

Resource Summary Report

Generated by [PRECISE-TBI](#) on Aug 10, 2026

Tie2-eNOS

RRID:NSRRC_0021

Type: Organism

Proper Citation

RRID:NSRRC_0021

Organism Information

URL: <https://nsrrc.missouri.edu/StrainAvail/>

Proper Citation: RRID:NSRRC_0021

Description: Application: Cardiovascular, Exercise Physiology

Species: Sus scrofa

Notes: Application: Cardiovascular, Exercise Physiology

Phenotype: Express endothelial cell specific nitric oxide synthase (NOS3)

Affected Gene: NOS3

Genomic Alteration: Transgene: Tie2 promoter driving endothelial Nitrate Oxide Synthase (NOS3)

Catalog Number: 21

Background: Yucatan

Database: NSRRC, National Swine Resource and Research Center (NSRRC)

Database Abbreviation: NSRRC

Source References: [PMID:17080303](#)

Organism Name: Tie2-eNOS

Record Creation Time: 20230226T235431+0000

Record Last Update: 20260808T233211+0000

Ratings and Alerts

No rating or validation information has been found for Tie2-eNOS.

No alerts have been found for Tie2-eNOS.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: NSRRC, National Swine Resource and Research Center (NSRRC)

Usage and Citation Metrics

We found 43 mentions in open access literature.

Listed below are recent publications. The full list is available at [PRECISE-TBI](#) .

Tao Y, et al. (2023) Sex and strain differences in renal hemodynamics in mice. *Physiological reports*, 11(6), e15644.

Zhang X, et al. (2022) Nicotinamide riboside relieves the severity of experimental necrotizing enterocolitis by regulating endothelial function via eNOS deacetylation. *Free radical biology & medicine*, 184, 218.

Ahmed S, et al. (2022) Partial Endothelial Nitric Oxide Synthase Deficiency Exacerbates Cognitive Deficit and Amyloid Pathology in the APPswe/PS1^{E9} Mouse Model of Alzheimer's Disease. *International journal of molecular sciences*, 23(13).

Chen X, et al. (2022) White matter damage as a consequence of vascular dysfunction in a spontaneous mouse model of chronic mild chronic hypoperfusion with eNOS deficiency. *Molecular psychiatry*, 27(11), 4754.

Smith TL, et al. (2021) eNOS controls angiogenic sprouting and retinal neovascularization through the regulation of endothelial cell polarity. *Cellular and molecular life sciences : CMLS*, 79(1), 37.

Ichijo S, et al. (2021) Low-intensity pulsed ultrasound therapy promotes recovery from stroke by enhancing angio-neurogenesis in mice in vivo. *Scientific reports*, 11(1), 4958.

Giralt-López A, et al. (2020) Revisiting Experimental Models of Diabetic Nephropathy. *International journal of molecular sciences*, 21(10).

Verma A, et al. (2020) Angiotensin-(1-7) Expressed From Lactobacillus Bacteria Protect Diabetic Retina in Mice. *Translational vision science & technology*, 9(13), 20.

Liu L, et al. (2020) Integrative Informatics Analysis of Transcriptome and Identification of Interacted Genes in the Glomeruli and Tubules in CKD. *Frontiers in medicine*, 7, 615306.

Dao VT, et al. (2020) Non-canonical chemical feedback self-limits nitric oxide-cyclic GMP signaling in health and disease. *Scientific reports*, 10(1), 10012.

Diaz M, et al. (2019) Differential effects of resveratrol on the dilator responses of femoral arteries, ex vivo. Nitric oxide : biology and chemistry, 92, 1.

Choi B, et al. (2019) Elevated Neuropeptide Y in Endothelial Dysfunction Promotes Macrophage Infiltration and Smooth Muscle Foam Cell Formation. Frontiers in immunology, 10, 1701.

Kim SM, et al. (2019) Endothelial dysfunction induces atherosclerosis: increased aggrecan expression promotes apoptosis in vascular smooth muscle cells. BMB reports, 52(2), 145.

Mocker A, et al. (2019) Expression of Retinoid Acid Receptor-Responsive Genes in Rodent Models of Placental Pathology. International journal of molecular sciences, 21(1).

Finn-Sell SL, et al. (2018) Pomegranate Juice Supplementation Alters Utero-Placental Vascular Function and Fetal Growth in the eNOS-/- Mouse Model of Fetal Growth Restriction. Frontiers in physiology, 9, 1145.

Bussey CE, et al. (2018) β_3 -Adrenoceptor stimulation of perivascular adipocytes leads to increased fat cell-derived NO and vascular relaxation in small arteries. British journal of pharmacology, 175(18), 3685.

Brockhoff B, et al. (2017) Effect of nitric oxide deficiency on the pulmonary PTHrP system. Journal of cellular and molecular medicine, 21(1), 96.

Smyth E, et al. (2017) Influence of inflammation and nitric oxide upon platelet aggregation following deposition of diesel exhaust particles in the airways. British journal of pharmacology, 174(13), 2130.

Han L, et al. (2017) Interleukin-33 promotes inflammation-induced lymphangiogenesis via ST2/TRAF6-mediated Akt/eNOS/NO signalling pathway. Scientific reports, 7(1), 10602.

Thieme K, et al. (2017) EP4 inhibition attenuates the development of diabetic and non-diabetic experimental kidney disease. Scientific reports, 7(1), 3442.