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LIST OF ABBREVIATIONS

ΔA	:	Change in absorbance
<i>Ach-R</i>	:	<i>Acetylcholine receptor</i>
APS	:	Adaptor proteins
ADP	:	Adenosine diphosphate
ATP	:	Adenosine -5-triphosphate
AMPK	:	Adenosine monophosphate kinase
<i>. α-ADR-R</i>	:	<i>A2-adrenergic receptor</i>
AS160	:	Akt substrate of 160 kDa
Akt/PKB	:	Akt/protein kinase B
AICAR	:	5-aminoimidazole-4-carboxamide1- β -D-ribofuranoside
aPKC	:	Atypical Protein kinase C
β - cells	:	Beta-cells
BMI	:	Body mass index
CT	:	Carboxyl-termina
CAP	:	c-Cbl-associated protein
C3G	:	Crk SH3-binding guanine nucleotide-releasing factor
$\Delta\psi_m$:	<i>Change in plasma membrane potential.</i>
CHE	:	Cholesterol esterase
CHO	:	Cholesterol oxidase
cPKC	:	Conventional Protein kinase C
<i>CoA</i>	:	<i>A coenzyme</i>
DM	:	Diabetes mellitus
<i>DAG</i>	:	<i>Diacylglycerides</i>
DAP	:	Dihydroxy acetate phosphate
ERC	:	Endosomal recycling compartment
ELISA	:	Enzyme-linked immunosorbent assay
EDTA	:	Ethylene diamine tetra acetic acid
FA	:	Fatty acid
FAS	:	Fatty acid synthase
FPG	:	Fasting plasma glucose
<i>FFAR1</i>	:	<i>Free-fatty-acid receptor-1</i>
<i>GIP-R</i>	:	<i>Gastric inhibitory polypeptide receptor</i>
GDM	:	Gestational diabetes mellitus
Gliben Tx group	:	Glibenclamide treated group
G-6-Pase	:	Glucose-6- phosphatase
GLUT2	:	Glucose transporter-2
Glut	:	Glucose transporter proteins

GL/FA	:	Glycerolipid /fatty acid
GLP-1-R	:	<i>Glucagon-like peptide-1 receptor</i>
GL	:	<i>Glycerolipid</i>
GLUT- 4	:	Glucose transporter-4
GSK- 3	:	Glycogen synthase kinase 3
HbA1C (A1C)	:	Glycosylated hemoglobin
Grb-2	:	Growth factor receptor binding protein 2
HDL	:	High density lipoprotein
HSL	:	Hormone sensitive lipase
HRP	:	Horseradish peroxidase
HIV	:	Human immunodeficiency virus
IFG	:	Impaired fasting glucose
IGT	:	Impaired glucose tolerance
IKKβ	:	Inhibitor of nuclear factor kappa B kinase beta
IL-1	:	Interleukin-1
IDDM	:	Insulin-dependent diabetes mellitus
IGF	:	Insulin-like growth factor
IRI	:	Insulin resistance index
IRR	:	Insulin receptor-related receptor
IRS	:	Insulin receptor substrate proteins
JNK	:	Jun N-terminal kinase
JM	:	Juxtamembrane
kDa	:	Kilo- dalton
LC-CoA	:	Long-chain acyl-CoA
LDL	:	Low density lipoprotein
MCP-1	:	Macrophage chemotactic protein-1
Mal-CoA	:	Malonyl-CoA
MFS	:	Major Facilitator Superfamily
MODY	:	Maturity – onset diabetes of youth
MAG	:	<i>Monoacylglycerides</i>
NADPH	:	Nicotinamide adenine dinucleotide phosphate (reduced form)
NEFA	:	Non esterified fatty acid
NIDDM	:	Non insulin-dependent diabetes mellitus
nPKC	:	Novel Protein kinase C
NFκB	:	Nuclear factor kappa B
OGTT	:	Oral glucose tolerance test
OAA	:	<i>Oxaloacetate</i>
PPAR γ	:	Peroxisome proliferator - activated receptor γ
PI 3	:	Phosphatidylinositol-3

PI 3-kinase	:	Phosphatidylinositol 3-kinase
PC1& PC2	:	Prohormone convertases
PC	:	<i>Pyruvate carboxylase</i>
PDH	:	<i>Pyruvate dehydrogenase</i>
PDK1	:	3 - Phosphoinositide - dependent protein kinase 1
PI(3,4)P2	:	Phosphatidylinositol-3,4-bisphosphate
PI(3,4,5)P3	:	Phosphatidylinositol-3,4,5-trisphosphate
PI(4,5)P2	:	Phosphatidylinositol-4,5-bisphosphate
PTEN	:	Phosphatase and tensin homolog deleted on chromosome 10
PDE3B	:	Phosphodiesterase 3B
PEPCK	:	Phosphoenolpyruvate carboxykinase
PKC-θ	:	Protein Kinase C-theta
PP2A	:	Protein phosphatase 2A
PP1	:	Protein phosphatase-1
PTB1B	:	Protein tyrosine phosphatase 1B
SHIP2	:	SH2-containing inositol phosphatase 2
SHP-2	:	SH2-containing protein-tyrosine phosphatase-2
SH2	:	Src-homology 2
SH3	:	Src-homology 3
SC	:	Specialized compartment
STZ	:	Streptozotacin
SSN-R	:	<i>Somatostatin receptor</i>
SOCS-3	:	Suppressors of cytokine signaling-3
SREBP - 1c	:	Sterol regulatory element - binding proteins 1c
TMB	:	3, 3', 5, 5' - tetramethylbenzidine
TZDs	:	Thiazolidinediones
TGN	:	Trans-Golgi network
ROS	:	Reactive oxygen species
Tx	:	Treated diabetic rat
TG	:	<i>Triacylglycerides</i>
TNF-α	:	Tumor necrosis factor-alpha
T2D	:	Type 2 diabetes
T2DM	:	Type 2 diabetes mellitus
VLDL	:	Very low density lipoprotein
VAMP2	:	Vesicle-associated membrane protein 2
No Tx group	:	Untreated diabetic rats
