

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
Mice	Jackson Laboratories	C57BL/6	Male	https://www.jax.org/strain/000664

Genetically Modified Animals

	Species	Vendor or Source	Background Strain	Other Information	Persistent ID / URL
Parent - Male					
Parent - Female					

Antibodies

Target antigen	Vendor or Source	Catalog #	Working concentration	Lot # (preferred but not required)	Persistent ID / URL
eNOS	Cell Signaling	9586S	1:100		https://www.cellsignal.com/products/primary-antibodies/enos-49g3-rabbit-mab/9586
O-GlcNAc	Cell Signaling	9875S	1:1000		https://www.cellsignal.com/products/primary-antibodies/o-glcna-ctd110-6-mouse-mab/9875?site-search-type=Products&N=4294956287&Ntt=9875s&fromPage=plp&_requestid=2126291
OGT	Cell Signaling	24083	1:1000		https://www.cellsignal.com/products/primary-antibodies/ogt-d1d8q-rabbit-mab/24083
p-eNOS	Cell Signaling	9570S	1:1000		https://www.cellsignal.com/products/primary-antibodies/phospho-enos-ser1177-c9c3-rabbit-mab/9570?site-search-type=Products&N=4294956287&Ntt=9570s&fromPage=plp&_requestid=2126531
eNOS	Cell Signaling	9572S	1:1000		https://www.cellsignal.com/products/primary-antibodies/enos-antibody/9572?site-search-type=Products&N=4294956287&Ntt=9572s&fromPage=plp&_requestid=2126591
PFKFB3	Cell Signaling	13123S	1:1000		https://www.cellsignal.com/products/primary-antibodies/pfkfb3-d7h4q-rabbit-mab/13123?site-search-type=Products&N=4294956287&Ntt=13123s&fromPage=plp&_requestid=2126654
GFAT1	Cell Signaling	5322	1:1000		https://www.cellsignal.com/products/primary-antibodies/gfat1-d12f4-rabbit-mab/5322
OGA	Sigma	SAB4200267	1:1000		https://www.sigmaaldrich.com/US/en/product/sigma/sab4200267
p-GFAT1	IBL-	28123	1:1000		https://www.ibl-america.com/gfat1-s243-phosphorylated-

DOI [to be added]

	America				anti-human-rabbit-igg-affinity-purify/
Na+/K+/ATPase	Santa Cruz	SC-28800	1:1000		https://www.scbt.com/p/na-plus-k-plus-atpase-alpha-antibody-h-300
Caveolin-1	Santa Cruz	SC-70516	1:1000		https://www.scbt.com/p/caveolin-1-antibody-4h312?requestFrom=search
Anti-Rabbit IgG	Promega	W4011	1:2000		https://www.promega.com/products/protein-detection/primary-and-secondary-antibodies/anti-rabbit-igg-h-and-l-hrp-conjugate/?catNum=W4011
Anti-Mouse IgG	Promega	W4021	1:2000		https://www.promega.com/products/protein-detection/primary-and-secondary-antibodies/anti_mouse-igg-h-and-l-hrp-conjugate/?catNum=W4021
GAPDH	ThermoFisher	437000	1:1000		https://www.thermofisher.com/antibody/product/GAPDH-Antibody-clone-258-Monoclonal/437000
β -actin	Santa Cruz	SC47778-C4	1:1000		https://www.scbt.com/p/beta-actin-antibody-c4
O-GlcNAc	Biolegend	838004	1:100		https://www.biolegend.com/de-de/products/purified-anti-o-glcnac-antibody-13607?GroupID=GROUP32
ICAM-1	ThermoFisher	MA119123	1:100		https://www.thermofisher.com/antibody/product/ICAM-1-Antibody-clone-MEM-111-Monoclonal/MA1-19123
Mouse IgG1 AlexaFluor 488	ThermoFisher	A-21121	1:100		https://www.thermofisher.com/antibody/product/Goat-anti-Mouse-IgG1-Cross-Adsorbed-Secondary-Antibody-Polyclonal/A-21121
Mouse IgG AlexaFluor 594	ThermoFisher	A-11001	1:100		https://www.thermofisher.com/antibody/product/Goat-anti-Mouse-IgG-H-L-Cross-Adsorbed-Secondary-Antibody-Polyclonal/A-11001

DNA/cDNA Clones

Clone Name	Sequence	Source / Repository	Persistent ID / URL

Cultured Cells

Name	Vendor or Source	Sex (F, M, or unknown)	Persistent ID / URL
Human umbilical vein endothelial cells	Cell Applications	Unknown	https://www.cellapplications.com/human-umbilical-vein-endothelial-cells-huvec
Human pulmonary artery endothelial cells	Pulmonary Hypertension Breakthrough Initiative	Unknown	https://www.ipahresearch.org/services.html

Data & Code Availability

Description	Source / Repository	Persistent ID / URL

Other

DOI [to be added]

Description	Source / Repository	Persistent ID / URL
Endothelial Growth Medium-2	Lonza	https://bioscience.lonza.com/lonza_bs/US/en/Primary-and-Stem-Cells/p/000000000000185303/EGM-2-Endothelial-Cell-Growth-Medium-2-BulletKit
Fetal bovine serum	Hyclone	https://www.cytivalifesciences.com/en/us/shop/cell-culture-and-fermentation/sera/fetal-bovine-serum/hyclone-characterized-fetal-bovine-serum-fbs-u-s-origin-p-06336
Microvascular Endothelial Growth Medium-2	Lonza	https://bioscience.lonza.com/lonza_bs/US/en/Primary-and-Stem-Cells/p/000000000000185321/EGM--2-MV-Microvascular-Endothelial-Cell-Growth-Medium-2-BulletKit
Azaserine	Cayman chemical	https://www.caymanchem.com/product/14834/azaserine
2-deoxy-D-glucose	Sigma	https://www.sigmaaldrich.com/US/en/product/sigma/d8375
eNOS siRNA	ThermoFisher	https://www.thermofisher.com/order/genome-database/details/sirna/s9623?CID=&ICID=&subtype=sirna_silencer_select
Silencer select negative control #1 siRNA	ThermoFisher	https://www.thermofisher.com/order/catalog/product/4390843?SID=srch-hj-4390843#/4390843?SID=srch-hj-4390843
Silencer select GAPDH positive control siRNA	ThermoFisher	https://www.thermofisher.com/order/catalog/product/4390849?SID=srch-hj-4390849#/4390849?SID=srch-hj-4390849
OGA Activity	BMR	http://www.bmrservice.com/OGAassay.html
OGT activity	Promega	https://www.promega.com/products/cell-signaling/signaling-pathway-assays/udp-glo-glycosyltransferase-assay/?catNum=V6961
U- ¹³ C ₆ -glucose	Cambridge Isotope Laboratories	https://shop.isotope.com/productdetails.aspx?itemno=CLM-1396-PK