

Resource Summary Report

Generated by [RRID](#) on Aug 21, 2026

pLenti-myc-GLUT4-mCherry

RRID:Addgene_64049

Type: Plasmid

Proper Citation

RRID:Addgene_64049

Plasmid Information

URL: <http://www.addgene.org/64049>

Proper Citation: RRID:Addgene_64049

Insert Name: GLUT4

Organism: Mus musculus

Bacterial Resistance: Ampicillin

Defining Citation: [PMID:25575350](#)

Vector Backbone Description: Backbone Size:9124; Vector Backbone:pLenti-hiko; Vector Types:Mammalian Expression, Lentiviral; Bacterial Resistance:Ampicillin

Comments: The c-Myc sequence was inserted into the region encoding the 1st exofacial loop of mouse GLUT4 in the background of pmCherry-N1. The fragment of Myc-GLUT4-mCherry was then sub-cloned into pLenti-hiko vector via NheI + HpaI digestion. Discrepancies between the Addgene QC sequence and the full sequence are not of functional concern. Please cite the following article: Lim, C.-Y. et al. Tropomodulin3 is a novel Akt2 effector regulating insulin-stimulated GLUT4 exocytosis through cortical actin remodeling. Nat Commun 6, 5951 (2015).

Plasmid Name: pLenti-myc-GLUT4-mCherry

Record Creation Time: 20220422T222407+0000

Record Last Update: 20260815T081808+0000

Ratings and Alerts

No rating or validation information has been found for pLenti-myc-GLUT4-mCherry.

No alerts have been found for pLenti-myc-GLUT4-mCherry.

Data and Source Information

Source: [Addgene](#)

Usage and Citation Metrics

We found 12 mentions in open access literature.

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

Dagunts A, et al. (2026) Lysosomal down-regulation of the mu opioid receptor is opposed by the Retromer complex. *Science advances*, 12(12), eadx8715.

Im S, et al. (2022) Low-Dose Dioxin Reduced Glucose Uptake in C2C12 Myocytes: The Role of Mitochondrial Oxidative Stress and Insulin-Dependent Calcium Mobilization. *Antioxidants (Basel, Switzerland)*, 11(11).

Kislev N, et al. (2022) MYH10 Governs Adipocyte Function and Adipogenesis through Its Interaction with GLUT4. *International journal of molecular sciences*, 23(4).

Michurina S, et al. (2022) Regulation of Glucose Transport in Adipocytes by Interleukin-4. *Journal of interferon & cytokine research : the official journal of the International Society for Interferon and Cytokine Research*, 42(3), 127.

Wagner G, et al. (2021) LMO3 reprograms visceral adipocyte metabolism during obesity. *Journal of molecular medicine (Berlin, Germany)*, 99(8), 1151.

Kishikawa T, et al. (2021) WWP1 inactivation enhances efficacy of PI3K inhibitors while suppressing their toxicities in breast cancer models. *The Journal of clinical investigation*, 131(24).

Zhang J, et al. (2021) DHODH inhibition modulates glucose metabolism and circulating GDF15, and improves metabolic balance. *iScience*, 24(5), 102494.

Ruiz-Velasco A, et al. (2020) Targeting mir128-3p alleviates myocardial insulin resistance and prevents ischemia-induced heart failure. *eLife*, 9.

Heim P, et al. (2020) Neuregulin-1 triggers GLUT4 translocation and enhances glucose uptake independently of insulin receptor substrate and ErbB3 in neonatal rat cardiomyocytes. *Biochimica et biophysica acta. Molecular cell research*, 1867(3), 118562.

Alshafie W, et al. (2020) Regulated resurfacing of a somatostatin receptor storage compartment fine-tunes pituitary secretion. *The Journal of cell biology*, 219(1).

Park H, et al. (2019) Peroxisome-derived lipids regulate adipose thermogenesis by mediating cold-induced mitochondrial fission. *The Journal of clinical investigation*, 129(2), 694.

Samandi S, et al. (2017) Deep transcriptome annotation enables the discovery and functional characterization of cryptic small proteins. *eLife*, 6.