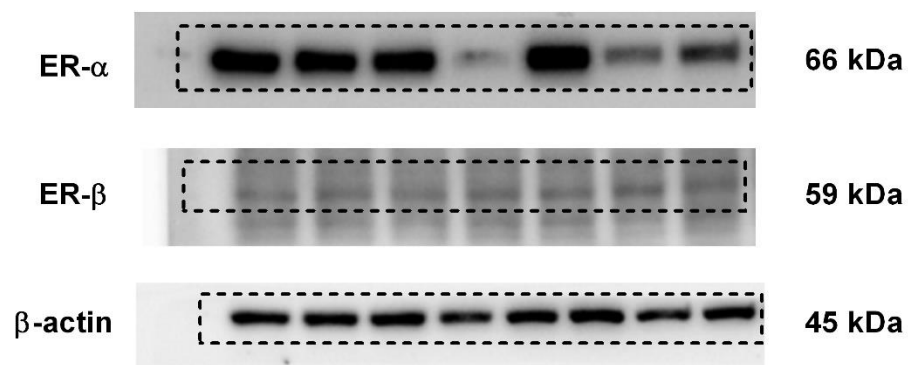
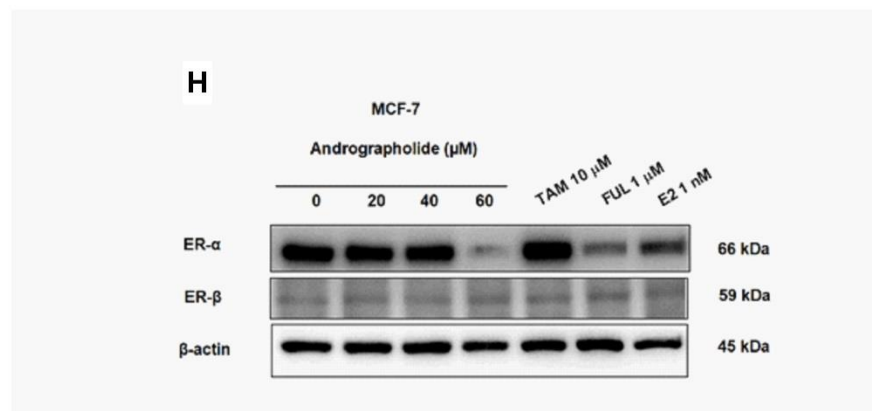
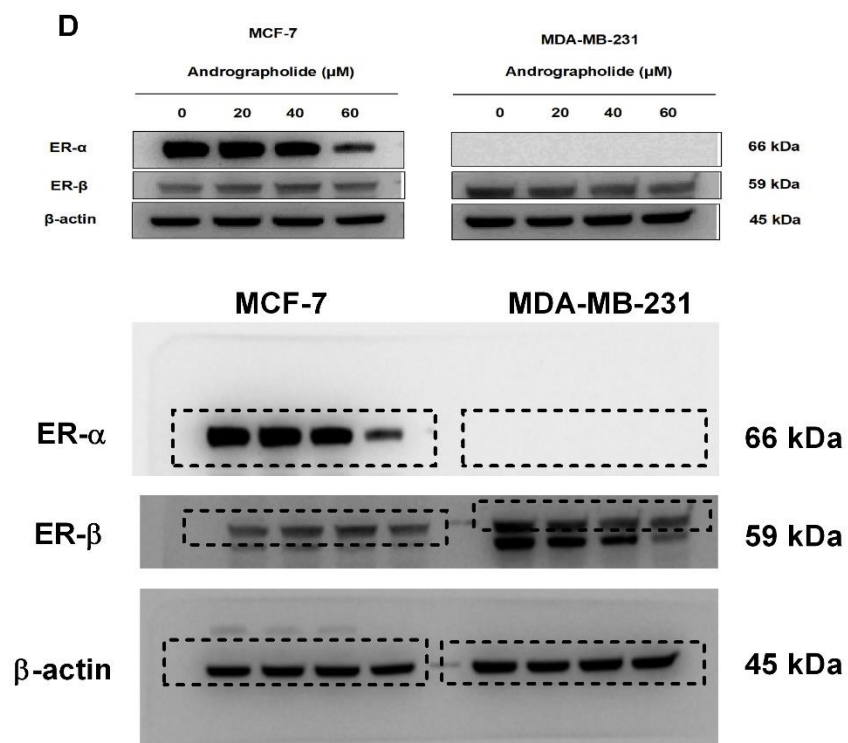


Figure S4. Full-length blots representing the protein expression of PI3K, AKT, p-AKT(T308), p-AKT(Ser473), mTOR, p-mTOR, and β -actin as shown in Figure 6A of the manuscript.

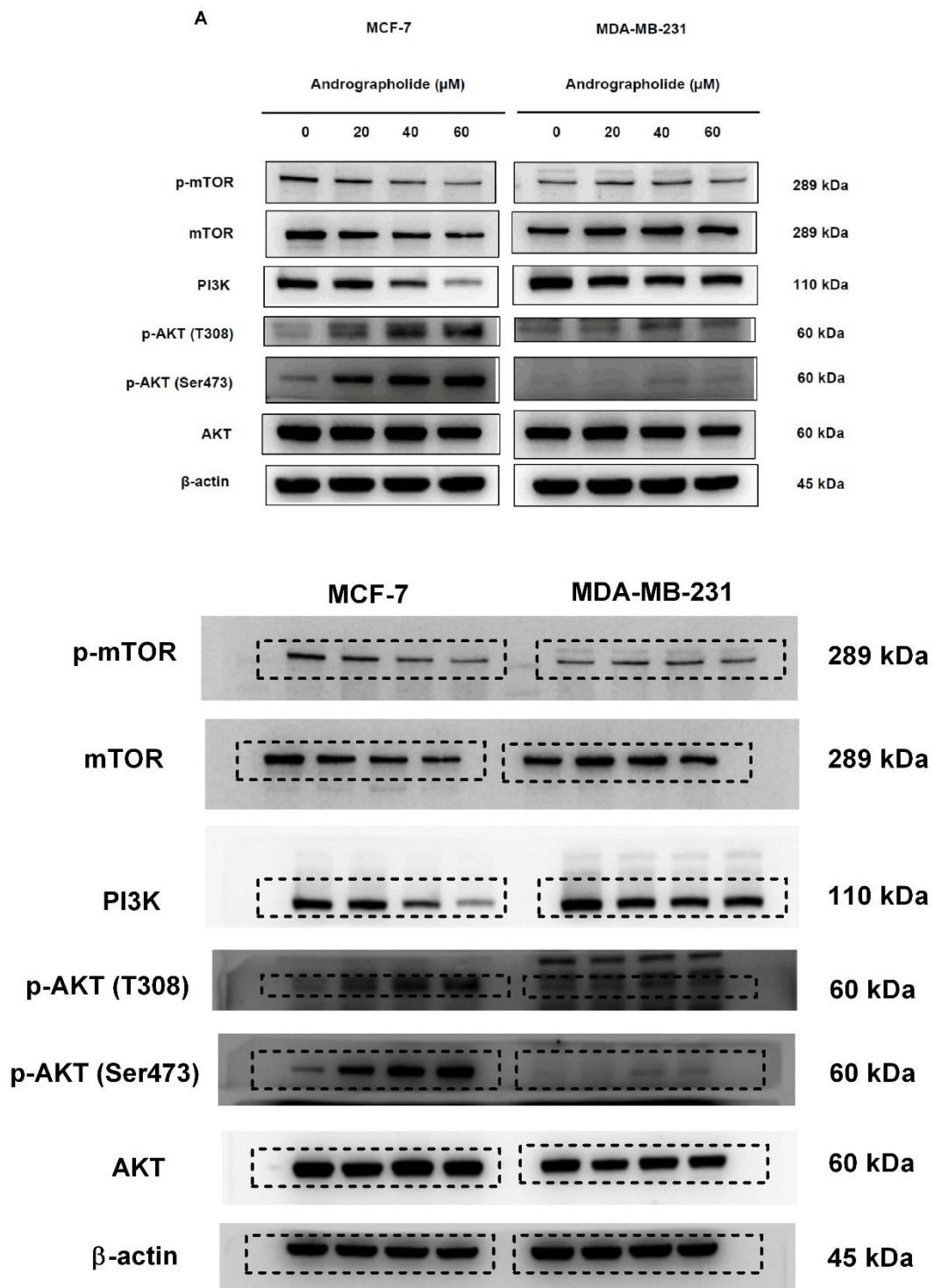


Figure S5. Full-length blots representing the protein expression of PI3K, mTOR, p-mTOR, and β -actin as shown in Figure 6J of the manuscript.

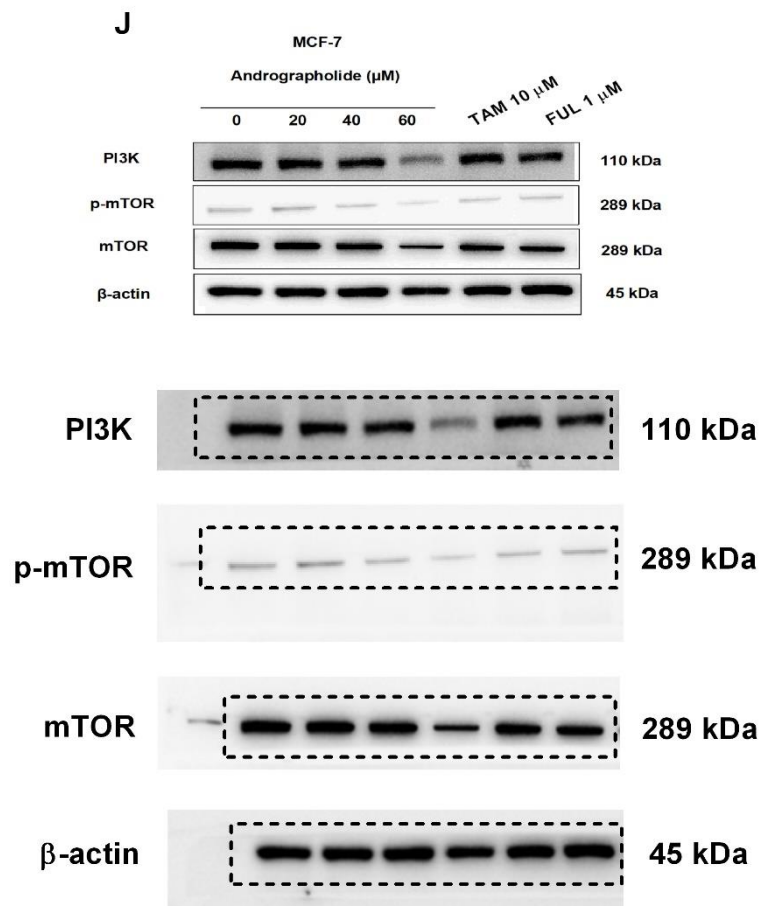


Figure S6. Full-length blots representing the protein expression of PI3K, mTOR, p-mTOR, and β -actin as shown in Figure 7A and 7C of the manuscript, respectively.

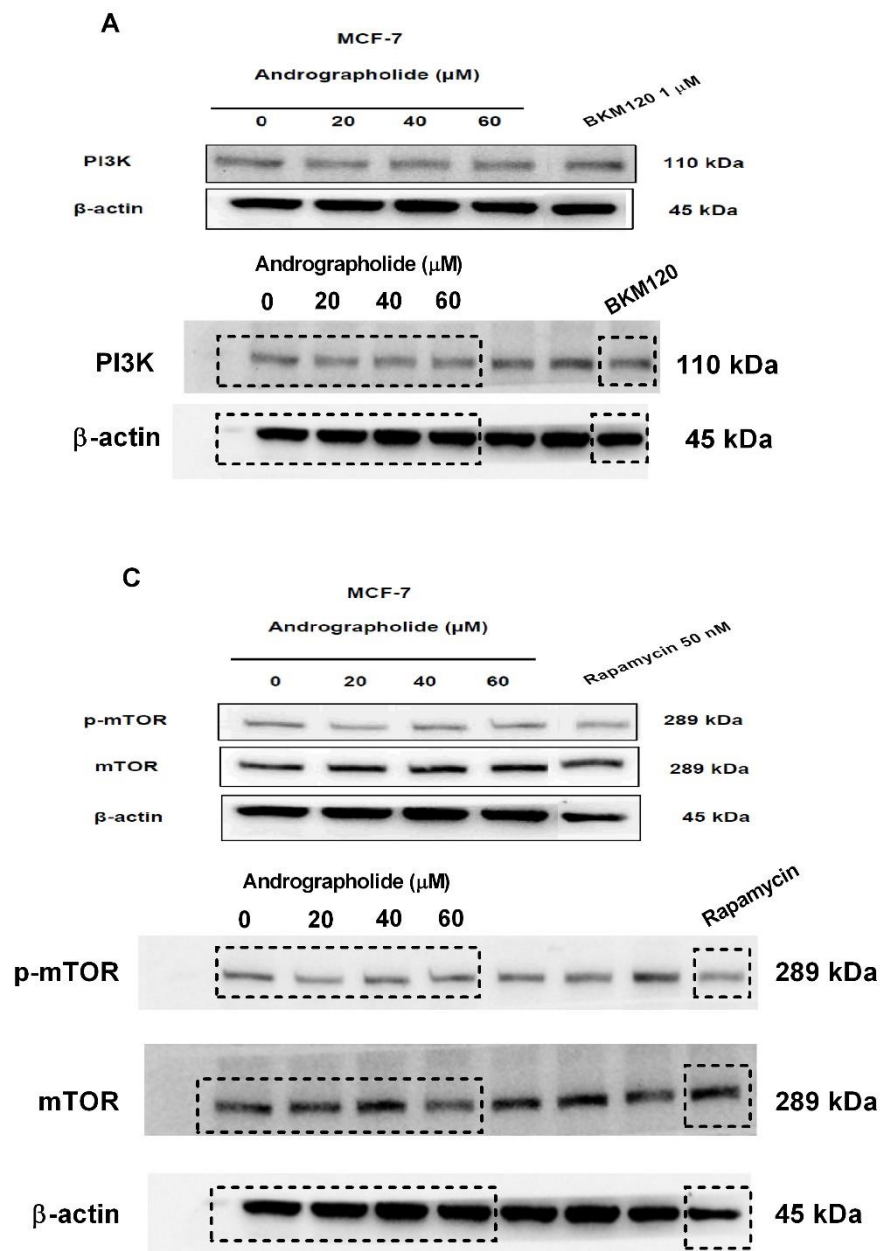


Figure S8. Chemical structure of andrographolide

