

Table S1 Clinical characteristics of patients

	Samples used for Western blot			Samples used for primary endometrial epithelial cell cultures
	Normal Endometrium	Eutopic Endometrium	Ectopic Endometrium	
Number of cases	11	10	9	70
Age	31.3±2.1	30.4±3.2	36.3±2.5	32.2±2.7
Menstrual cycle phase	Proliferative	Proliferative	Proliferative	Proliferative
#rASRM stage				
III		11	16	
IV		19	16	

Median (range). Revised American Society for Reproductive Medicine classification (rASRM: American Society for Reproductive Medicine, 1997).

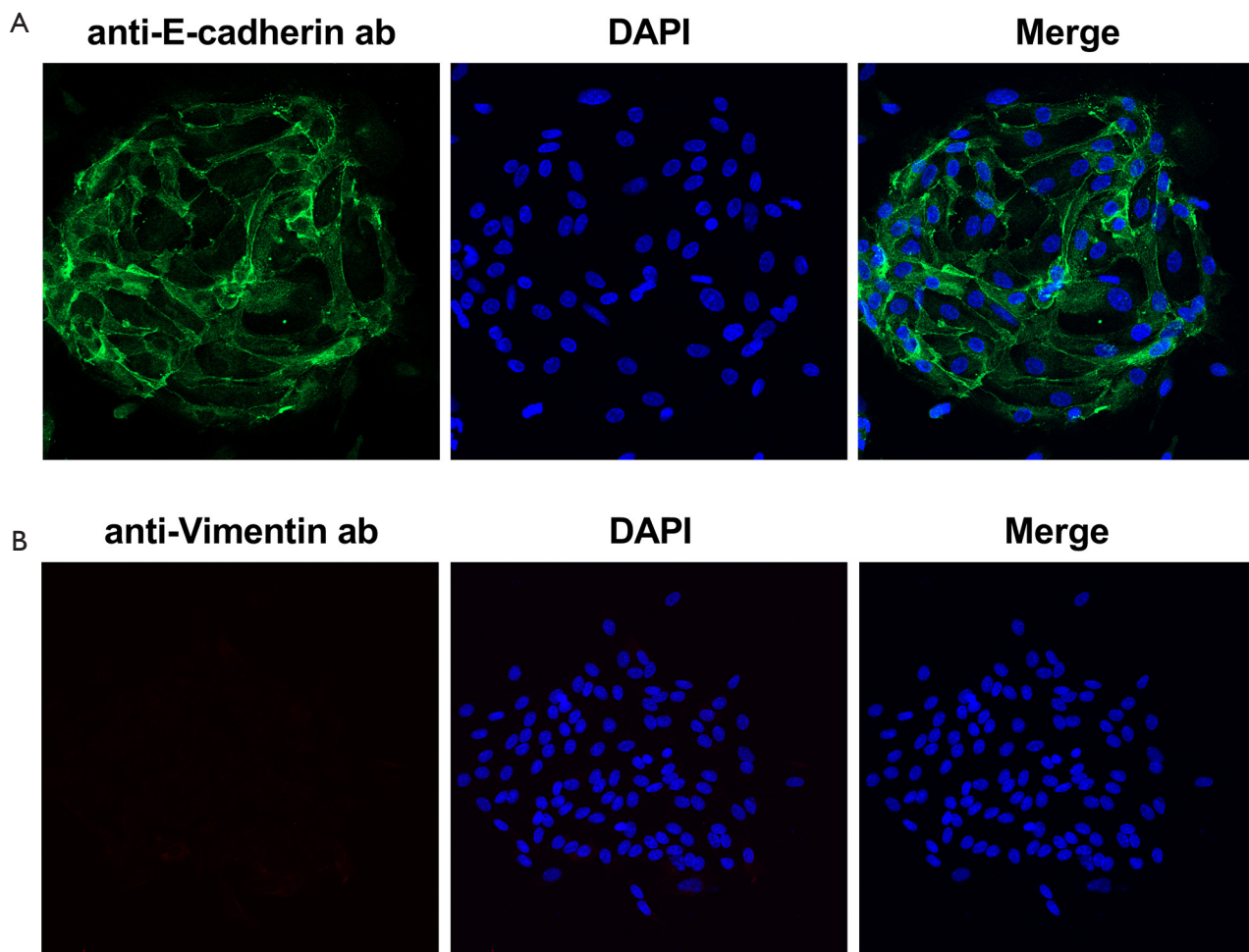


Figure S1 Identification of markers for isolation of human endometrial epithelial cells. Immunofluorescence microscopy staining of (A) E-cadherin in green represents and (B) Vimentin in red represents. Blue signal represents nuclear DNA staining by DAPI. Human endometrial epithelial cells were judged by negative cellular staining for Vimentin and positive staining for E-cadherin. Photographs were taken at magnifications of 1600x. Data presented are from three independent experiments.

Table S2 Primer sequences used for real-time RT-PCR and siRNA analyses

Gene	primier	sequence (5'-3')
UBOX5-AS1 (for qRT-PCR)	Forward	GAAACAGGCCAGGGTTAG
	Reverse	GGACTCGGGAGGGATGAAG
UBOX5-AS1 shRNA	Forward	GGCAAUGUUUUACACUAUUTT
	Reverse	AAUAGUGUAAAACAUUGCCT
scramble shRNA	Forward	GGCAAUGUUUUACACUAUUTT
	Reverse	AAUAGUGUAAAACAUUGCCTA
HIF-1 α siRNA	Forward	GCUGGAGACAAUCAUAUTTA
	Reverse	AACUUCACAAUCGU AACUGGU
scramble siRNA	Forward	UUCUCCGAACGUGUCACGUTT
	Reverse	ACGUGACACGUUCGGAGAATT

Table S3 Commercial sources and characteristics of antibodies used

Antibody	Dilution		Isotype	Product Num/ Manufacture	Location
	ICC	WB			
HIF-1 α	None	1:1000	Rabbit IgG	AF1009 / Affinity	U.S.
E-cadherin	1:100	1:1000	Rabbit IgG	ab40772 / Abcam	U.K.
Vimentin	1:100	1: 700	Rabbit IgG	#5741 /CST	U.S.
β -actin	None	1:1000	Rabbit IgG	ab8226 / Abcam	U.S.

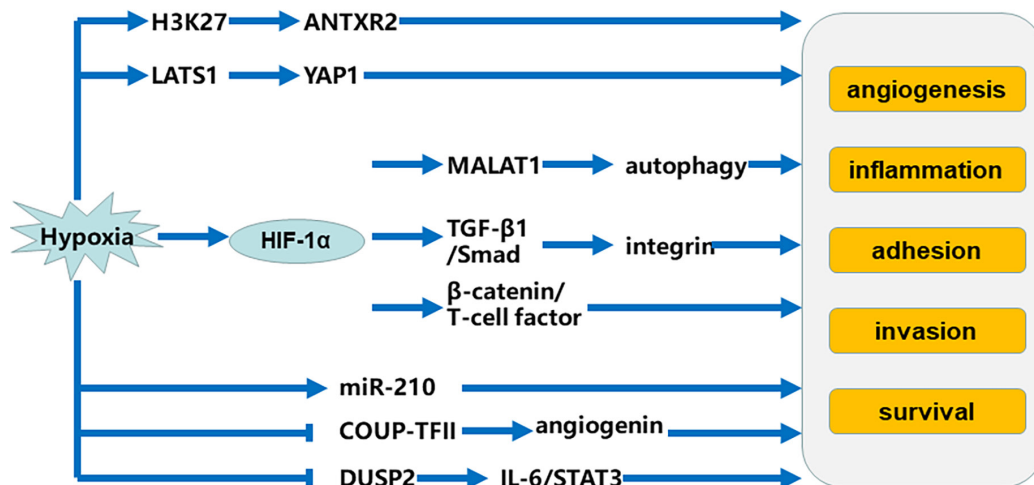


Figure S2 Hypoxia promotes the development of endometriosis through multiple mechanisms. H3K27, histone 3 lysine 27; ANTXR2, Anthrax Toxin Receptor 2; LATS1, Large Tumor Suppressor Kinase 1; YAP1, Yes-associated protein 1; HIF-1 α , hypoxia-inducible factor-1 α ; MALAT1, Metastasis Associated in Lung Adenocarcinoma Transcript; COUP-TFII, Chicken Ovalbumin Upstream Promoter-Transcription Factor II; DUSP2, dual Specificity Phosphatase 2; IL-6, Interleukin- 6; STAT3, Signal transducer and activator of transcription 3.