Table S1 Basic Information of Experimental Dairy Cows

	Parity	Age (month)	Lactation performance	Blood stasisBlood stasis syndrome	Endometritis
Health	1	25	normal	none	none
	2	36	normal	none	none
	1	28	normal	none	none
	1	26	normal	none	none
	2	38	normal	none	none
	2	42	normal	none	none
	2	40	normal	none	none
	1	25	normal	none	none
	1	26	normal	none	none
	2	44	normal	none	none
	1	27	normal	none	none
	2	35	normal	none	none
	2	39	normal	none	none
	1	22	normal	none	none
	1	25	normal	none	none
Endometritis with Blood Stasis	1	28	normal	A B C	D E F
	2	35	normal	A C	D E F
	1	25	normal	B C	D E F
	1	27	normal	A B C	D E F
	1	25	normal	A B C	D E F
	2	39	normal	A C	D E F
	2	37	normal	B C	D E F
	2	40	normal	A C	D E F
	2	41	normal	A B C	D E F
	1	25	normal	A B C	D E F
	2	39	normal	A B C	D E F
	2	36	normal	A C	D E F
	1	28	normal	B C	D E F
	1	25	normal	A C	D E F
	2	40	normal	A B C	D E F

(A) Vaginal mucosa congestion, swelling, dark red or purple discoloration; vulva swelling and protrusion. (B) Retained fetal membranes or miscarriage. (C) Hypercoagulable blood state. (D) Vaginal Discharge Score ≥ 2. (E) PMN% > 5%. (F) Abnormal echogenicity and fluid accumulation observed in Ultrasound examination results.

Table S2 International Diagnostic Guidelines for Blood Stasis Syndrome

Main Criteria	(1) Dull red, purple, or cyanosed tongue texture; with ecchymoses and petechiae; or with cyanosed, purple black, and varicose or coarsely swollen sublingual vein (2) Dull red, purple, or cyanosed face, lips, gum, periorbital region, and finger/toe ends (3) Varicosity or telangiectasia at any sites (4) Blood outside the meridians (causing blood stasis and accumulation in organs, tissues, subcutaneous, or serosal cavity) (5) Abdominal tenderness and tightness (6) Dark menstrual flow or slightly dark with blood clots (7) Vascular occlusion or moderate to severe stenosis (50%) observable in imaging examinations (8) Material evidence of thrombosis, infarction, or embolism
Secondary Criteria	(1) Fixed pain, stabbing pain, or pain aggravated at night (2) Limb numbness, hemiplegia, or joint swelling and deformity. (3) Dry and scaly skin (rough and thick skin with increased scale) (4) Unsmooth, intermittent, or hardly perceivable pulse (5) Pathological lumps, including organomegaly, neoplasm, inflammatory, or non-inflammatory masses and tissue hyperplasia (6) Mild vascular stenosis (<50%) observable in imaging and other examinations (7) Abnormal results of physicochemical examinations such as hemodynamics, hemorheology, platelet function, coagulation function, fibrinolysis function, microcirculation, chest X-ray, and ultrasonography that indicate circulation disorder, abnormal microvascular structure and function, or concentrated, viscous, coagulated and aggregated state of the blood (8) Trauma, operation, or abortion within 1 month or lingering disease (10 years)

Blood stasis syndrome can be diagnosed when the symptoms conform to one of the main criteria or two of the secondary criteria. Reference: Qiu, Y. and H. Xu. 2022. Formulation and Interpretation of International Diagnostic Guidelines for Blood-Stasis Syndrome. *Chin J Integr Med* 28(4):291-296.

Table S3 Specific Sequences of siRNA

Target Gene	siRNA Name	Forward (5′-3′)	Reverse (5′-3′)
HIF1A	siRNA-1092	GCCGCUCAAUUUAUGAAUATT	UAUUCAUAAAUUGAGCGGCTT
	siRNA-1487	GCUGGAGACACAAUCAUAUTT	AUAUGAUUGUGUCUCCAGCTT
	siRNA-2228	GCCACAACGUCACCAUAUATT	UAUAUGGUGACGUUGUGGCTT
KLKB1	siRNA-399	AGCGAUGUGGUCAUCAAAUTT	AUUUGAUGACCACAUCGCUTT
	siRNA-1504	UAUUGUCCACCCAAAUUAUTT	AUAAUUUGGGUGGACAAUATT
	siRNA-1348	CCUGUGCGGAGGGUCAAUUTT	AAUUGACCCUCCGCACAGGTT
NC	NC siRNA	UUCUCCGAACGUGUCACGUTT	ACGUGACACGUUCGGAGAATT

Table S4 qRT-PCR primer sequences used in the study

Gene Name	Forward (5′-3′)	Reverse (5′-3′)
HIF1A	GGAGTTGGACCTCTGCGATT	TTTTTCTTGTCGTTCGCGCC
KLKB1	GGAGTGGATGGTTGCCAAGA	GCTTGCTTGCGTCCCATAAG
ACTB	TCGGTTGGATCGAGCATTCC	ACAAAAGCGATCACCTCCCC

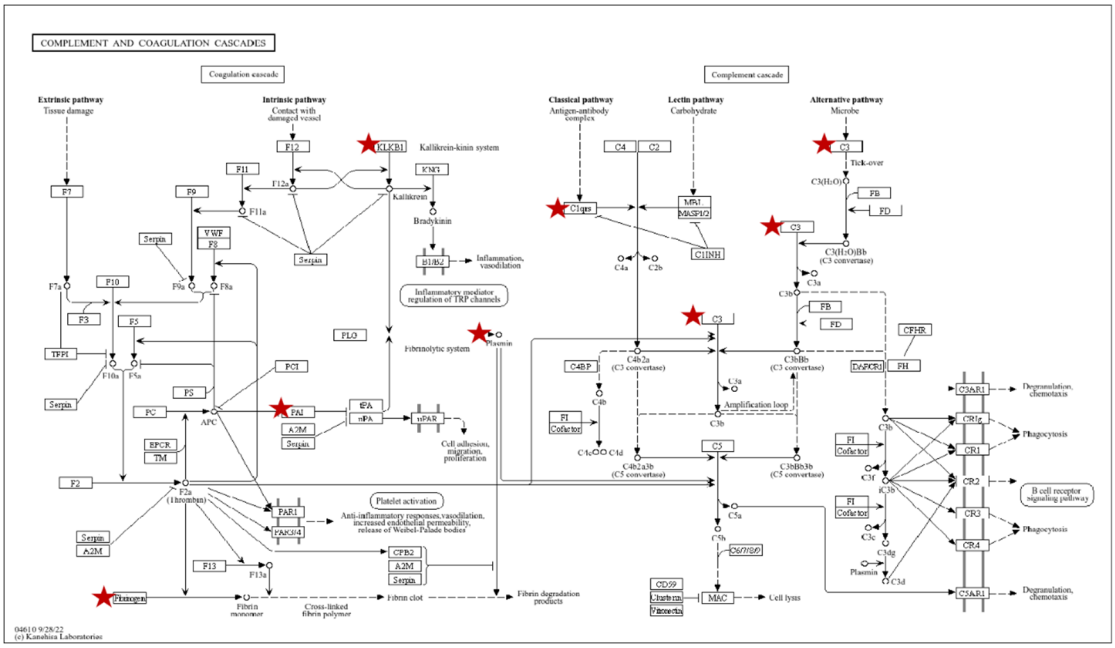


Figure S1 KEGG analysis of disease common targets (DCTs) and candidate proteins associated with complement and coagulation cascades

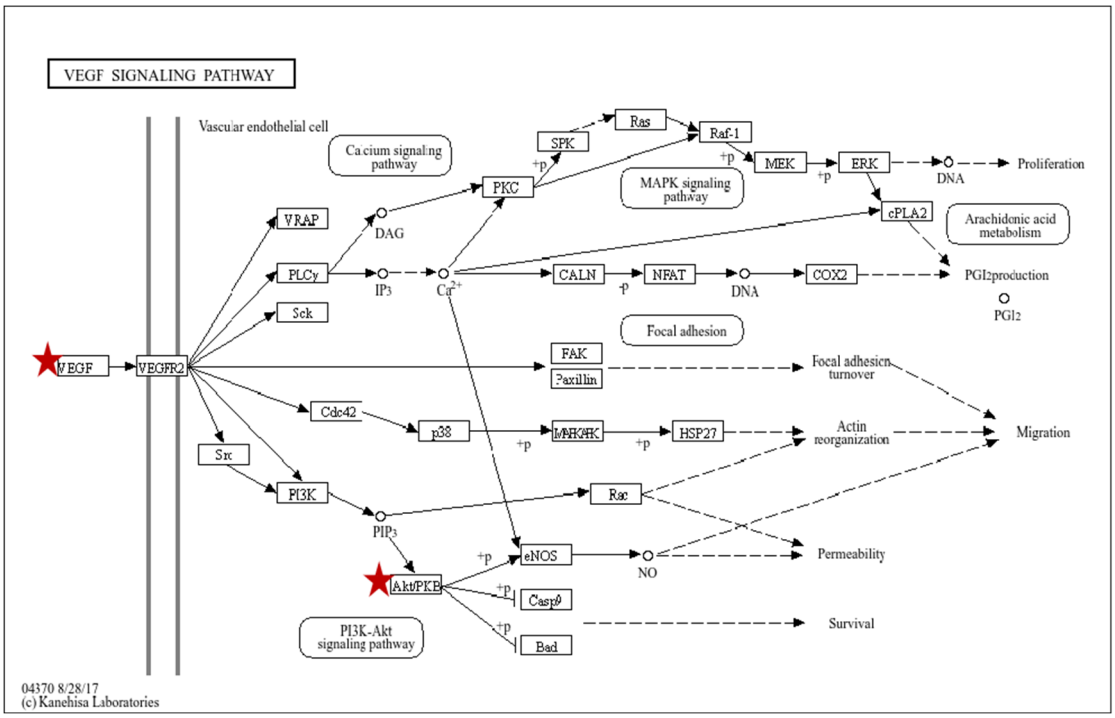


Figure S2 KEGG analysis of DCTs and candidate proteins associated with the VEGF signaling pathway

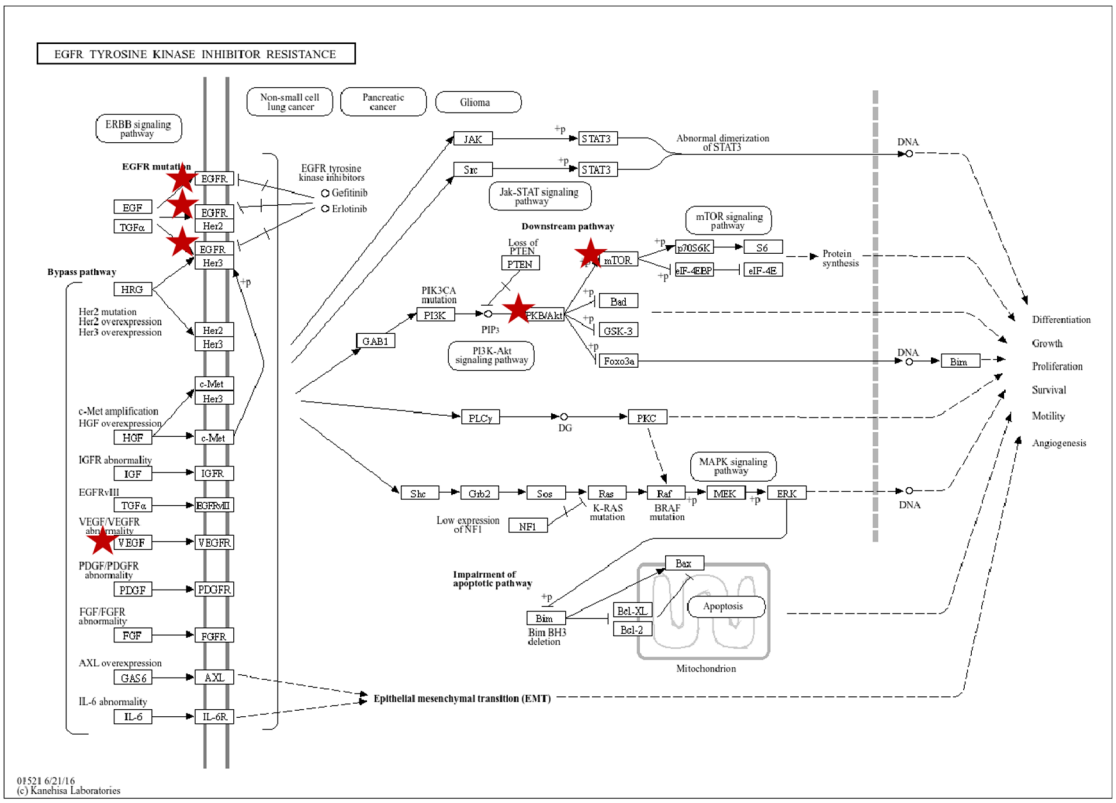
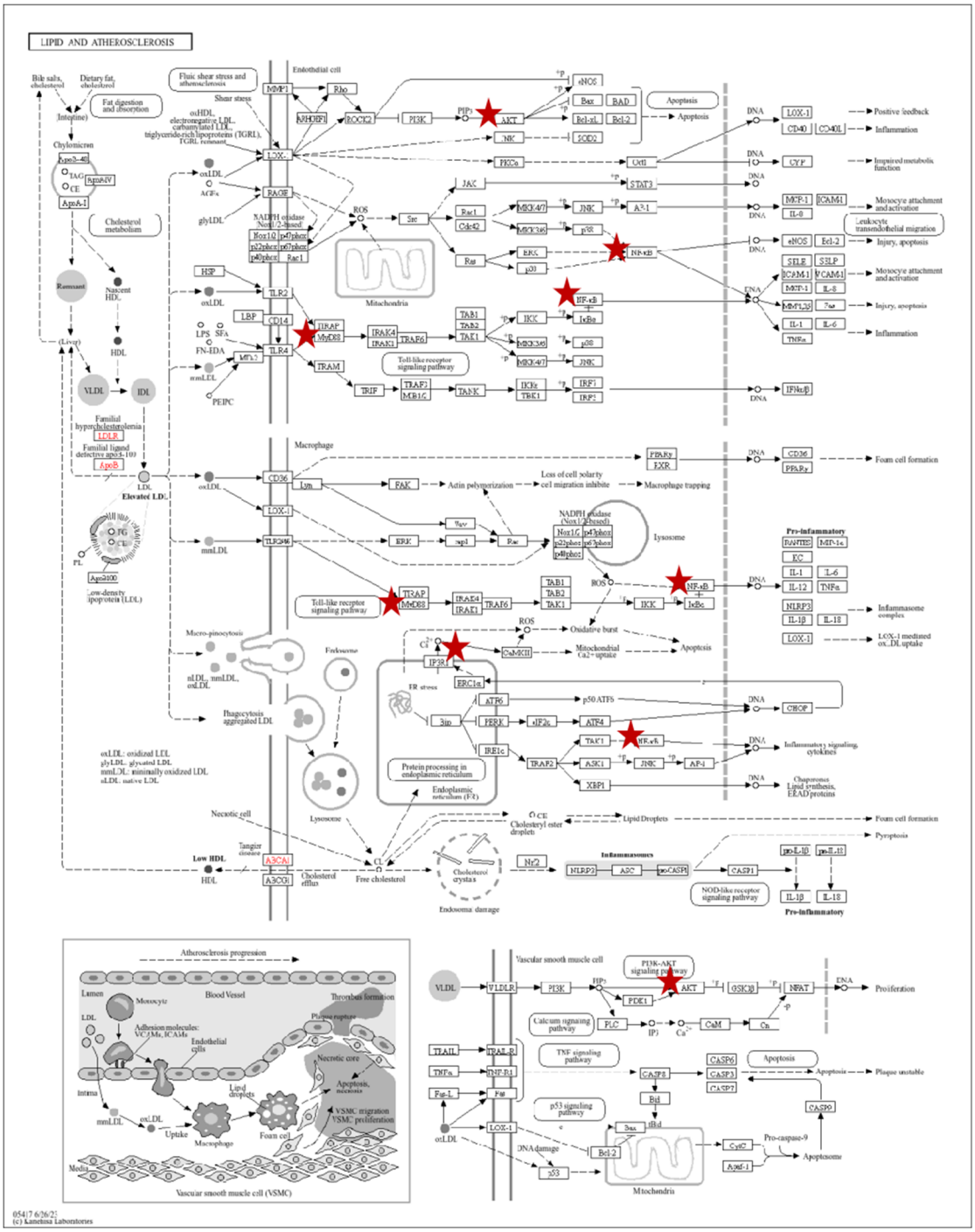


Figure S3 KEGG analysis of DCTs and candidate proteins associated with EGFR tyrosine kinase inhibitor resistance


LIPID AND ATHEROSCLEROSIS
Endothelial cell
Macrophage
Vascular smooth muscle cell
Atherosclerosis progression
Lumen
Blood Vessel
Monocyte
Thrombus formation
Endothelial cells
Necrotic core
Lipid droplets
Apoptosis, necrosis
Uptake
Foam cell
Media
Vascular smooth muscle cell (VSMC)
Mitochondria
Lysosome
Endoplasmic reticulum (ER)
Endosome damage
Cholesterol crystals
Cholesterol efflux
Free cholesterol
Cholesteryl ester droplets
Lipid Droplets
Foam cell formation
Pyroptosis
Oxidative burst
Apoptosis
Proliferation
Plaque unstable
Pro-Inflammatory
Positive feedback
Inflammation
Monocyte attachment and activation
Injury, apoptosis
Foam cell formation
Macrophage trapping
Inflammasome complex
Inflammatory signaling cytokines
Chaperones Lipid synthesis, EEAD proteins
Toll-like receptor signaling pathway
NOD-like receptor signaling pathway
Calcium signaling pathway
TNF signaling pathway
p53 signaling pathway
PI3K-AKT signaling pathway
Protein processing in endoplasmic reticulum
Familial hypercholesterolemia
LDLR
Familial ligand defective apoB-100
ApoB
Elevated LDL
Low HDL
oxLDL: oxidized LDL
glyLDL: glycated LDL
nmLDL: minimally oxidized LDL
nLDL: native LDL
Cholesterol metabolism
Fat digestion and absorption
Intestine
Chylomicron
Remnant
Nascent HDL
HDL
VLDL
IDL
(Liver)
Bile salts, cholesterol
Dietary fat, cholesterol
Fluic shear stress and atherosclerosis
Shear stress
oxHDL, electronegative LDL, carbamylated LDL, triglyceride-rich lipoproteins (TGRL), TGRL remnant
glyLDL
ACFs
FN-EDA
LPS
SFA
PE/PC
Ox-LDL
Ox-LDL
Ox-LDL

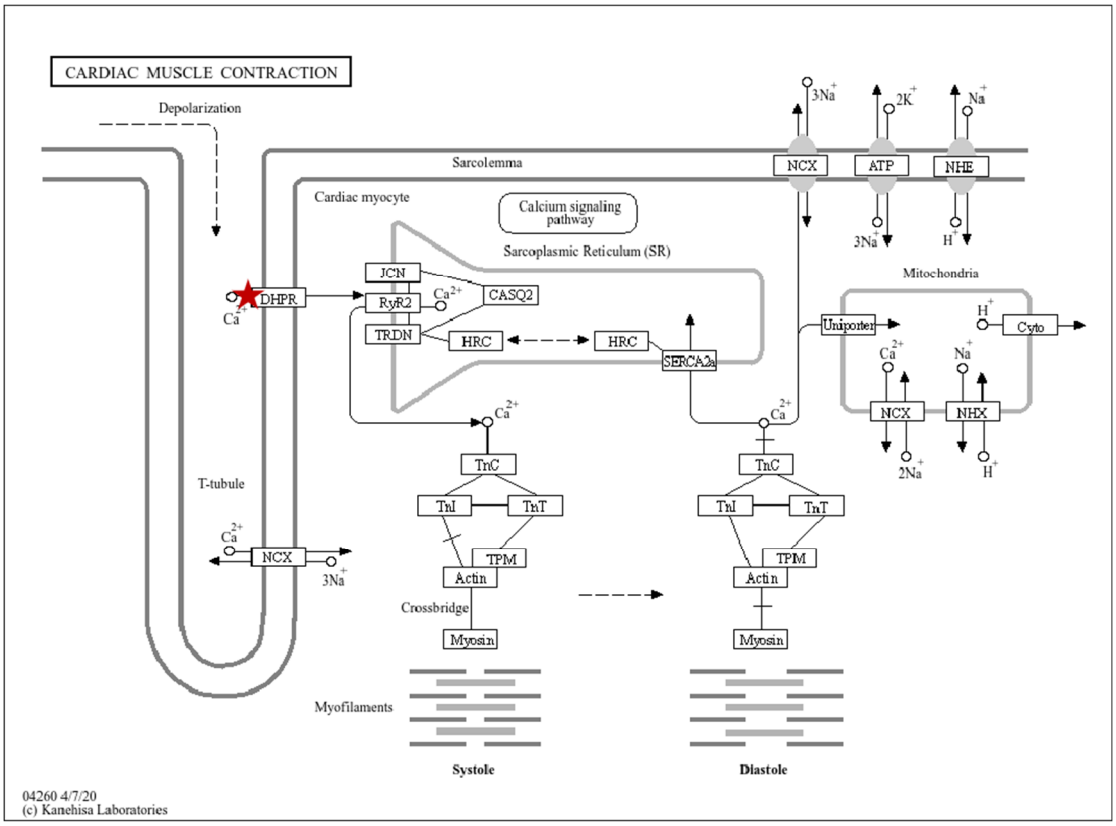


Figure S5 KEGG analysis of DCTs and candidate proteins associated with cardiac muscle contraction

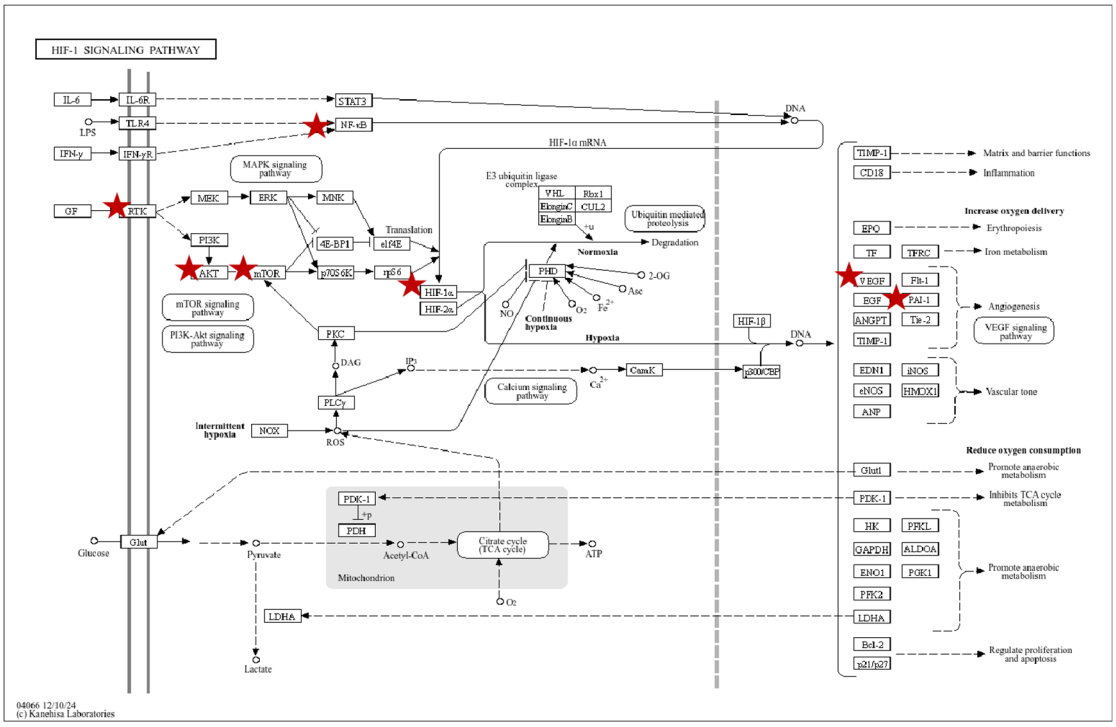


Figure S6 KEGG analysis of DCTs and candidate proteins associated with the HIF-1 signaling pathway

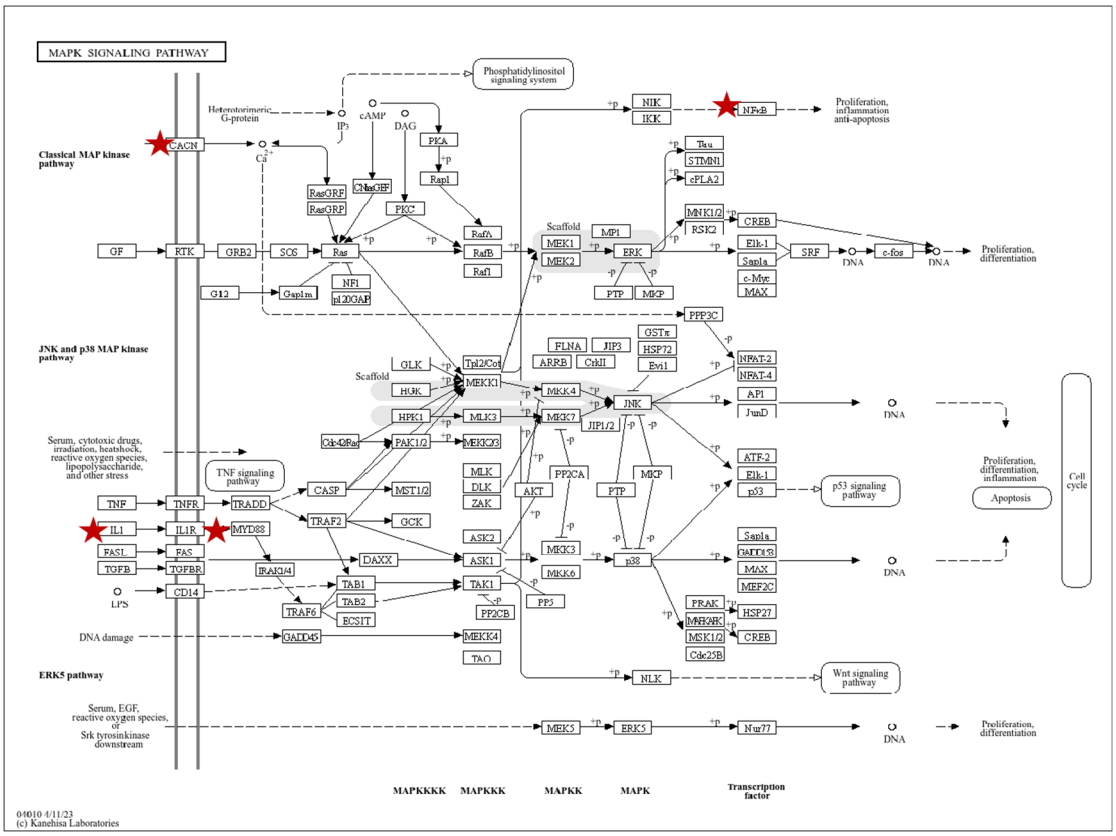


Figure S7 KEGG analysis of DCTs and candidate proteins associated with the MAPK signaling pathway

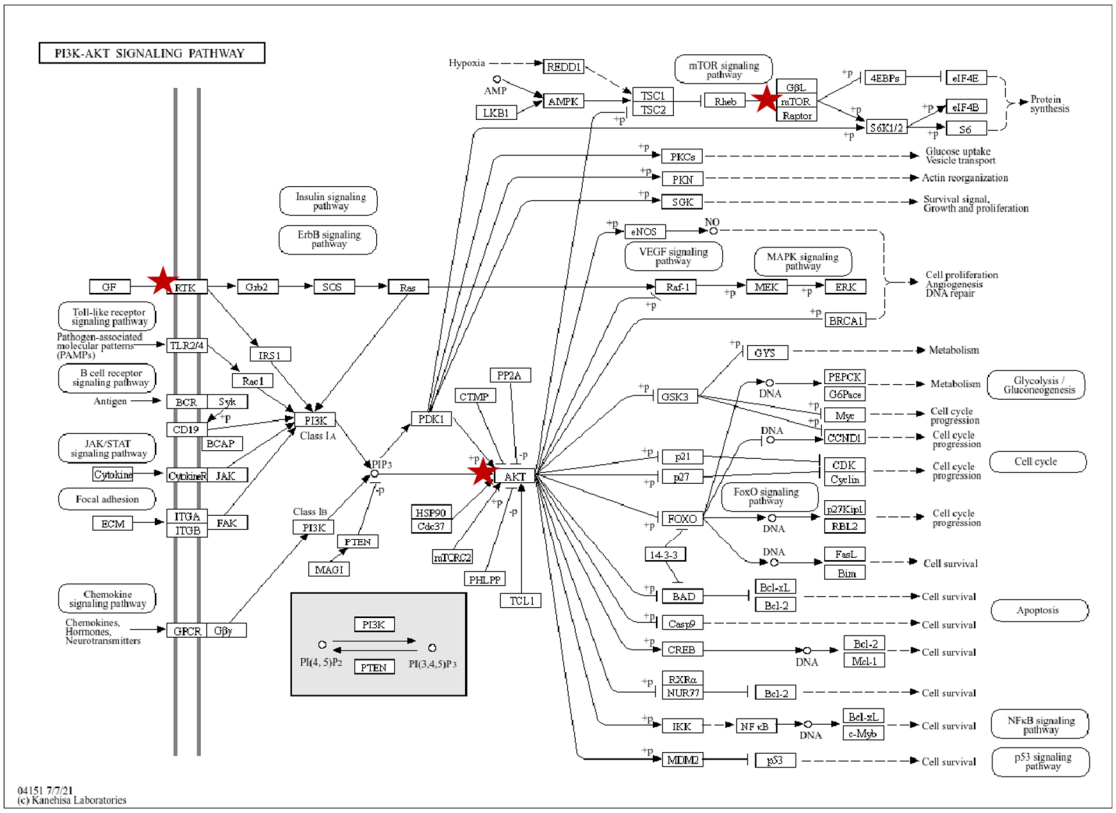


Figure S8 KEGG analysis of DCTs and candidate proteins associated with the PI3K–AKT signaling pathway

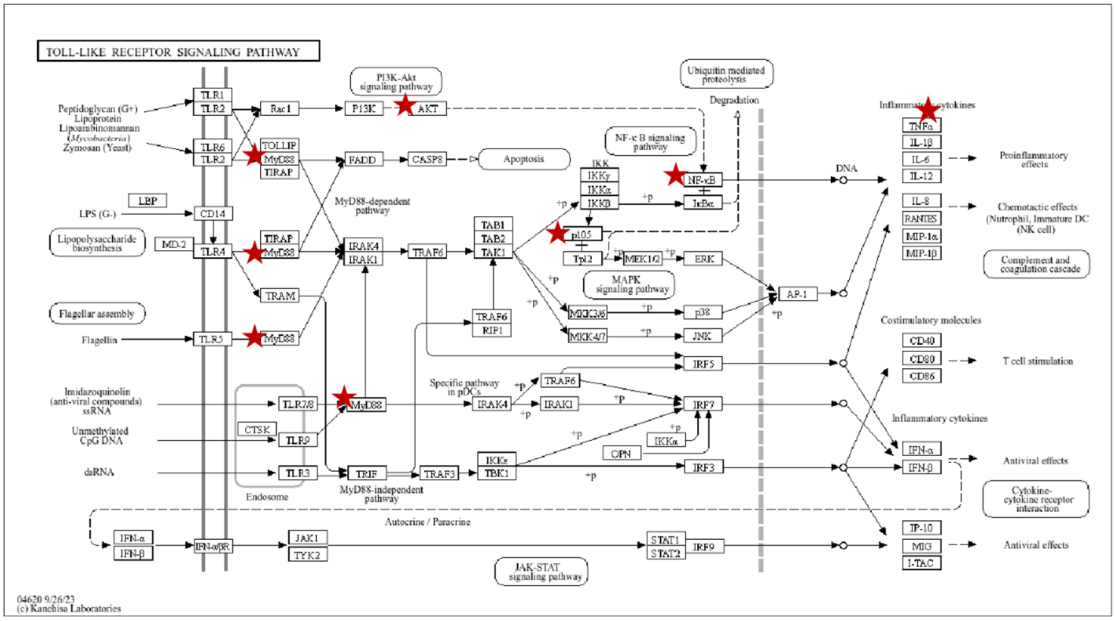


Figure S9 KEGG analysis of DCTs and candidate proteins associated with the Toll-like receptor signaling pathway

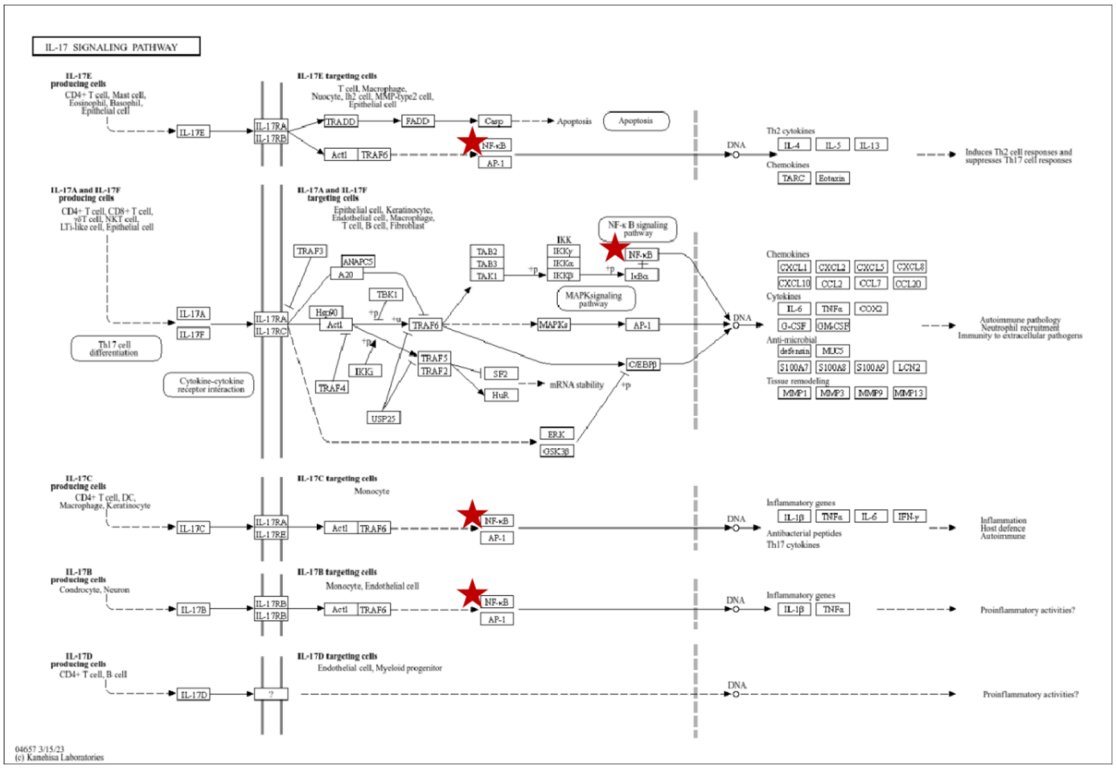


Figure S10 KEGG analysis of DCTs and candidate proteins associated with the IL-17 signaling pathway

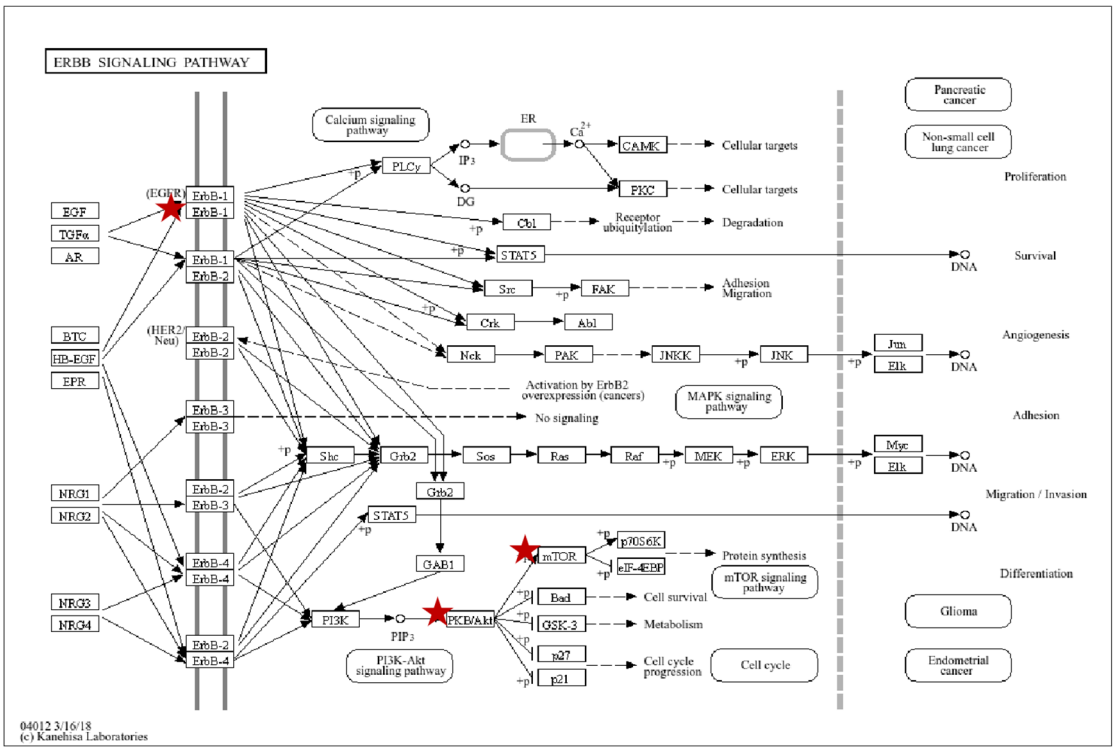


Figure S11 KEGG analysis of DCTs and candidate proteins associated with the ERBB signaling pathway

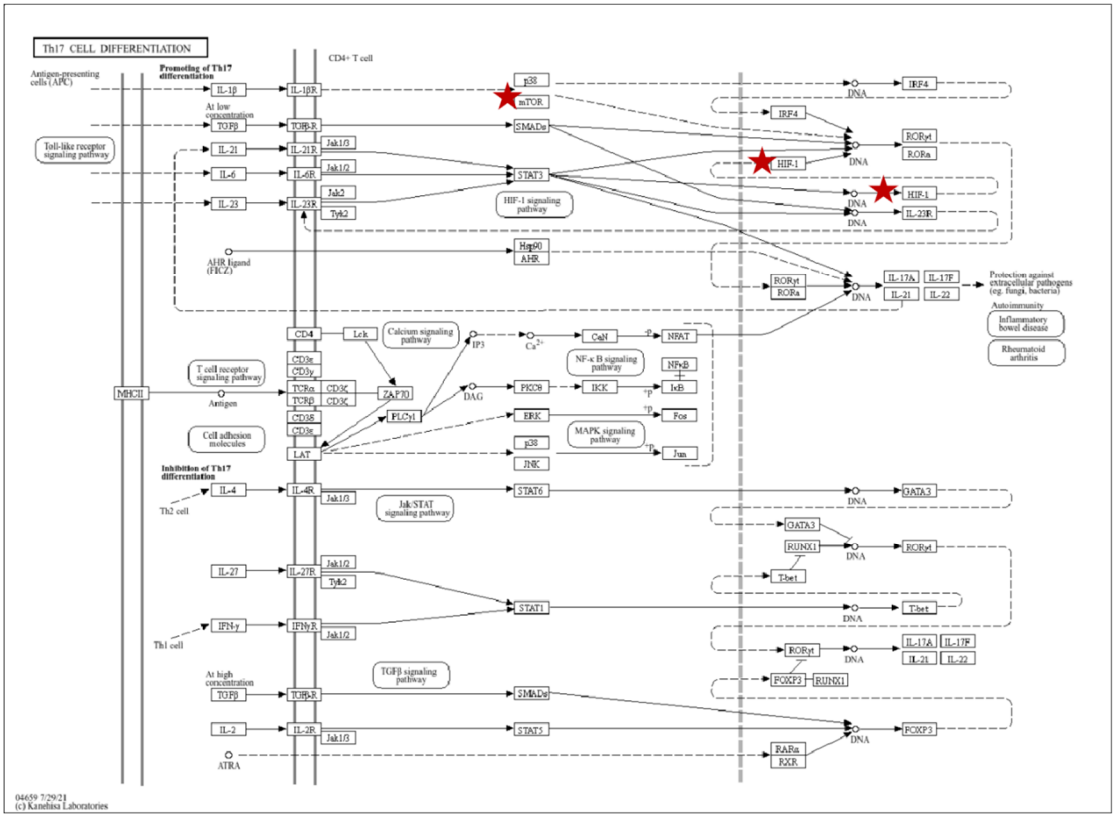


Figure S12 KEGG analysis of DCTs and candidate proteins associated with Th-17 cell differentiatio

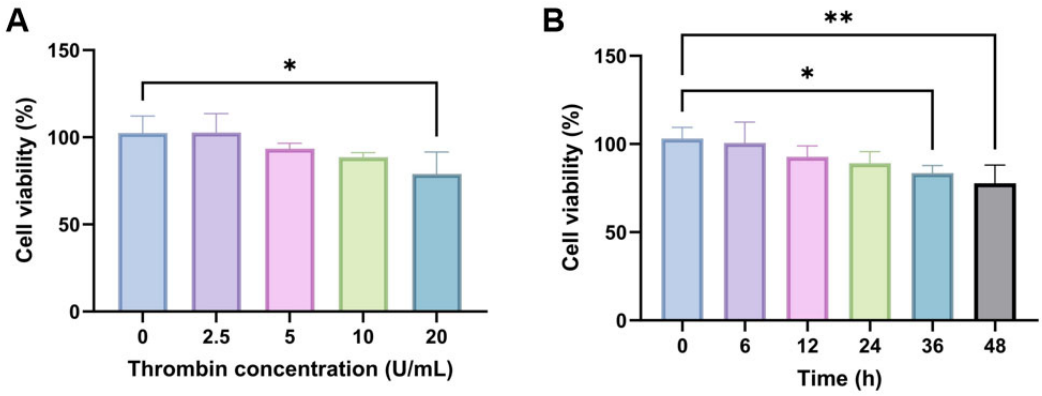


Figure S13. Effect of thrombin on BEEC viability. (A)Thrombin concentration screening. (B) Thrombin exposure time screening. (n = 6). *P < 0.05, **P < 0.01.