

Major Resources Table

In order to allow validation and replication of experiments, all essential research materials listed in the Methods should be included in the Major Resources Table below. Authors are encouraged to use public repositories for protocols, data, code, and other materials and provide persistent identifiers and/or links to repositories when available. Authors may add or delete rows as needed.

Animals (in vivo studies)

Species	Vendor or Source	Background Strain	Sex	Persistent ID / URL
Mouse	Jackson Laboratory	C57BL/6	Male	000664
Rat	Charles River	Sprague Dawley	Female	400

Genetically Modified Animals

	Species	Vendor or Source	Background Strain	Other Information	Persistent ID / URL
Parent - Male	Mouse	Jackson Laboratory	α MHC-MerCreMer B6.FVB(129)- <i>A1cfTg(Myh6-cre/Esr1*)1Jmk/J</i>		005657
Parent - Female	Mouse	Jackson Laboratory	<i>Rosa^{mTmG}</i> <i>Gt(ROSA)26Sor^{tm4}(ACTB-tdTomato,-EGFP)Luo/J</i>		007576

Antibodies

Target antigen	Vendor or Source	Catalog #	Working concentration	Lot # (preferred but not required)	Persistent ID / URL
GFP	Biomatik	CAU29134	1:250 (IF), 1:1000 (WB)		
Vimentin	BioLegend	699301	1:250 (IF)		
α -actinin	Sigma-Aldrich	A5044	1:250 (IF)		
α -actinin	Sigma-Aldrich	A7811	1:250 (IF)		
Cardiac Troponin I	Abcam	Ab47003	1:1000 (IF)		
BAX	Cell Signaling Technology	2772	1:1000 (WB)		
BCL-2	Santa Cruz Biotechnology	sc-7382	1:1000 (WB)		
Cleaved Caspase-3	Cell Signaling Technology	9664	1:1000 (WB)		
Caspase-3	Cell Signaling Technology	9662	1:1000 (WB)		
MAP4K4	Proteintech	55247-1-AP	1:1000 (WB)		
Integrin α 5	Santa Cruz Biotechnology	sc-166665	1:1000 (WB)		
TGF β 1	Thermo Fisher Scientific	MA5-15065	1:1000 (WB)		
TGF β 1	Cell Signaling Technology	3711	1:1000 (WB)		

p-Smad2/3	Cell Signaling Technology	8828	1:1000 (WB)		
Smad2/3	Cell Signaling Technology	8685	1:1000 (WB)		
α-SMA	Sigma-Aldrich	A2547	1:1000 (WB)		
GAPDH	Cell Signaling Technology	2118	1:1000 (WB)		
Secondary HRP-antibodies	Agilent	P0448 P0447	1:5000 (WB)		
Anti-CD31-PE	BioLegend	102408	1:200 (FC)		
anti-CD45-APC/Cy7	BioLegend	103116	1:200 (FC)		
Anti-MEF-SK4-APC	Miltenyi Biotec	130-102-900	1:50 (FC)		
Alix	BioLegend	634501	1:1000 (WB) 1:250 (Dot blot)		
Alix	Cell Signaling Technology	92880S	1:1000 (WB)		
CD9	BioLegend	124802	1:1000 (WB)		
CD9	Novus Biologicals	NBP2-67310	1:1000 (WB)		
CD63	Novus Biologicals	NBP2-68077	1:1000 (WB)		
CD63	Millipore-Sigma	SAB4301607	1:1000 (WB)		
Calnexin	Novus Biologicals	NB300-518	1:1000 (Dot blot)		
Grp94	Cell Signaling Technology	2104T	1:1000 (Dot blot)		
Cardiac Troponin T	Thermo Fisher Scientific	MA5-12960	1:1000 (WB)		
Cre	Sigma Millipore	69050	1:1000 (WB)		
Cre	Sigma Aldrich	C7988	1:1000 (WB)		
Ago2	Abcam	ab57113			
Ago2	Sigma-Aldrich	SAB4200085	0.5g/mL (Dot blot)		
ApoB	Novus Biologicals	NB200-527	1:1000 (Dot blot)		
ApoE	Santa Cruz	Sc-13521	1:200 (Dot blot)		
ApoA1	Thermo Fisher Scientific	MA515391	1:500 (Dot blot)		

DNA/cDNA Clones

Clone Name	Sequence	Source / Repository	Persistent ID / URL

DOI [to be added]

Cultured Cells

Name	Vendor or Source	Sex (F, M, or unknown)	Persistent ID / URL
HEK293 cells	ATCC	unknown	CRL-1573
Neonatal rat ventricular myocytes	Primary cells from neonatal hearts	both	N/A
Neonatal rat cardiac fibroblasts	Primary cells from neonatal hearts	both	N/A
Adult mouse cardiac fibroblasts	Primary cells from adult hearts	Male	N/A

Data & Code Availability

Description	Source / Repository	Persistent ID / URL
MicroRNA-30d is a biomarker for heart failure and plays a functional role in cardiac remodeling	SRA database	Accession PRJNA529610

Other

Description	Source / Repository	Persistent ID / URL
Tamoxifen	Sigma	T5648
miR-30d agomiR	RiboBio	
LNA anti-miR-30d	Qiagen	YI04100903
<i>Map4k4</i> siRNA	Sigma	EMU076381
Click-iT™ Plus TUNEL Assay for In Situ Apoptosis Detection	Thermo Fisher Scientific	C10618
In-Situ Cell Death Detection Kit	Sigma-Aldrich	12156792910
In-Situ Cell Death Detection Kit	Vazyme	
Triphenyltetrazolium chloride	Sigma	T8877
miR-30d mimic	Thermo Fisher Scientific	4464066
AllStars Negative Control siRNA	Qiagen	1022076
TGFβ1	Thermo Fisher Scientific	PHG9204
Angiotensin II	Sigma	A9525
Cell-Light™ EdU Apollo®488 In Vitro Imaging Kit	Ribobio	C10310-3
miRcury total RNA isolation kit	Exiqon	300111
exoRNeasy kit	Qiagen	77044
Alexa 647 conjugated anti-miR-30d molecular beacon	PNA Bio	
LIVE/DEAD™ Fixable Blue Dead Cell Stain Kit, for UV excitation	Thermo Fisher Scientific	L34961
Fc Block	BD Biosciences	553142