

## Supplementary Material

# Plumbagin suppresses breast cancer progression by down-regulating HIF-1 $\alpha$ expression via a PI3K/Akt/mTOR independent pathway under hypoxia condition

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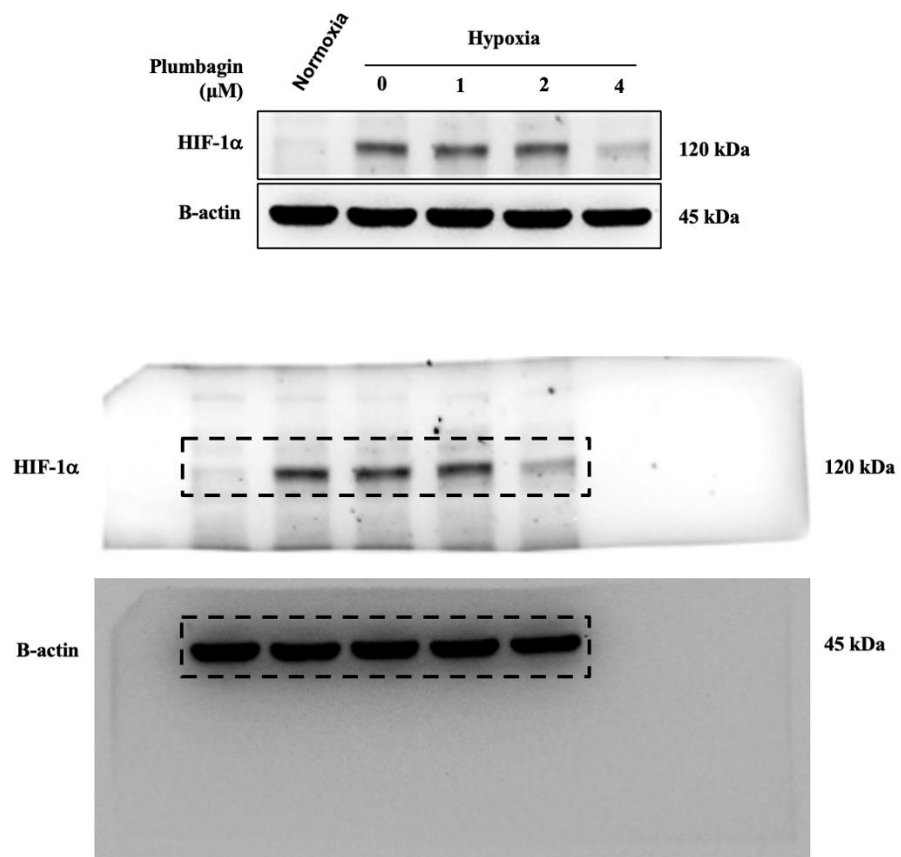
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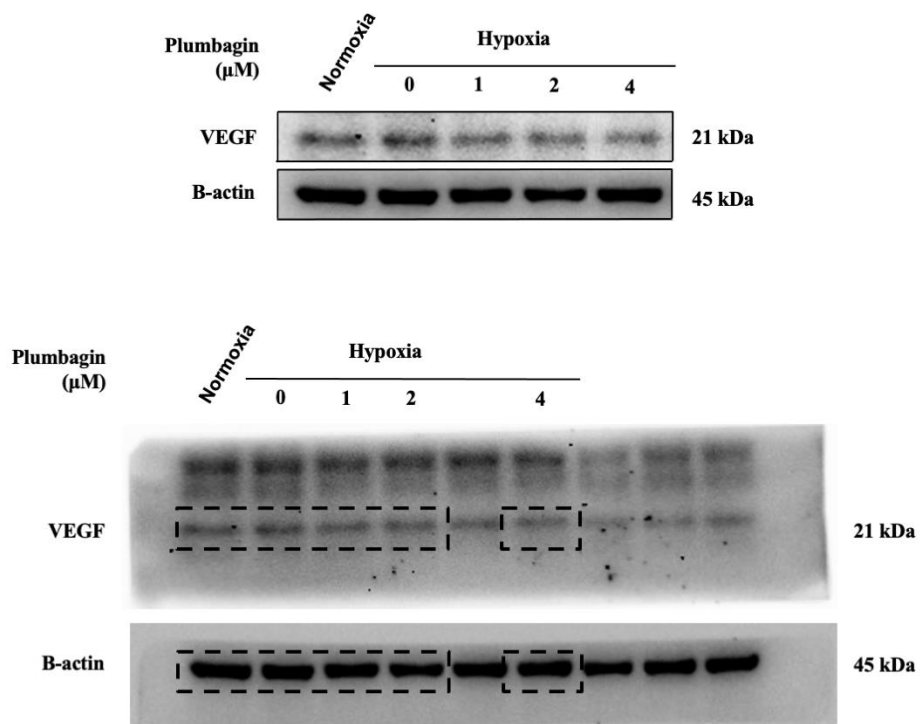
**Table S1.** Lists of primer sequences used for qRT-PCR

Gene	Sequences (5'-3')	
	Forward	Reverse
HIF-1 $\alpha$	TTTTGGCAGCAACGACACAG	TTTTCGTTGGGTGAGGGGAG
VEGF	ACAACAAATGTGAATGCAGACCA	TACCGGGATTCTTGCGCTT
VEGFR-2	TGTGTATGTCCCACCCAGAG	GGGAGGAATGGCATAGACCG
GAPDH	GACAGTCAGCCGCATCTTCT	ACCAAATCCGTTGACTCCGA

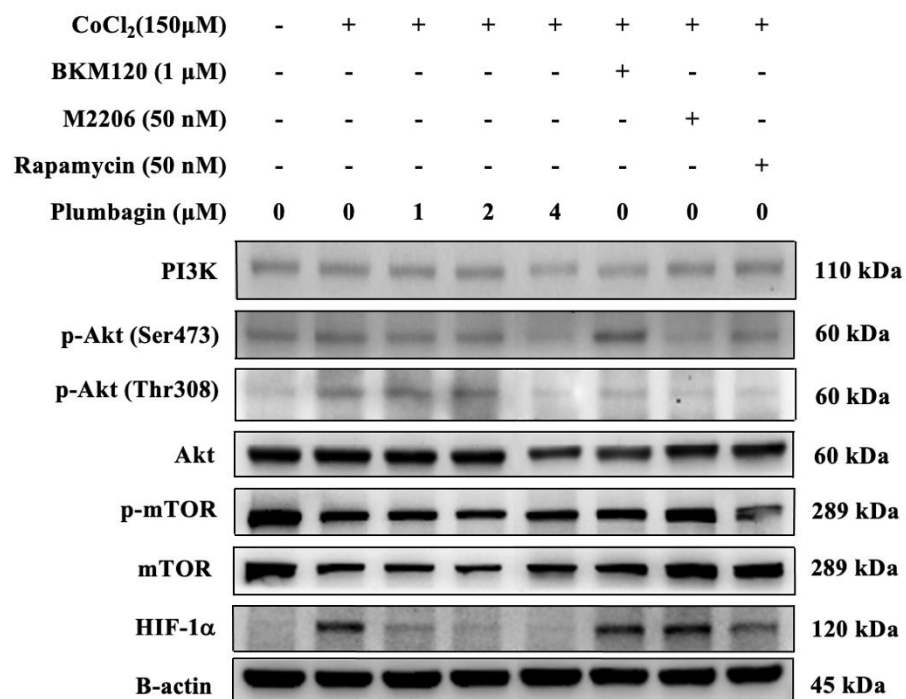
**Figure S1.** Full-length blots representing the protein expression of HIF-1 $\alpha$  and  $\beta$ -actin as shown in Figure 4A of the manuscript.



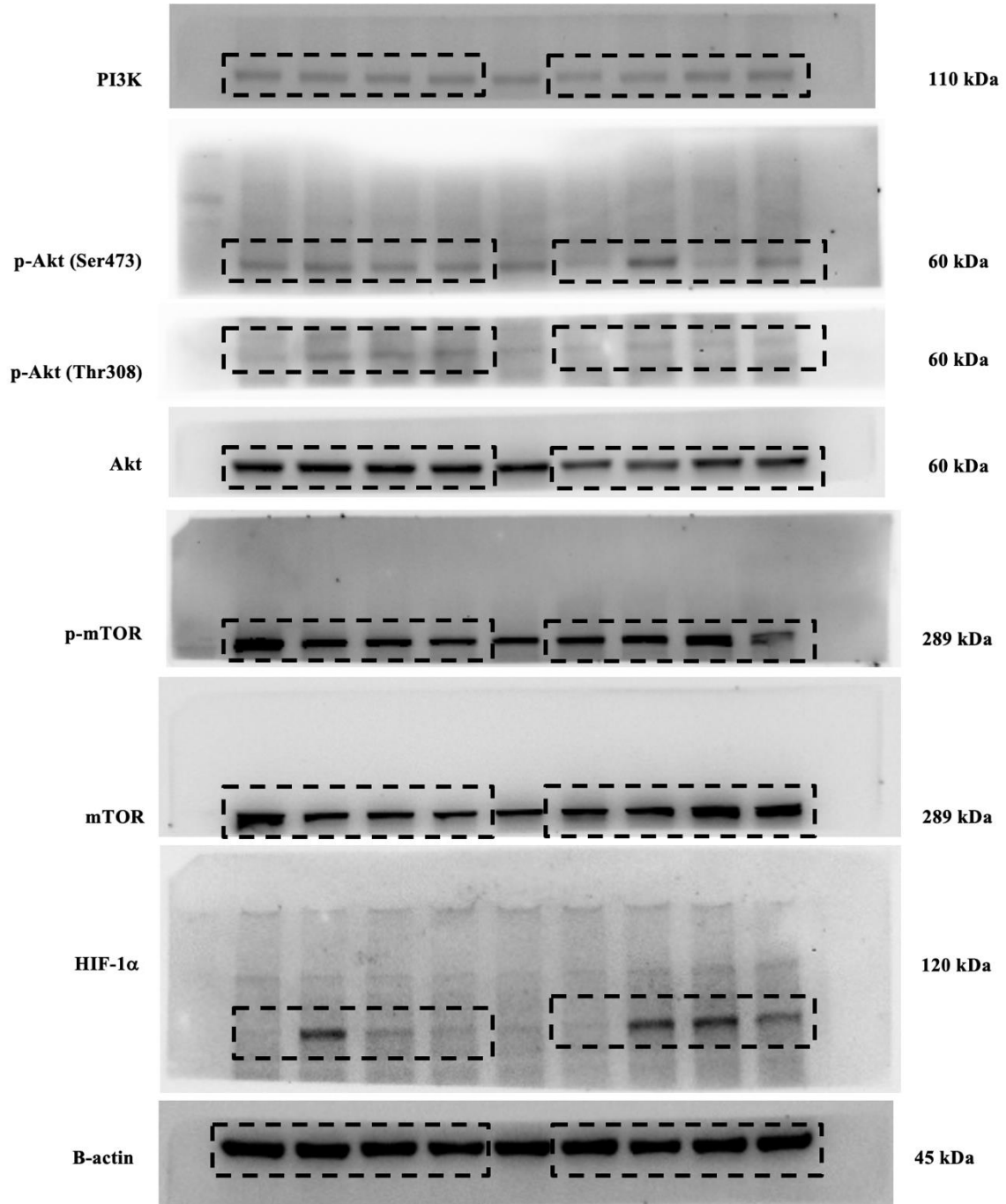
**Figure S2.** Full-length blots representing the protein expression of VEGF and  $\beta$ -actin as shown in Figure 5C of the manuscript.



**Figure S3.** Full-length blots representing the protein expression of PI3K/ Akt/ mTOR/ HIF-1 $\alpha$ , and  $\beta$ -actin as shown in Figure 6A of the manuscript.



CoCl <sub>2</sub> (150μM)	-	+	+	+	+	+	+	+
BKM120 (1 μM)	-	-	-	-	-	+	-	-
M2206 (50 nM)	-	-	-	-	-	-	+	-
Rapamycin (50 nM)	-	-	-	-	-	-	-	+
Plumbagin (μM)	0	0	1	2	4	0	0	0



**Remark:** The membranes were cut separately, according to size of protein marker, in order to incubated with specific 1°Ab, 2°Ab and 5% nonfat dry milk in TBS-T, respectively before detected and imaged the bands with the ChemiDocTMTouch Imaging system.