

Gck-Flox

Nomenclature	C57BL/6Smoc- <i>Gck</i> ^{em1(flox)Smoc}
Cat. NO.	NM-CKO-241082
Strain State	Developing

Gene Summary

Gene Symbol Gck	Synonyms	Gk; GLK; HK4; HKIV; HXKP; Hlb62; MODY2; GlS006
	NCBI ID	103988
	MGI ID	1270854
	Ensembl ID	ENSMUSG00000041798
	Human Ortholog	GCK

Model Description

These strains carry loxP sites flanking exon 5-6 of Gck gene. When crossed with a Cre recombinase-expressing strain, this strain is useful in eliminating tissue-specific conditional expression of Gck gene.

*Literature published using this strain should indicate: Gck-Flox mice (Cat. NO. NM-CKO-241082) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Familial Hyperinsulinemic Hypoglycemia 3	Phenotype(s)	MGI:6690664 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Ins2-cre mice.
	Reference(s)	Tornovsky-Babeay S, Weinberg-Corem N, Ben-Haroush Schyr R, Avrahami D, Lavi J, Feleke E, Kaestner KH, Dor Y, Glaser B, Biphasic dynamics of beta cell mass in a mouse model of congenital hyperinsulinism: implications for type 2 diabetes. Diabetologia. 2021 Feb 9;

Maturity-Onset Diabetes Of The Young Type 2	Phenotype(s)	MGI:3603003 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Ins2-cre mice.
	Reference(s)	Postic C, Shiota M, Niswender KD, Jetton TL, Chen Y, Moates JM, Shelton KD, Lindner J, Cherrington AD, Magnuson MA, Dual roles for glucokinase in glucose homeostasis as determined by liver and pancreatic beta cell-specific gene knock-outs using Cre recombinase. J Biol Chem. 1999 Jan 1;274(1):305-15

Validation Data

No data