

Supplementary tables:

Supplementary Table 1: KEY RESOURCES

REAGENT OR RESOURCE	SOURCE	IDENTIFIER
Antibodies		
anti-Ki-67	Thermo fisher scientific	Cat# MA5-14520
anti-HIF-1 α	Thermo fisher scientific	Cat# PA1-16601
anti- α -SMA	Cell Signaling Technology	Cat# 48938
anti-CD163	Abcam	Cat# 182422
anti-CD68	Abcam	Cat# 125212
anti-VE-Cadherin	Cell Signaling Technology	Cat# 2158
anti-Mouse IgG Alexa fluor 594	Invitrogen	Cat# A11032
anti-Rabbit IgG Alexa fluor 594	Cell Signaling Technology	Cat# 8889
APC CD163	eBioscience	Cat# 17-1639-42
PE anti-human CD144	Biolegend	Cat# 348505
APC anti-human CD68	Biolegend	Cat# 333809
APC anti-human α -SMA	R&D systems	Cat# IC1420A
Anti-human CD11b microbeads	Miltenyi Biotec	Cat# 130-049-601
Anti-human CD144 microbeads	Miltenyi Biotec	Cat# 130-097-857
Anti-fibroblast microbeads	Miltenyi Biotec	Cat# 130-050-601
Chemicals		
DMEM	Gibco	Cat# 11995073
RPMI 1640	Gibco	Cat# 11875093
EMEM	ATCC	Cat# 30-2003
Endothelial cell growth media	Cell Biologics, USA	Cat# H1168
LHC-9 media	Gibco	Cat# 12680013
FBS	Gibco	Cat# 10082147
Penicillin/Streptomycin	Gibco	Cat# 15140122
DPBS	Gibco	Cat# 14190-144
Trypsin 0.25% EDTA	Gibco	Cat# 25200072
Collagen I, Rat tail	Gibco	Cat# A1048301
Calcein-AM	Thermo fisher scientific	Cat# C3099
Propidium iodide	Thermo fisher scientific	Cat# P1304MP
DAPI	Thermo fisher scientific	Cat# D1306

Trizol reagent	Invitrogen	Cat# 15596018
Image-iT Green hypoxia reagent	Invitrogen	Cat# I14834
iScript cDNA synthesis kit	BIO-RAD	Cat# 1708891
Universal SYBR Green Supermix	BIO-RAD	Cat# 172-5124
Single Cell Lysis Kit	Thermo Fisher Scientific	Cat# 4458235
SuperScript VILO cDNA synthesis kit	Thermo Fisher Scientific	Cat# 11754-050
Crystal violet stain	Sigma	Cat# C6158
Protein G Magnetic beads	BIO-RAD	Cat# 161-4023
16% Formaldehyde Solution	Thermo fisher scientific	Cat# 28906
Tissue freezing medium	Leica	14020108926
Triton X-100	Sigma	Cat# T8787
Ethanol	Merck	1009832500
Isopropanol	Himedia	Cat# MB063
Acetone	Merck	Cat# SD7F670190
Chloroform	SRL	Cat# 84155
Methanol	Merck	Cat# SGOP700408
BSA	Sigma	A2153
PMA	Sigma	P8139
DPX Mountant	SRL	Cat# 88147
4-Nitrophenyl Phosphate	TCI	N1109

Supplementary Table 2:

Clinicopathological features		
LUAD patients		
Number of patients	5	
Age (median range)	50 years (38-75 years)	
Gender	2 (Male)	
	3 (Female)	
Smoking history	1 (Smoker)	
	4 (Non-smoker)	
Histological subtype	Lung adenocarcinoma	
TNM staging	Stage 4 (Metastatic)	
Non-cancerous patients		Disease category
Number of patients	5	Tuberculosis, Granulomatous inflammation
Age (median range)	54 years (24-75 years)	
Gender	2 (Male)	
	3 (Female)	
Smoking history	1 (Smoker)	
	4 (Non-smoker)	

Supplementary Table 3:

Gene name	Forward primer (5'-3')	Reverse primer (5'-3')
<i>E-cadherin</i>	TCGGGAGGGTGAATCTCAGG	GAAGAAGAGCAAGCAATAGCAG
<i>Fibronectin</i>	ACAACACCGAGGTGACTGAGAC	GGACACAACGATGCTTCCTGAG
<i>MKi-67</i>	GAAAGAGTGGCAACCTGCCTTC	GCACCAAGTTTTACTACATCTGCC
<i>HIF-1α</i>	GTGGTGGTTACTCAGCACT	CGTCCCTCAACCTCTCAGTT
<i>BNIP3</i>	TCAGCATGAGGAACACGAGCGT	GAGGTTGTCAGACGCCTTCCAA
<i>CA-IX</i>	GTGCCTATGAGCAGTTGCTGTC	AAGTAGCGGCTGAAGTCAGAGG
<i>GLUT-1</i>	TTGCAGGCTTCTCCAACCTGGAC	CAGAACCAGGAGCACAGTGAAG
<i>OCT4</i>	CCTGAAGCAGAAGAGGATCACC	AAAGCGGCAGATGGTCGTTTGG
<i>SOX2</i>	GCTACAGCATGATGCAGGACCA	TCTGCGAGCTGGTCATGGAGTT
<i>NANOG</i>	CTCCAACATCCTGAACCTCAGC	CGTCACACCATTGCTATTCTTCG
<i>α-SMA</i>	CTATGCCTCTGGACGCACAACT	CAGATCCAGACGCATGATGGCA
<i>FSP</i>	CAGAACTAAAGGAGCTGCTGACC	CTTGGAAGTCCACCTCGTTGTC
<i>PDGF-β</i>	GCCATCAGCAGCAAGGCGAG	GCAGGTCAGAACGAAGGTGC
<i>TGF-β</i>	ACTGCGGATCTCTGTGTCAT	AGTAGTGTTCCCACTGGTC
<i>PDPN</i>	GTGCCGAAGATGATGTGGTGAC	GGACTGTGCTTTCTGAAGTTGGC
<i>CD163</i>	AAAGCGAAGACAGAGACAGC	TCATGGGAATTTTCTGAGGAAT
<i>CD206</i>	ACGATCCGACCCTTCCTTGA	GCTTGCAGTATGTCTCCGCT
<i>VEGF</i>	TTGCCTTGCTGCTCTACCTCCA	GATGGCAGTAGCTGCGCTGATA
<i>VEGF-R2</i>	GGAACCTCACTATCCGCAGAGT	CCAAGTTCGTCTTTTCTGTTGGC
<i>GATA2</i>	TAGAGCCCTGTAGTTCCTGCC	ACTGGGGGTTGGGATGGTTC

<i>eNOS</i>	CAACAGCATCTCCTGCTCAGA	CGAACACACAGAACCTGAGGG
<i>VE-cadherin</i>	GAAGCCTCTGATTGGCACAGTG	TTTTGTGACTCGGAAGAACTGGC
<i>N-cadherin</i>	CCTCCAGAGTTTACTGCCATGAC	GTAGGATCTCCGCCACTGATTC
<i>vWF</i>	GTGTGTCCGAGTGAAGGAGG	CAGCACGCTGAGGTCTTACA
<i>Endoglin</i>	CCCACAAGTCTTGCGAGAAACA	CTGGCTAGTGGTATATGTCACCT
<i>CD31</i>	AAGTGGAGTCCAGCCGCATATC	ATGGAGCAGGACAGGTTCAAGTC
<i>ZEB1</i>	TACCAGAGGATGACCTGCCA	TGCCCTTCCTTTCCTGTGTC
<i>FLI1</i>	ACGGAAGTGCTGTTGTCACACC	CAAGCTCCTCTTCTGACTGAGTC
<i>ETS</i>	TGAGGTAGCTTAGAGATGTAGCG	ATGTGCCAGCATCAGCTACT
<i>Tie2</i>	TGCCACCCTGGTTTTTACGG	TTGGAAGCGATCACACATCTC
<i>ETV2</i>	ACGTCTCGGAAAATTCCCCC	ATGTCTCTGCTGTCGCTGTC
<i>TAL1</i>	CTTAGCCAGCCGCTCGCCTC	TGTCTGGTGGGTGGGTGGGG
<i>GAPDH</i>	CCCTTCATTGACCTCAACTACA	ATGACAAGCTTCCCGTTCTC